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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1701428A

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	2/17/17
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1701428A

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	BMS VI
DATE RECEIVED:	01/30/2017	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	02/09/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B30IA-1-012117	Modified TO-15	5 "Hg	5 psi
02A	B30IA-2-012117	Modified TO-15	5.5 "Hg	5 psi
03A	B30IA-3-012117	Modified TO-15	9 "Hg	5 psi
04A	B30IA-4-012117	Modified TO-15	5 "Hg	5 psi
05A	B30IA-4D-012117	Modified TO-15	6 "Hg	5 psi
06A	B30IA-5-012117	Modified TO-15	5.5 "Hg	5 psi
07A	B1830AA-012117	Modified TO-15	5.5 "Hg	5 psi
08A	B18IA-1-012117	Modified TO-15	7.5 "Hg	5 psi
09A	B18IA-1D-012117	Modified TO-15	6 "Hg	5 psi
10A	B18IA-2-012117	Modified TO-15	7 "Hg	5 psi
11A	B18IA-3-012117	Modified TO-15	4.5 "Hg	5 psi
12A	B18IA-4-012117	Modified TO-15	1.5 "Hg	5 psi
13A	B8IA-2-012317	Modified TO-15	7 "Hg	5 psi
14A	B8IA-2D-012317	Modified TO-15	8.5 "Hg	5 psi
15A	B8AA-012317	Modified TO-15	2.5 "Hg	5 psi
16A	Lab Blank	Modified TO-15	NA	NA
16B	Lab Blank	Modified TO-15	NA	NA
16C	Lab Blank	Modified TO-15	NA	NA
17A	CCV	Modified TO-15	NA	NA
17B	CCV	Modified TO-15	NA	NA
17C	CCV	Modified TO-15	NA	NA
18A	LCS	Modified TO-15	NA	NA
18AA	LCSD	Modified TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1701428A

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	BMS VI
DATE RECEIVED:	01/30/2017	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	02/09/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
18B	LCS	Modified TO-15	NA	NA
18BB	LCSD	Modified TO-15	NA	NA
18C	LCS	Modified TO-15	NA	NA
18CC	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 02/09/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
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# 1701428A

Fifteen 6 Liter Summa Canister (100% Certified) samples were received on January 30, 2017. 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

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All the canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

The Relative Percent Difference (RPD) of the LCS/LCSD analyzed on 1/31/2017 exceeded the acceptance limit for Chloroethane.

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. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The reported result for Carbon Tetrachloride in sample B1830AA-012117 may be biased high due to co-elution with a non-target compound.

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)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B30IA-1-012117	1701428A-01A	1/21/2017	1/30/2017	NA	10	1/31/2017	NA	Good
B30IA-2-012117	1701428A-02A	1/21/2017	1/30/2017	NA	10	1/31/2017	NA	Good
B30IA-3-012117	1701428A-03A	1/21/2017	1/30/2017	NA	10	1/31/2017	NA	Good
B30IA-4-012117	1701428A-04A	1/21/2017	1/30/2017	NA	10	1/31/2017	NA	Good
B30IA-4D-012117	1701428A-05A	1/21/2017	1/30/2017	NA	10	1/31/2017	NA	Good
B30IA-5-012117	1701428A-06A	1/21/2017	1/30/2017	NA	10	1/31/2017	NA	Good
B1830AA-012117	1701428A-07A	1/21/2017	1/30/2017	NA	11	2/ 1/2017	NA	Good
B18IA-1-012117	1701428A-08A	1/21/2017	1/30/2017	NA	11	2/ 1/2017	NA	Good
B18IA-1D-012117	1701428A-09A	1/21/2017	1/30/2017	NA	11	2/ 1/2017	NA	Good
B18IA-2-012117	1701428A-10A	1/21/2017	1/30/2017	NA	11	2/ 1/2017	NA	Good
B18IA-3-012117	1701428A-11A	1/21/2017	1/30/2017	NA	16	2/ 6/2017	NA	Good
B18IA-4-012117	1701428A-12A	1/21/2017	1/30/2017	NA	16	2/ 6/2017	NA	Good
B8IA-2-012317	1701428A-13A	1/23/2017	1/30/2017	NA	14	2/ 6/2017	NA	Good
B8IA-2D-012317	1701428A-14A	1/23/2017	1/30/2017	NA	14	2/ 6/2017	NA	Good
B8AA-012317	1701428A-15A	1/23/2017	1/30/2017	NA	14	2/ 6/2017	NA	Good
Lab Blank	1701428A-16A	NA	NA	NA	NA	1/31/2017	NA	Good
Lab Blank	1701428A-16B	NA	NA	NA	NA	1/31/2017	NA	Good
Lab Blank	1701428A-16C	NA	NA	NA	NA	2/ 6/2017	NA	Good
CCV	1701428A-17A	NA	NA	NA	NA	1/31/2017	NA	Good
CCV	1701428A-17B	NA	NA	NA	NA	1/31/2017	NA	Good
CCV	1701428A-17C	NA	NA	NA	NA	2/ 6/2017	NA	Good
LCS	1701428A-18A	NA	NA	NA	NA	1/31/2017	NA	Good
LCSD	1701428A-18AA	NA	NA	NA	NA	1/31/2017	NA	Good
LCS	1701428A-18B	NA	NA	NA	NA	1/31/2017	NA	Good
LCSD	1701428A-18BB	NA	NA	NA	NA	1/31/2017	NA	Good
LCS	1701428A-18C	NA	NA	NA	NA	2/ 6/2017	NA	Good
LCSD	1701428A-18CC	NA	NA	NA	NA	2/ 6/2017	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: B30IA-1-012117

Lab ID#: 1701428A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.80	2.7
Chloromethane	0.80	1.0	1.7	2.2
Freon 11	0.16	0.31	0.90	1.7
Ethanol	0.80	7.4	1.5	14
Freon 113	0.16	0.089 J	1.2	0.68 J
Acetone	0.80	9.6	1.9	23
2-Propanol	0.80	17	2.0	41
Methylene Chloride	0.32	0.24 J	1.1	0.84 J
Hexane	0.16	0.15 J	0.57	0.52 J
2-Butanone (Methyl Ethyl Ketone)	0.80	0.99	2.4	2.9
Chloroform	0.16	0.037 J	0.79	0.18 J
Cyclohexane	0.16	0.042 J	0.55	0.14 J
Carbon Tetrachloride	0.16	0.083 J	1.0	0.52 J
Benzene	0.16	0.17	0.51	0.54
Heptane	0.16	0.097 J	0.66	0.40 J
1,4-Dioxane	0.16	0.067 J	0.58	0.24 J
4-Methyl-2-pentanone	0.16	0.052 J	0.66	0.22 J
Toluene	0.16	0.51	0.61	1.9
Ethyl Benzene	0.16	0.062 J	0.70	0.27 J
m,p-Xylene	0.16	0.16 J	0.70	0.68 J
o-Xylene	0.16	0.066 J	0.70	0.29 J
Styrene	0.16	0.074 J	0.68	0.32 J
1,1,2,2-Tetrachloroethane	0.16	0.048 J	1.1	0.33 J
4-Ethyltoluene	0.16	0.052 J	0.79	0.25 J
1,2,4-Trimethylbenzene	0.16	0.056 J	0.79	0.28 J
1,3-Dichlorobenzene	0.16	0.047 J	0.97	0.28 J
1,4-Dichlorobenzene	0.16	0.061 J	0.97	0.36 J
alpha-Chlorotoluene	0.16	0.071 J	0.83	0.37 J
1,2,4-Trichlorobenzene	0.80	0.094 J	6.0	0.70 J
Naphthalene	0.80	0.036 J	4.2	0.19 J

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Client Sample ID: B30IA-1-012117

Lab ID#: 1701428A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013109**	**Date of Collection:**	**1/21/17 6:17:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**1/31/17 12:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.80	2.7
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	1.0	1.7	2.2
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	0.31	0.90	1.7
Ethanol	0.80	7.4	1.5	14
Freon 113	0.16	0.089 J	1.2	0.68 J
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	9.6	1.9	23
2-Propanol	0.80	17	2.0	41
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.24 J	1.1	0.84 J
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	0.15 J	0.57	0.52 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	0.99	2.4	2.9
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	0.037 J	0.79	0.18 J
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	0.042 J	0.55	0.14 J
Carbon Tetrachloride	0.16	0.083 J	1.0	0.52 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	0.17	0.51	0.54
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	0.097 J	0.66	0.40 J
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	0.067 J	0.58	0.24 J
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	0.052 J	0.66	0.22 J
Toluene	0.16	0.51	0.61	1.9
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	Not Detected	3.3	Not Detected

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Client Sample ID: B30IA-1-012117

Lab ID#: 1701428A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013109**	**Date of Collection:**	**1/21/17 6:17:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**1/31/17 12:15 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	0.062 J	0.70	0.27 J
m,p-Xylene	0.16	0.16 J	0.70	0.68 J
o-Xylene	0.16	0.066 J	0.70	0.29 J
Styrene	0.16	0.074 J	0.68	0.32 J
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	0.048 J	1.1	0.33 J
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	0.052 J	0.79	0.25 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	0.056 J	0.79	0.28 J
1,3-Dichlorobenzene	0.16	0.047 J	0.97	0.28 J
1,4-Dichlorobenzene	0.16	0.061 J	0.97	0.36 J
alpha-Chlorotoluene	0.16	0.071 J	0.83	0.37 J
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	0.094 J	6.0	0.70 J
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Naphthalene	0.80	0.036 J	4.2	0.19 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017a.b/20013109.d
Lab Smp Id: 1701428A-01A
Inj Date : 31-JAN-2017 12:15
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 25236
Misc Info : 5.0"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 11:54 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.696 (1.000)	130	160481	5.00000		80.00- 120.00	100.00
16.726	16.696 (1.000)	128	123586			46.97- 106.97	77.01
16.726	16.696 (1.000)	49	192873			76.21- 136.21	120.18
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	557797	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	85743			0.00- 45.59	15.37
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	498493	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	275063			23.26- 83.26	55.18
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.620 (1.053)	65	237850	6.00671	6.007	80.00- 120.00	100.00
17.620	17.620 (1.053)	67	125433			31.78- 91.78	52.74
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	524790	4.92058	4.920	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	62576			0.00- 40.33	11.92

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.806	20.806 (1.143)	100	337980			35.56- 95.56	64.40
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	277163	5.21013	5.210	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	306902			79.94- 139.94	110.73
25.466	25.466 (1.072)	176	265858			67.24- 127.24	95.92
11 Freon 12					CAS #: 75-71-8		
4.672	4.648 (0.279)	85	41589	0.34187	0.5504	70.00- 130.00	100.00
4.672	4.648 (0.279)	87	12747			0.00- 30.00	30.65
17 Chloromethane					CAS #: 74-87-3		
6.576	6.552 (0.393)	50	24216	0.64761	1.043	80.00- 120.00	100.00
6.576	6.552 (0.393)	52	8162			3.24- 63.24	33.70
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	23367	0.19185	0.3089	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	16435			34.37- 94.37	70.33
42 Ethanol					CAS #: 64-17-5		
12.296	12.269 (0.735)	45	75147	4.58131	7.376	80.00- 120.00	100.00
12.296	12.269 (0.735)	46	28254			10.33- 70.33	37.60
49 Freon 113					CAS #: 76-13-1		
12.736	12.763 (0.761)	151	5048	0.05553	0.08940	80.00- 120.00	100.00(a)
12.736	12.763 (0.761)	153	3973			33.68- 93.68	78.70
12.736	12.736 (0.761)	101	4537			86.77- 146.77	89.88
52 Acetone					CAS #: 67-64-1		
13.093	13.066 (0.783)	58	135261	5.98173	9.630	80.00- 120.00	100.00
13.093	13.066 (0.783)	43	408381			253.28- 313.28	301.92
57 2-Propanol					CAS #: 67-63-0		
13.587	13.533 (0.812)	45	626483	10.3135	16.605	80.00- 120.00	100.00
13.560	13.533 (0.811)	43	181454			0.00- 52.74	28.96
13.587	13.533 (0.812)	59	28165			0.00- 34.43	4.50
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	7410	0.15100	0.2431	80.00- 120.00	100.00(a)
14.027	14.027 (0.839)	49	9421			80.28- 140.28	127.14
14.027	14.027 (0.839)	51	3617			4.61- 64.61	48.81
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	5951	0.09179	0.1478	80.00- 120.00	100.00(a)
14.878	14.878 (0.889)	43	7208			28.29- 88.29	121.12

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

   78 Hexane (continued)
 14.878  14.878 (0.889)    86      1083                     0.00-  48.18    18.20
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.323 (0.977)    72     13513 0.61286   0.9867  80.00- 120.00   100.00
 16.344  16.323 (0.977)    43     49182                  300.25- 360.25   363.96
 16.344  16.323 (0.977)    57      4261                     0.00-  58.21    31.53
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83      2293 0.02299  0.03702  80.00- 120.00   100.00(a)
 16.819  16.819 (1.006)    85      1692                    34.75-  94.75    73.79
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84      1697 0.02602  0.04190  80.00- 120.00   100.00(a)
 17.035  17.035 (1.018)    56      2914                    76.62- 136.62   171.71
 17.035  17.035 (1.018)    41      2531                    21.84-  81.84   149.15
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119      4412 0.05142  0.08278  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      3824                    73.50- 133.50    86.67
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.620  17.620 (0.968)    78     14138 0.10608   0.1708  80.00- 120.00   100.00
 17.620  17.620 (0.968)    77      3736                     0.00-  53.26    26.43
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.847  17.826 (0.980)    57      2058 0.06014  0.09682  80.00- 120.00   100.00(a)
 17.826  17.847 (0.979)   100       469                     8.23-  68.23    22.79
 17.826  17.826 (0.979)    43      3890                   141.33- 201.33   189.02
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.190 (1.055)    88      1303 0.04171  0.06716  80.00- 120.00   100.00(a)
 19.213  19.190 (1.055)    58      1435                    32.65-  92.65   110.13
 19.280  19.190 (1.059)    57       139                     0.00-  50.00    10.67
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.556  20.541 (1.129)    43      2370 0.03260  0.05249  80.00- 120.00   100.00(a)
 20.541  20.557 (1.128)    58      1017                    12.96-  72.96    42.91
 20.588  20.557 (1.131)    85       647                     0.00-  50.79    27.30
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.946 (1.151)    91     46832 0.31937   0.5142  80.00- 120.00   100.00
 20.962  20.946 (1.151)    92     26995                    29.12-  89.12    57.64
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.905  23.905 (1.006)   106      2250 0.03860  0.06214  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
167 Ethyl Benzene (continued)							
23.905	23.905 (1.006)	91	6411			275.87- 335.87	284.93
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	5958	0.09720	0.1565	80.00- 120.00	100.00(a)
24.091	24.091 (1.014)	91	12160			163.30- 223.30	204.10
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	2353	0.04120	0.06633	80.00- 120.00	100.00(a)
24.710	24.710 (1.040)	91	5008			172.76- 232.76	212.83
172 Styrene					CAS #: 100-42-5		
24.730	24.731 (1.041)	104	3875	0.04623	0.07444	80.00- 120.00	100.00(a)
24.730	24.731 (1.041)	78	2566			18.49- 78.49	66.22
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	3313	0.03015	0.04853	80.00- 120.00	100.00(a)
25.656	25.656 (1.080)	85	2186			34.74- 94.74	65.98
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	4538	0.03202	0.05155	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	1366			1.16- 61.16	30.10
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	4264	0.03485	0.05612	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	2009			17.83- 77.83	47.12
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	2898	0.02906	0.04678	80.00- 120.00	100.00(a)
26.794	26.794 (1.128)	148	2102			33.66- 93.66	72.53
26.794	26.794 (1.128)	111	1177			8.07- 68.07	40.61
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.903 (1.132)	146	3588	0.03779	0.06084	80.00- 120.00	100.00(a)
26.903	26.903 (1.132)	148	2874			33.90- 93.90	80.10
26.903	26.903 (1.132)	111	1979			6.77- 66.77	55.16
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	4385	0.04440	0.07149	80.00- 120.00	100.00(a)
27.075	27.075 (1.139)	126	528			0.00- 52.05	12.04
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.366 (1.236)	180	6441	0.05848	0.09415	80.00- 120.00	100.00(a)
29.366	29.366 (1.236)	182	6119			66.13- 126.13	95.00
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	4473	0.02260	0.03639	80.00- 120.00	100.00(a)

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
228 Naphthalene (continued)								
29.741	29.756	(1.252)	127	986			0.00- 42.38	22.04

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: msd20.i
Lab File ID: 20013109.d
Lab Smp Id: 1701428A-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.0"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 08:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	223806	134284	313328	160481	-28.29
123 1,4-Difluorobenze	838424	503054	1173794	557797	-33.47
163 Chlorobenzene-d5	697716	418630	976802	498493	-28.55

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.18
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 11:57

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31Jan2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428A-01A
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.0"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.007	120.13	70-130
$ 146 Toluene-d8	5.000	4.920	98.41	70-130
$ 177 4-Bromofluorobenze	5.000	5.210	104.20	70-130

Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

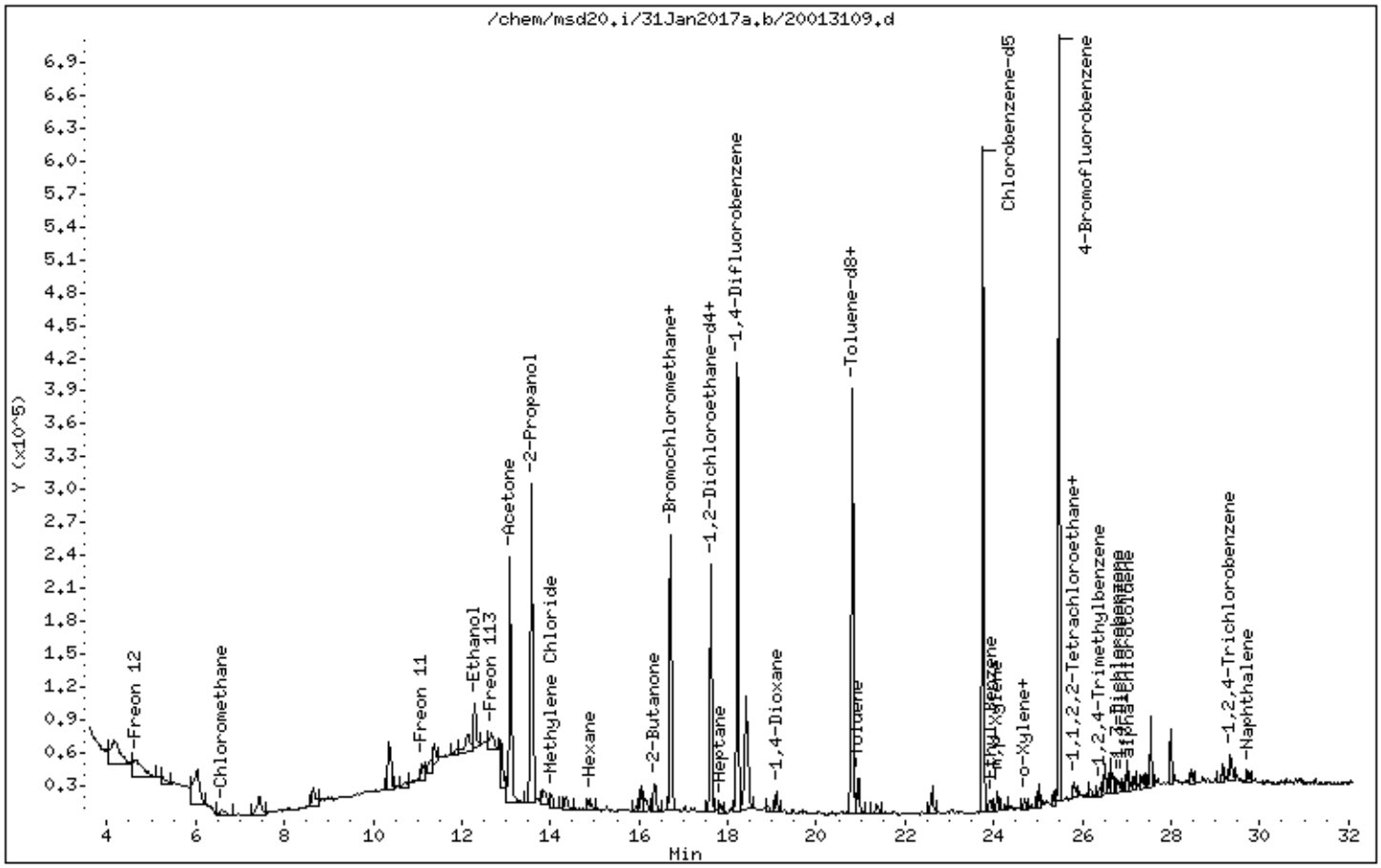
Instrument: msd20.i

Sample Info: 250mL# 25236

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

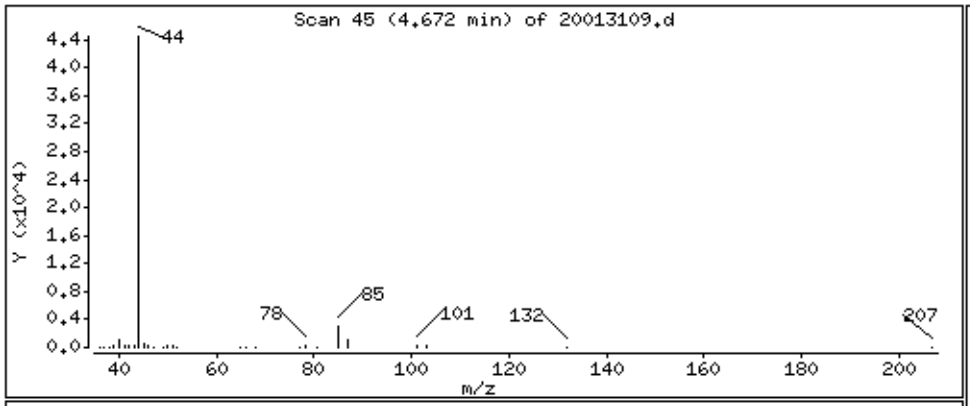
Operator: ef

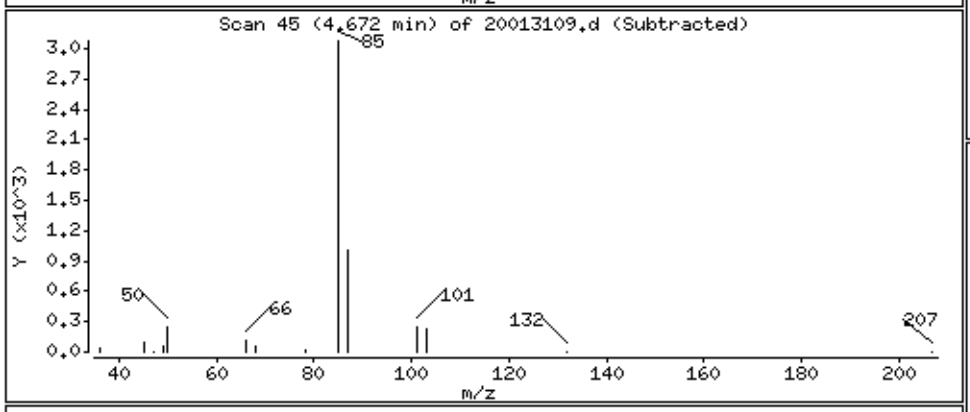
Column phase: RTX-624

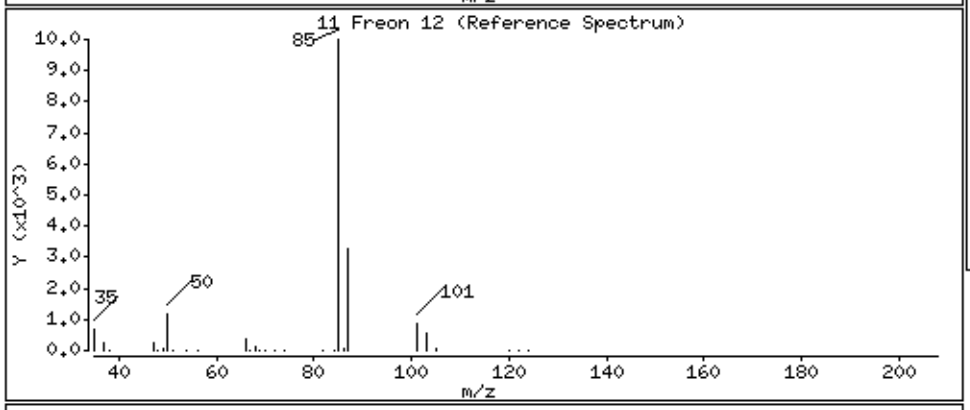
Column diameter: 0.32

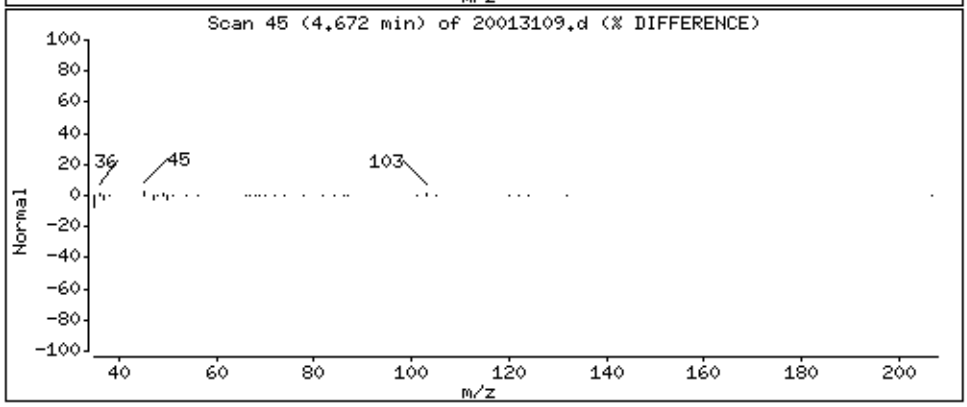
11 Freon 12

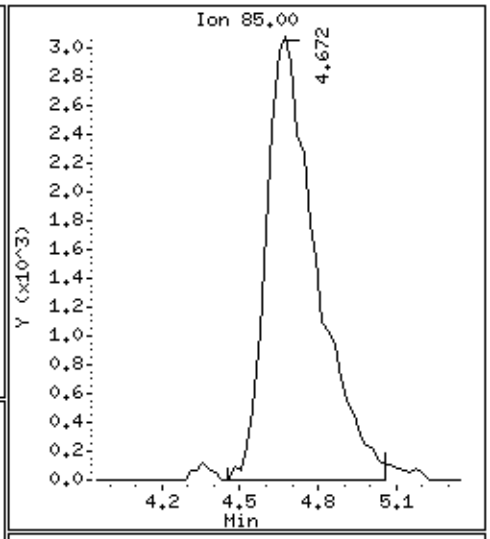
Concentration: 0.5504 PPBV

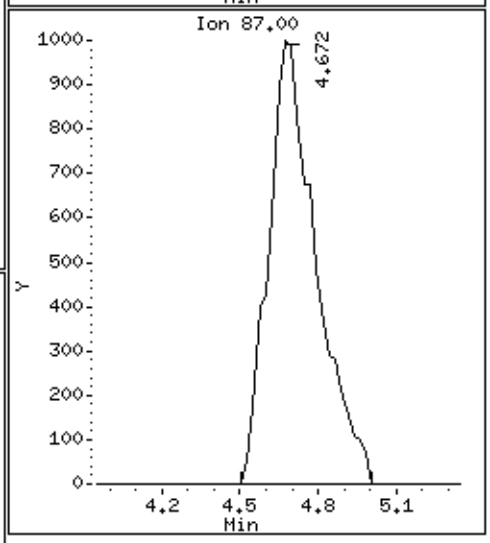












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

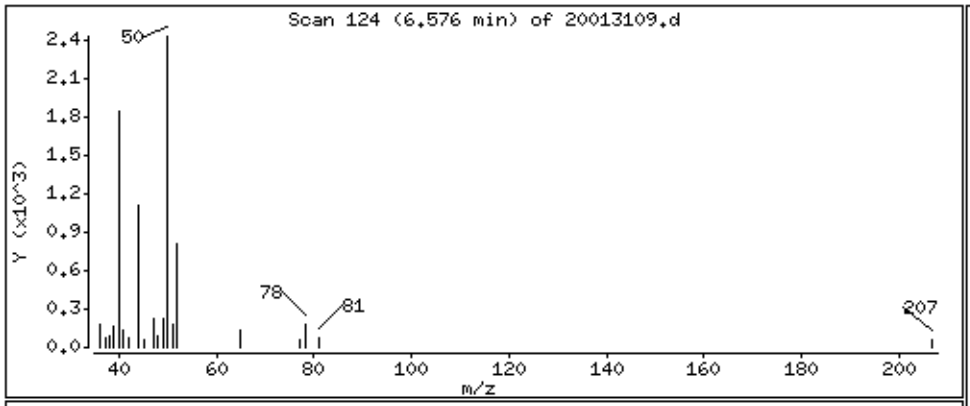
Operator: ef

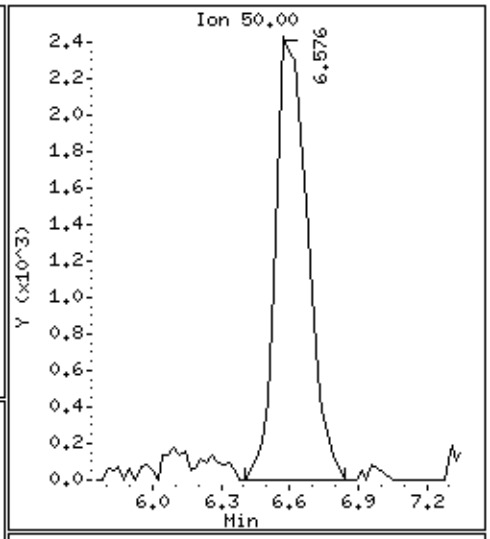
Column phase: RTX-624

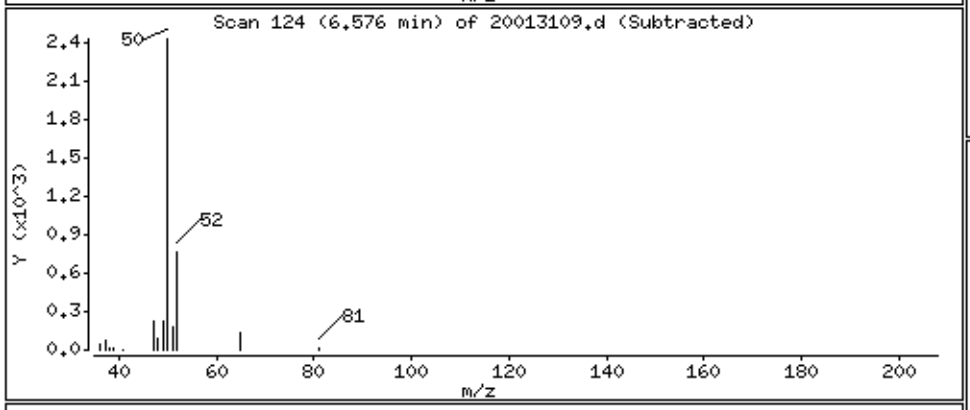
Column diameter: 0.32

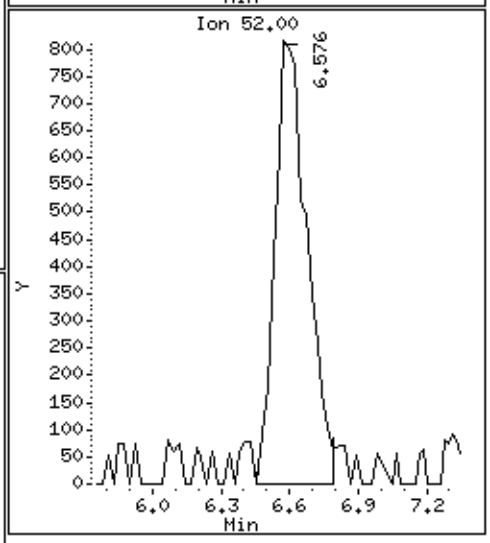
17 Chloromethane

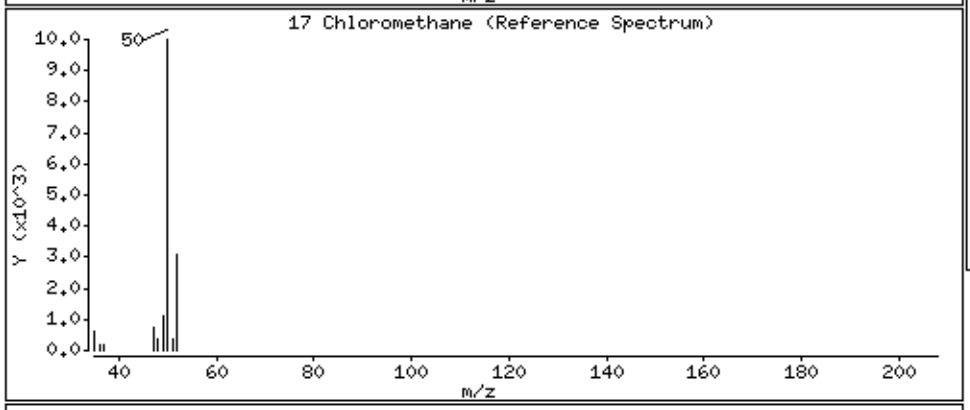
Concentration: 1.043 PPBV

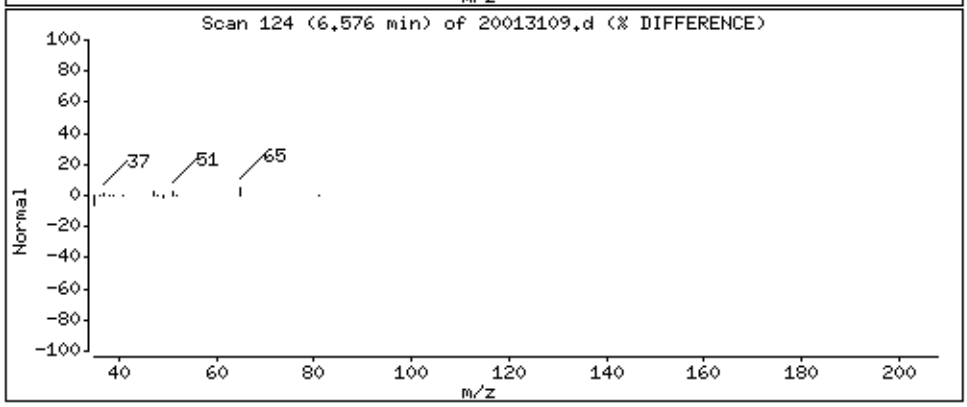












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

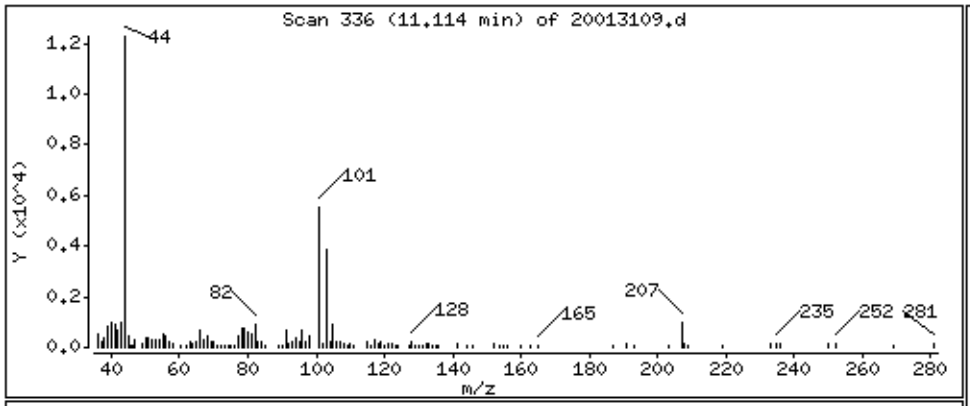
Operator: ef

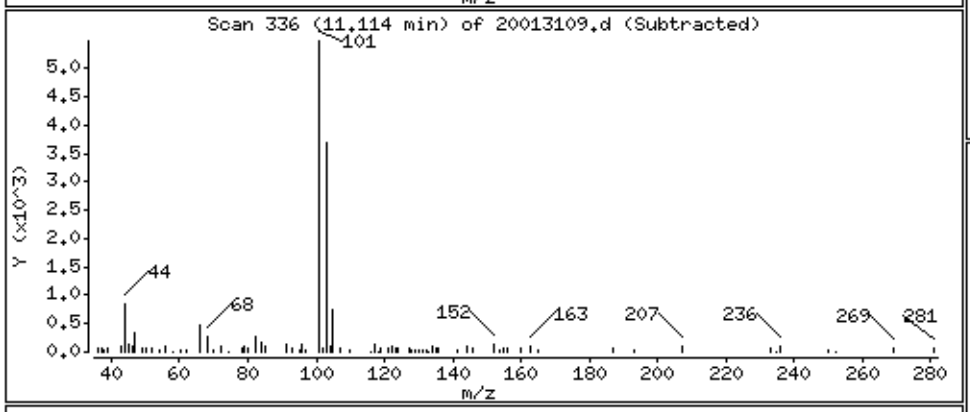
Column phase: RTX-624

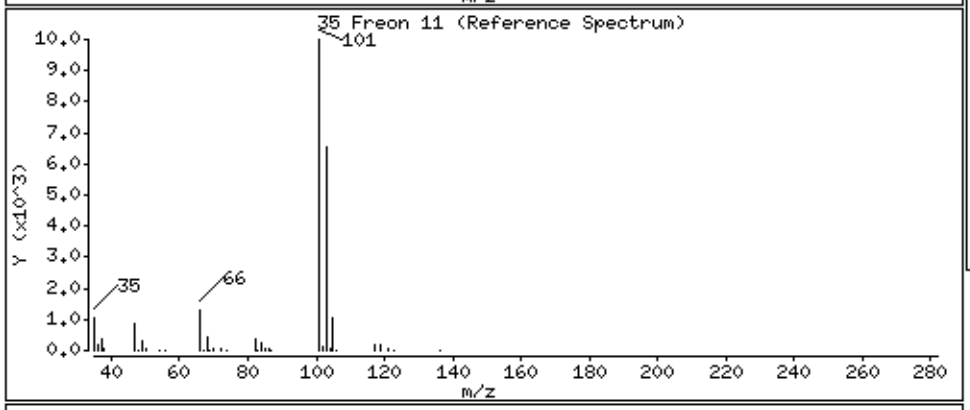
Column diameter: 0.32

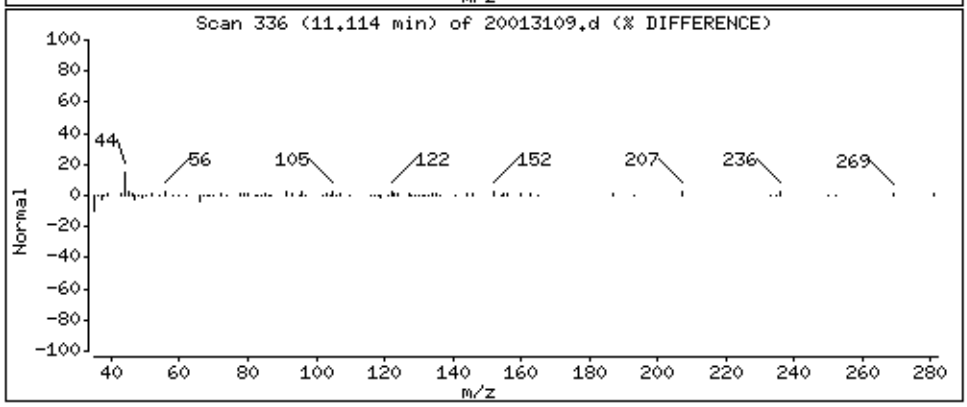
35 Freon 11

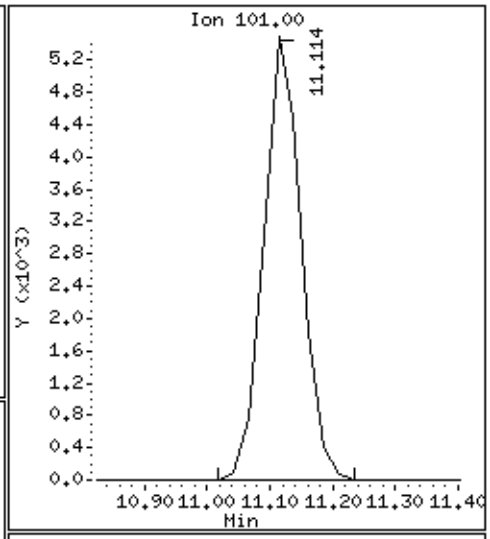
Concentration: 0.3089 PPBV

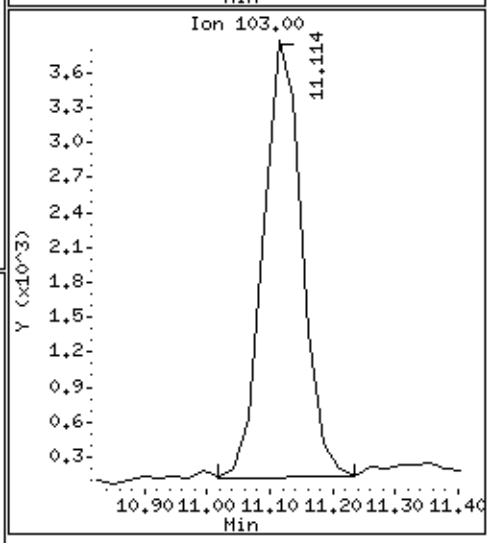












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

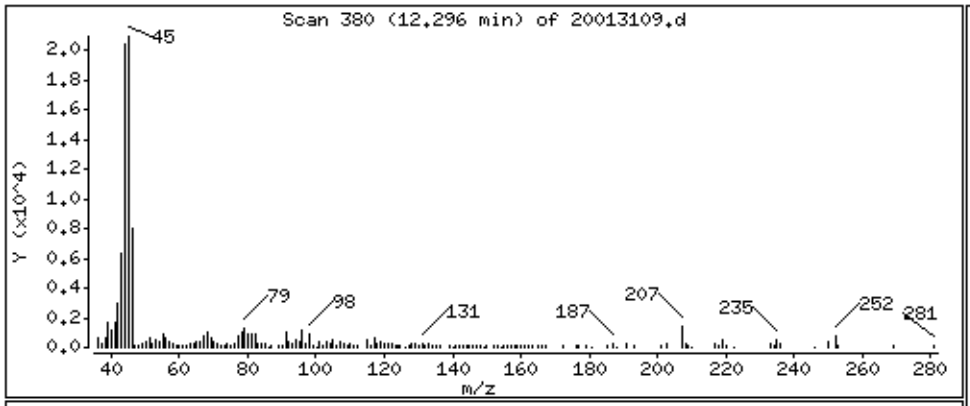
Operator: ef

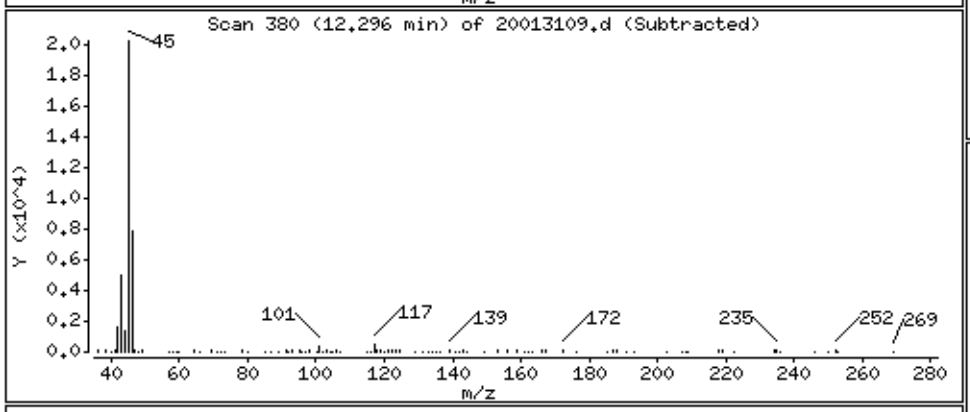
Column phase: RTX-624

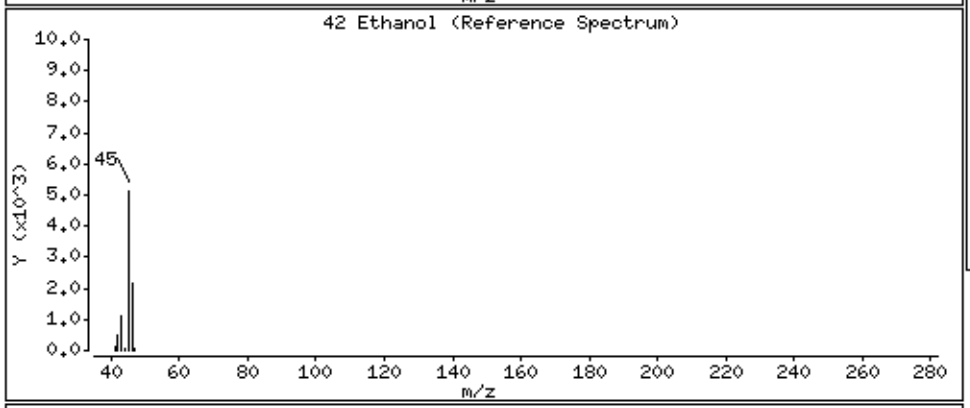
Column diameter: 0.32

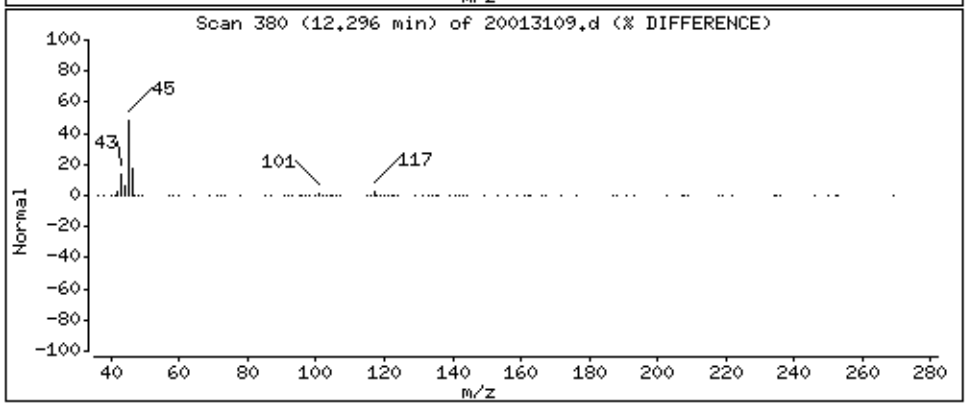
42 Ethanol

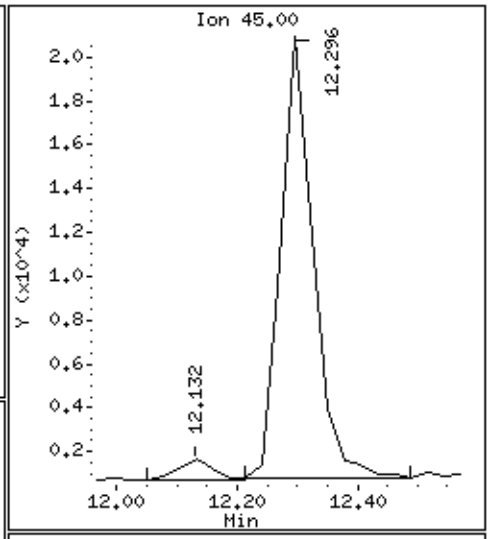
Concentration: 7.376 PPBV

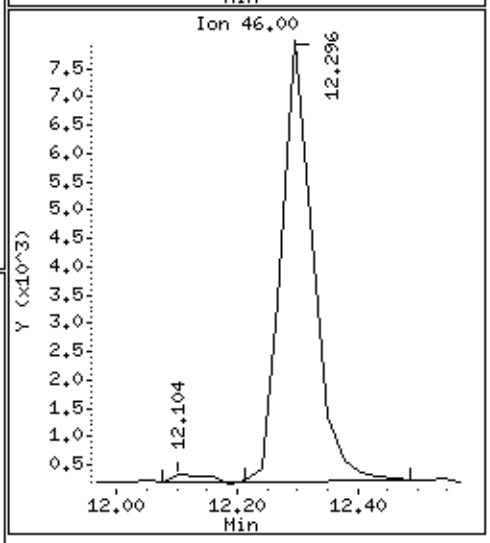












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

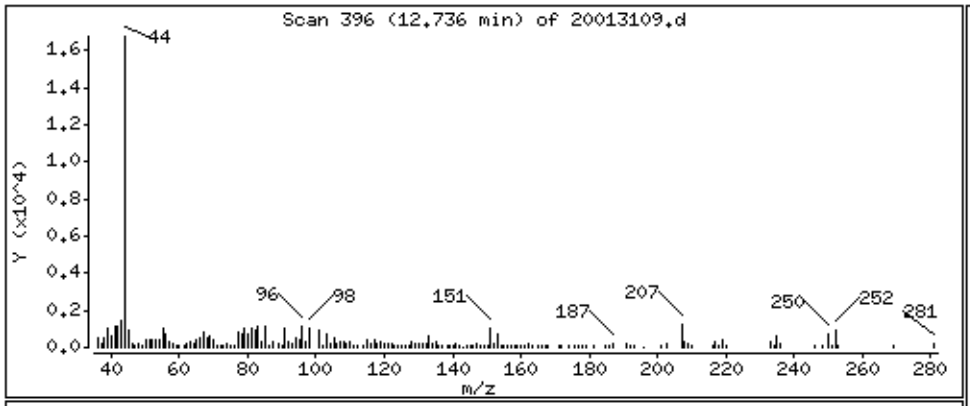
Operator: ef

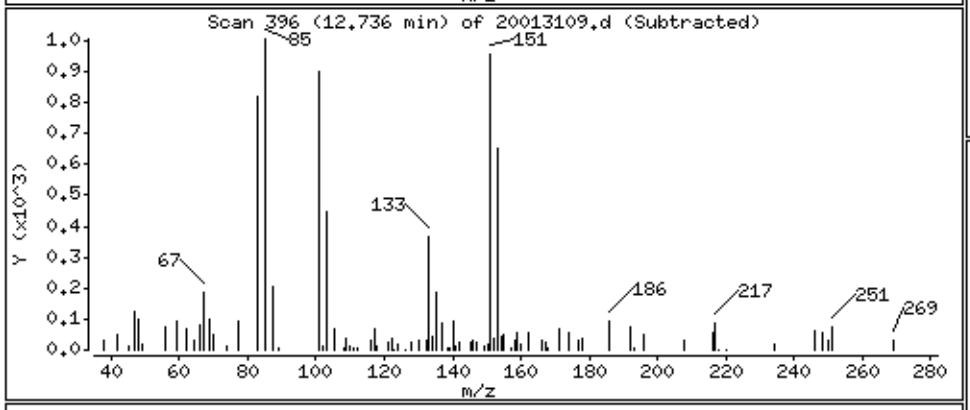
Column phase: RTX-624

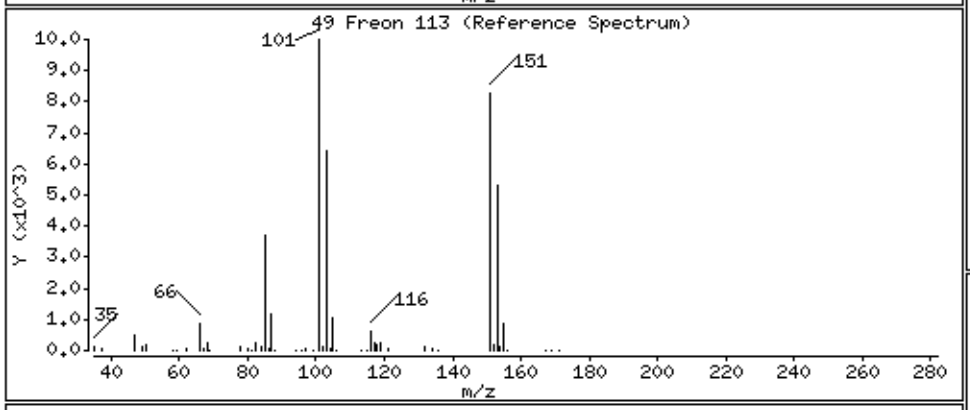
Column diameter: 0.32

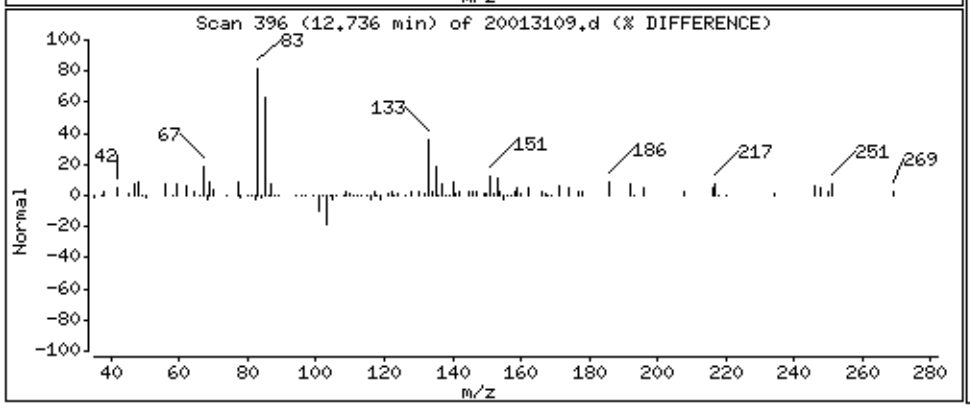
49 Freon 113

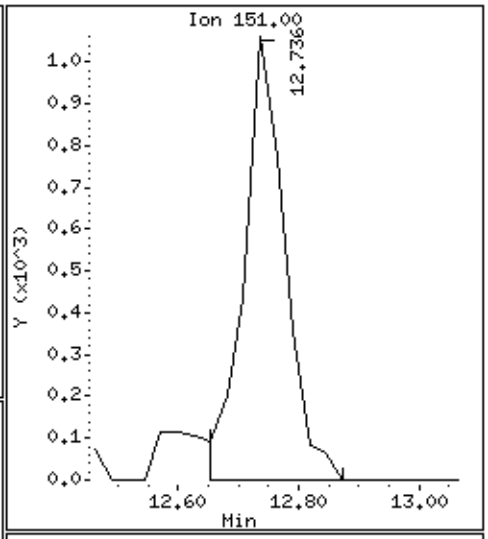
Concentration: 0.08940 PPBV

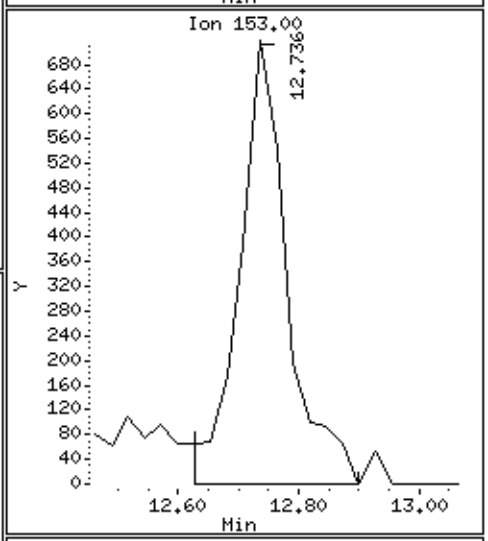


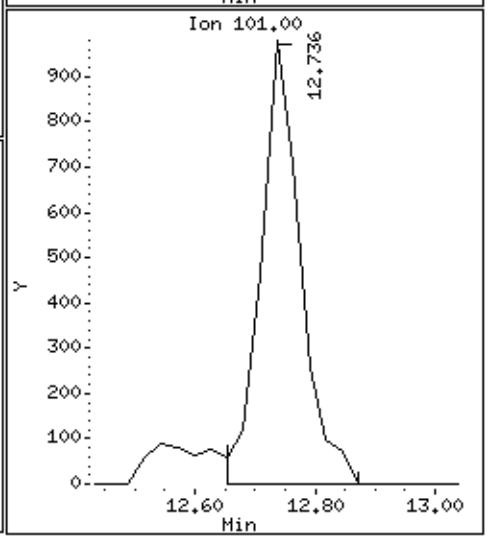












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

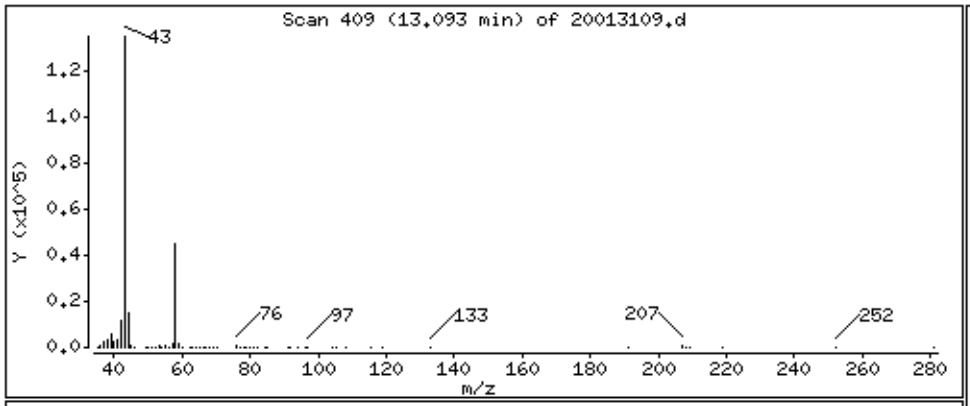
Operator: ef

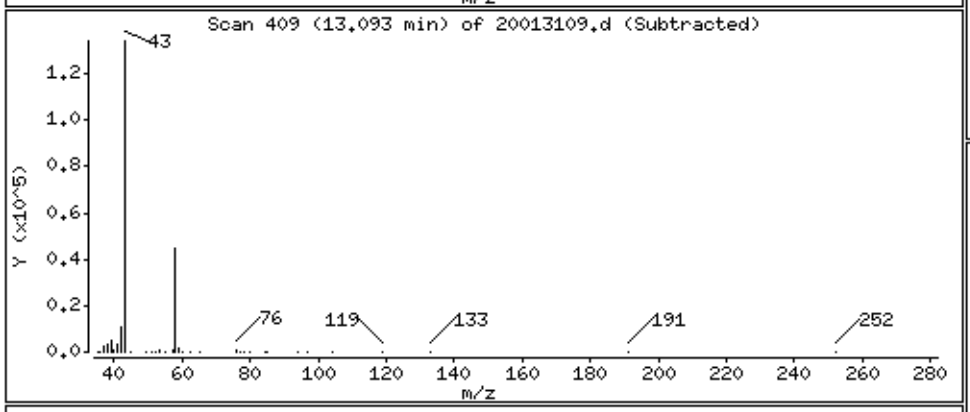
Column phase: RTX-624

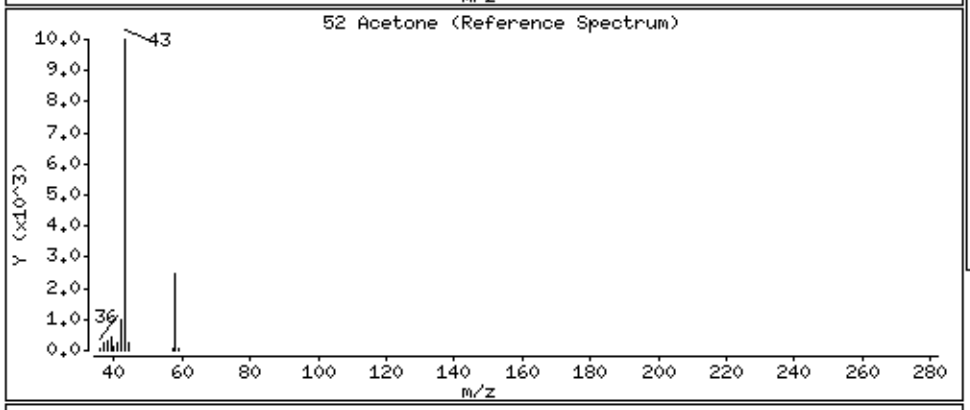
Column diameter: 0.32

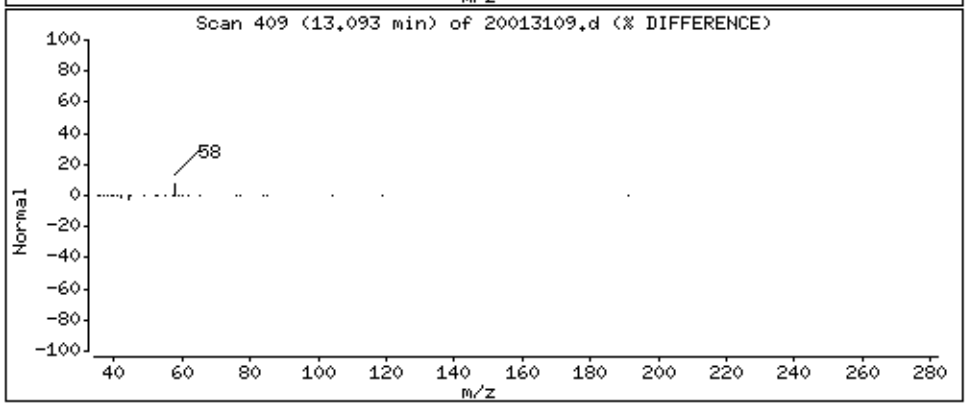
52 Acetone

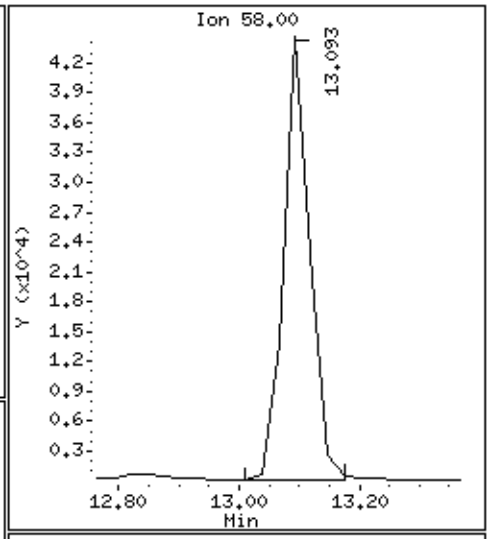
Concentration: 9.630 PPBV

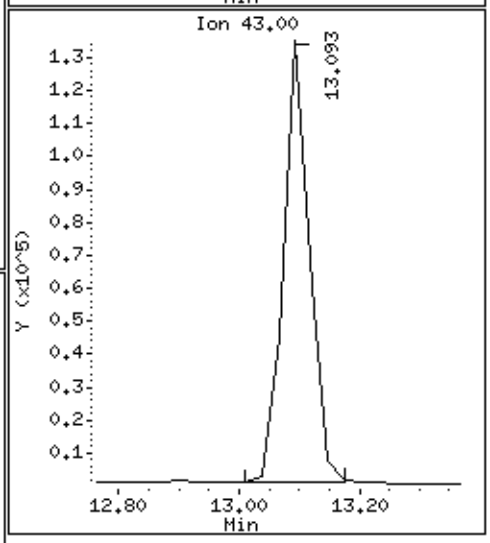












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

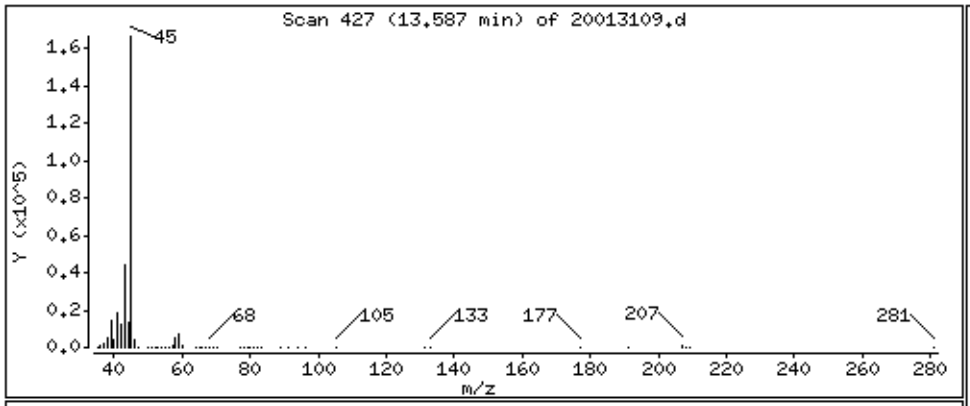
Operator: ef

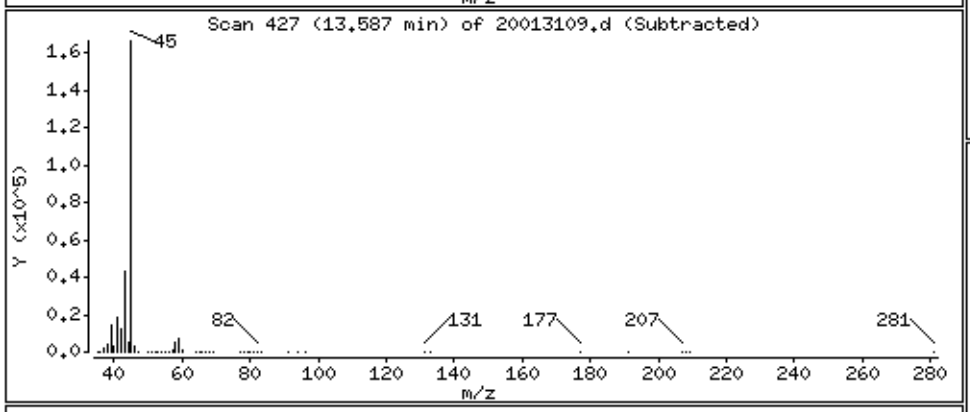
Column phase: RTX-624

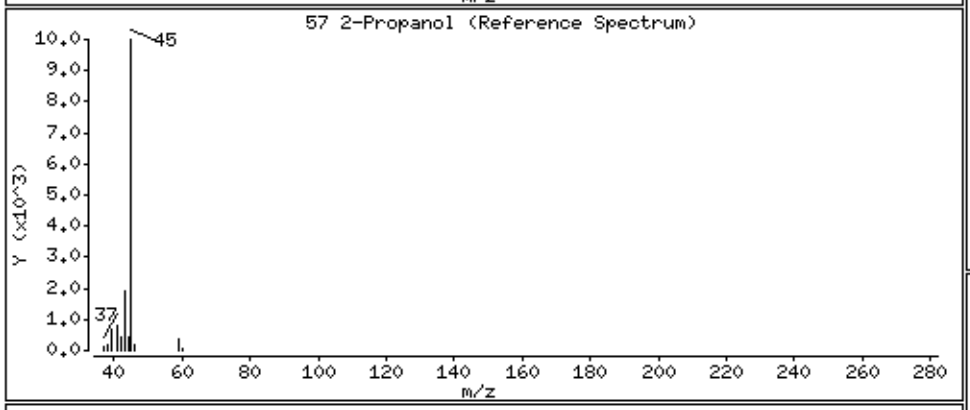
Column diameter: 0.32

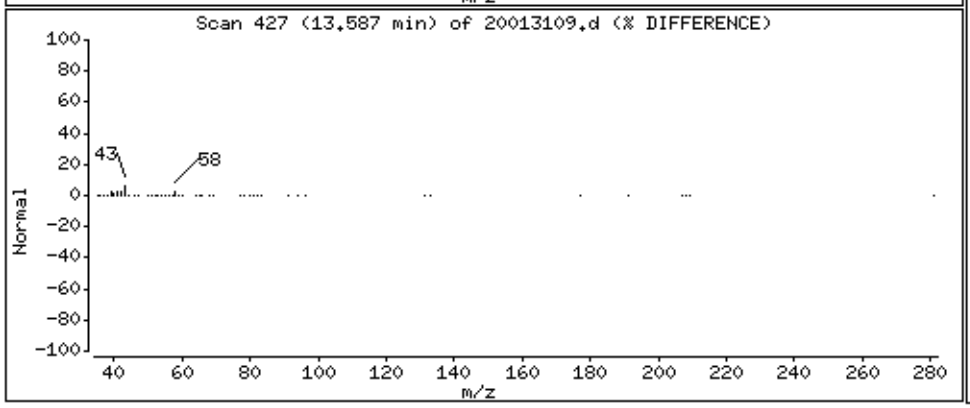
57 2-Propanol

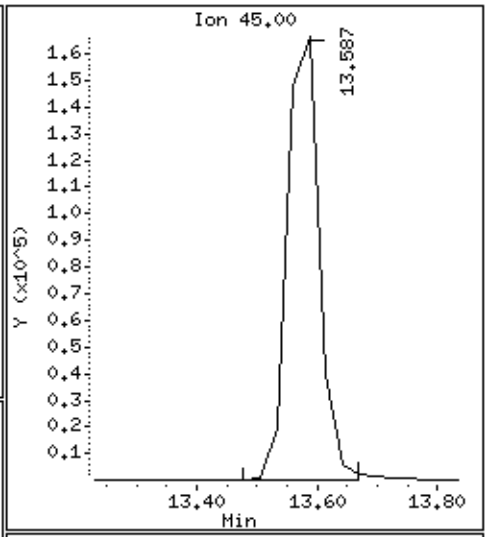
Concentration: 16.605 PPBV

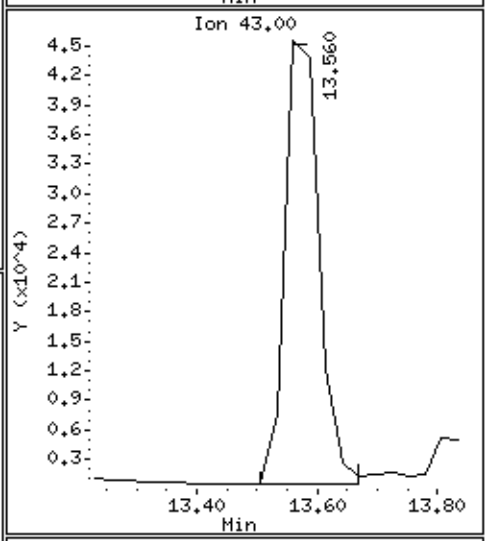


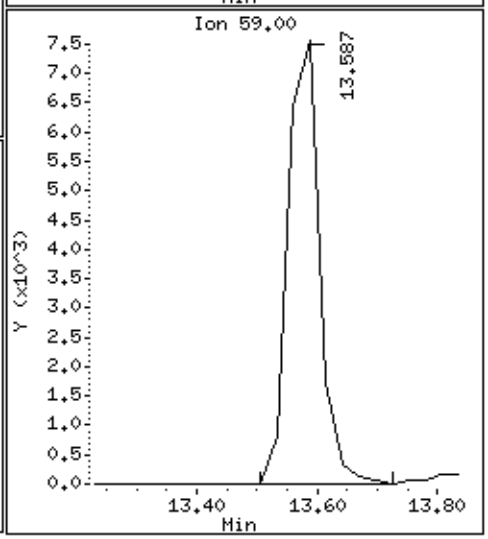












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

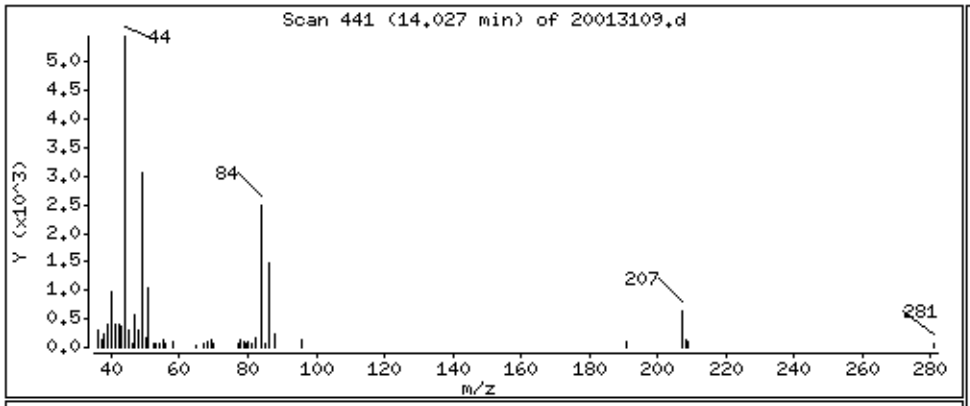
Operator: ef

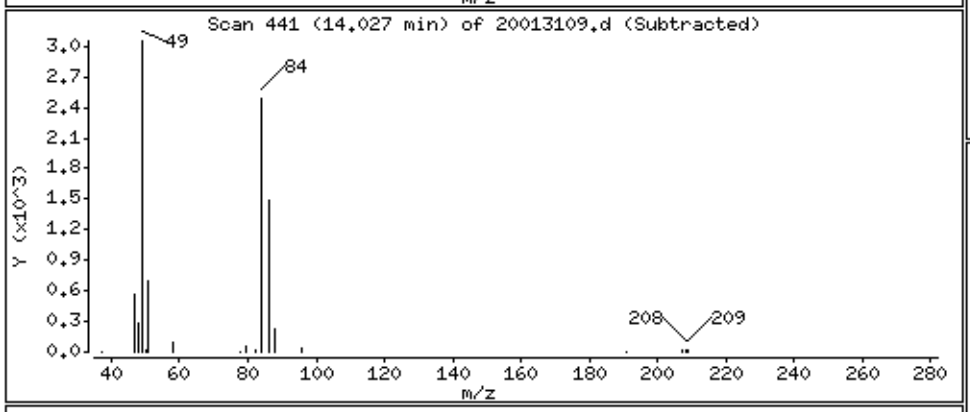
Column phase: RTX-624

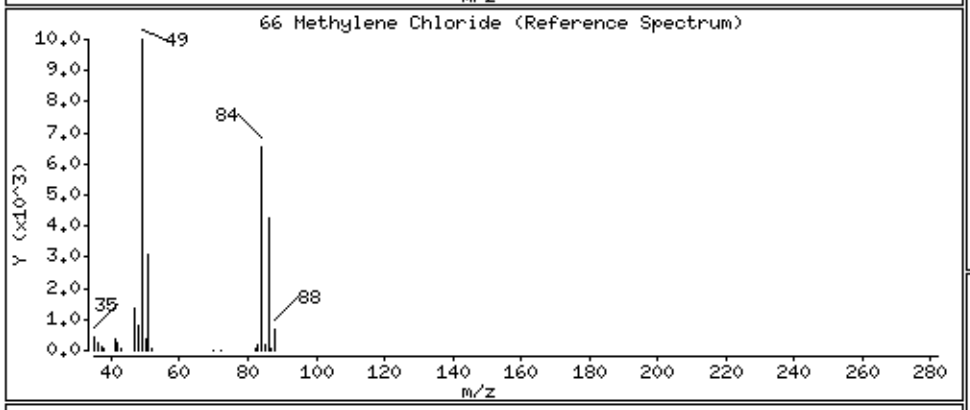
Column diameter: 0.32

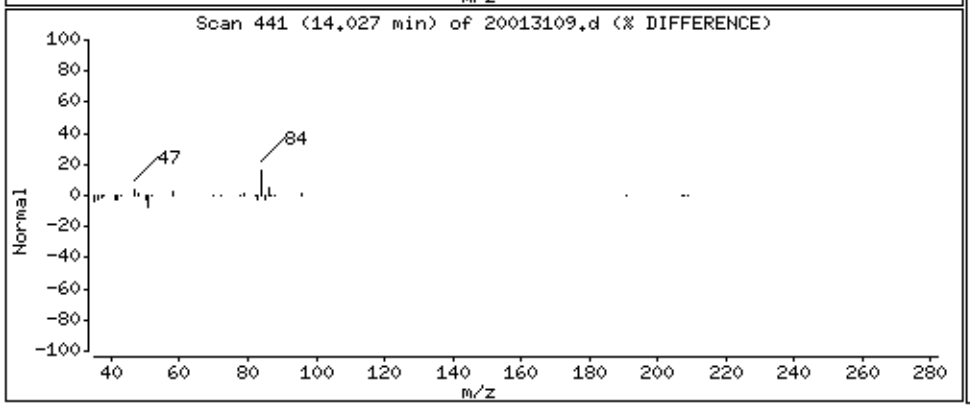
66 Methylene Chloride

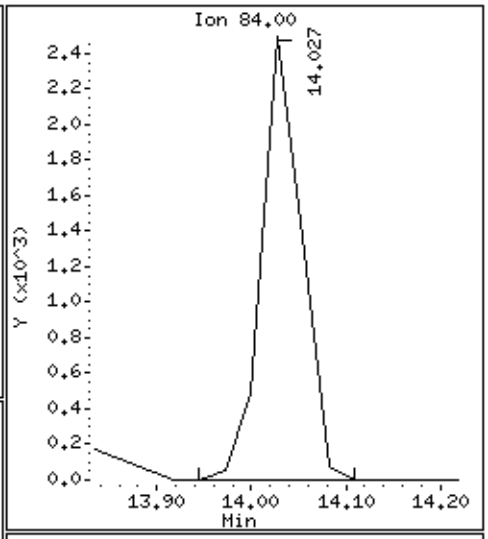
Concentration: 0.2431 PPBV

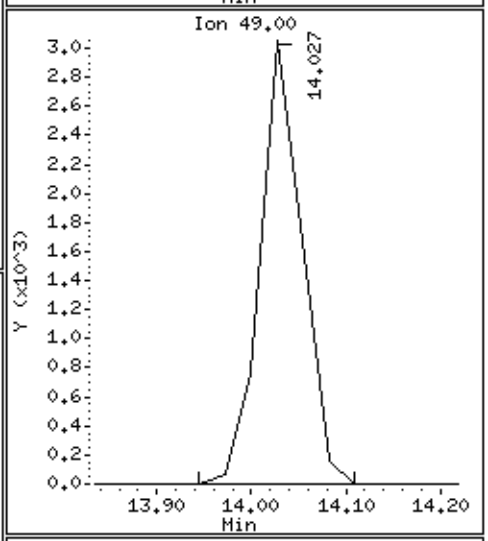


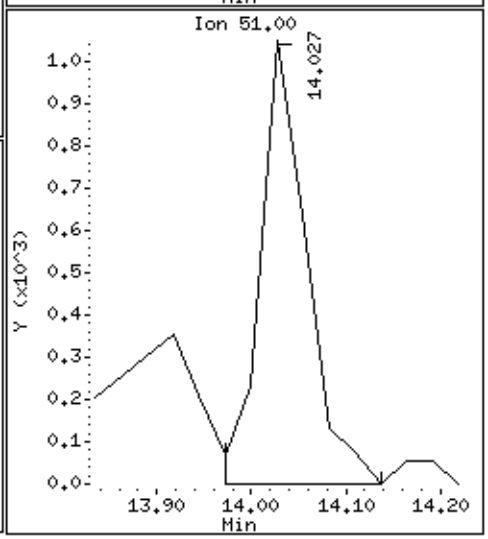












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

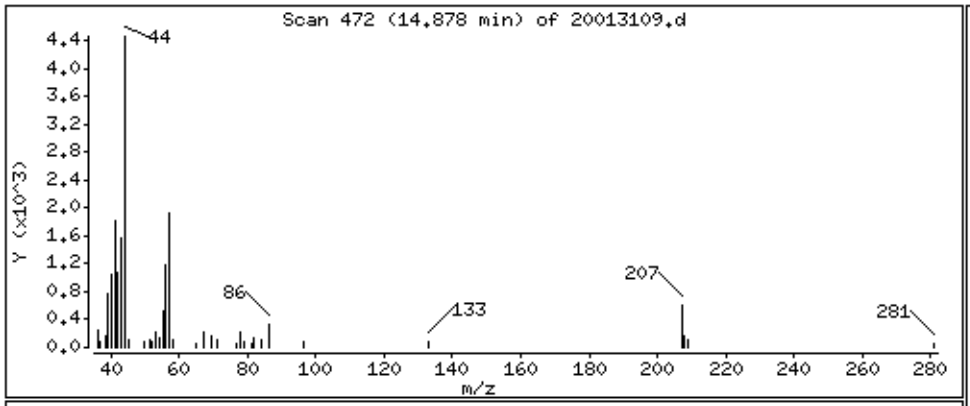
Operator: ef

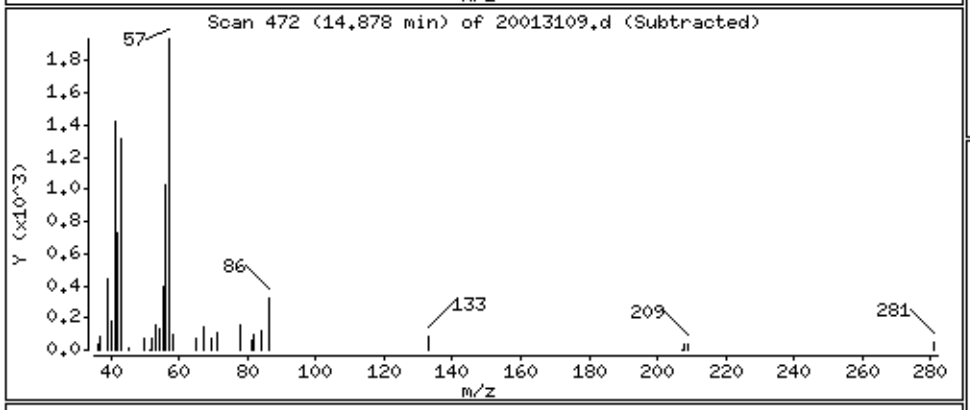
Column phase: RTX-624

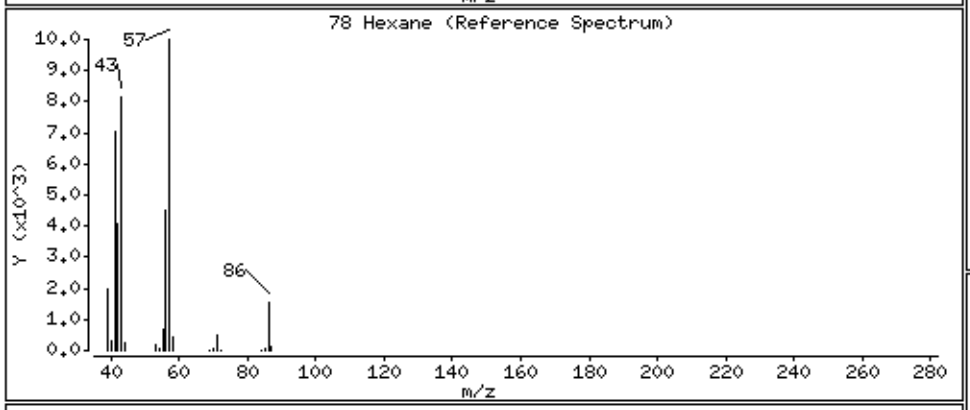
Column diameter: 0.32

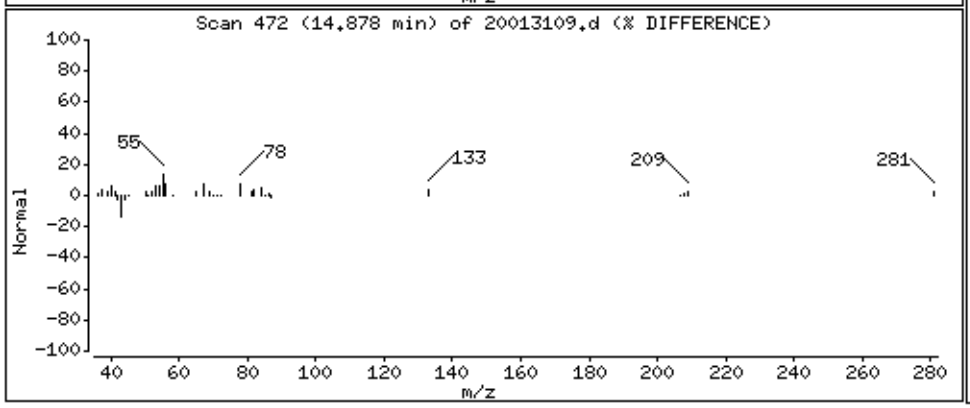
78 Hexane

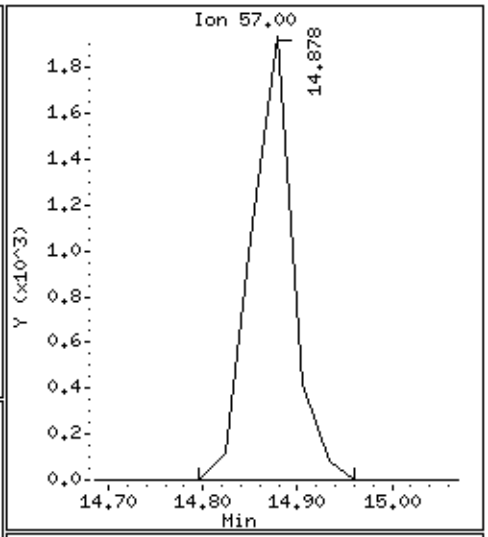
Concentration: 0.1478 PPBV

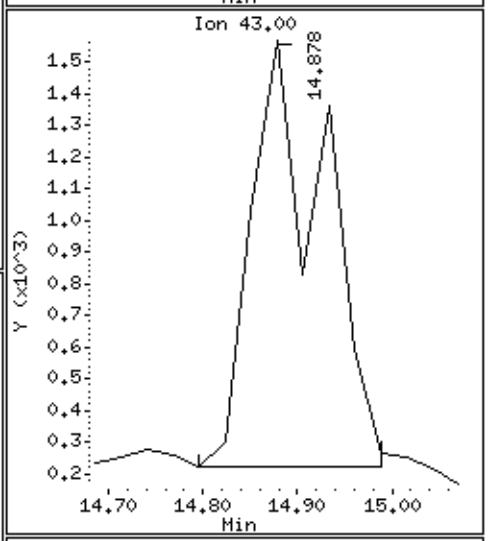


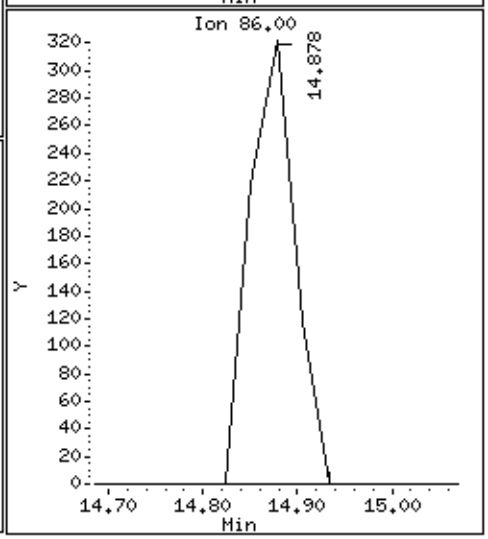












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

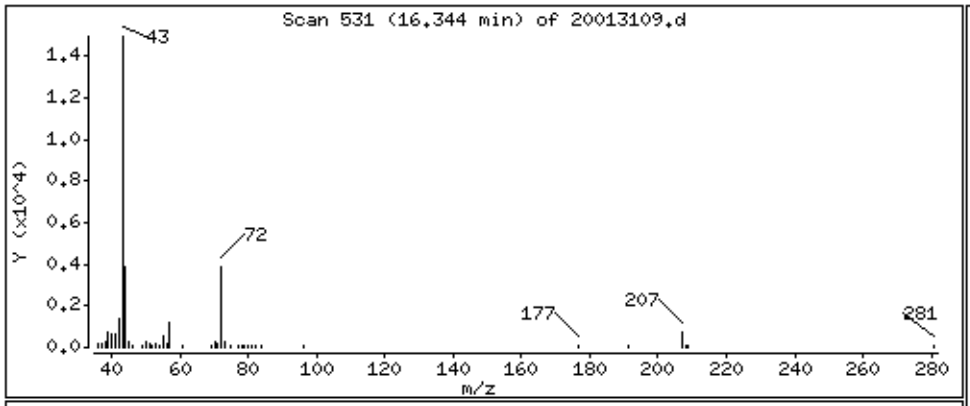
Operator: ef

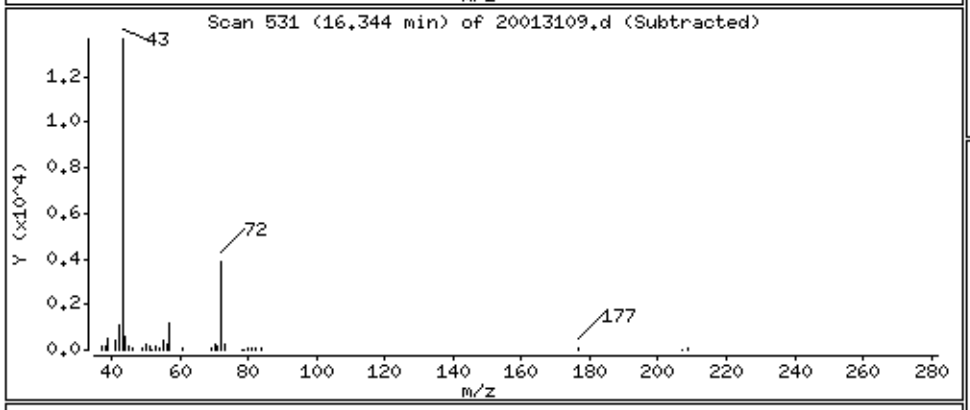
Column phase: RTX-624

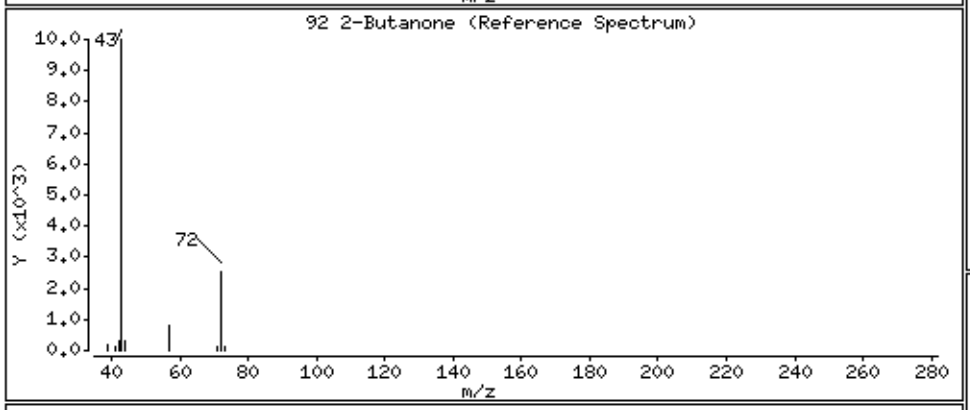
Column diameter: 0.32

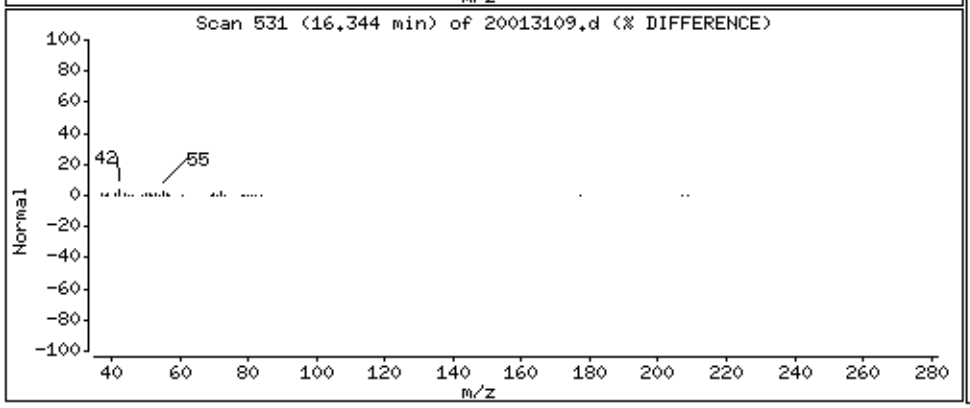
92 2-Butanone

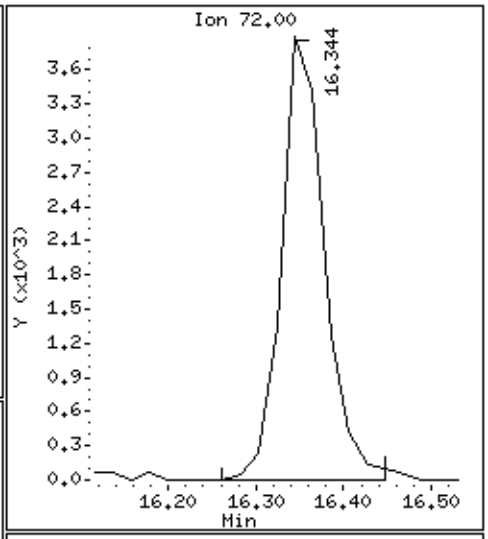
Concentration: 0.9867 PPBV

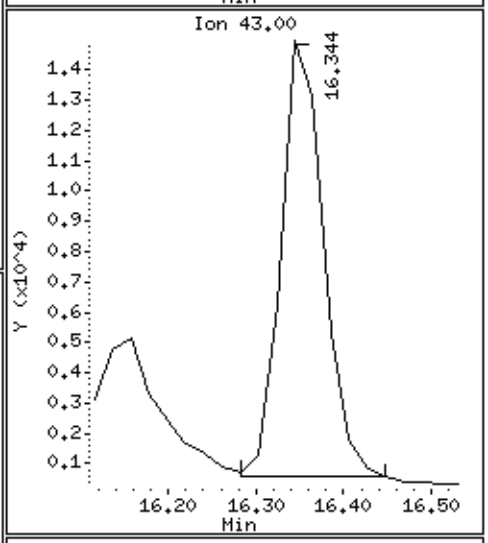


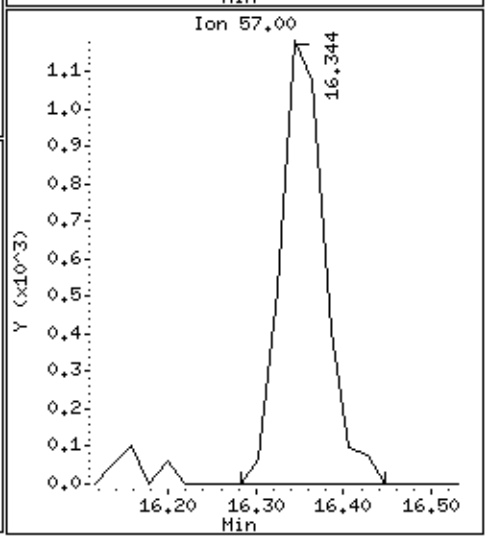












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

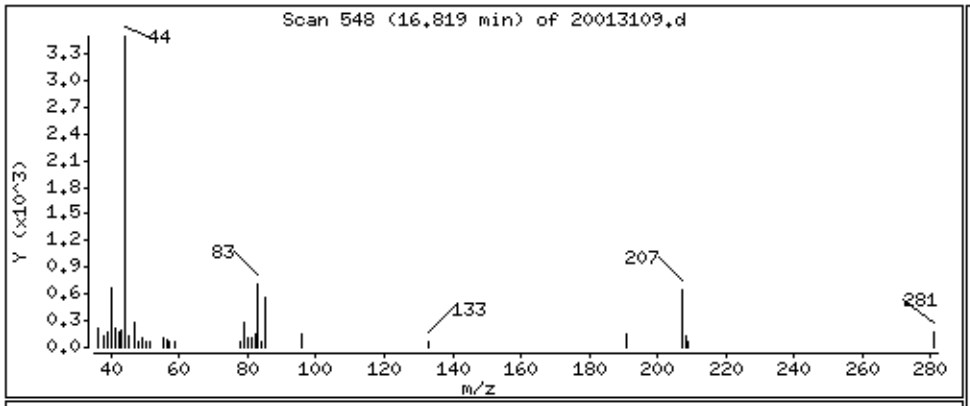
Operator: ef

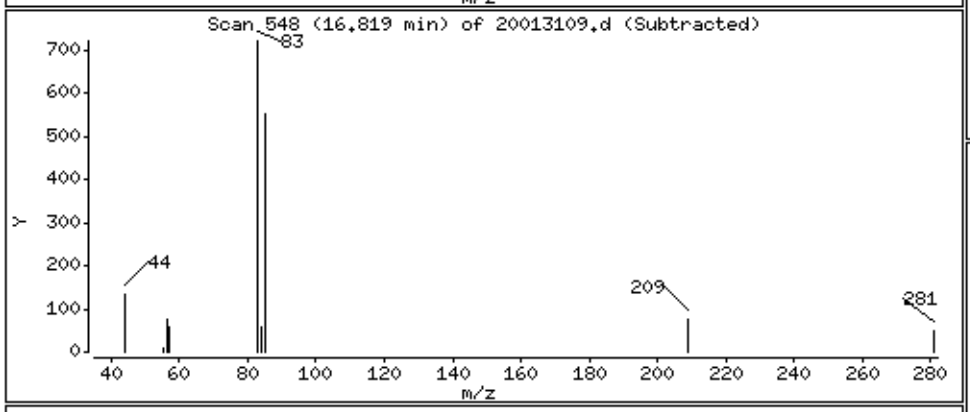
Column phase: RTX-624

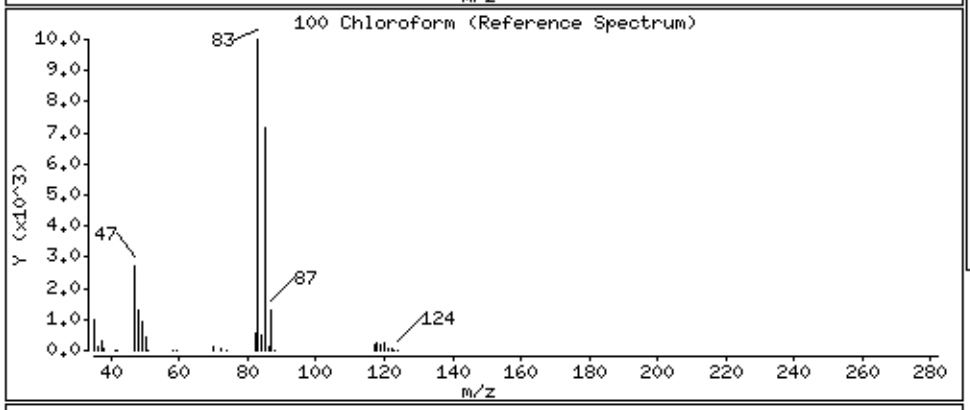
Column diameter: 0.32

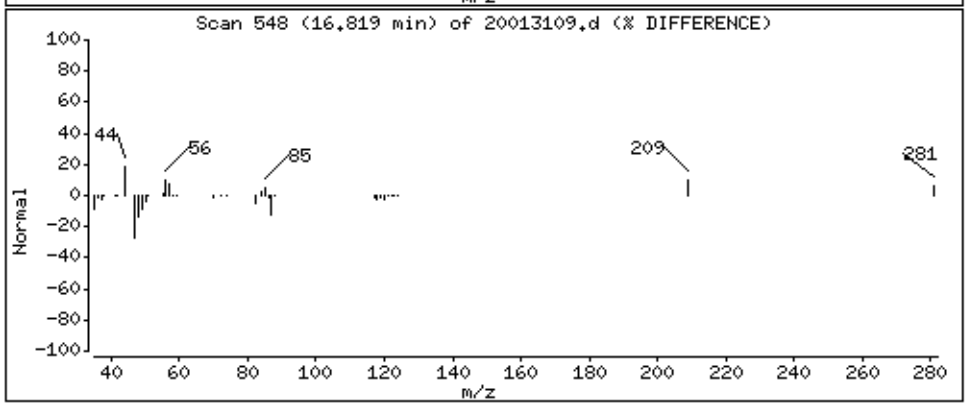
100 Chloroform

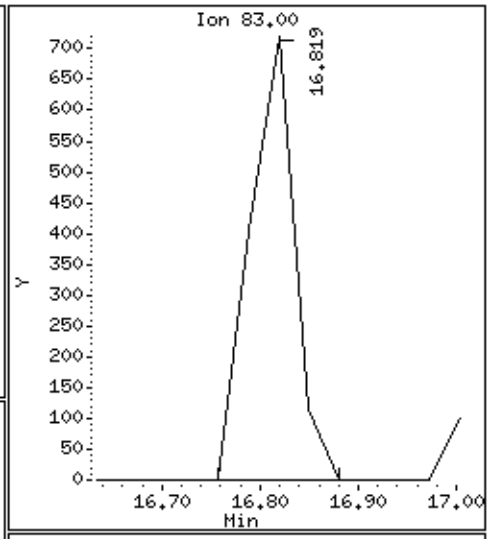
Concentration: 0.03702 PPBV

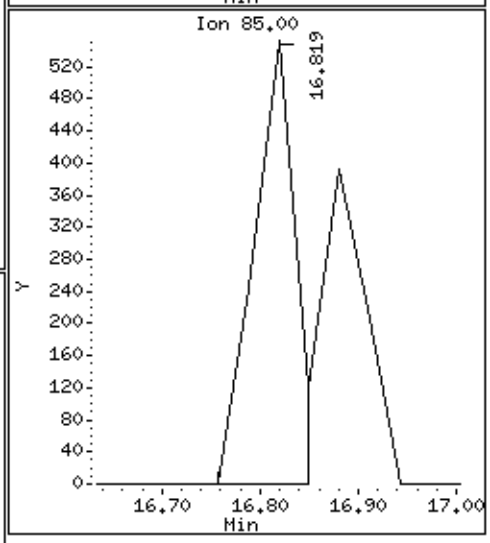












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

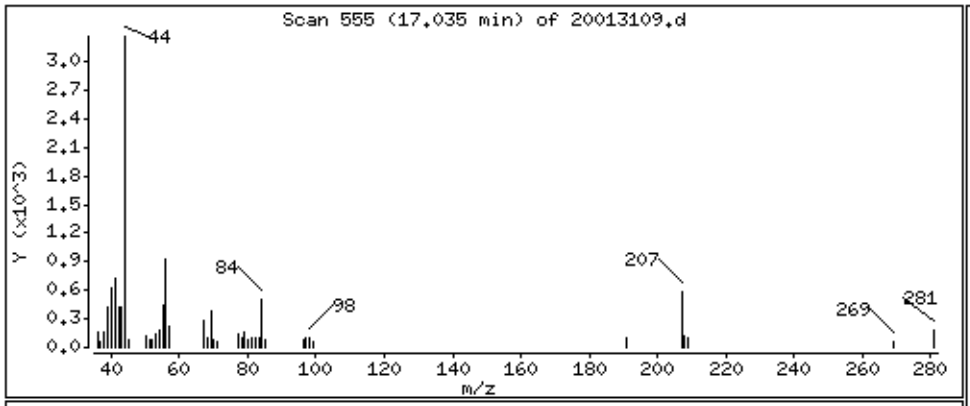
Operator: ef

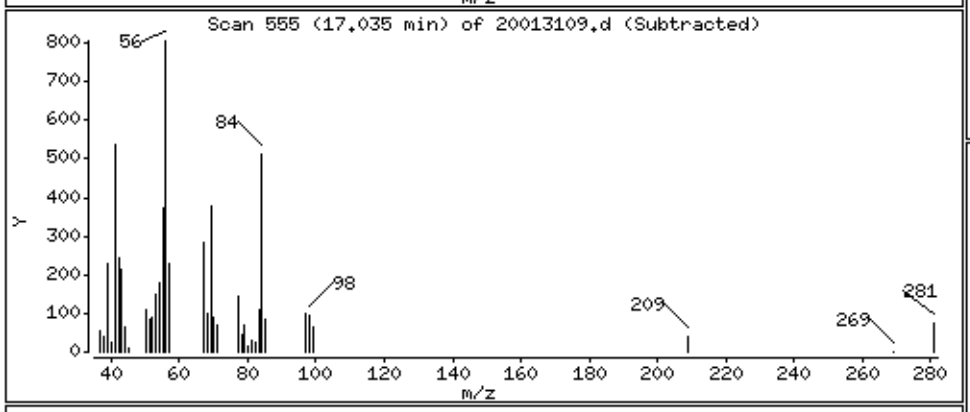
Column phase: RTX-624

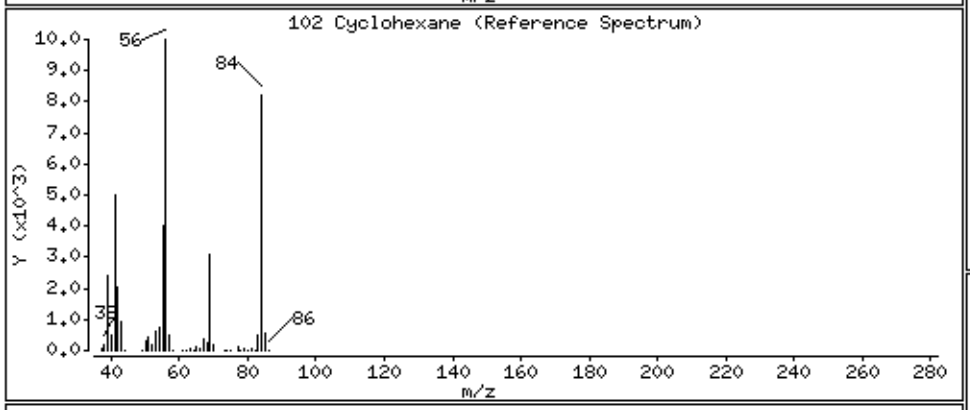
Column diameter: 0.32

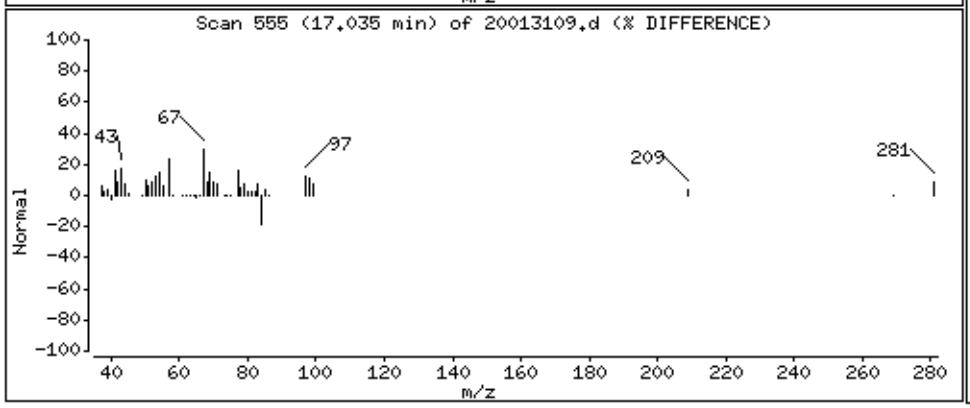
102 Cyclohexane

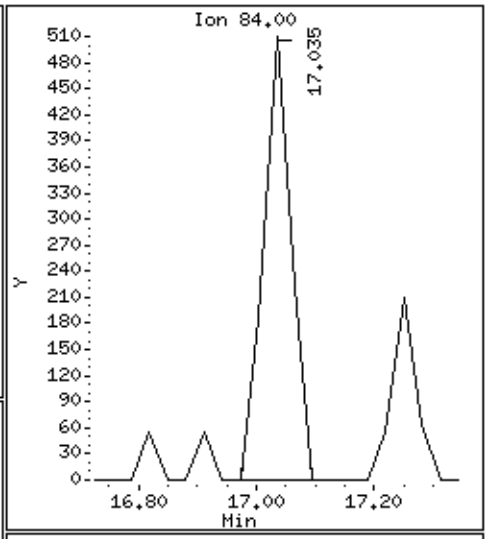
Concentration: 0.04190 PPBV

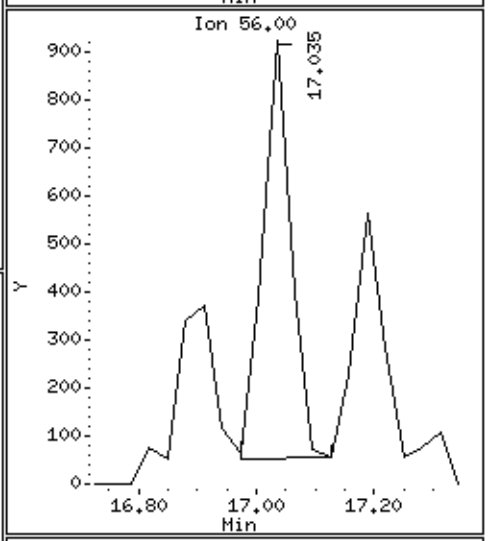


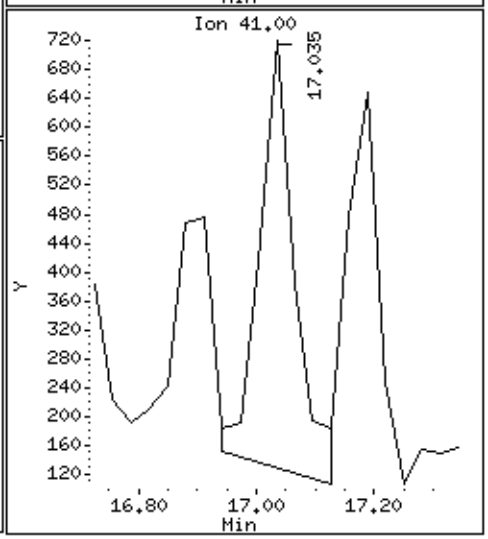












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

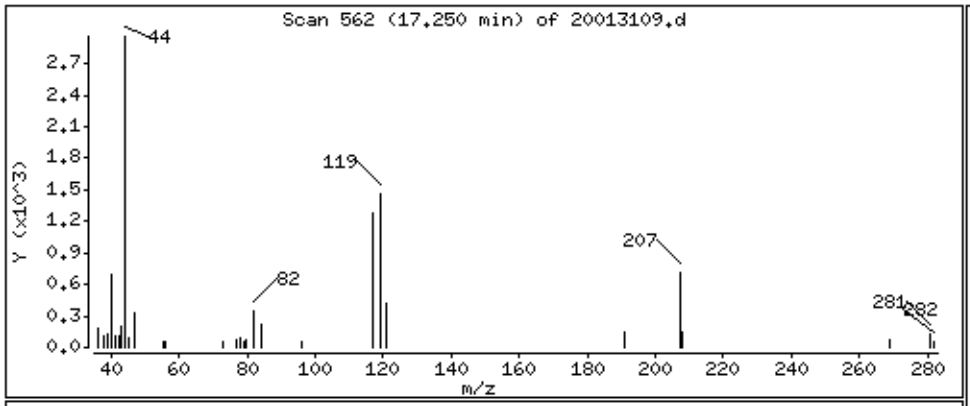
Operator: ef

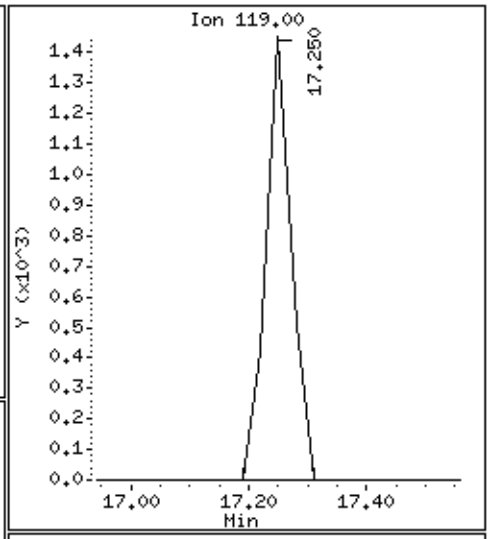
Column phase: RTX-624

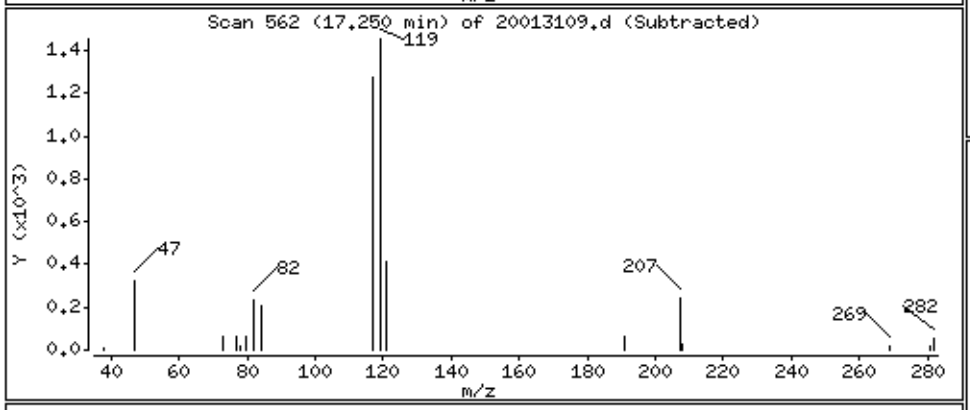
Column diameter: 0.32

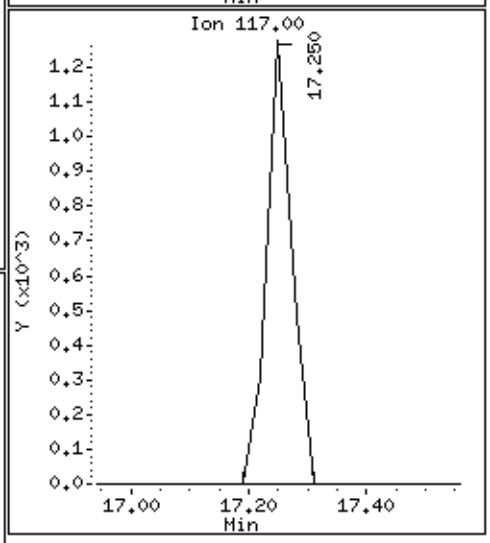
106 Carbon Tetrachloride

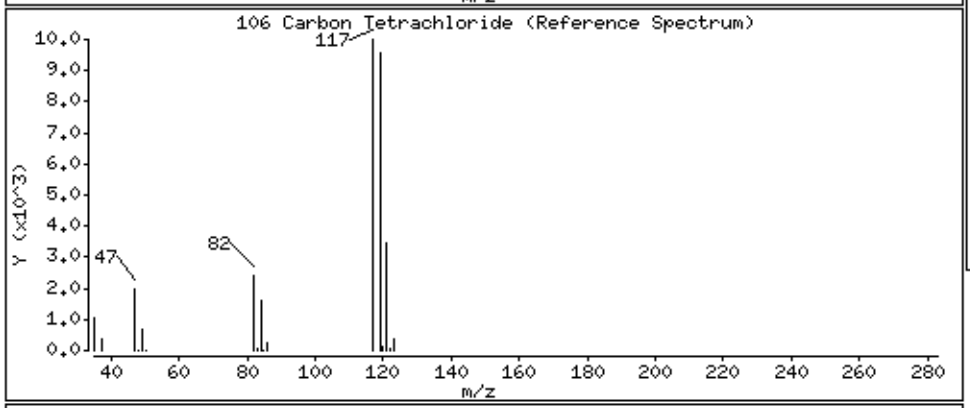
Concentration: 0.08278 PPBV

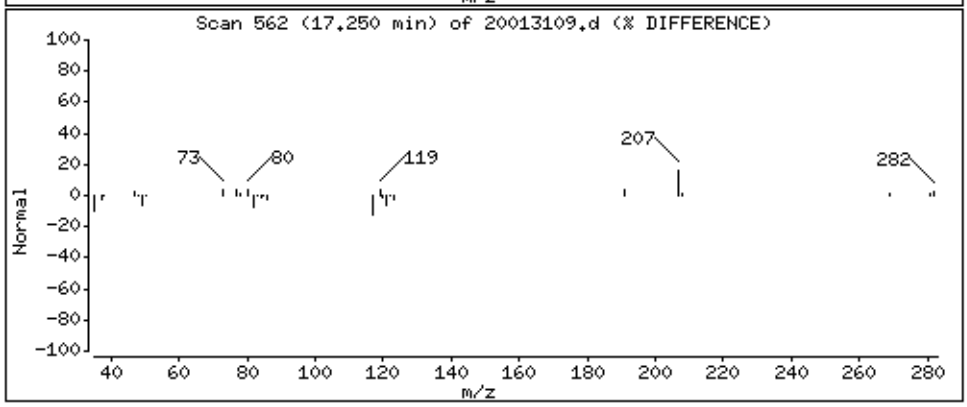












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

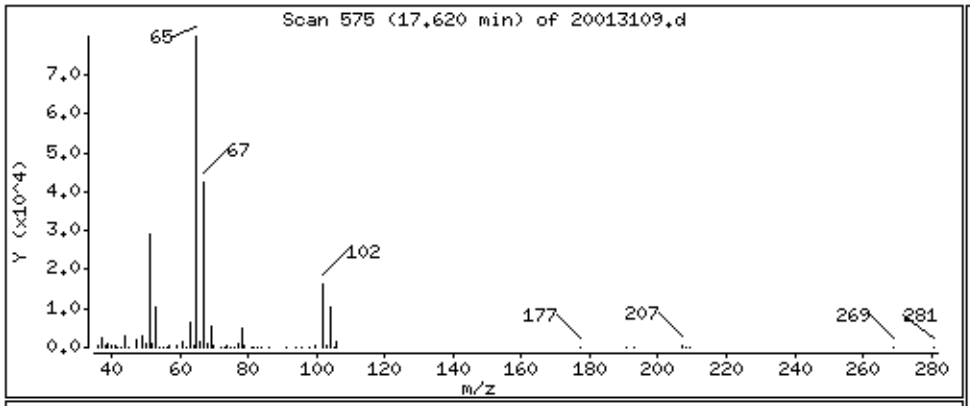
Operator: ef

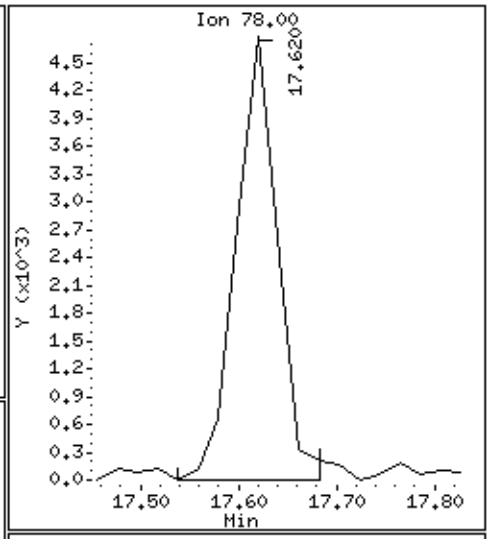
Column phase: RTX-624

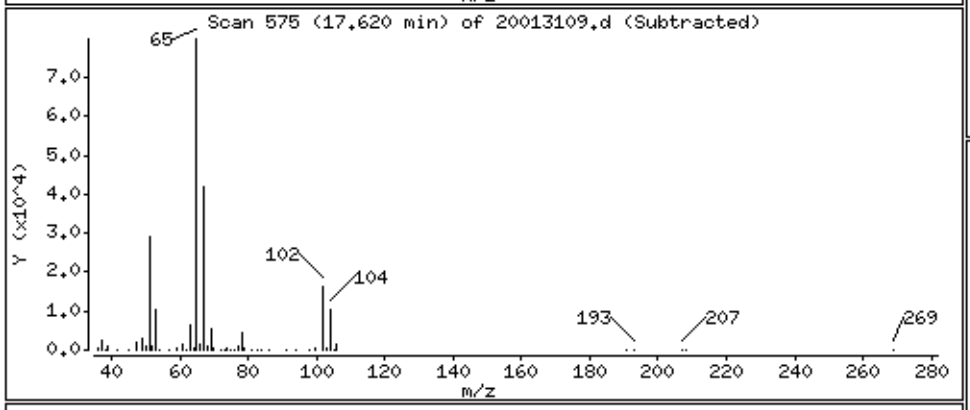
Column diameter: 0.32

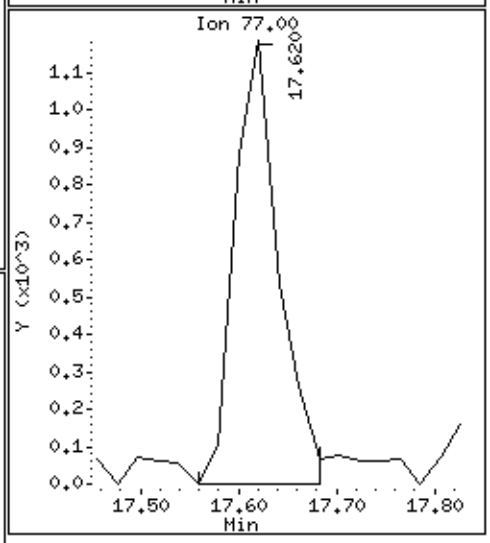
116 Benzene

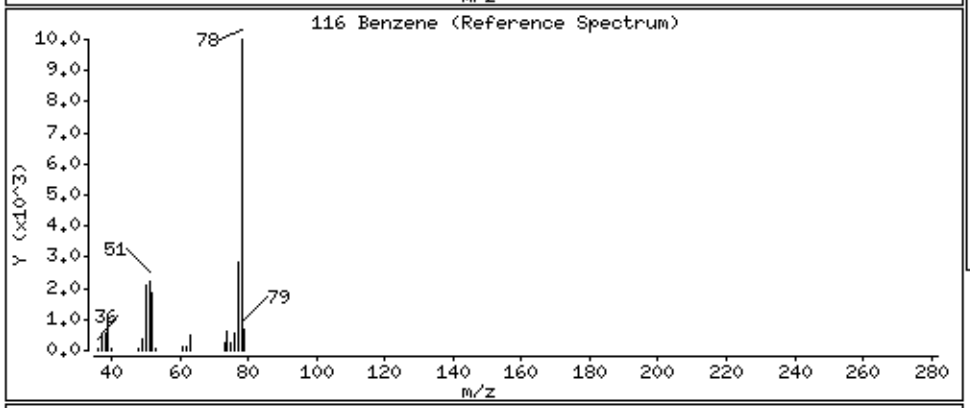
Concentration: 0.1708 PPBV

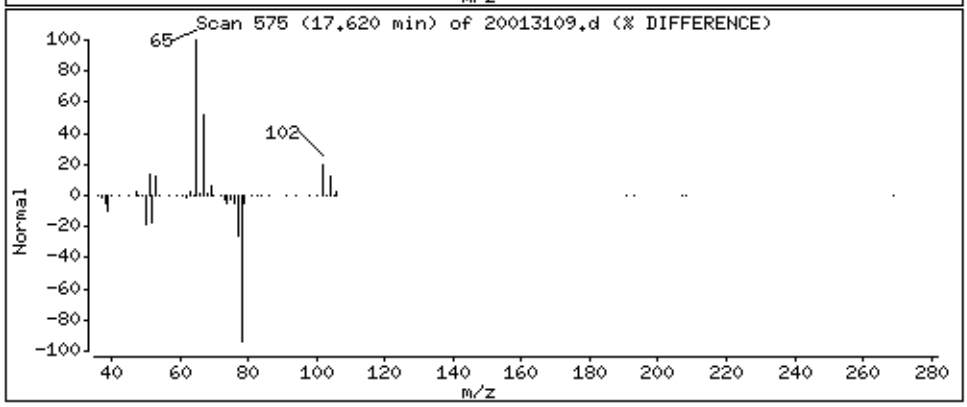












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

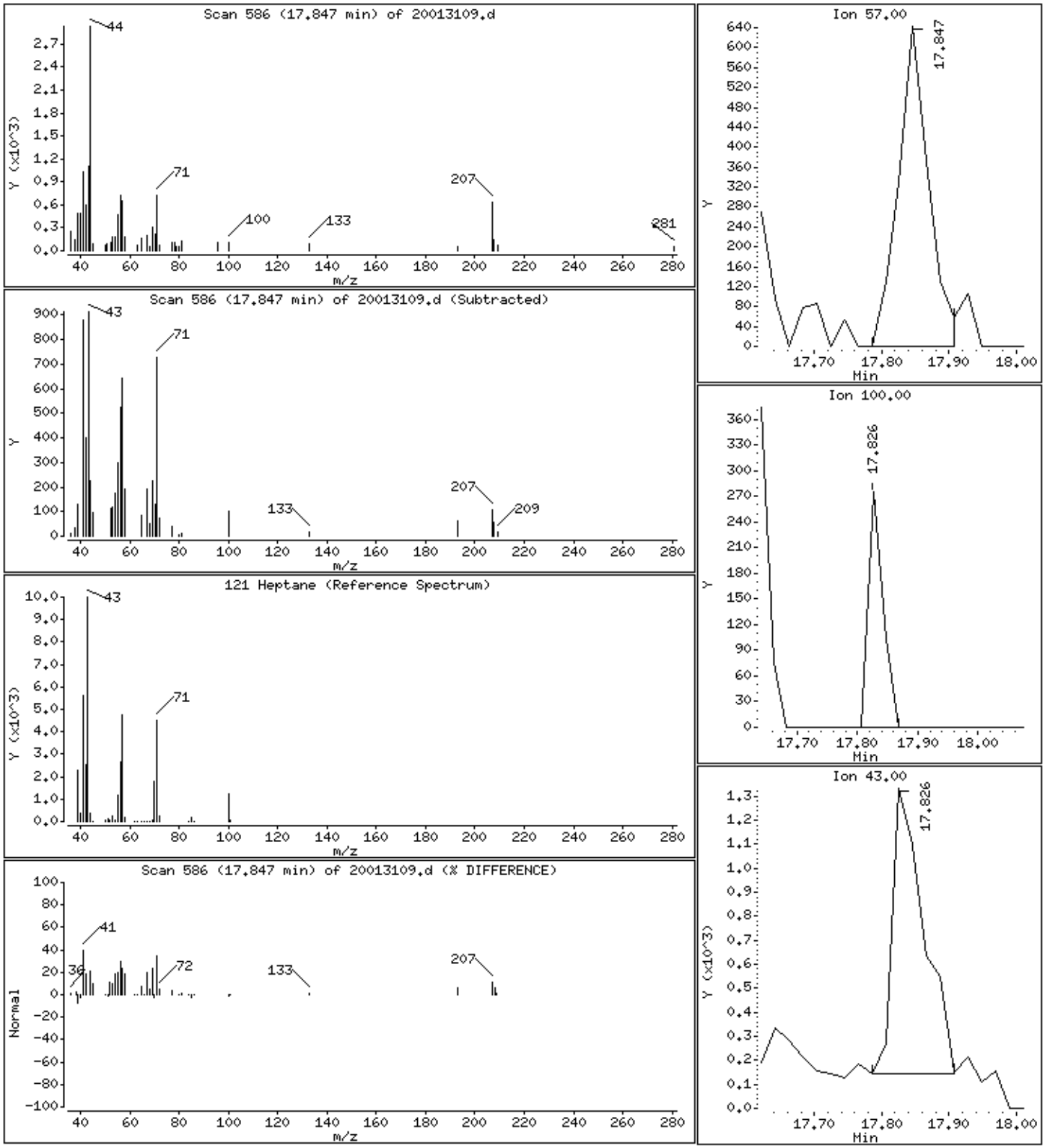
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

121 Heptane

Concentration: 0.09682 PPBV



Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

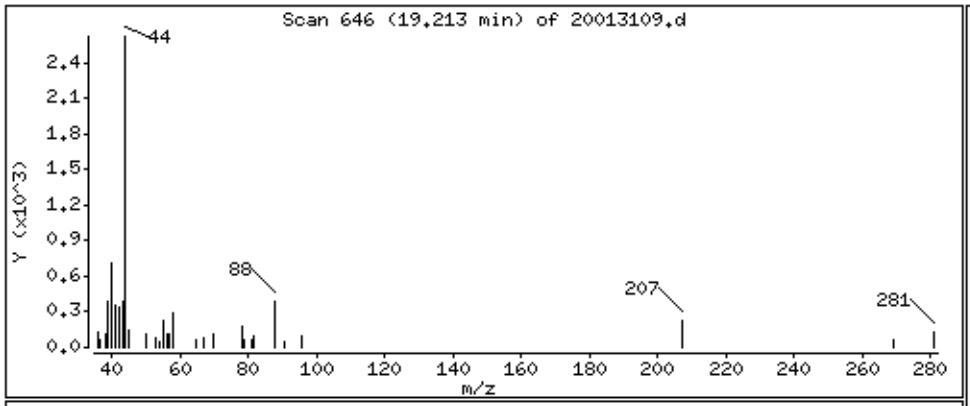
Operator: ef

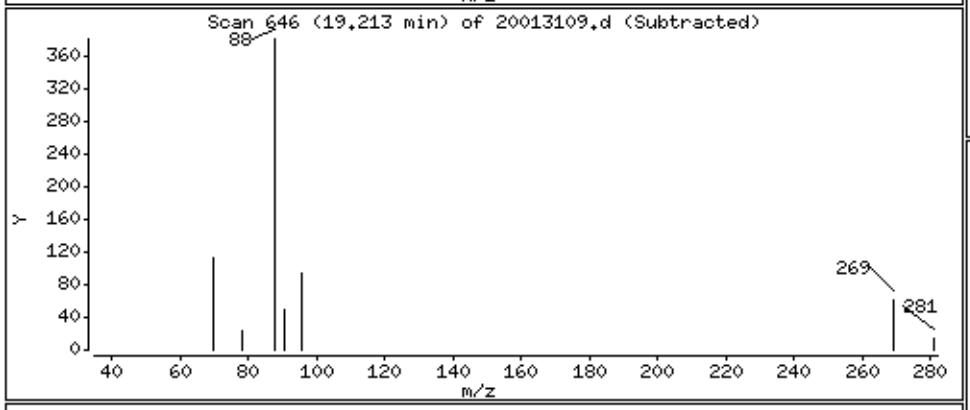
Column phase: RTX-624

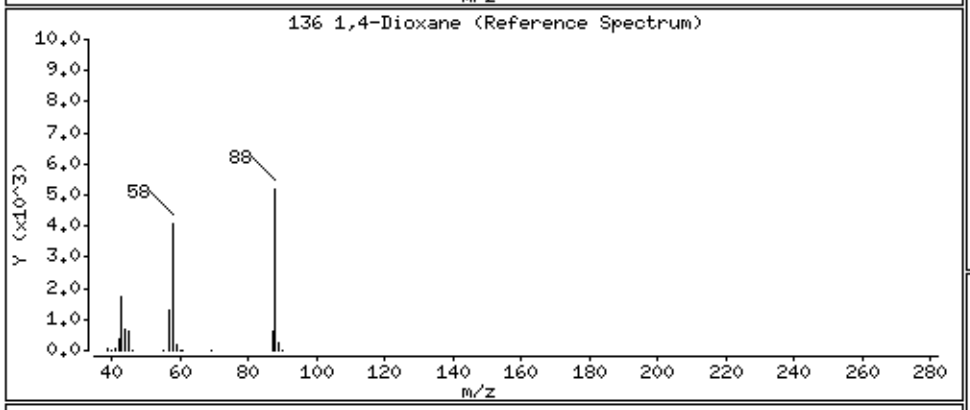
Column diameter: 0.32

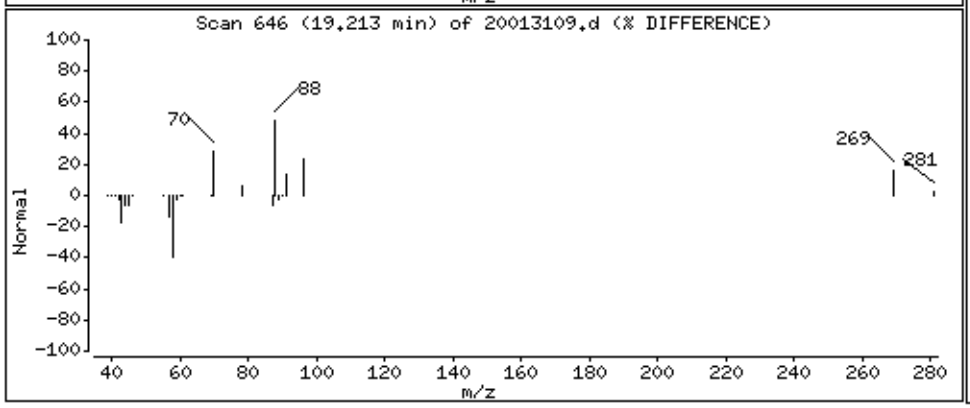
136 1,4-Dioxane

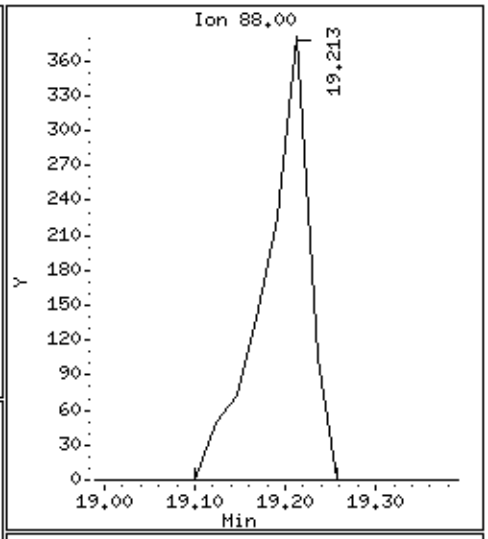
Concentration: 0.06716 PPBV

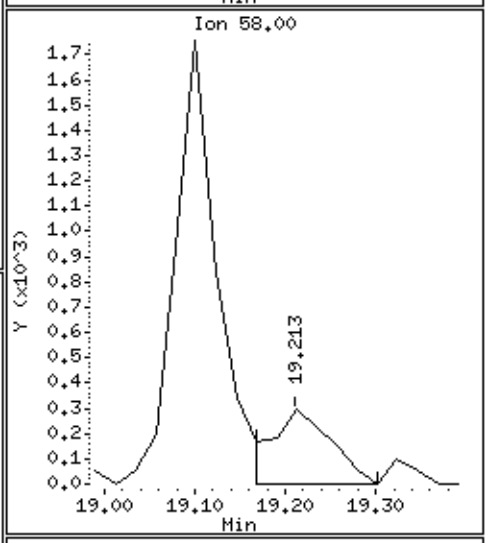


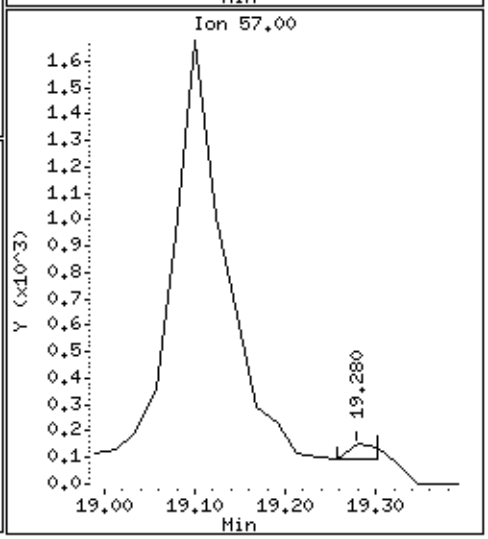












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

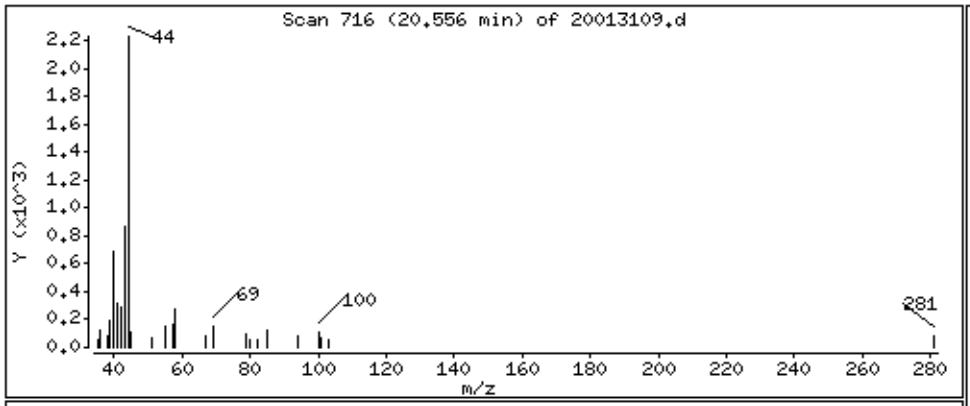
Operator: ef

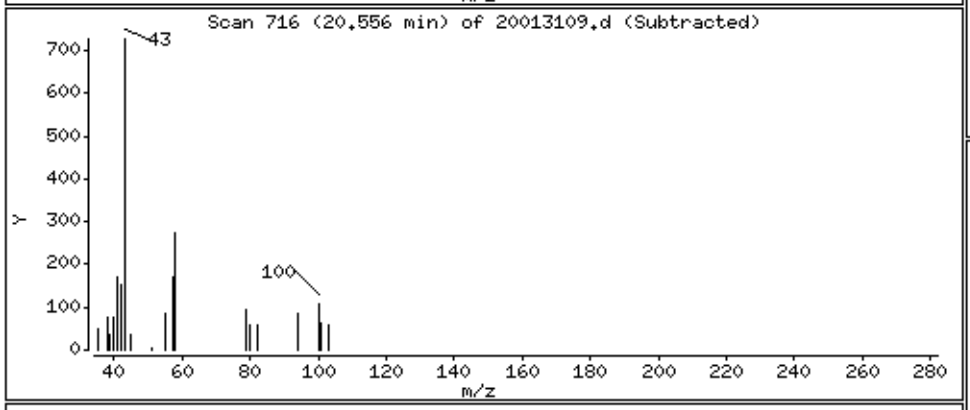
Column phase: RTX-624

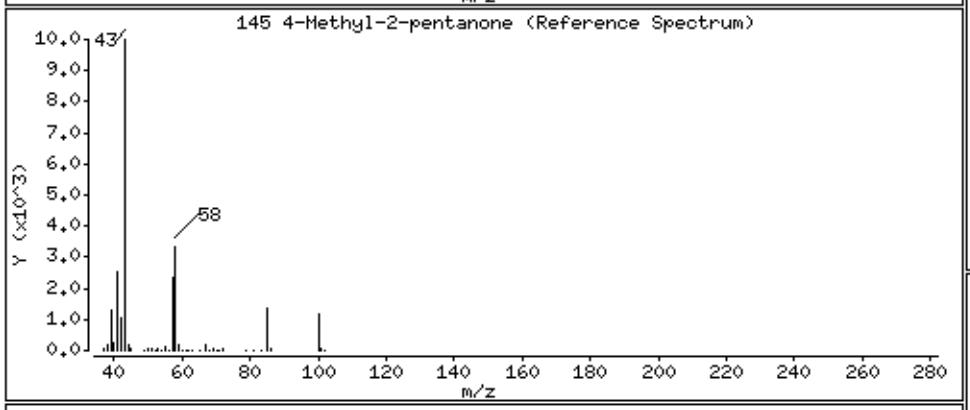
Column diameter: 0.32

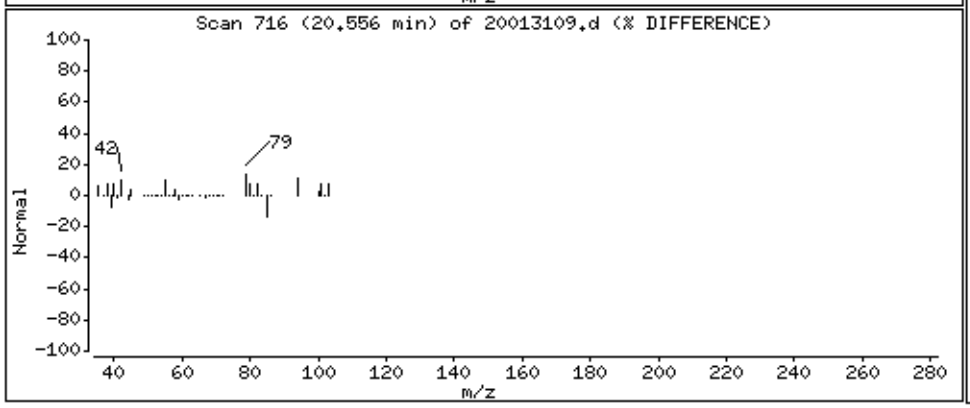
145 4-Methyl-2-pentanone

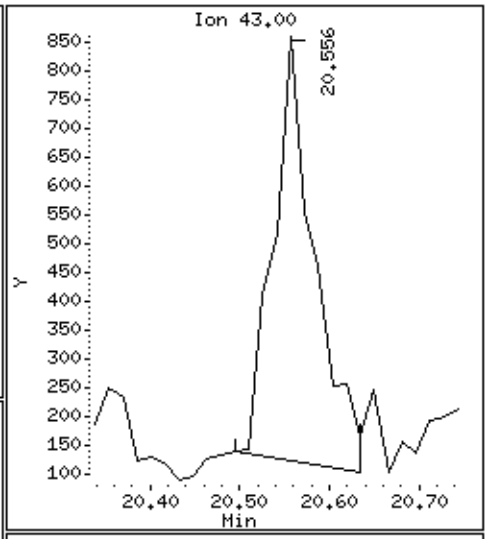
Concentration: 0.05249 PPBV

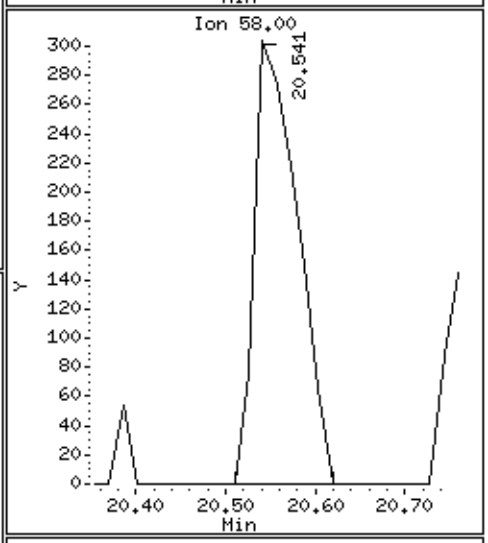


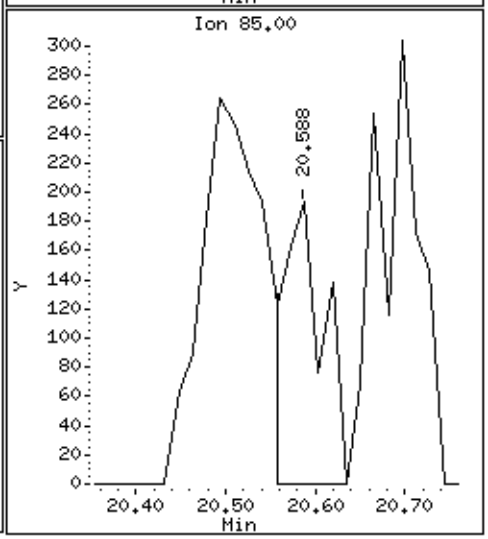












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

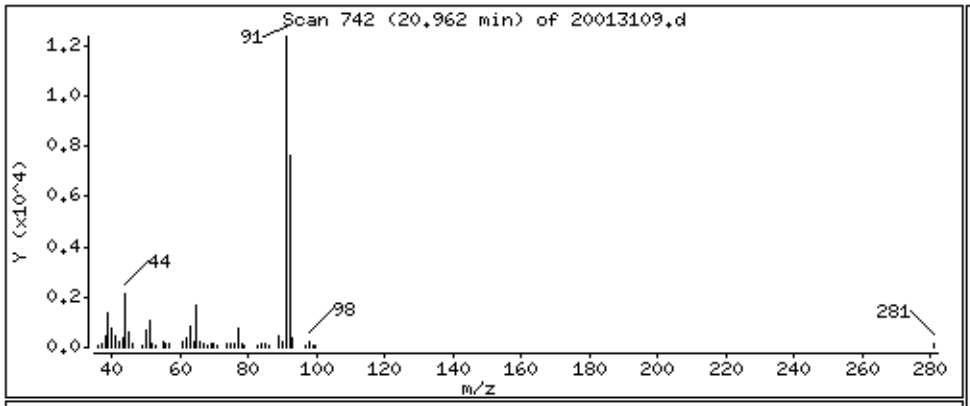
Operator: ef

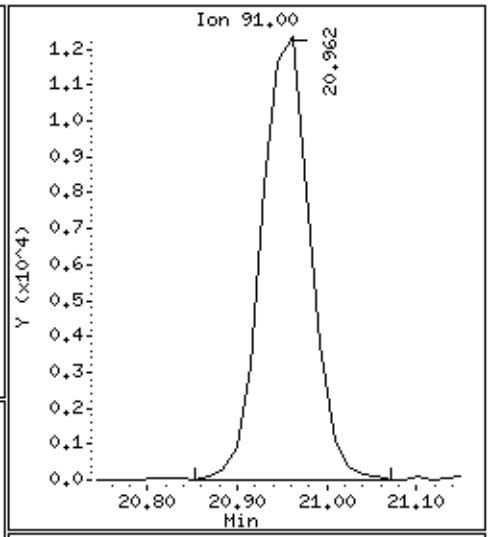
Column phase: RTX-624

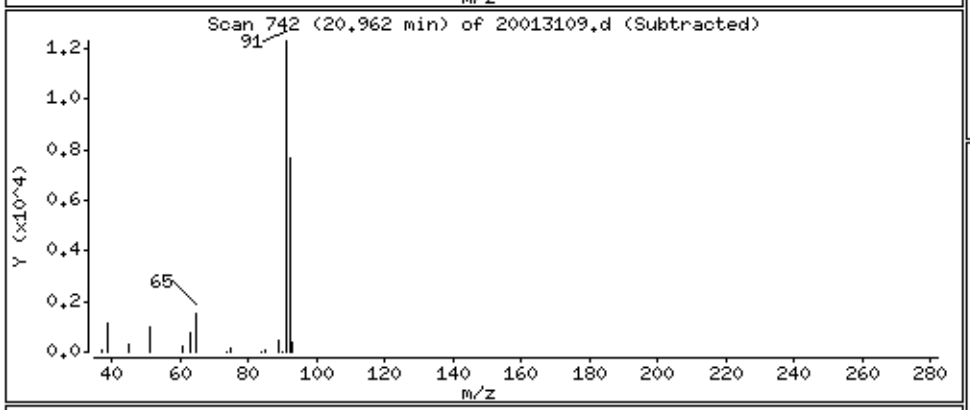
Column diameter: 0.32

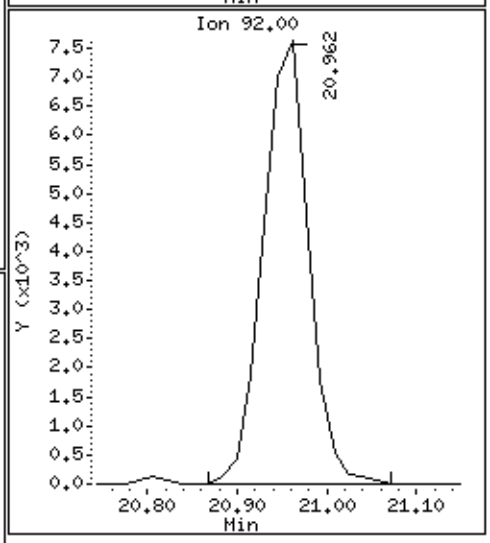
147 Toluene

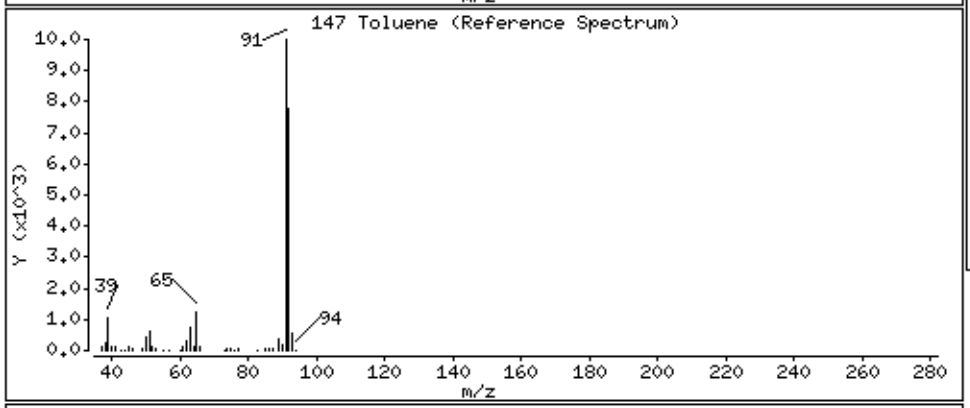
Concentration: 0.5142 PPBV

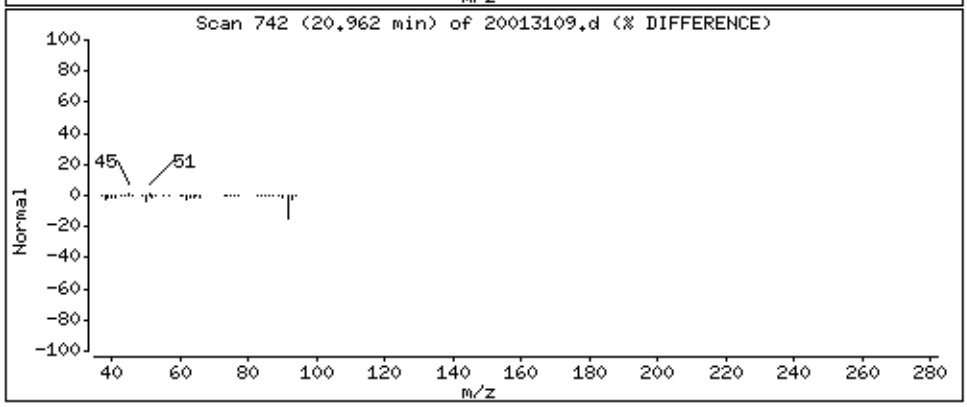












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

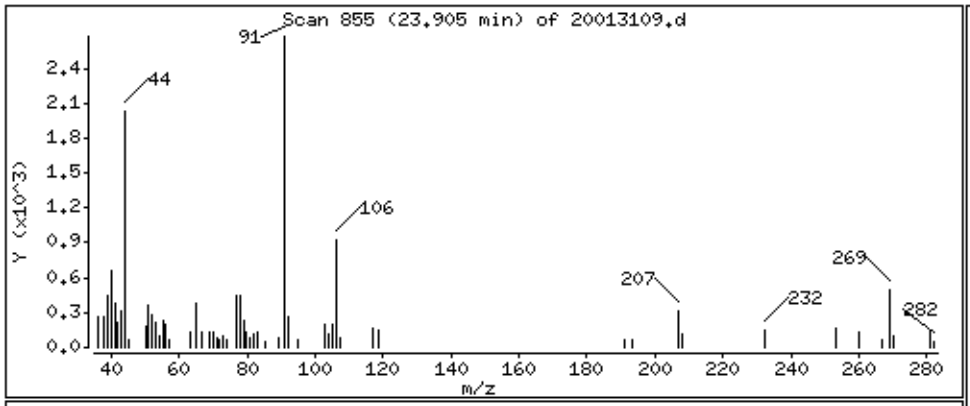
Operator: ef

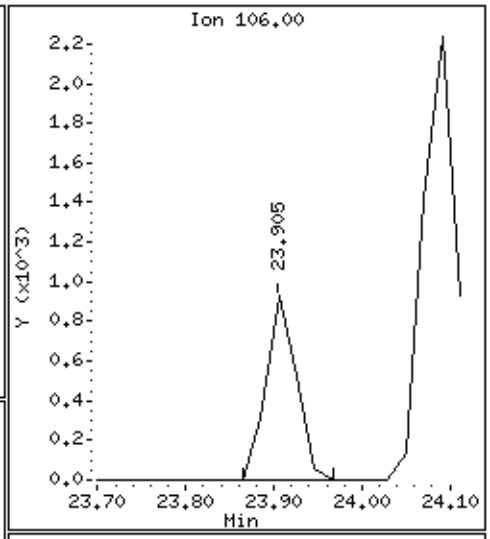
Column phase: RTX-624

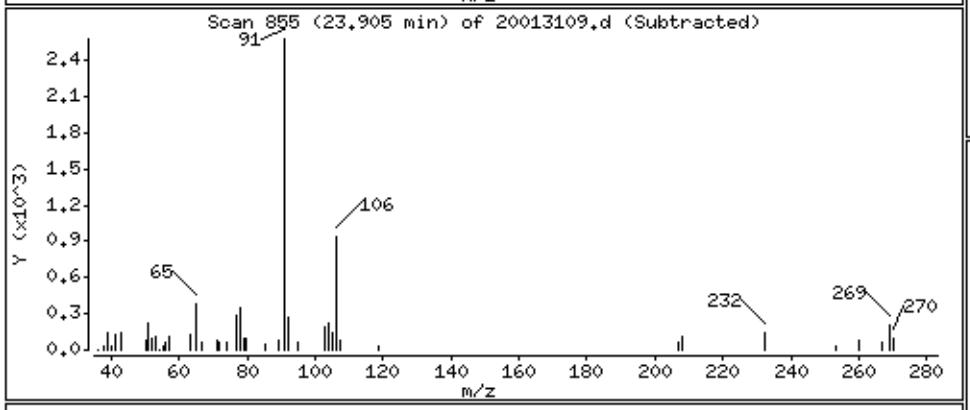
Column diameter: 0.32

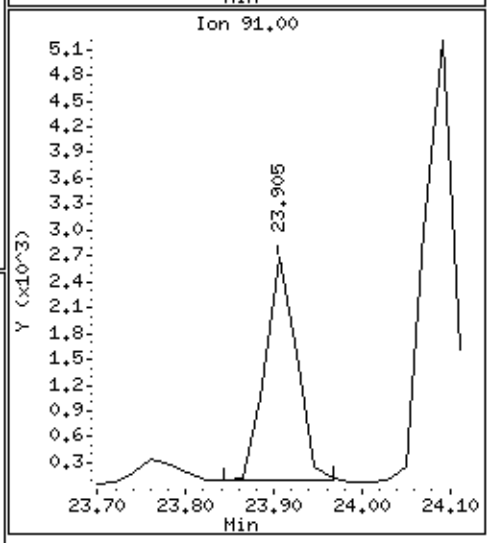
167 Ethyl Benzene

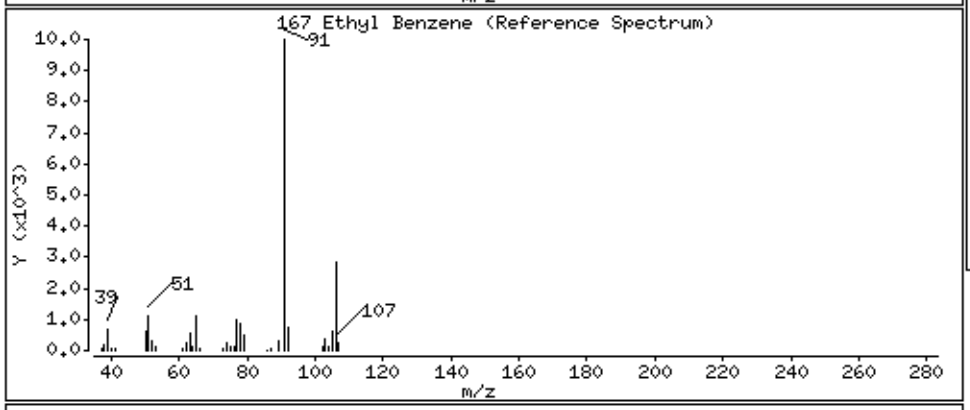
Concentration: 0.06214 PPBV

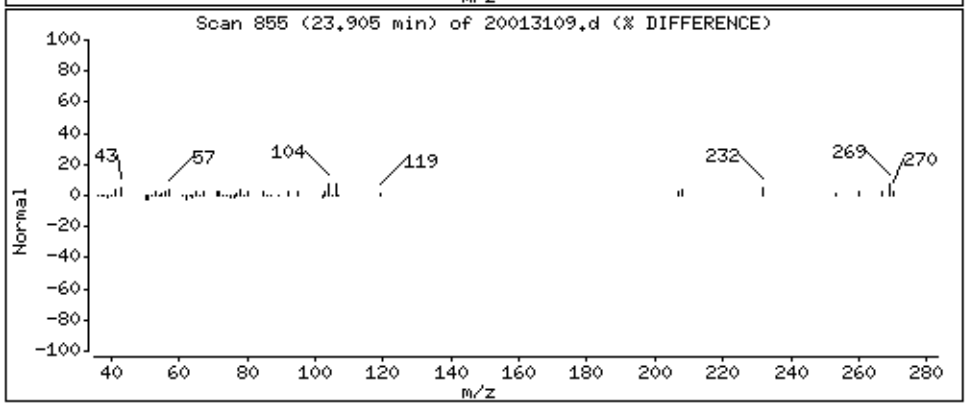












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

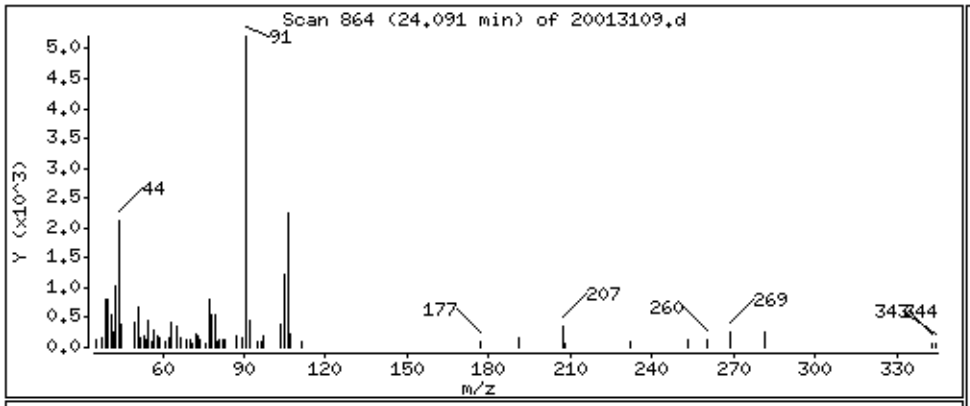
Operator: ef

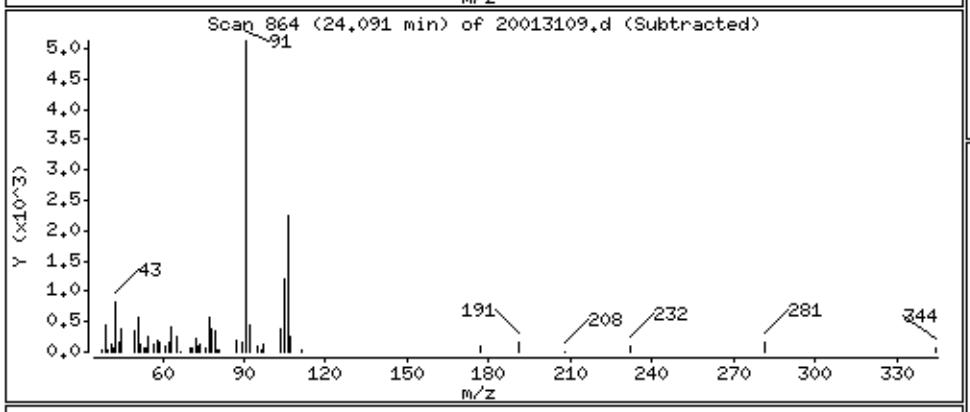
Column phase: RTX-624

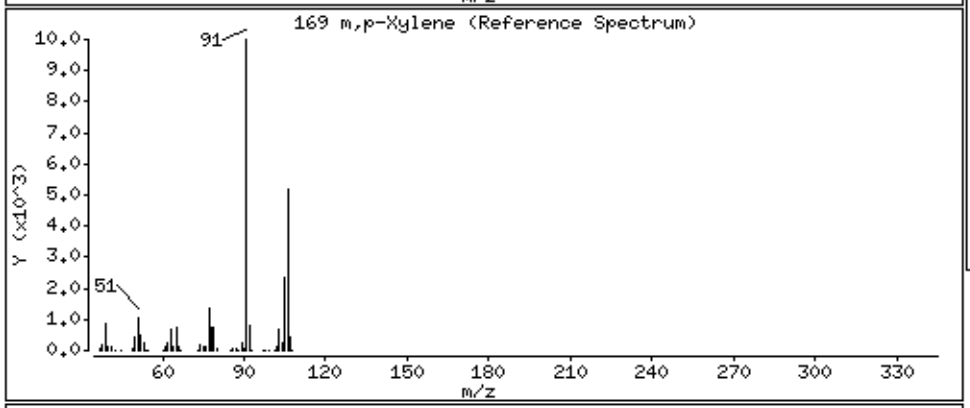
Column diameter: 0.32

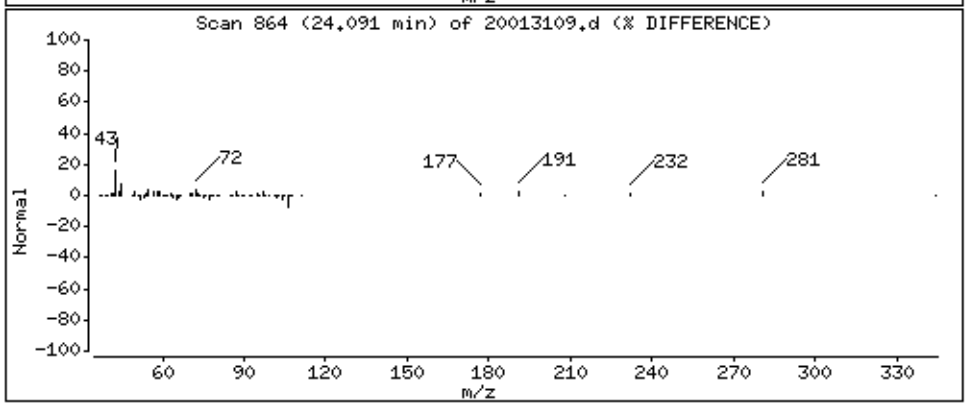
169 m,p-Xylene

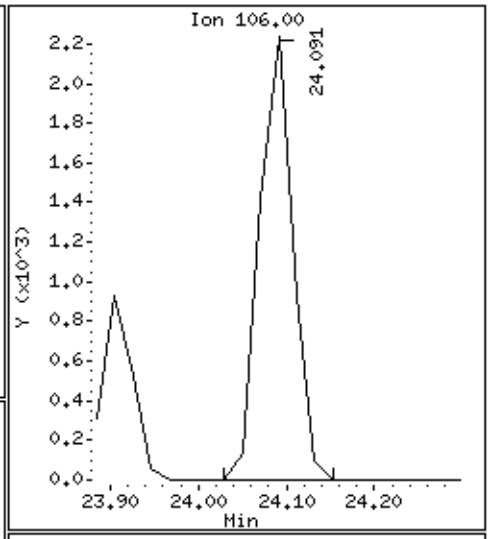
Concentration: 0.1565 PPBV

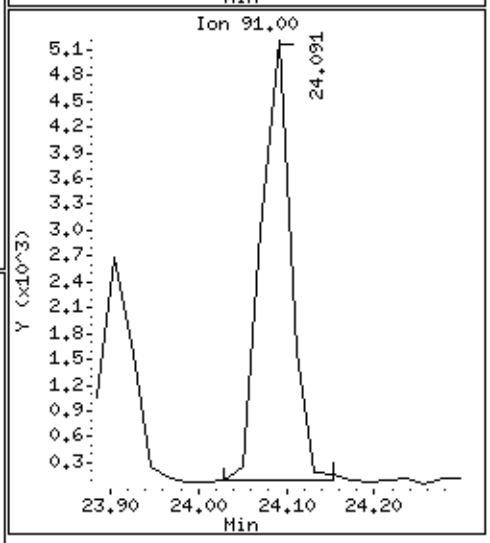












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

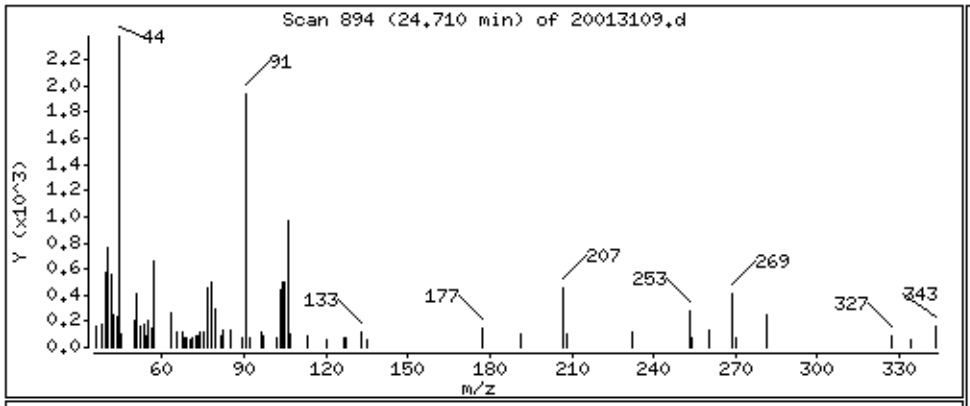
Operator: ef

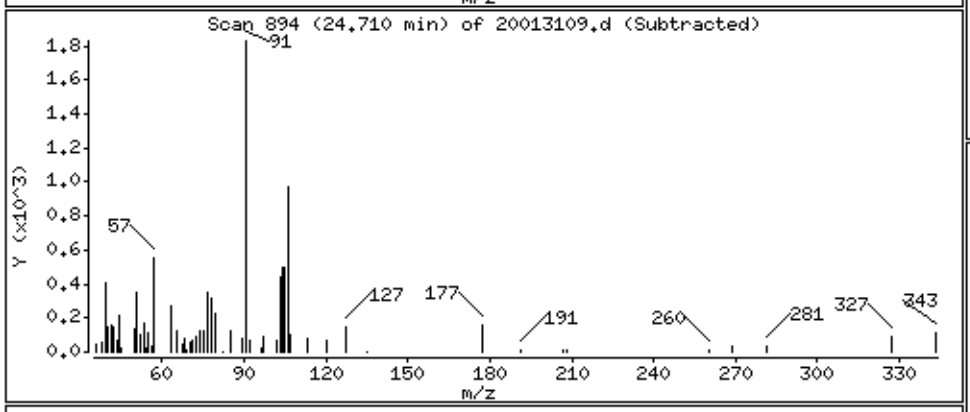
Column phase: RTX-624

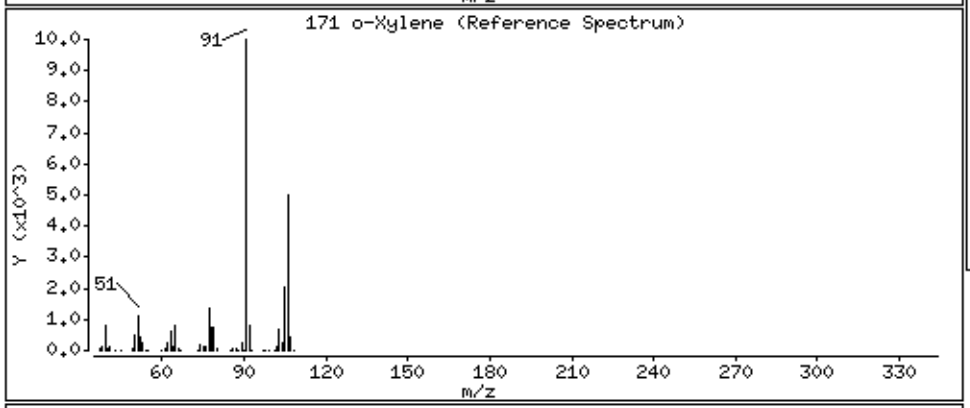
Column diameter: 0.32

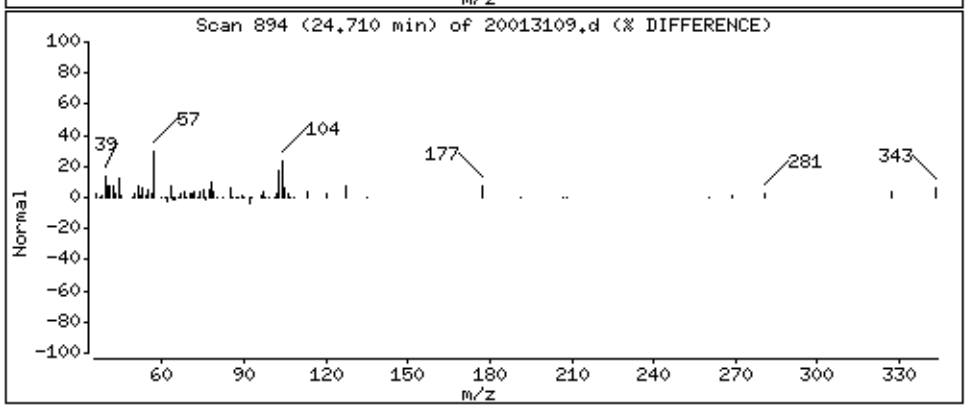
171 o-Xylene

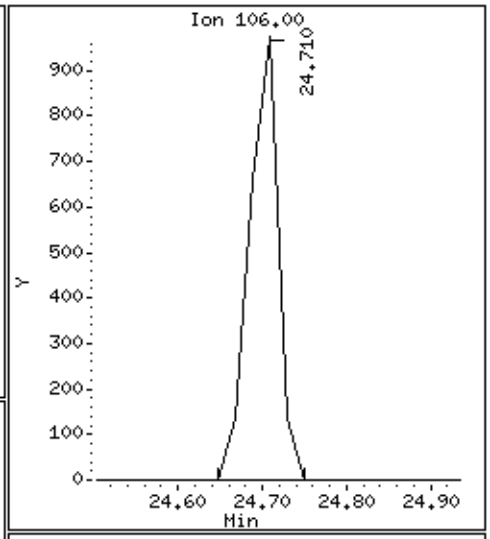
Concentration: 0.06633 PPBV

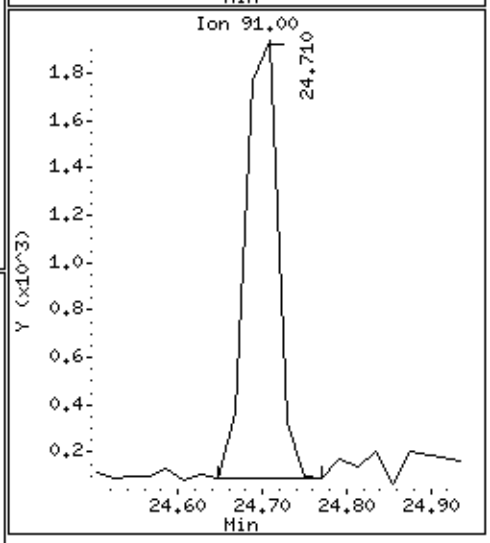












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

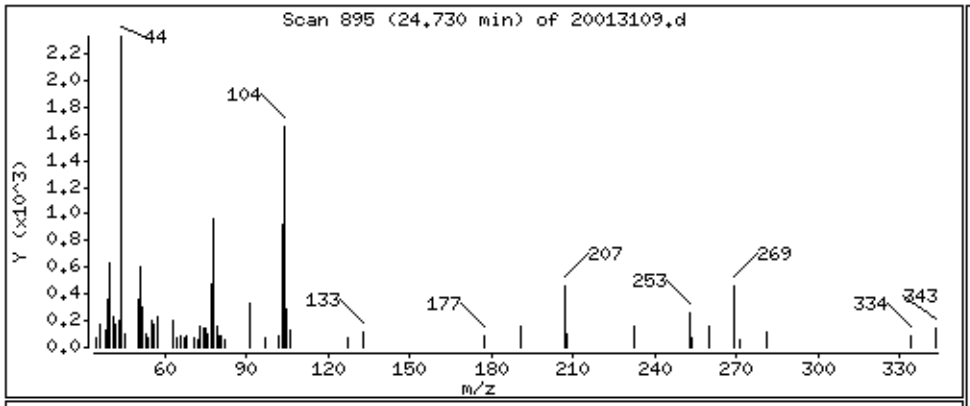
Operator: ef

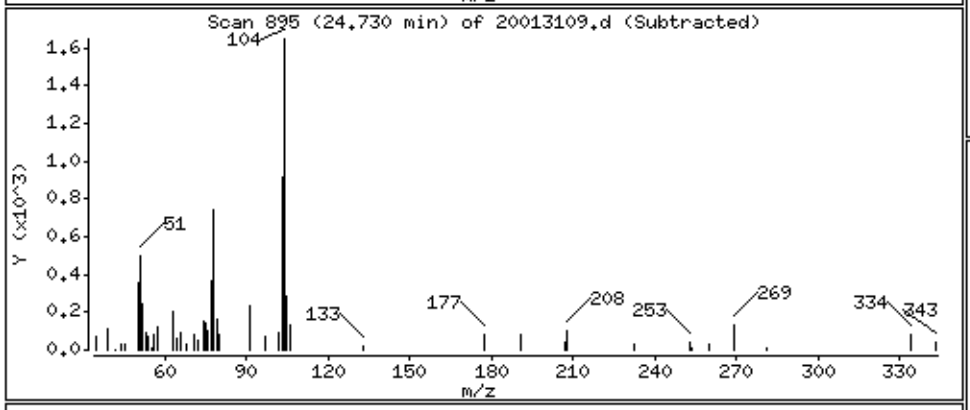
Column phase: RTX-624

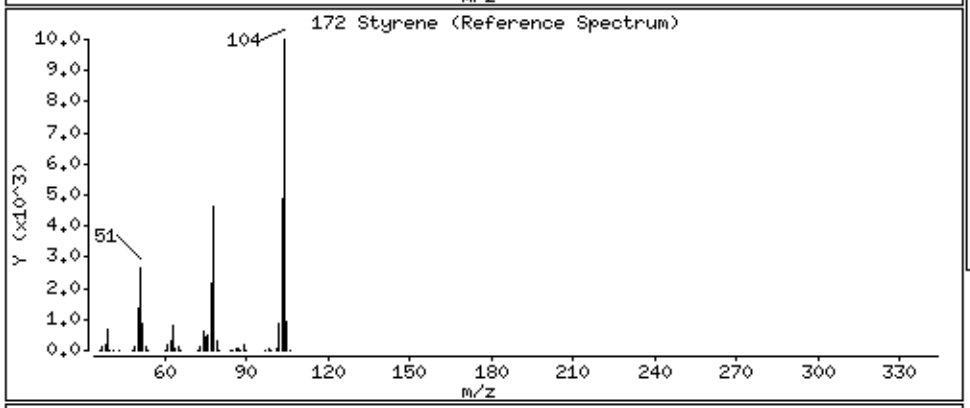
Column diameter: 0.32

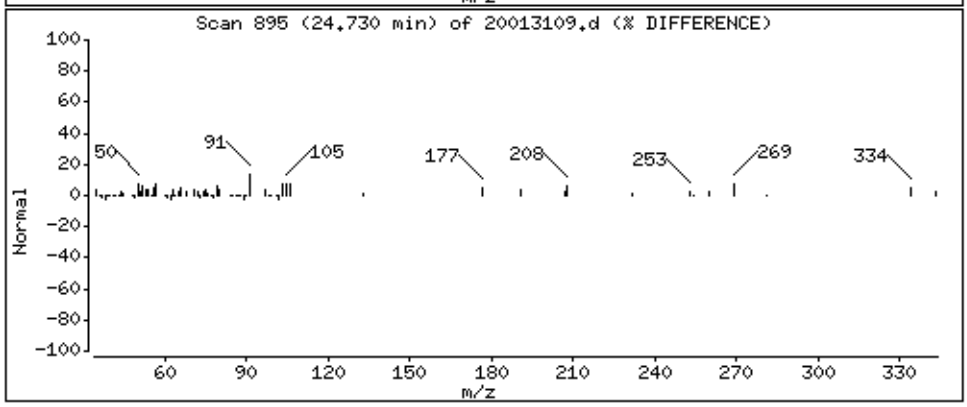
172 Styrene

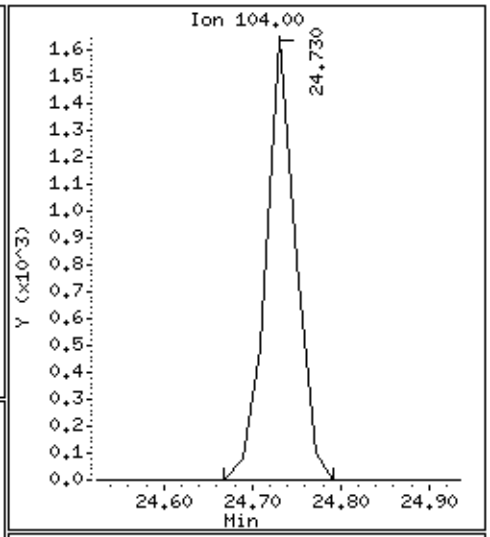
Concentration: 0.07444 PPBV

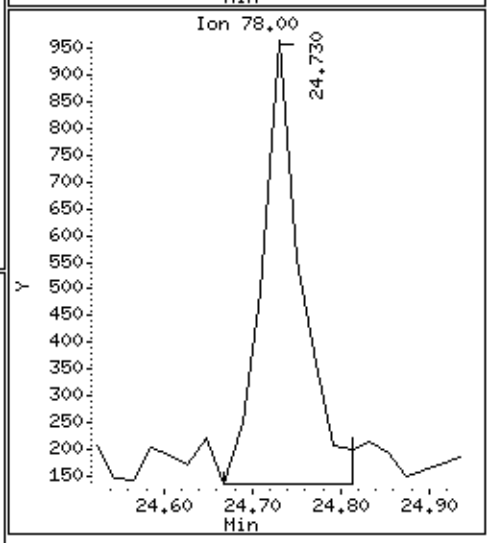












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

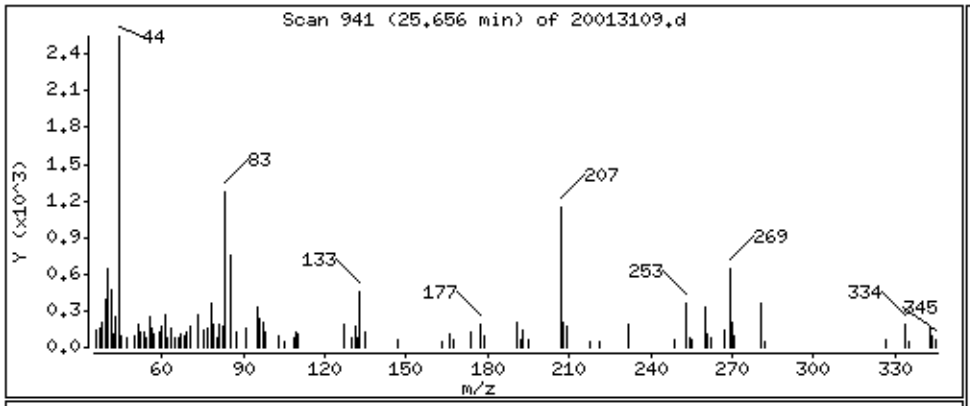
Operator: ef

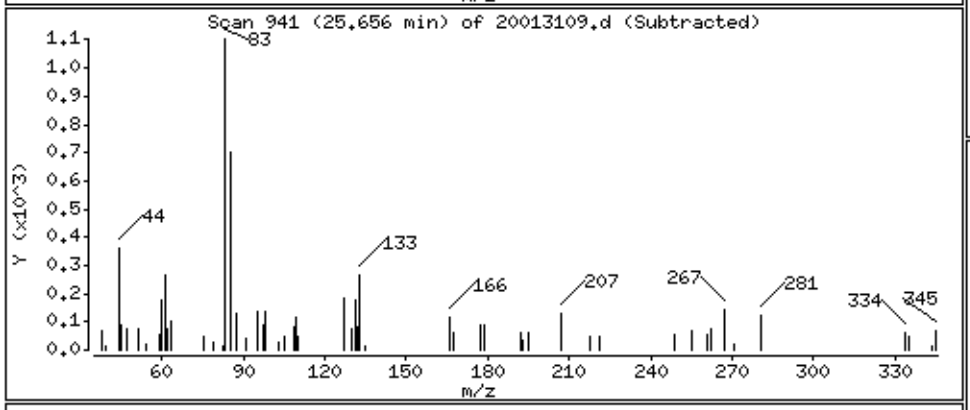
Column phase: RTX-624

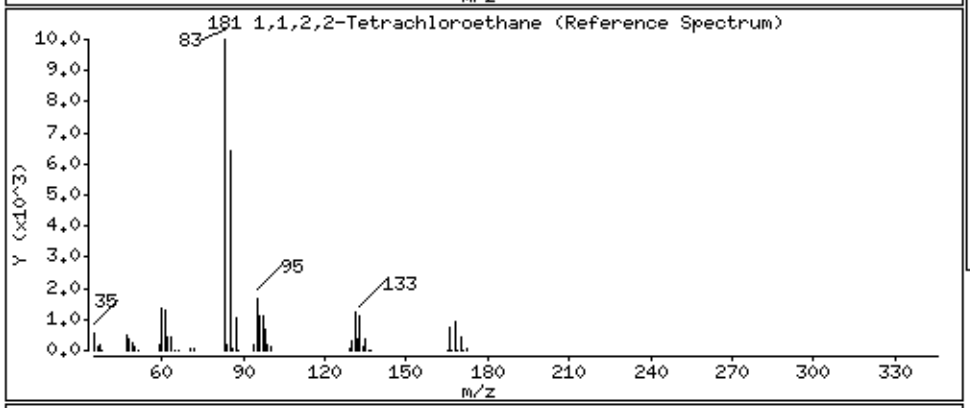
Column diameter: 0.32

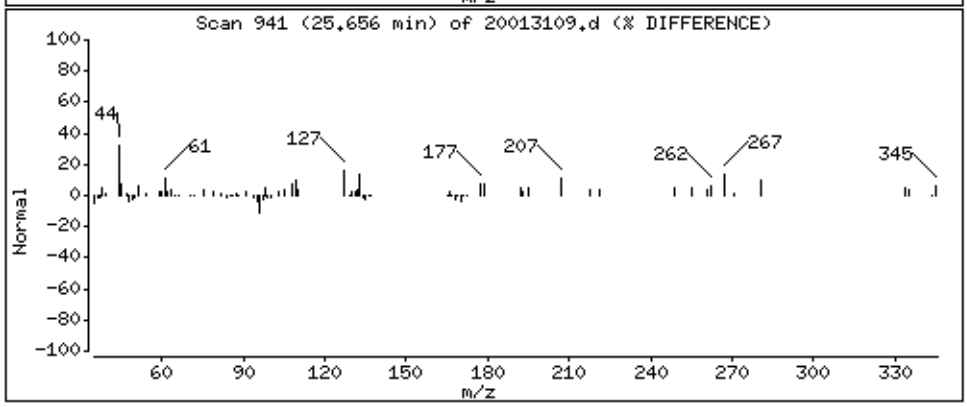
181 1,1,2,2-Tetrachloroethane

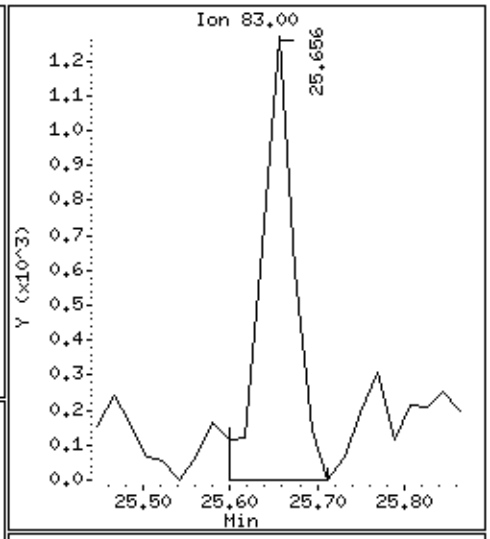
Concentration: 0.04853 PPBV

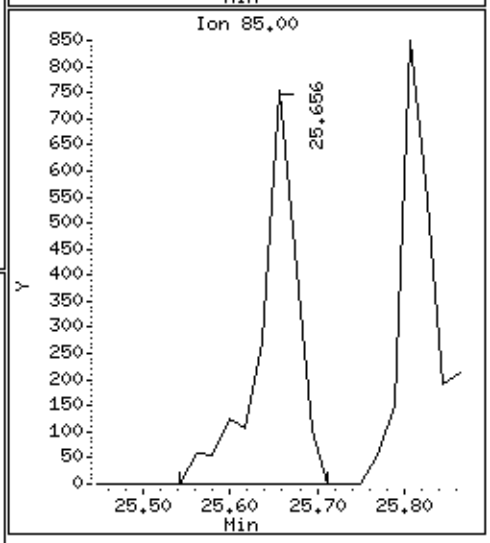












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

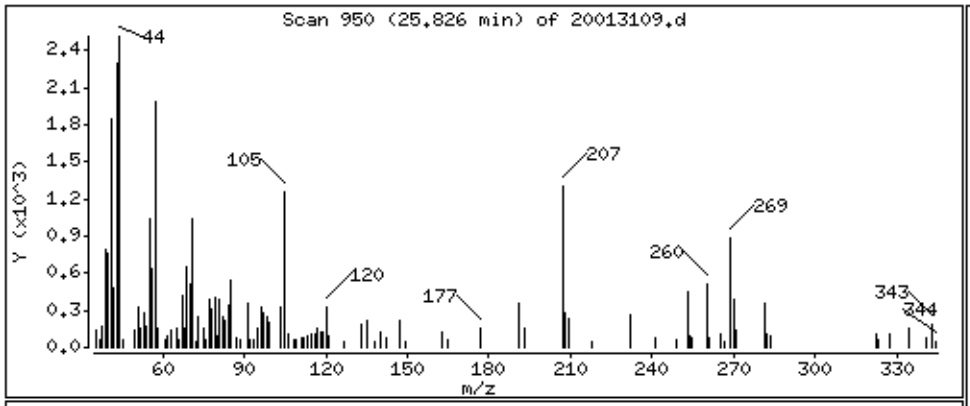
Operator: ef

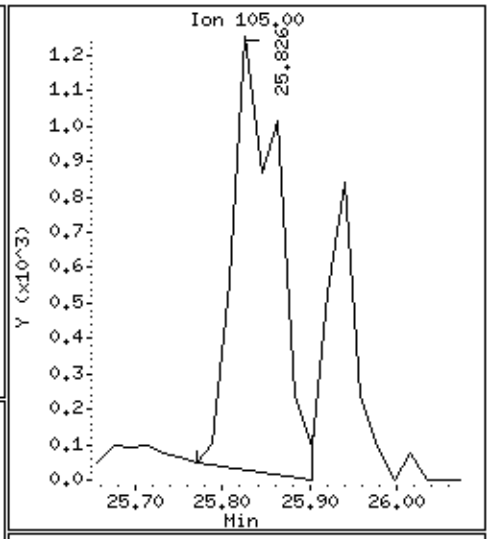
Column phase: RTX-624

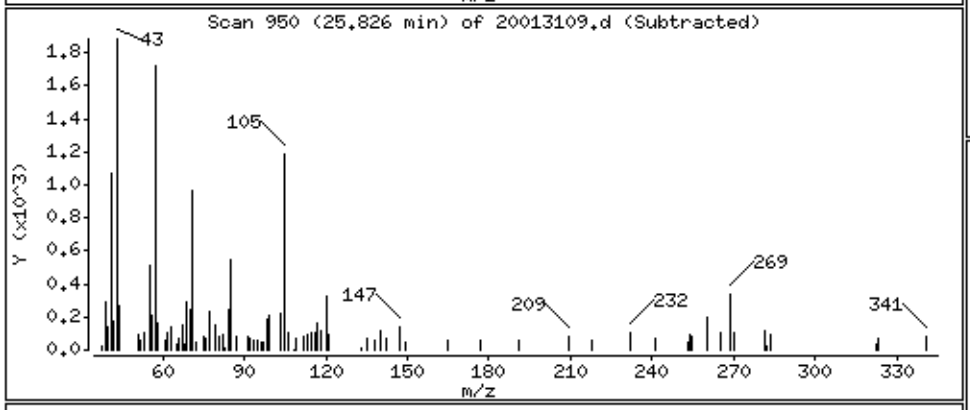
Column diameter: 0.32

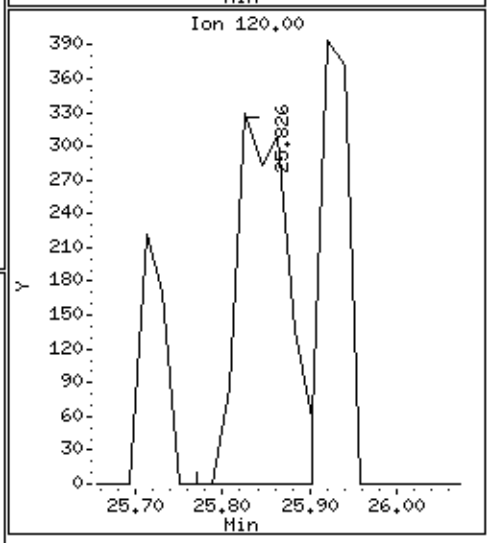
188 4-Ethyltoluene

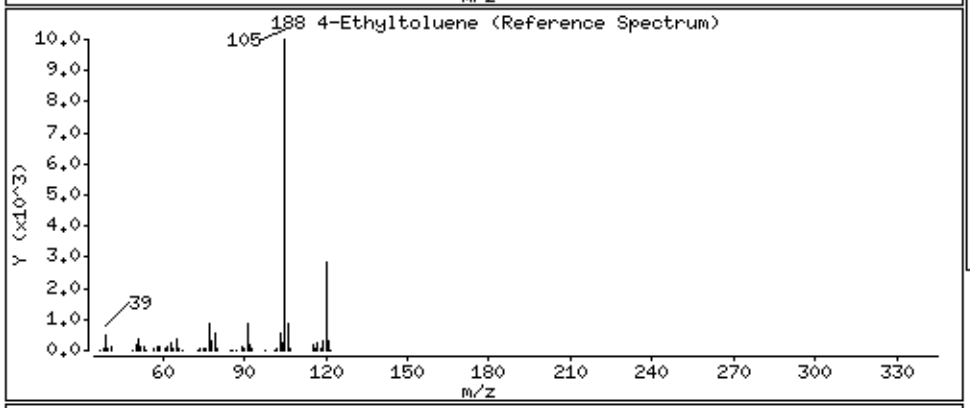
Concentration: 0.05155 PPBV

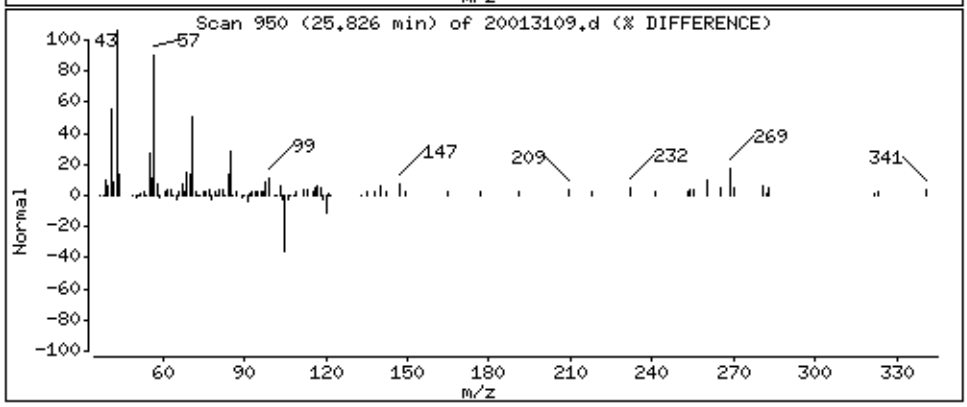












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

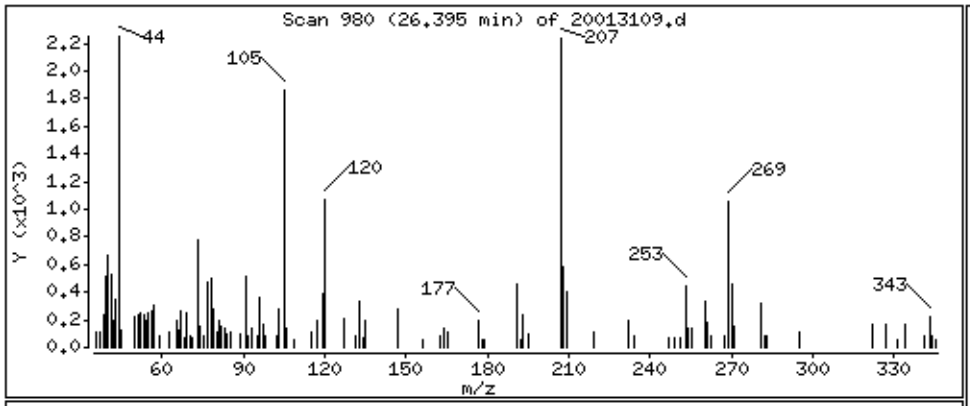
Operator: ef

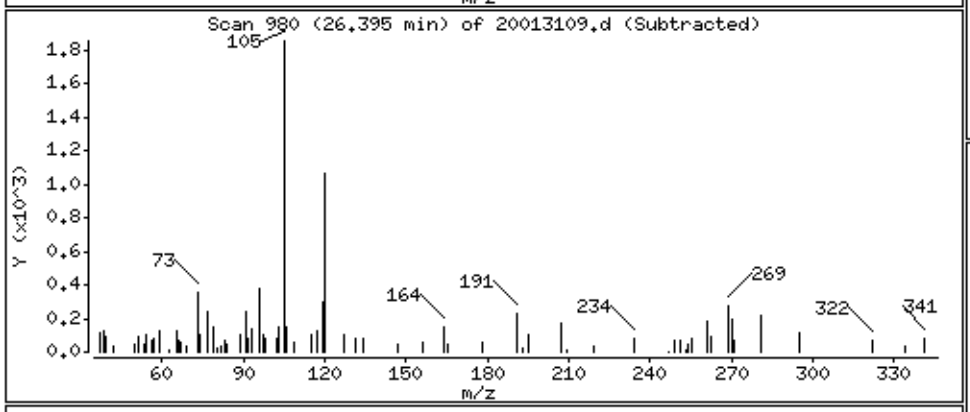
Column phase: RTX-624

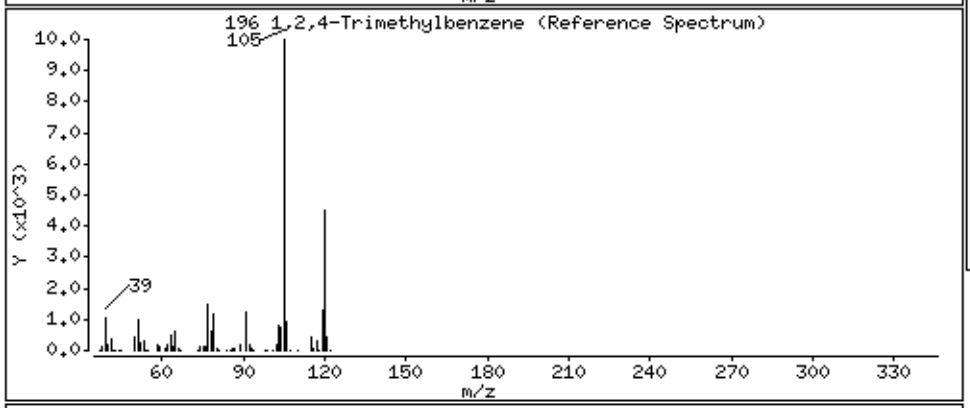
Column diameter: 0.32

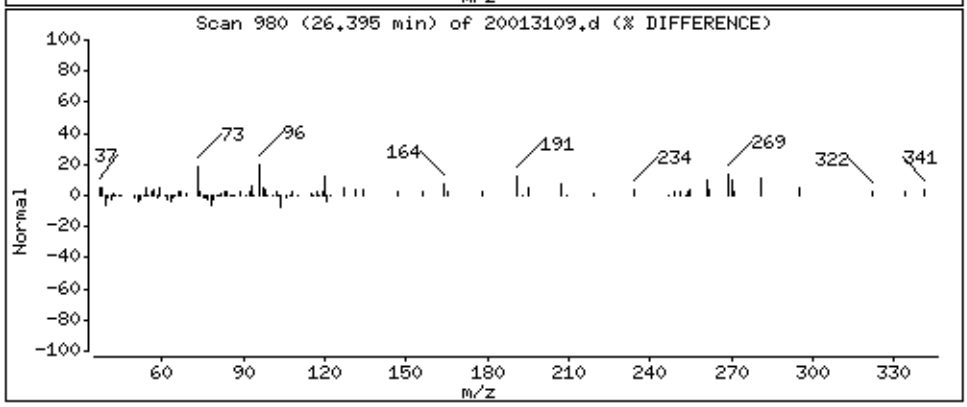
196 1,2,4-Trimethylbenzene

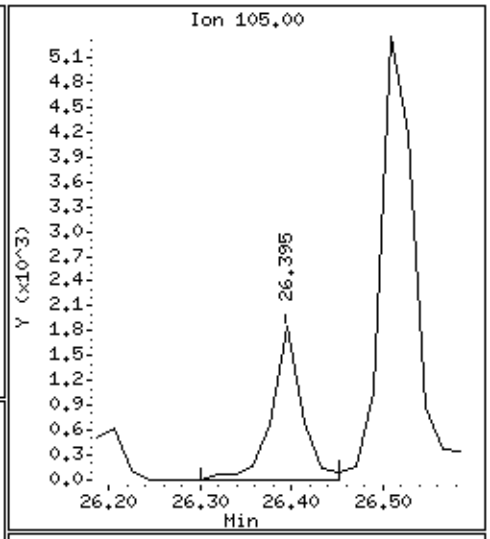
Concentration: 0.05612 PPBV

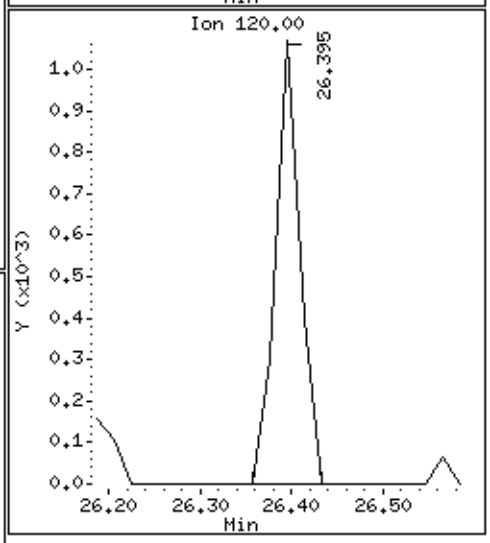












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

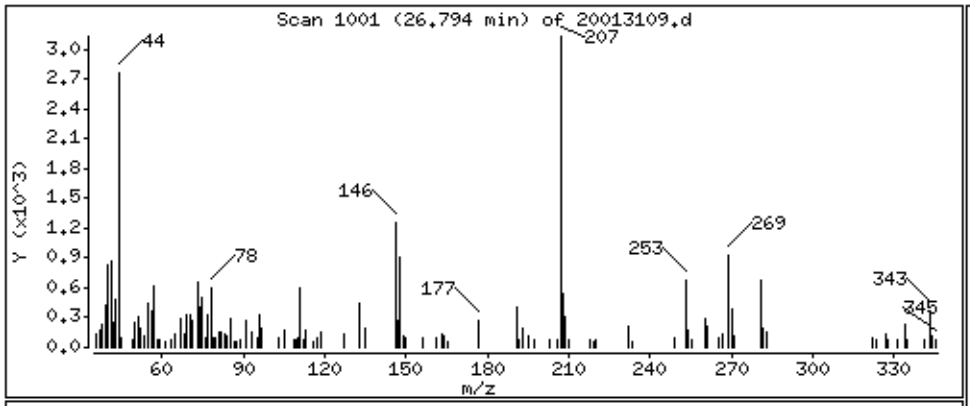
Operator: ef

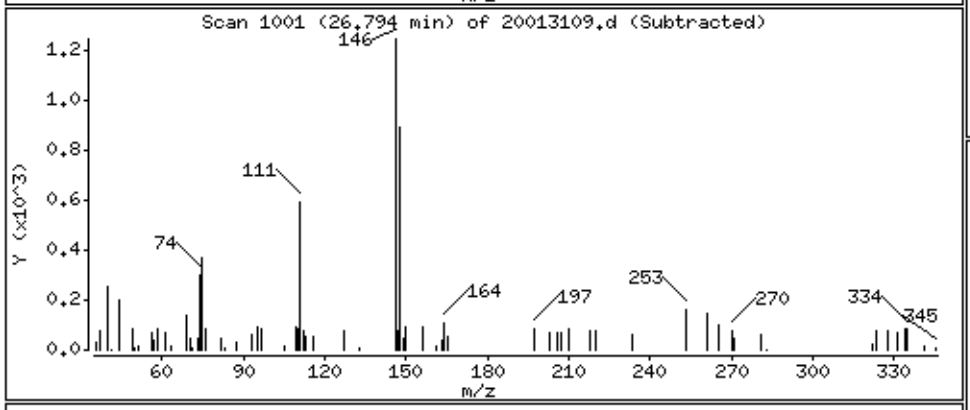
Column phase: RTX-624

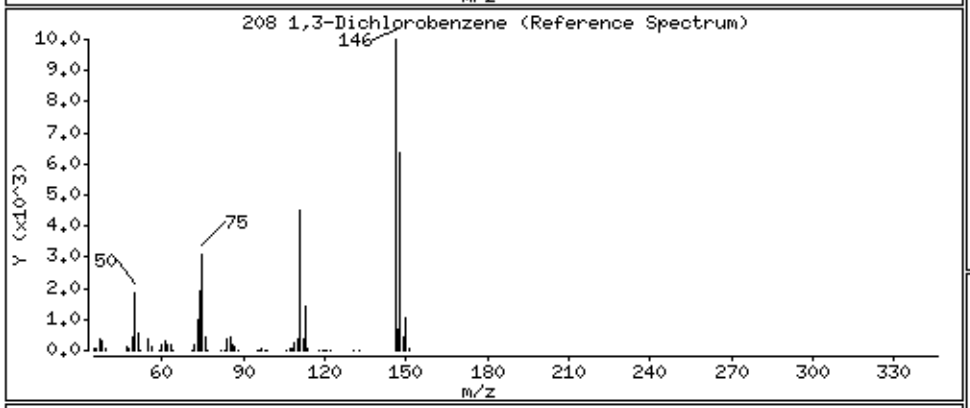
Column diameter: 0.32

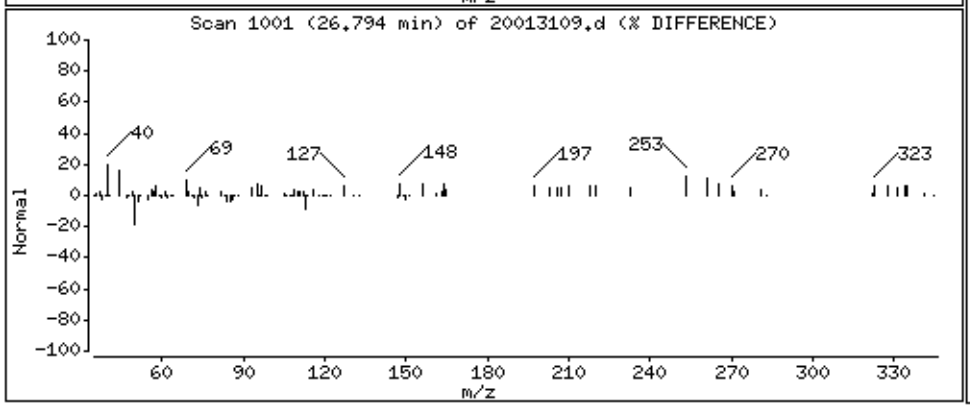
208 1,3-Dichlorobenzene

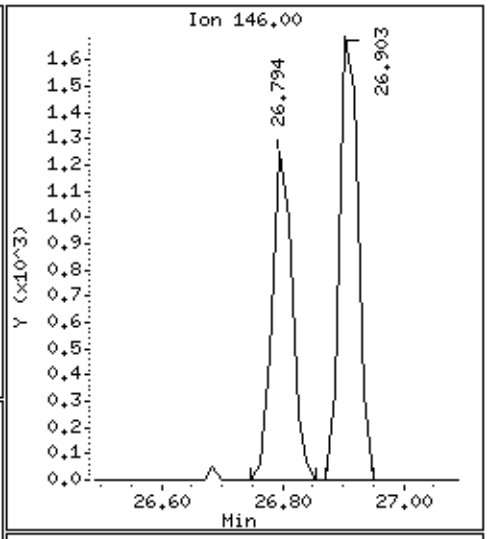
Concentration: 0.04678 PPBV

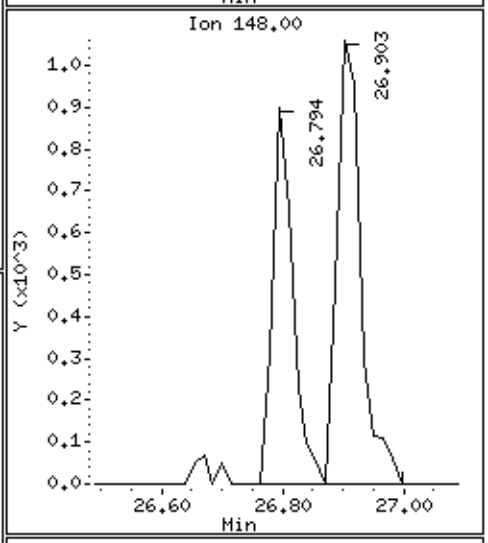


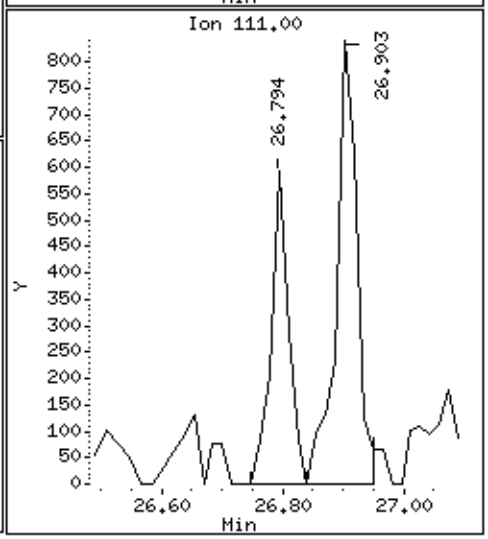












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

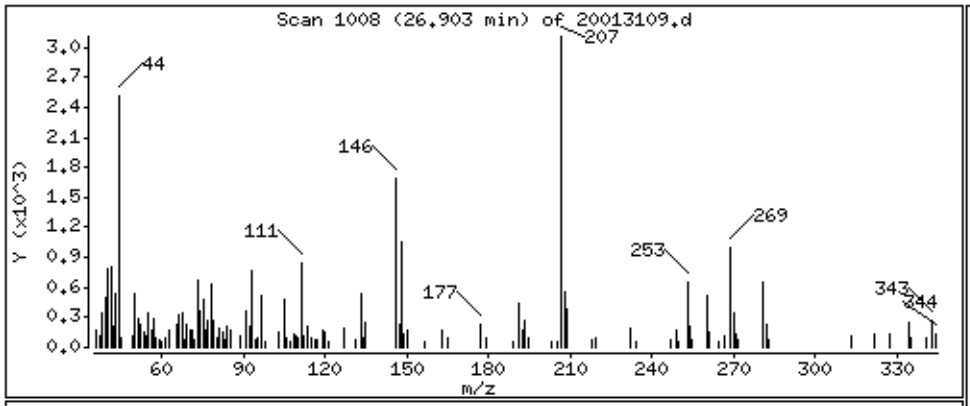
Operator: ef

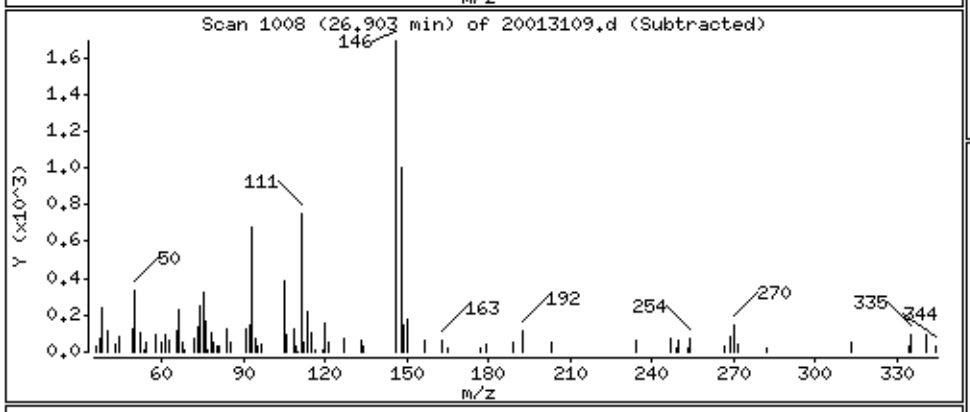
Column phase: RTX-624

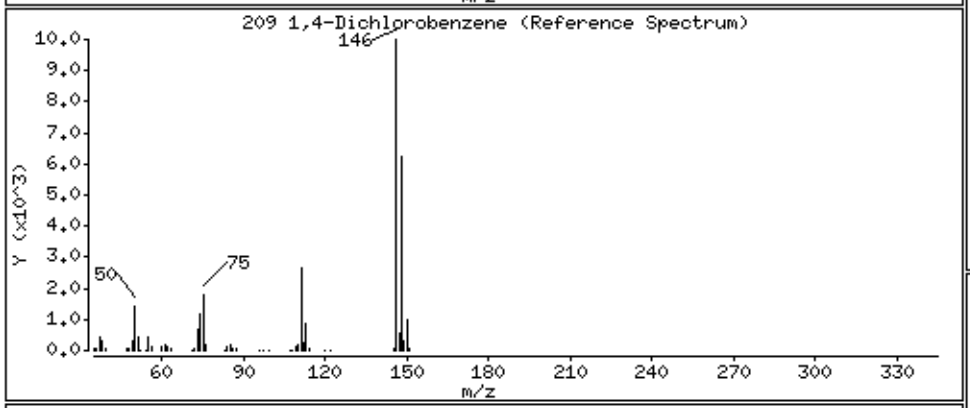
Column diameter: 0.32

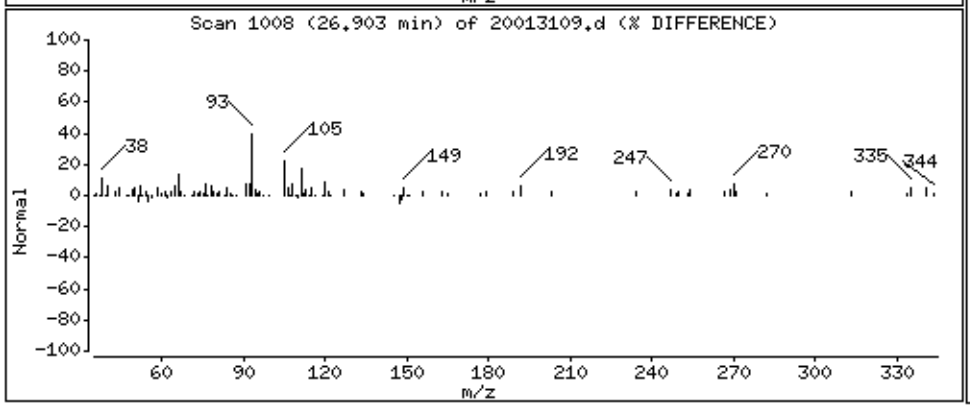
209 1,4-Dichlorobenzene

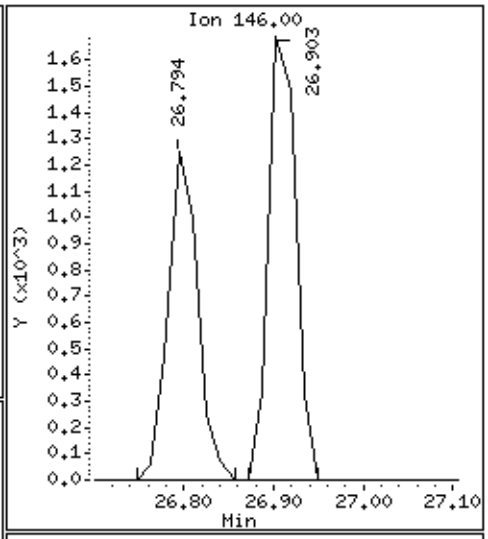
Concentration: 0.06084 PPBV

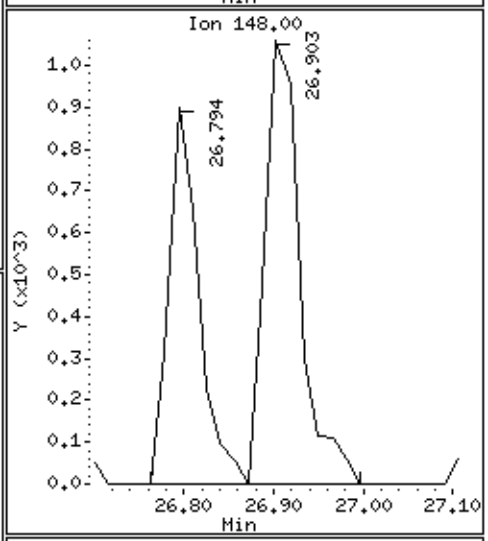


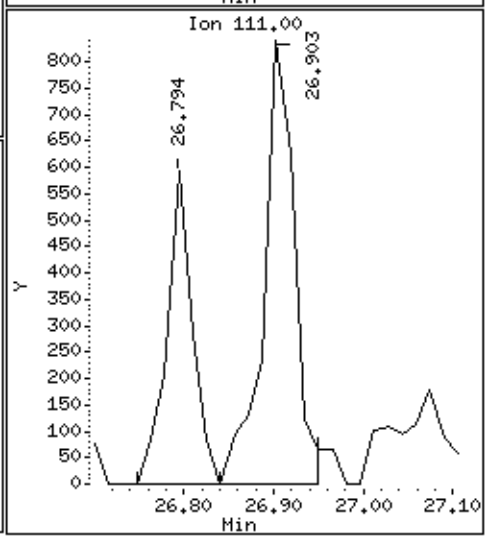












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

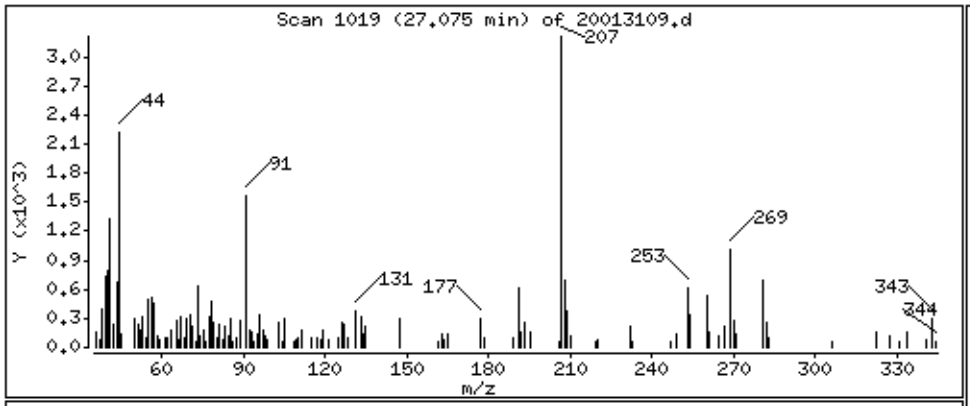
Operator: ef

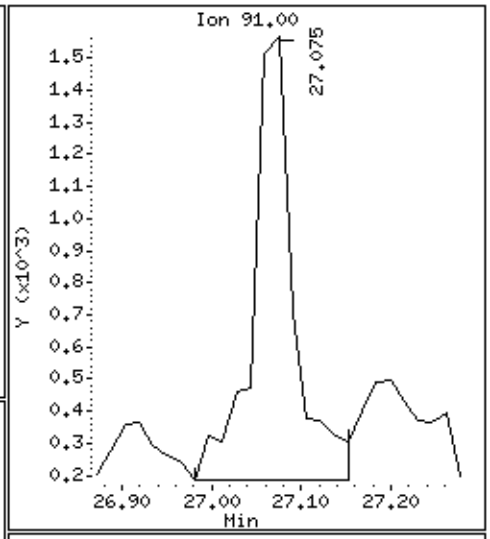
Column phase: RTX-624

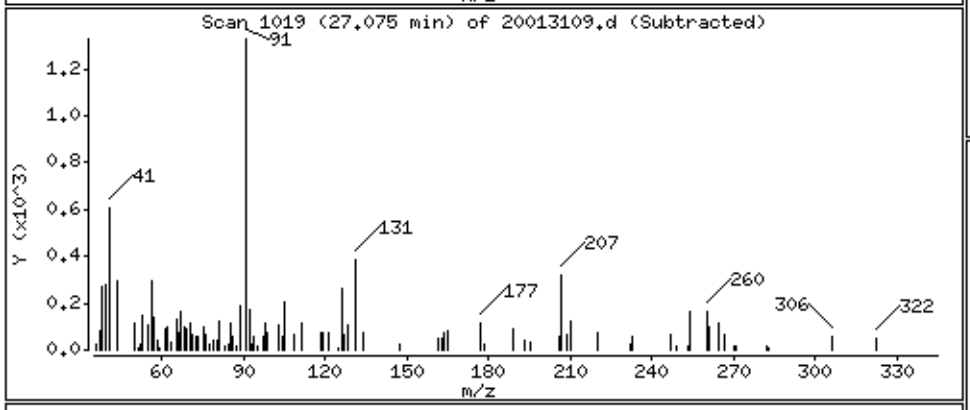
Column diameter: 0.32

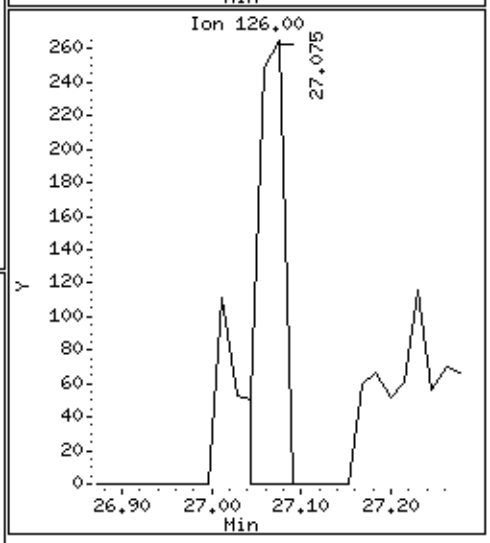
212 alpha-Chlorotoluene

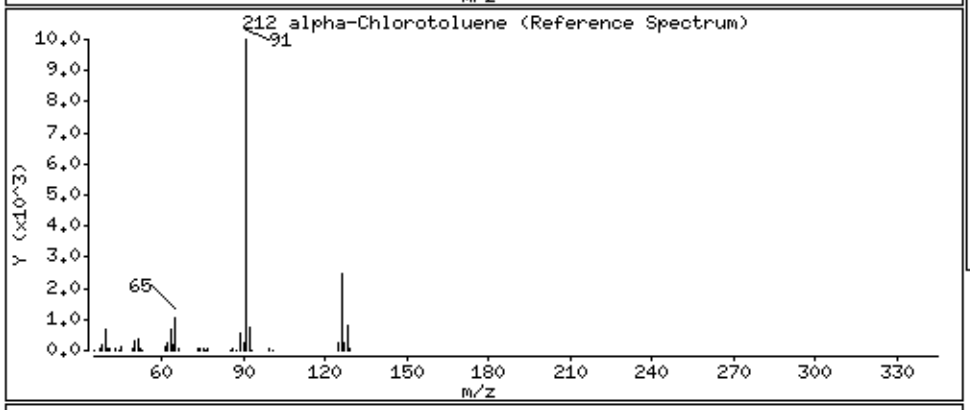
Concentration: 0.07149 PPBV

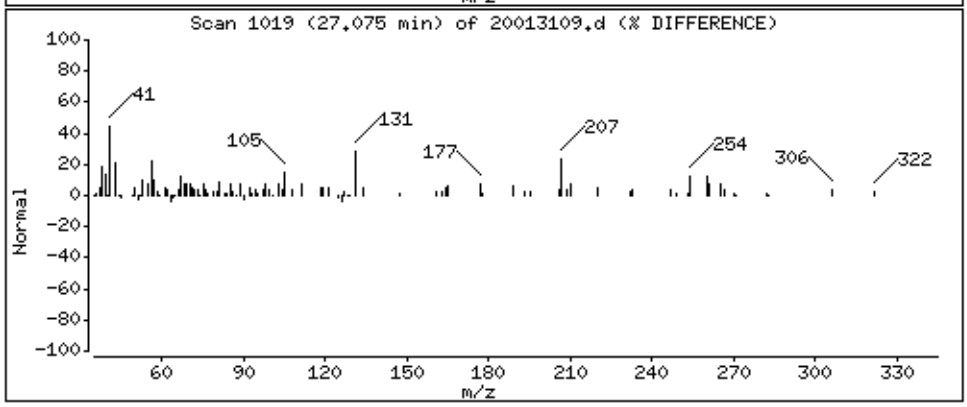












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

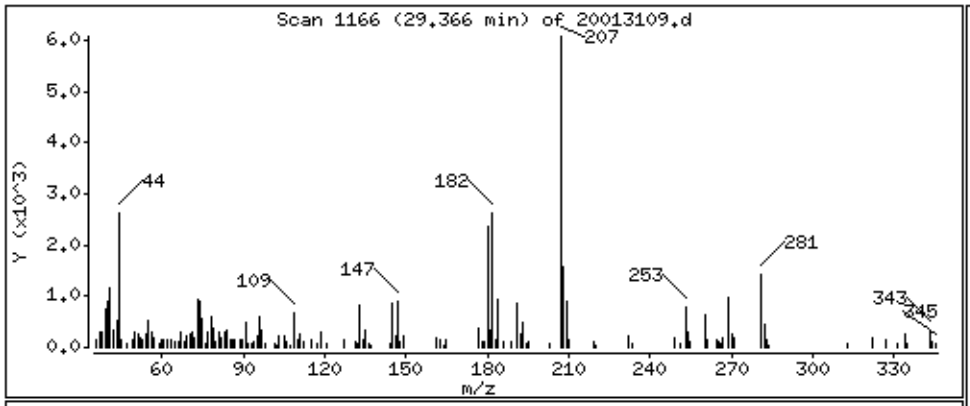
Operator: ef

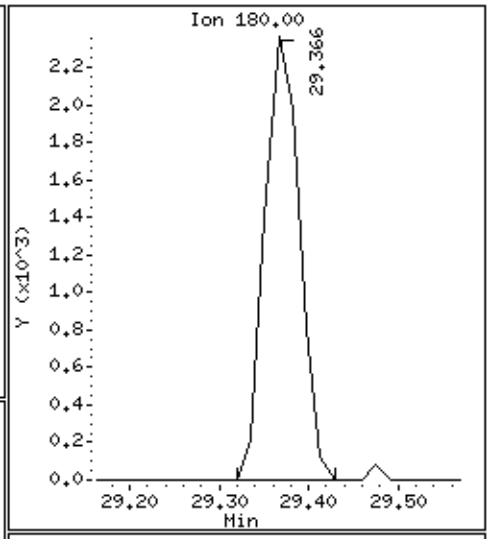
Column phase: RTX-624

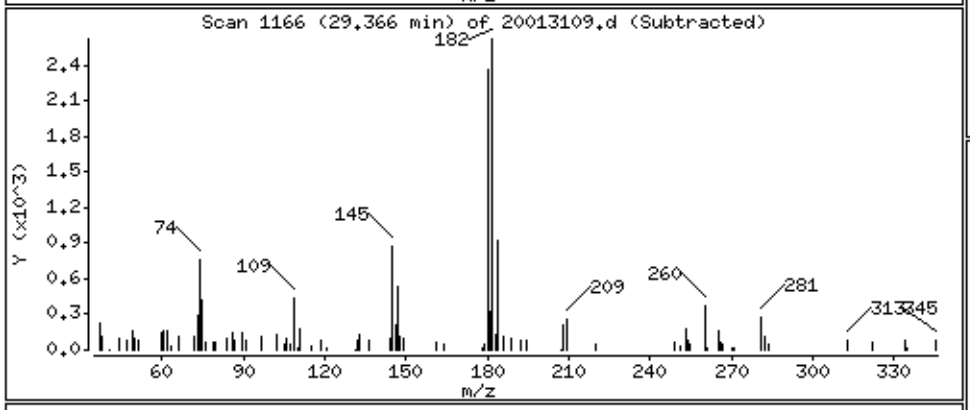
Column diameter: 0.32

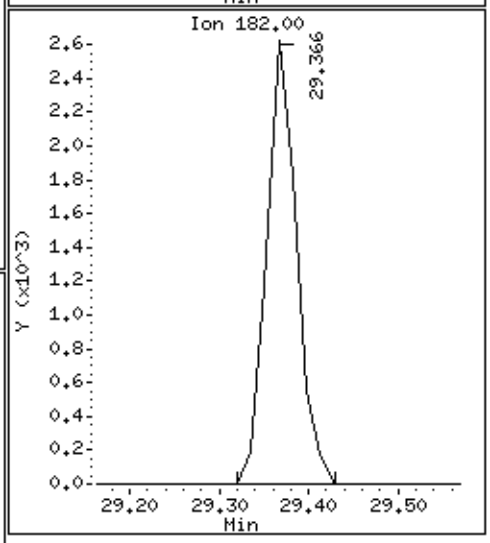
226 1,2,4-Trichlorobenzene

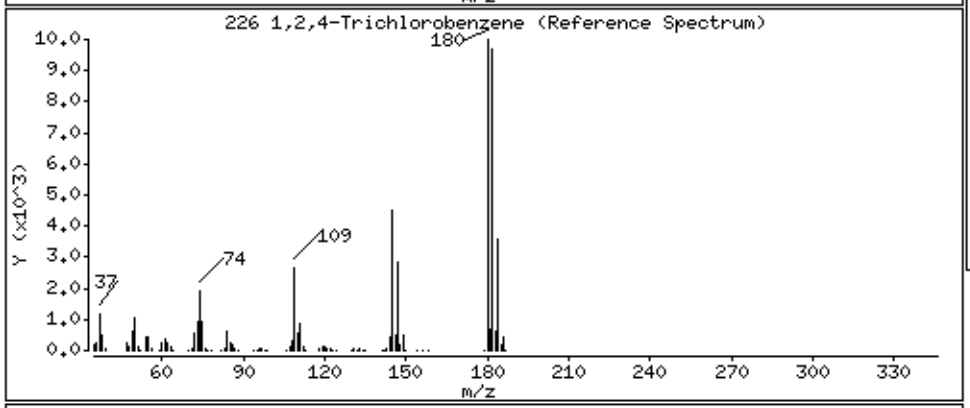
Concentration: 0.09415 PPBV

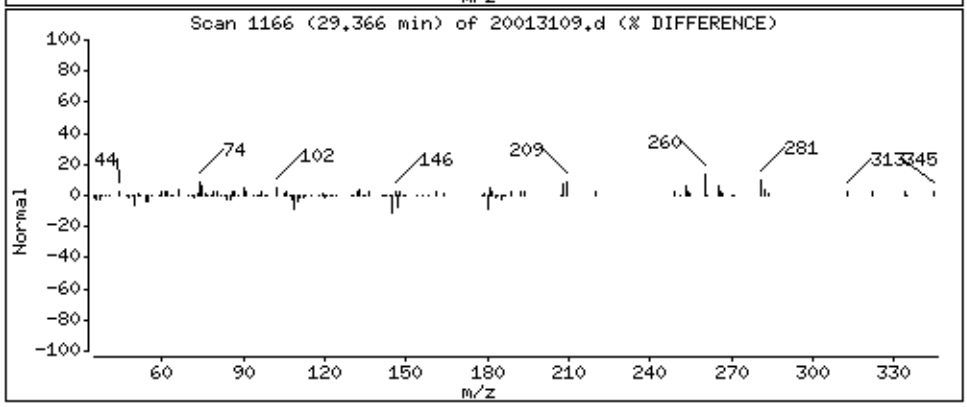












Data File: /chem/msd20.i/31Jan2017a.b/20013109.d

Date : 31-JAN-2017 12:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25236

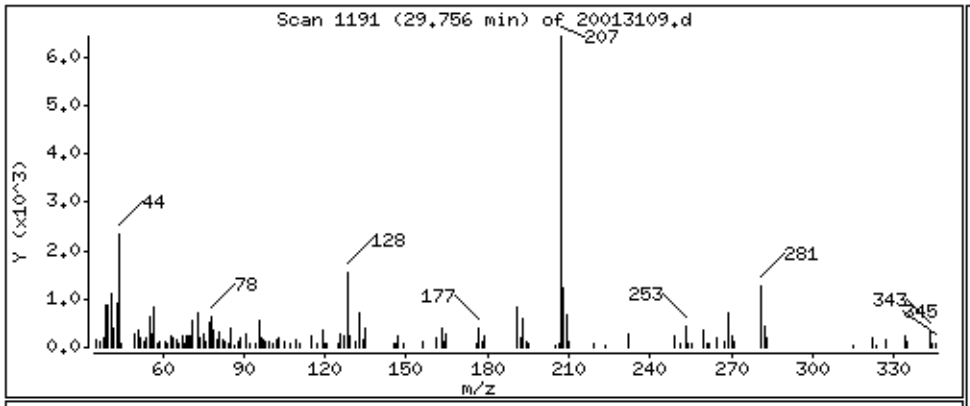
Operator: ef

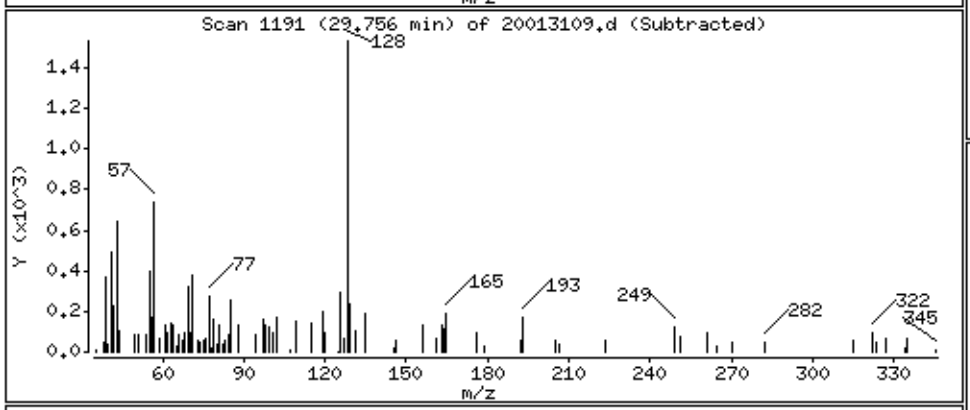
Column phase: RTX-624

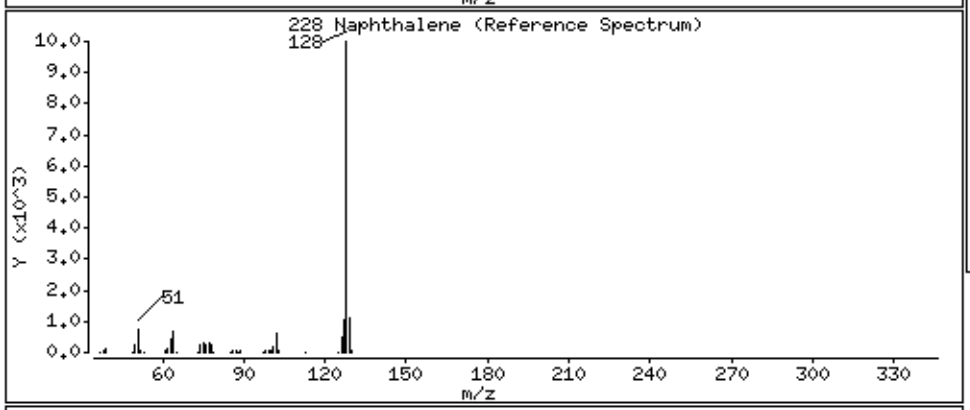
Column diameter: 0.32

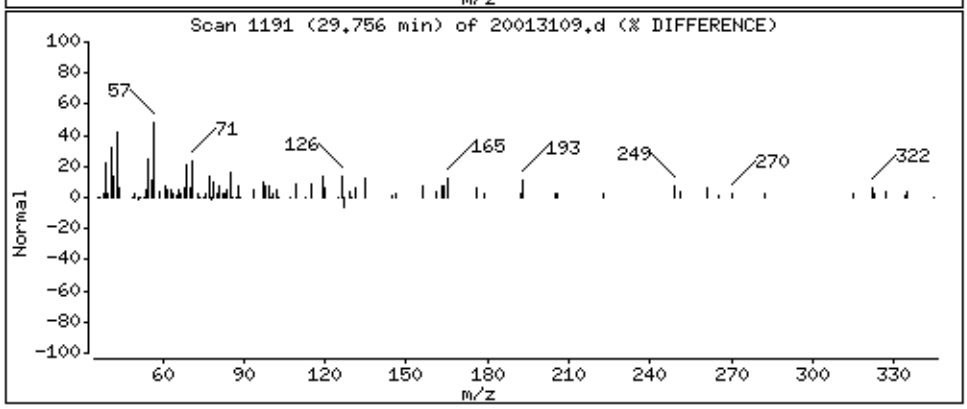
228 Naphthalene

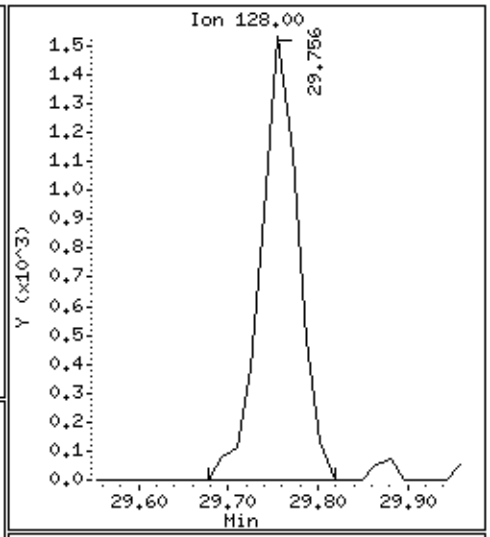
Concentration: 0.03639 PPBV

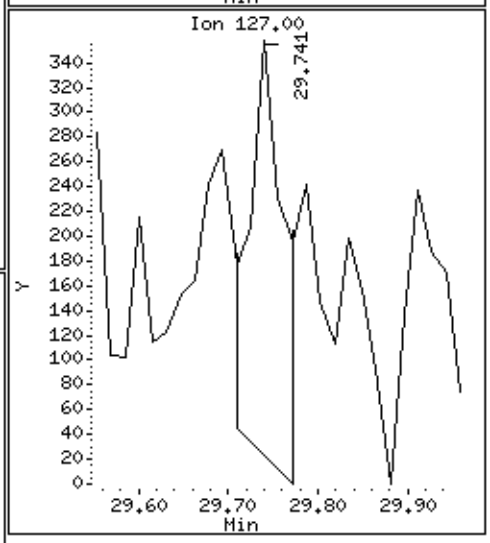












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-2-012117

Lab ID#: 1701428A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Chloromethane	0.82	0.84	1.7	1.7
Freon 11	0.16	0.33	0.92	1.9
Ethanol	0.82	14	1.5	27
Freon 113	0.16	0.070 J	1.2	0.53 J
Acetone	0.82	12	1.9	27
2-Propanol	0.82	15	2.0	36
Methylene Chloride	0.33	0.20 J	1.1	0.69 J
Hexane	0.16	0.083 J	0.58	0.29 J
2-Butanone (Methyl Ethyl Ketone)	0.82	1.3	2.4	3.9
Cyclohexane	0.16	0.044 J	0.56	0.15 J
Carbon Tetrachloride	0.16	0.066 J	1.0	0.41 J
Benzene	0.16	0.20	0.52	0.62
1,2-Dichloroethane	0.16	0.44	0.66	1.8
Heptane	0.16	0.063 J	0.67	0.26 J
4-Methyl-2-pentanone	0.16	0.11 J	0.67	0.45 J
Toluene	0.16	0.63	0.62	2.4
2-Hexanone	0.82	0.13 J	3.4	0.52 J
Ethyl Benzene	0.16	0.051 J	0.71	0.22 J
m,p-Xylene	0.16	0.12 J	0.71	0.53 J
o-Xylene	0.16	0.060 J	0.71	0.26 J
Styrene	0.16	0.091 J	0.70	0.39 J
1,2,4-Trimethylbenzene	0.16	0.037 J	0.81	0.18 J
1,4-Dichlorobenzene	0.16	0.046 J	0.99	0.28 J

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Client Sample ID: B30IA-2-012117

Lab ID#: 1701428A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013110**	**Date of Collection:**	**1/21/17 6:20:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**1/31/17 12:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	0.84	1.7	1.7
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.33	0.92	1.9
Ethanol	0.82	14	1.5	27
Freon 113	0.16	0.070 J	1.2	0.53 J
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	12	1.9	27
2-Propanol	0.82	15	2.0	36
Carbon Disulfide	0.82	Not Detected	2.6	Not Detected
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.20 J	1.1	0.69 J
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.083 J	0.58	0.29 J
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	1.3	2.4	3.9
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	0.044 J	0.56	0.15 J
Carbon Tetrachloride	0.16	0.066 J	1.0	0.41 J
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.20	0.52	0.62
1,2-Dichloroethane	0.16	0.44	0.66	1.8
Heptane	0.16	0.063 J	0.67	0.26 J
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	0.11 J	0.67	0.45 J
Toluene	0.16	0.63	0.62	2.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	0.13 J	3.4	0.52 J

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Client Sample ID: B30IA-2-012117

Lab ID#: 1701428A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013110**	**Date of Collection:**	**1/21/17 6:20:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**1/31/17 12:54 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	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.051 J	0.71	0.22 J
m,p-Xylene	0.16	0.12 J	0.71	0.53 J
o-Xylene	0.16	0.060 J	0.71	0.26 J
Styrene	0.16	0.091 J	0.70	0.39 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.81	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,2,4-Trimethylbenzene	0.16	0.037 J	0.81	0.18 J
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	0.046 J	0.99	0.28 J
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
Naphthalene	0.82	Not Detected	4.3	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	109	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017a.b/20013110.d
Lab Smp Id: 1701428A-02A
Inj Date : 31-JAN-2017 12:54
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# N1755
Misc Info : 5.5"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 11:54 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.64000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.696 (1.000)	130	160769	5.00000		80.00- 120.00	100.00
16.726	16.696 (1.000)	128	123196			46.97- 106.97	76.63
16.726	16.696 (1.000)	49	192817			76.21- 136.21	119.93
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	504978	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	76696			0.00- 45.59	15.19
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	467359	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	261332			23.26- 83.26	55.92
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.621	17.620 (1.053)	65	227727	5.74076	5.741	80.00- 120.00	100.00
17.621	17.620 (1.053)	67	121724			31.78- 91.78	53.45
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	466744	4.83407	4.834	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	55598			0.00- 40.33	11.91

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    295628                    35.56-  95.56    63.34
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    273036 5.47447    5.474  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    312764                   79.94- 139.94   114.55
 25.466  25.466 (1.072)   176    261904                   67.24- 127.24    95.92
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.648 (0.279)    85     35334 0.28993   0.4755  70.00- 130.00   100.00
  4.672   4.648 (0.279)    87     10956                    0.00-  30.00    31.01
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.577   6.552 (0.393)    50     19224 0.51319   0.8416  80.00- 120.00   100.00
  6.577   6.552 (0.393)    52      3577                    3.24-  63.24    18.61
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101     24840 0.20357   0.3339  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103     17234                   34.37-  94.37    69.38
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.297  12.269 (0.735)    45    141522 8.61237   14.124  80.00- 120.00   100.00
 12.297  12.269 (0.735)    46     52195                   10.33-  70.33    36.88
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.761)   151      3873 0.04253  0.06975  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      2393                   33.68-  93.68    61.79
 12.736  12.736 (0.761)   101      4754                   86.77- 146.77   122.75
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.066 (0.783)    58    159690 7.04942   11.561  80.00- 120.00   100.00
 13.093  13.066 (0.783)    43    482985                  253.28- 313.28   302.45
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.533 (0.811)    45    544601 8.94946   14.677  80.00- 120.00   100.00
 13.560  13.533 (0.811)    43    183180                    0.00-  52.74    33.64
 13.560  13.533 (0.811)    59     24533                    0.00-  34.43     4.50
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      5992 0.12188   0.1999  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      7845                   80.28- 140.28   130.92
 14.027  14.027 (0.839)    51      2907                    4.61-  64.61    48.51
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57      3296 0.05075  0.08322  80.00- 120.00   100.00(a)
 14.933  14.878 (0.893)    43      8793                   28.29-  88.29   266.78
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   78 Hexane (continued)
 14.878  14.878 (0.889)    86       509                     0.00-  48.18    15.44
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.323 (0.977)    72     17672 0.80005    1.312  80.00- 120.00   100.00
 16.344  16.323 (0.977)    43     72652                  300.25- 360.25   411.11
 16.344  16.323 (0.977)    57      6166                     0.00-  58.21    34.89
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84      1738 0.02660  0.04363  80.00- 120.00   100.00(a)
 17.035  17.035 (1.018)    56      2959                    76.62- 136.62   170.25
 17.035  17.035 (1.018)    41      2835                    21.84-  81.84   163.12
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119      3436 0.03997  0.06555  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      3551                    73.50- 133.50   103.35
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.621  17.620 (0.968)    78     14356 0.11898   0.1951  80.00- 120.00   100.00
 17.621  17.620 (0.968)    77      3976                     0.00-  53.26    27.70
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.744  17.744 (0.974)    62     12540 0.26807   0.4396  80.00- 120.00   100.00
 17.744  17.744 (0.974)    64      4077                     2.82-  62.82    32.51
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.847  17.826 (0.980)    57      1187 0.03831  0.06283  80.00- 120.00   100.00(a)
 17.744  17.847 (0.974)   100       491                     8.23-  68.23    41.36
 17.847  17.826 (0.980)    43      3155                   141.33- 201.33   265.80
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.541  20.541 (1.128)    43      4392 0.06673   0.1094  80.00- 120.00   100.00(a)
 20.557  20.557 (1.129)    58      1194                    12.96-  72.96    27.19
 20.557  20.557 (1.129)    85       587                     0.00-  50.79    13.37
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.946  20.946 (1.150)    91     50732 0.38216   0.6267  80.00- 120.00   100.00
 20.946  20.946 (1.150)    92     29203                    29.12-  89.12    57.56
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.377  22.377 (0.942)    58      3079 0.07757   0.1272  80.00- 120.00   100.00(a)
 22.377  22.377 (0.942)    43      5001                   137.01- 197.01   162.42
 22.377  22.377 (0.942)   100       458                     0.00-  53.27    14.87
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.905 (1.006)   106      1699 0.03109  0.05098  80.00- 120.00   100.00(a)
```

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

  167 Ethyl Benzene (continued)
 23.906  23.905 (1.006)    91      5298                  275.87- 335.87   311.83
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106      4253 0.07401   0.1214  80.00- 120.00   100.00(a)
 24.091  24.091 (1.014)    91      8715                  163.30- 223.30   204.91
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106      1972 0.03683  0.06040  80.00- 120.00   100.00(a)
 24.710  24.710 (1.040)    91      4126                  172.76- 232.76   209.23
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104      4353 0.05540  0.09085  80.00- 120.00   100.00(a)
 24.731  24.731 (1.041)    78      3061                   18.49-  78.49    70.32
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105      2599 0.02266  0.03716  80.00- 120.00   100.00(a)
 26.395  26.395 (1.111)   120       964                   17.83-  77.83    37.09
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.904  26.903 (1.132)   146      2493 0.02801  0.04593  80.00- 120.00   100.00(a)
 26.904  26.903 (1.132)   148      1964                   33.90-  93.90    78.78
 26.904  26.903 (1.132)   111      1189                    6.77-  66.77    47.69
-------------------------------------------------------------------------------
```

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: msd20.i
Lab File ID: 20013110.d
Lab Smp Id: 1701428A-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.5"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 08:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	223806	134284	313328	160769	-28.17
123 1,4-Difluorobenze	838424	503054	1173794	504978	-39.77
163 Chlorobenzene-d5	697716	418630	976802	467359	-33.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.19
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 11:58

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-02A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.5"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.741	114.82	70-130
$ 146 Toluene-d8	5.000	4.834	96.68	70-130
$ 177 4-Bromofluorobenze	5.000	5.474	109.49	70-130

Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

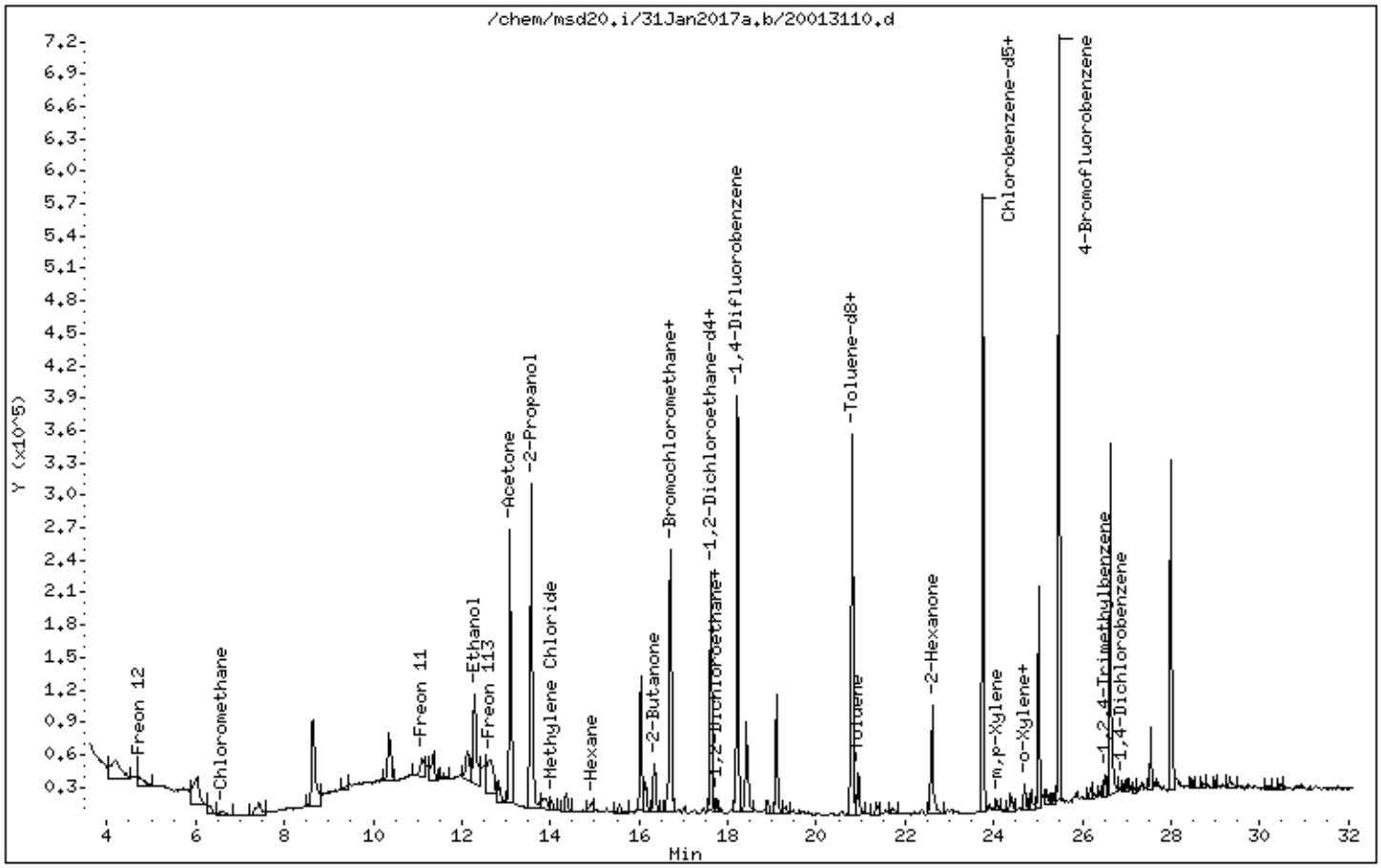
Instrument: msd20.i

Sample Info: 250mL# N1755

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

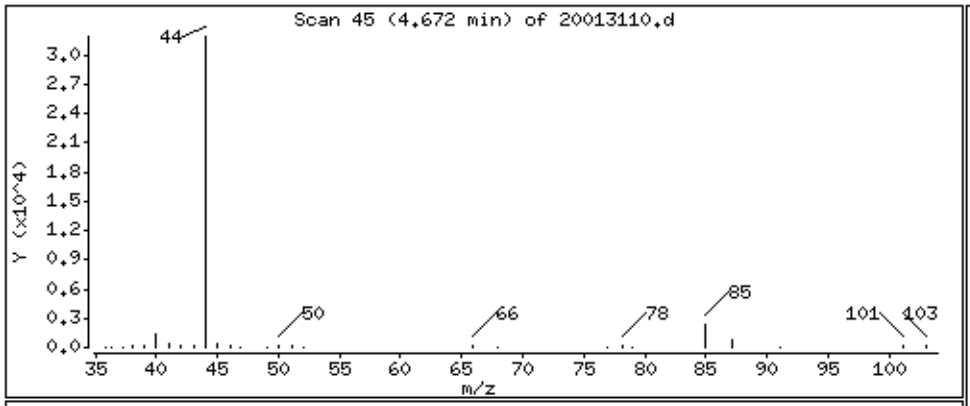
Operator: ef

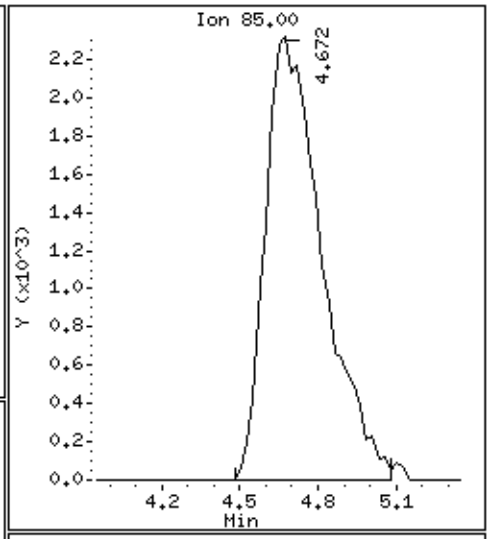
Column phase: RTX-624

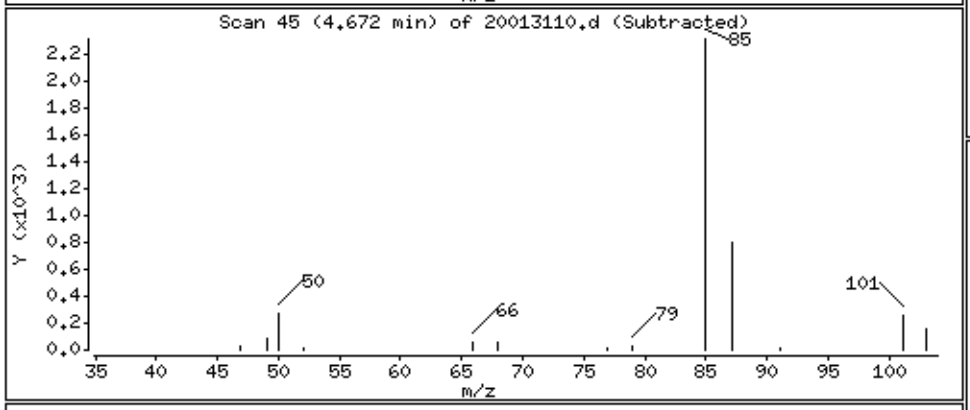
Column diameter: 0.32

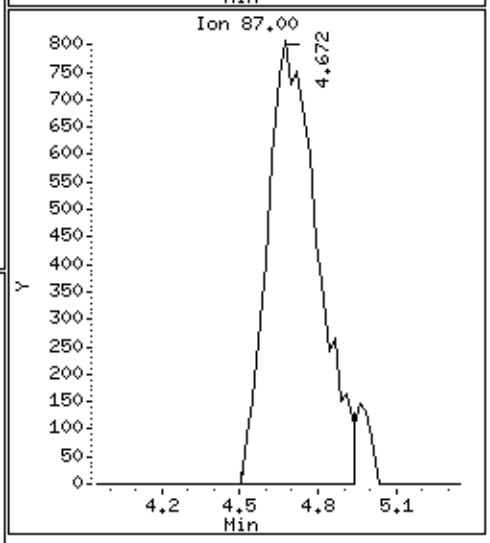
11 Freon 12

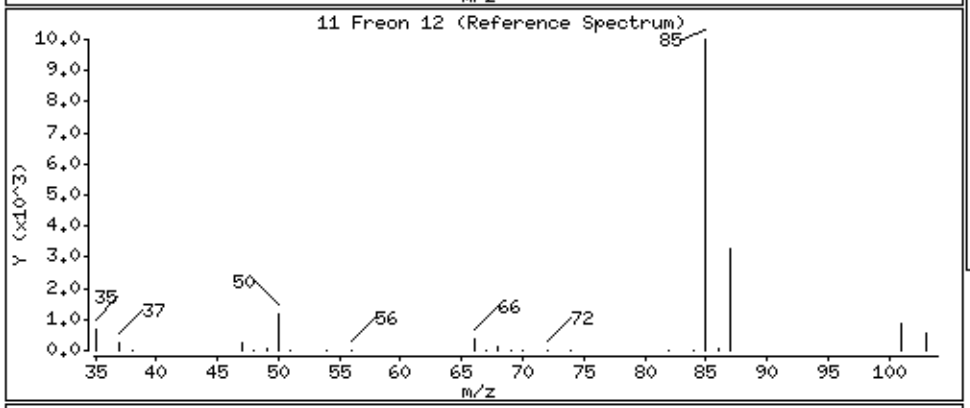
Concentration: 0.4755 PPBV

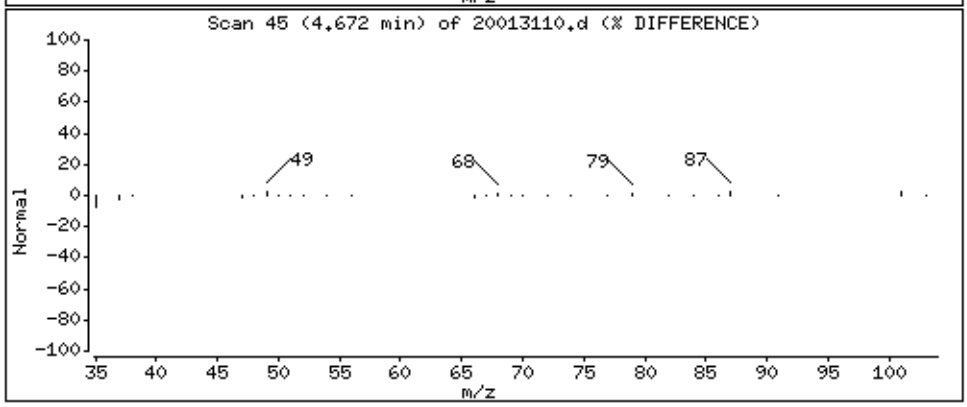












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

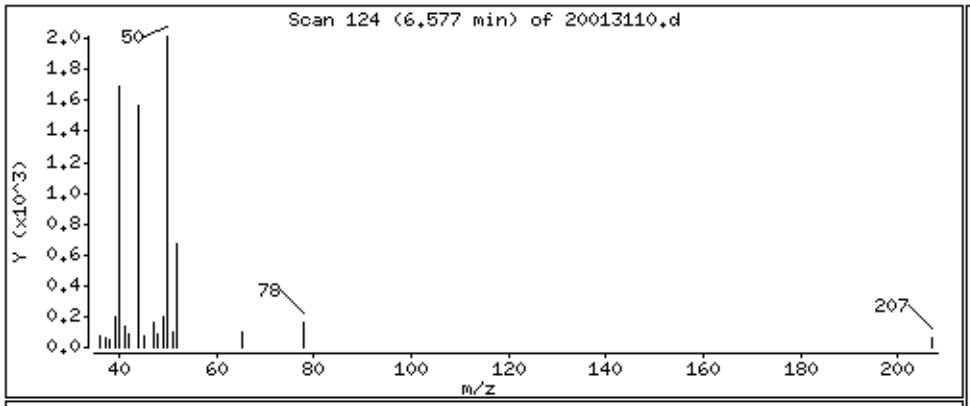
Operator: ef

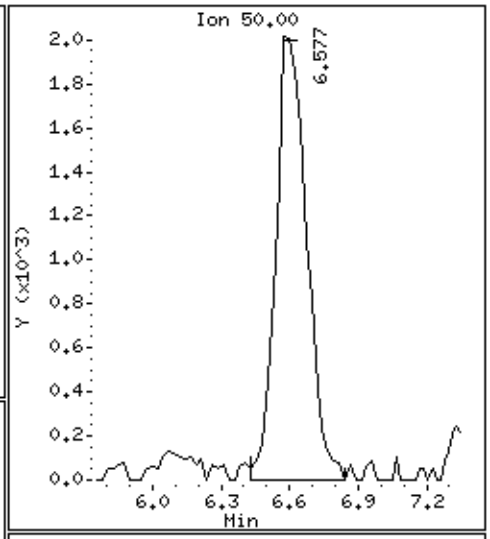
Column phase: RTX-624

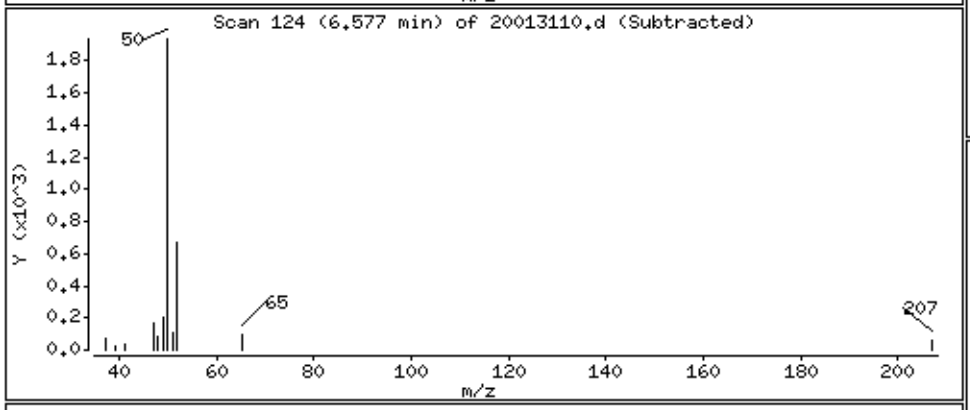
Column diameter: 0.32

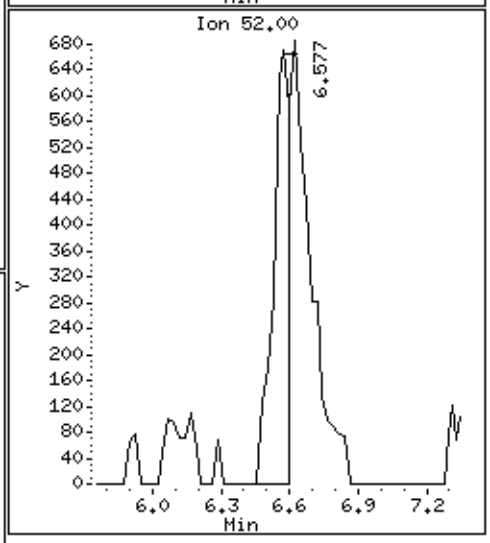
17 Chloromethane

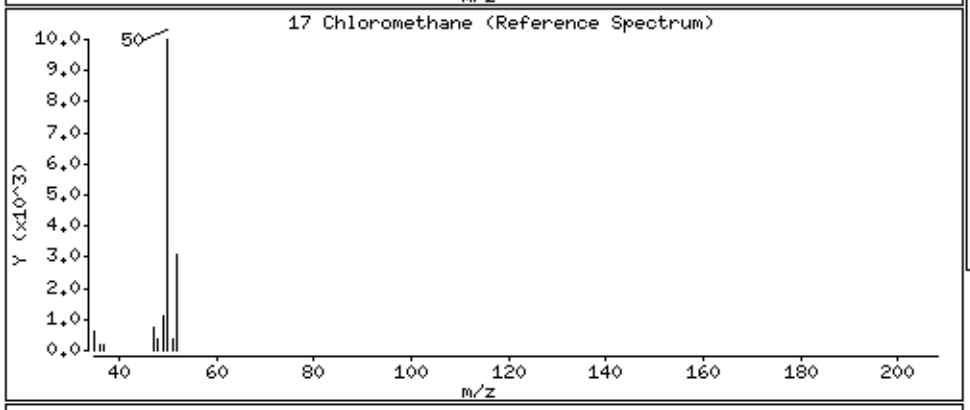
Concentration: 0.8416 PPBV

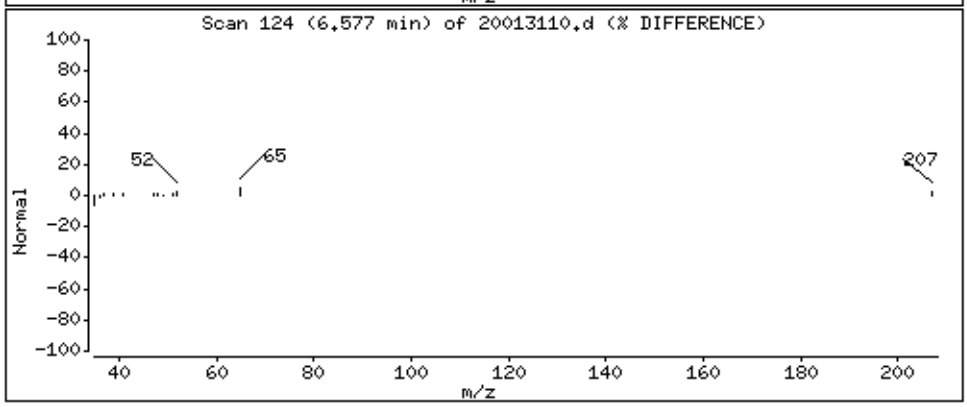












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

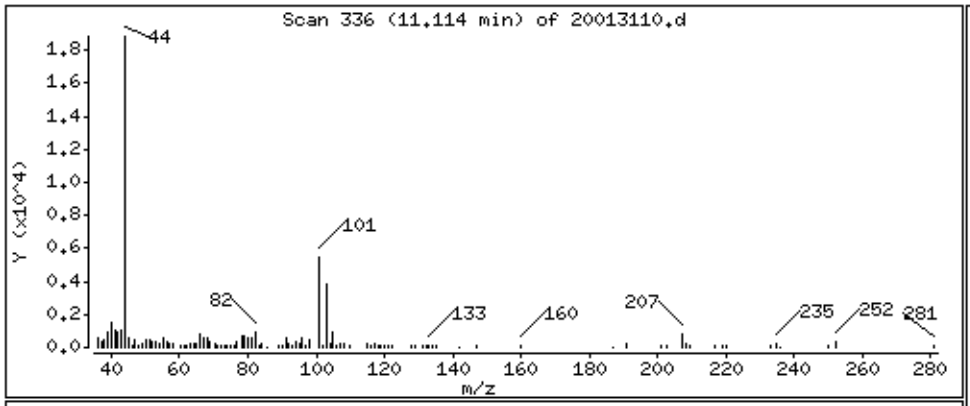
Operator: ef

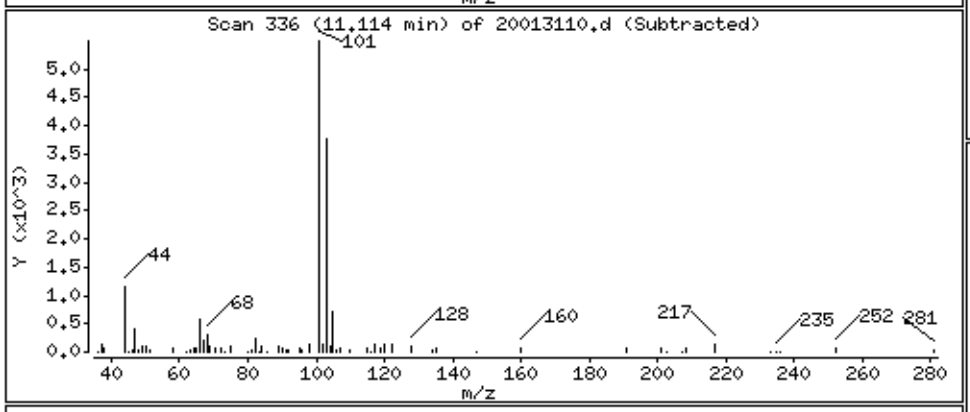
Column phase: RTX-624

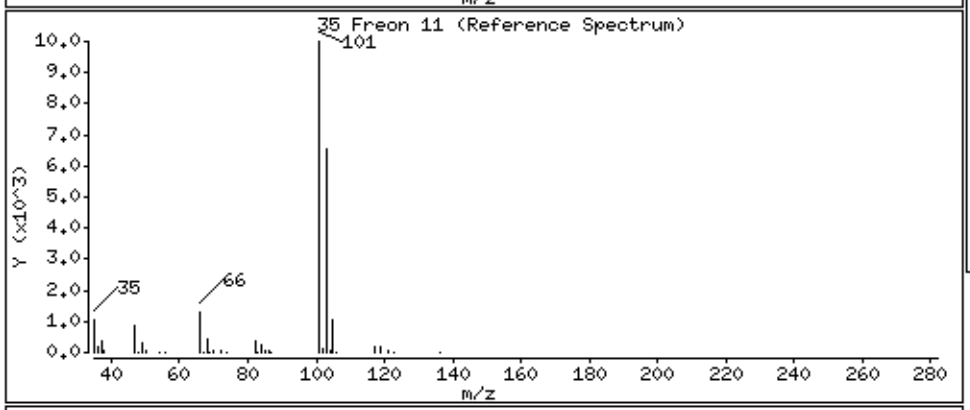
Column diameter: 0.32

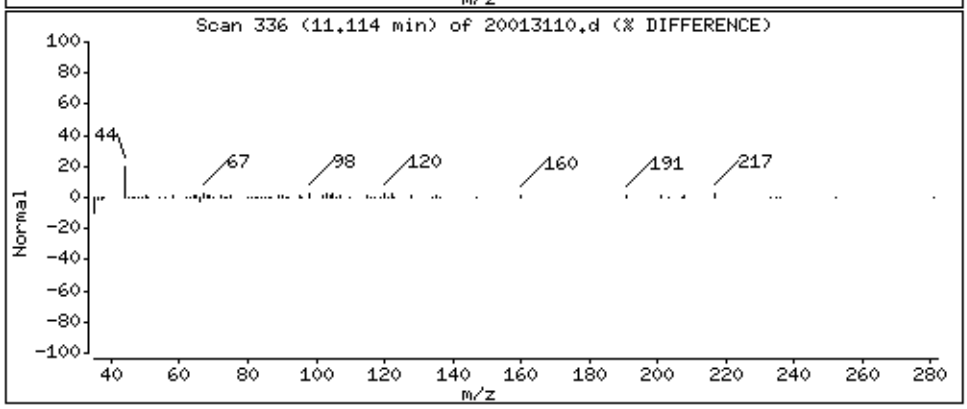
35 Freon 11

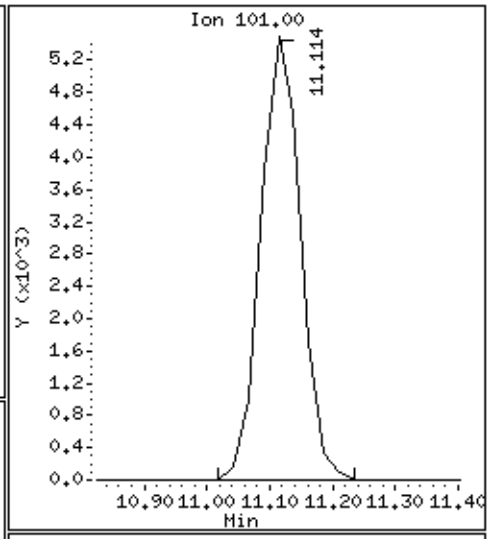
Concentration: 0.3339 PPBV

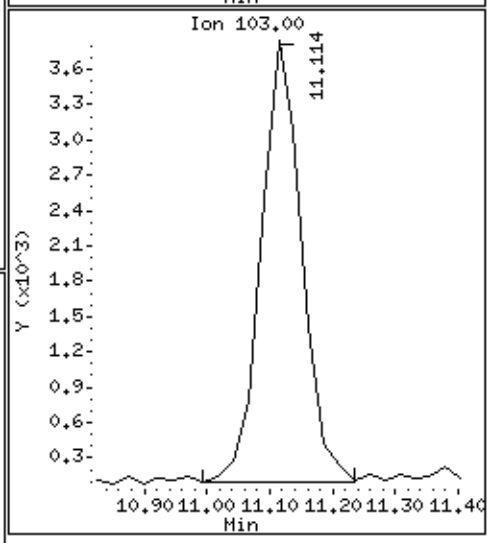












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

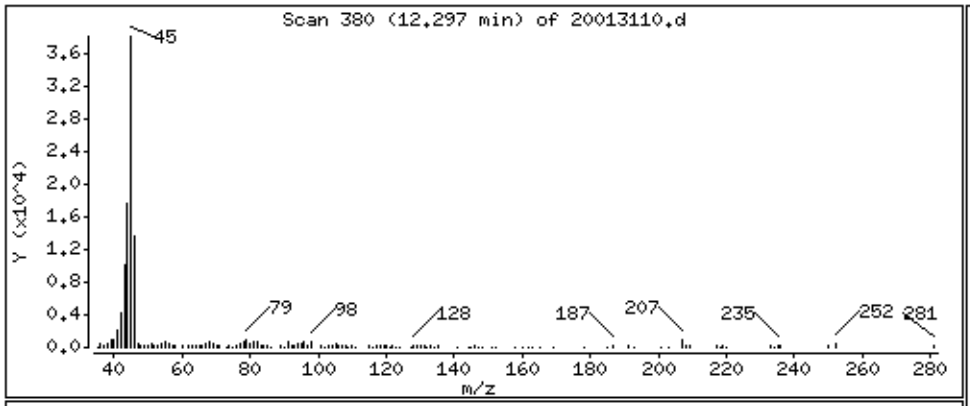
Operator: ef

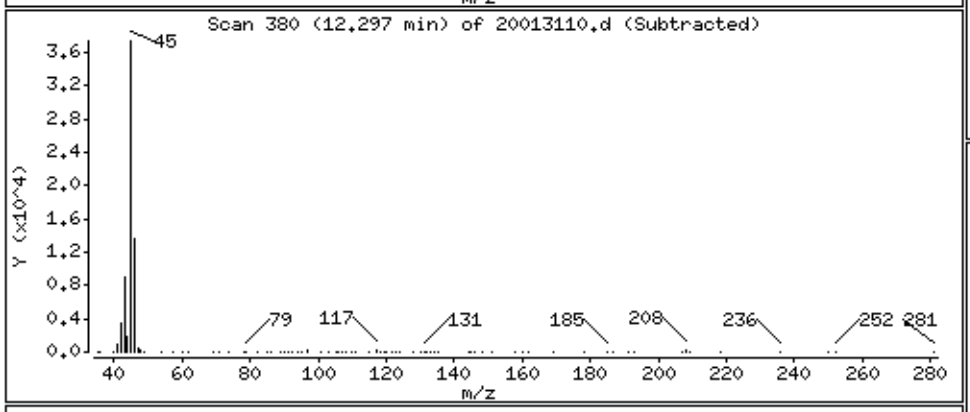
Column phase: RTX-624

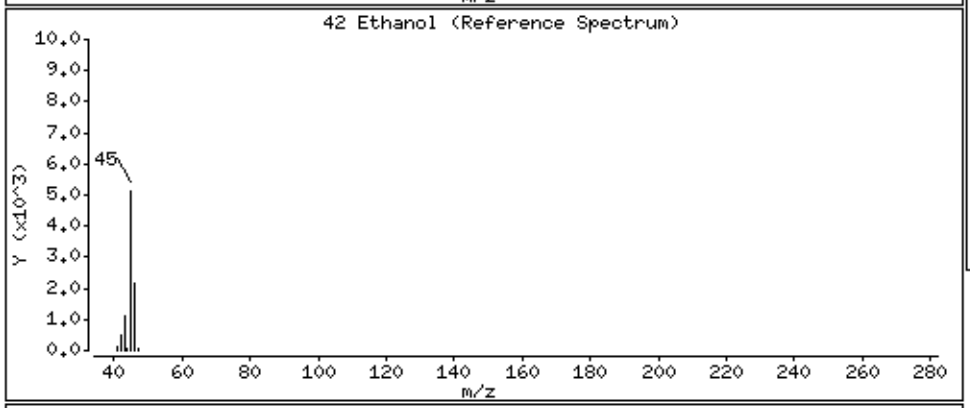
Column diameter: 0.32

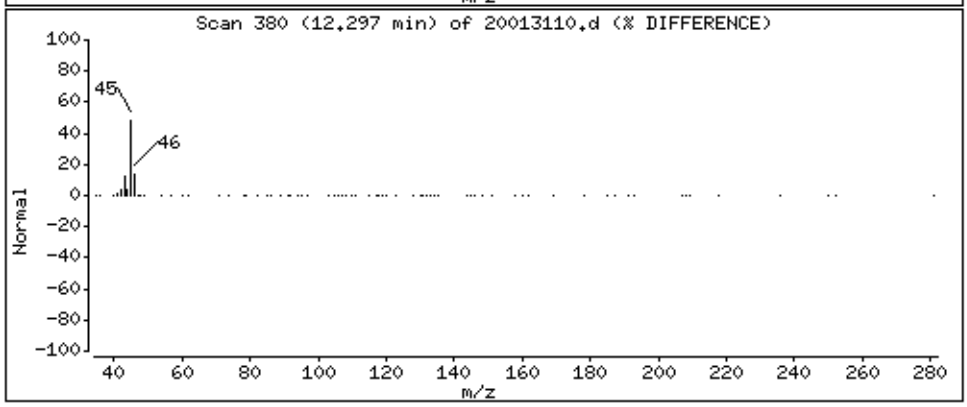
42 Ethanol

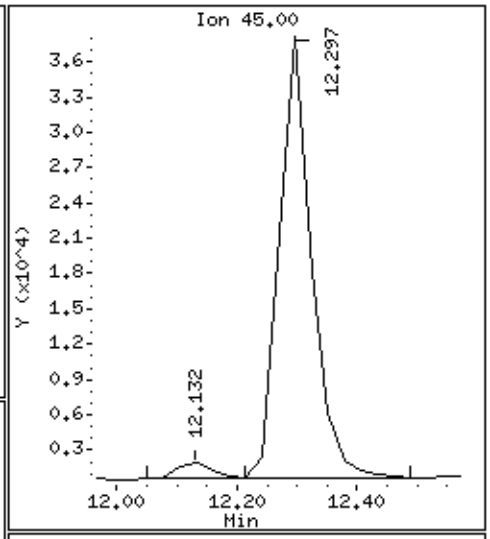
Concentration: 14.124 PPBV

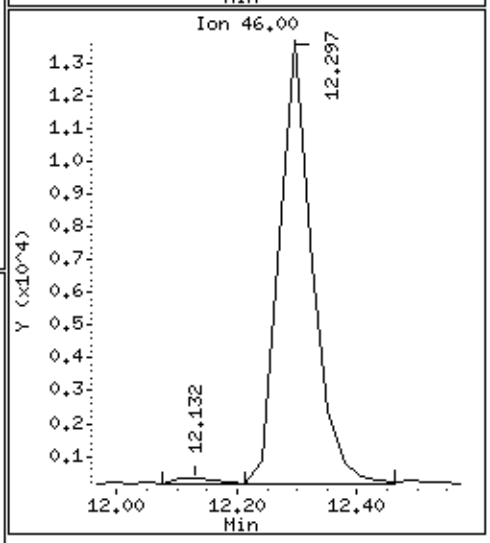












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

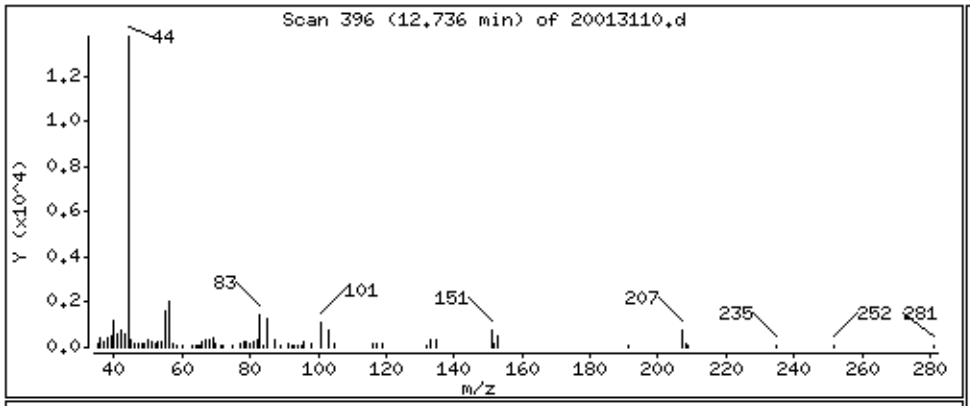
Operator: ef

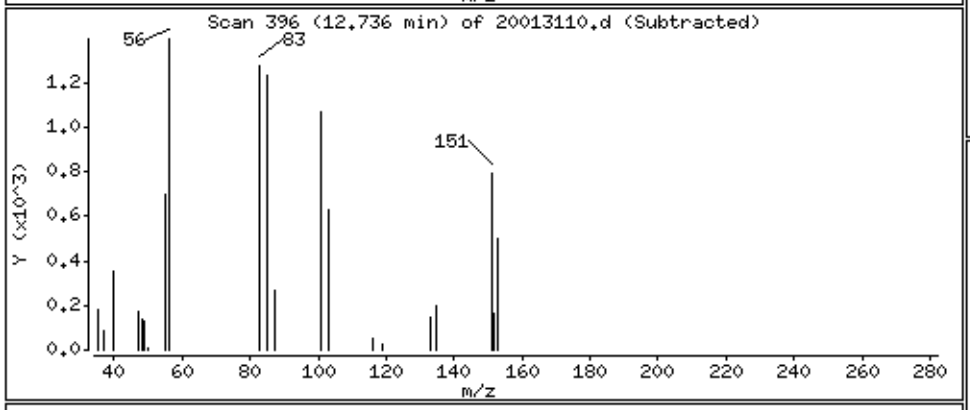
Column phase: RTX-624

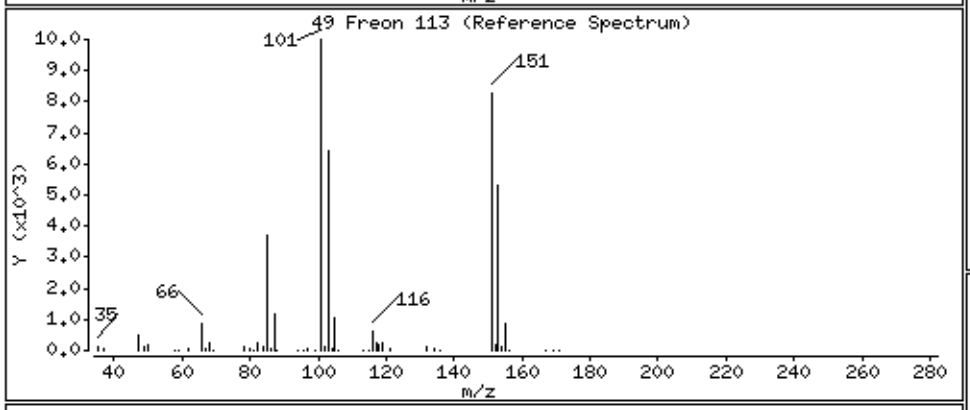
Column diameter: 0.32

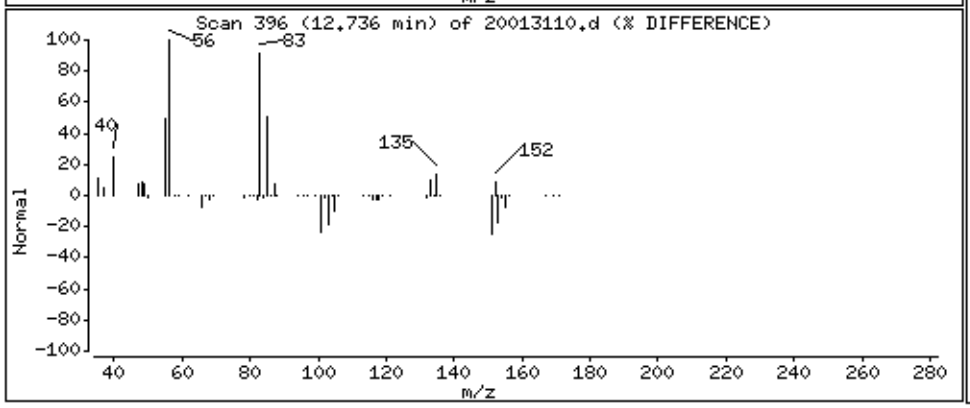
49 Freon 113

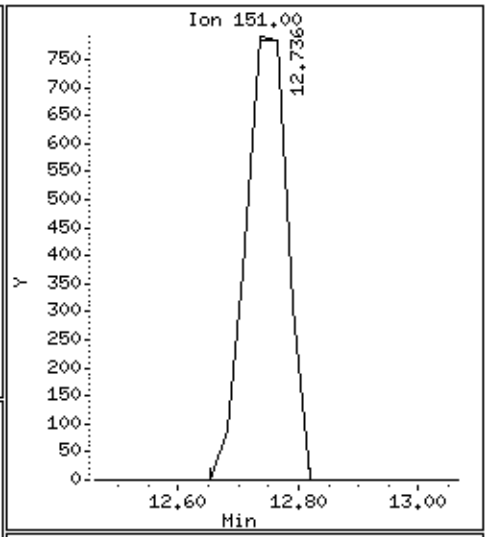
Concentration: 0.06975 PPBV

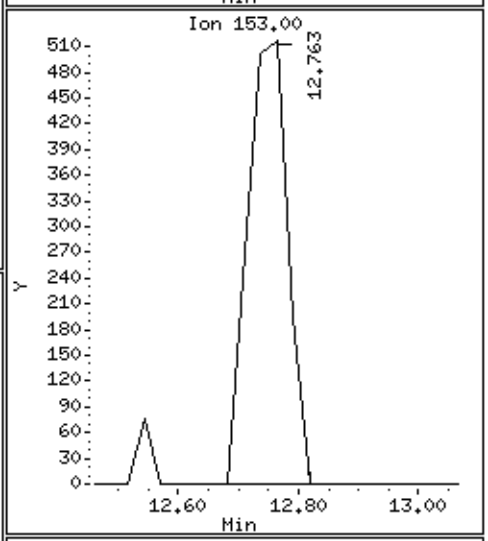


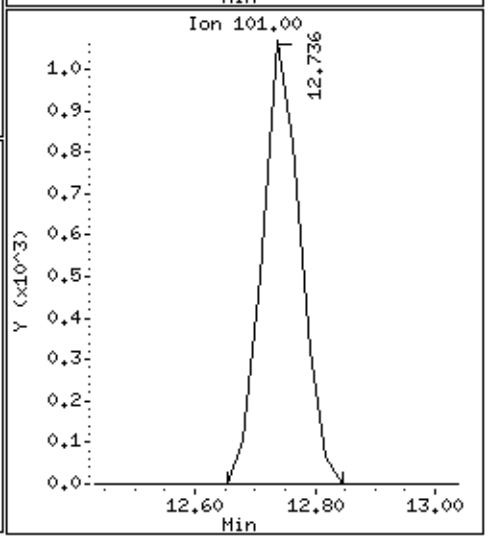












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

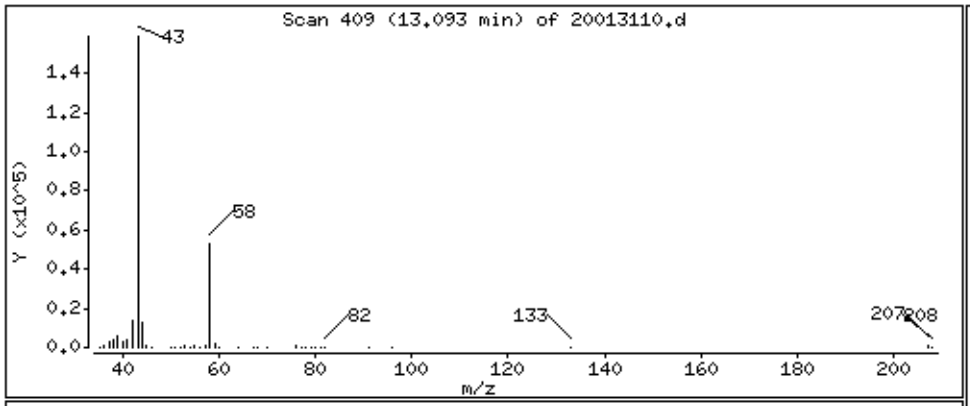
Operator: ef

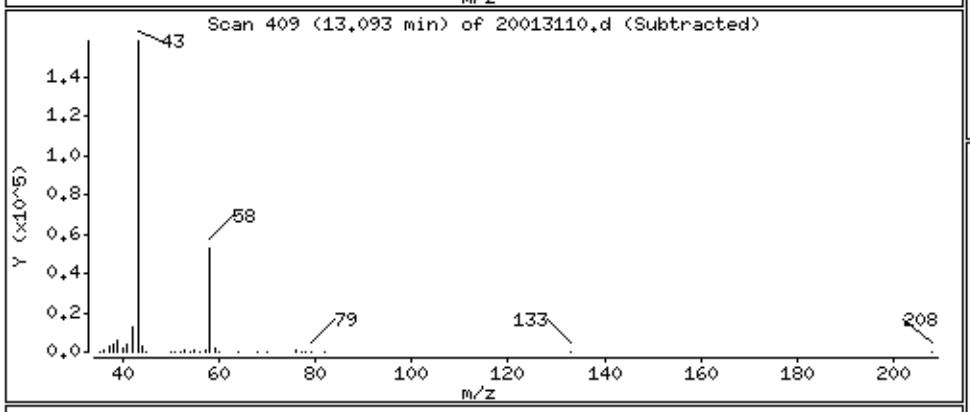
Column phase: RTX-624

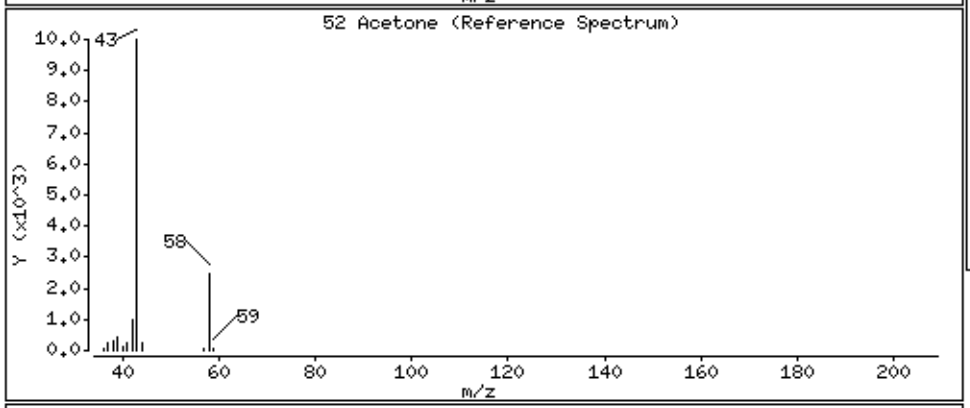
Column diameter: 0.32

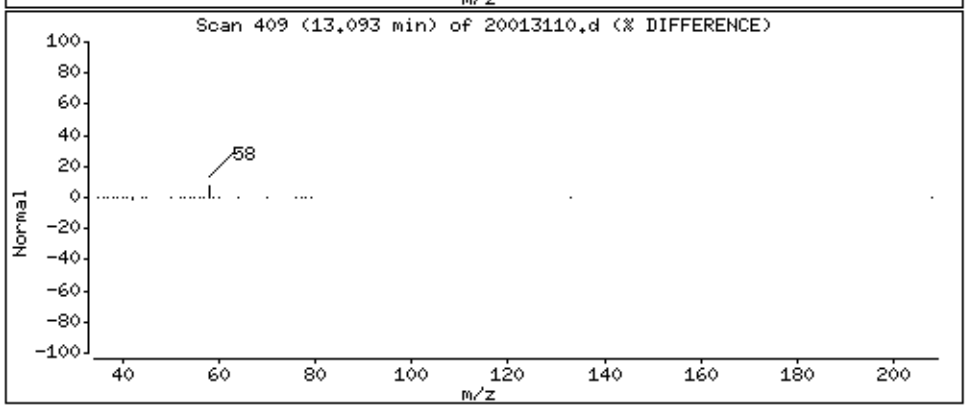
52 Acetone

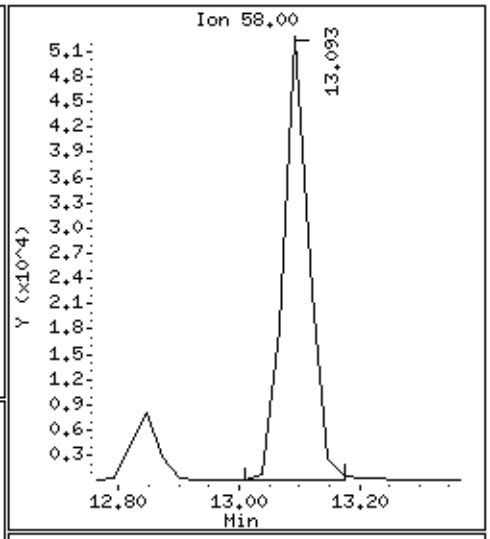
Concentration: 11.561 PPBV

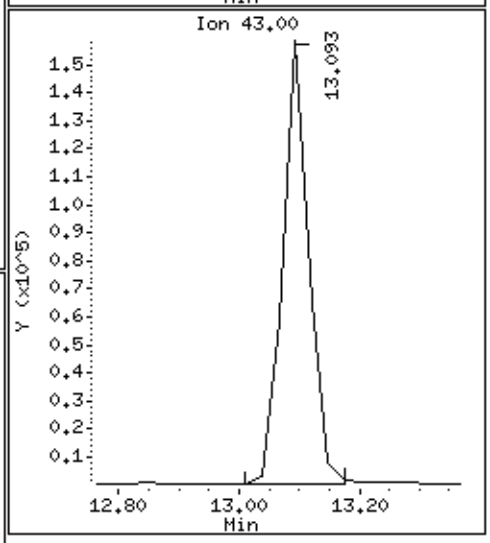












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

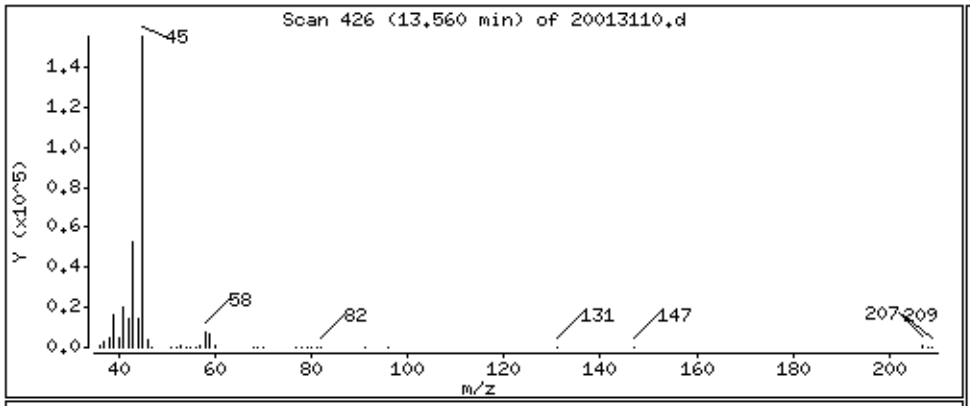
Operator: ef

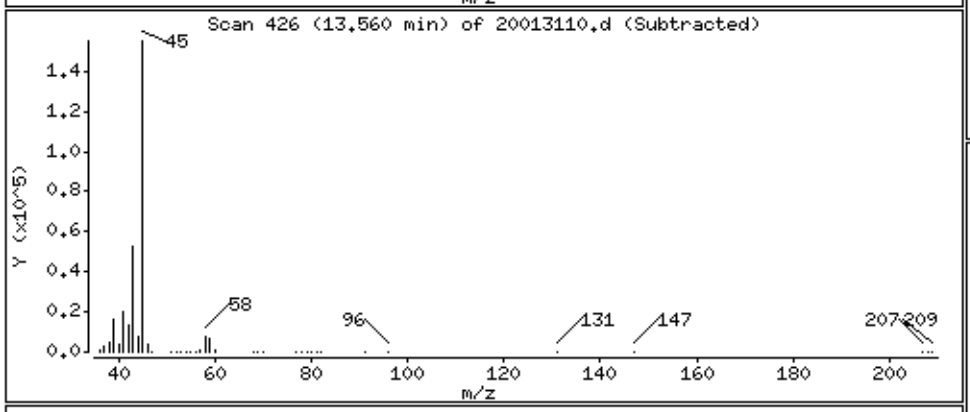
Column phase: RTX-624

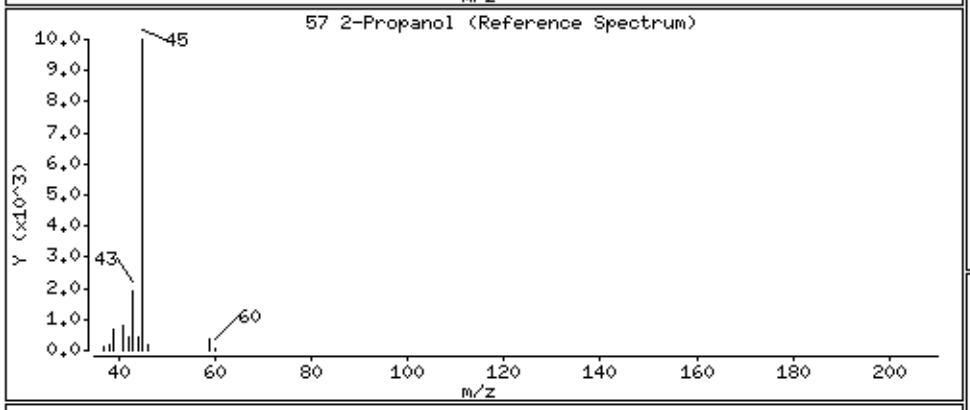
Column diameter: 0.32

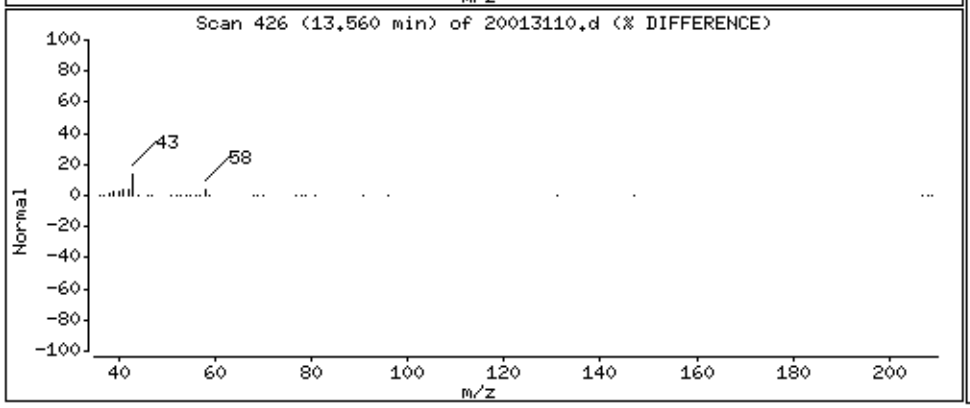
57 2-Propanol

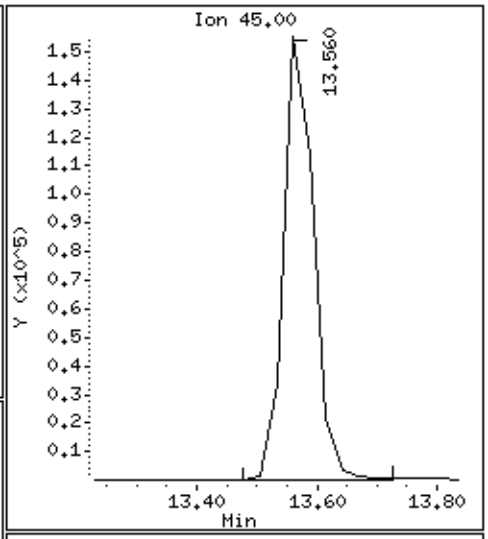
Concentration: 14.677 PPBV

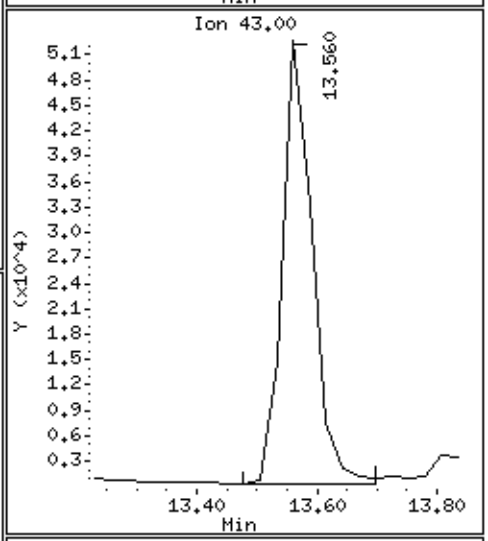


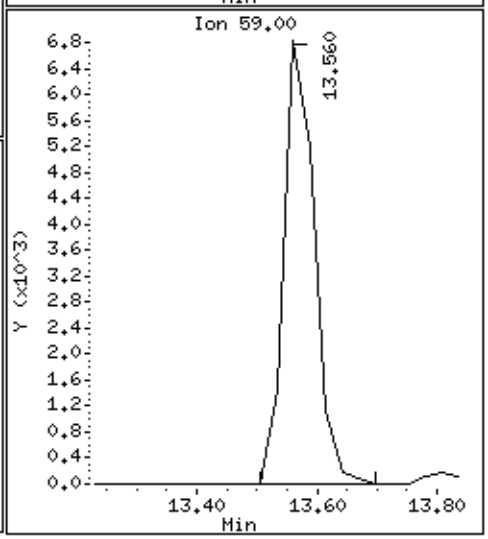












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

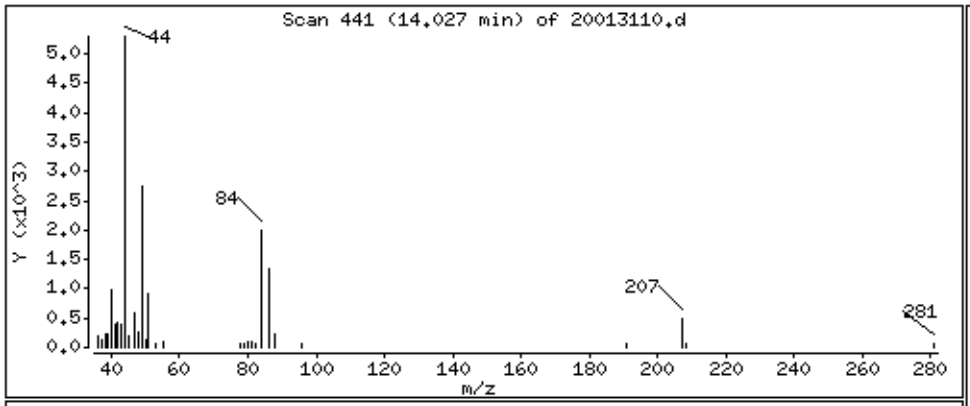
Operator: ef

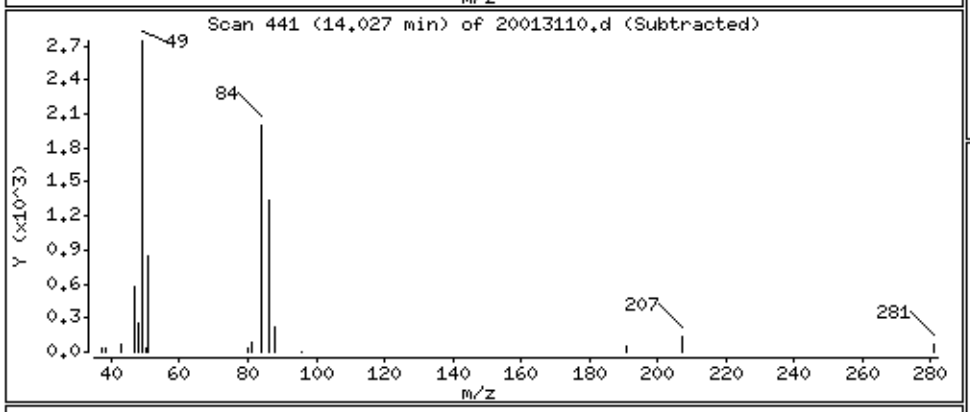
Column phase: RTX-624

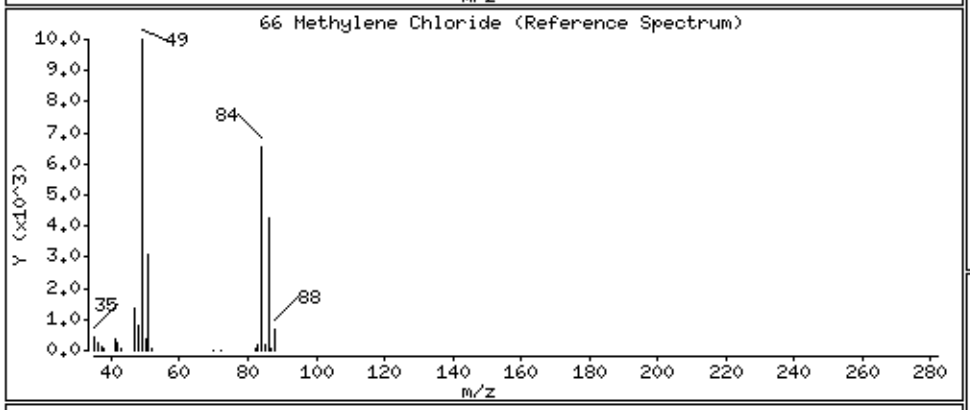
Column diameter: 0.32

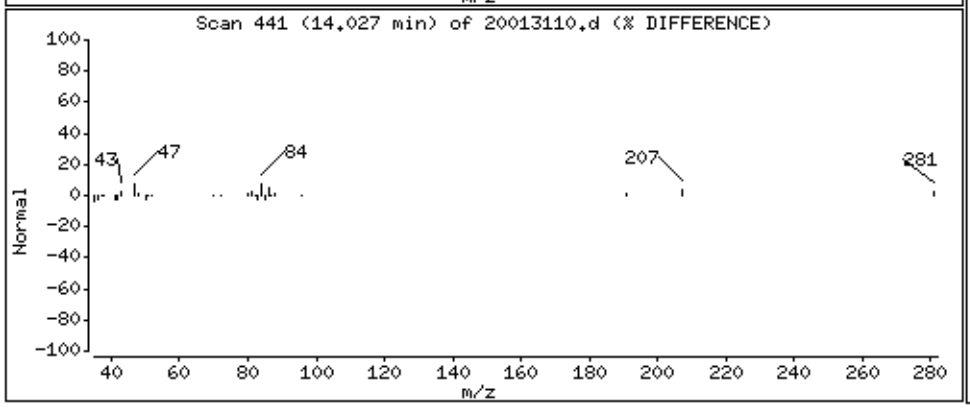
66 Methylene Chloride

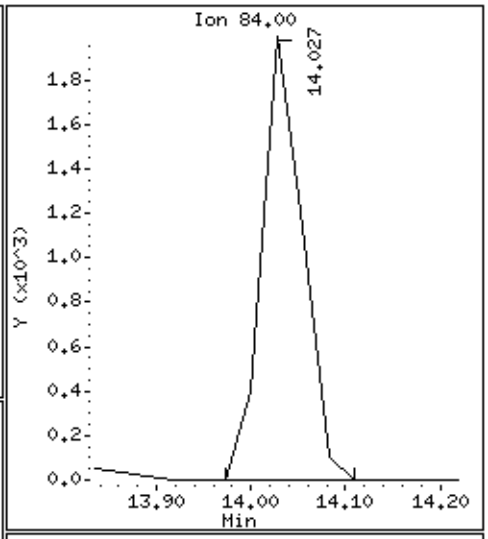
Concentration: 0.1999 PPBV

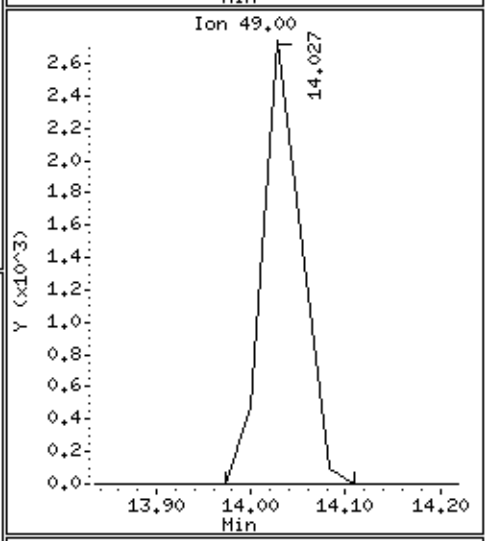


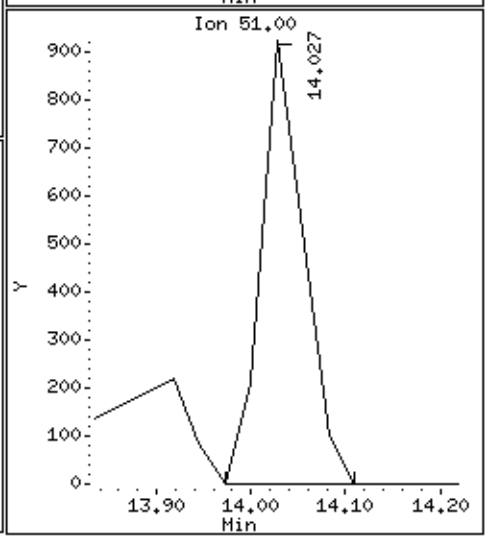












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

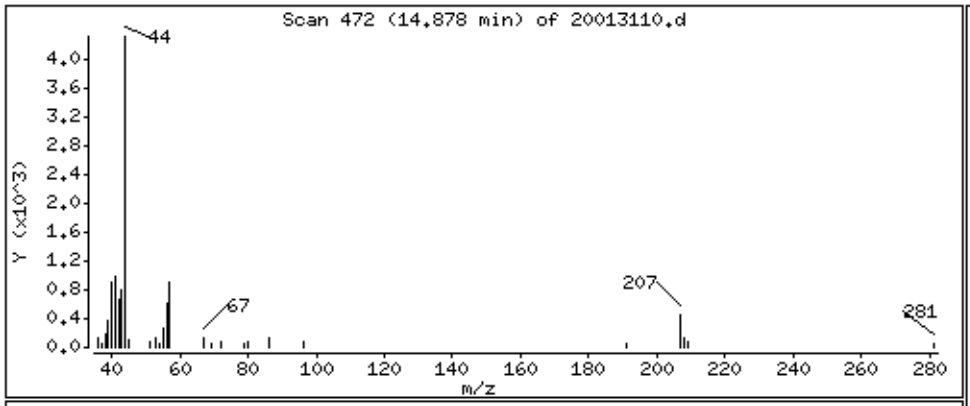
Operator: ef

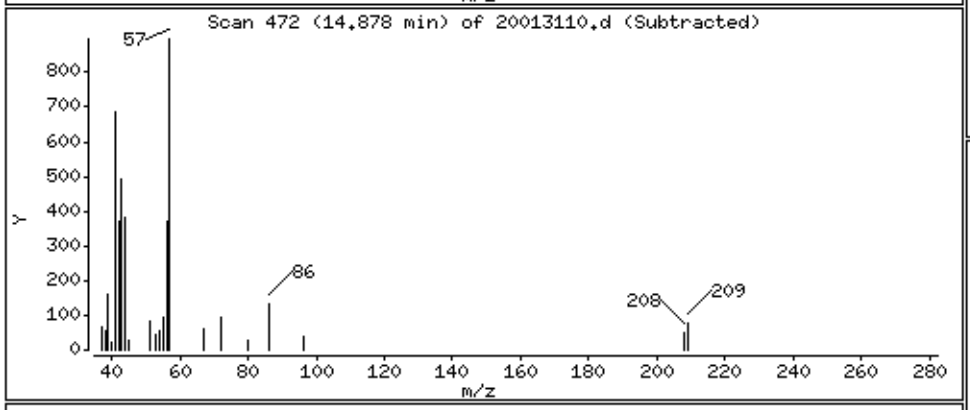
Column phase: RTX-624

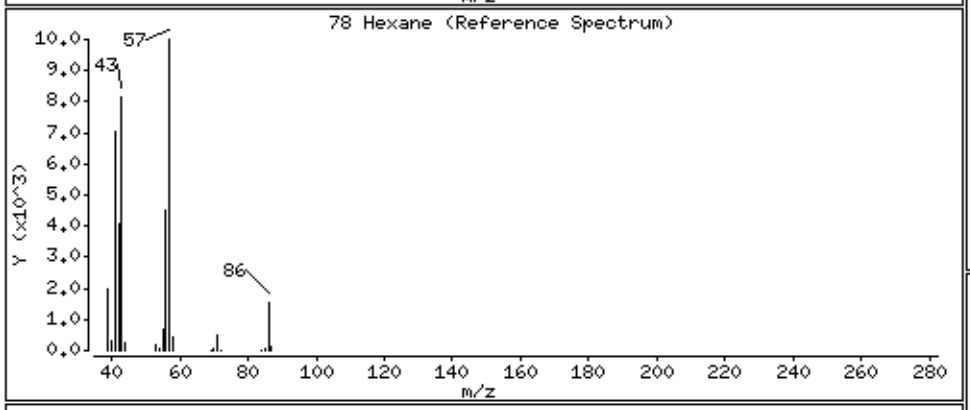
Column diameter: 0.32

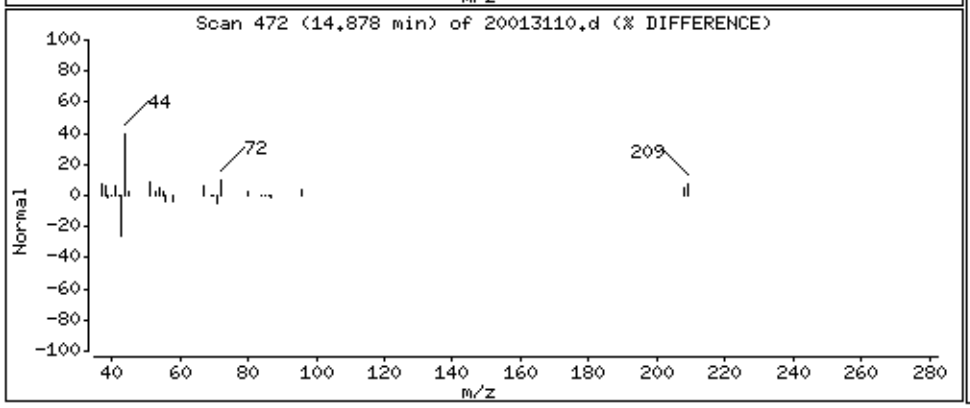
78 Hexane

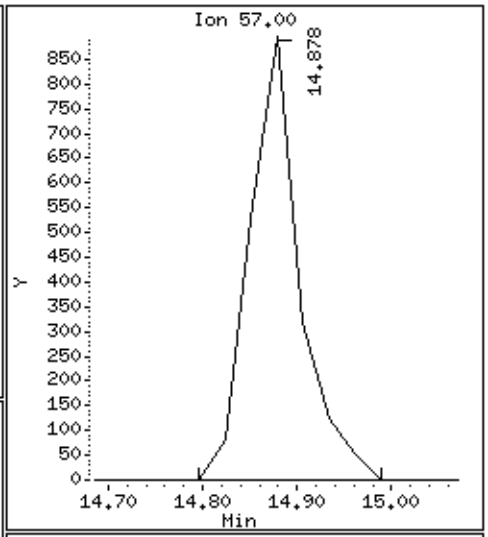
Concentration: 0.08322 PPBV

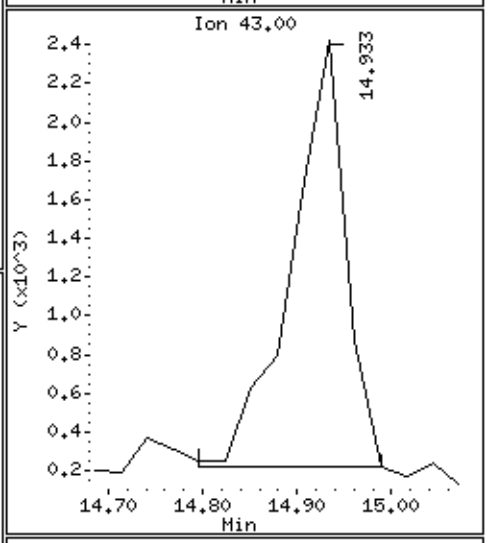


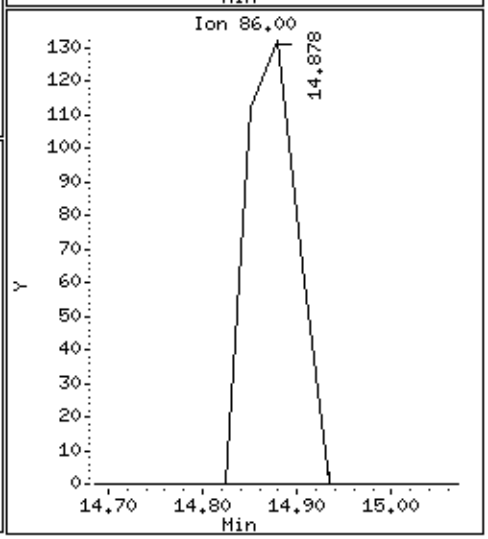












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

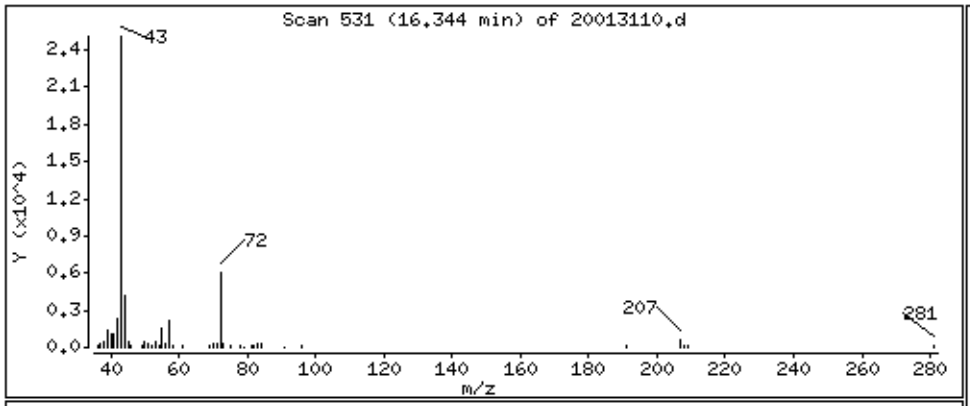
Operator: ef

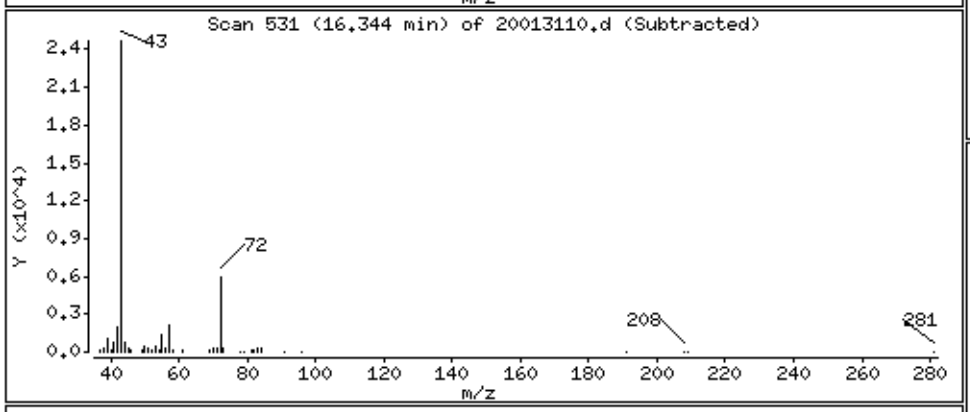
Column phase: RTX-624

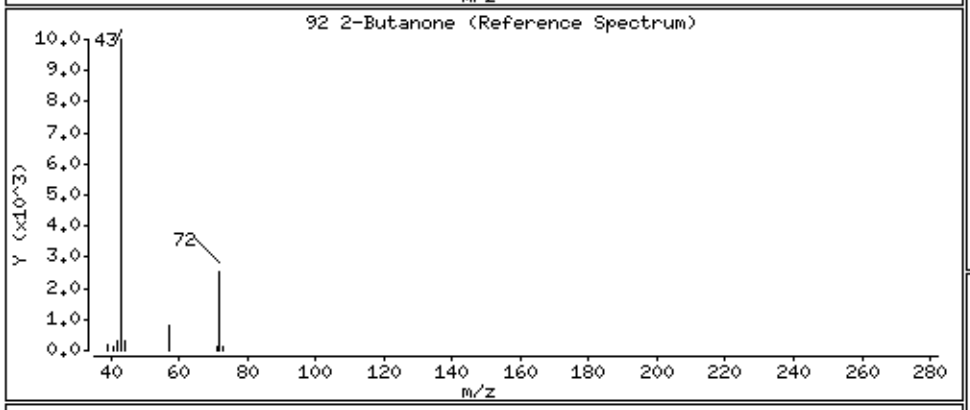
Column diameter: 0.32

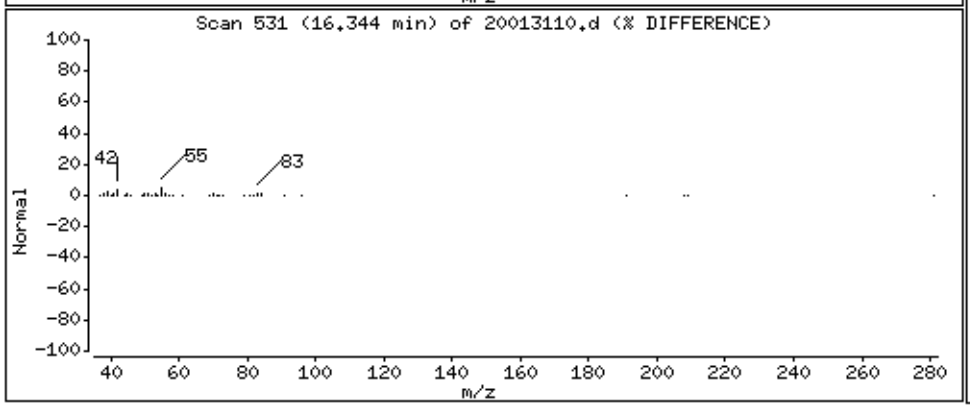
92 2-Butanone

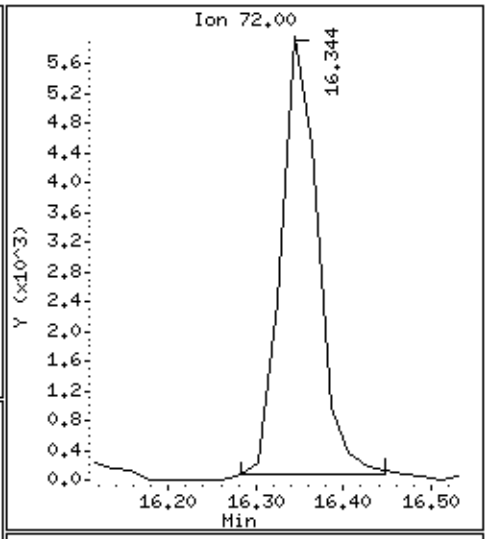
Concentration: 1.312 PPBV

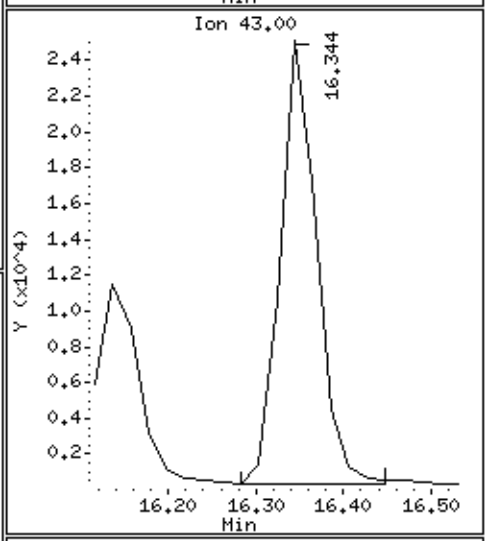


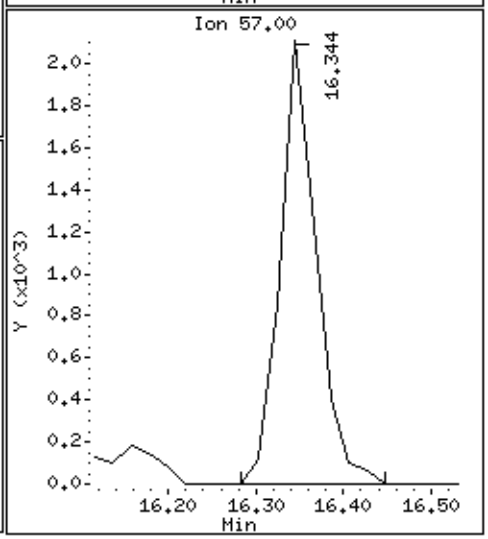












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

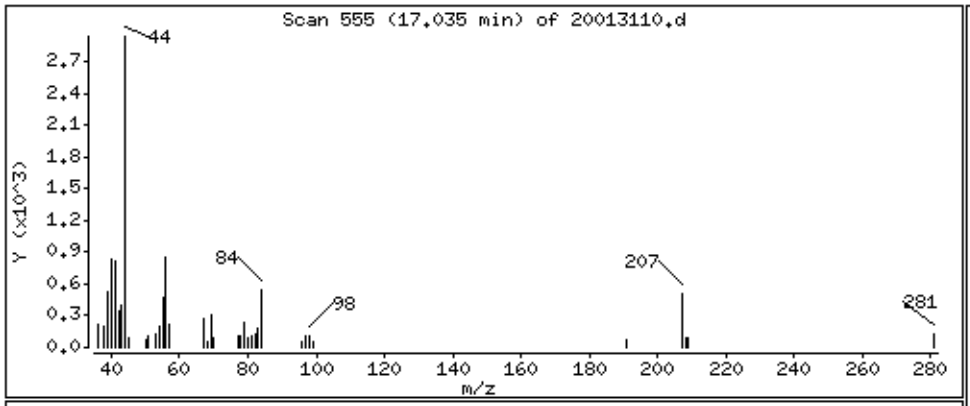
Operator: ef

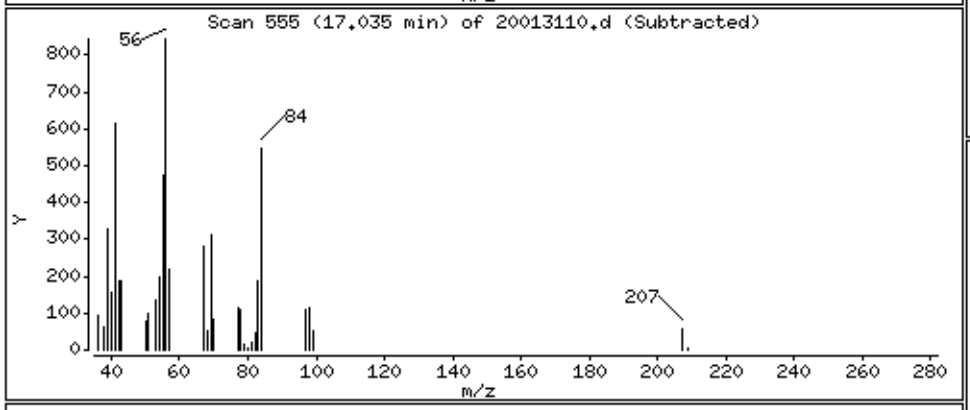
Column phase: RTX-624

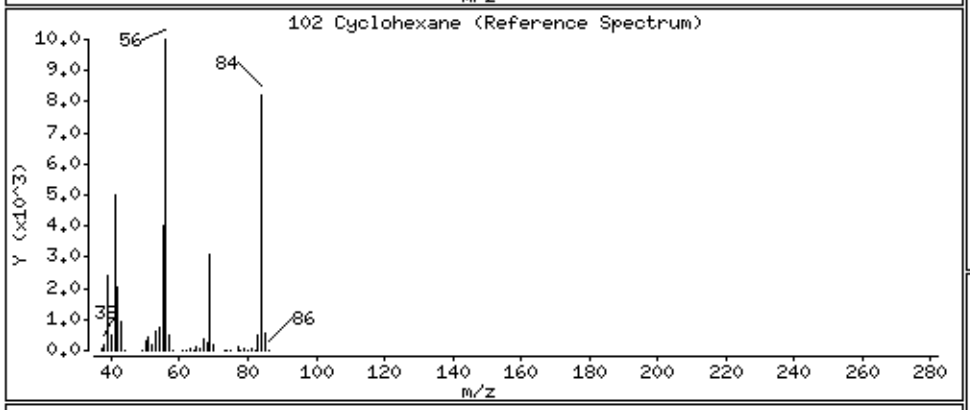
Column diameter: 0.32

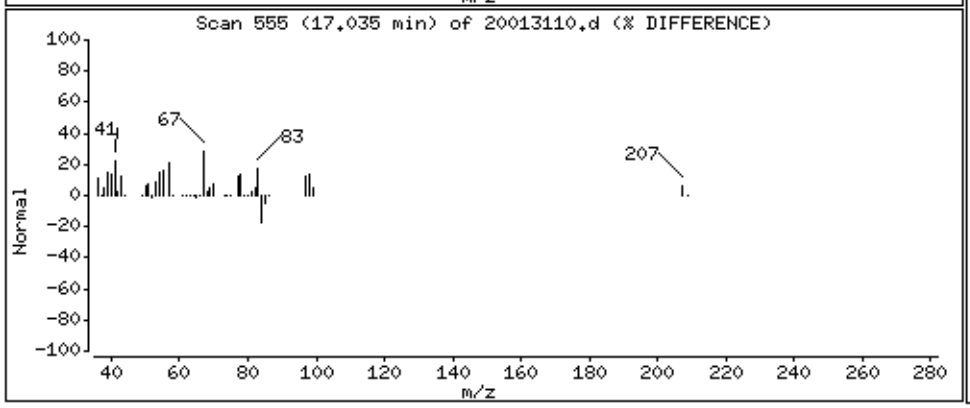
102 Cyclohexane

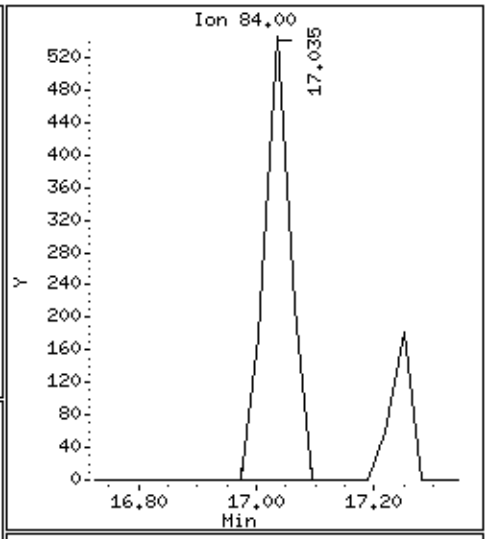
Concentration: 0.04363 PPBV

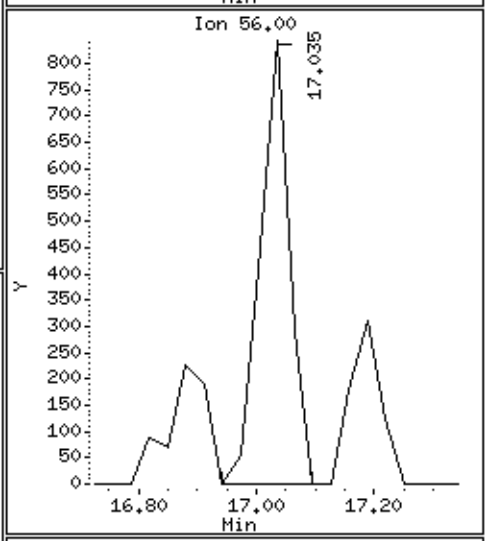


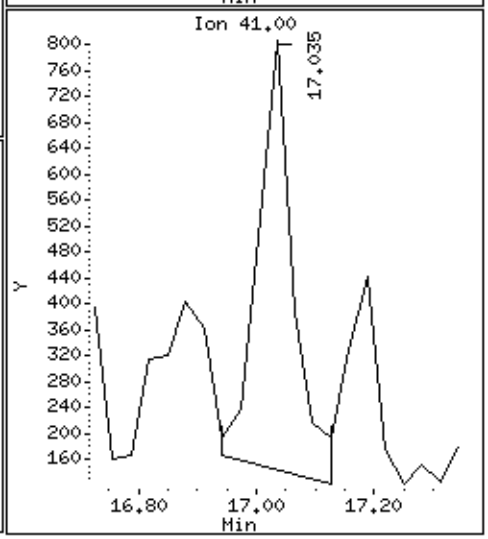












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

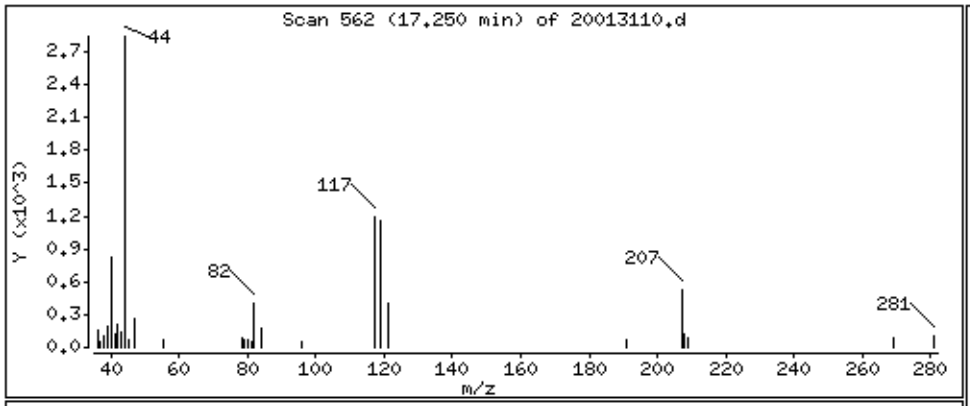
Operator: ef

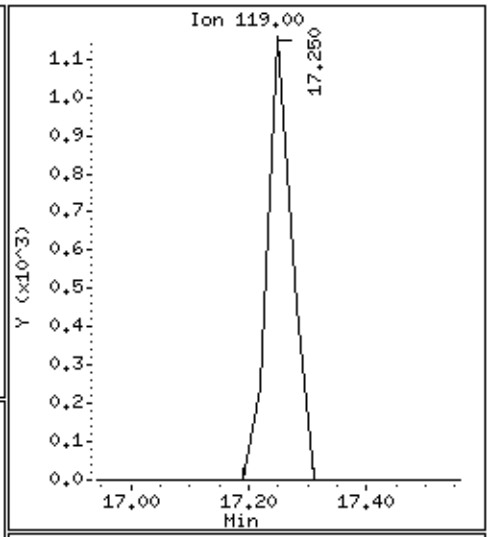
Column phase: RTX-624

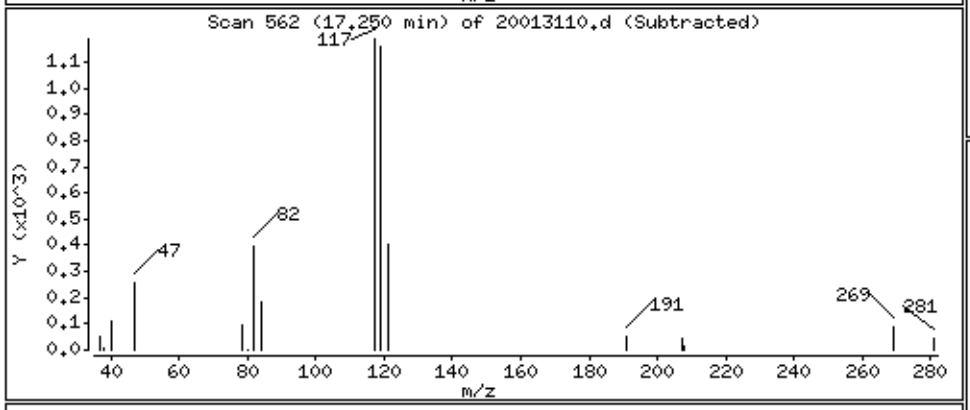
Column diameter: 0.32

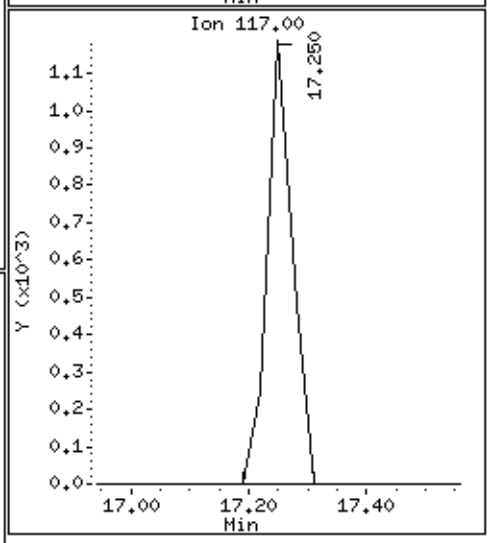
106 Carbon Tetrachloride

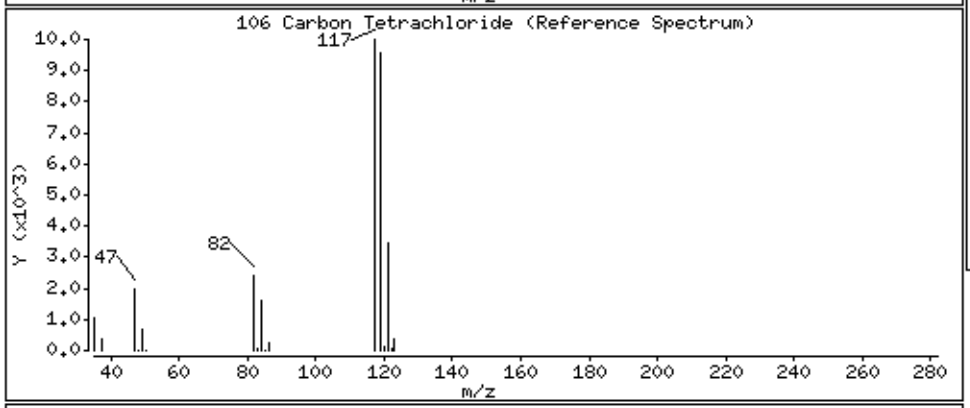
Concentration: 0.06555 PPBV

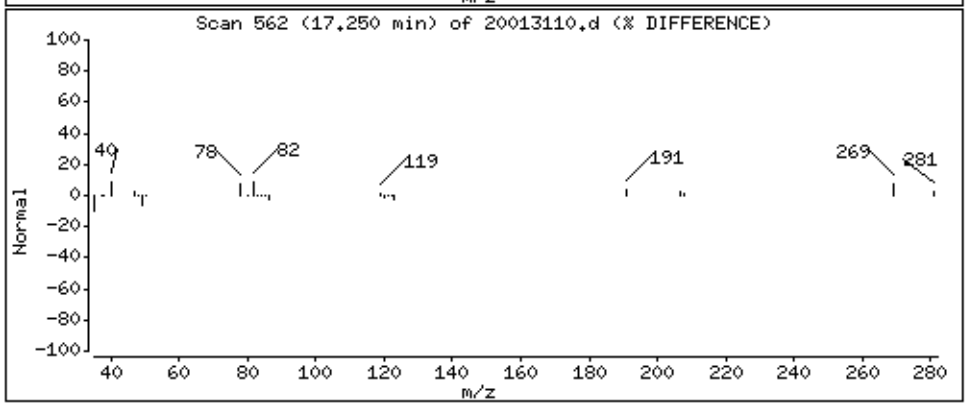












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

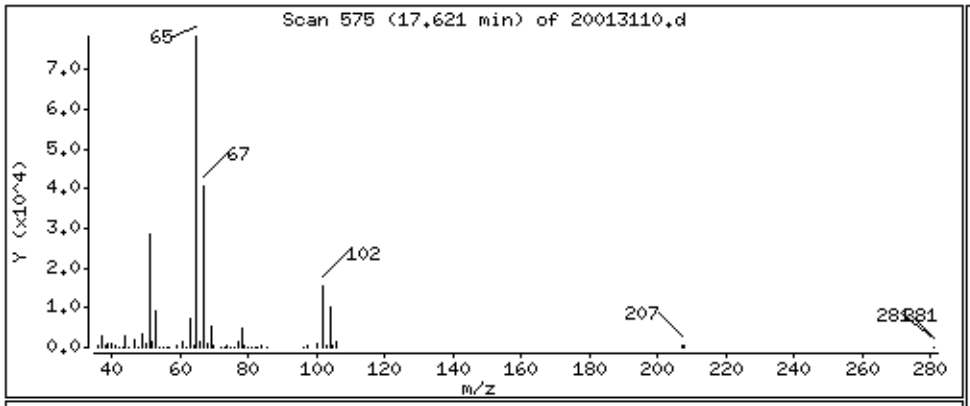
Operator: ef

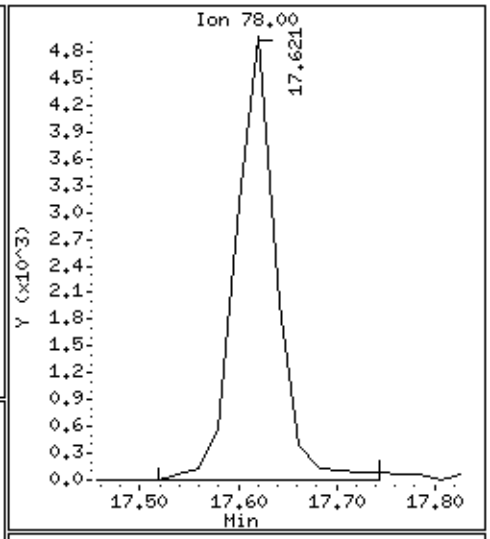
Column phase: RTX-624

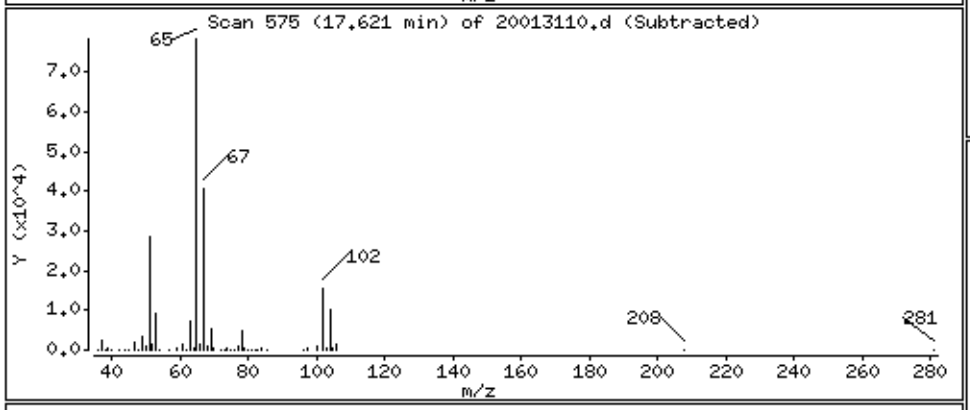
Column diameter: 0.32

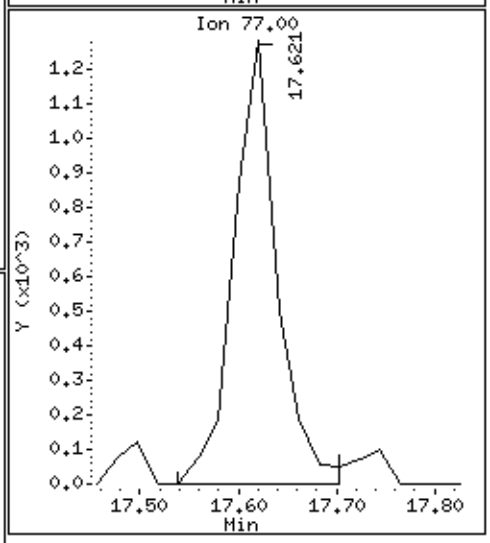
116 Benzene

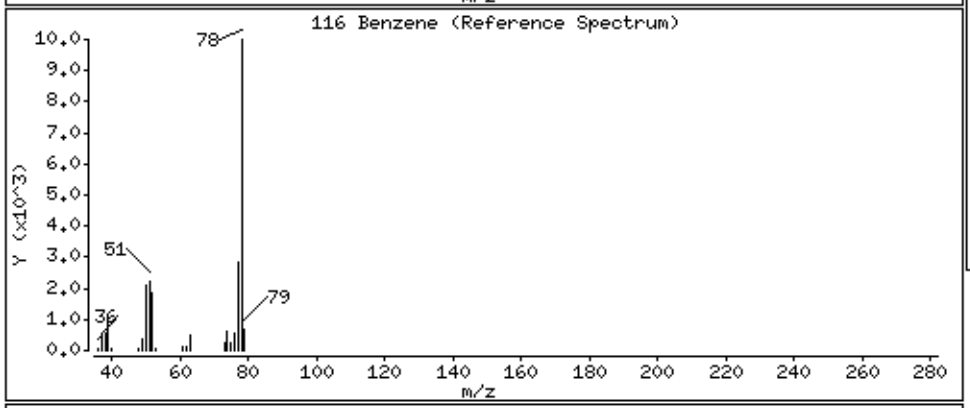
Concentration: 0.1951 PPBV

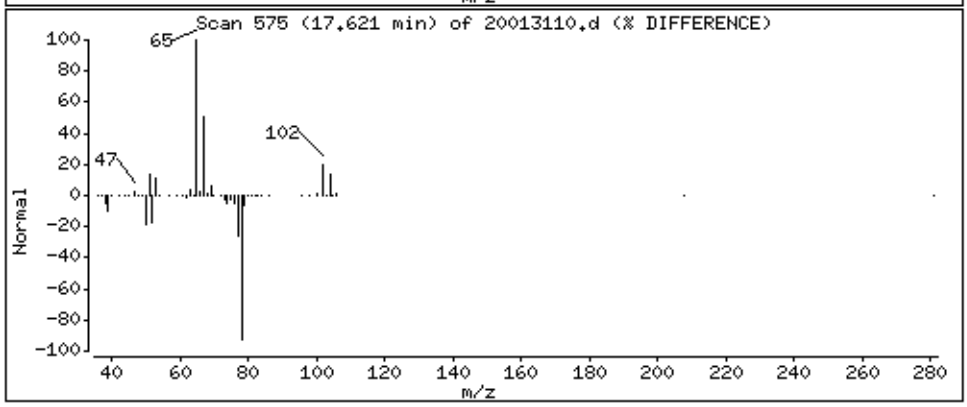












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

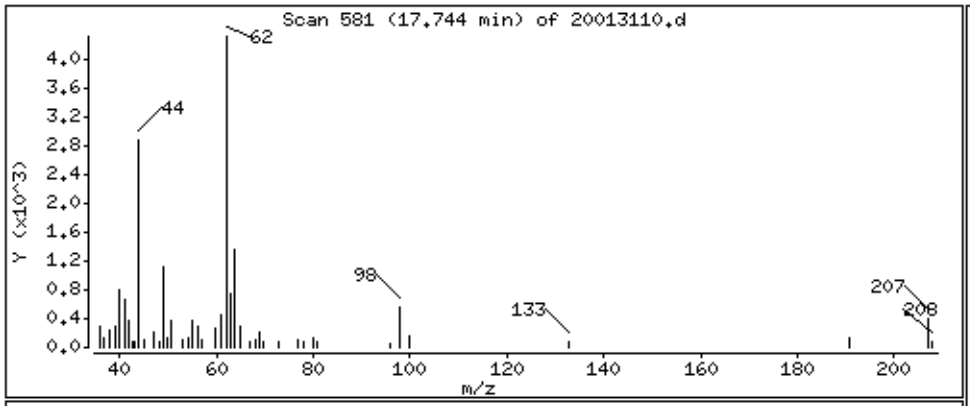
Operator: ef

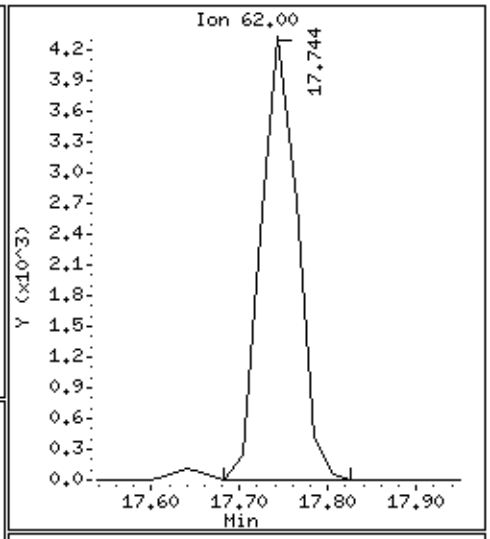
Column phase: RTX-624

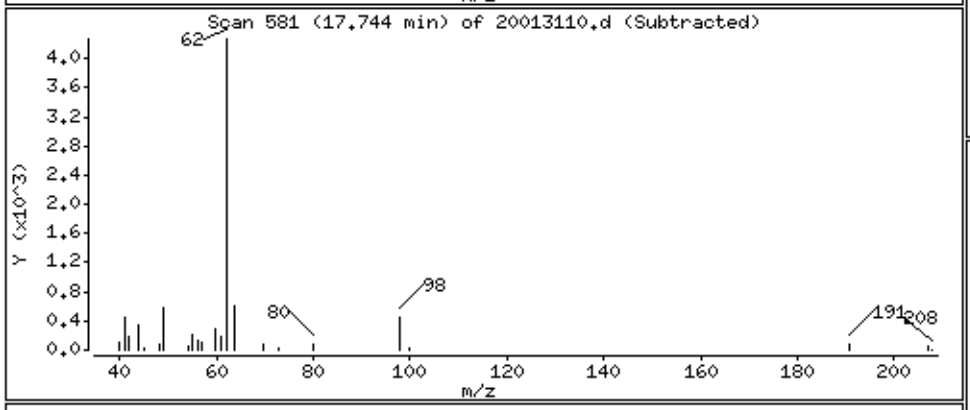
Column diameter: 0.32

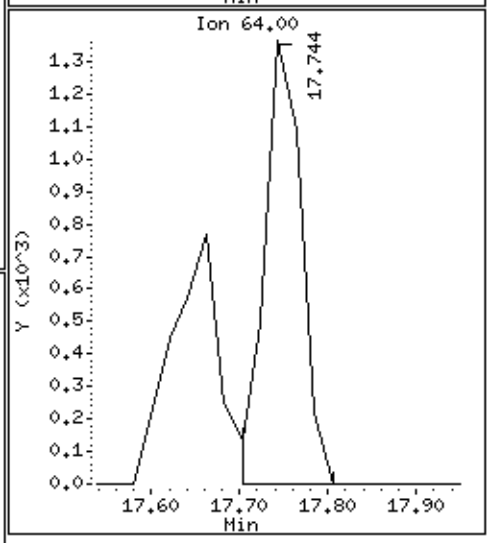
120 1,2-Dichloroethane

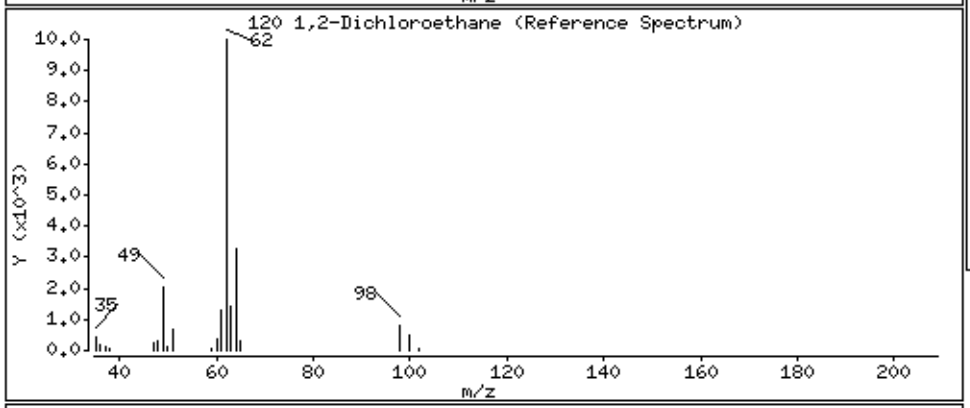
Concentration: 0.4396 PPBV

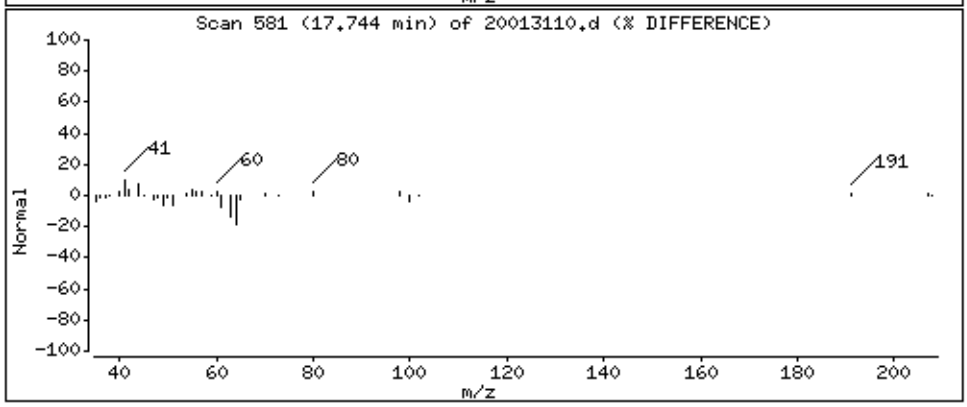












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

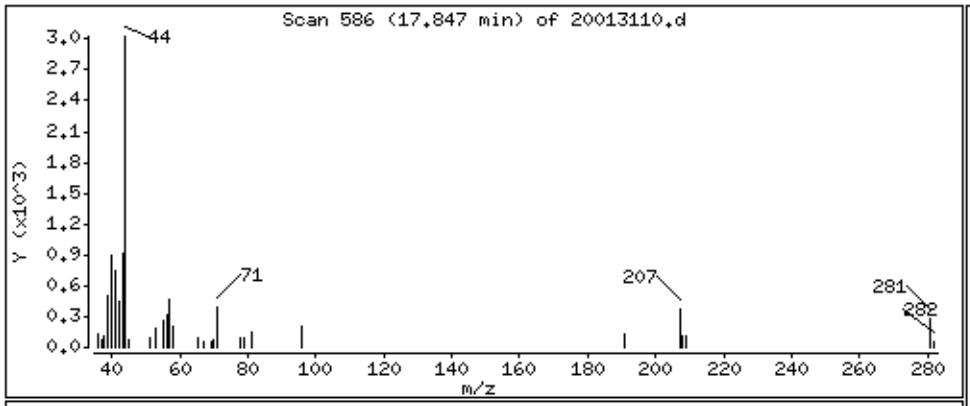
Operator: ef

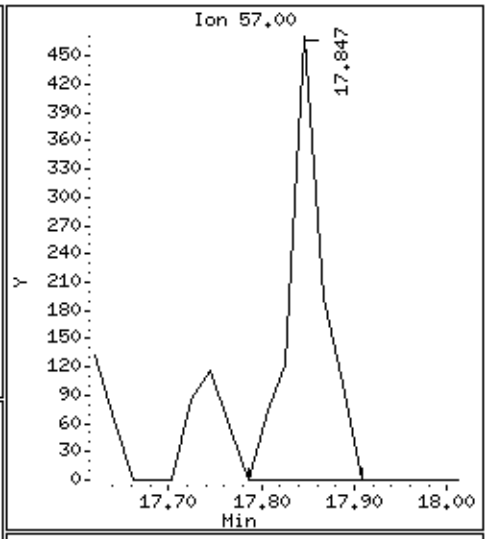
Column phase: RTX-624

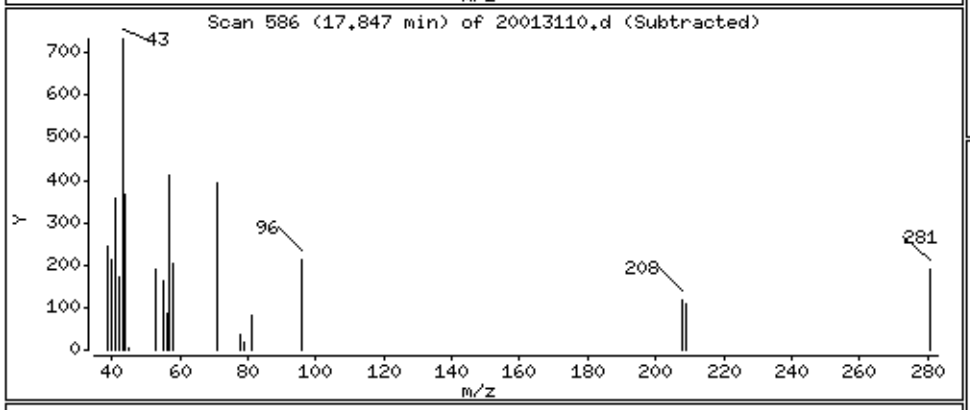
Column diameter: 0.32

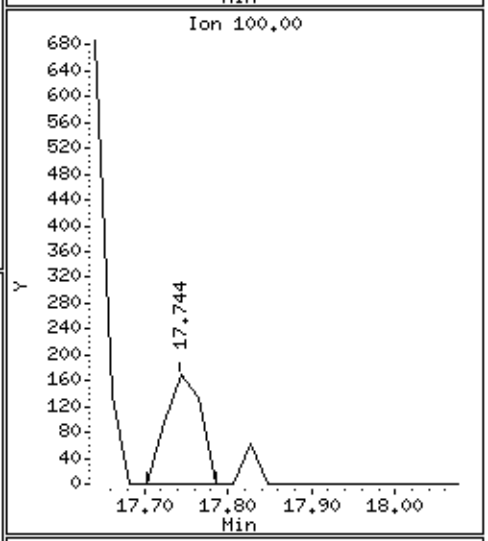
121 Heptane

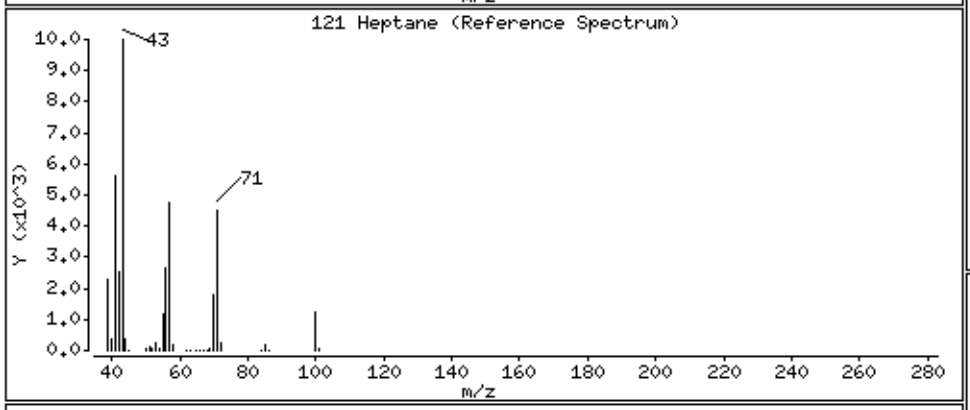
Concentration: 0.06283 PPBV

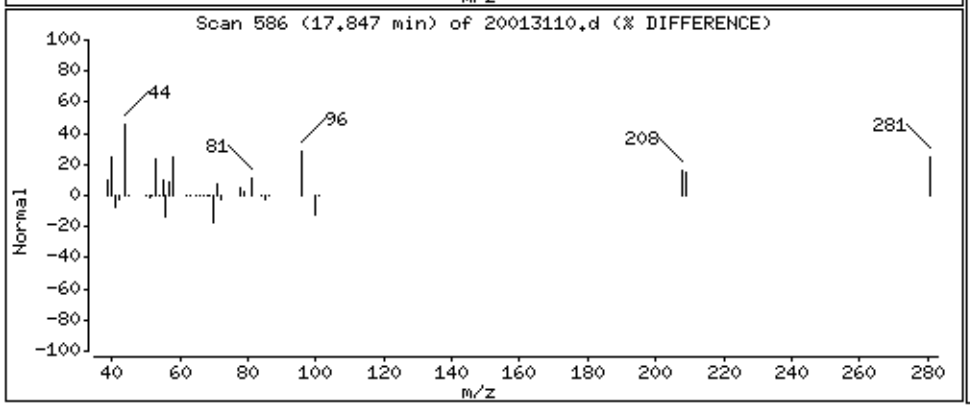


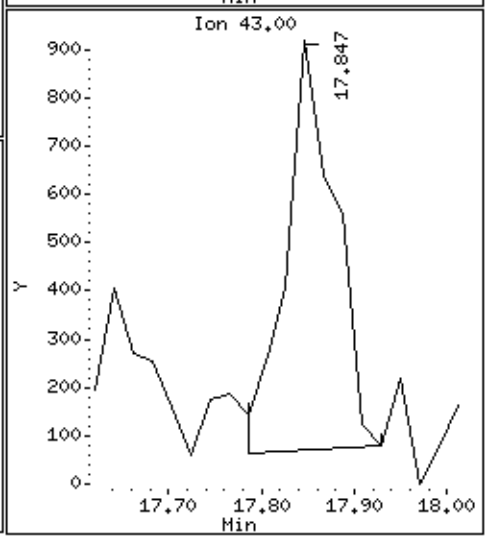












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

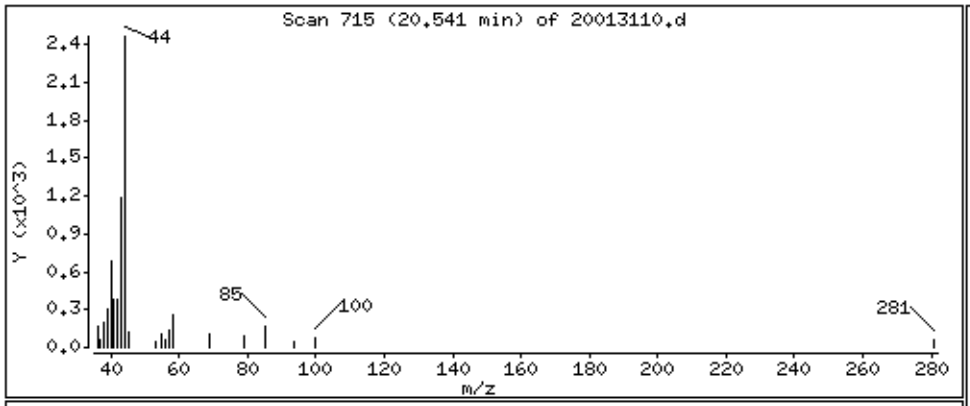
Operator: ef

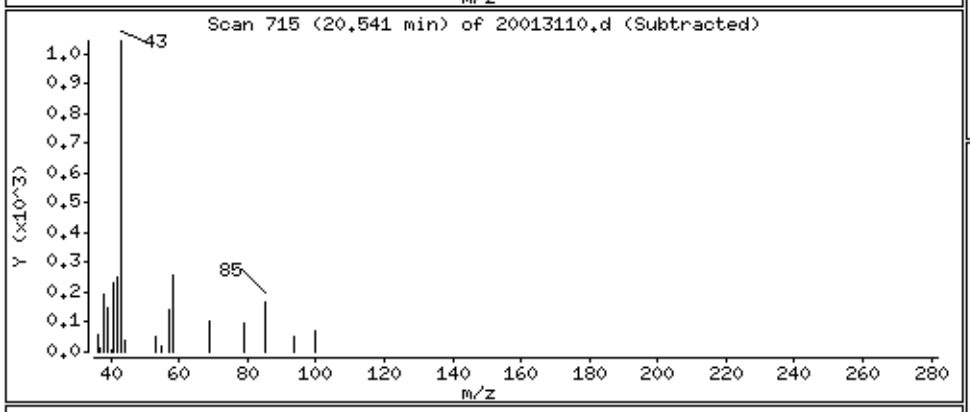
Column phase: RTX-624

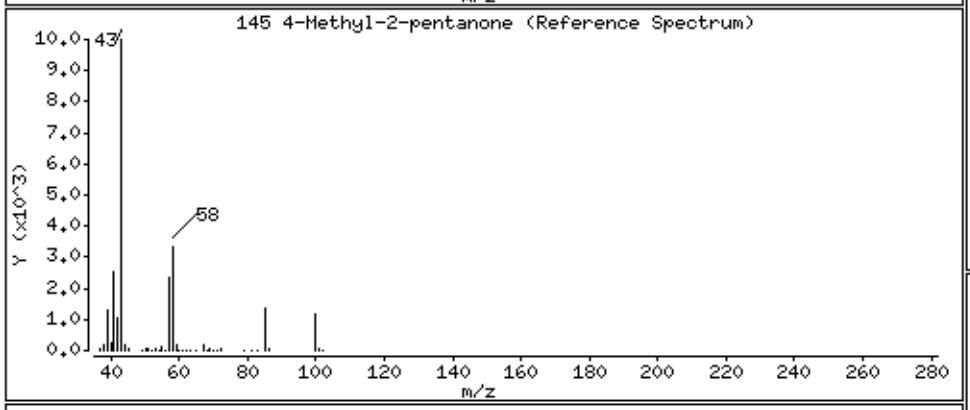
Column diameter: 0.32

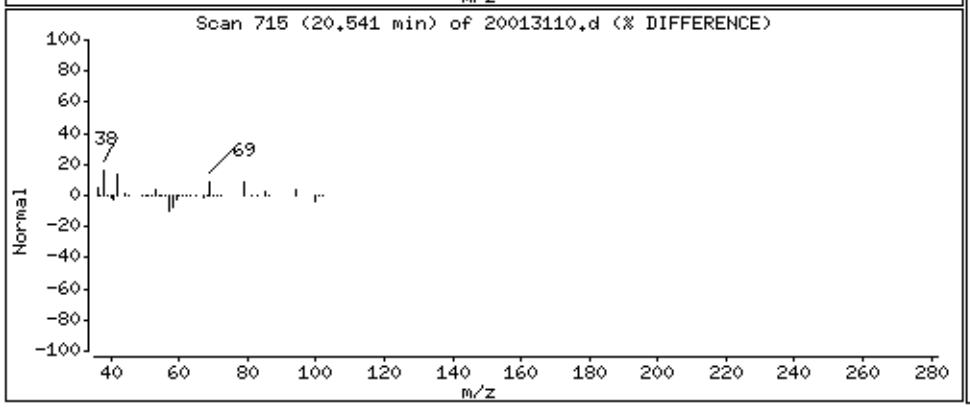
145 4-Methyl-2-pentanone

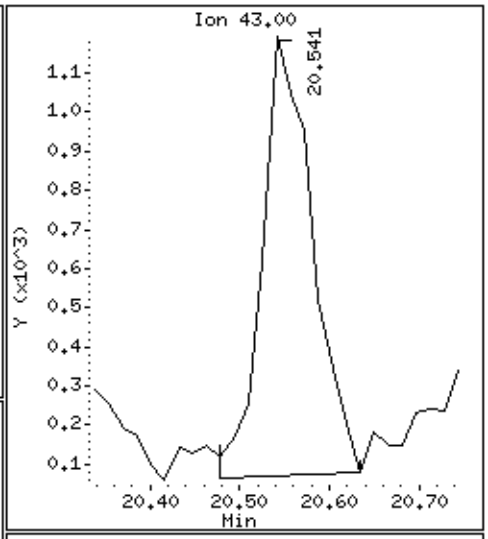
Concentration: 0.1094 PPBV

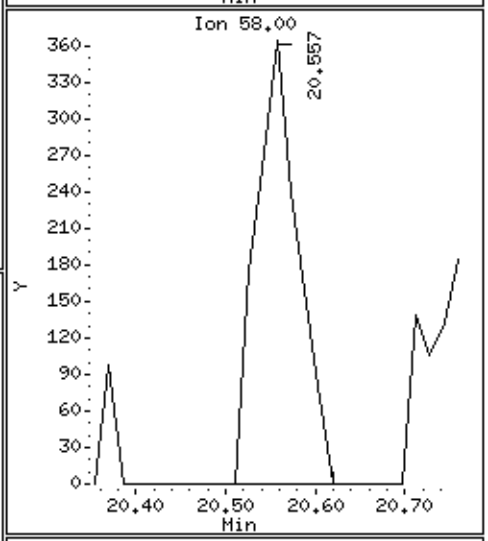


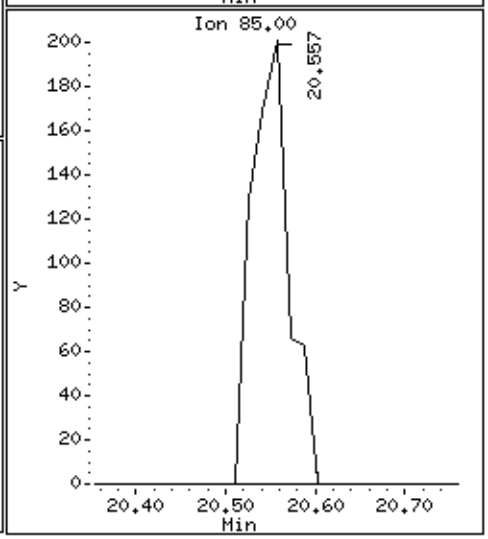












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

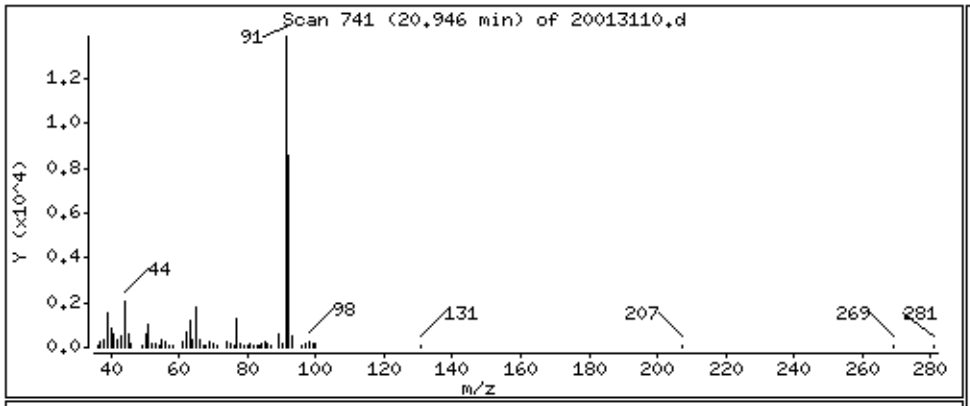
Operator: ef

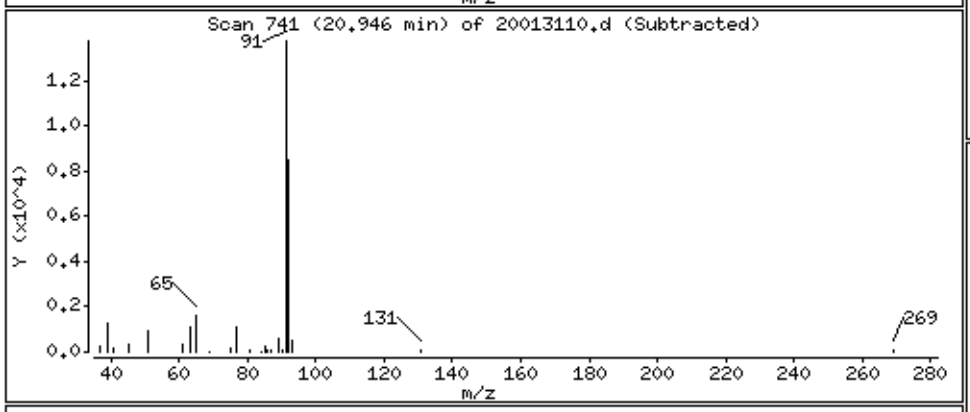
Column phase: RTX-624

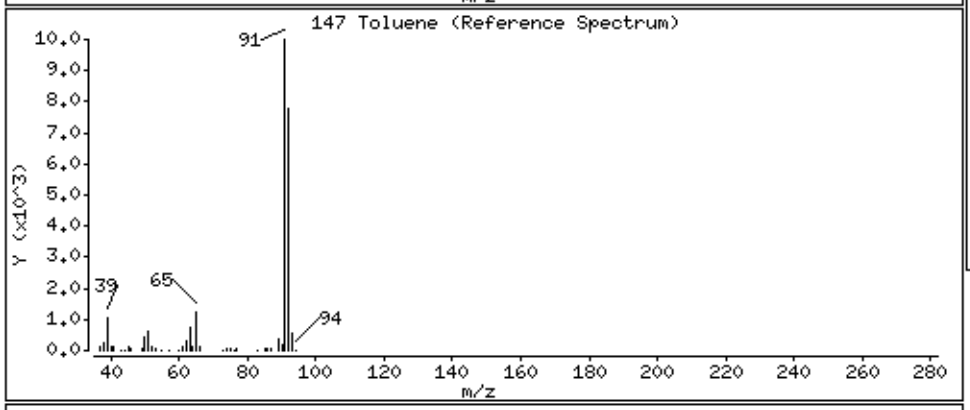
Column diameter: 0.32

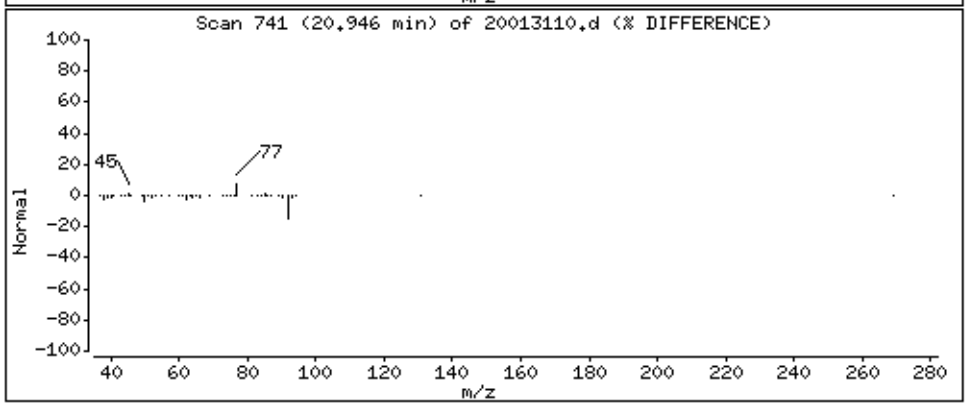
147 Toluene

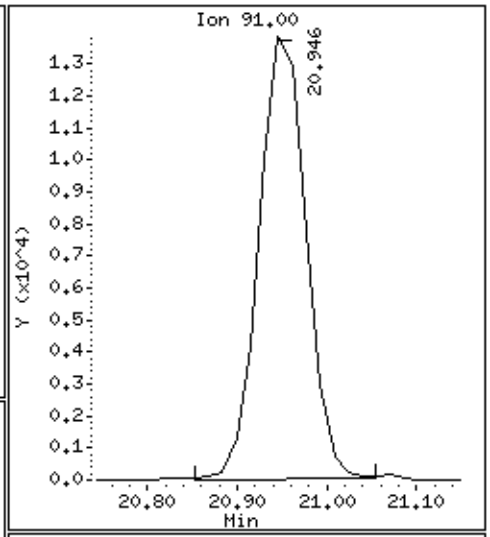
Concentration: 0.6267 PPBV

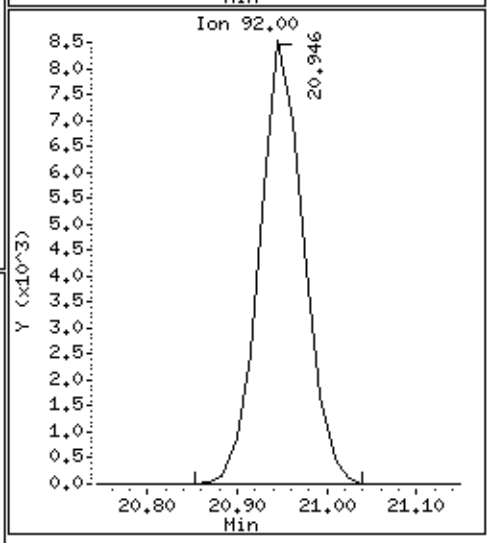












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

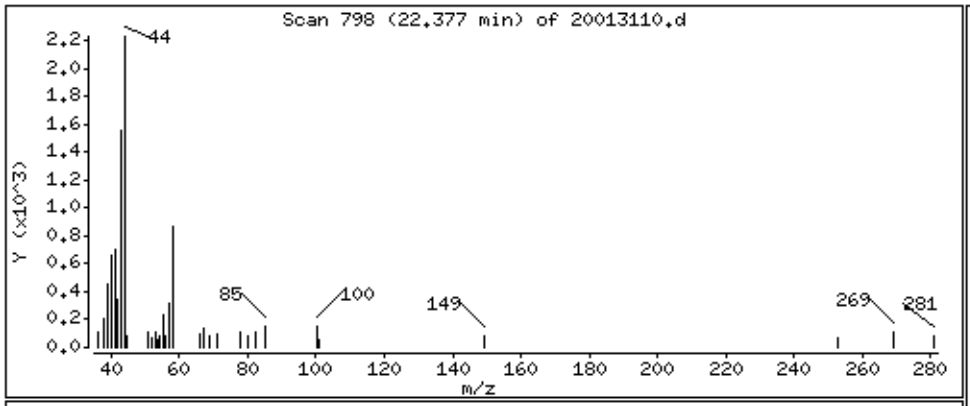
Operator: ef

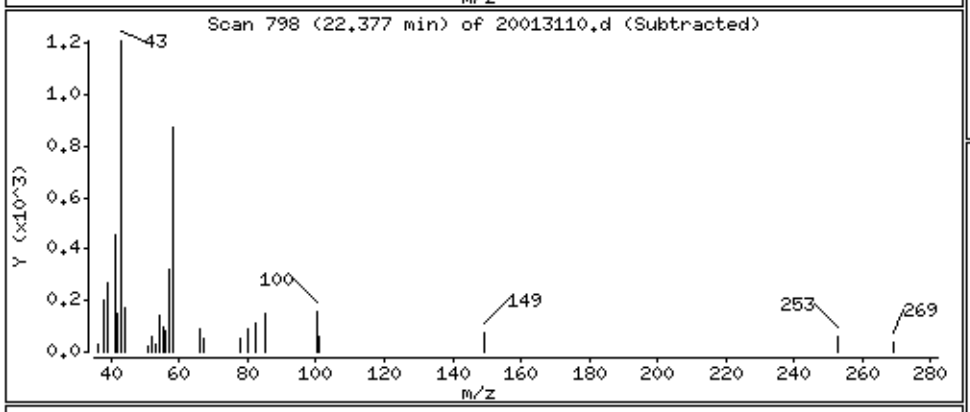
Column phase: RTX-624

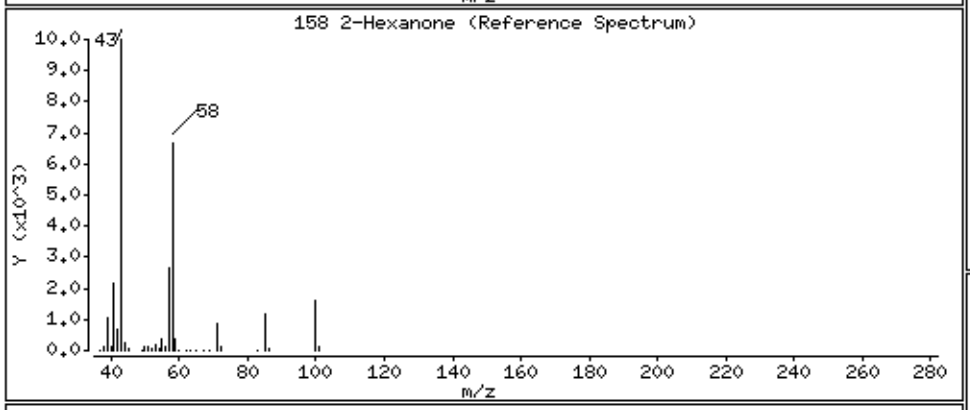
Column diameter: 0.32

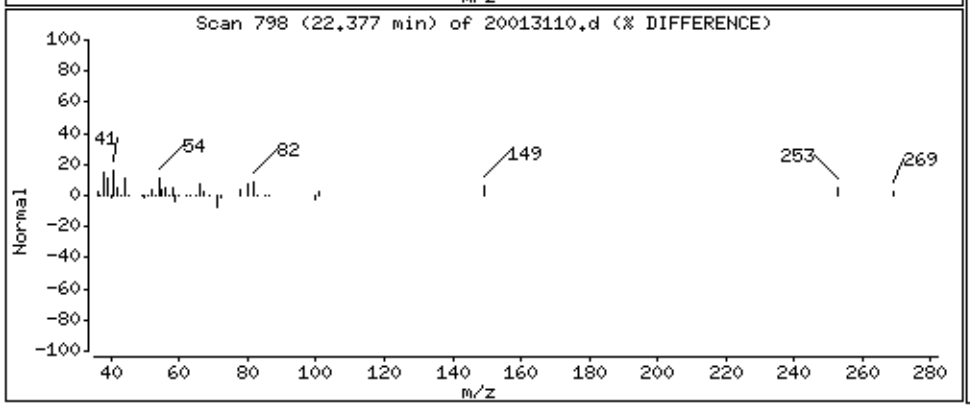
158 2-Hexanone

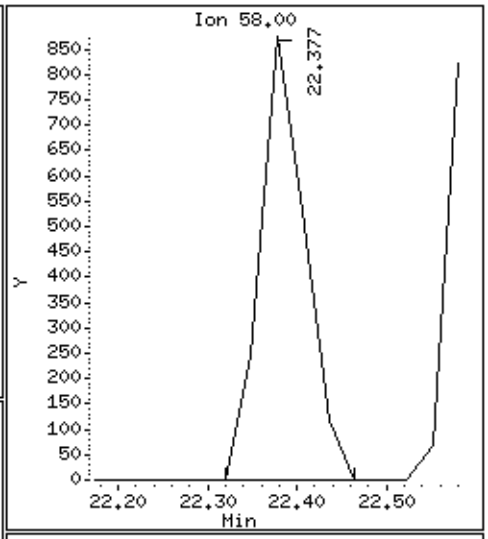
Concentration: 0.1272 PPBV

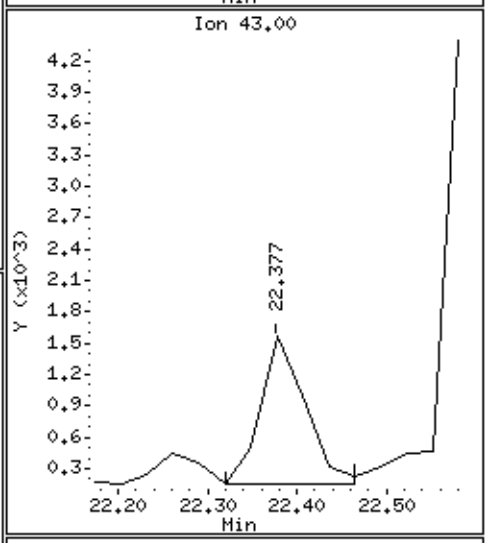


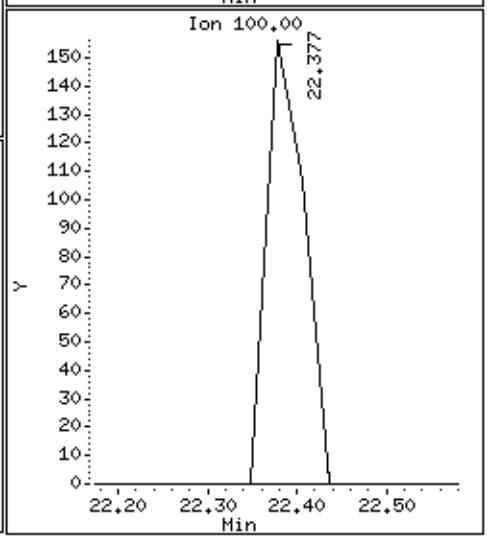












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

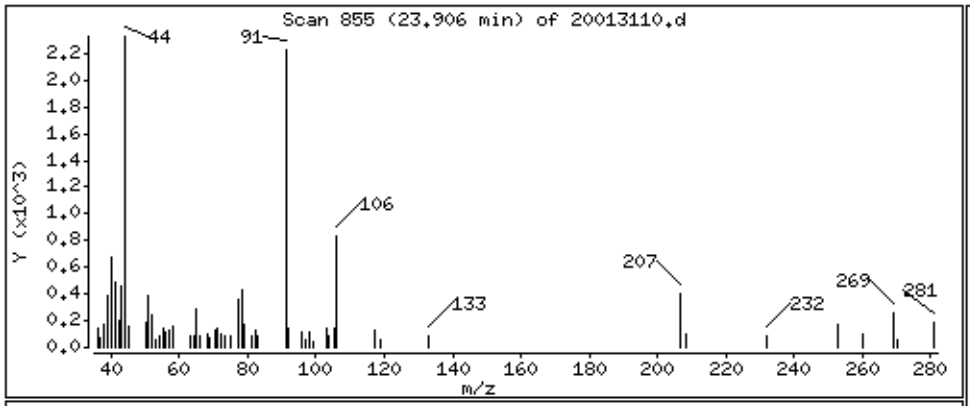
Operator: ef

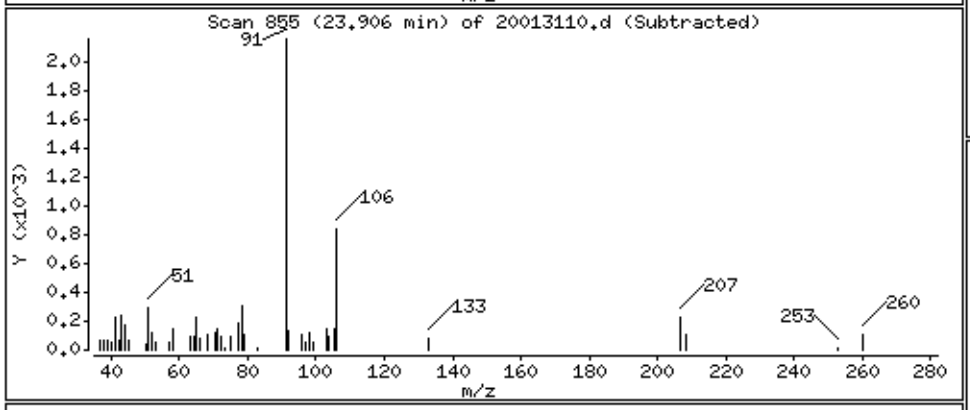
Column phase: RTX-624

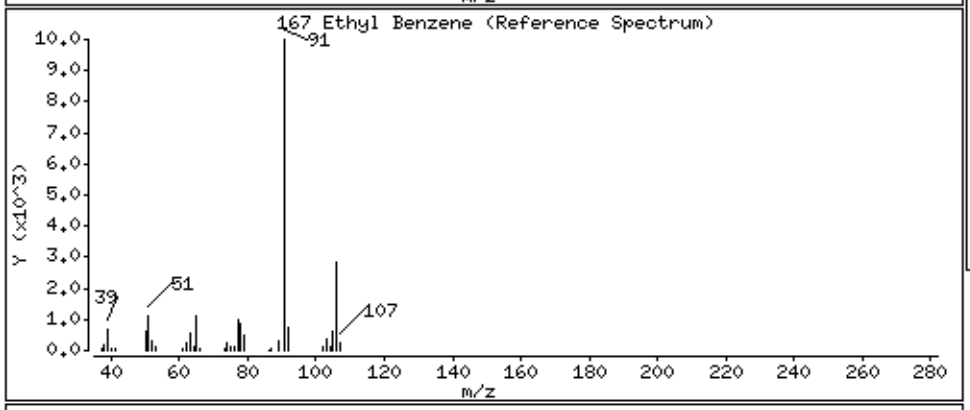
Column diameter: 0.32

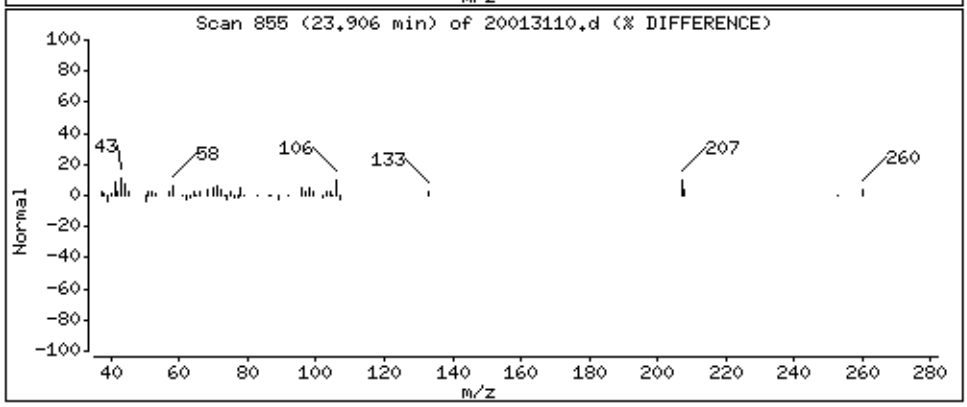
167 Ethyl Benzene

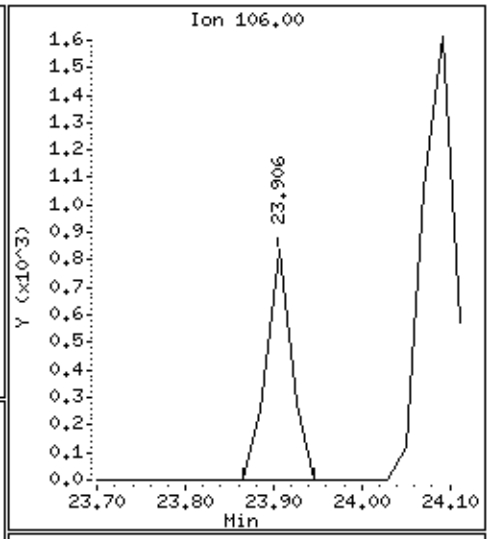
Concentration: 0.05098 PPBV

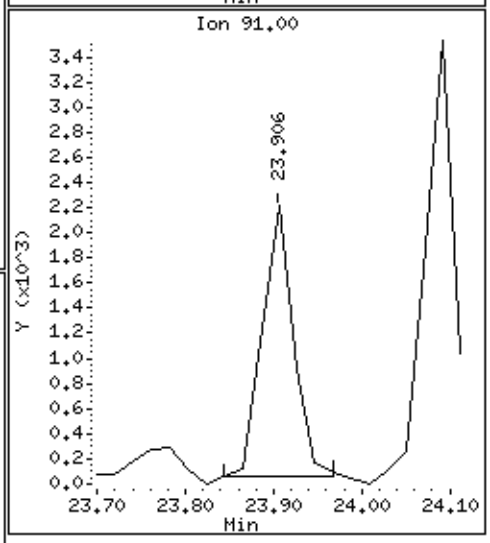












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

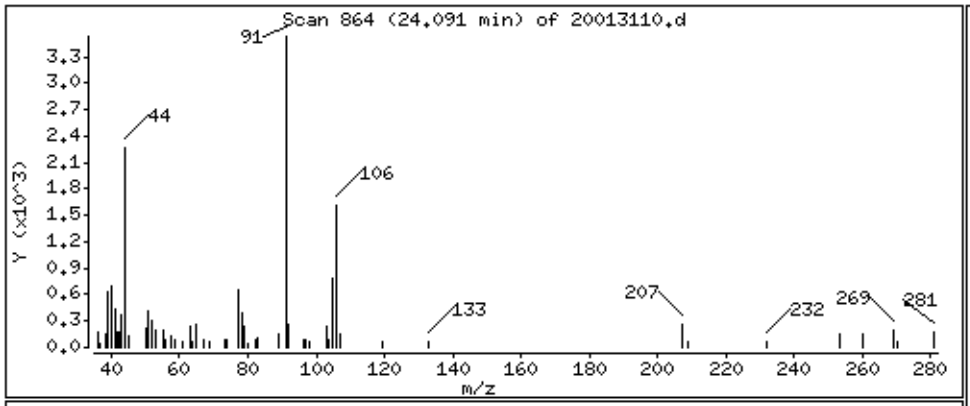
Operator: ef

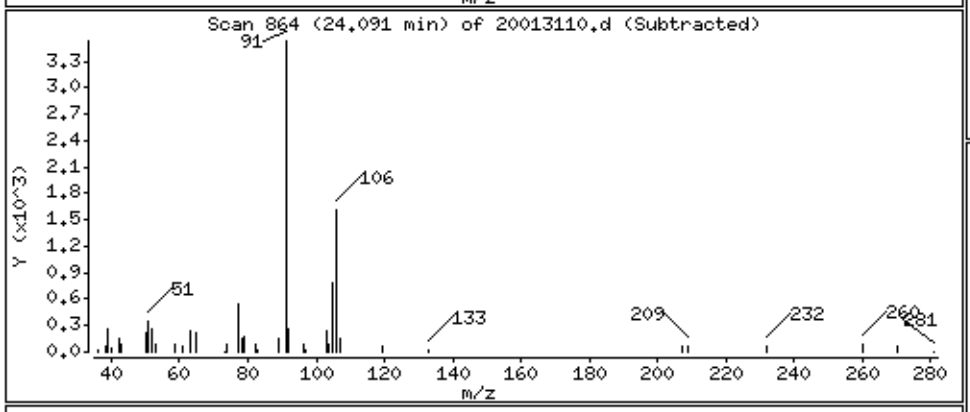
Column phase: RTX-624

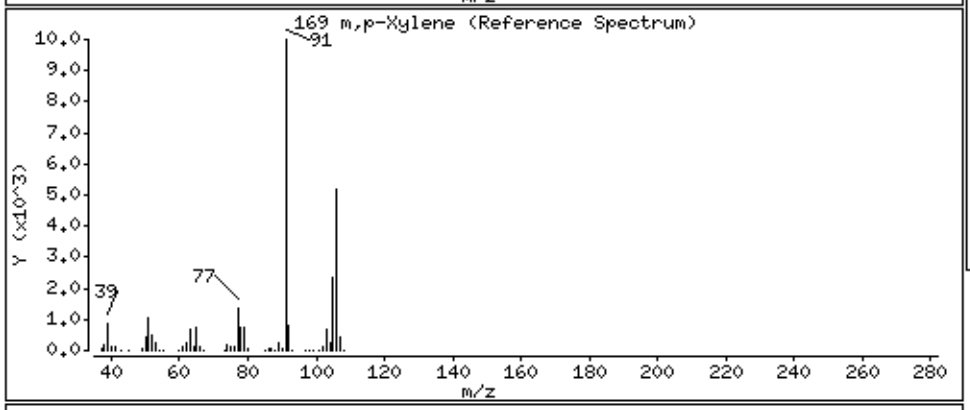
Column diameter: 0.32

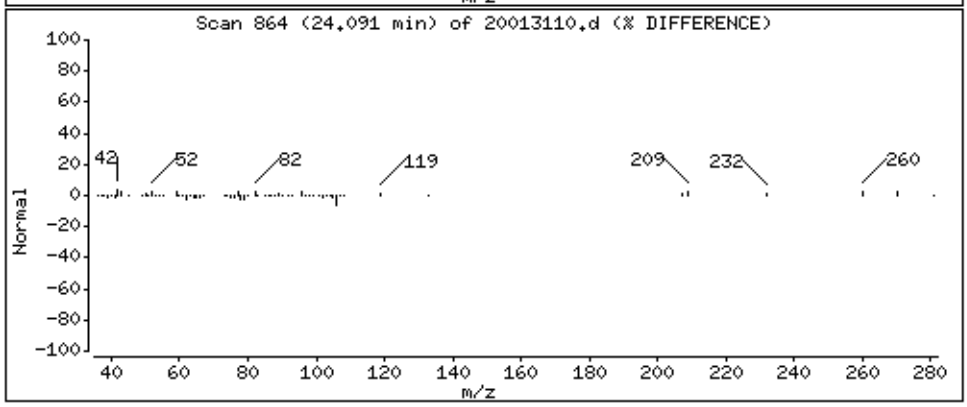
169 m,p-Xylene

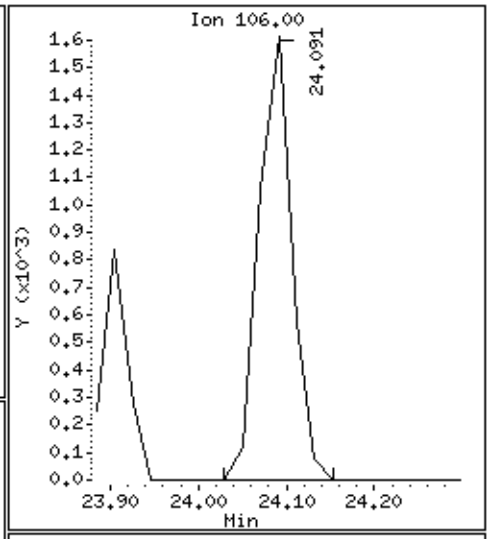
Concentration: 0.1214 PPBV

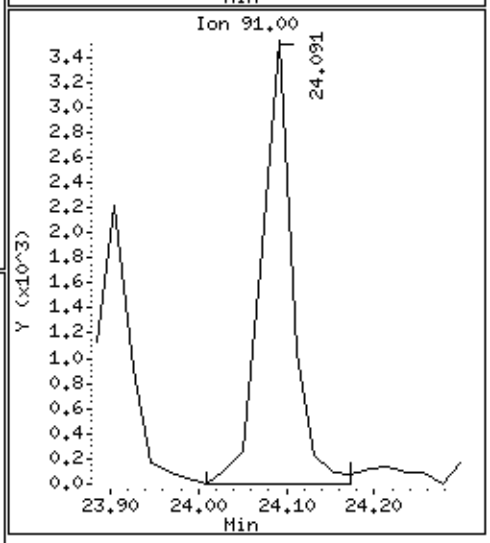












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

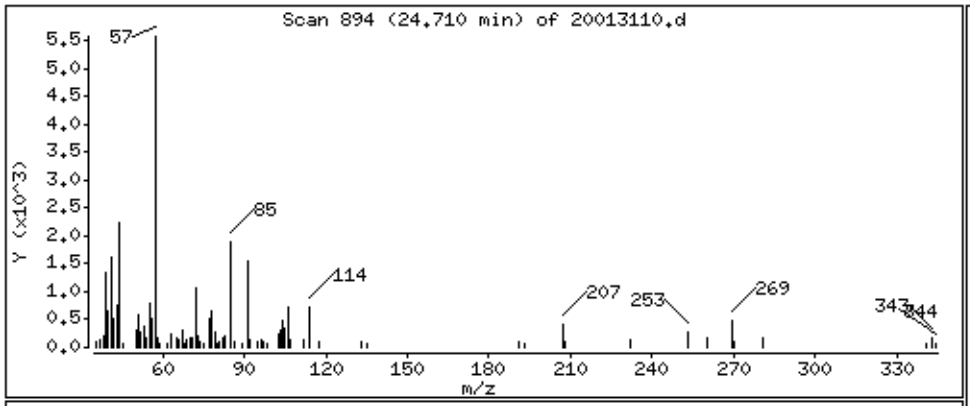
Operator: ef

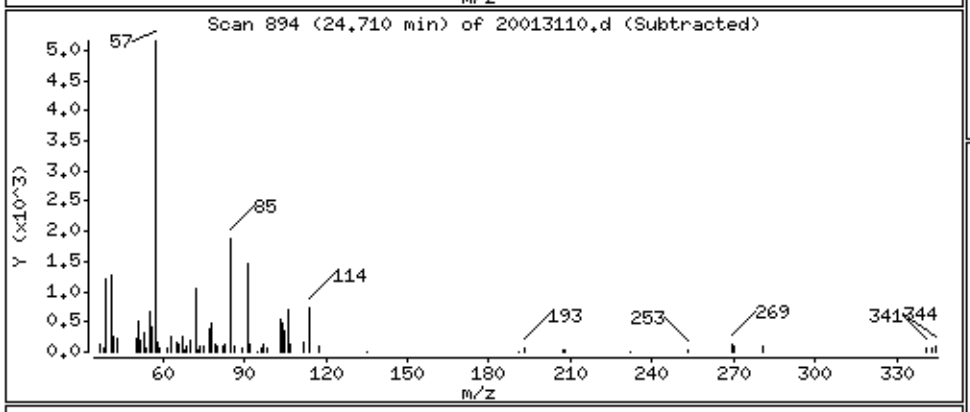
Column phase: RTX-624

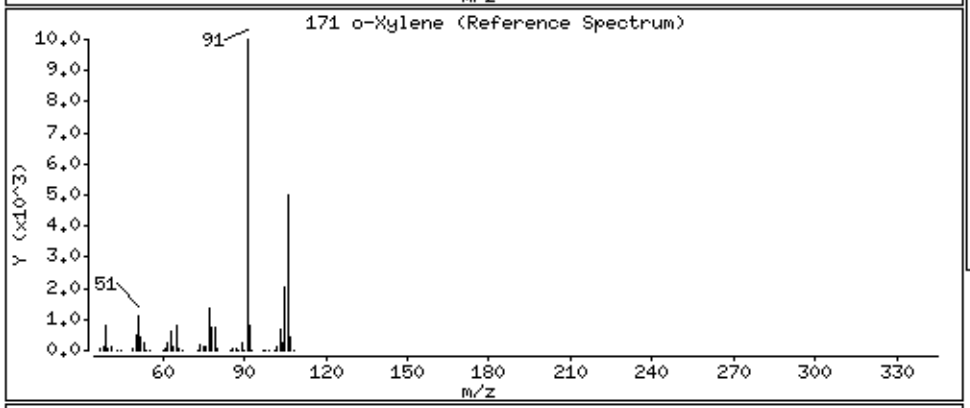
Column diameter: 0.32

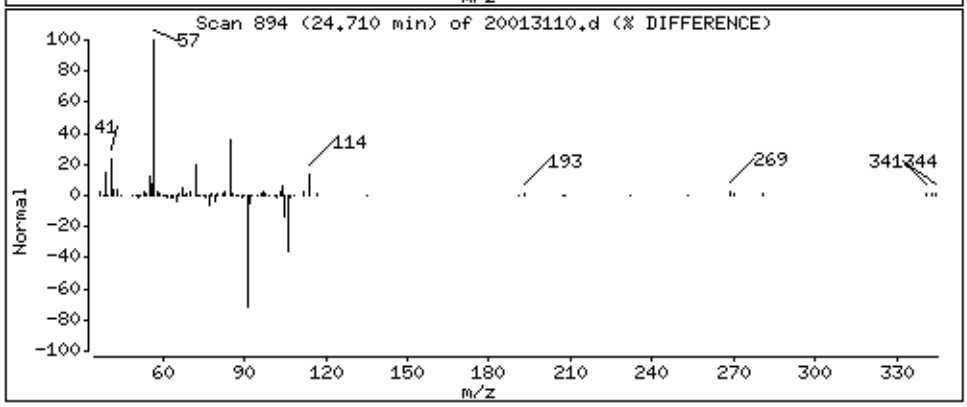
171 o-Xylene

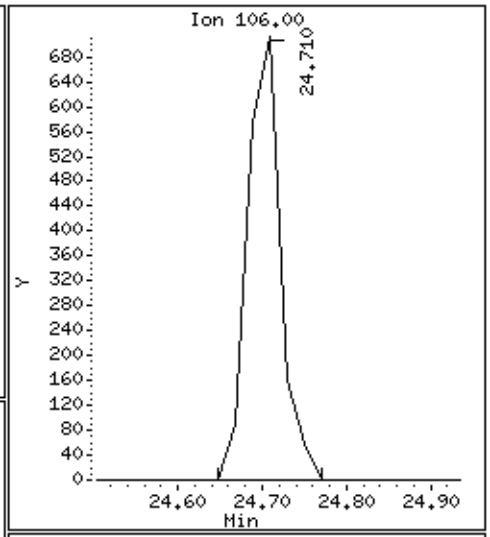
Concentration: 0.06040 PPBV

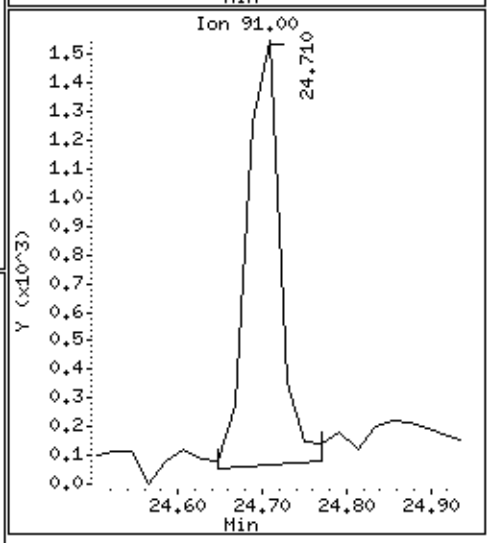












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

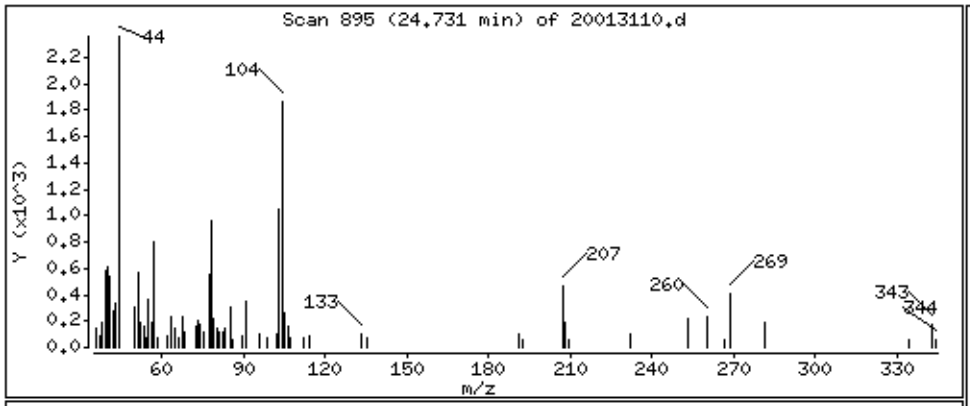
Operator: ef

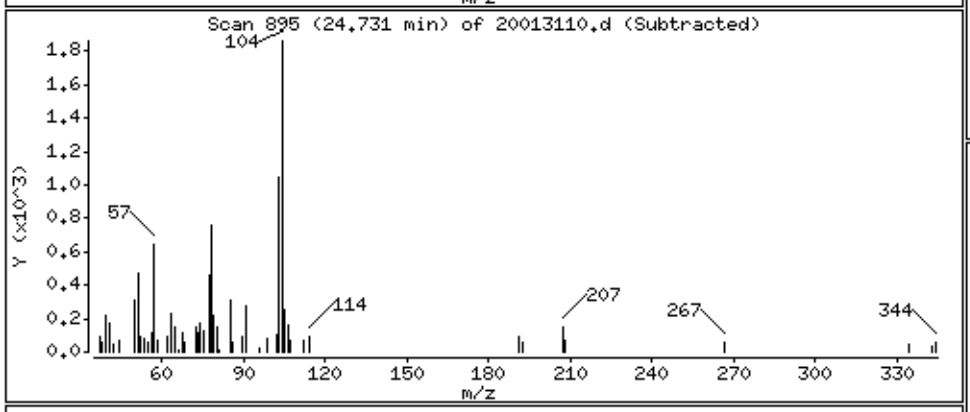
Column phase: RTX-624

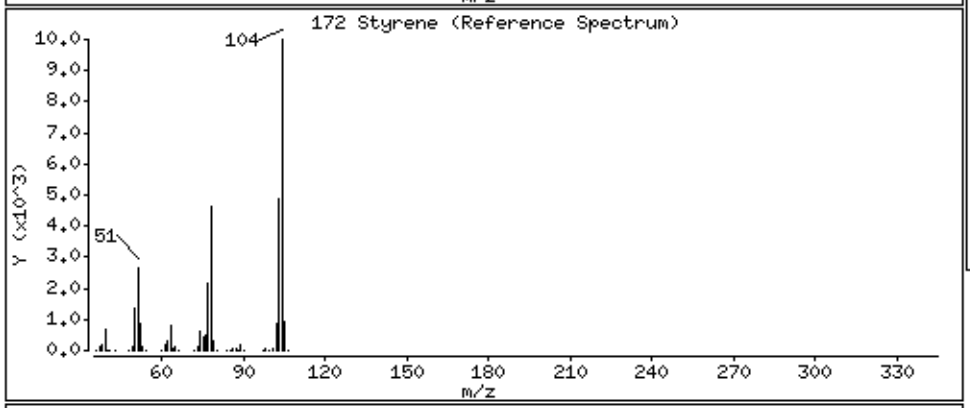
Column diameter: 0.32

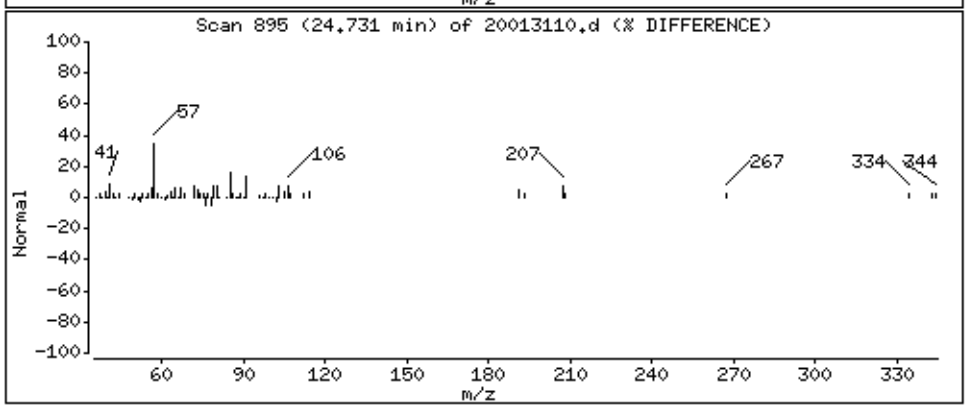
172 Styrene

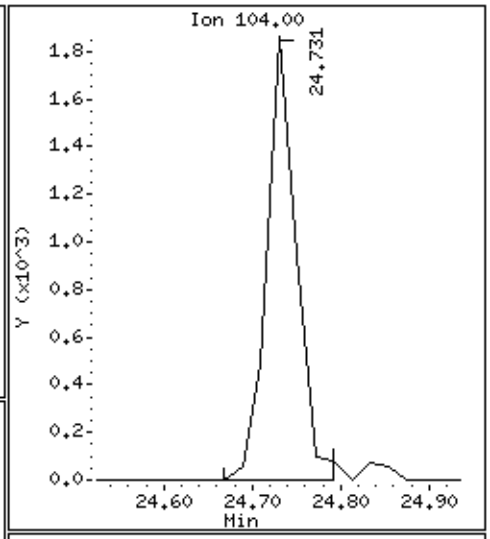
Concentration: 0.09085 PPBV

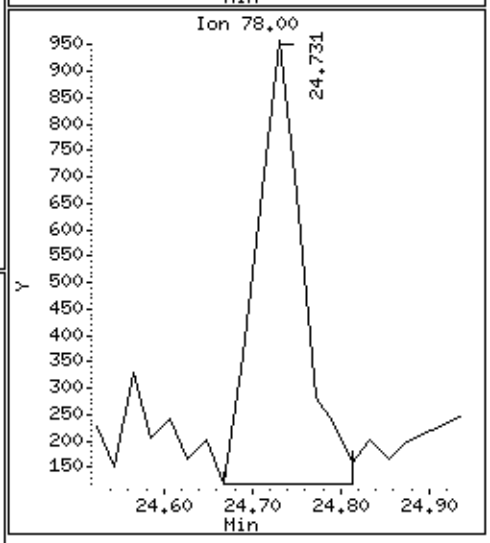












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

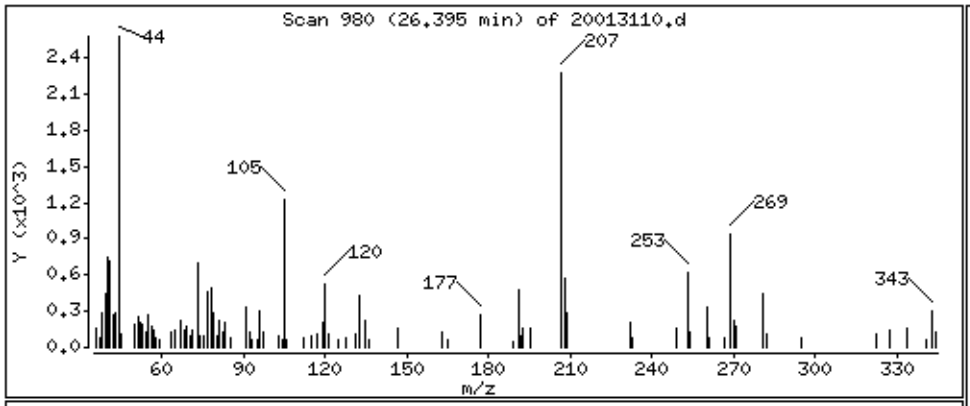
Operator: ef

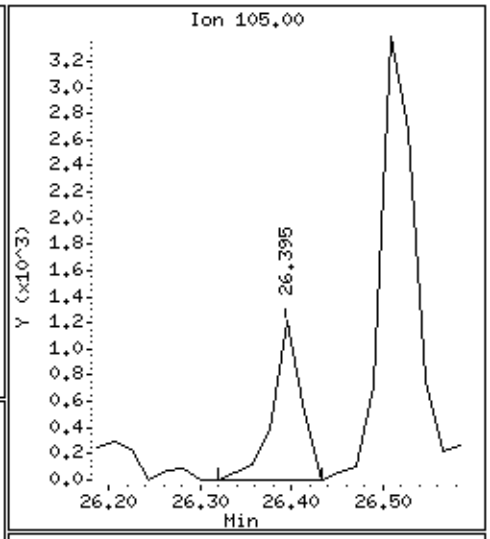
Column phase: RTX-624

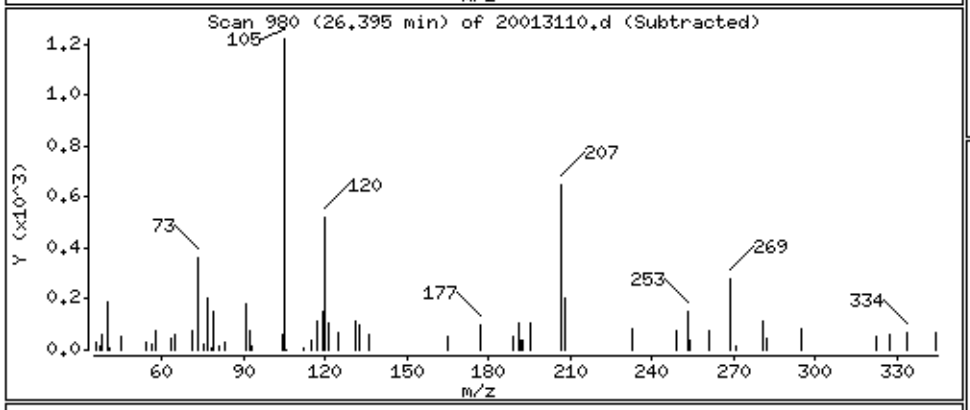
Column diameter: 0.32

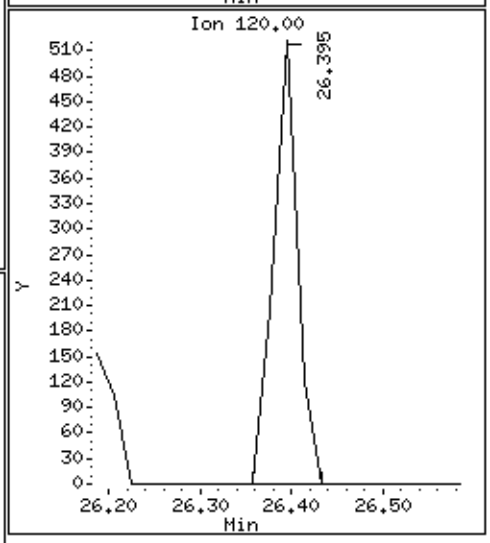
196 1,2,4-Trimethylbenzene

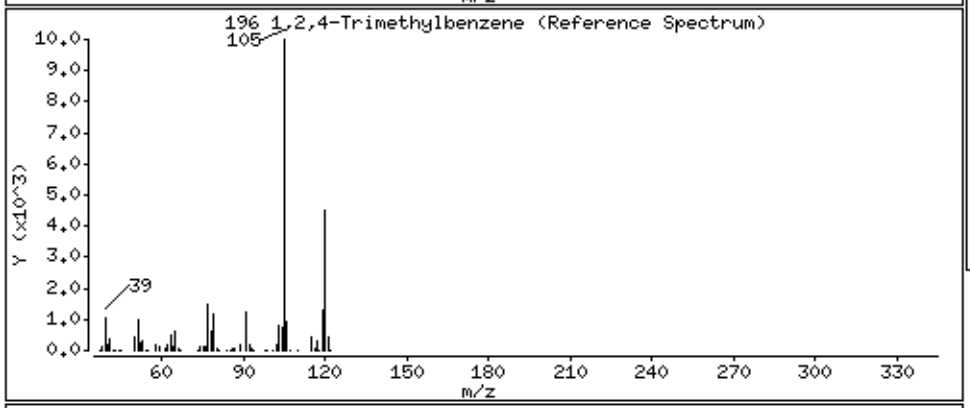
Concentration: 0.03716 PPBV

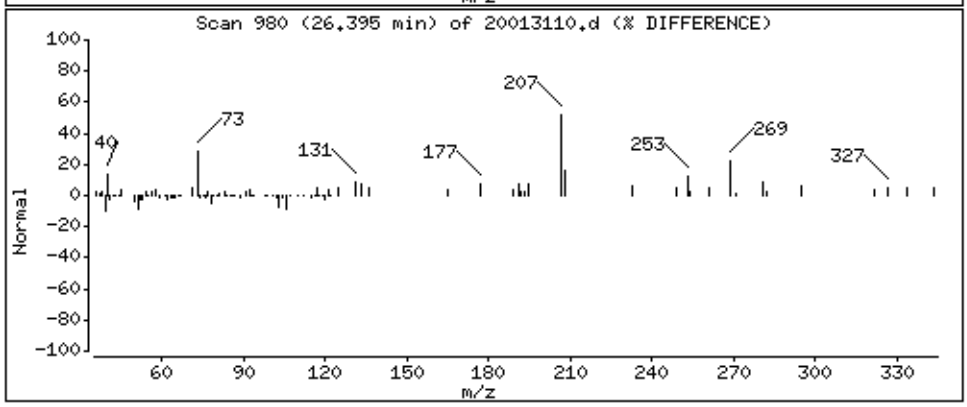












Data File: /chem/msd20.i/31Jan2017a.b/20013110.d

Date : 31-JAN-2017 12:54

Client ID:

Instrument: msd20.i

Sample Info: 250mL# N1755

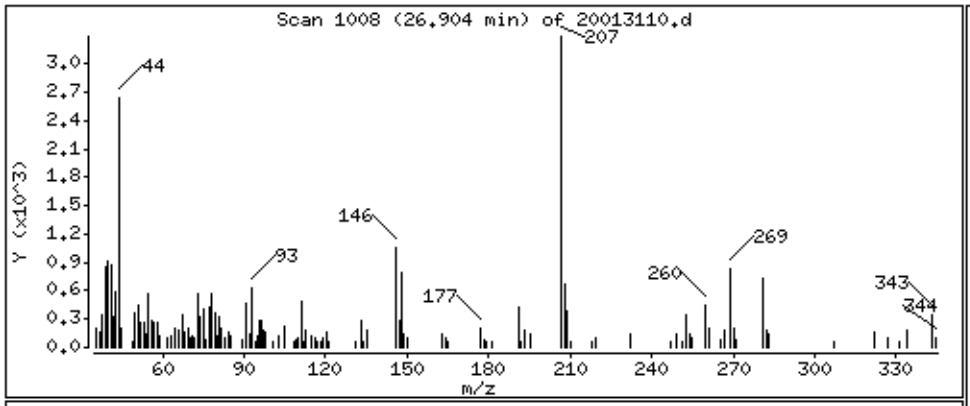
Operator: ef

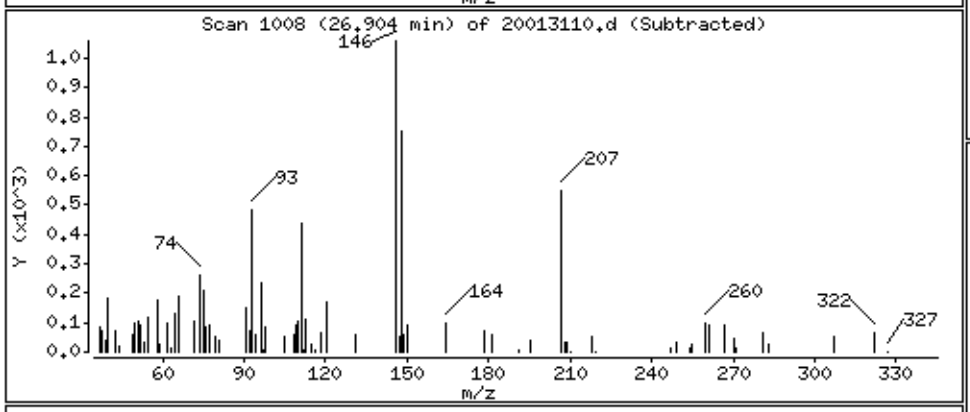
Column phase: RTX-624

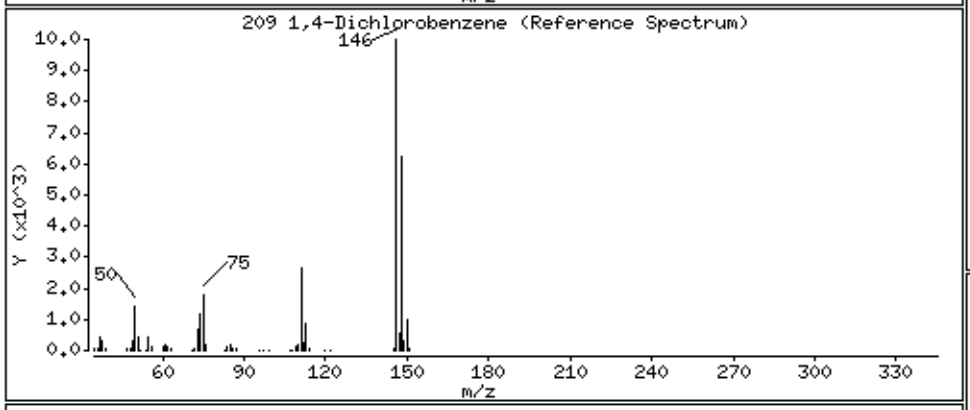
Column diameter: 0.32

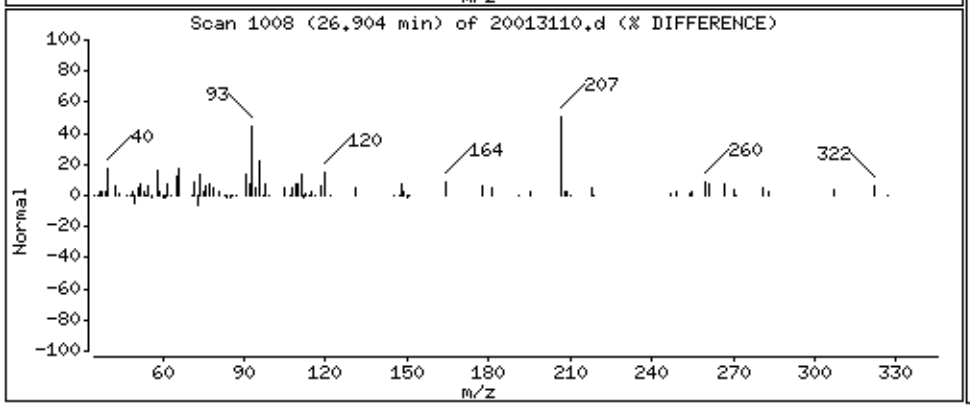
209 1,4-Dichlorobenzene

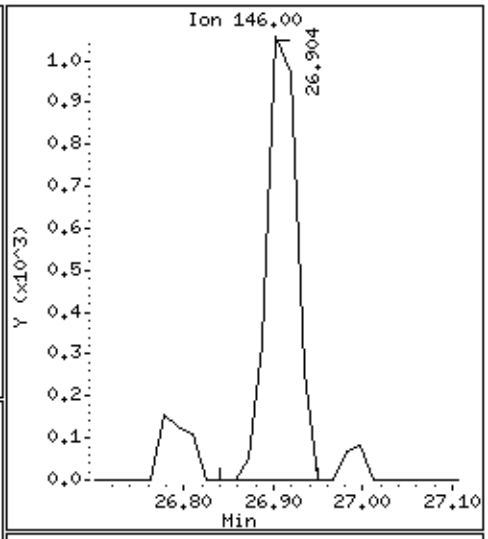
Concentration: 0.04593 PPBV

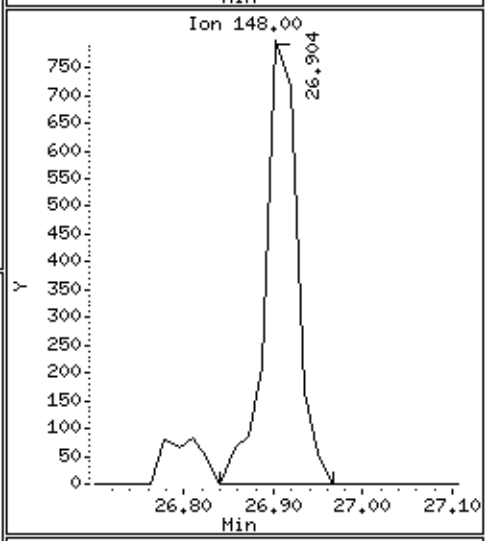


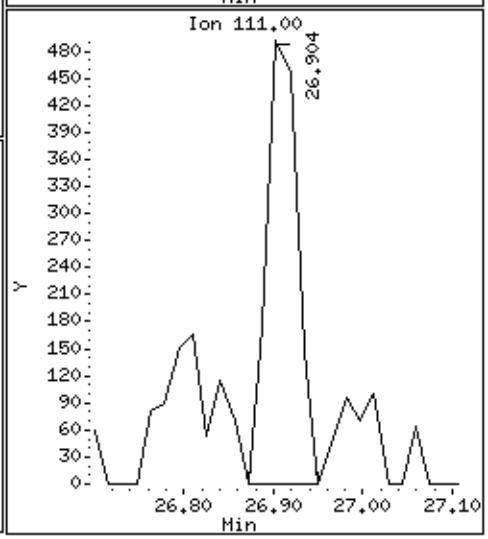












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-3-012117

Lab ID#: 1701428A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.55	0.94	2.7
Chloromethane	0.96	1.0	2.0	2.1
Freon 11	0.19	0.28	1.1	1.6
Ethanol	0.96	19	1.8	35
Freon 113	0.19	0.075 J	1.5	0.58 J
Acetone	0.96	7.9	2.3	19
2-Propanol	0.96	24	2.3	60
Methylene Chloride	0.38	0.23 J	1.3	0.81 J
Hexane	0.19	0.082 J	0.67	0.29 J
2-Butanone (Methyl Ethyl Ketone)	0.96	1.6	2.8	4.6
Carbon Tetrachloride	0.19	0.053 J	1.2	0.34 J
Benzene	0.19	0.15 J	0.61	0.48 J
Heptane	0.19	0.049 J	0.78	0.20 J
1,4-Dioxane	0.19	0.069 J	0.69	0.25 J
4-Methyl-2-pentanone	0.19	0.12 J	0.78	0.48 J
Toluene	0.19	0.65	0.72	2.5
Ethyl Benzene	0.19	0.086 J	0.83	0.37 J
m,p-Xylene	0.19	0.23	0.83	0.99
o-Xylene	0.19	0.073 J	0.83	0.32 J
Styrene	0.19	0.10 J	0.81	0.43 J
1,1,2,2-Tetrachloroethane	0.19	0.036 J	1.3	0.24 J
1,2,4-Trimethylbenzene	0.19	0.044 J	0.94	0.22 J
1,4-Dichlorobenzene	0.19	0.066 J	1.1	0.40 J
alpha-Chlorotoluene	0.19	0.058 J	0.99	0.30 J
1,2,4-Trichlorobenzene	0.96	0.078 J	7.1	0.58 J
Naphthalene	0.96	0.042 J	5.0	0.22 J

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Client Sample ID: B30IA-3-012117

Lab ID#: 1701428A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013119**	**Date of Collection:**	**1/21/17 6:21:00 PM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**1/31/17 07:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.55	0.94	2.7
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.96	1.0	2.0	2.1
Vinyl Chloride	0.19	Not Detected	0.49	Not Detected
1,3-Butadiene	0.19	Not Detected	0.42	Not Detected
Bromomethane	0.96	Not Detected	3.7	Not Detected
Chloroethane	0.96	Not Detected	2.5	Not Detected
Freon 11	0.19	0.28	1.1	1.6
Ethanol	0.96	19	1.8	35
Freon 113	0.19	0.075 J	1.5	0.58 J
1,1-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Acetone	0.96	7.9	2.3	19
2-Propanol	0.96	24	2.3	60
Carbon Disulfide	0.96	Not Detected	3.0	Not Detected
3-Chloropropene	0.96	Not Detected	3.0	Not Detected
Methylene Chloride	0.38	0.23 J	1.3	0.81 J
Methyl tert-butyl ether	0.19	Not Detected	0.69	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Hexane	0.19	0.082 J	0.67	0.29 J
1,1-Dichloroethane	0.19	Not Detected	0.77	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	1.6	2.8	4.6
cis-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Tetrahydrofuran	0.96	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.93	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.66	Not Detected
Carbon Tetrachloride	0.19	0.053 J	1.2	0.34 J
2,2,4-Trimethylpentane	0.96	Not Detected	4.5	Not Detected
Benzene	0.19	0.15 J	0.61	0.48 J
1,2-Dichloroethane	0.19	Not Detected	0.77	Not Detected
Heptane	0.19	0.049 J	0.78	0.20 J
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.88	Not Detected
1,4-Dioxane	0.19	0.069 J	0.69	0.25 J
Bromodichloromethane	0.19	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.87	Not Detected
4-Methyl-2-pentanone	0.19	0.12 J	0.78	0.48 J
Toluene	0.19	0.65	0.72	2.5
trans-1,3-Dichloropropene	0.19	Not Detected	0.87	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.96	Not Detected	3.9	Not Detected

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Client Sample ID: B30IA-3-012117

Lab ID#: 1701428A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013119**	**Date of Collection:**	**1/21/17 6:21:00 PM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**1/31/17 07:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.5	Not Detected
Chlorobenzene	0.19	Not Detected	0.88	Not Detected
Ethyl Benzene	0.19	0.086 J	0.83	0.37 J
m,p-Xylene	0.19	0.23	0.83	0.99
o-Xylene	0.19	0.073 J	0.83	0.32 J
Styrene	0.19	0.10 J	0.81	0.43 J
Bromoform	0.19	Not Detected	2.0	Not Detected
Cumene	0.19	Not Detected	0.94	Not Detected
1,1,2,2-Tetrachloroethane	0.19	0.036 J	1.3	0.24 J
Propylbenzene	0.19	Not Detected	0.94	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.94	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.94	Not Detected
1,2,4-Trimethylbenzene	0.19	0.044 J	0.94	0.22 J
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	0.066 J	1.1	0.40 J
alpha-Chlorotoluene	0.19	0.058 J	0.99	0.30 J
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.96	0.078 J	7.1	0.58 J
Hexachlorobutadiene	0.96	Not Detected	10	Not Detected
Naphthalene	0.96	0.042 J	5.0	0.22 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	123	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013119.d
Lab Smp Id: 1701428A-03A
Inj Date : 31-JAN-2017 19:57
Operator : gh Inst ID: msd20.i
Smp Info : 250mL# 9551
Misc Info : 9.0"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.696	16.726 (1.000)	130	150711	5.00000		80.00- 120.00	100.00
16.696	16.726 (1.000)	128	116907			46.97- 106.97	77.57
16.696	16.696 (1.000)	49	185343			76.21- 136.21	122.98
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	499116	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	79818			0.00- 45.59	15.99
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	471462	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	259221			23.26- 83.26	54.98
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.621	17.621 (1.055)	65	229376	6.16823	6.168	80.00- 120.00	100.00
17.621	17.621 (1.055)	67	120497			31.78- 91.78	52.53
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	495917	5.19654	5.196	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	58342			0.00- 40.33	11.76

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    318657                    35.56-  95.56    64.26
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    243133 4.83248    4.832  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    276528                   79.94- 139.94   113.74
 25.466  25.466 (1.072)   176    235028                   67.24- 127.24    96.67
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.648 (0.280)    85     32795 0.28706   0.5483  70.00- 130.00   100.00(M)
  4.696   4.648 (0.281)    87     10101                    0.00-  30.00    30.80
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.553 (0.395)    50     18743 0.53374    1.019  80.00- 120.00   100.00
  6.601   6.553 (0.395)    52      6628                    3.24-  63.24    35.36
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.666)   101     17043 0.14900   0.2846  80.00- 120.00   100.00
 11.114  11.114 (0.666)   103     12214                   34.37-  94.37    71.67
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.269  12.269 (0.735)    45    151544 9.83773   18.790  80.00- 120.00   100.00
 12.269  12.269 (0.735)    46     59289                   10.33-  70.33    39.12
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.763)   151      3358 0.03933  0.07513  80.00- 120.00   100.00(a)
 12.763  12.763 (0.764)   153      2106                   33.68-  93.68    62.72
 12.736  12.736 (0.763)   101      3943                   86.77- 146.77   117.42
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.784)    58     88167 4.15183    7.930  80.00- 120.00   100.00
 13.093  13.066 (0.784)    43    253210                  253.28- 313.28   287.19
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.533  13.533 (0.811)    45    727792 12.7580   24.368  80.00- 120.00   100.00
 13.533  13.533 (0.811)    43    221394                    0.00-  52.74    30.42
 13.533  13.533 (0.811)    59     31767                    0.00-  34.43     4.36
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.840)    84      5608 0.12168   0.2324  80.00- 120.00   100.00(a)
 14.027  14.027 (0.840)    49      6893                   80.28- 140.28   122.91
 14.027  14.027 (0.840)    51      2625                    4.61-  64.61    46.81
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.891)    57      2611 0.04288  0.08190  80.00- 120.00   100.00(a)
 14.878  14.878 (0.891)    43      3349                   28.29-  88.29   128.27
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane (continued)							
14.878	14.878 (0.891)	86	691			0.00- 48.18	26.46
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.979)	72	17055	0.82364	1.573	80.00- 120.00	100.00
16.344	16.324 (0.979)	43	65525			300.25- 360.25	384.20
16.344	16.324 (0.979)	57	5420			0.00- 58.21	31.78
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.033)	119	2252	0.02795	0.05338	80.00- 120.00	100.00(a)
17.250	17.250 (1.033)	117	2507			73.50- 133.50	111.32
116 Benzene					CAS #: 71-43-2		
17.621	17.621 (0.968)	78	9407	0.07888	0.1506	80.00- 120.00	100.00(a)
17.621	17.621 (0.968)	77	2428			0.00- 53.26	25.81
121 Heptane					CAS #: 142-82-5		
17.826	17.847 (0.979)	57	781	0.02551	0.04871	80.00- 120.00	100.00(a)
17.847	17.847 (0.980)	100	355			8.23- 68.23	45.45
17.847	17.847 (0.980)	43	2546			141.33- 201.33	325.99
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.190 (1.055)	88	1015	0.03631	0.06936	80.00- 120.00	100.00(a)
19.213	19.190 (1.055)	58	1295			32.65- 92.65	127.59
19.101	19.190 (1.049)	57	2967			0.00- 50.00	292.32
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	3954	0.06078	0.1161	80.00- 120.00	100.00(a)
20.541	20.557 (1.128)	58	723			12.96- 72.96	18.29
20.572	20.557 (1.130)	85	856			0.00- 50.79	21.65
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	44990	0.34288	0.6549	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	26823			29.12- 89.12	59.62
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.906 (1.006)	106	2478	0.04494	0.08584	80.00- 120.00	100.00(a)
23.906	23.906 (1.006)	91	6710			275.87- 335.87	270.78
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	6926	0.11947	0.2282	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	14072			163.30- 223.30	203.18
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	2054	0.03802	0.07263	80.00- 120.00	100.00(a)
24.710	24.710 (1.040)	91	5781			172.76- 232.76	281.45

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
172 Styrene					CAS #: 100-42-5		
24.731	24.731 (1.041)	104	4183	0.05277	0.1008	80.00- 120.00	100.00(a)
24.731	24.731 (1.041)	78	2757			18.49- 78.49	65.91
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	1934	0.01861	0.03554	80.00- 120.00	100.00(a)
25.656	25.656 (1.080)	85	1323			34.74- 94.74	68.41
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	2653	0.02293	0.04379	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1462			17.83- 77.83	55.11
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.904 (1.133)	146	3124	0.03479	0.06644	80.00- 120.00	100.00(a)
26.919	26.904 (1.133)	148	2147			33.90- 93.90	68.73
26.903	26.904 (1.132)	111	1414			6.77- 66.77	45.26
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	2824	0.03024	0.05775	80.00- 120.00	100.00(a)
27.075	27.075 (1.139)	126	462			0.00- 52.05	16.36
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.367	29.367 (1.236)	180	4263	0.04092	0.07817	80.00- 120.00	100.00(a)
29.367	29.367 (1.236)	182	3683			66.13- 126.13	86.39
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	4127	0.02205	0.04211	80.00- 120.00	100.00(a)
29.756	29.756 (1.252)	127	716			0.00- 42.38	17.35

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Report Date: 09-Feb-2017 12:30

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20013119.d
Lab Smp Id: 1701428A-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 9.0"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	150711	-20.54
123 1,4-Difluorobenze	617206	370324	864088	499116	-19.13
163 Chlorobenzene-d5	554897	332938	776856	471462	-15.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.70	-0.18
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 12:30

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-03A
Level: LOW Operator: gh
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 9.0"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.168	123.36	70-130
$ 146 Toluene-d8	5.000	5.196	103.93	70-130
$ 177 4-Bromofluorobenze	5.000	4.832	96.65	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

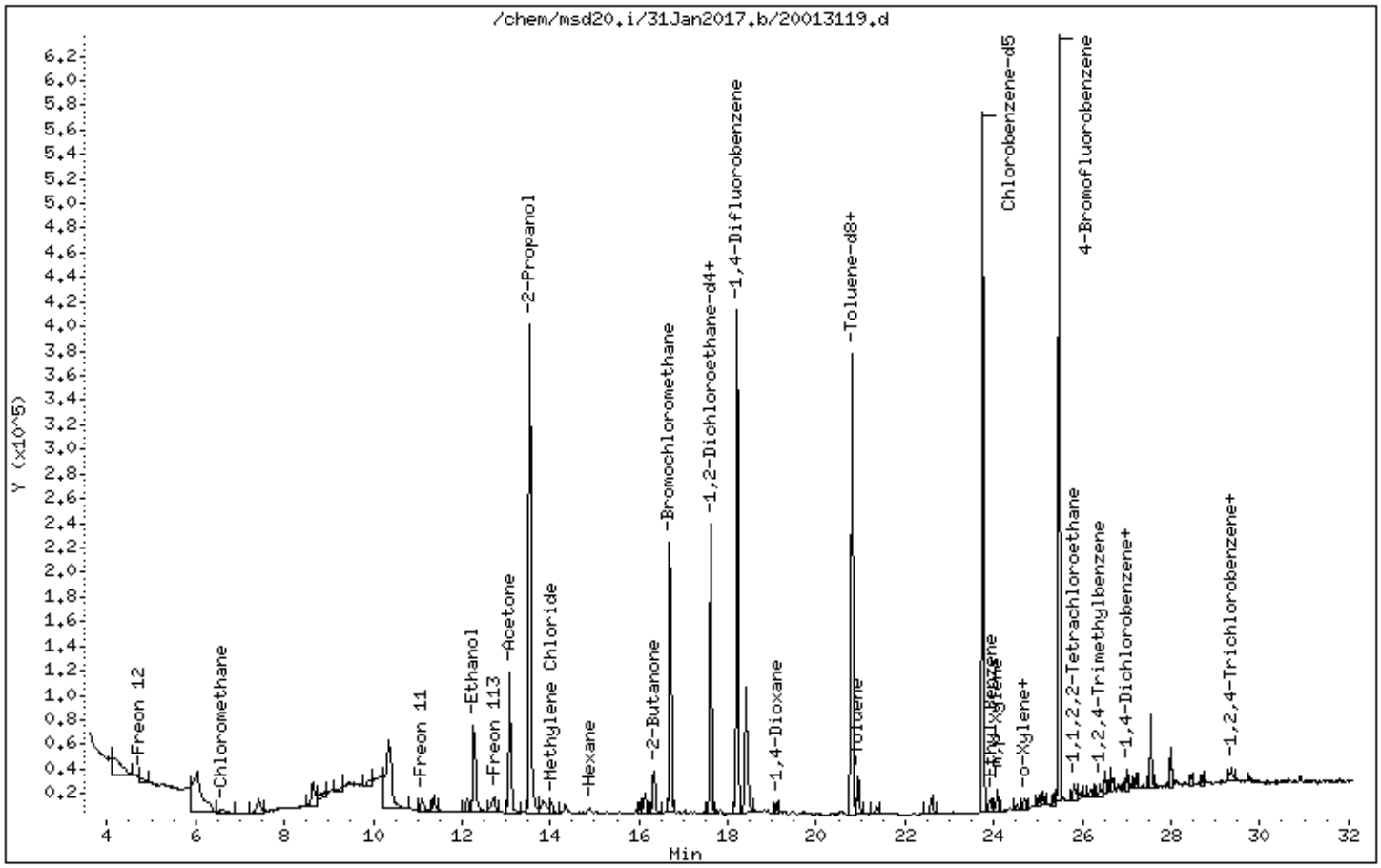
Instrument: msd20.i

Sample Info: 250mL# 9551

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

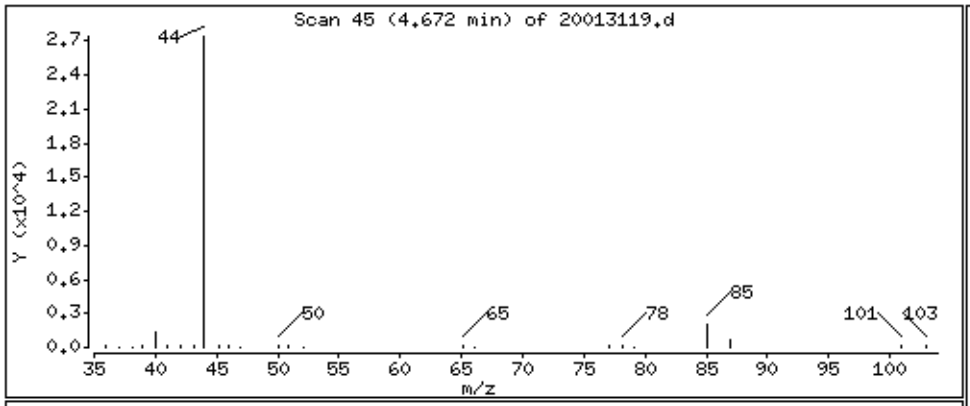
Operator: gh

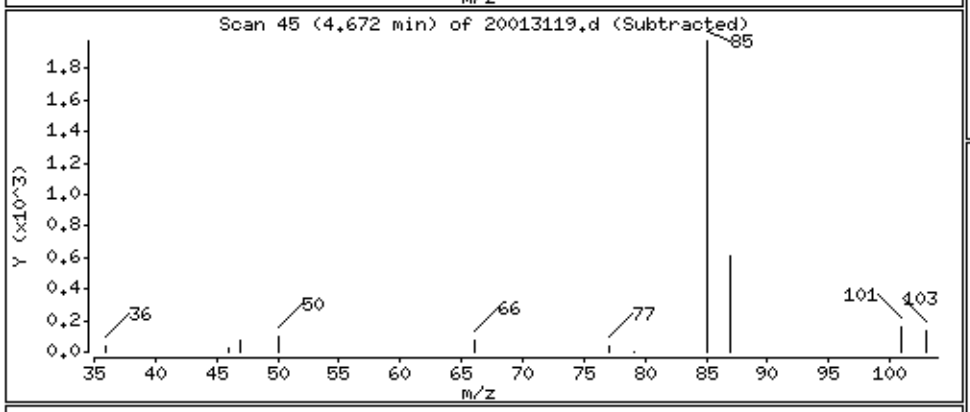
Column phase: RTX-624

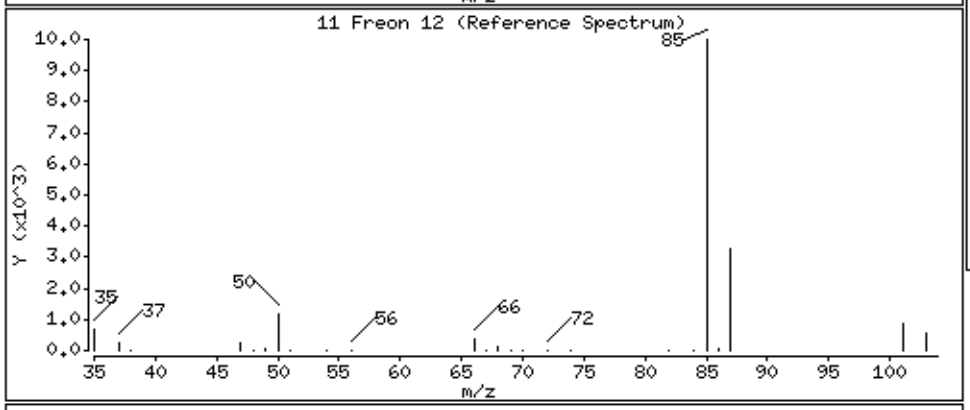
Column diameter: 0.32

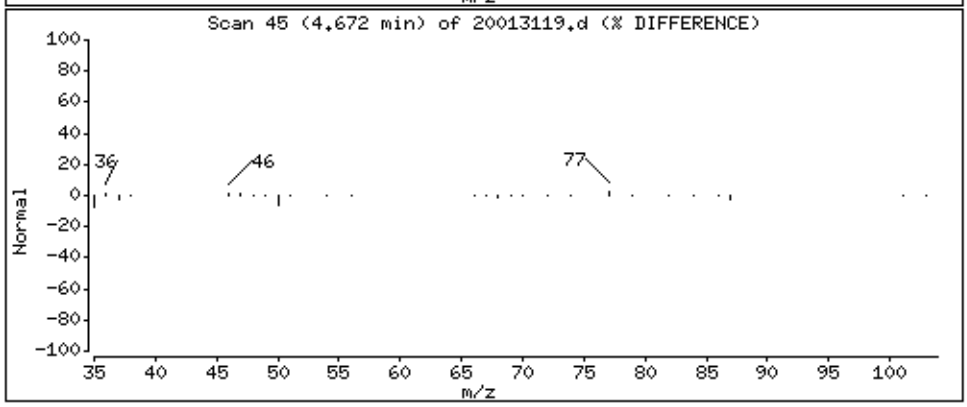
11 Freon 12

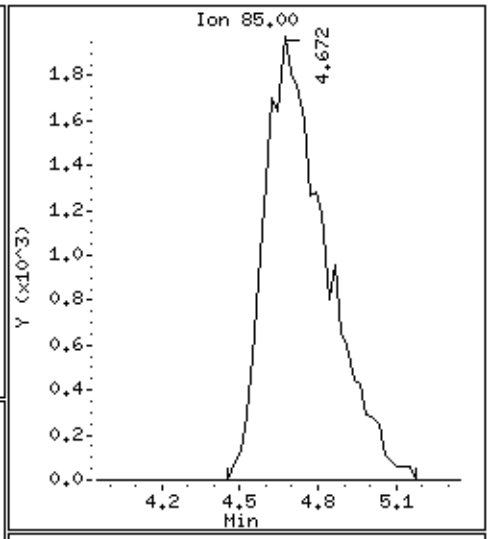
Concentration: 0.5483 PPBV

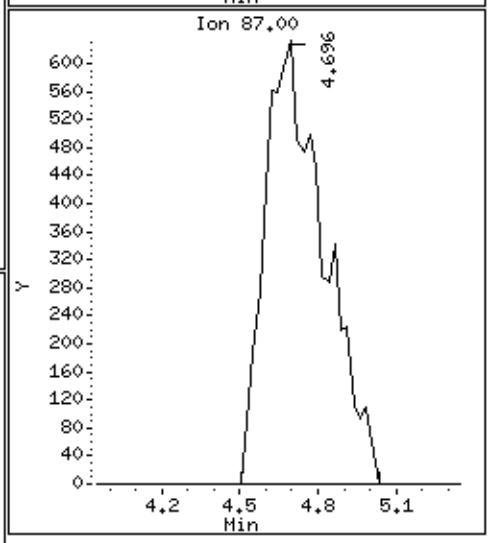












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

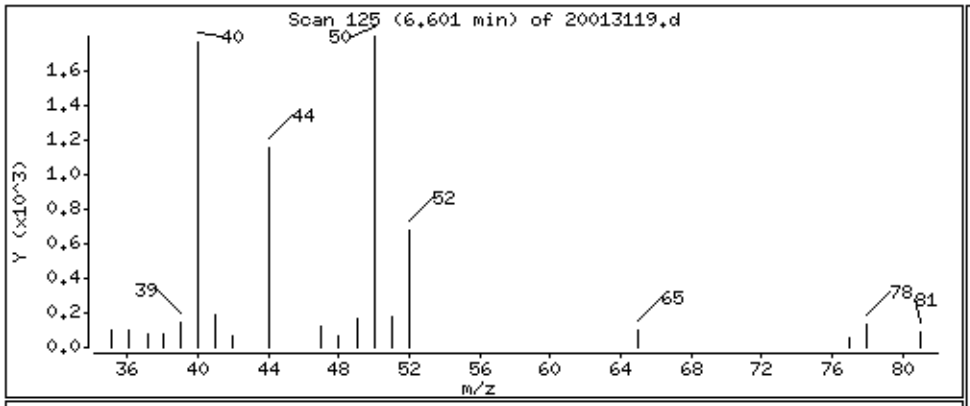
Operator: gh

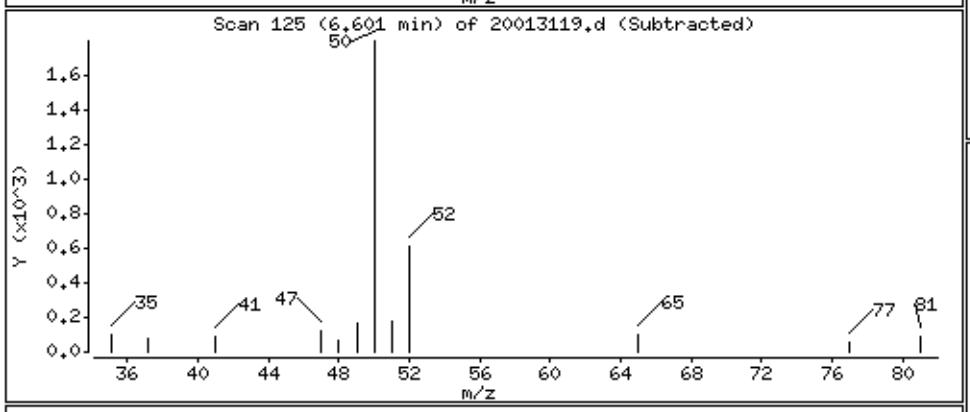
Column phase: RTX-624

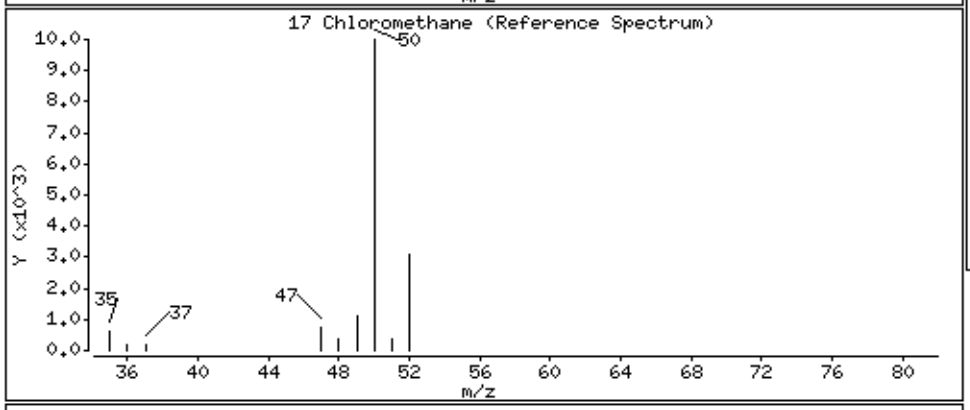
Column diameter: 0.32

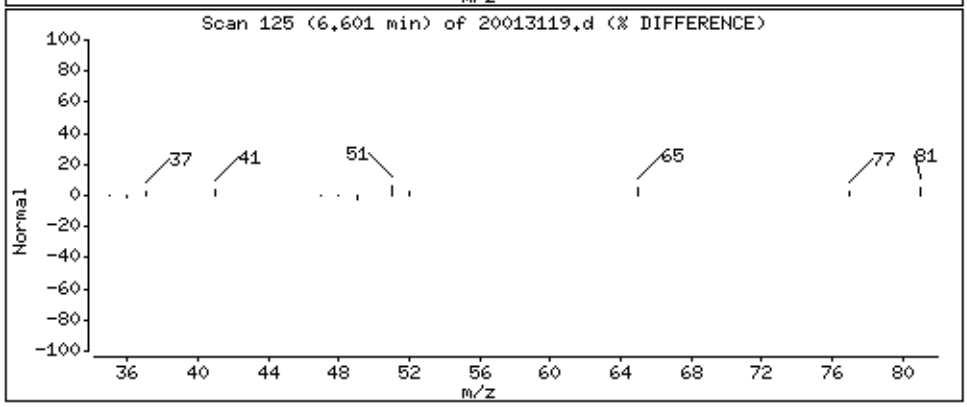
17 Chloromethane

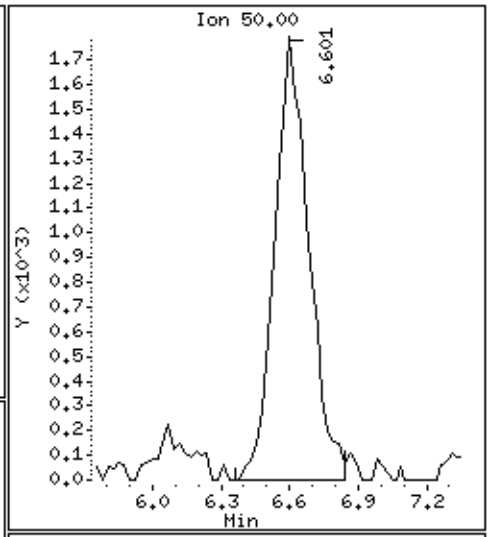
Concentration: 1.019 PPBV

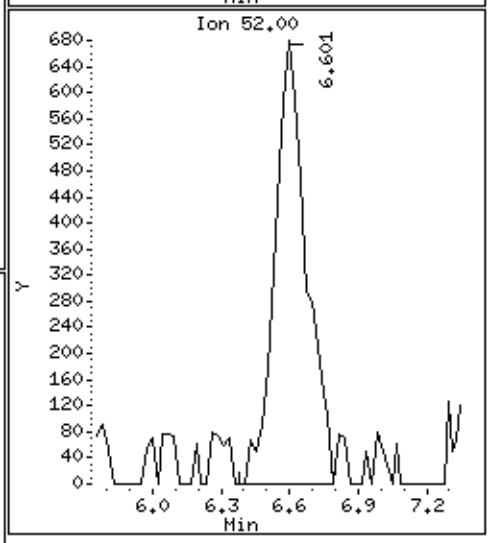












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

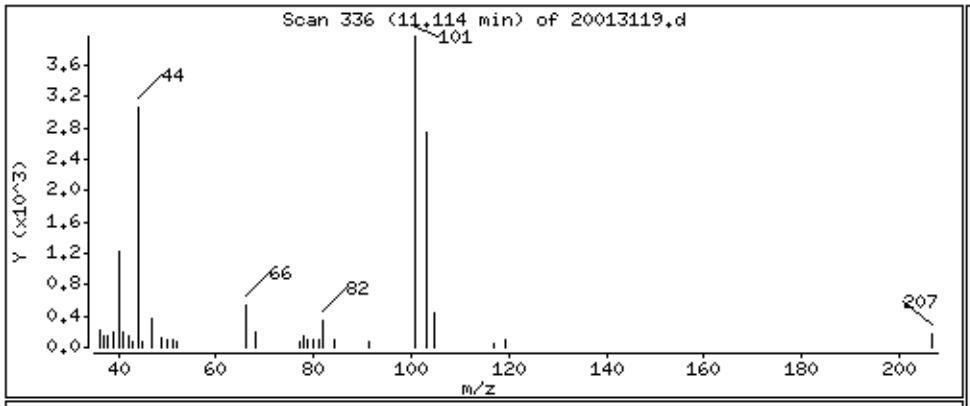
Operator: gh

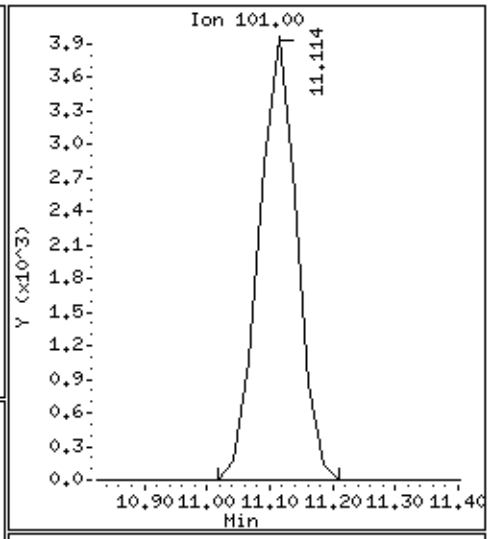
Column phase: RTX-624

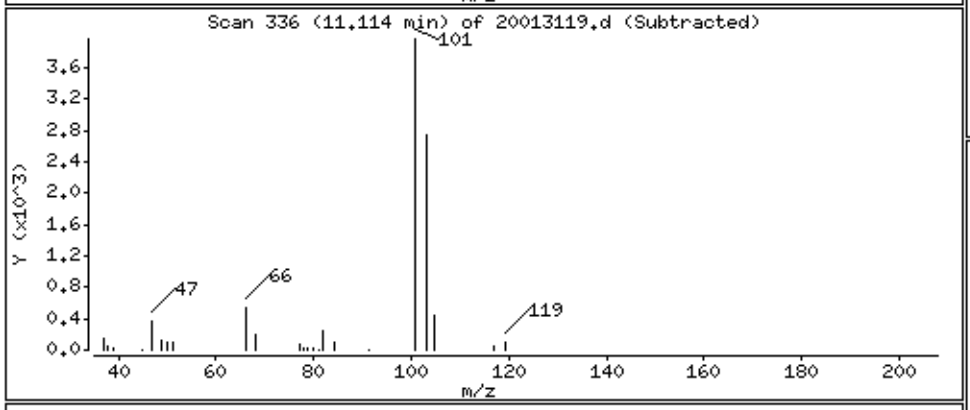
Column diameter: 0.32

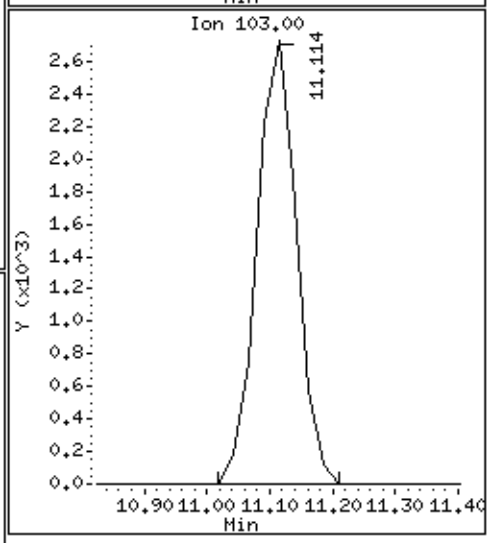
35 Freon 11

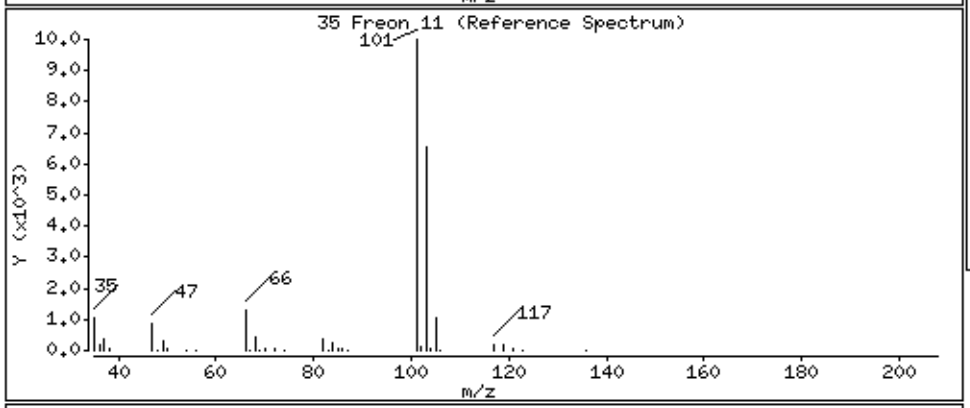
Concentration: 0.2846 PPBV

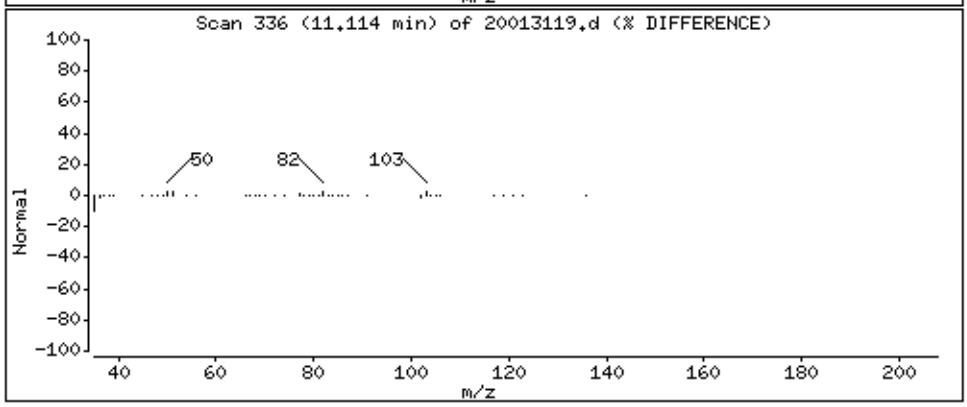












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

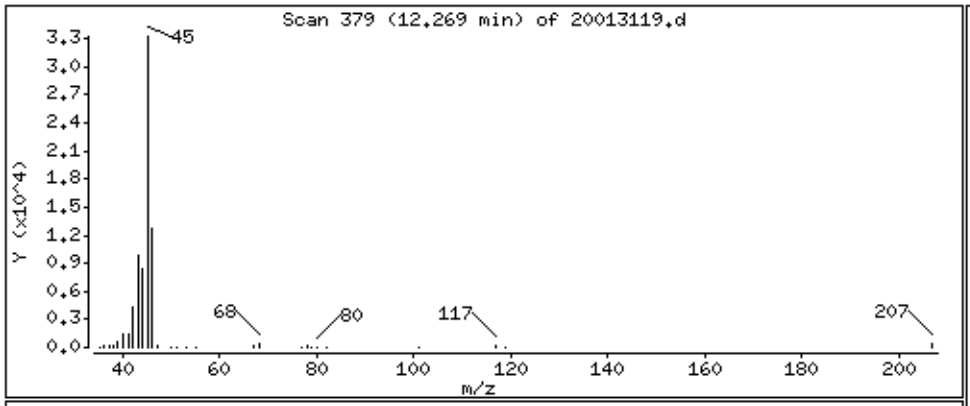
Operator: gh

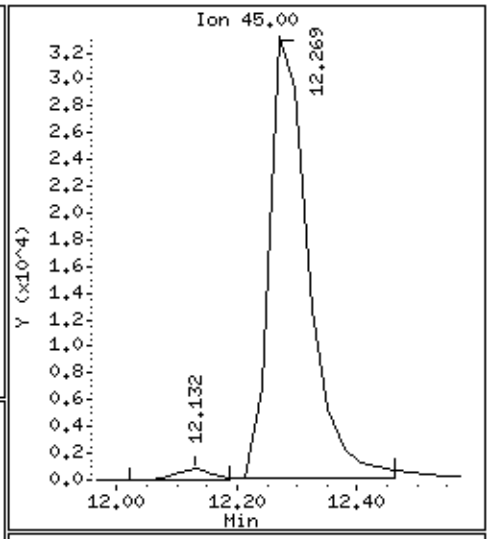
Column phase: RTX-624

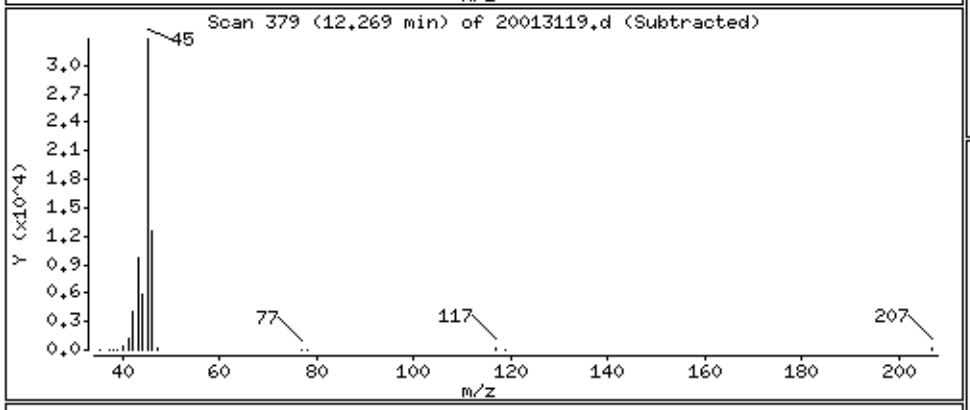
Column diameter: 0.32

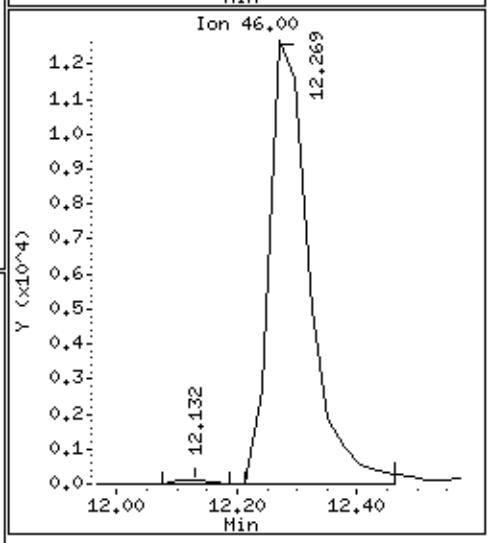
42 Ethanol

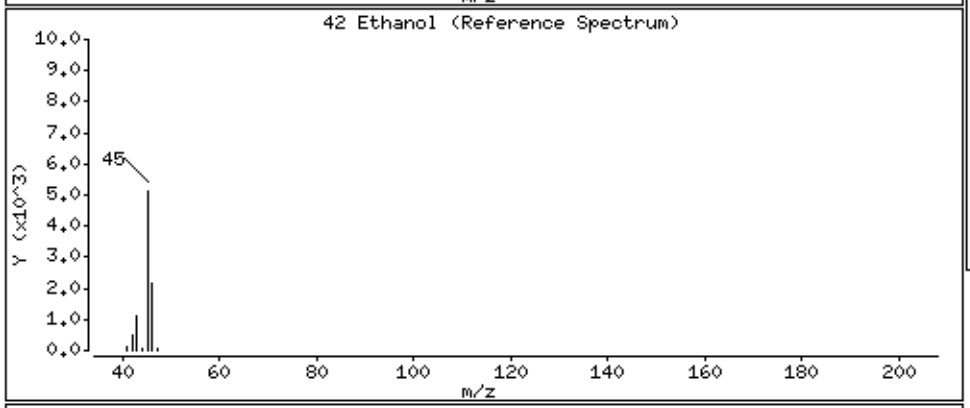
Concentration: 18.790 PPBV

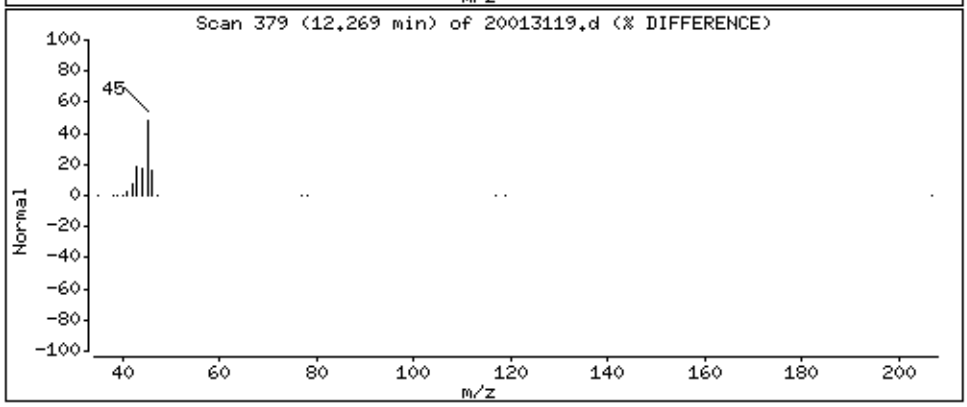












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

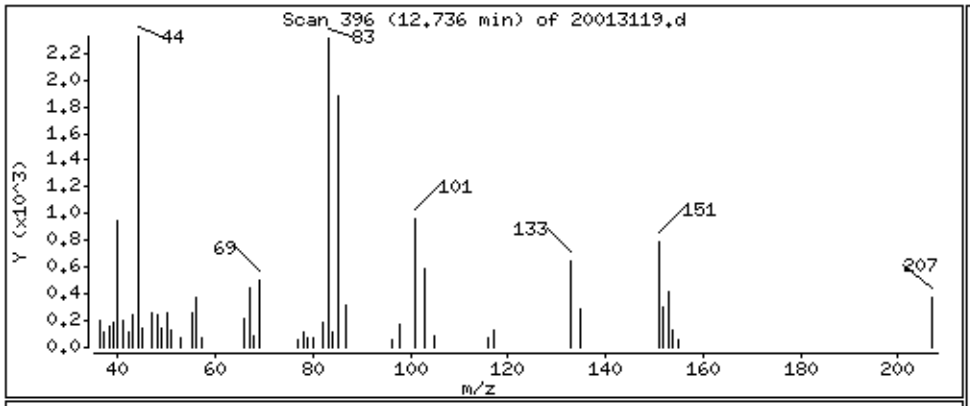
Operator: gh

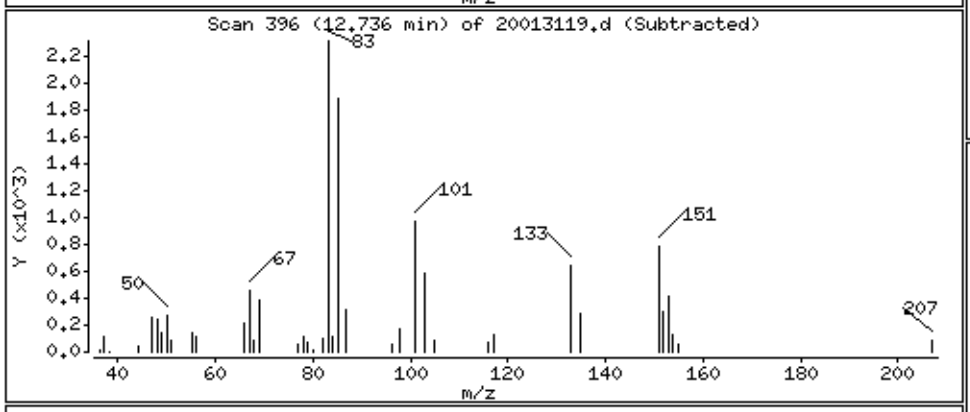
Column phase: RTX-624

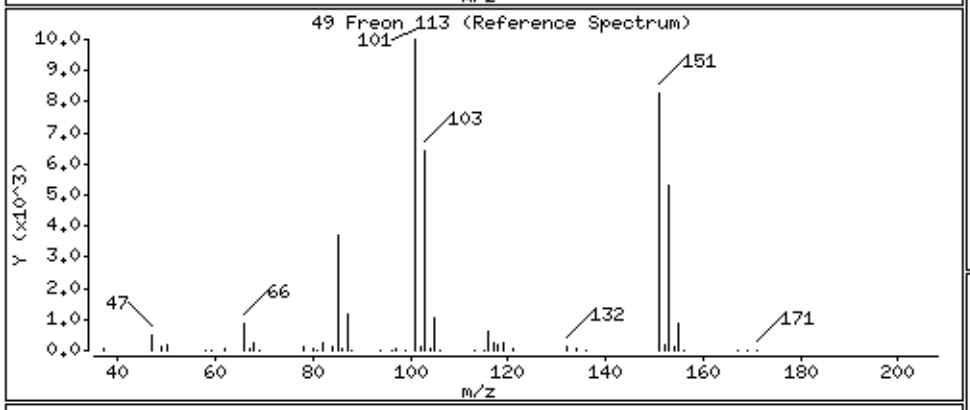
Column diameter: 0.32

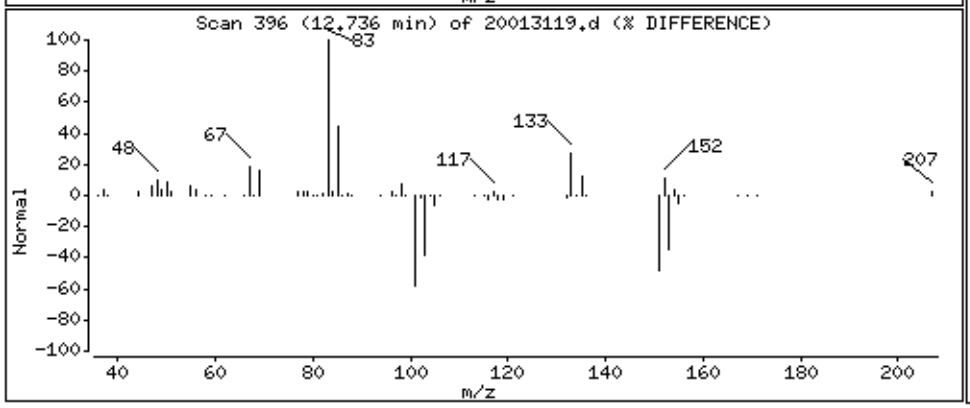
49 Freon 113

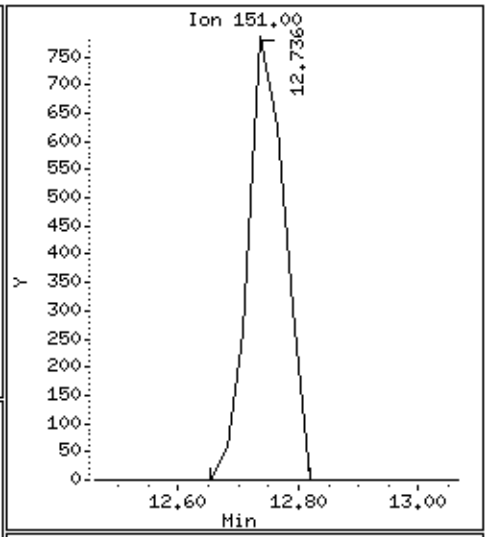
Concentration: 0.07513 PPBV

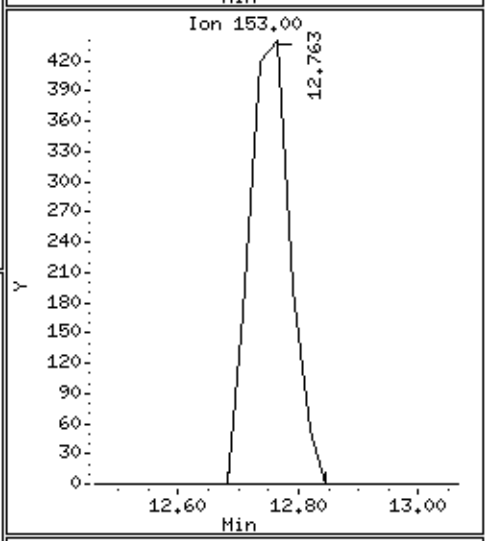


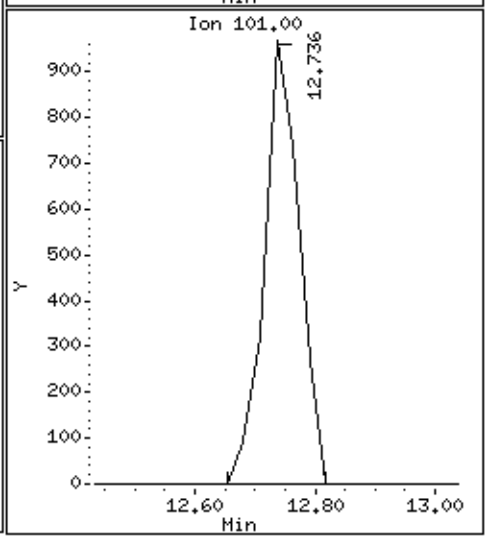












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

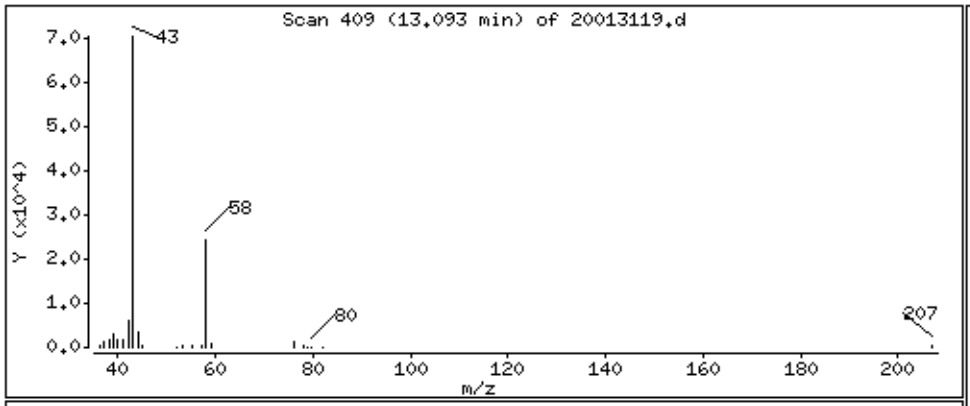
Operator: gh

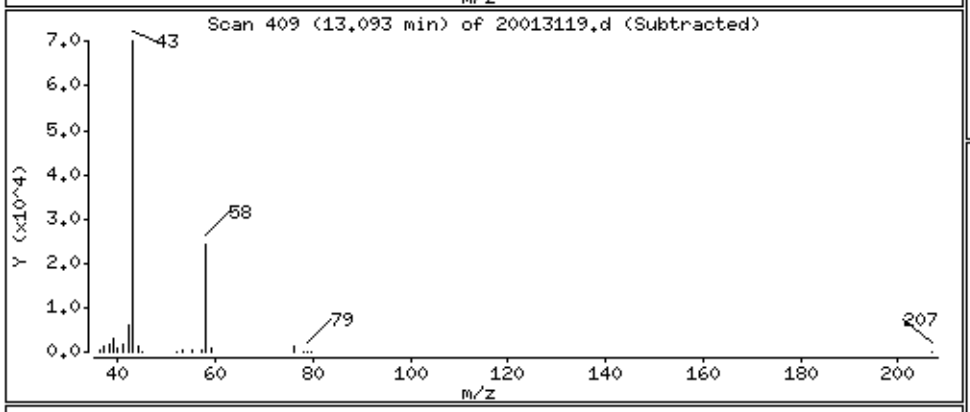
Column phase: RTX-624

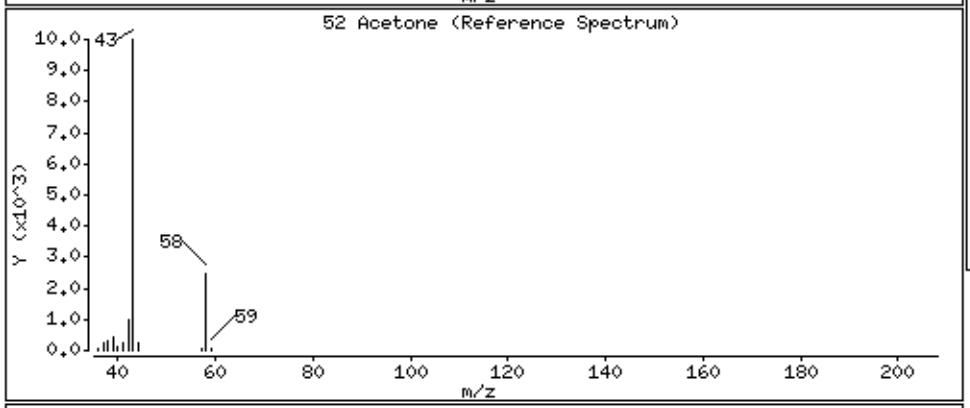
Column diameter: 0.32

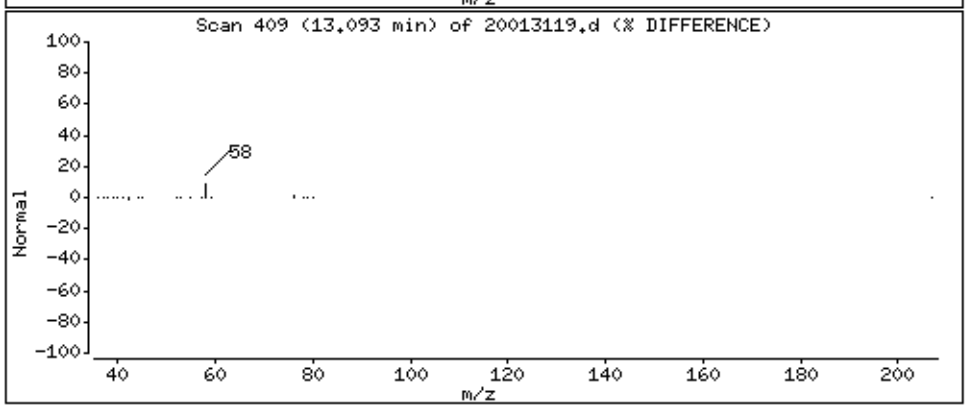
52 Acetone

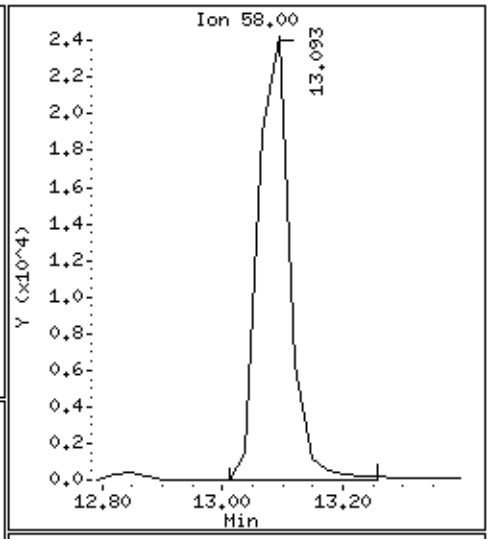
Concentration: 7.930 PPBV

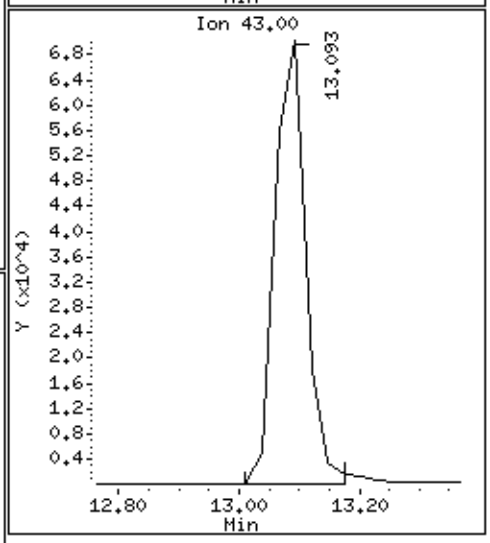












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

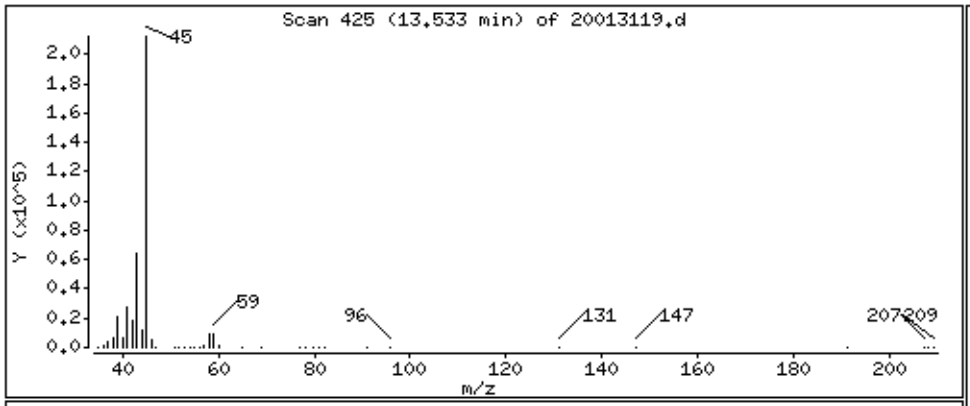
Operator: gh

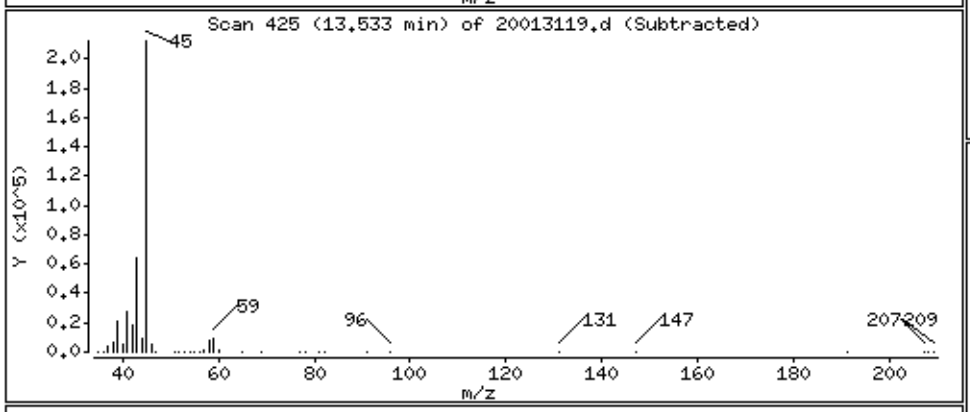
Column phase: RTX-624

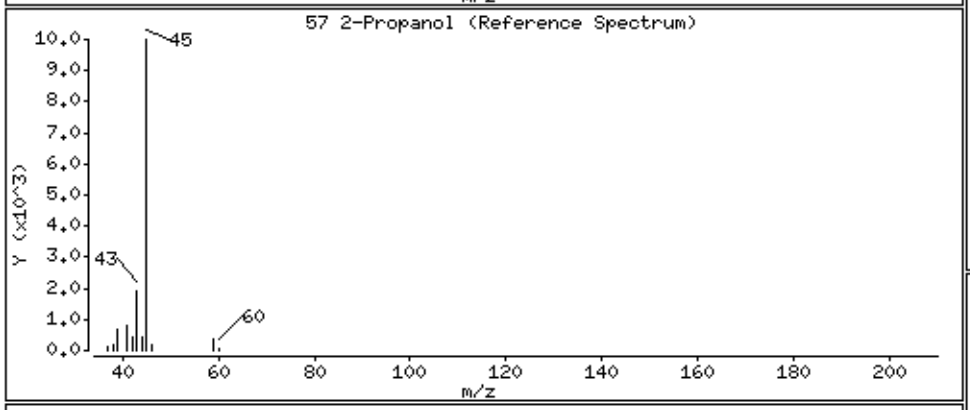
Column diameter: 0.32

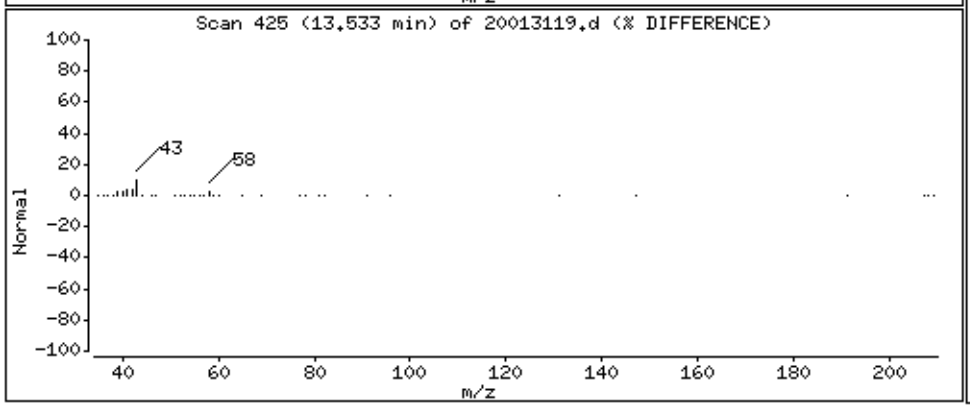
57 2-Propanol

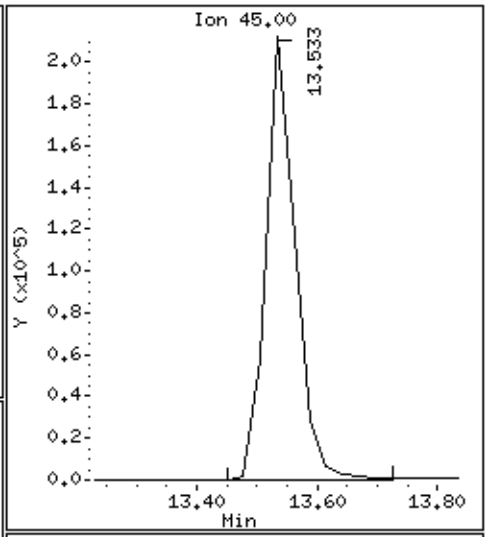
Concentration: 24.368 PPBV

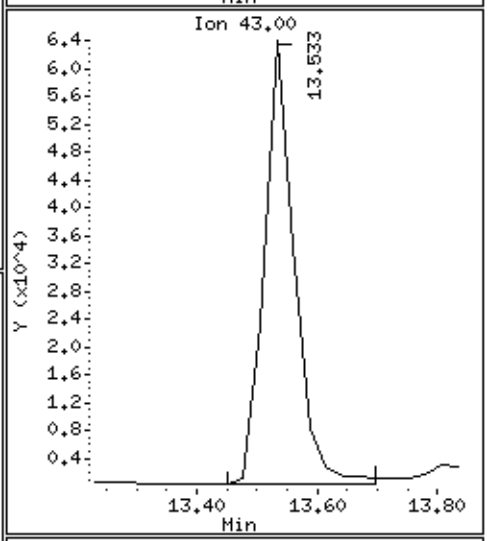


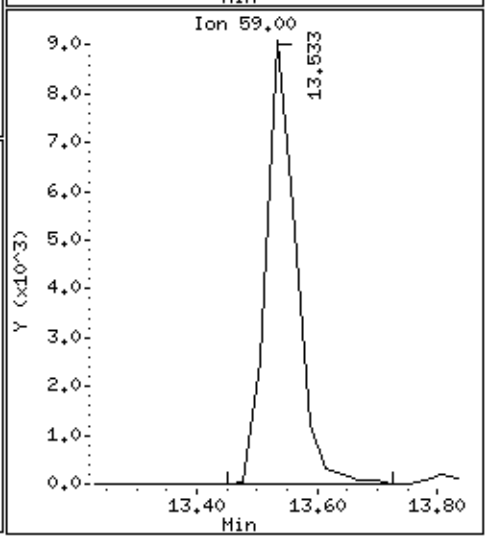












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

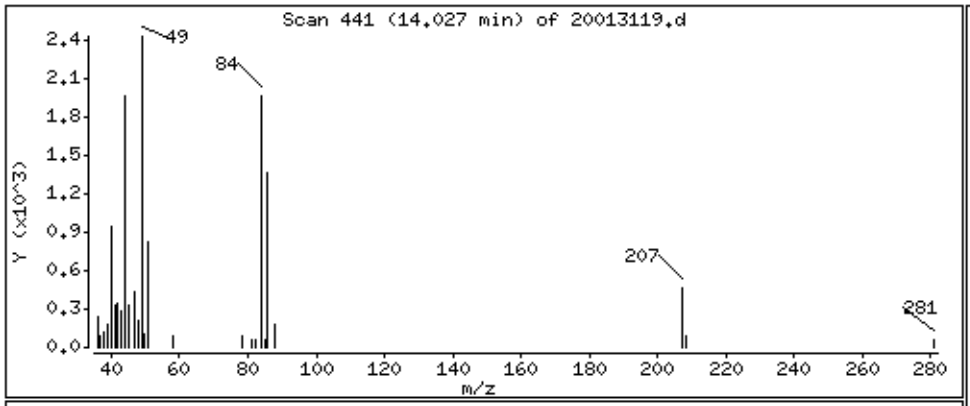
Operator: gh

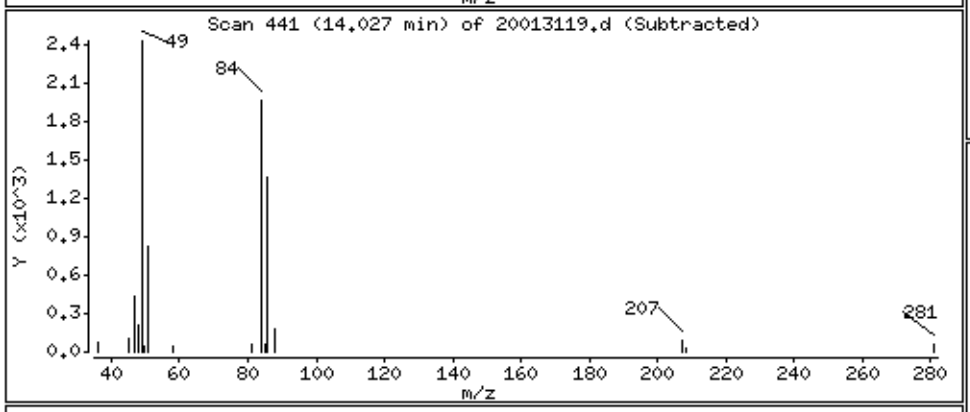
Column phase: RTX-624

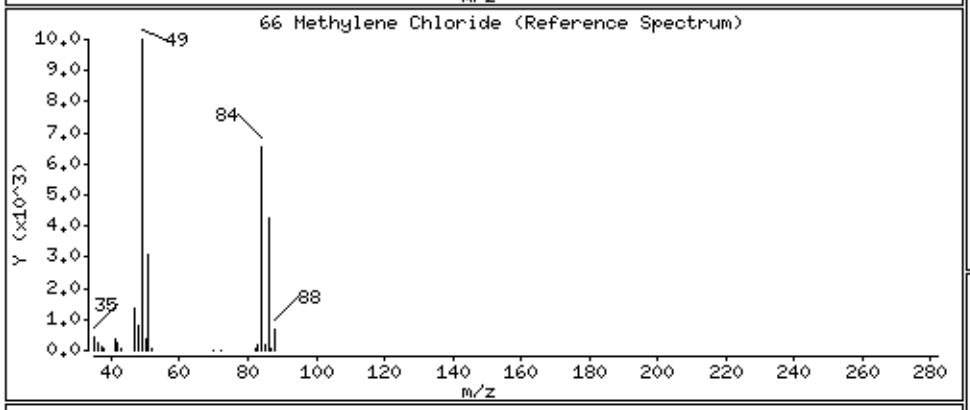
Column diameter: 0.32

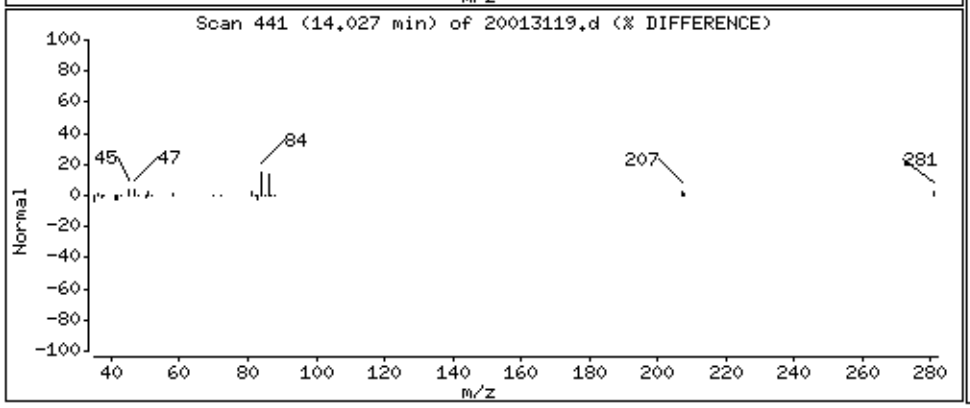
66 Methylene Chloride

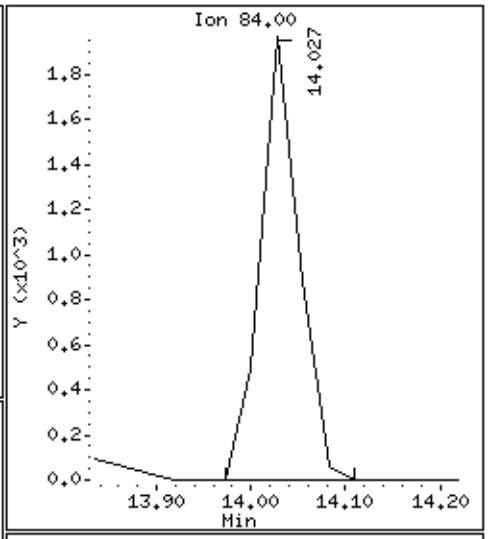
Concentration: 0.2324 PPBV

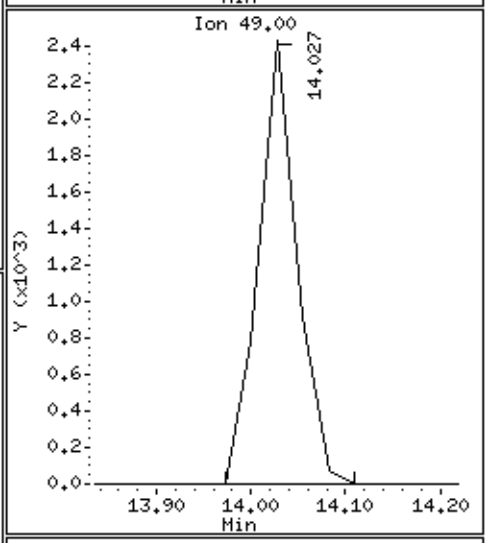


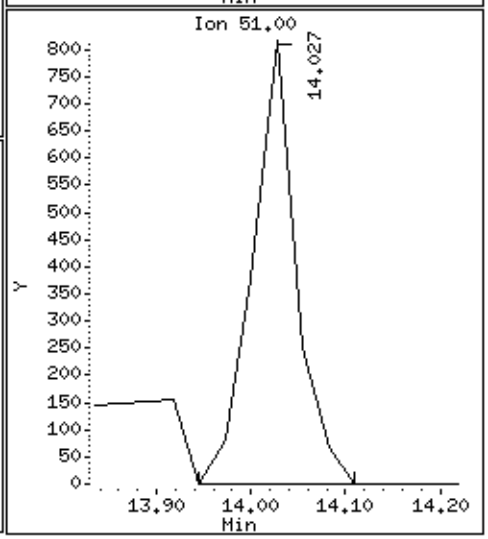












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

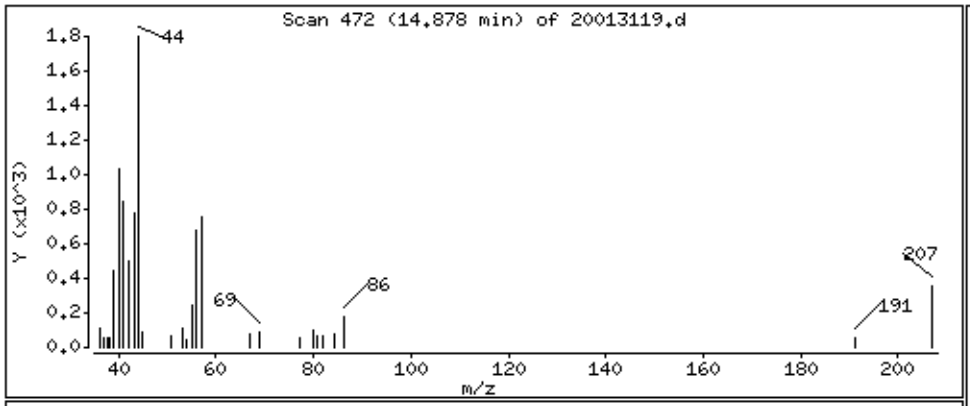
Operator: gh

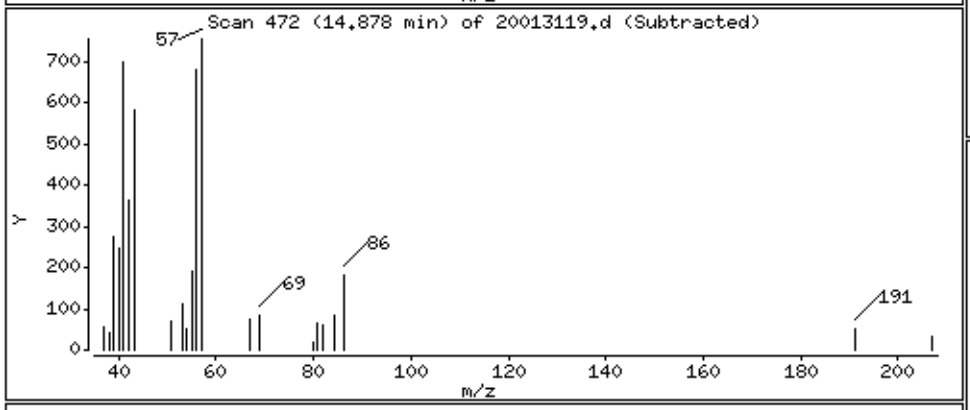
Column phase: RTX-624

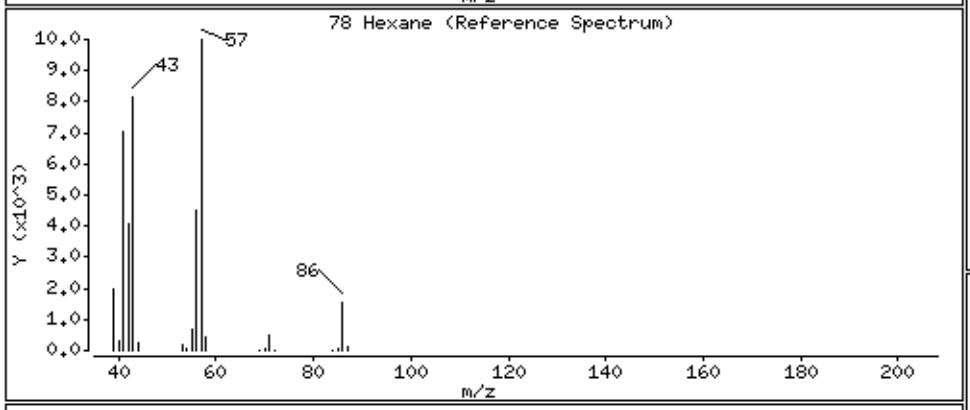
Column diameter: 0.32

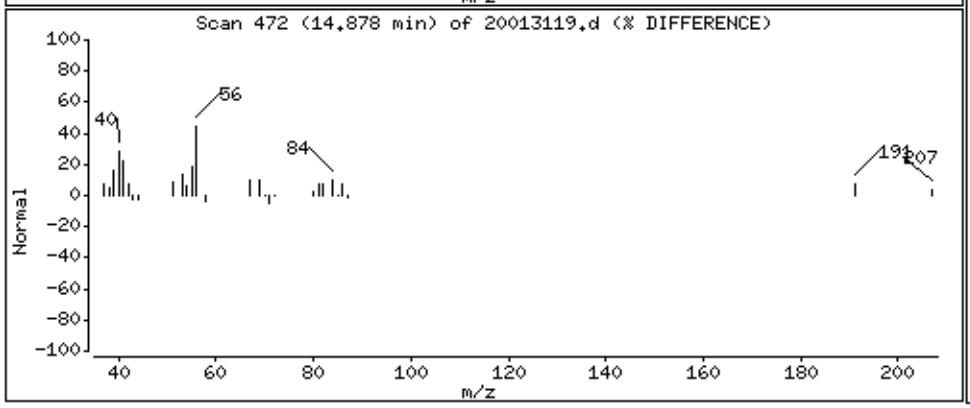
78 Hexane

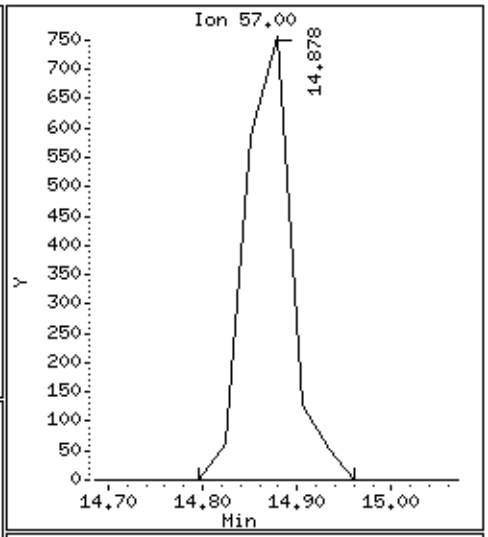
Concentration: 0.08190 PPBV

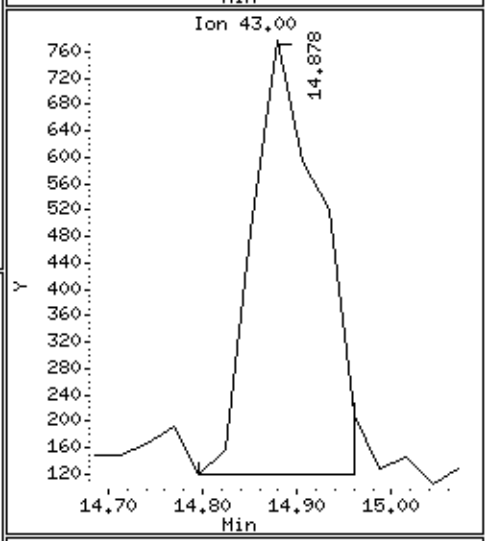


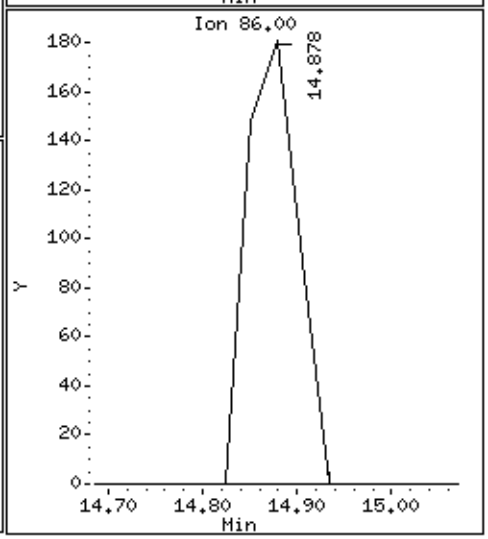












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

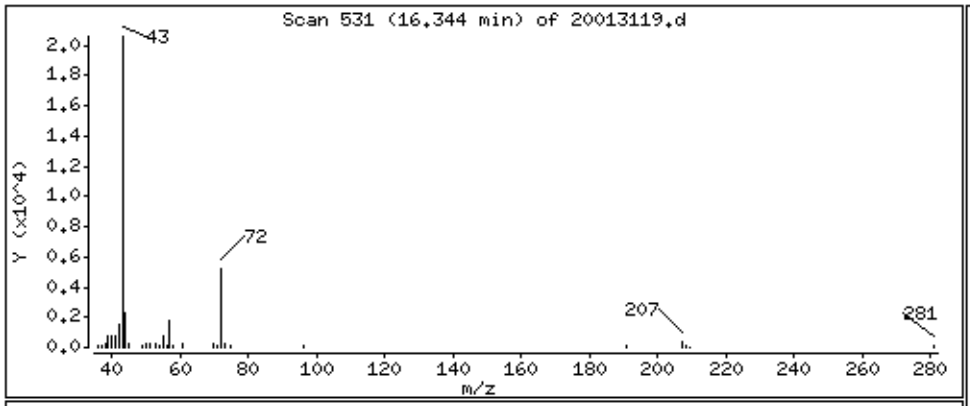
Operator: gh

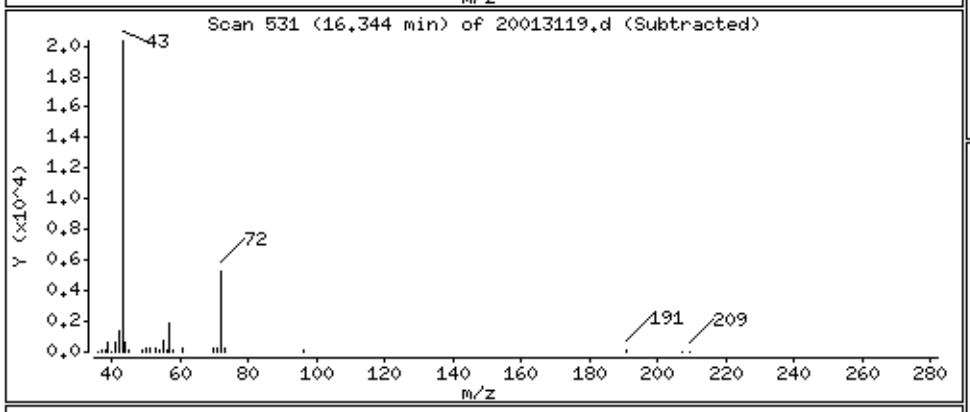
Column phase: RTX-624

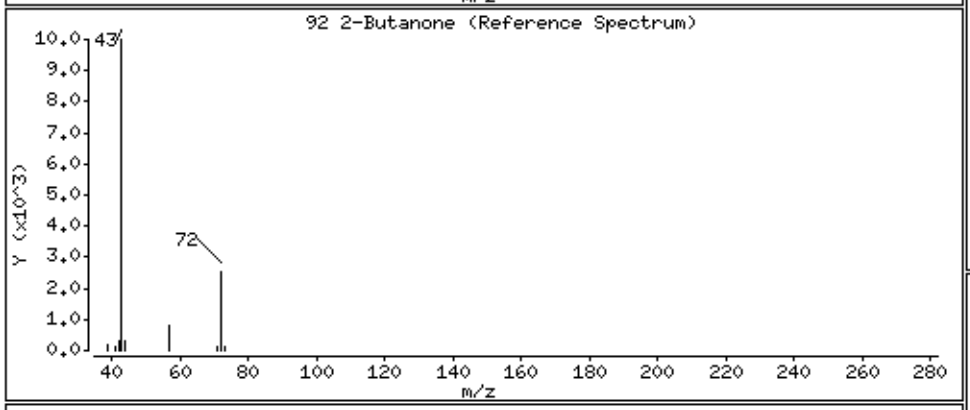
Column diameter: 0.32

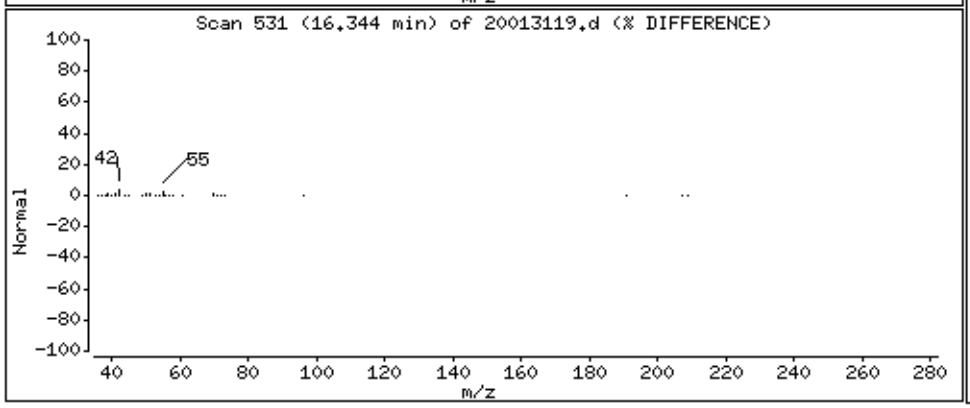
92 2-Butanone

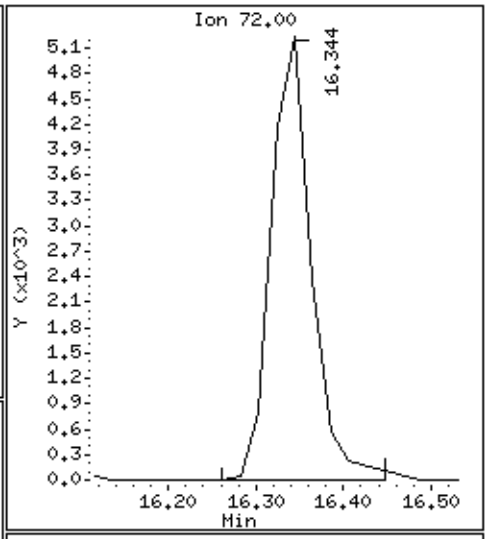
Concentration: 1.573 PPBV

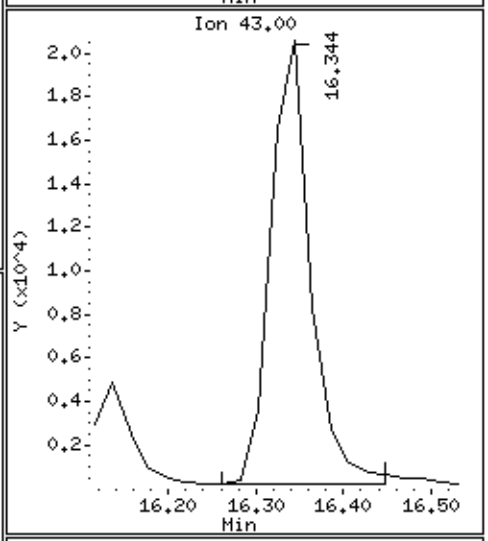


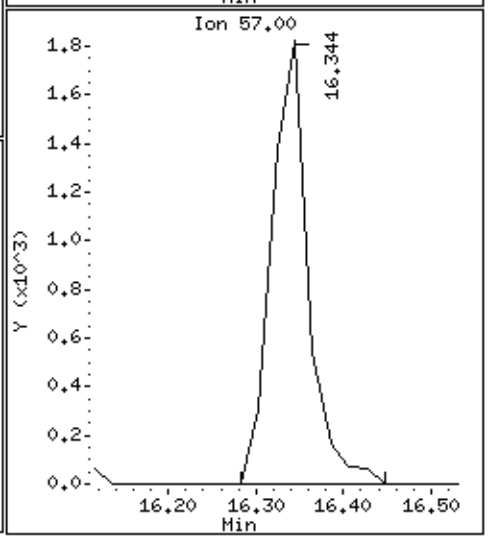












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

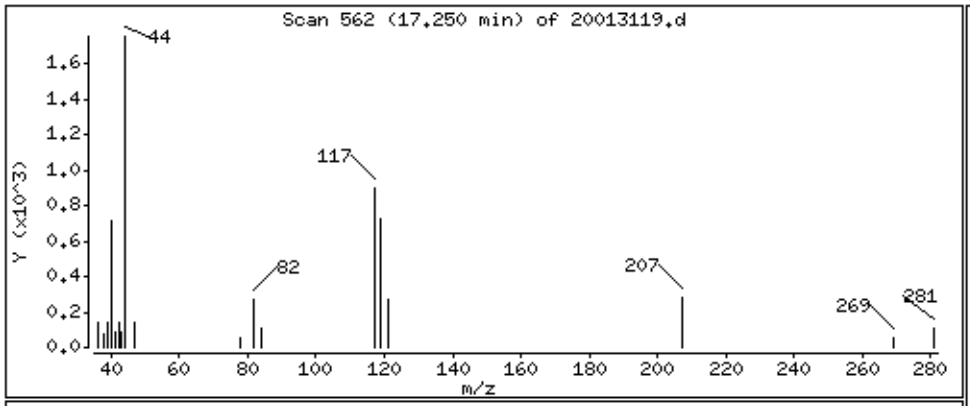
Operator: gh

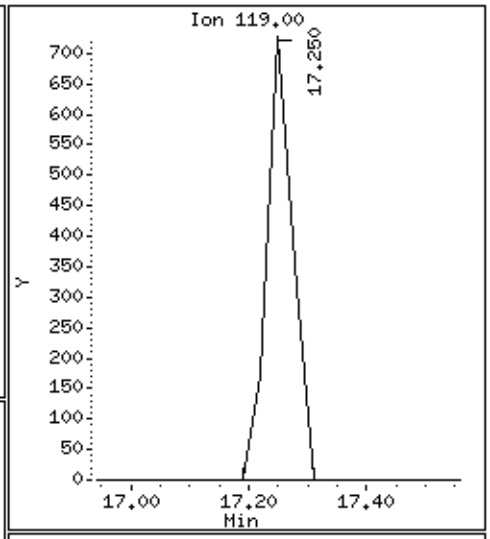
Column phase: RTX-624

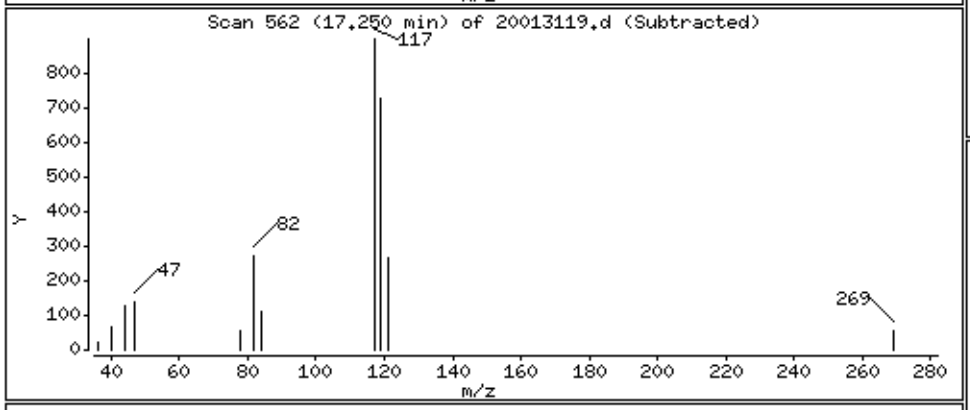
Column diameter: 0.32

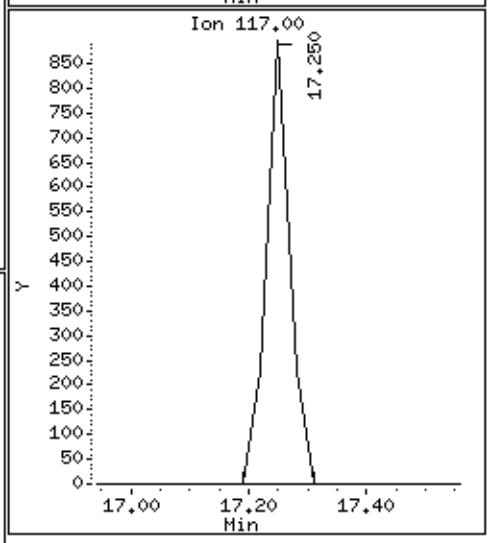
106 Carbon Tetrachloride

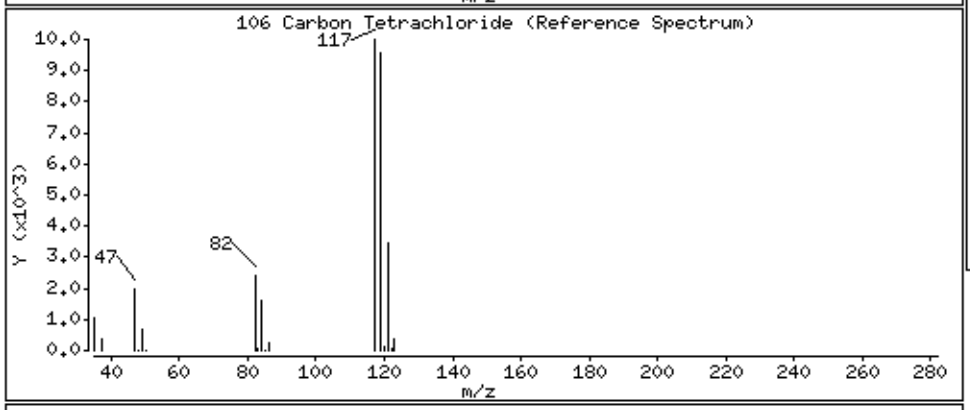
Concentration: 0.05338 PPBV

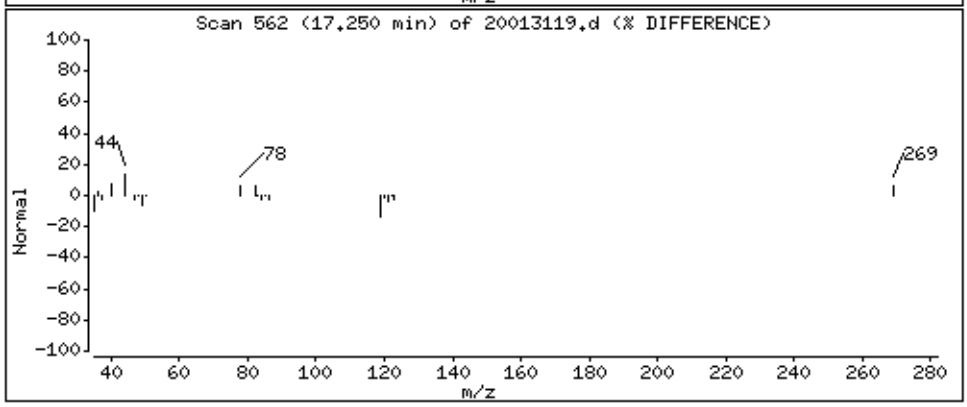












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

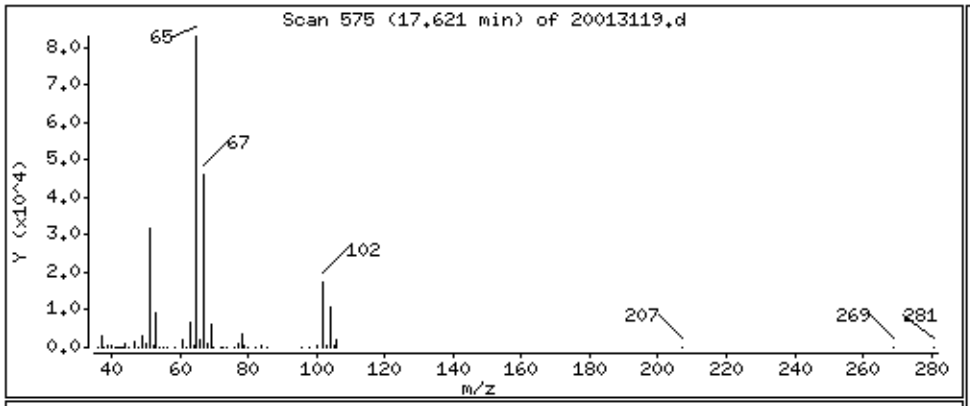
Operator: gh

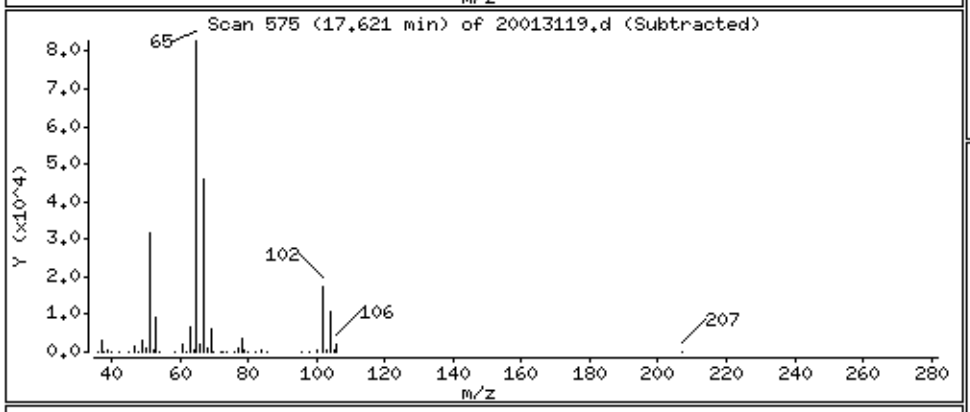
Column phase: RTX-624

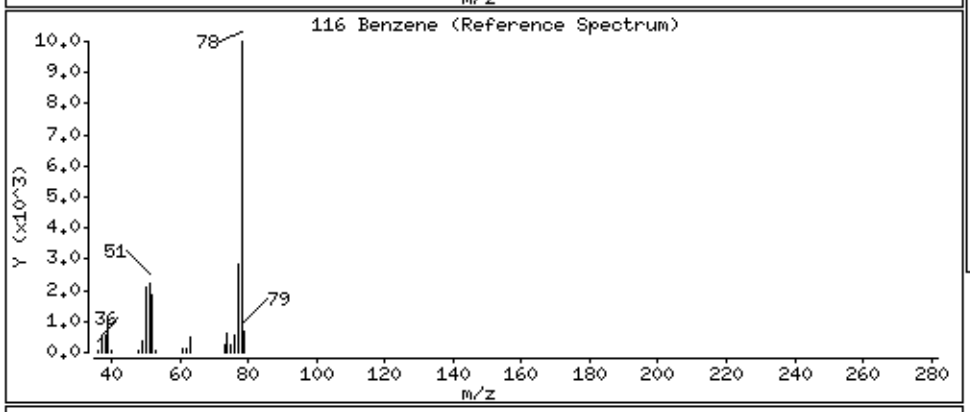
Column diameter: 0.32

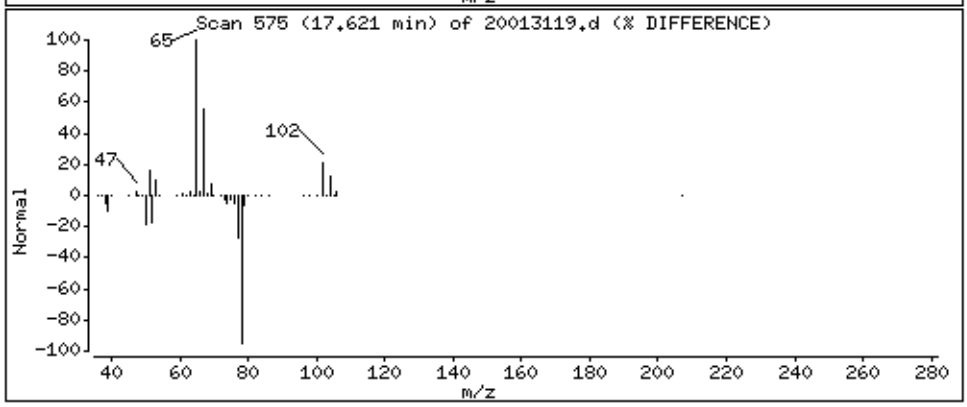
116 Benzene

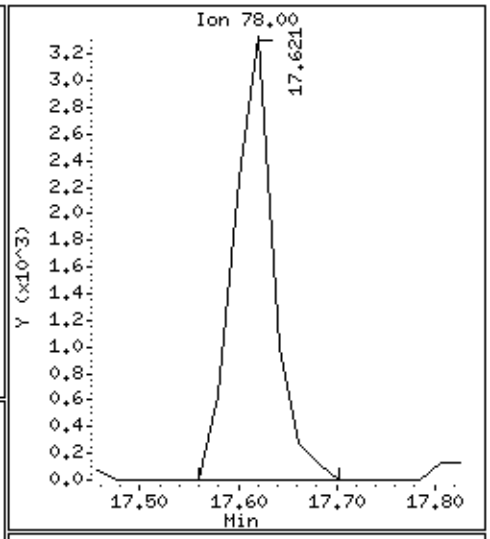
Concentration: 0.1506 PPBV

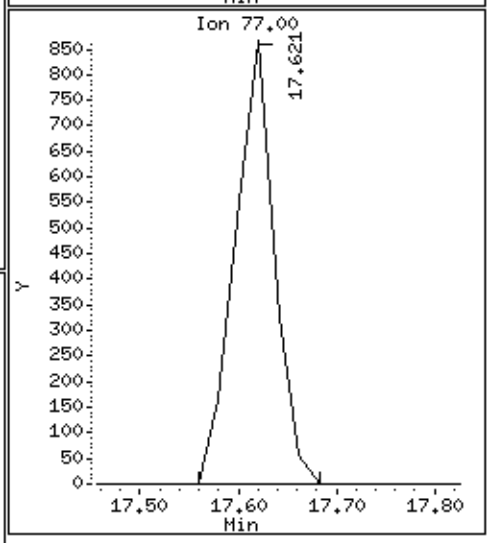












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

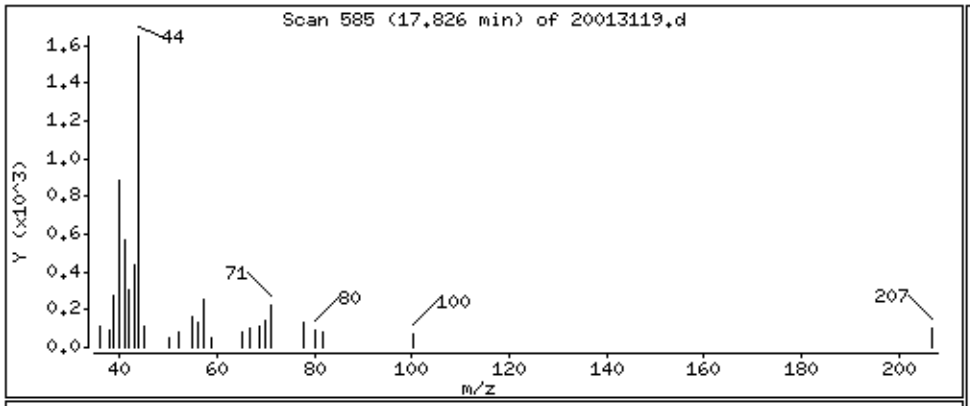
Operator: gh

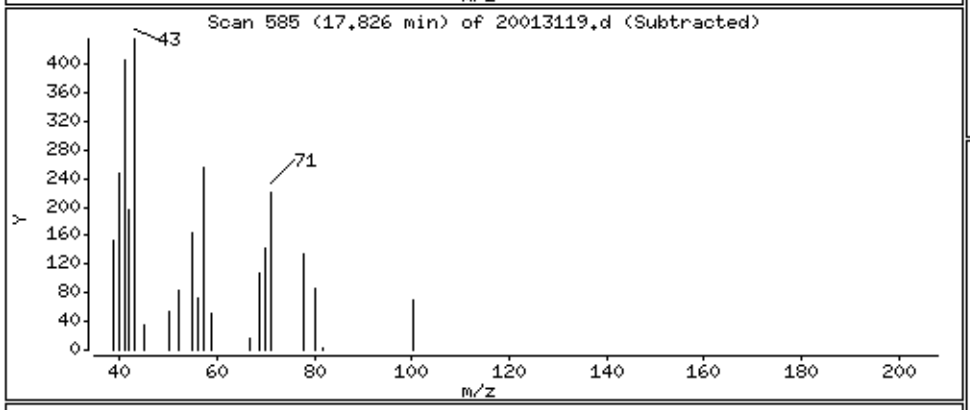
Column phase: RTX-624

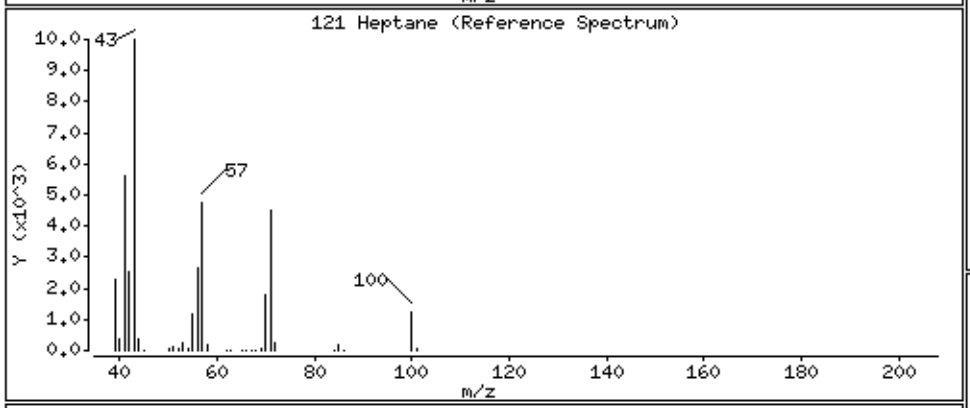
Column diameter: 0.32

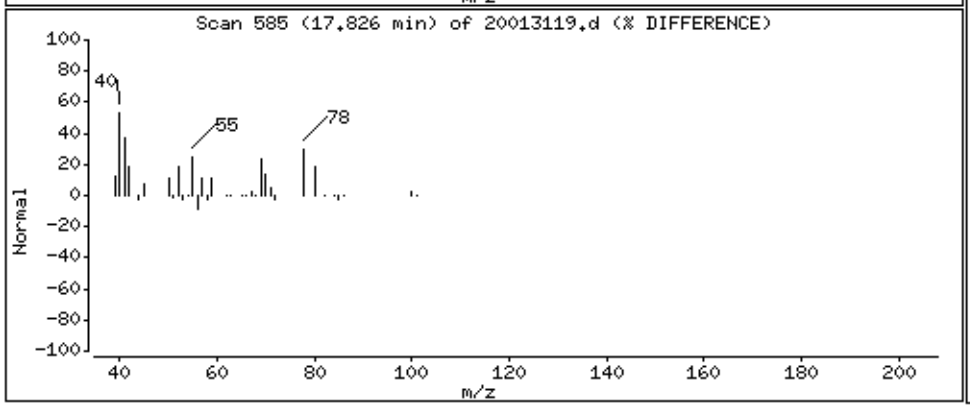
121 Heptane

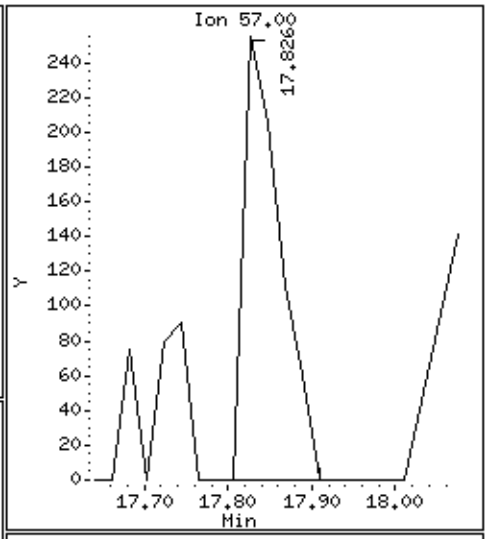
Concentration: 0.04871 PPBV

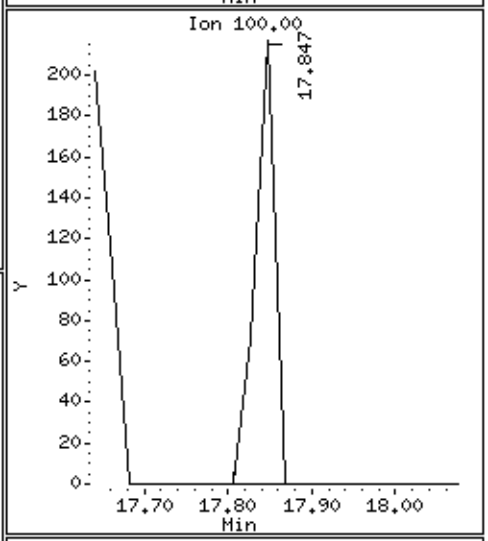


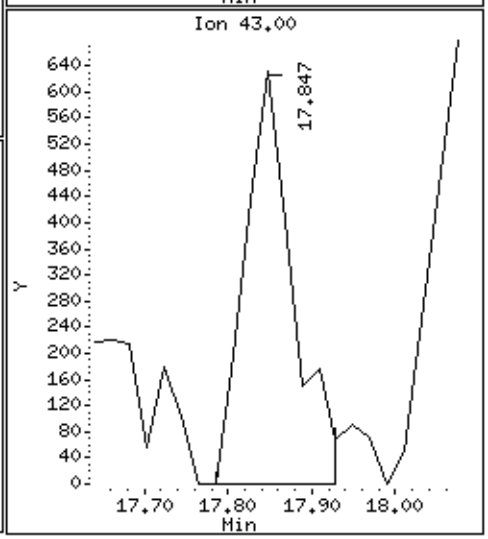












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

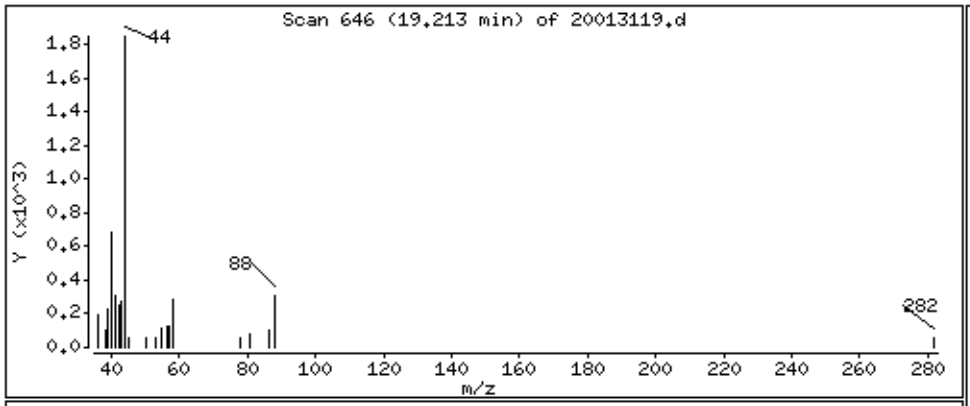
Operator: gh

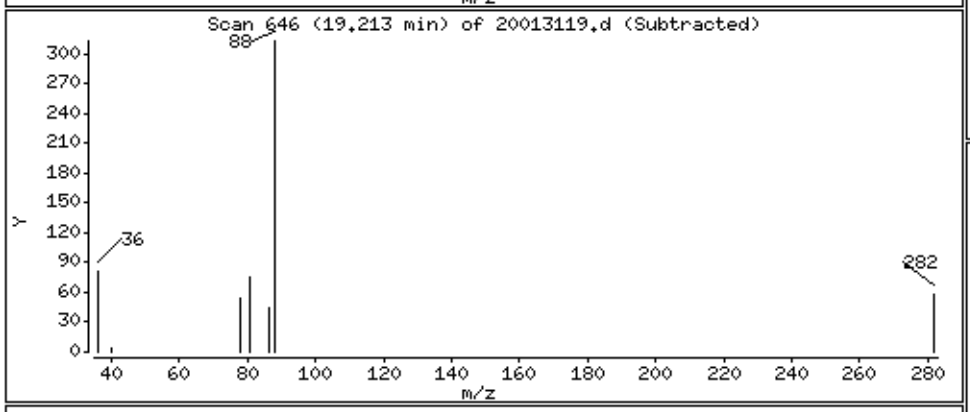
Column phase: RTX-624

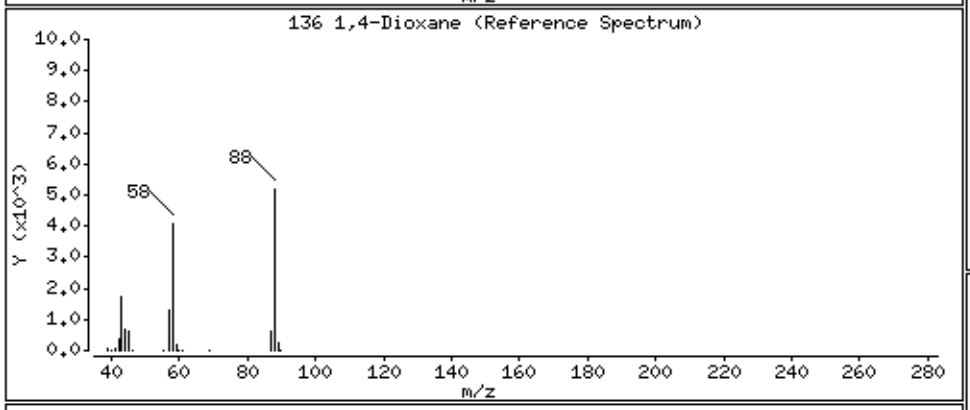
Column diameter: 0.32

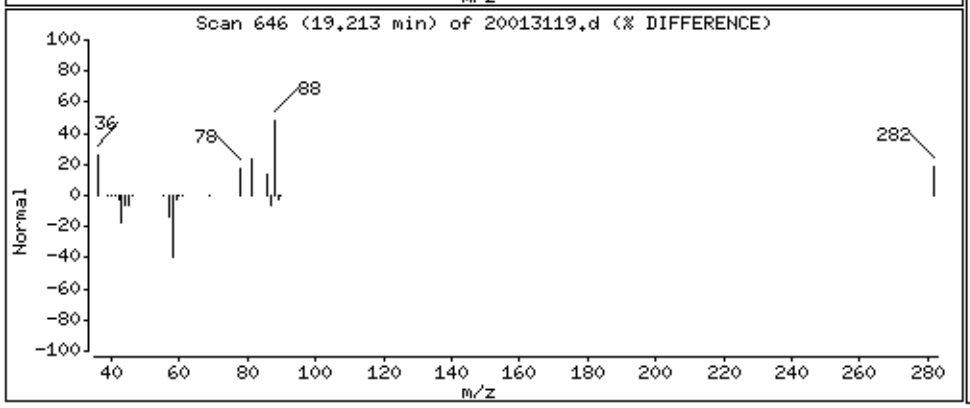
136 1,4-Dioxane

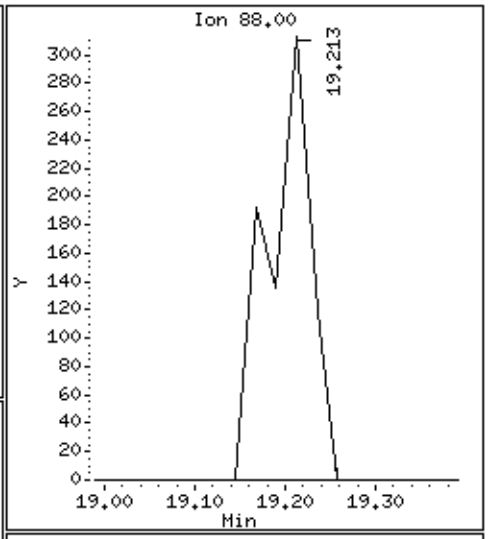
Concentration: 0.06936 PPBV

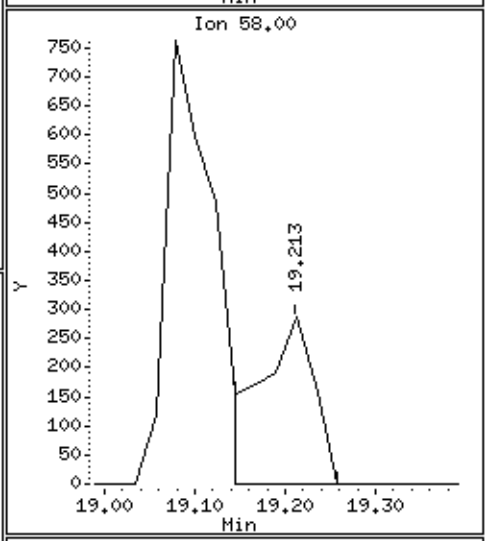


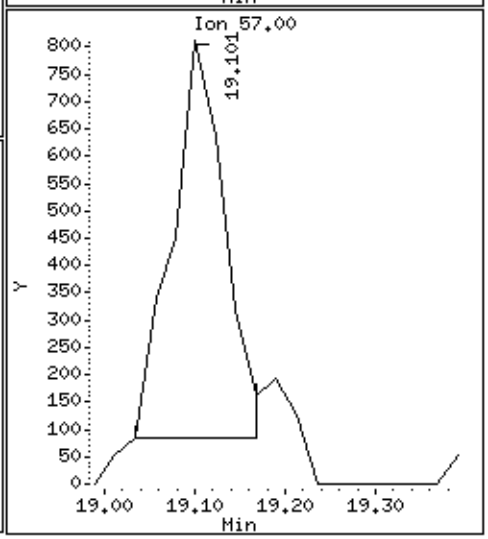












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

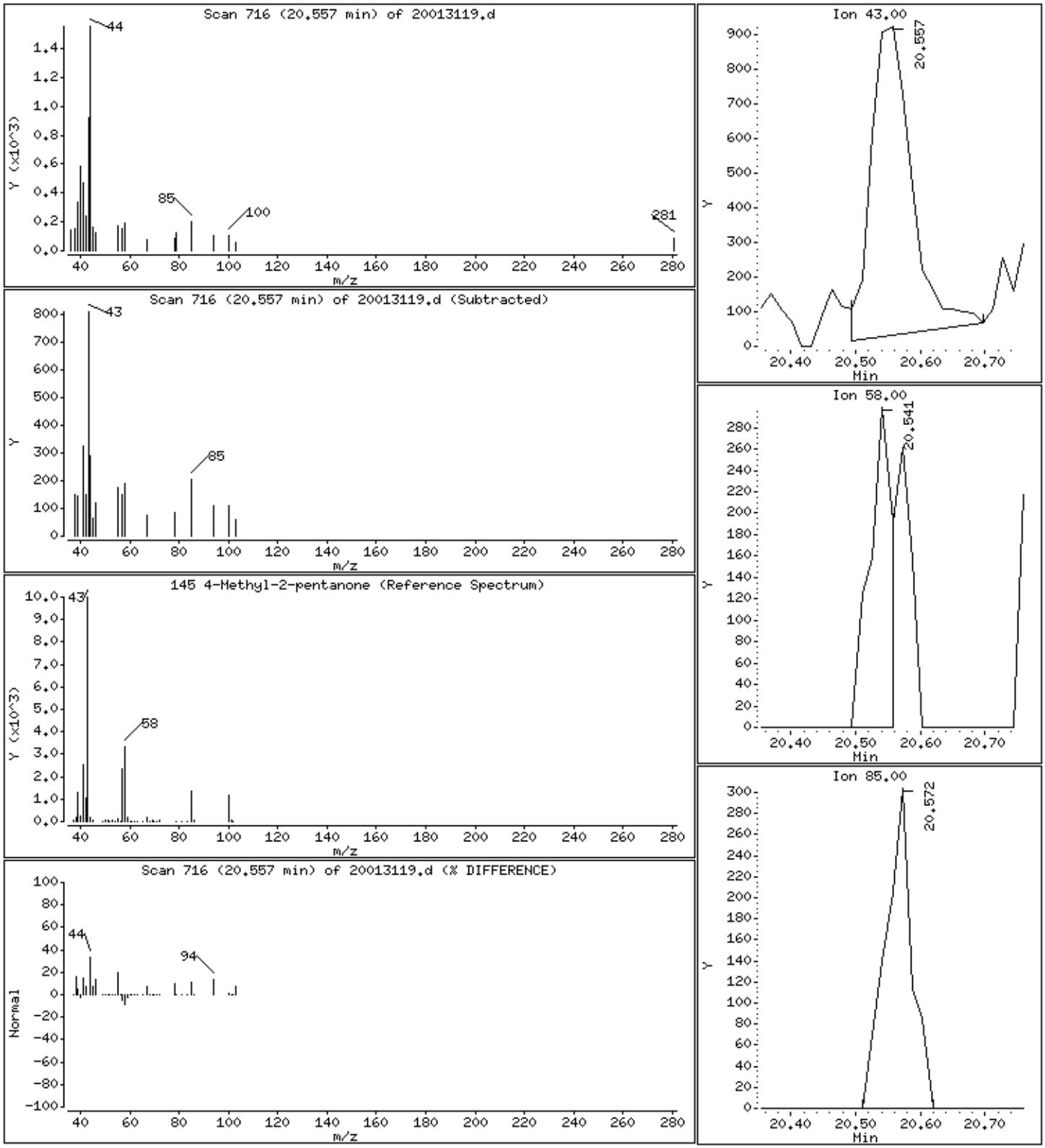
Operator: gh

Column phase: RTX-624

Column diameter: 0.32

145 4-Methyl-2-pentanone

Concentration: 0.1161 PPBV



Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

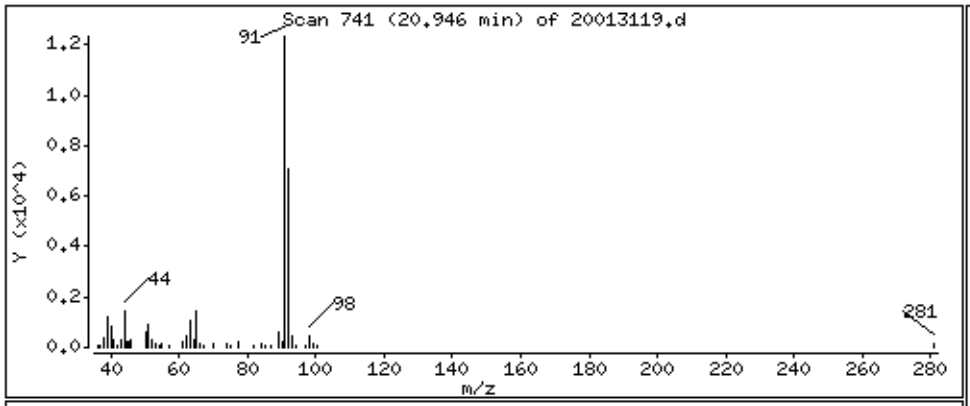
Operator: gh

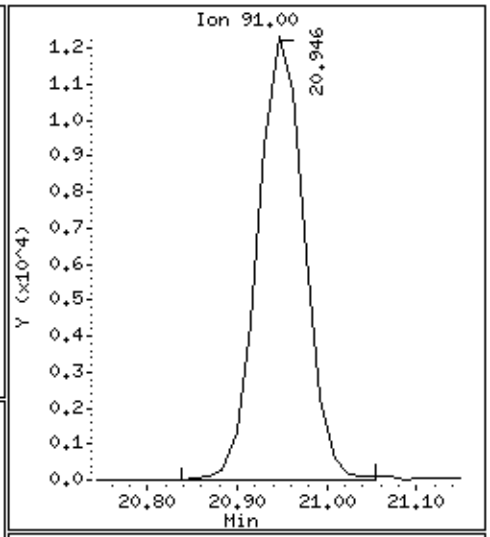
Column phase: RTX-624

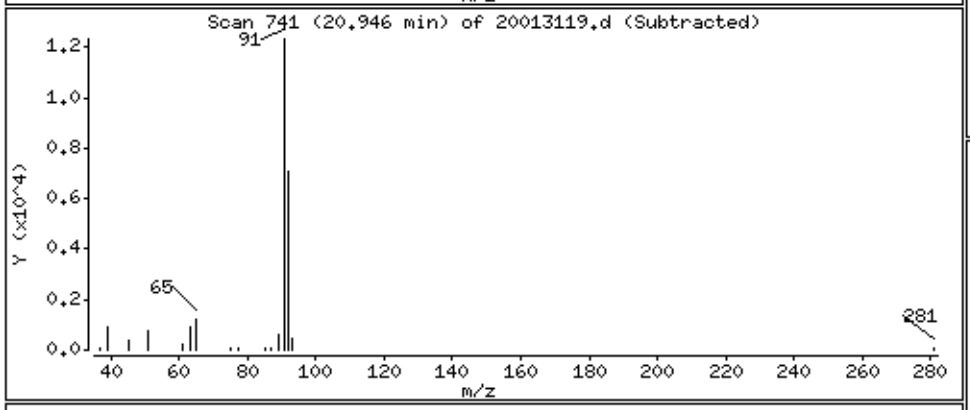
Column diameter: 0.32

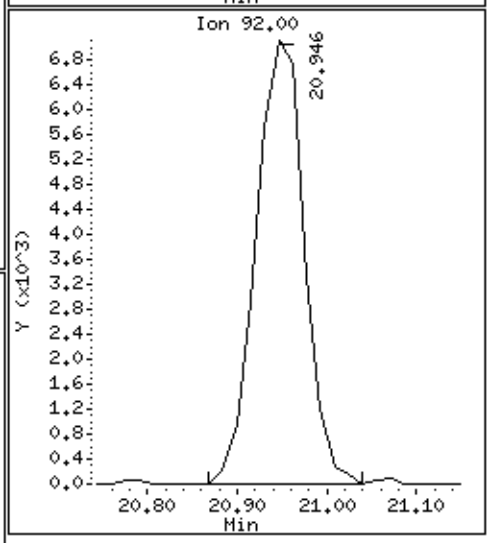
147 Toluene

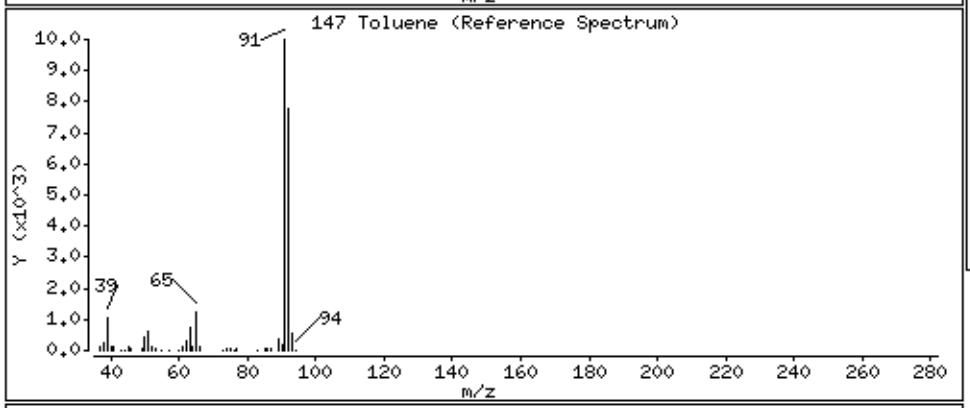
Concentration: 0.6549 PPBV

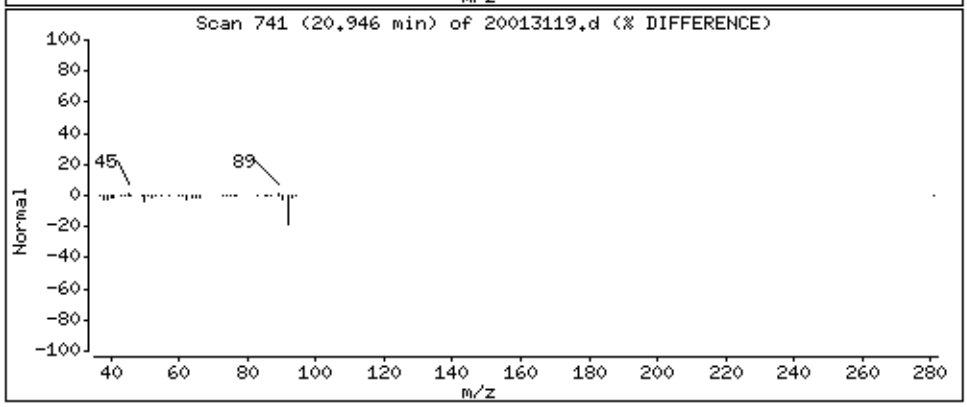












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

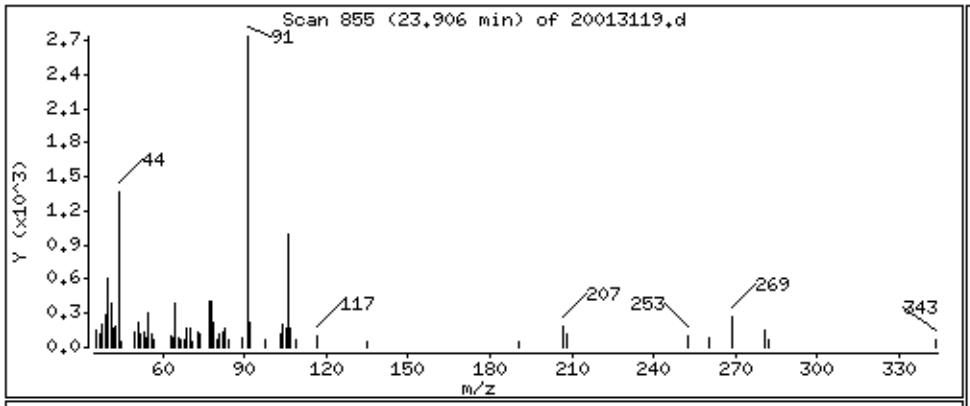
Operator: gh

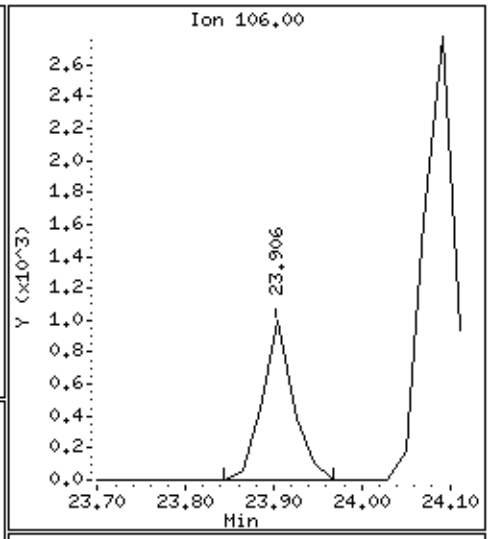
Column phase: RTX-624

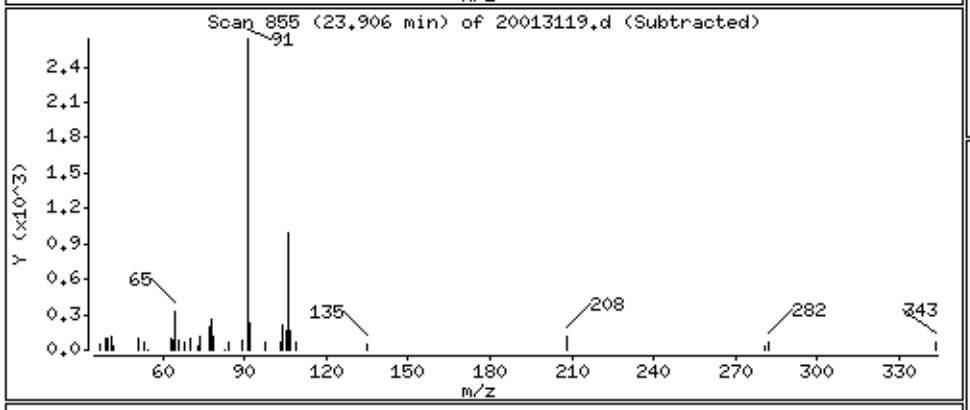
Column diameter: 0.32

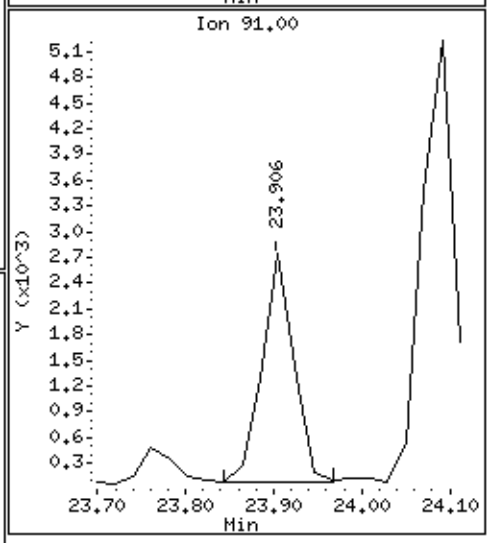
167 Ethyl Benzene

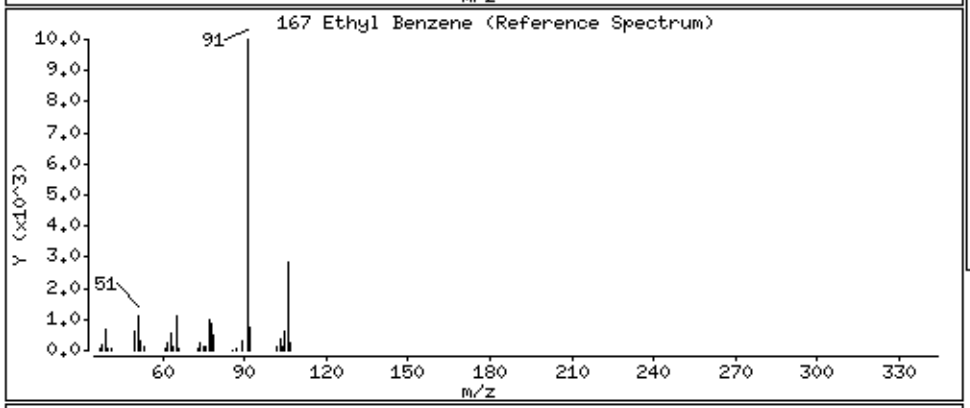
Concentration: 0.08584 PPBV

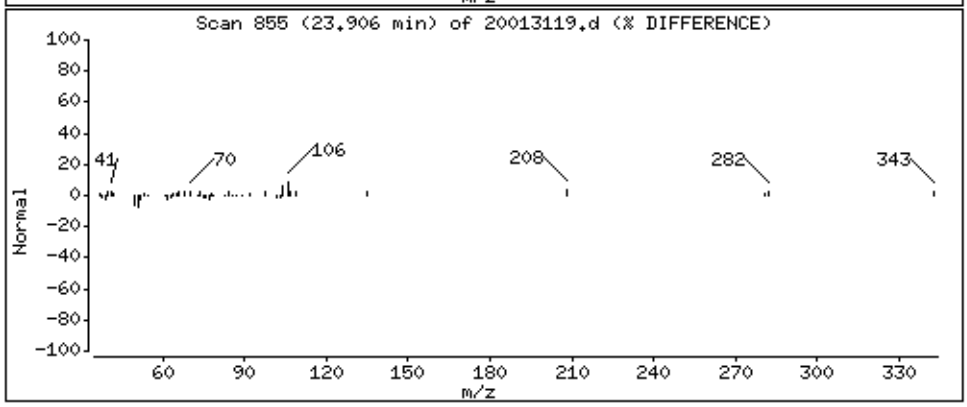












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

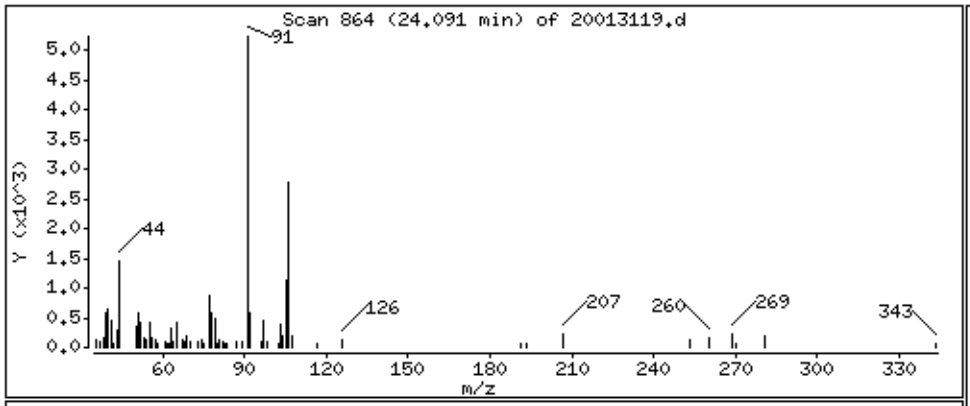
Operator: gh

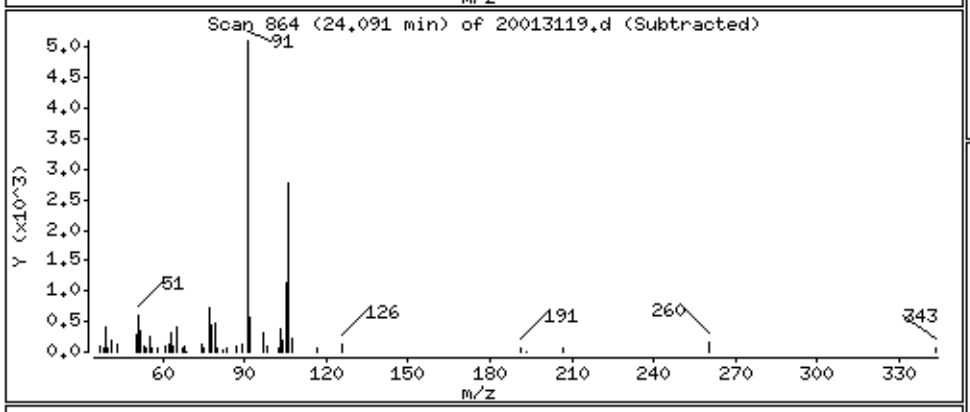
Column phase: RTX-624

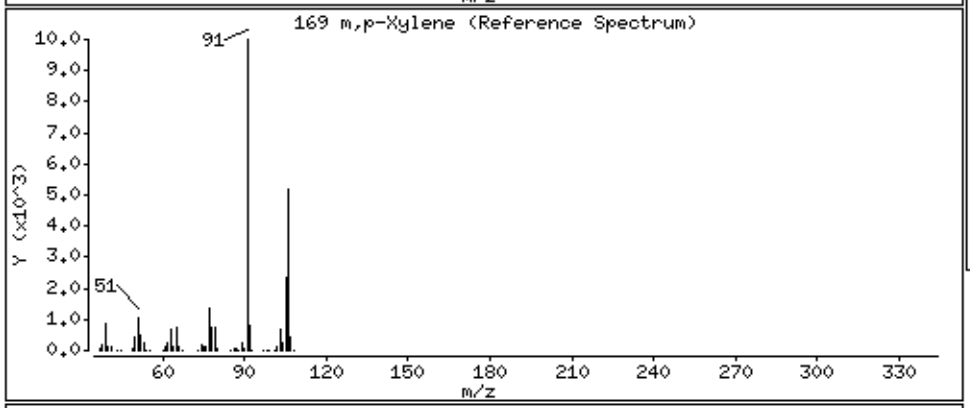
Column diameter: 0.32

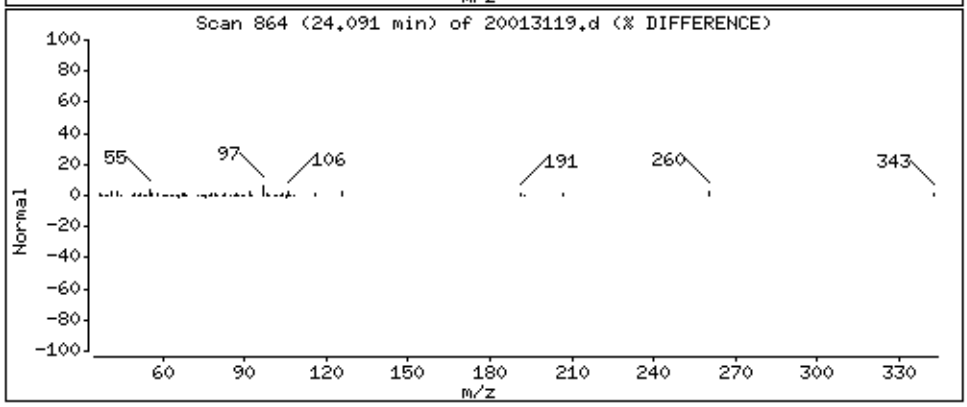
169 m,p-Xylene

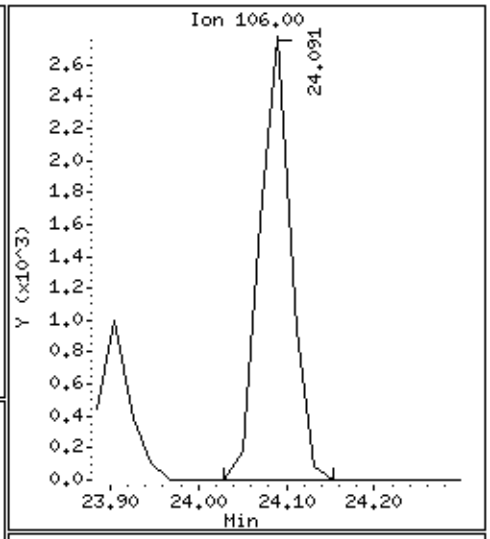
Concentration: 0.2282 PPBV

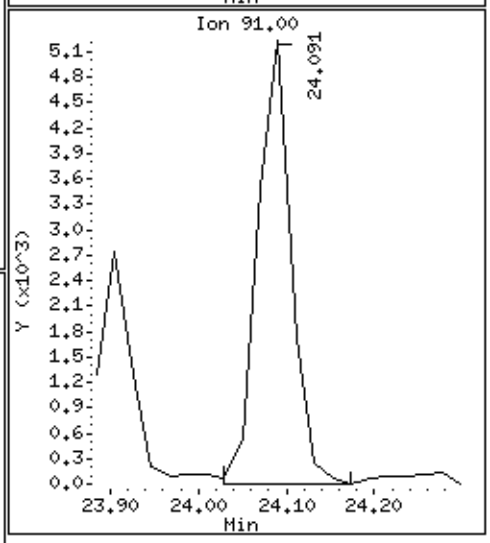












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

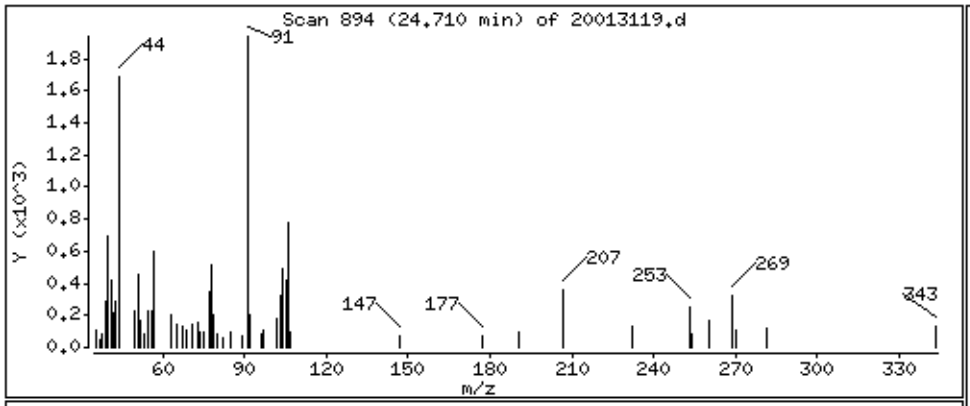
Operator: gh

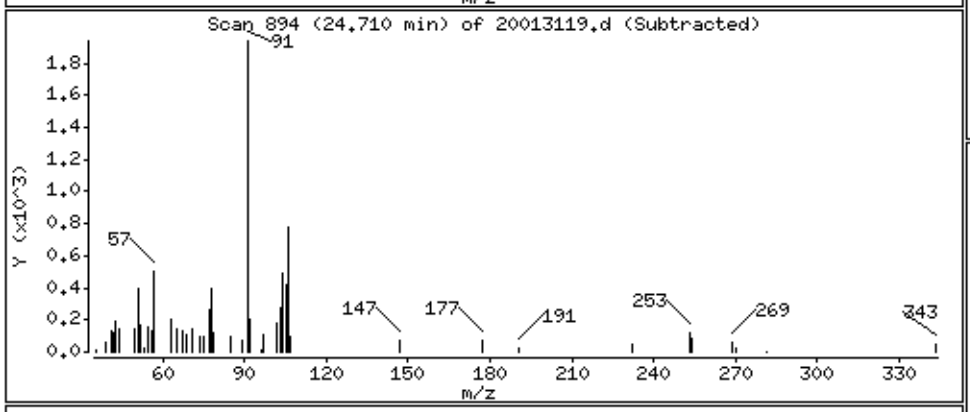
Column phase: RTX-624

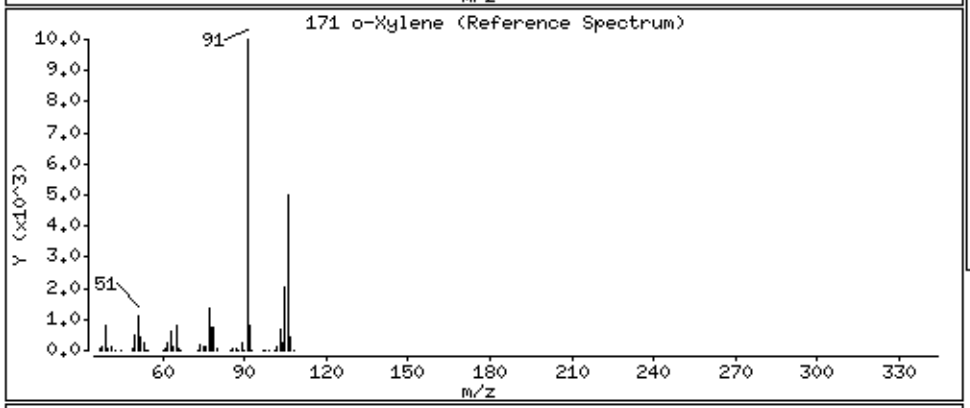
Column diameter: 0.32

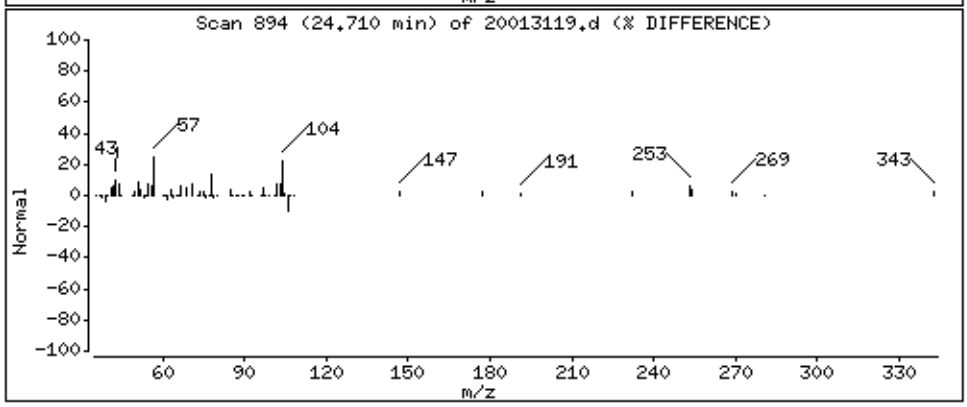
171 o-Xylene

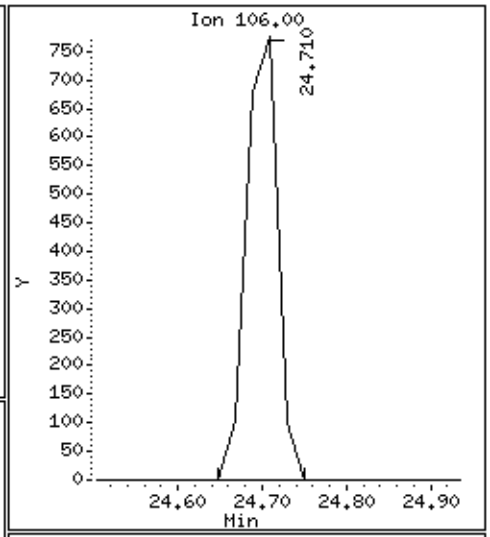
Concentration: 0.07263 PPBV

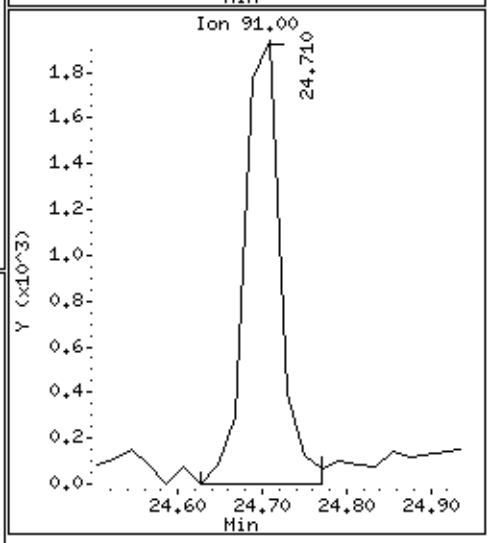












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

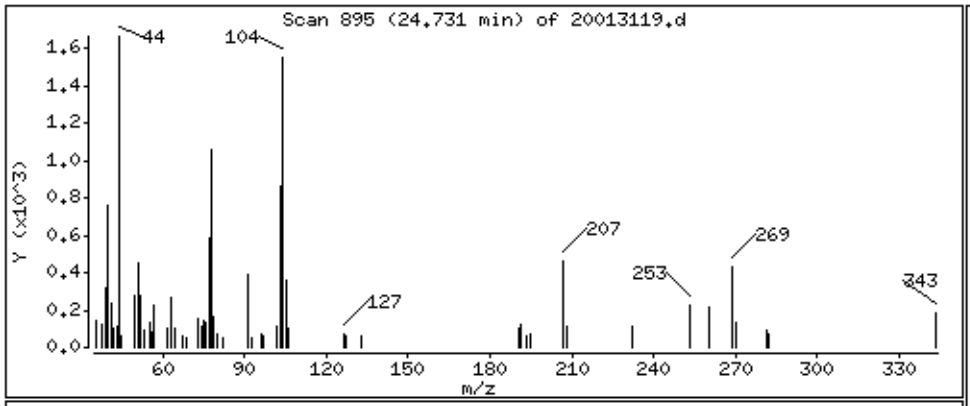
Operator: gh

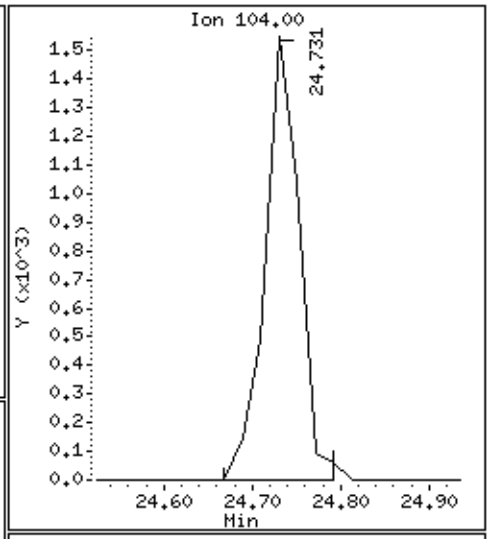
Column phase: RTX-624

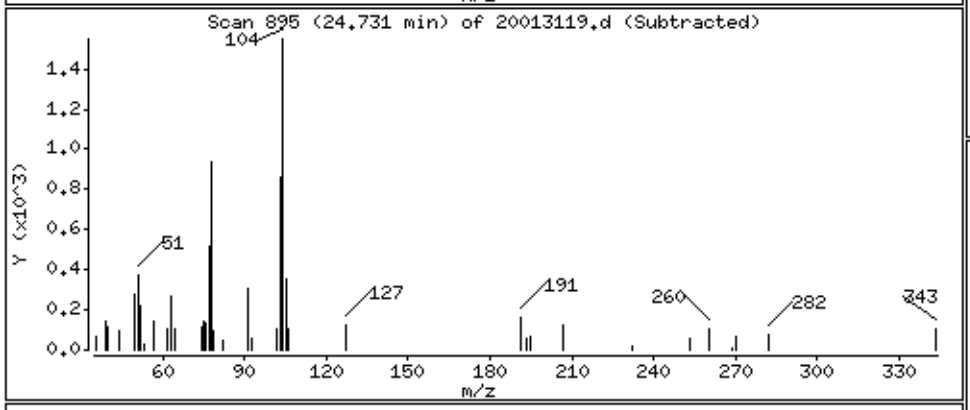
Column diameter: 0.32

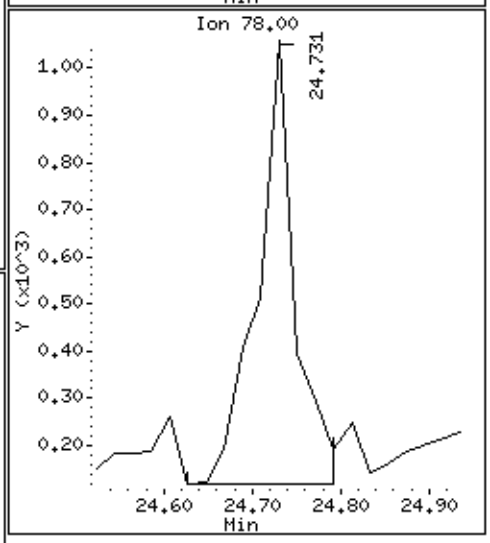
172 Styrene

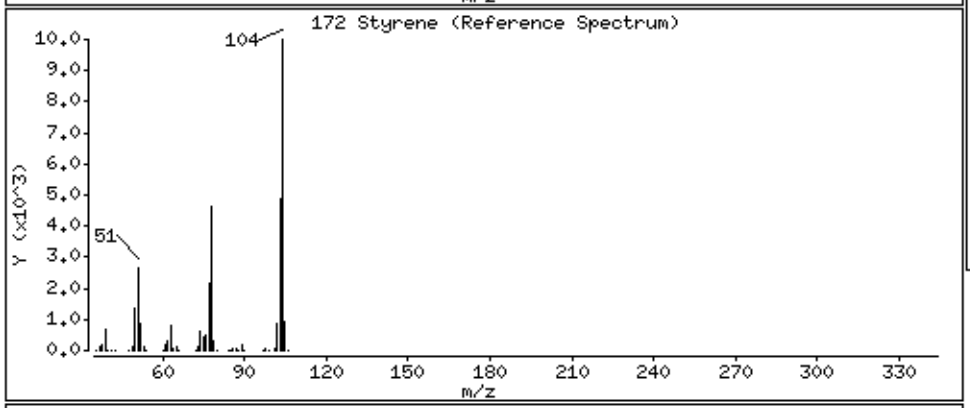
Concentration: 0.1008 PPBV

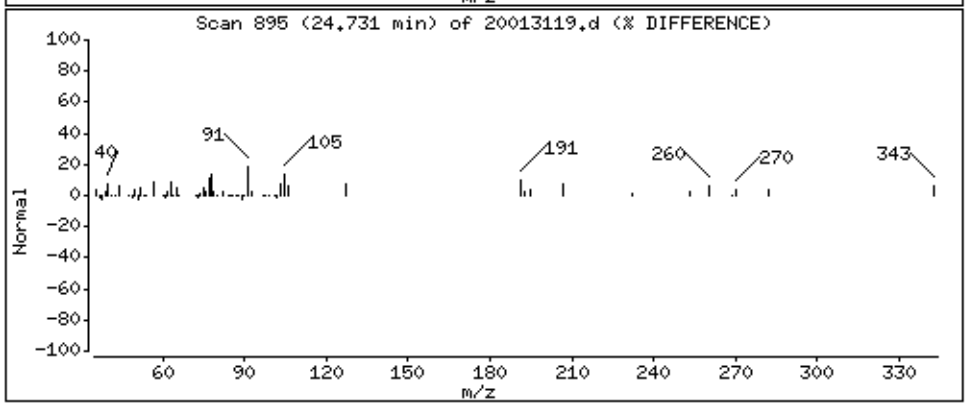












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

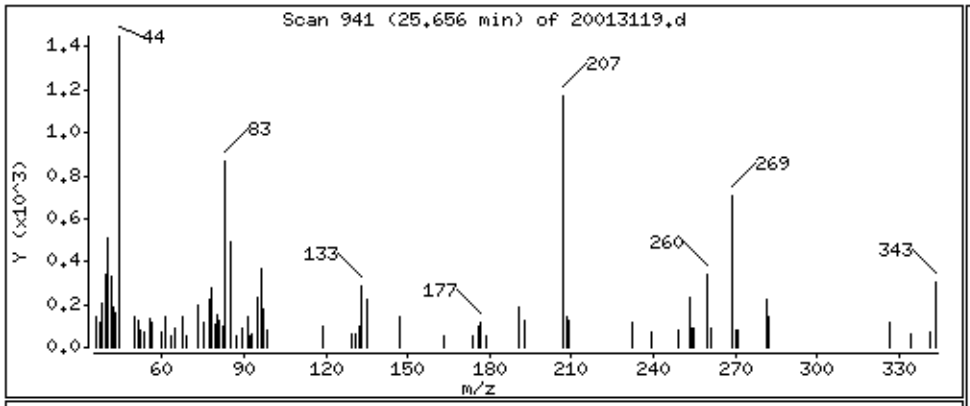
Operator: gh

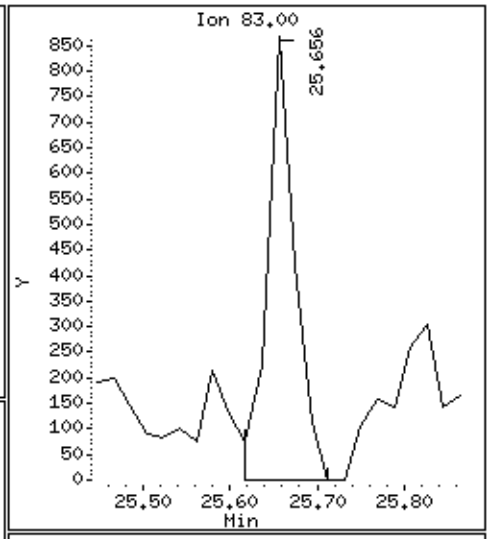
Column phase: RTX-624

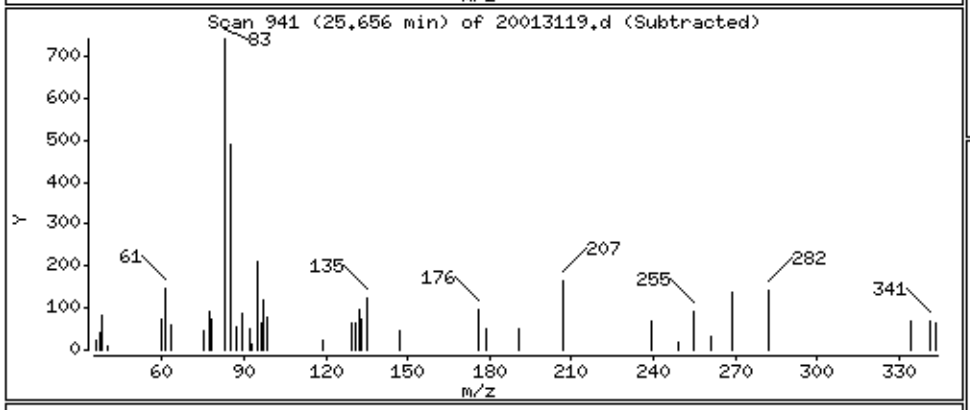
Column diameter: 0.32

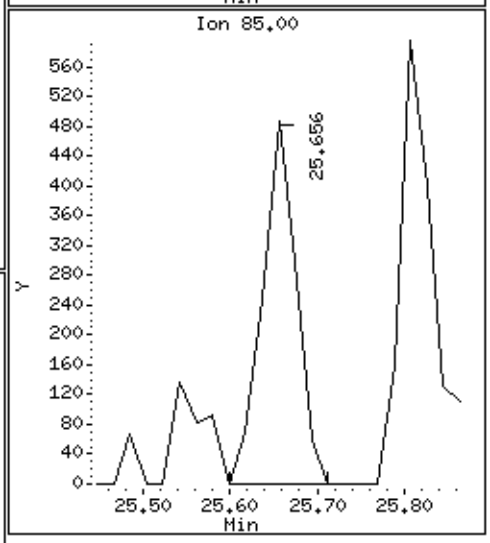
181 1,1,2,2-Tetrachloroethane

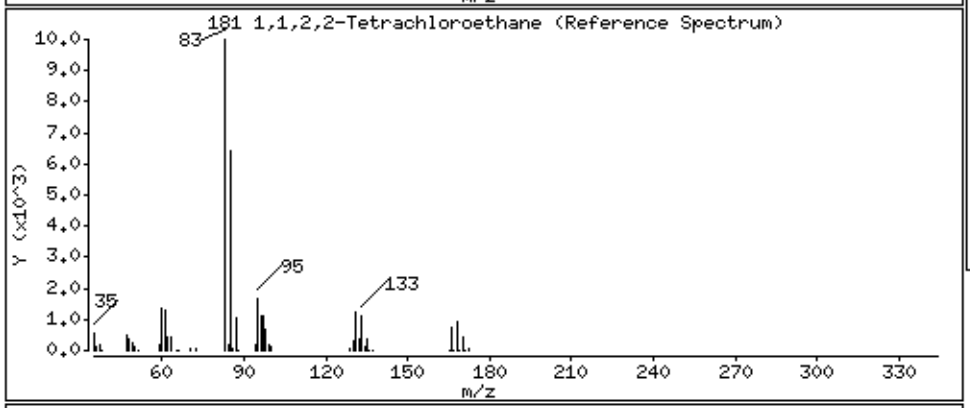
Concentration: 0.03554 PPBV

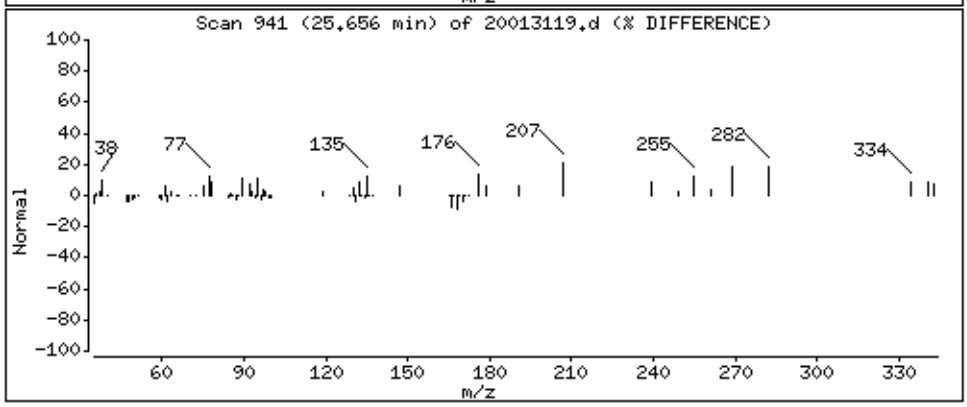












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

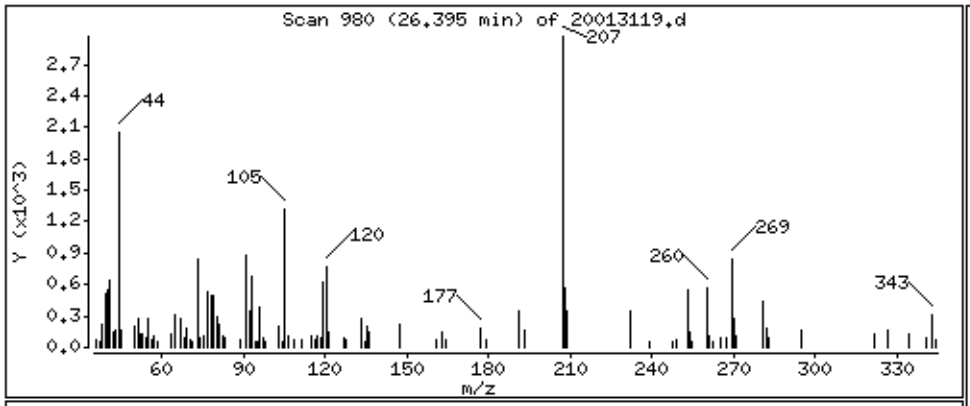
Operator: gh

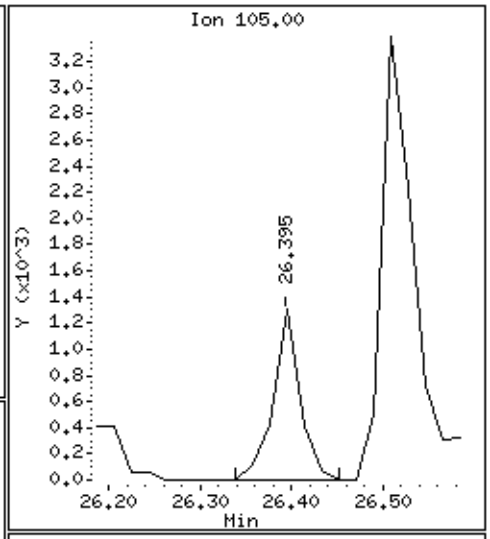
Column phase: RTX-624

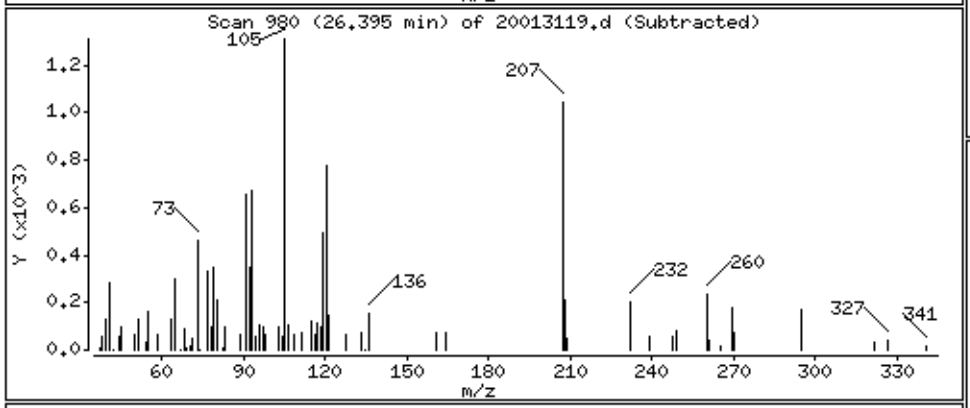
Column diameter: 0.32

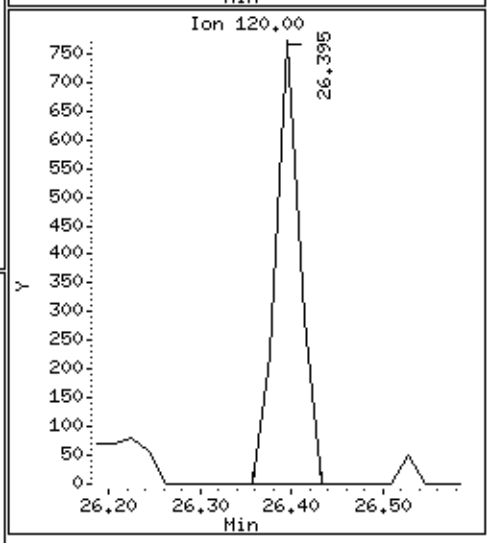
196 1,2,4-Trimethylbenzene

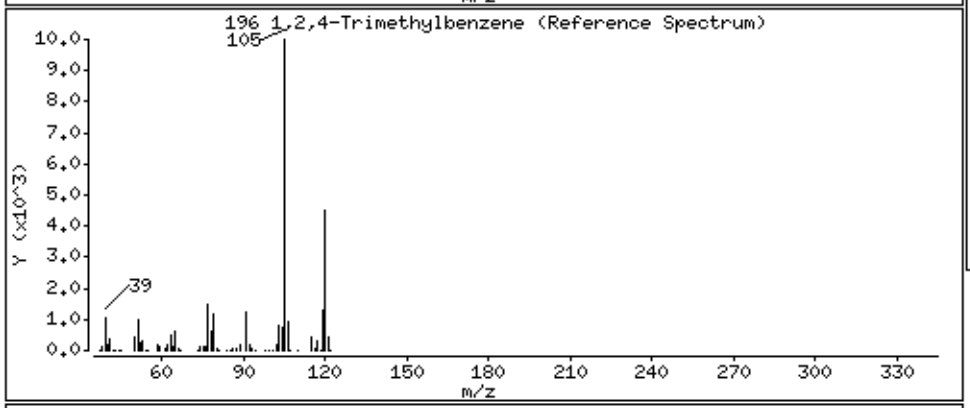
Concentration: 0.04379 PPBV

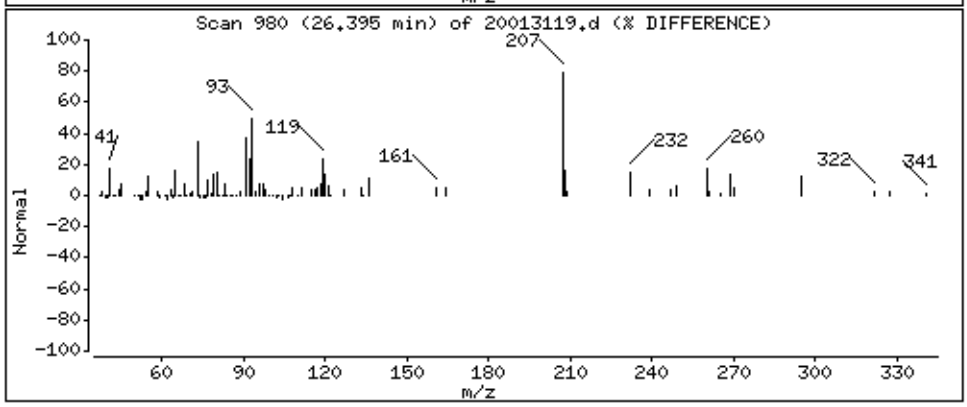












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

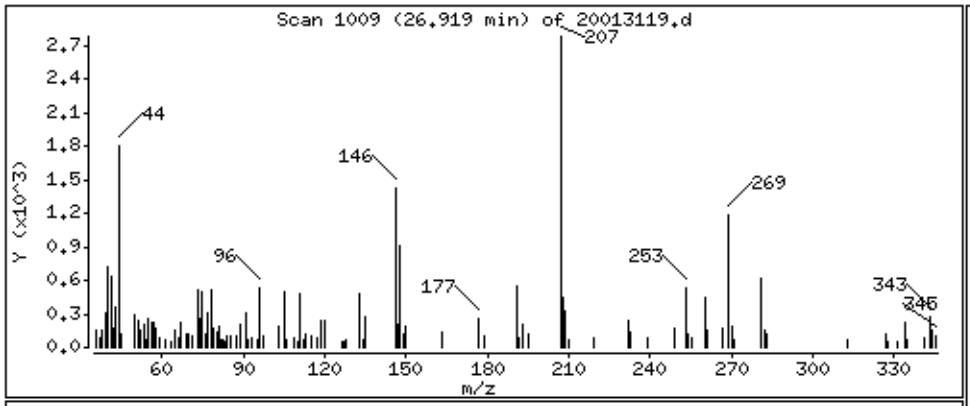
Operator: gh

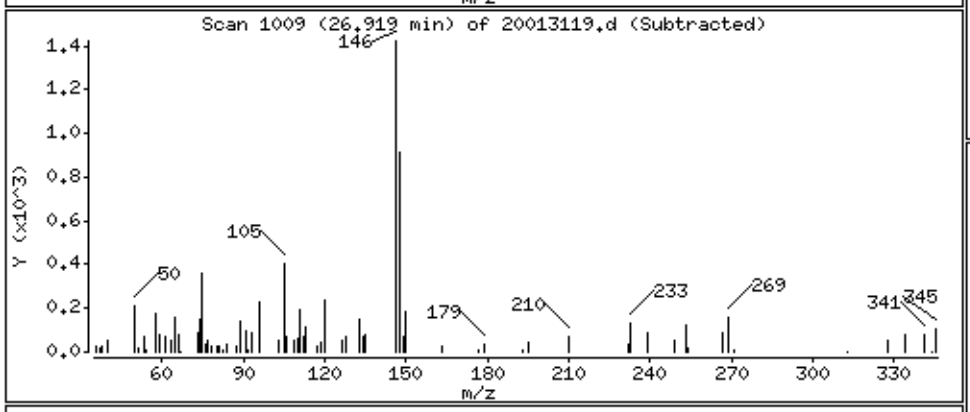
Column phase: RTX-624

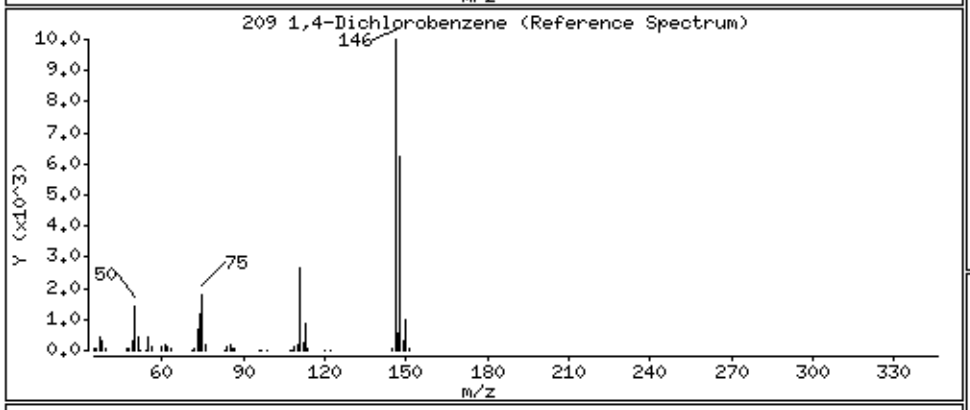
Column diameter: 0.32

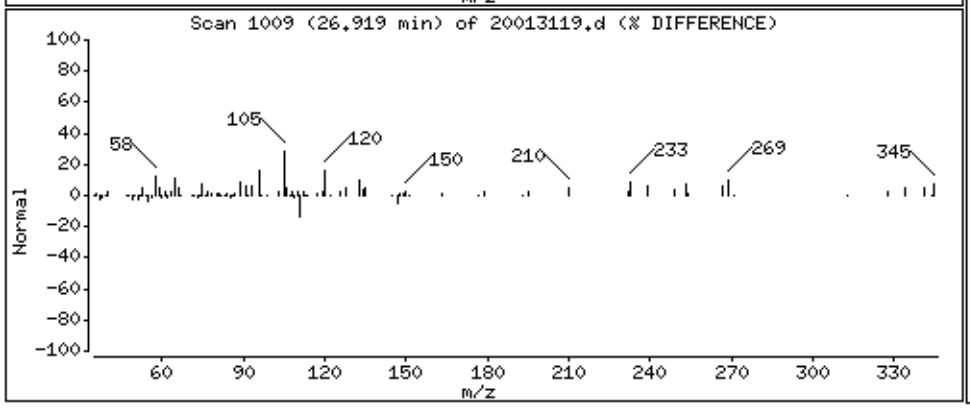
209 1,4-Dichlorobenzene

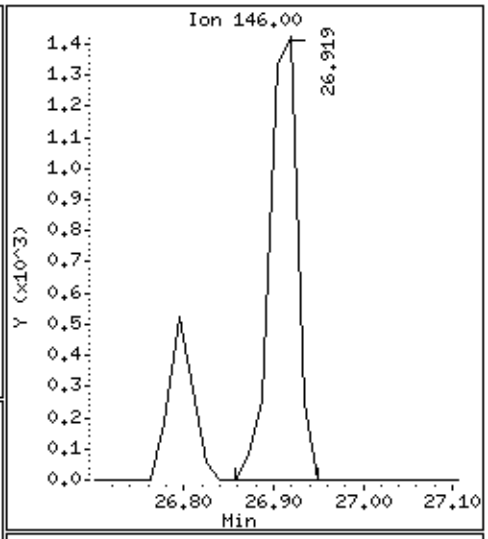
Concentration: 0.06644 PPBV

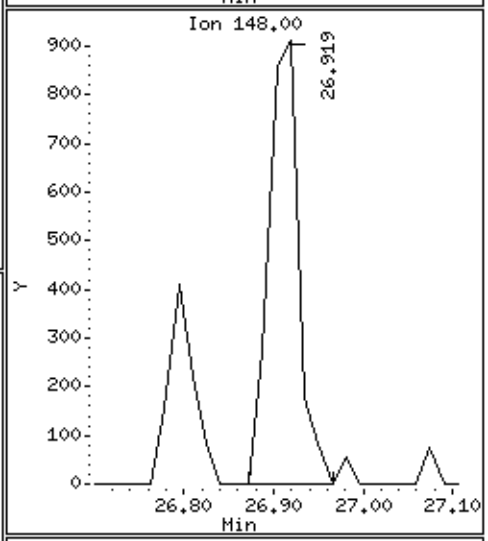


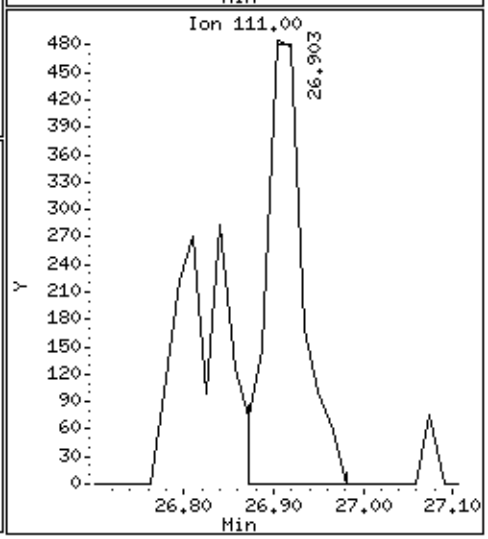












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

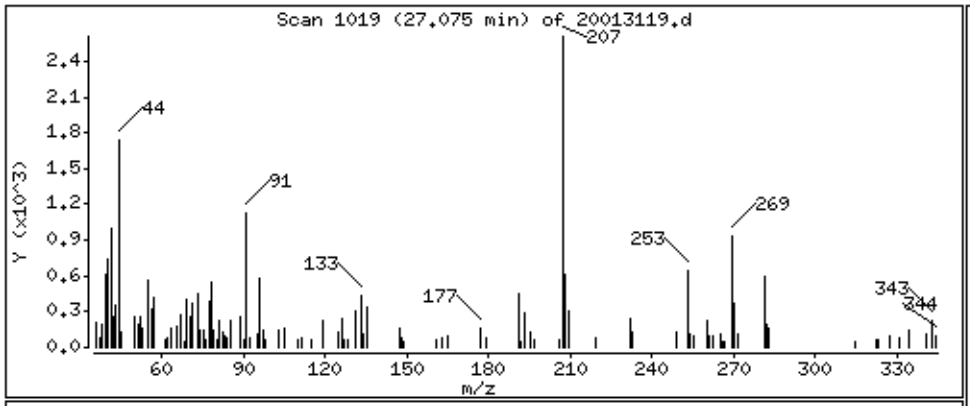
Operator: gh

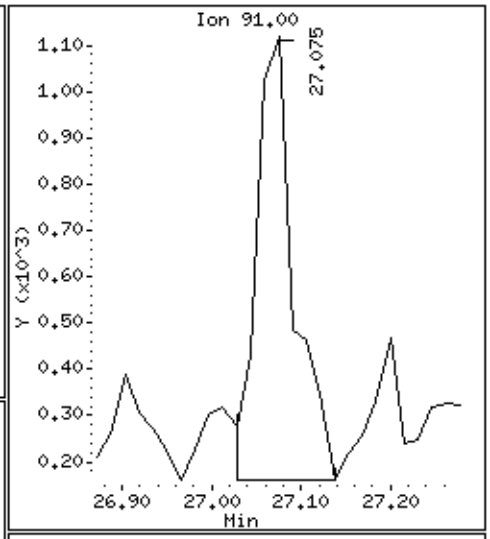
Column phase: RTX-624

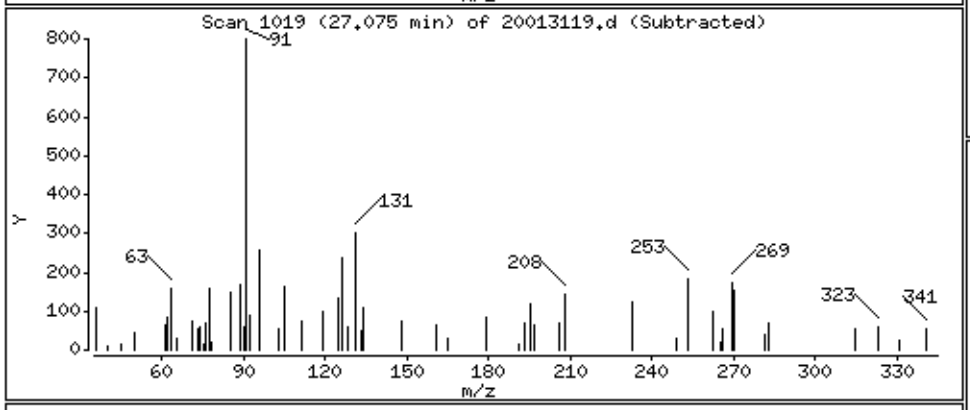
Column diameter: 0.32

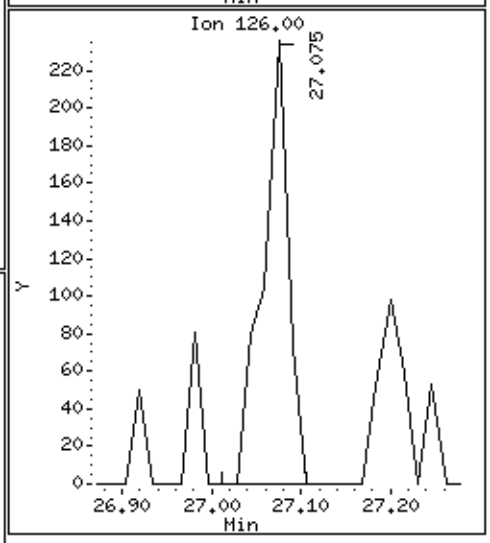
212 alpha-Chlorotoluene

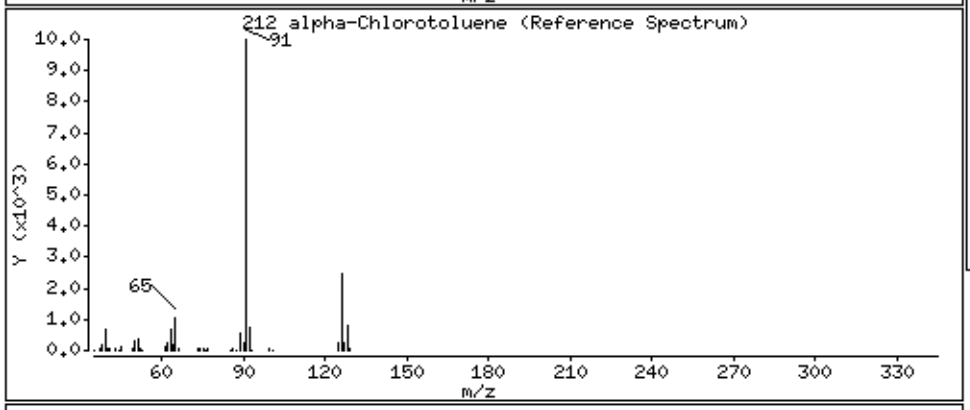
Concentration: 0.05775 PPBV

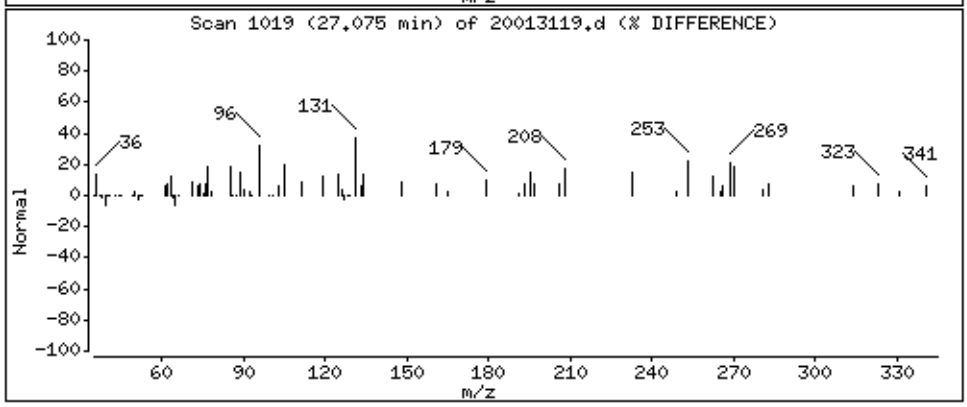












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

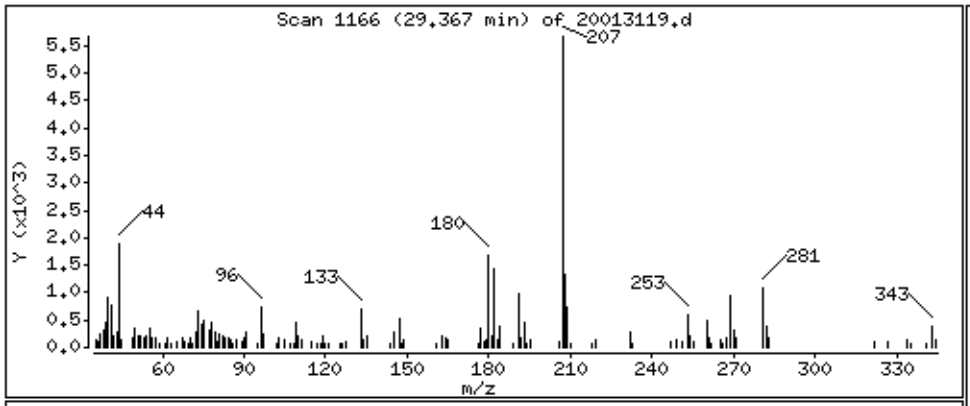
Operator: gh

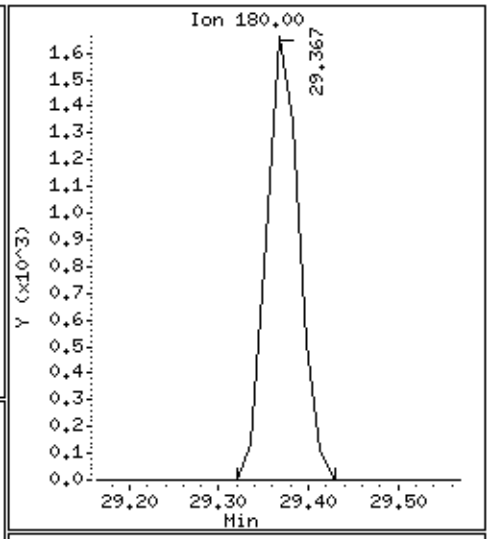
Column phase: RTX-624

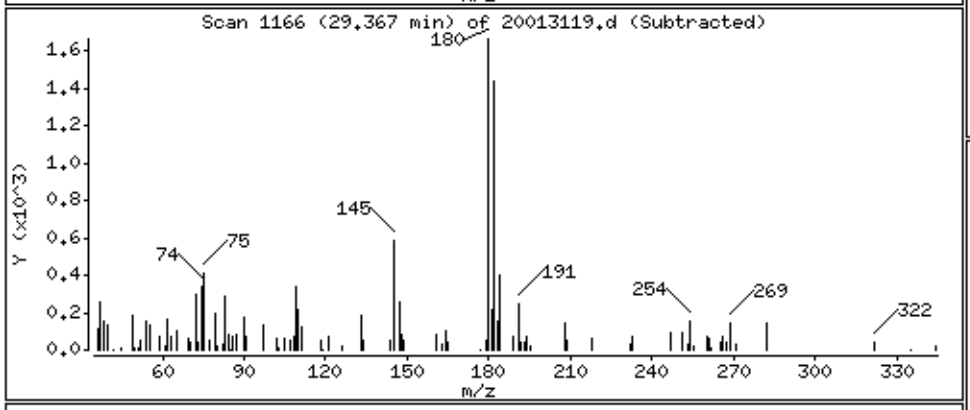
Column diameter: 0.32

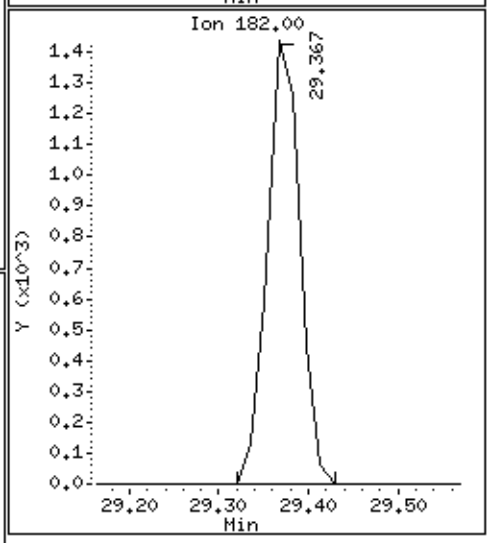
226 1,2,4-Trichlorobenzene

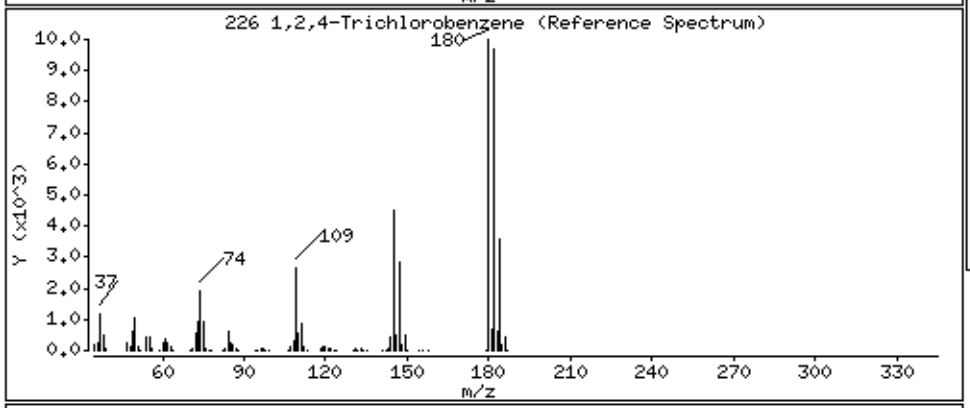
Concentration: 0.07817 PPBV

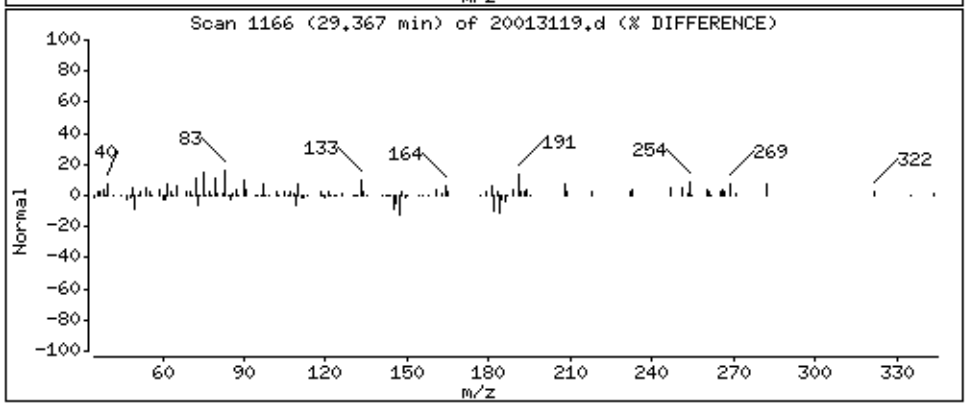












Data File: /chem/msd20.i/31Jan2017.b/20013119.d

Date : 31-JAN-2017 19:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 9551

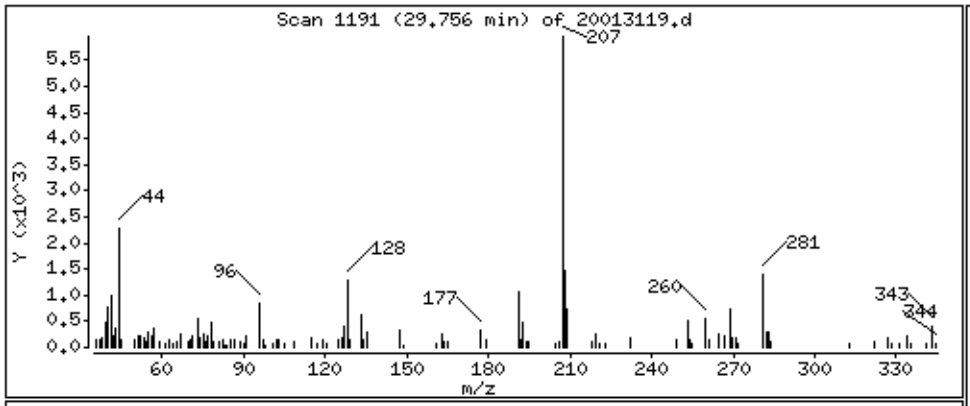
Operator: gh

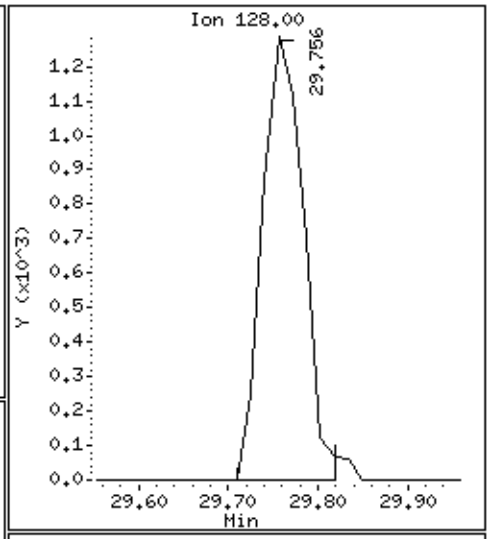
Column phase: RTX-624

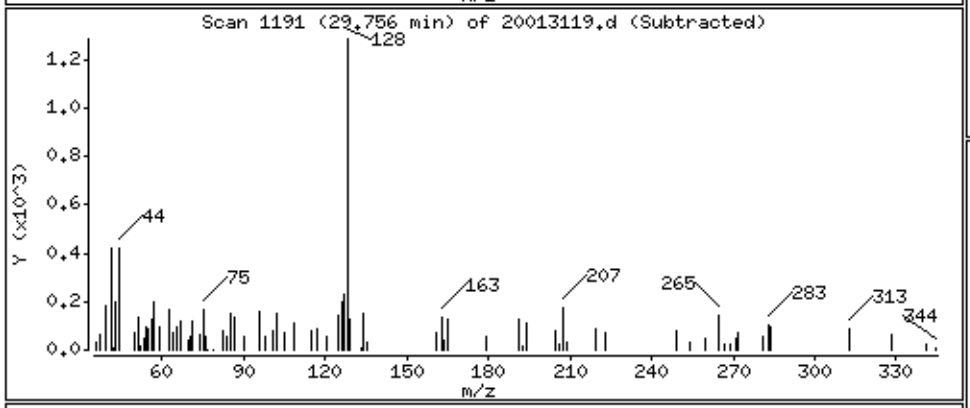
Column diameter: 0.32

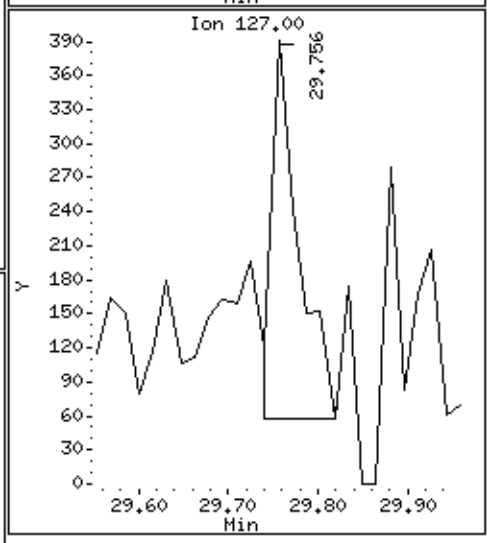
228 Naphthalene

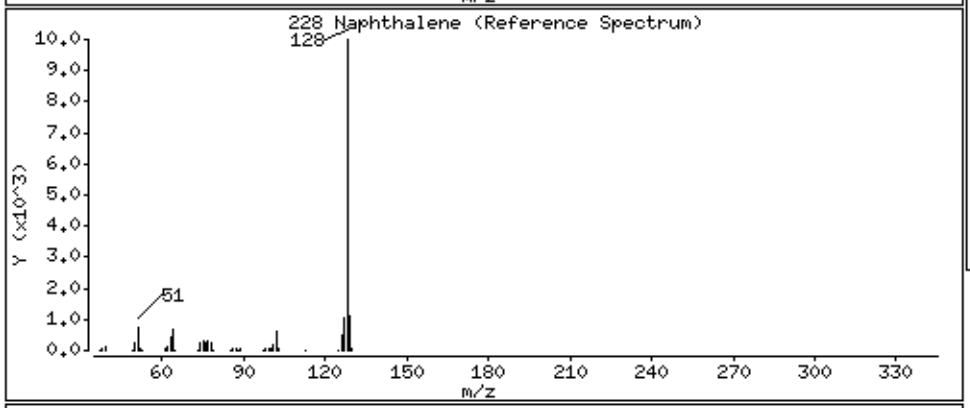
Concentration: 0.04211 PPBV

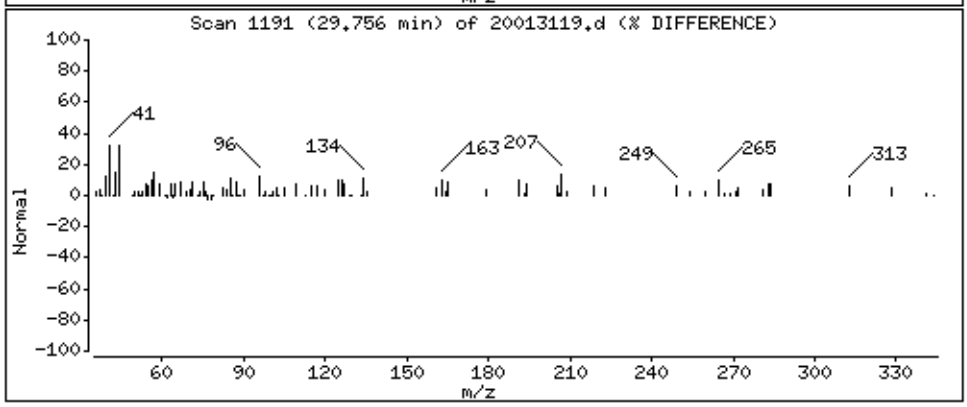












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-4-012117

Lab ID#: 1701428A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.54	0.80	2.7
Chloromethane	0.80	0.98	1.7	2.0
Freon 11	0.16	0.31	0.90	1.8
Ethanol	0.80	26	1.5	49
Freon 113	0.16	0.086 J	1.2	0.66 J
Acetone	0.80	18	1.9	42
2-Propanol	0.80	24	2.0	58
Carbon Disulfide	0.80	0.086 J	2.5	0.27 J
Methylene Chloride	0.32	0.25 J	1.1	0.88 J
Hexane	0.16	0.091 J	0.57	0.32 J
2-Butanone (Methyl Ethyl Ketone)	0.80	3.3	2.4	9.7
Chloroform	0.16	0.035 J	0.79	0.17 J
Cyclohexane	0.16	0.033 J	0.55	0.11 J
Carbon Tetrachloride	0.16	0.072 J	1.0	0.45 J
Benzene	0.16	0.14 J	0.51	0.46 J
1,2-Dichloroethane	0.16	0.085 J	0.65	0.34 J
Heptane	0.16	0.093 J	0.66	0.38 J
4-Methyl-2-pentanone	0.16	0.13 J	0.66	0.52 J
Toluene	0.16	0.58	0.61	2.2
2-Hexanone	0.80	0.24 J	3.3	1.0 J
Ethyl Benzene	0.16	0.054 J	0.70	0.23 J
m,p-Xylene	0.16	0.17	0.70	0.73
o-Xylene	0.16	0.068 J	0.70	0.30 J
Styrene	0.16	0.088 J	0.68	0.38 J
4-Ethyltoluene	0.16	0.054 J	0.79	0.26 J
1,3,5-Trimethylbenzene	0.16	0.032 J	0.79	0.16 J
1,2,4-Trimethylbenzene	0.16	0.097 J	0.79	0.48 J
1,4-Dichlorobenzene	0.16	0.056 J	0.97	0.34 J
1,2,4-Trichlorobenzene	0.80	0.040 J	6.0	0.30 J
Naphthalene	0.80	0.060 J	4.2	0.31 J

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Client Sample ID: B30IA-4-012117

Lab ID#: 1701428A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013120**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**1/31/17 08:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.54	0.80	2.7
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	0.98	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	0.31	0.90	1.8
Ethanol	0.80	26	1.5	49
Freon 113	0.16	0.086 J	1.2	0.66 J
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	18	1.9	42
2-Propanol	0.80	24	2.0	58
Carbon Disulfide	0.80	0.086 J	2.5	0.27 J
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.25 J	1.1	0.88 J
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	0.091 J	0.57	0.32 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	3.3	2.4	9.7
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	0.035 J	0.79	0.17 J
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	0.033 J	0.55	0.11 J
Carbon Tetrachloride	0.16	0.072 J	1.0	0.45 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	0.14 J	0.51	0.46 J
1,2-Dichloroethane	0.16	0.085 J	0.65	0.34 J
Heptane	0.16	0.093 J	0.66	0.38 J
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	0.13 J	0.66	0.52 J
Toluene	0.16	0.58	0.61	2.2
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	0.24 J	3.3	1.0 J

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Client Sample ID: B30IA-4-012117

Lab ID#: 1701428A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013120**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**1/31/17 08:57 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	0.054 J	0.70	0.23 J
m,p-Xylene	0.16	0.17	0.70	0.73
o-Xylene	0.16	0.068 J	0.70	0.30 J
Styrene	0.16	0.088 J	0.68	0.38 J
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	0.054 J	0.79	0.26 J
1,3,5-Trimethylbenzene	0.16	0.032 J	0.79	0.16 J
1,2,4-Trimethylbenzene	0.16	0.097 J	0.79	0.48 J
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	0.056 J	0.97	0.34 J
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	0.040 J	6.0	0.30 J
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Naphthalene	0.80	0.060 J	4.2	0.31 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013120.d
Lab Smp Id: 1701428A-04A
Inj Date : 31-JAN-2017 20:57
Operator : gh Inst ID: msd20.i
Smp Info : 250mL# O0895
Misc Info : 5.0"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	151785	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	116876			46.97- 106.97	77.00
16.696	16.696 (1.000)	49	185655			76.21- 136.21	122.31
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	495670	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	78939			0.00- 45.59	15.93
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	459358	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	257273			23.26- 83.26	56.01
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.621	17.621 (1.053)	65	227526	6.07518	6.075	80.00- 120.00	100.00
17.621	17.621 (1.053)	67	116768			31.78- 91.78	51.32
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	461645	4.87104	4.871	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	55964			0.00- 40.33	12.12

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    290396                    35.56-  95.56    62.90
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    260816 5.32054    5.320  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    299666                   79.94- 139.94   114.90
 25.466  25.466 (1.072)   176    248217                   67.24- 127.24    95.17
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.697   4.648 (0.281)    85     38669 0.33608   0.5411  70.00- 130.00   100.00
  4.672   4.648 (0.279)    87      7503                    0.00-  30.00    19.40
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.553 (0.395)    50     21624 0.61142   0.9844  80.00- 120.00   100.00
  6.577   6.553 (0.393)    52      8393                    3.24-  63.24    38.81
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101     22382 0.19429   0.3128  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103     13972                   34.37-  94.37    62.43
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45    251127 16.1870   26.061  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46     94874                   10.33-  70.33    37.78
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.761)   151      4618 0.05371  0.08648  80.00- 120.00   100.00(a)
 12.736  12.763 (0.761)   153      2946                   33.68-  93.68    63.79
 12.736  12.736 (0.761)   101      5061                   86.77- 146.77   109.59
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58    235762 11.0236   17.748  80.00- 120.00   100.00
 13.093  13.066 (0.783)    43    683575                  253.28- 313.28   289.94
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.093  13.121 (0.783)    76      6285 0.05314  0.08555  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.533 (0.811)    45    849174 14.7805   23.796  80.00- 120.00   100.00
 13.560  13.533 (0.811)    43    254455                    0.00-  52.74    29.97
 13.560  13.533 (0.811)    59     38035                    0.00-  34.43     4.48
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      7321 0.15773   0.2539  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      8187                   80.28- 140.28   111.83
 14.027  14.027 (0.839)    51      3088                    4.61-  64.61    42.18
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	3465	0.05651	0.09097	80.00- 120.00	100.00(a)
14.933	14.878 (0.893)	43	10903			28.29- 88.29	314.66
14.878	14.878 (0.889)	86	515			0.00- 48.18	14.86
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.977)	72	42620	2.04369	3.290	80.00- 120.00	100.00
16.344	16.324 (0.977)	43	157446			300.25- 360.25	369.42
16.344	16.324 (0.977)	57	14095			0.00- 58.21	33.07
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	2038	0.02161	0.03478	80.00- 120.00	100.00(a)
16.819	16.819 (1.006)	85	1466			34.75- 94.75	71.93
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	1261	0.02044	0.03291	80.00- 120.00	100.00(a)
17.035	17.035 (1.018)	56	3064			76.62- 136.62	242.98
17.035	17.035 (1.018)	41	3236			21.84- 81.84	256.62
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	3628	0.04470	0.07197	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	3207			73.50- 133.50	88.40
116 Benzene					CAS #: 71-43-2		
17.621	17.621 (0.968)	78	10699	0.09034	0.1454	80.00- 120.00	100.00(a)
17.621	17.621 (0.968)	77	2980			0.00- 53.26	27.85
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	2424	0.05279	0.08500	80.00- 120.00	100.00(a)
17.744	17.744 (0.974)	64	702			2.82- 62.82	28.96
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	1762	0.05794	0.09329	80.00- 120.00	100.00(a)
17.826	17.847 (0.979)	100	166			8.23- 68.23	9.42
17.867	17.847 (0.981)	43	3534			141.33- 201.33	200.57
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	5072	0.07851	0.1264	80.00- 120.00	100.00(a)
20.557	20.557 (1.129)	58	1886			12.96- 72.96	37.18
20.541	20.557 (1.128)	85	782			0.00- 50.79	15.42
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	47256	0.36266	0.5839	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	27023			29.12- 89.12	57.18
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	5892	0.15103	0.2432	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone (continued)							
22.377	22.377 (0.942)	43	10465			137.01- 197.01	177.61
22.377	22.377 (0.942)	100	1106			0.00- 53.27	18.77
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.906 (1.006)	106	1789	0.03330	0.05362	80.00- 120.00	100.00(a)
23.906	23.906 (1.006)	91	6344			275.87- 335.87	354.61
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	5872	0.10396	0.1674	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	11527			163.30- 223.30	196.30
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	2232	0.04241	0.06828	80.00- 120.00	100.00(a)
24.689	24.710 (1.039)	91	5434			172.76- 232.76	243.46
172 Styrene					CAS #: 100-42-5		
24.731	24.731 (1.041)	104	4236	0.05485	0.08830	80.00- 120.00	100.00(a)
24.731	24.731 (1.041)	78	2581			18.49- 78.49	60.93
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	4350	0.03330	0.05362	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	1696			1.16- 61.16	38.99
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	2352	0.02018	0.03248	80.00- 120.00	100.00(a)
25.940	25.940 (1.092)	120	1279			20.44- 80.44	54.38
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	6790	0.06023	0.09697	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	4025			17.83- 77.83	59.28
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.904	26.904 (1.132)	146	3051	0.03487	0.05614	80.00- 120.00	100.00(a)
26.904	26.904 (1.132)	148	2199			33.90- 93.90	72.07
26.919	26.904 (1.133)	111	1722			6.77- 66.77	56.44
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.367	29.367 (1.236)	180	2522	0.02485	0.04001	80.00- 120.00	100.00(a)
29.382	29.367 (1.237)	182	2320			66.13- 126.13	91.99
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	6748	0.03700	0.05957	80.00- 120.00	100.00(a)
29.756	29.756 (1.252)	127	1445			0.00- 42.38	21.41

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: msd20.i
Lab File ID: 20013120.d
Lab Smp Id: 1701428A-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.0"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	151785	-19.97
123 1,4-Difluorobenze	617206	370324	864088	495670	-19.69
163 Chlorobenzene-d5	554897	332938	776856	459358	-17.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 12:33

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-04A
Level: LOW Operator: gh
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.0"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.075	121.50	70-130
$ 146 Toluene-d8	5.000	4.871	97.42	70-130
$ 177 4-Bromofluorobenze	5.000	5.320	106.41	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

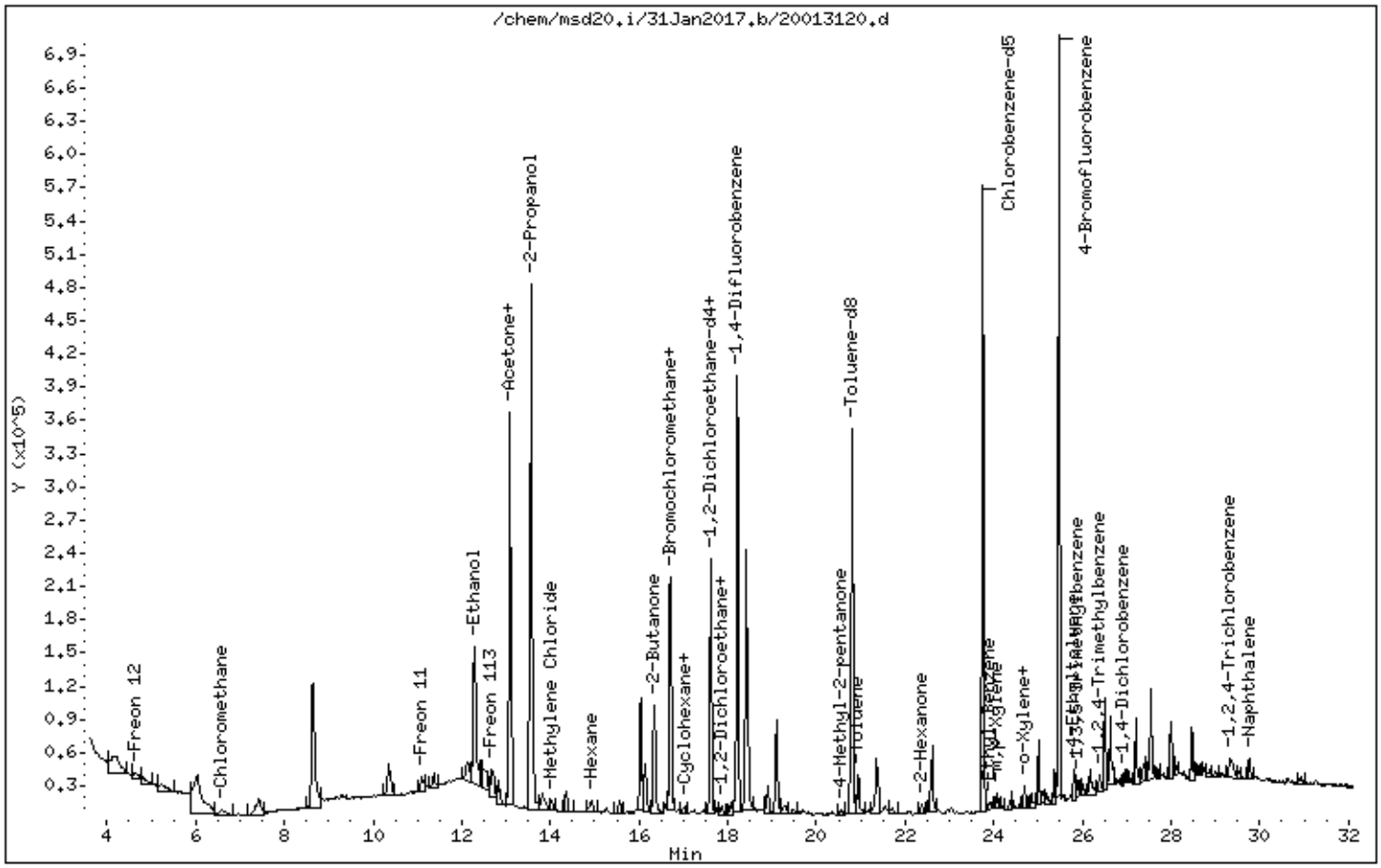
Instrument: msd20.i

Sample Info: 250mL# 00895

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

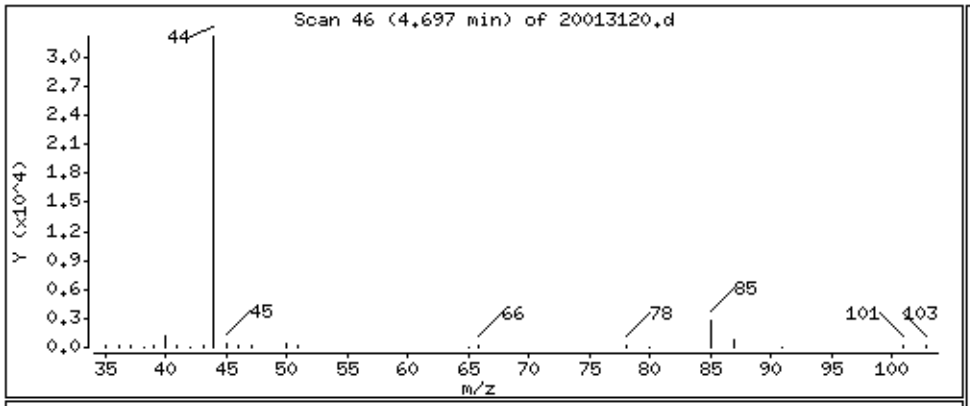
Operator: gh

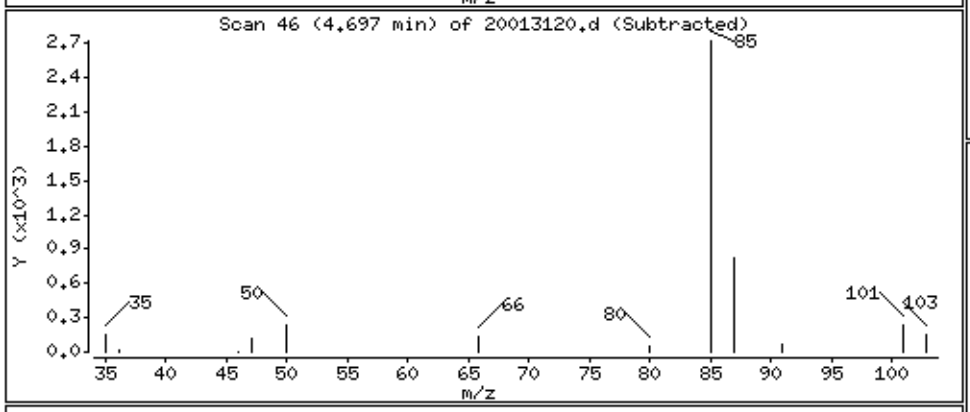
Column phase: RTX-624

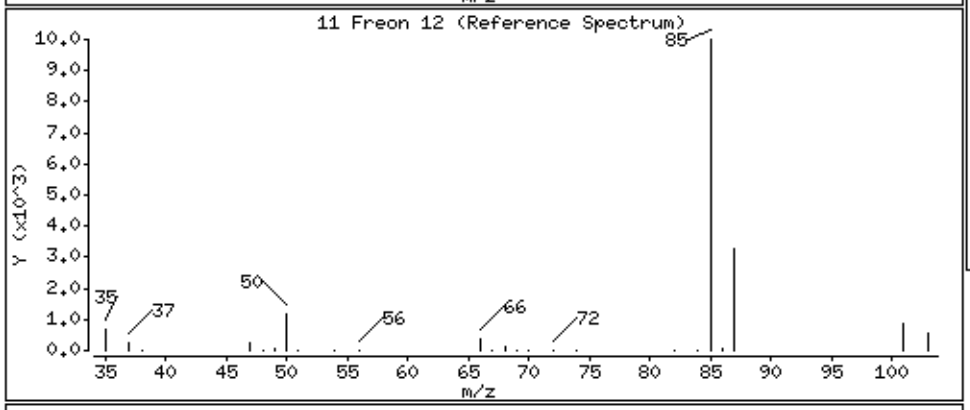
Column diameter: 0.32

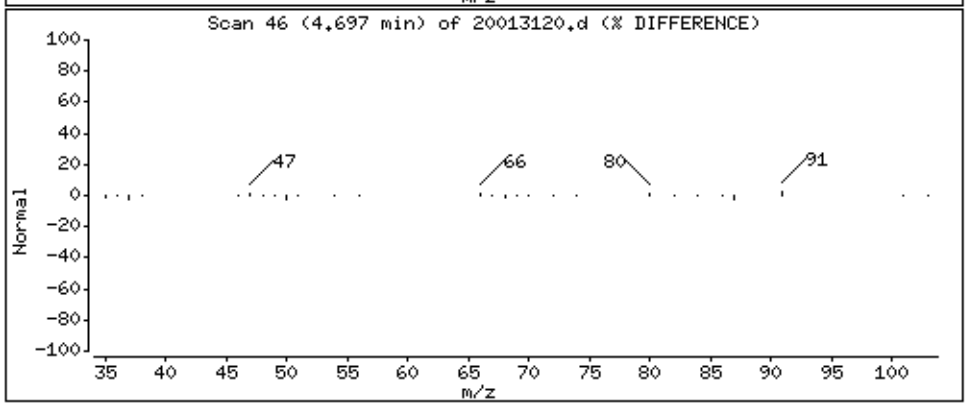
11 Freon 12

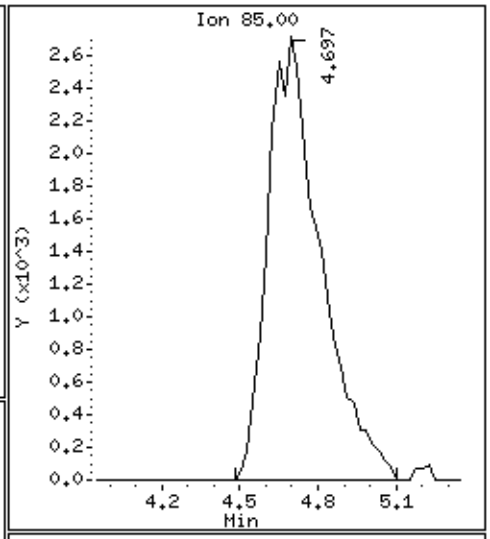
Concentration: 0.5411 PPBV

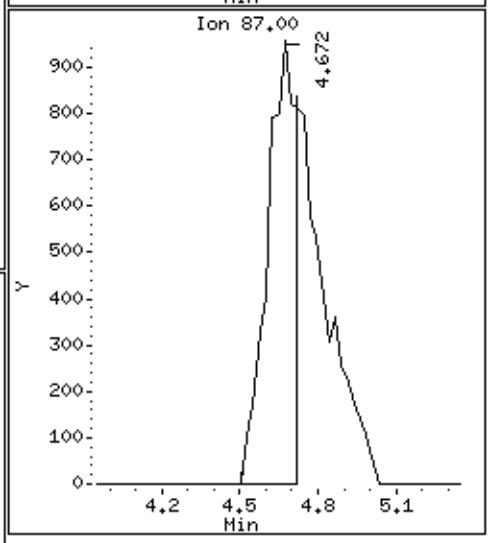












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

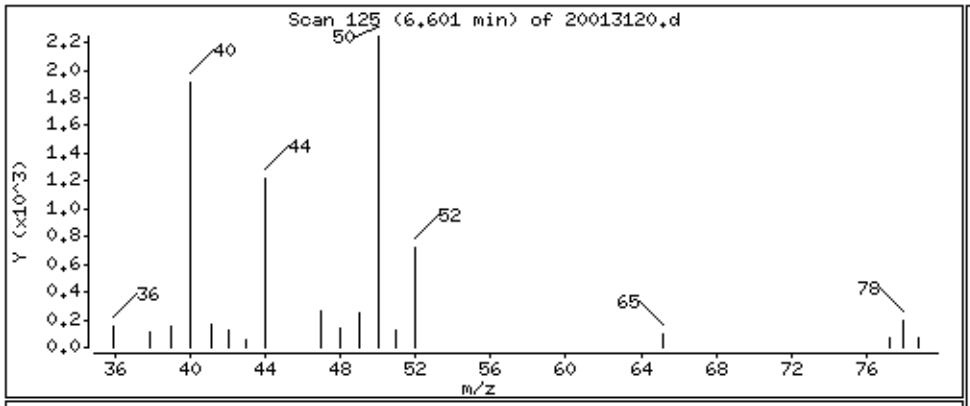
Operator: gh

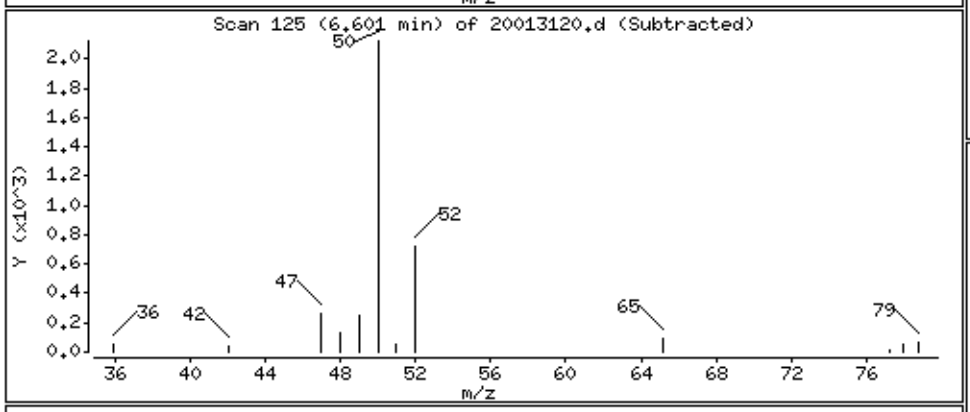
Column phase: RTX-624

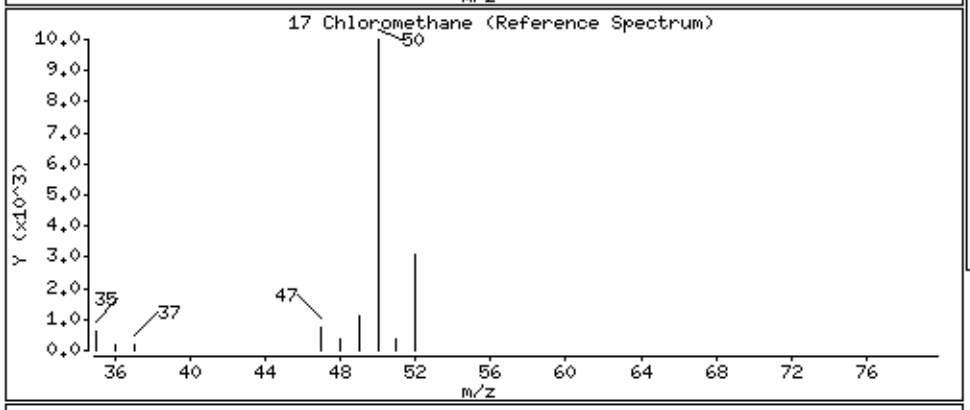
Column diameter: 0.32

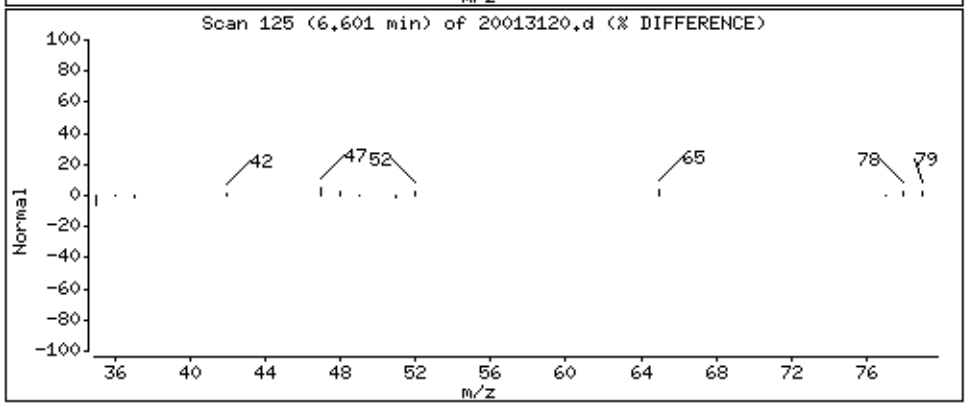
17 Chloromethane

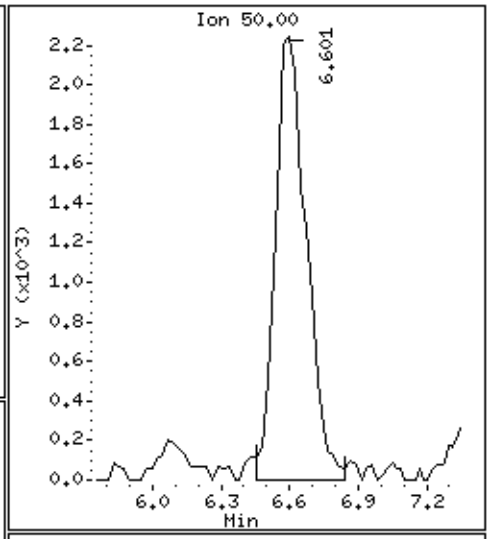
Concentration: 0.9844 PPBV

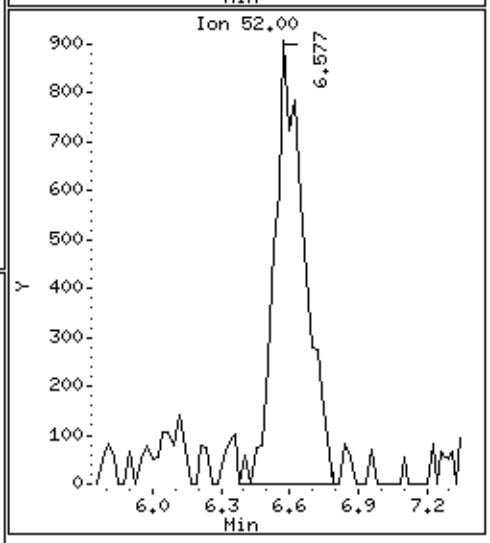












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

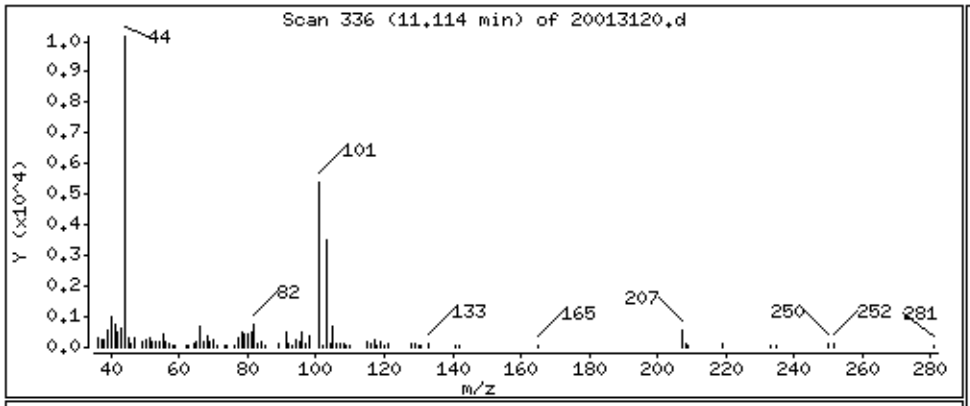
Operator: gh

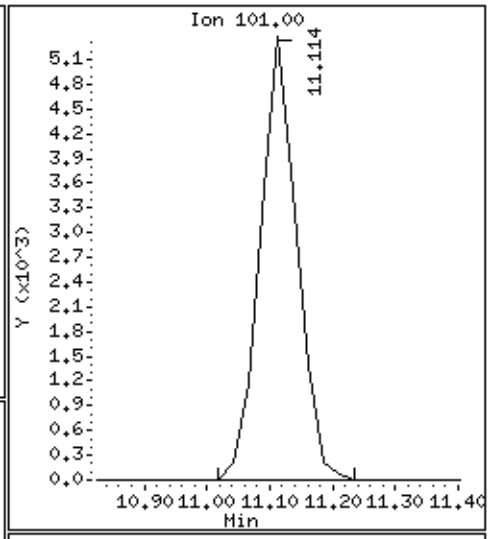
Column phase: RTX-624

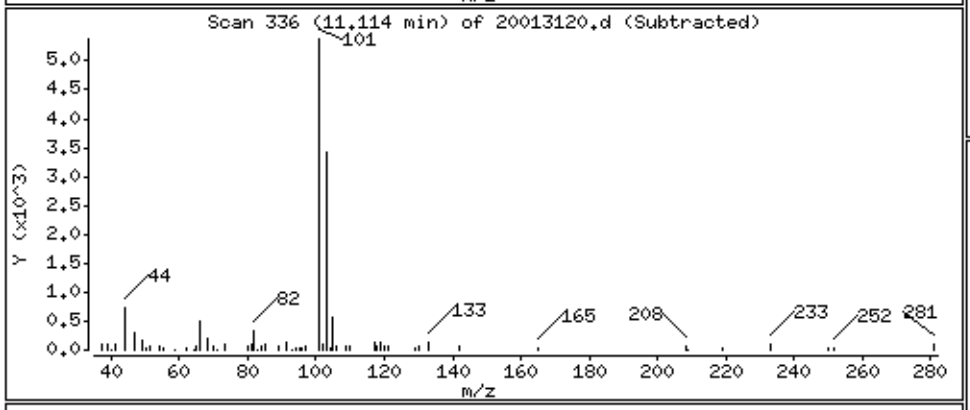
Column diameter: 0.32

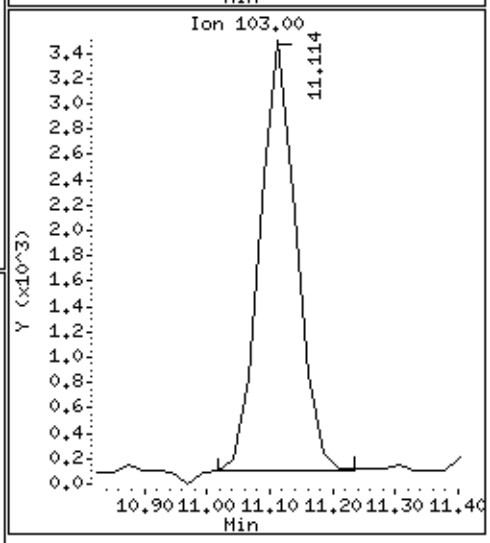
35 Freon 11

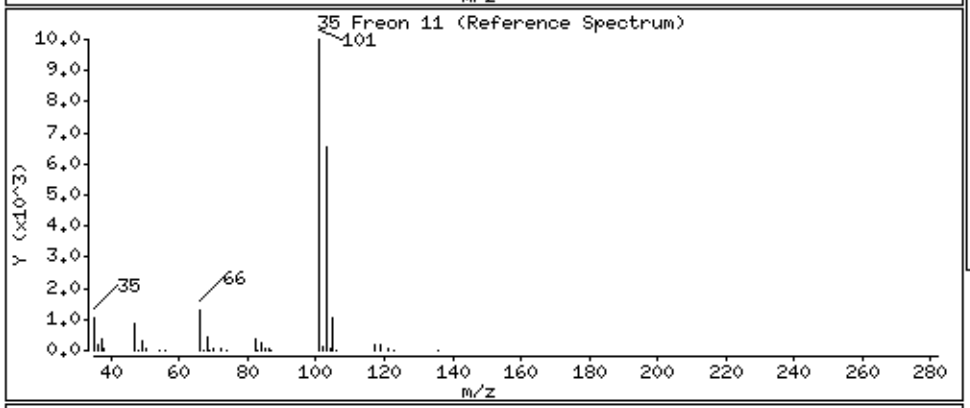
Concentration: 0.3128 PPBV

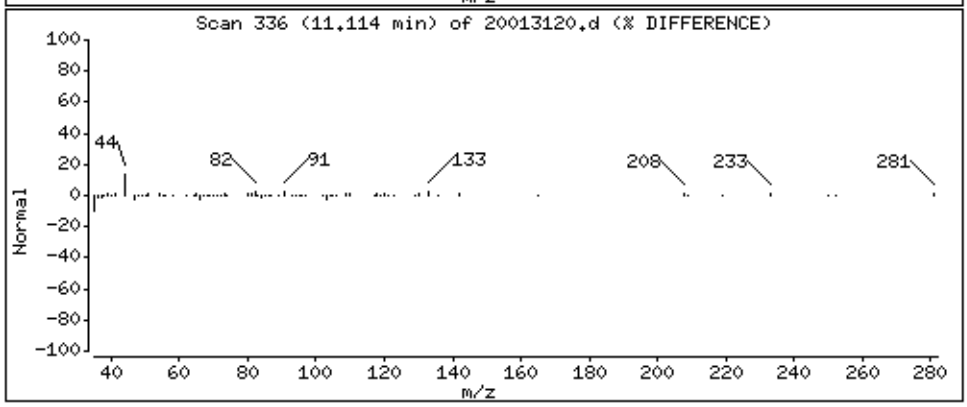












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

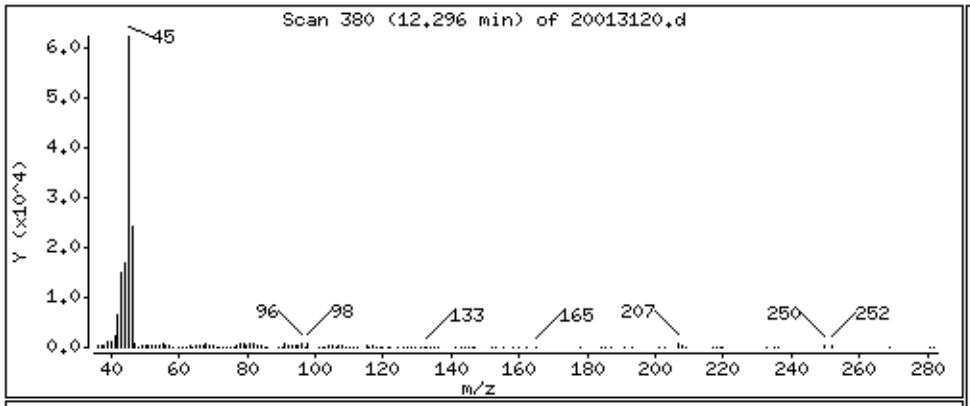
Operator: gh

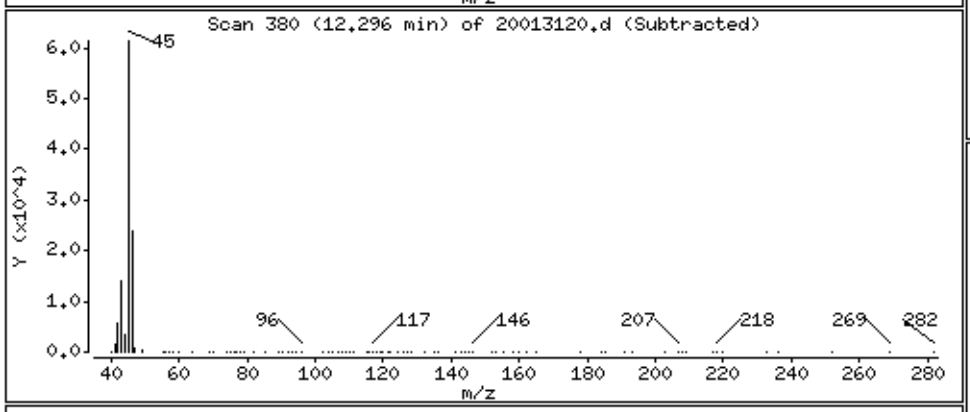
Column phase: RTX-624

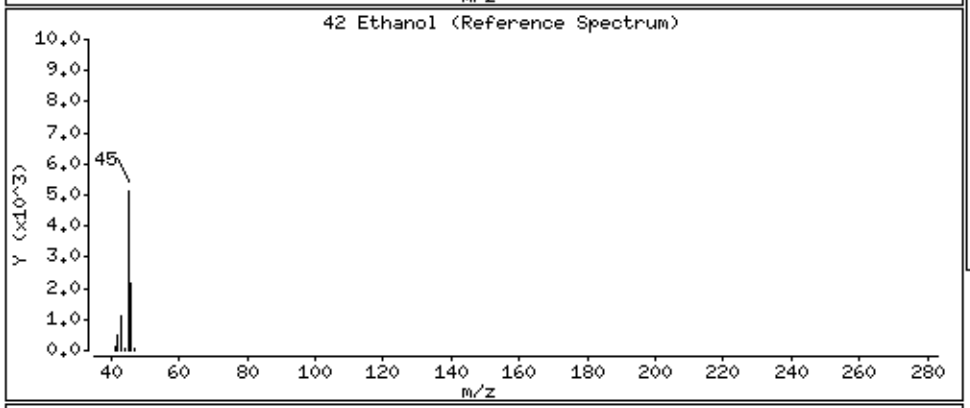
Column diameter: 0.32

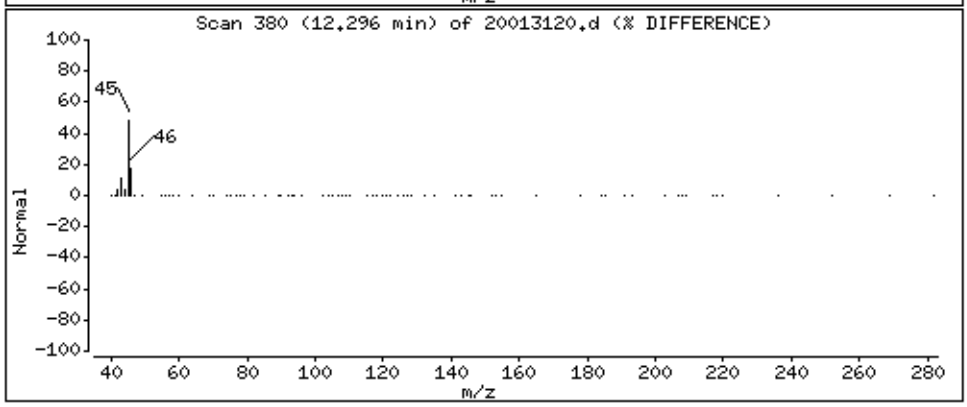
42 Ethanol

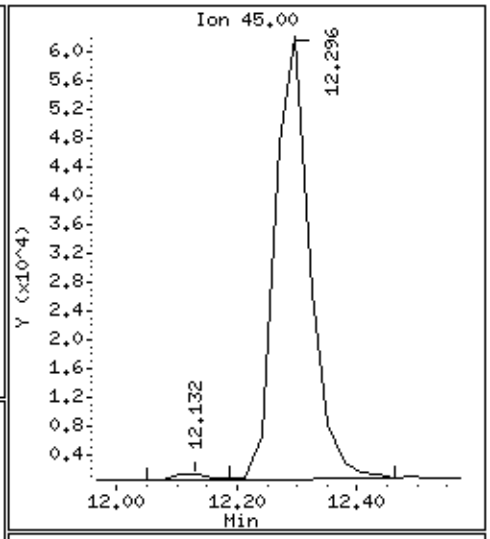
Concentration: 26.061 PPBV

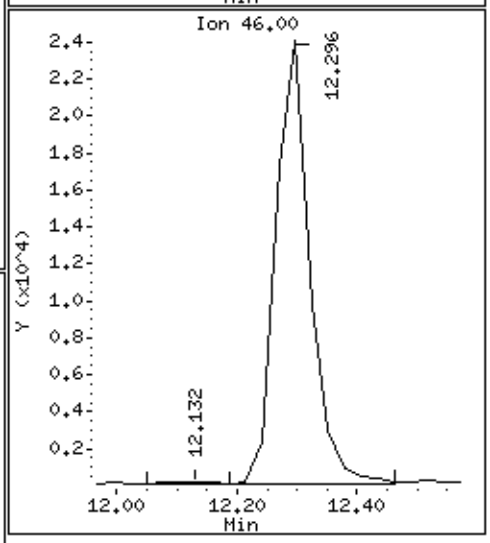












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

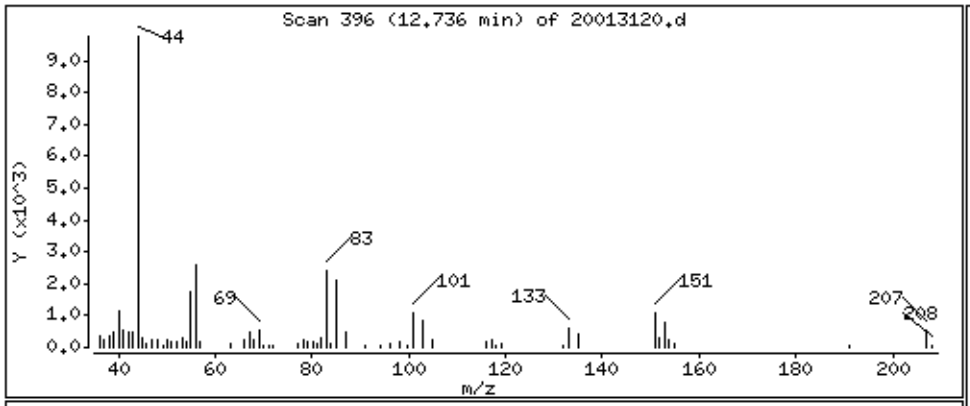
Operator: gh

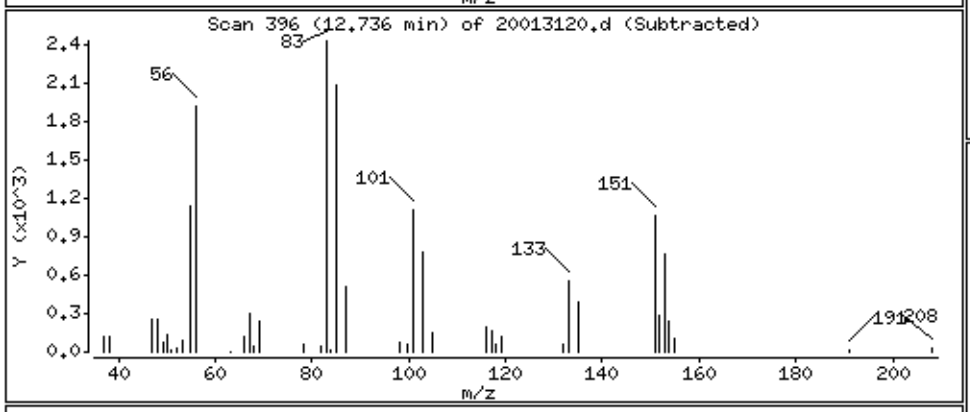
Column phase: RTX-624

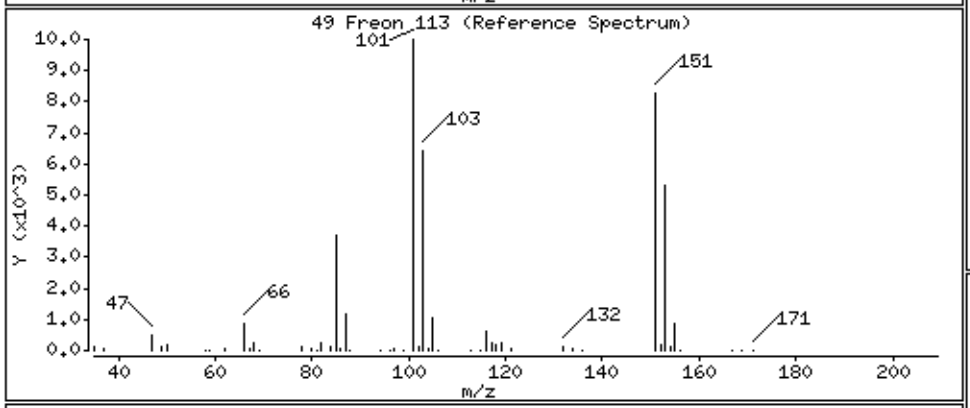
Column diameter: 0.32

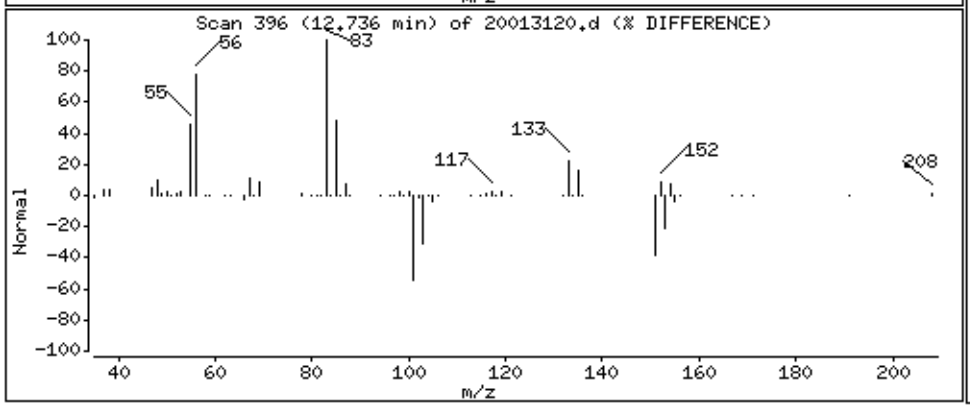
49 Freon 113

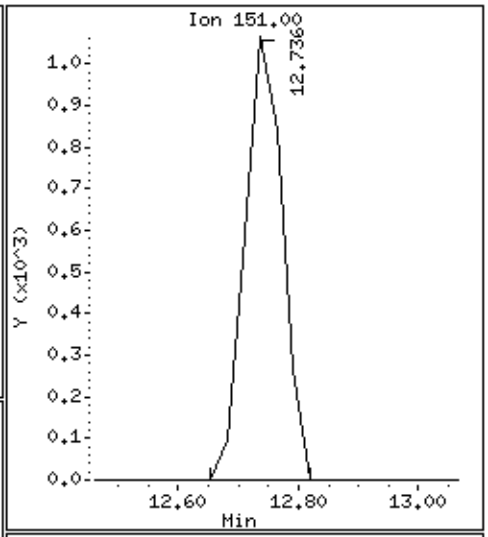
Concentration: 0.08648 PPBV

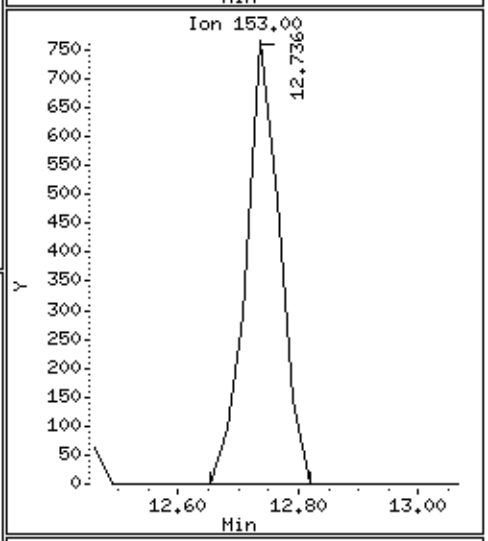


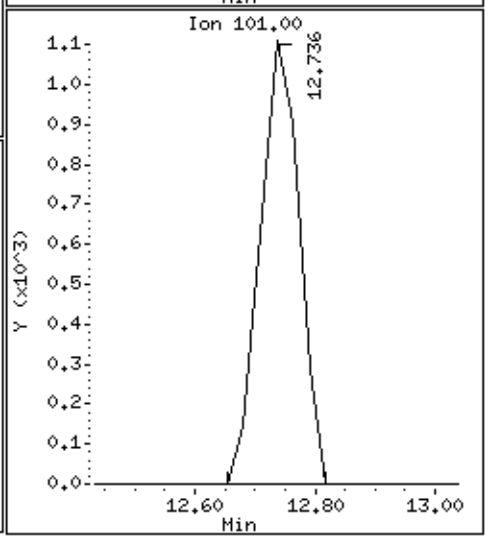












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

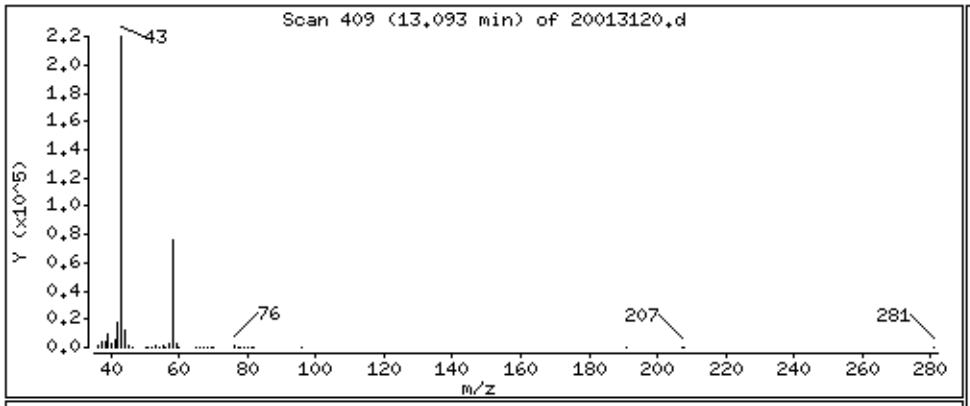
Operator: gh

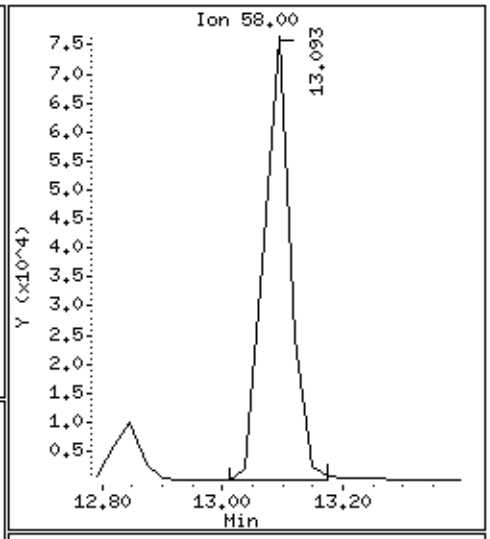
Column phase: RTX-624

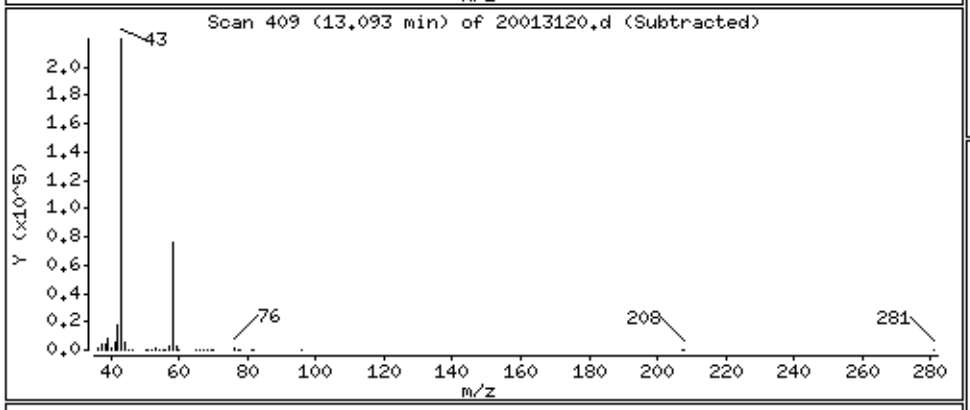
Column diameter: 0.32

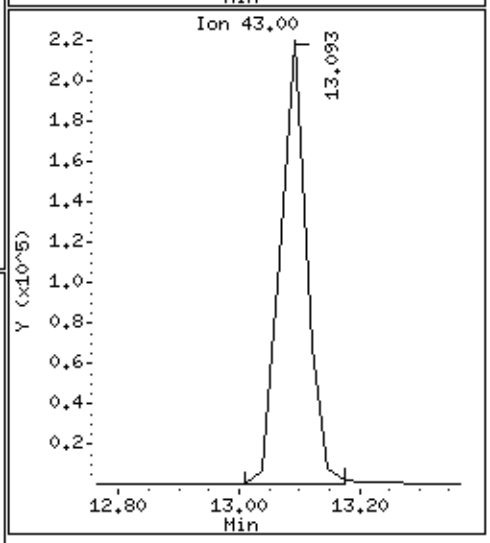
52 Acetone

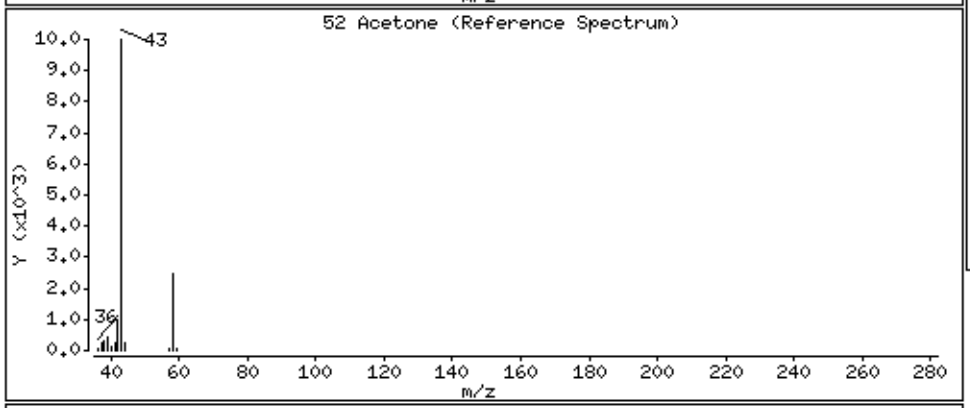
Concentration: 17.748 PPBV

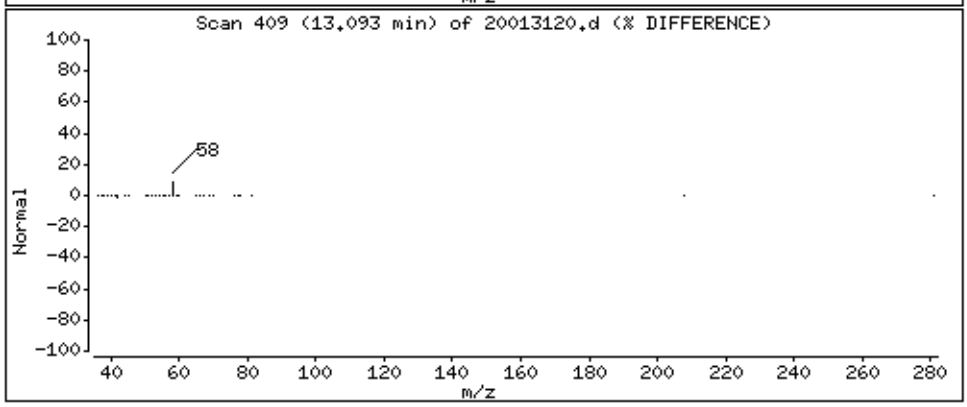












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

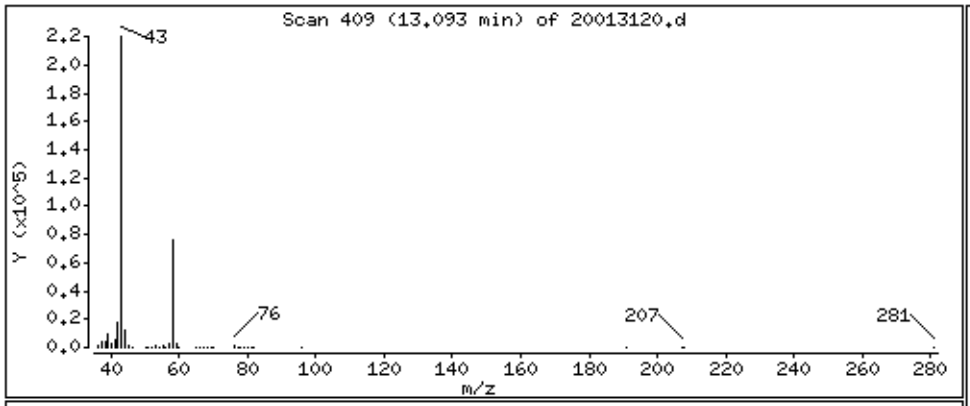
Operator: gh

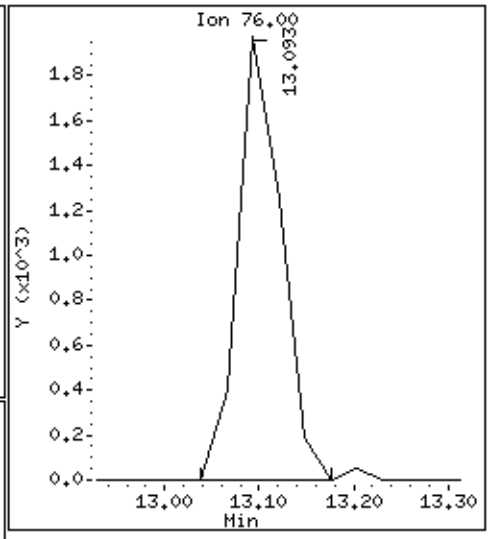
Column phase: RTX-624

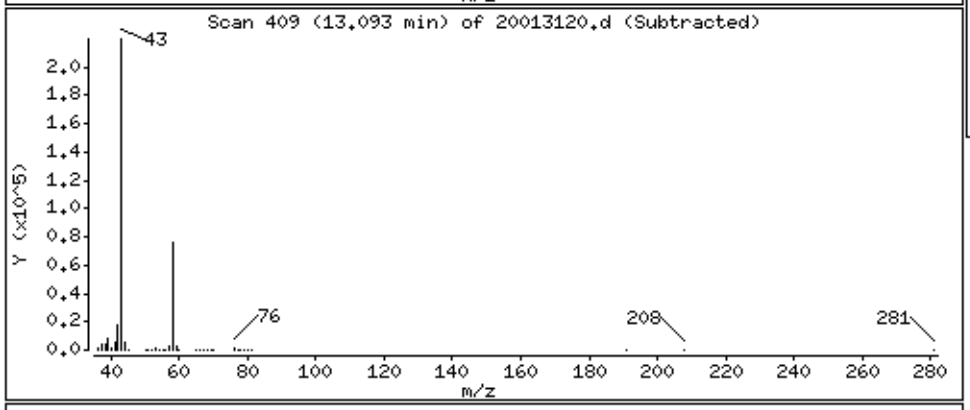
Column diameter: 0.32

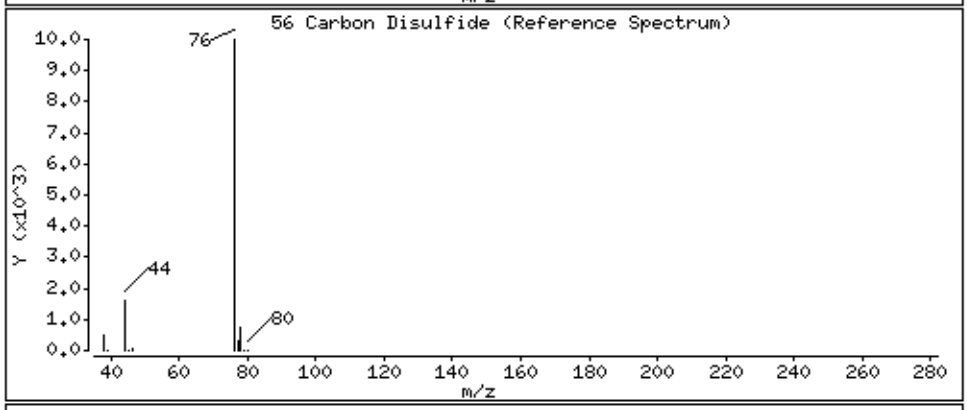
56 Carbon Disulfide

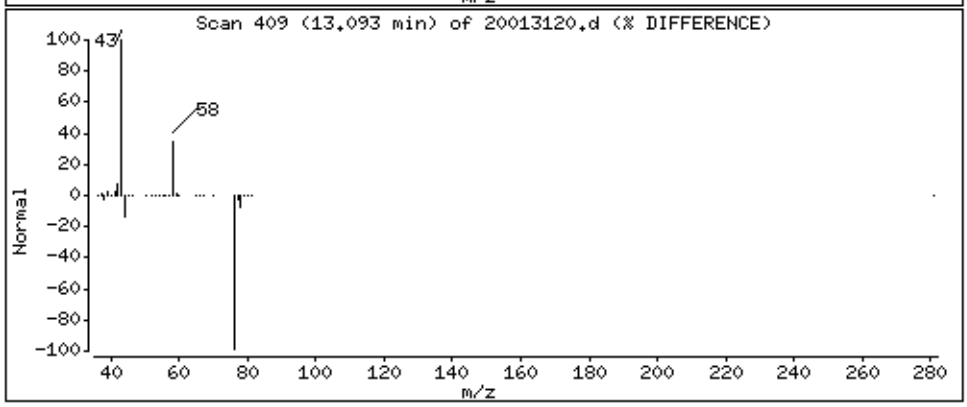
Concentration: 0.08555 PPBV











Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

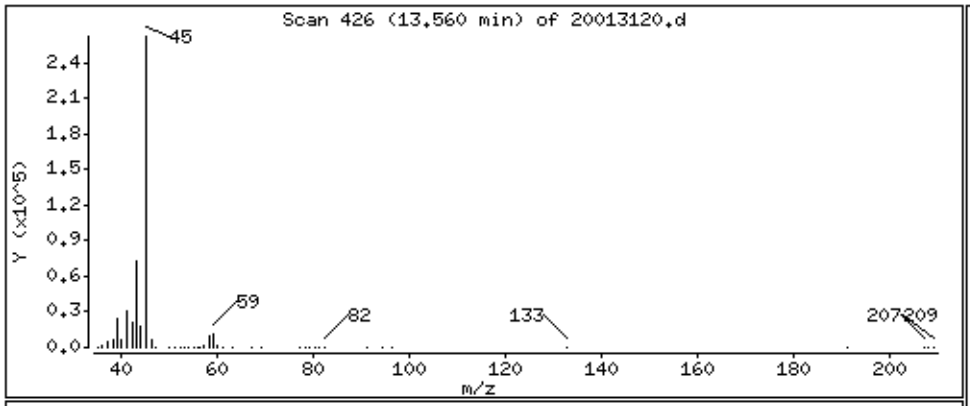
Operator: gh

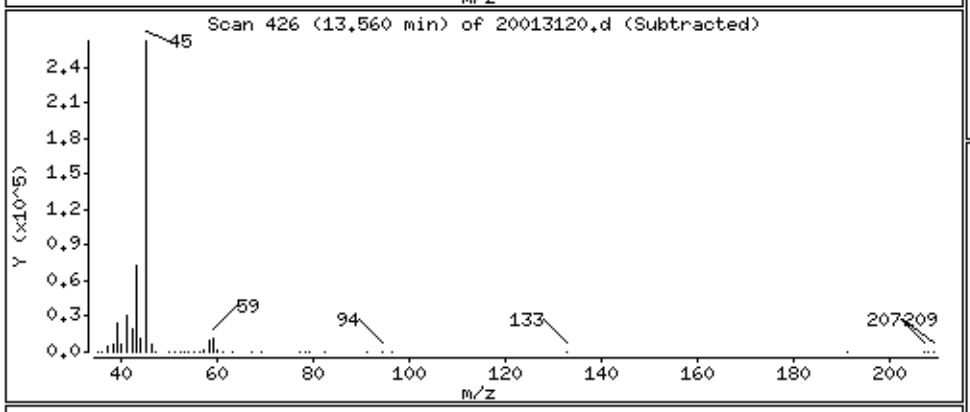
Column phase: RTX-624

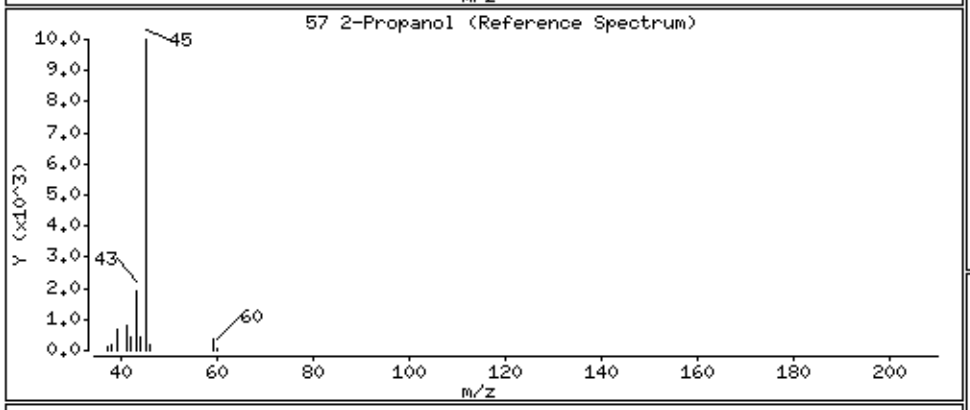
Column diameter: 0.32

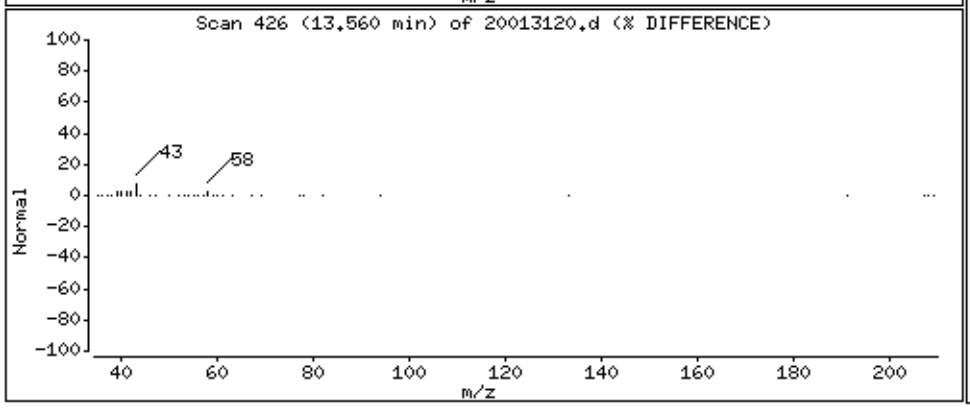
57 2-Propanol

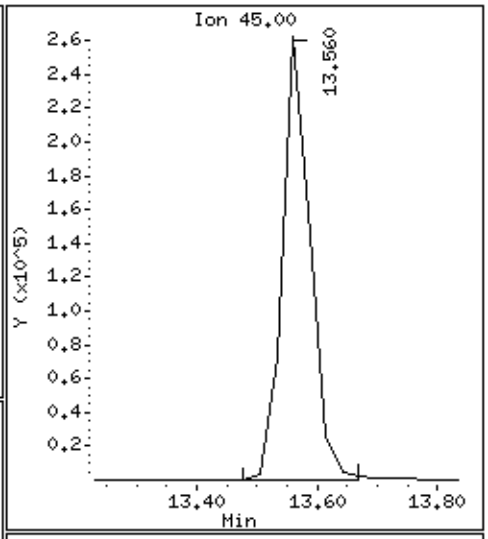
Concentration: 23.796 PPBV

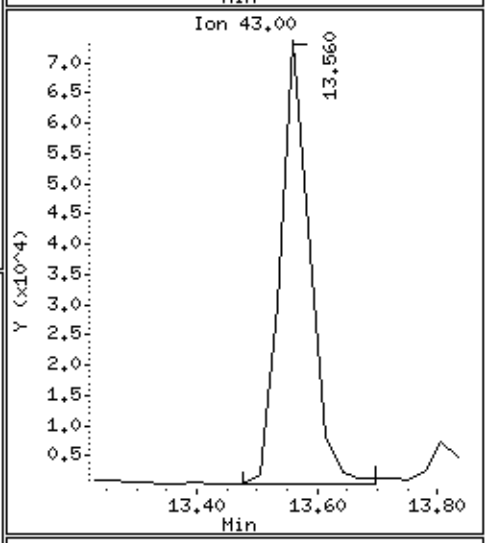


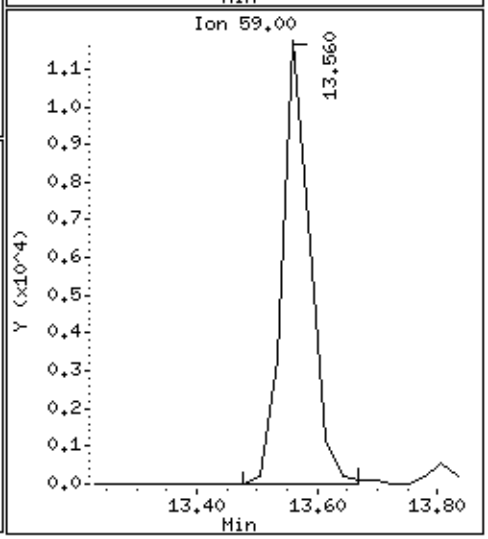












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

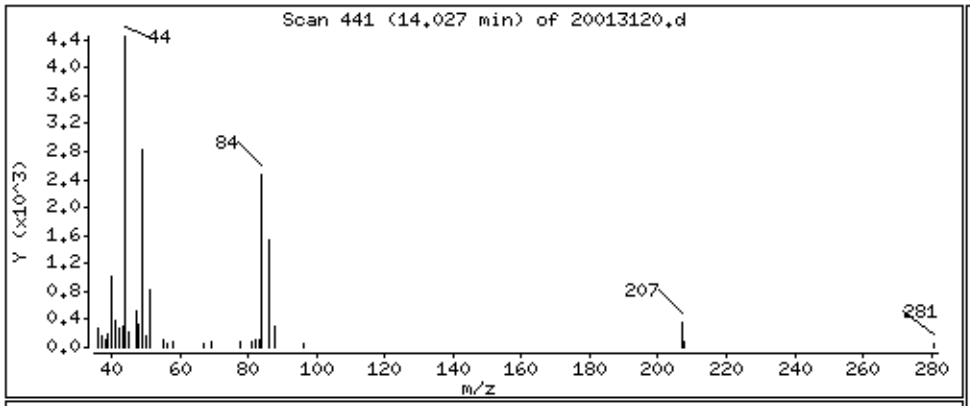
Operator: gh

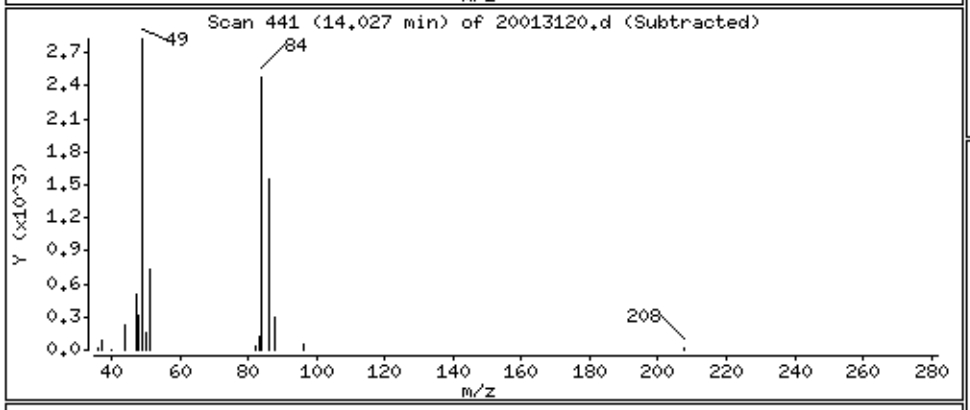
Column phase: RTX-624

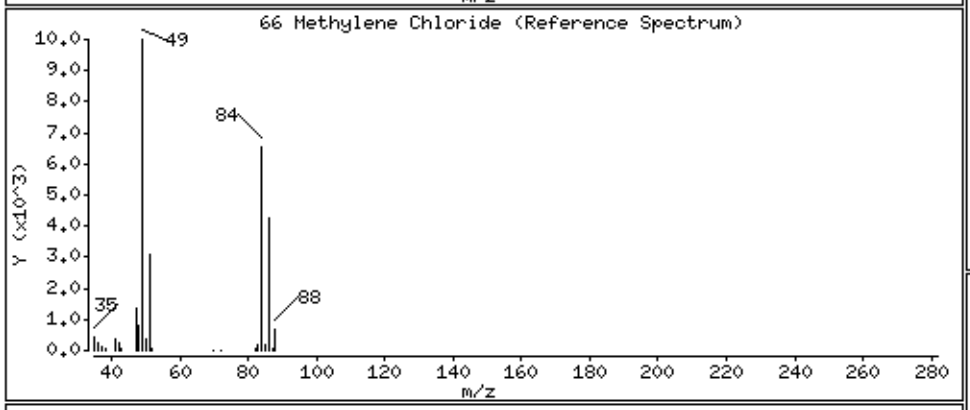
Column diameter: 0.32

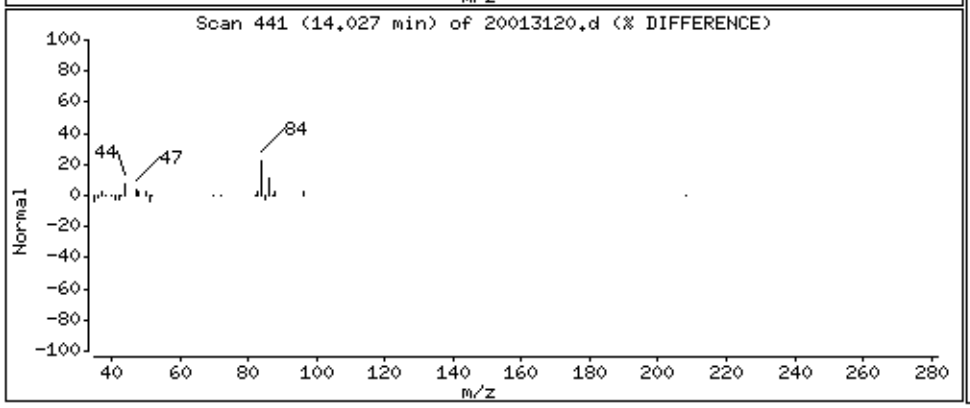
66 Methylene Chloride

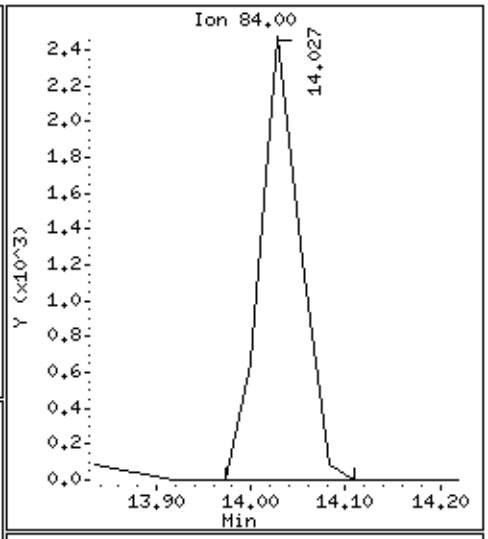
Concentration: 0.2539 PPBV

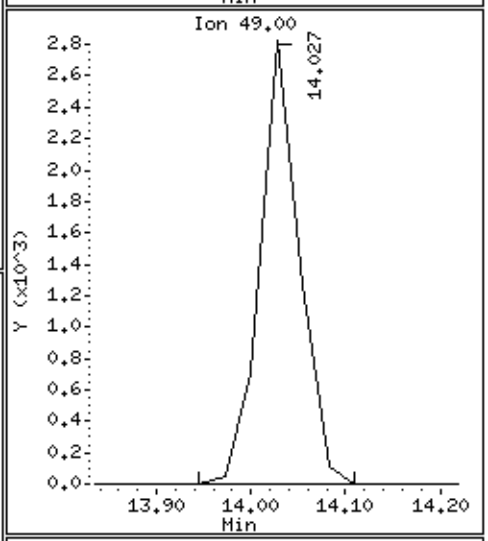


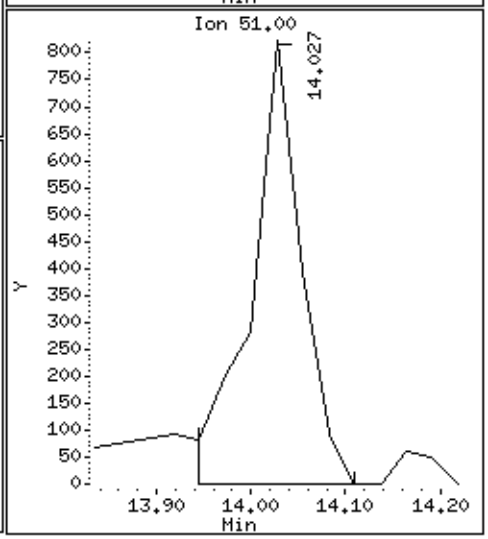












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

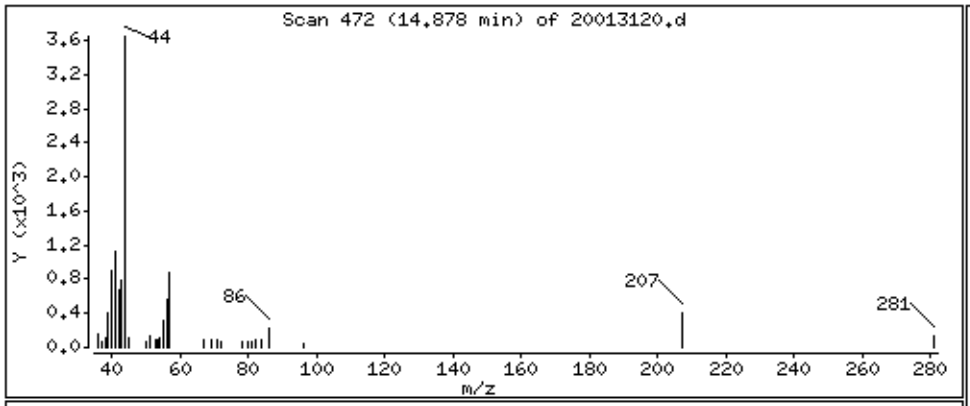
Operator: gh

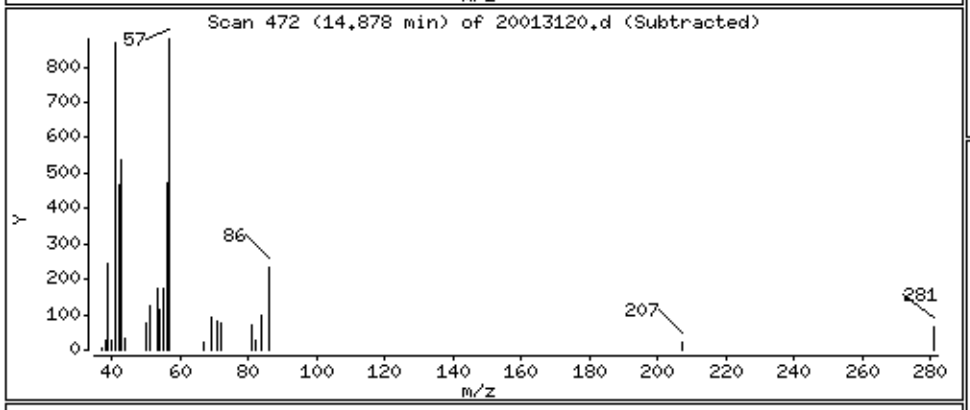
Column phase: RTX-624

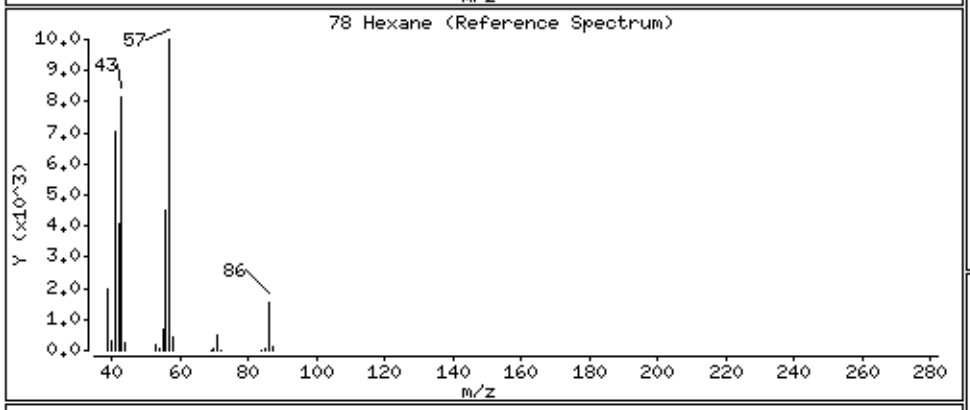
Column diameter: 0.32

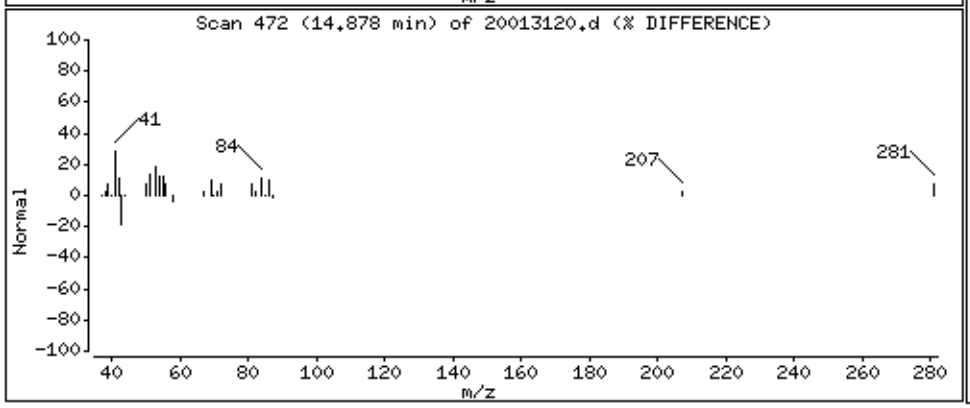
78 Hexane

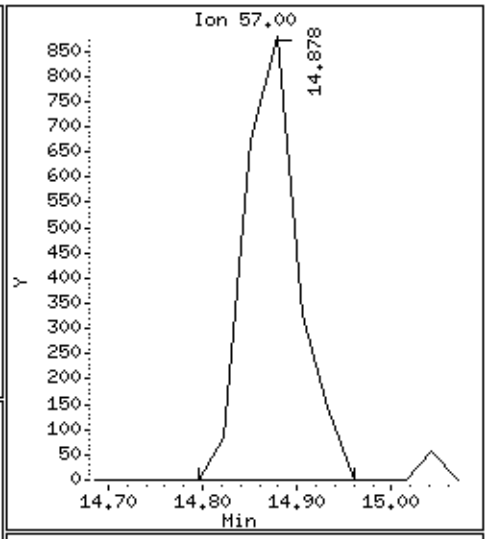
Concentration: 0.09097 PPBV

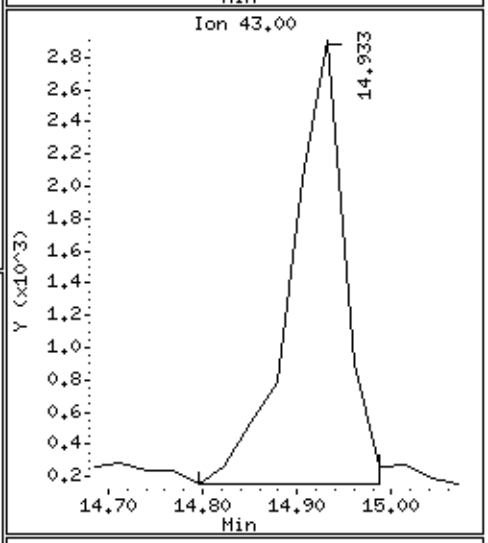


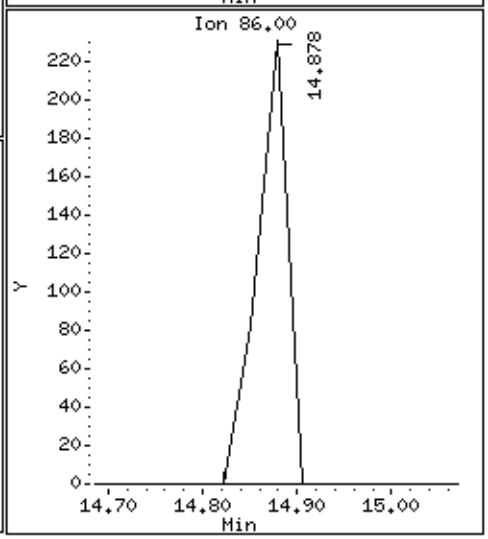












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

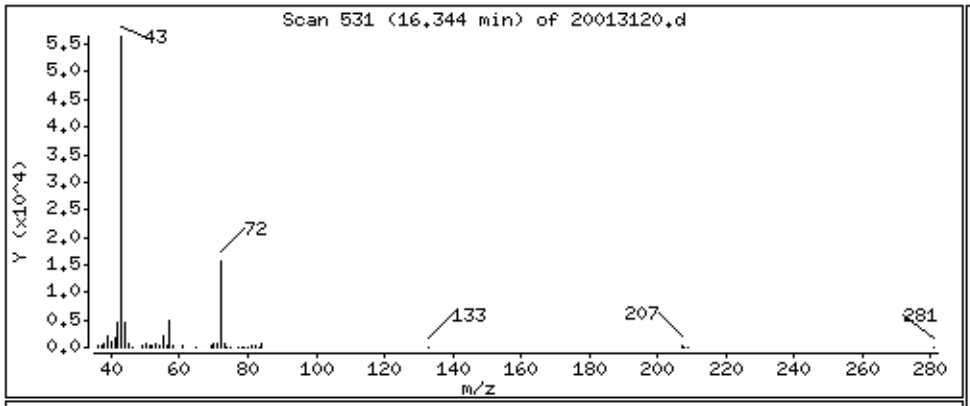
Operator: gh

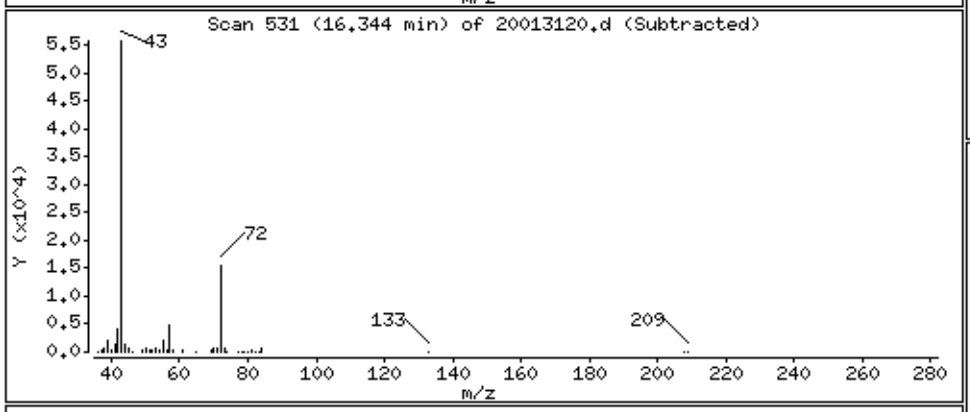
Column phase: RTX-624

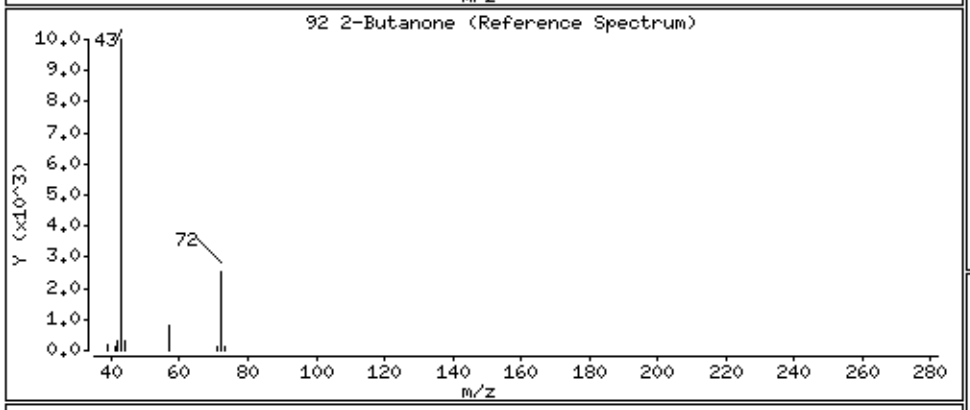
Column diameter: 0.32

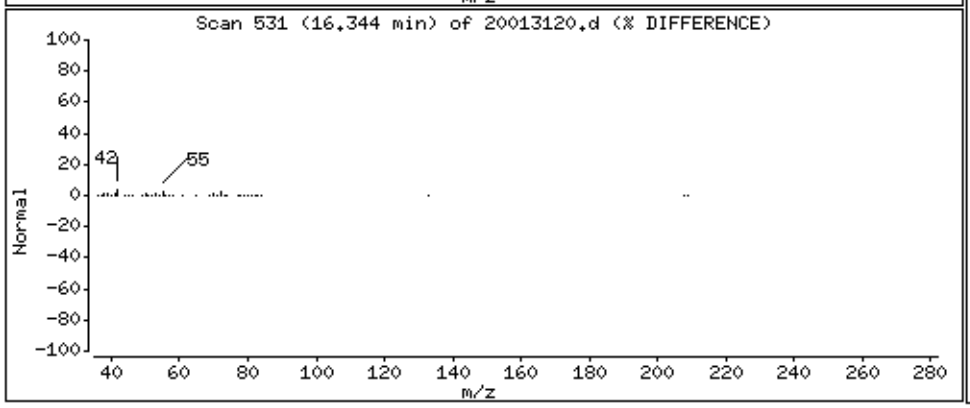
92 2-Butanone

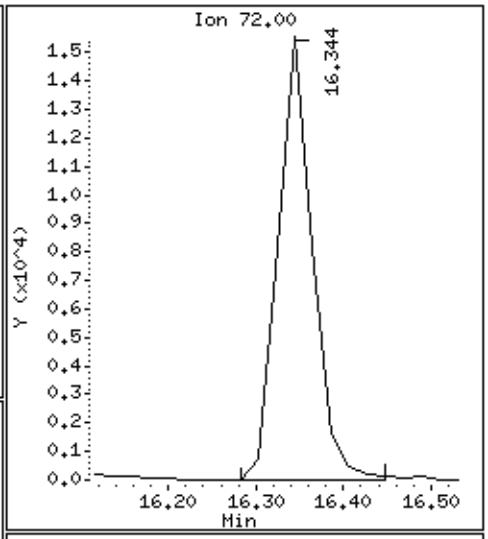
Concentration: 3.290 PPBV

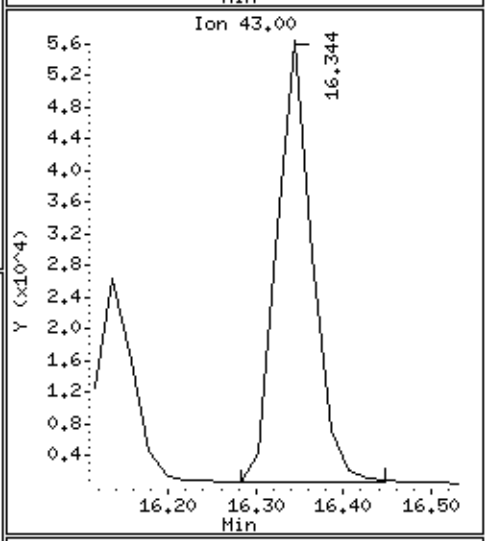


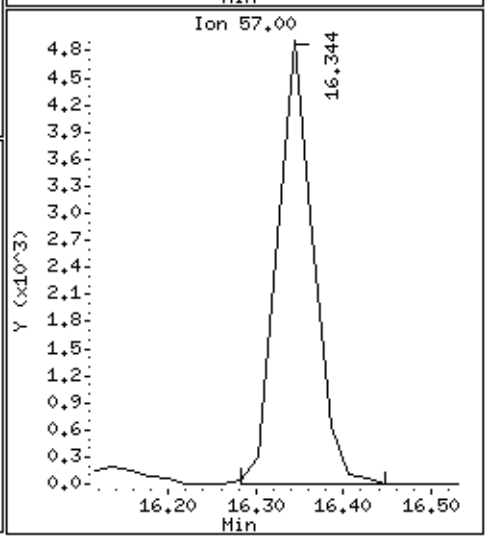












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

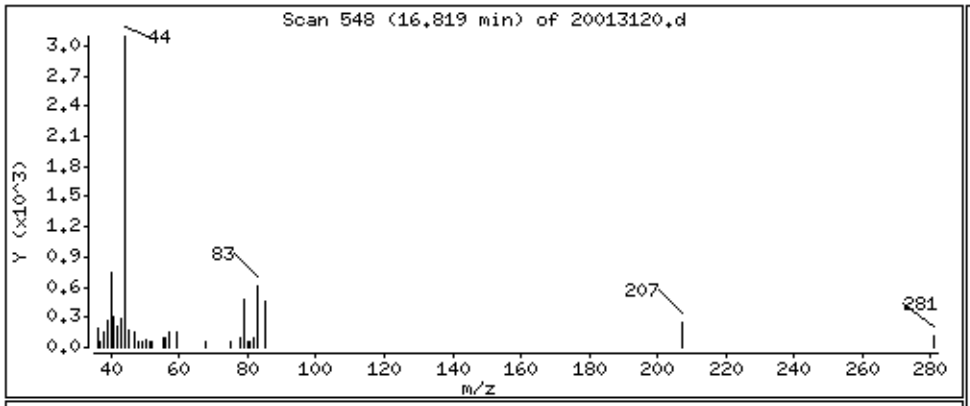
Operator: gh

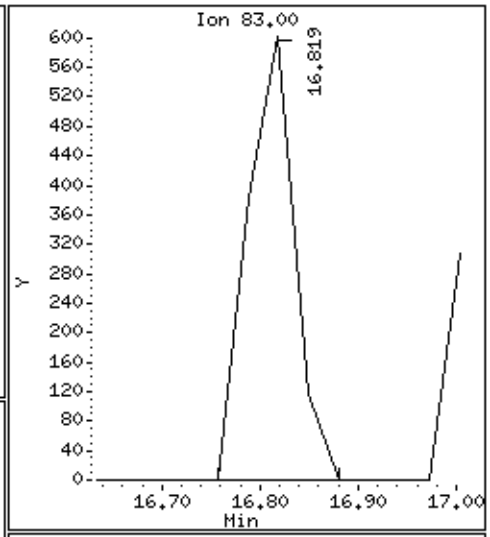
Column phase: RTX-624

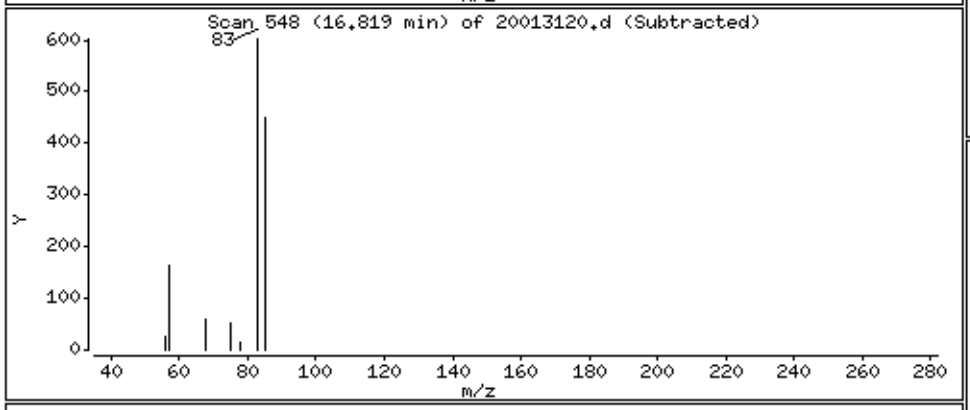
Column diameter: 0.32

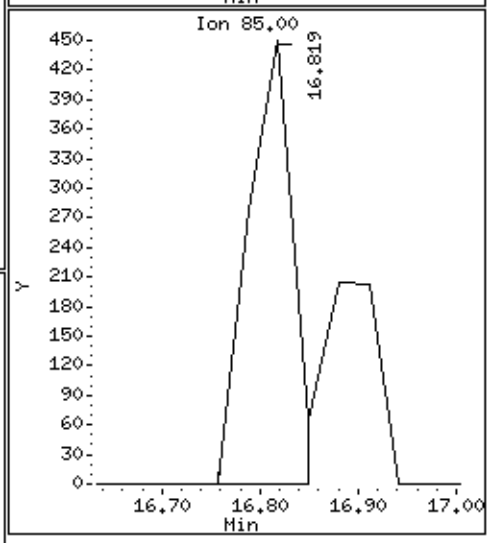
100 Chloroform

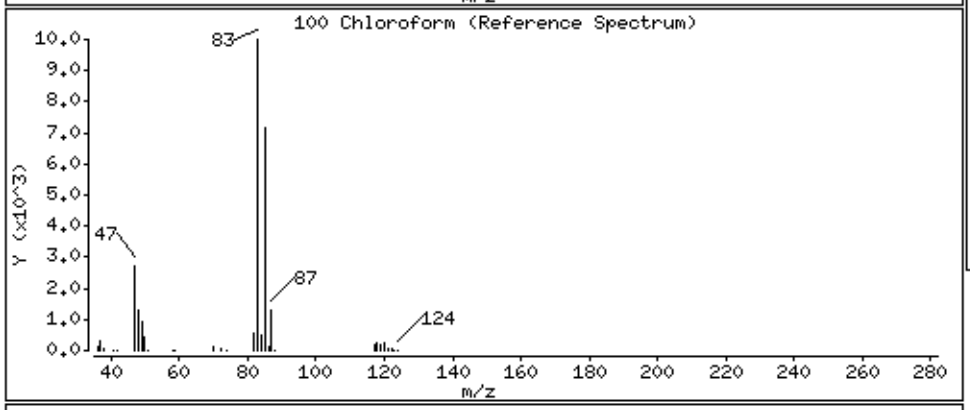
Concentration: 0.03478 PPBV

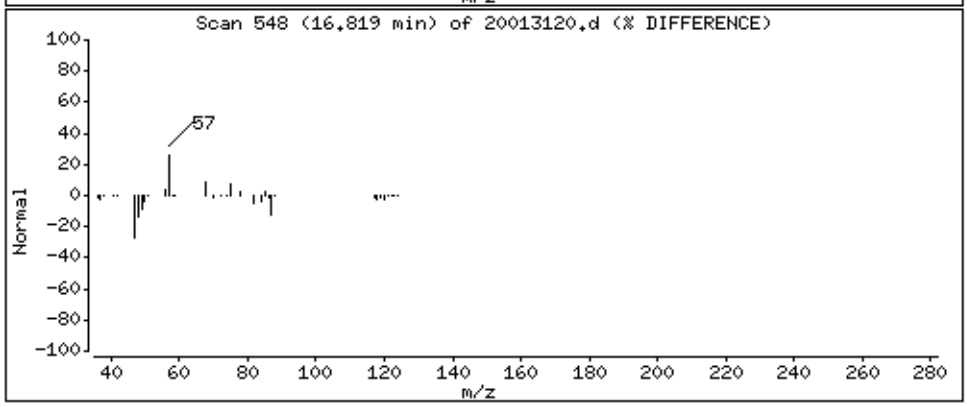












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

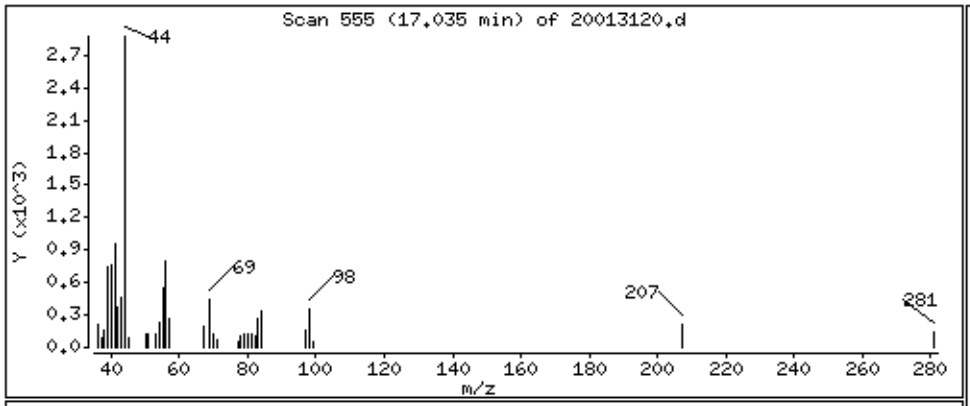
Operator: gh

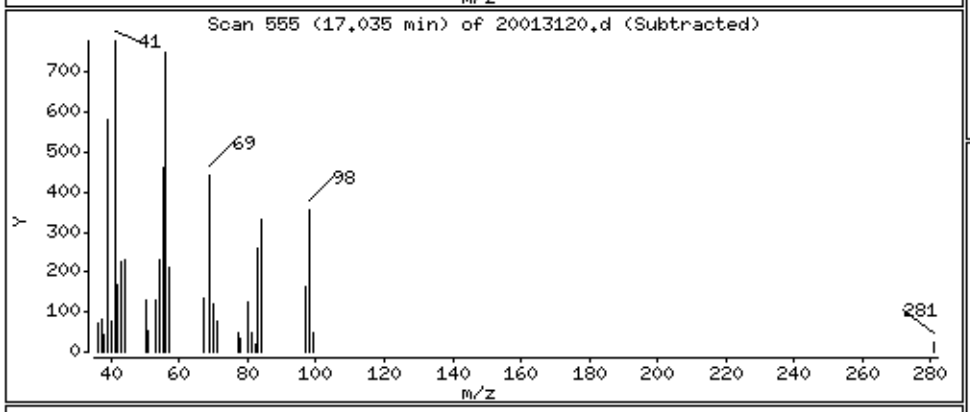
Column phase: RTX-624

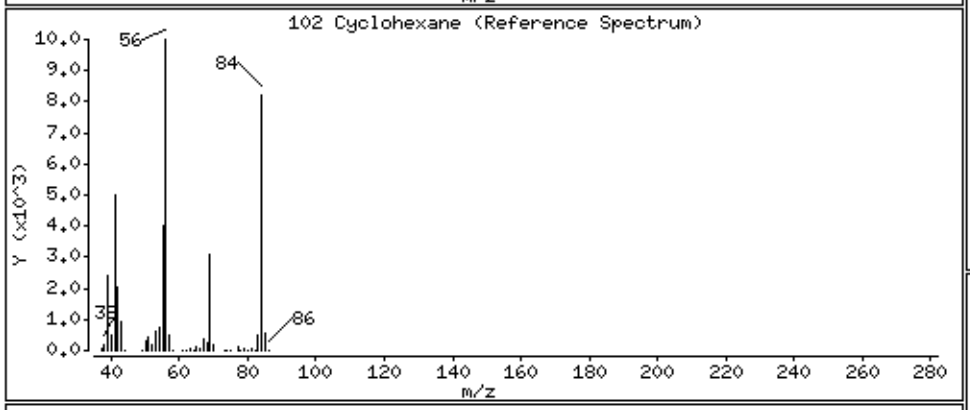
Column diameter: 0.32

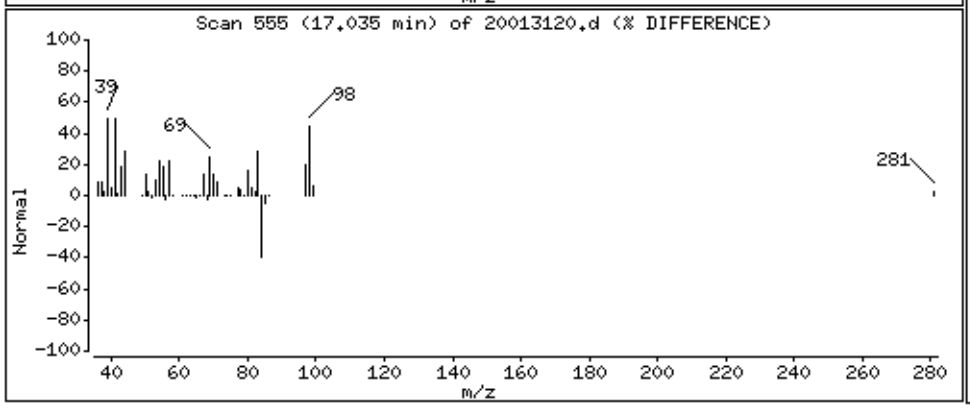
102 Cyclohexane

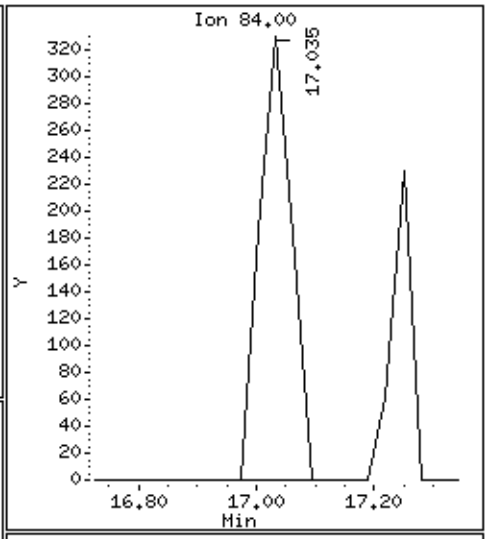
Concentration: 0.03291 PPBV

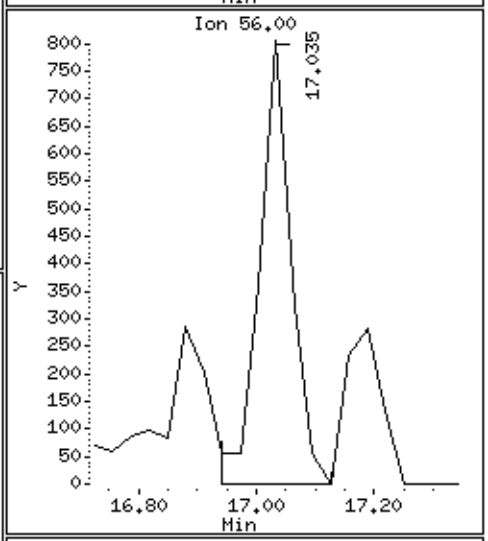


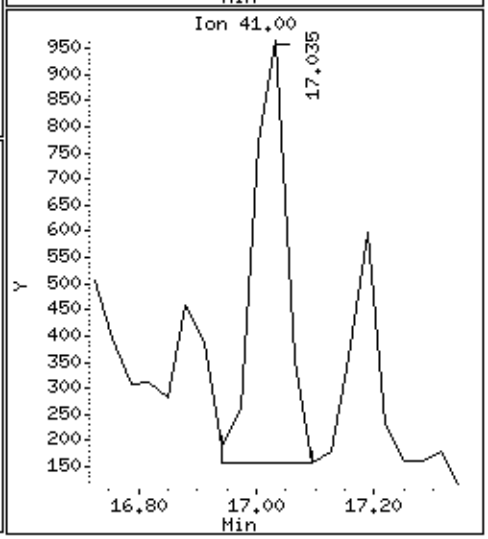












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

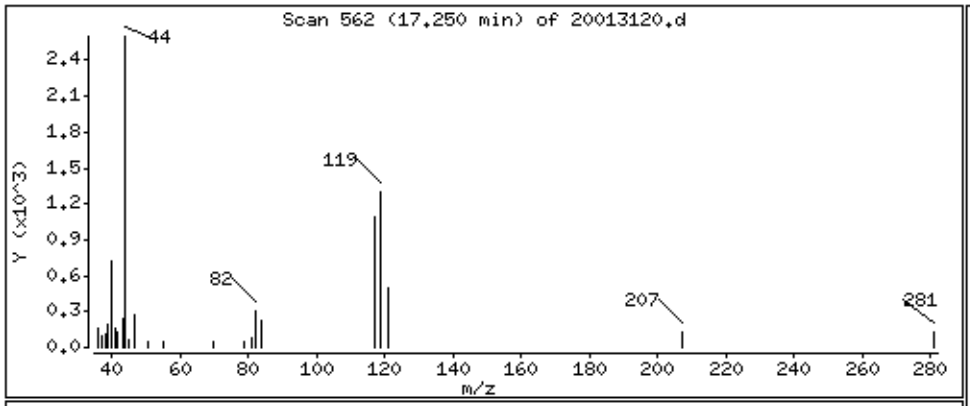
Operator: gh

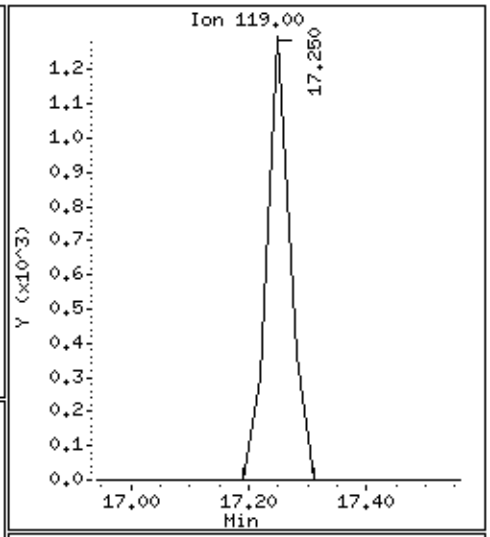
Column phase: RTX-624

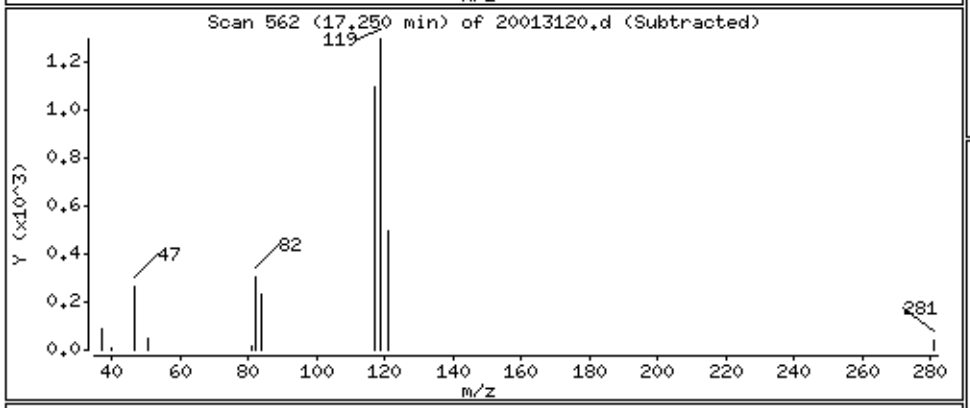
Column diameter: 0.32

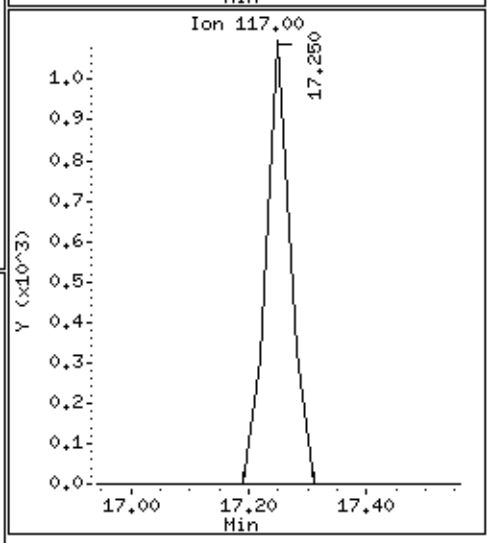
106 Carbon Tetrachloride

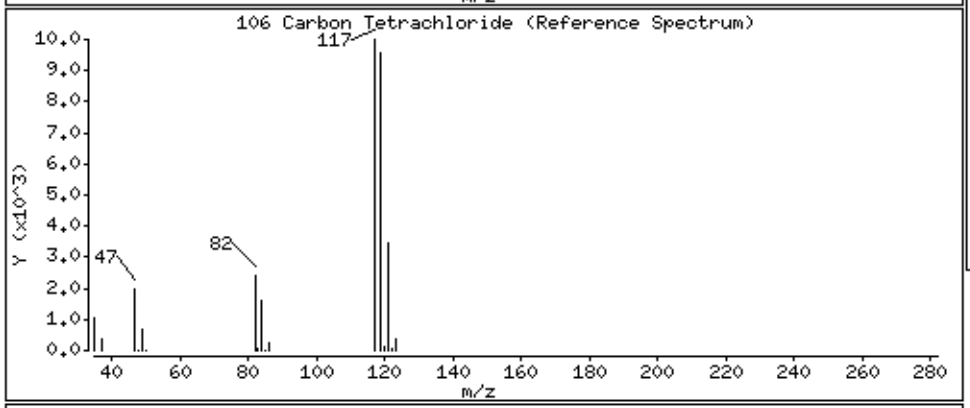
Concentration: 0.07197 PPBV

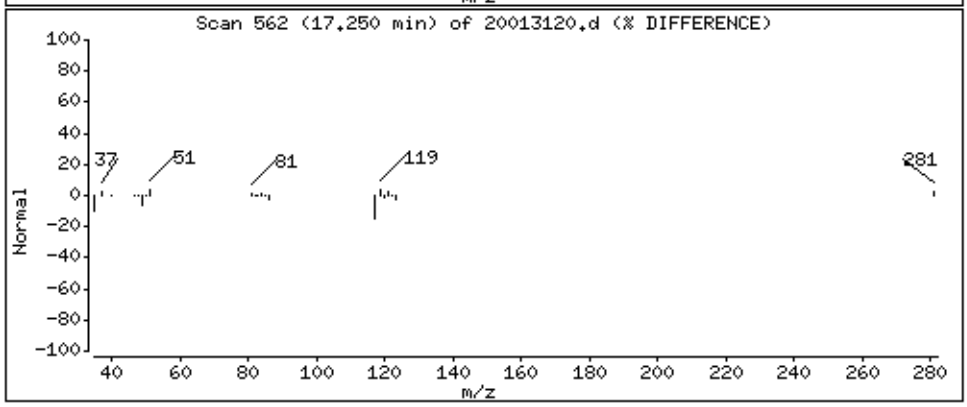












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

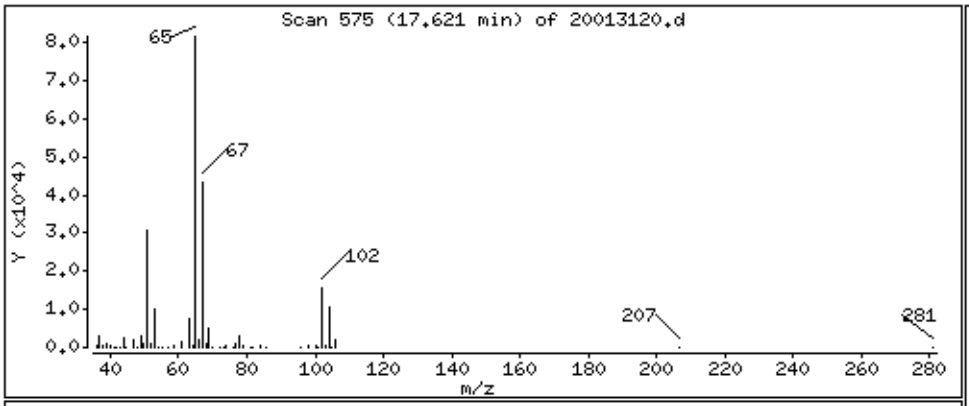
Operator: gh

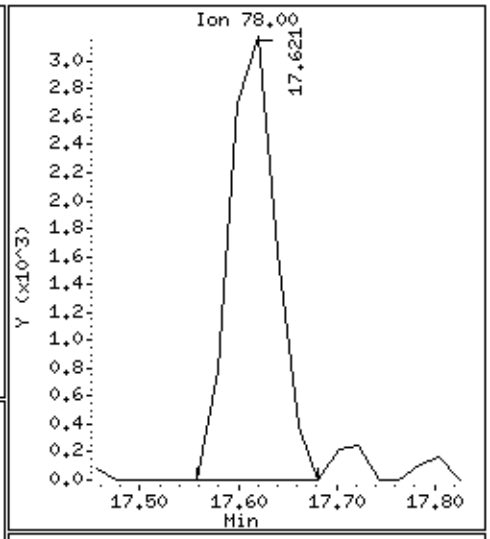
Column phase: RTX-624

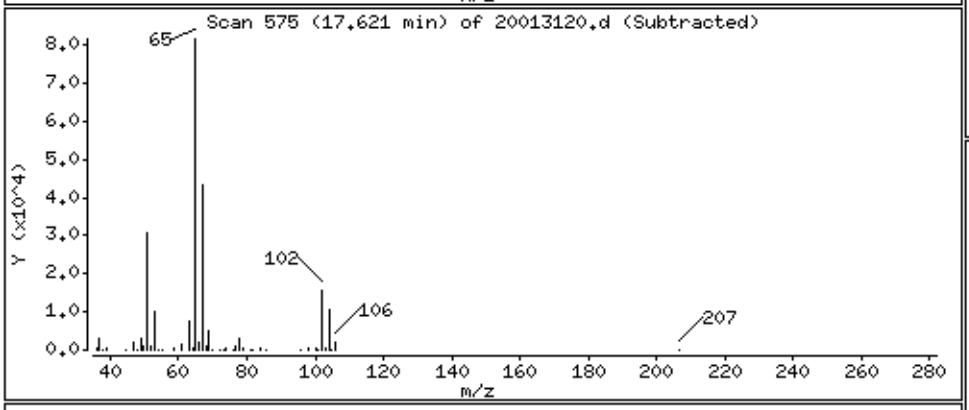
Column diameter: 0.32

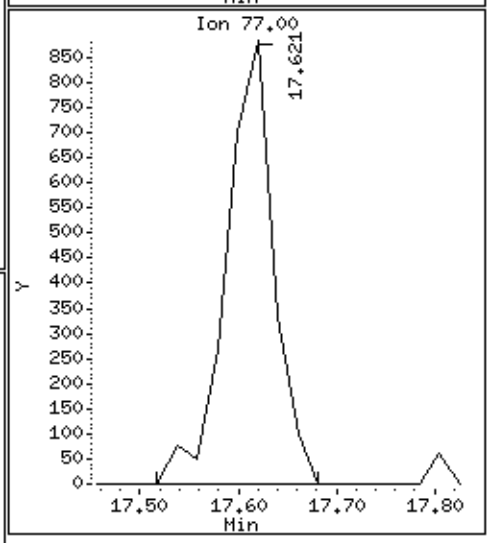
116 Benzene

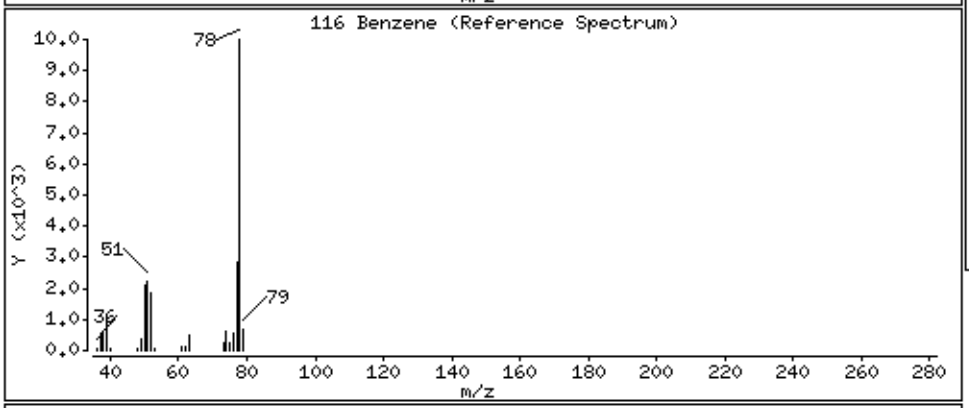
Concentration: 0.1454 PPBV

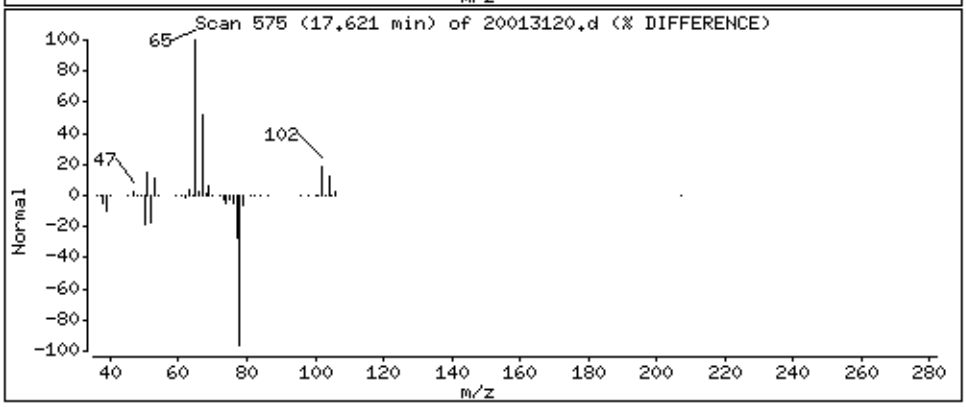












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

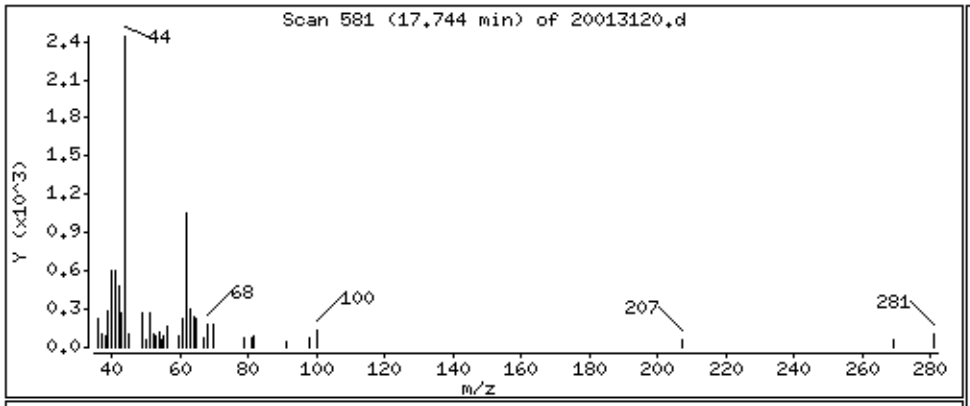
Operator: gh

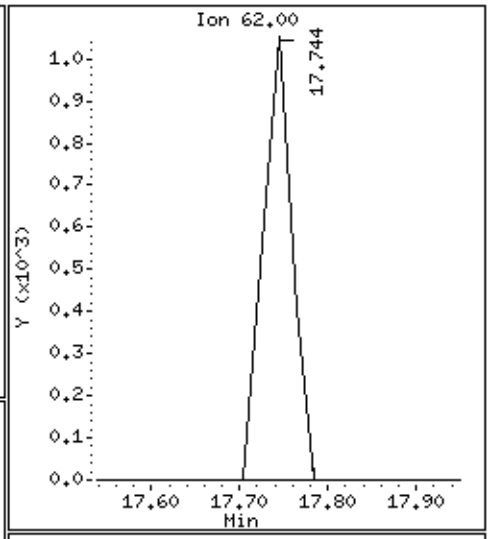
Column phase: RTX-624

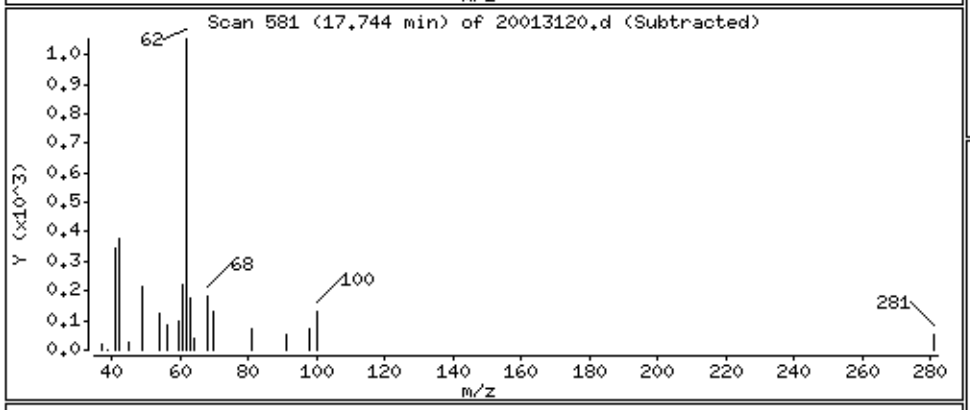
Column diameter: 0.32

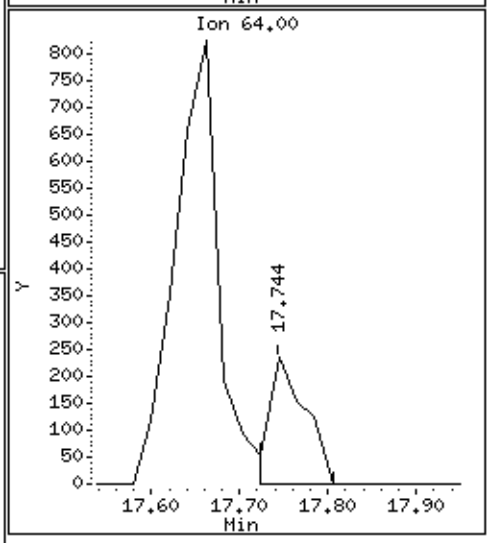
120 1,2-Dichloroethane

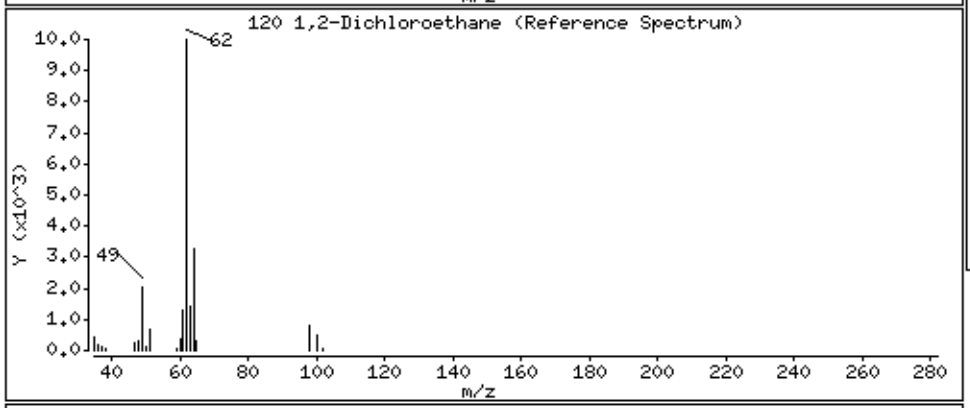
Concentration: 0.08500 PPBV

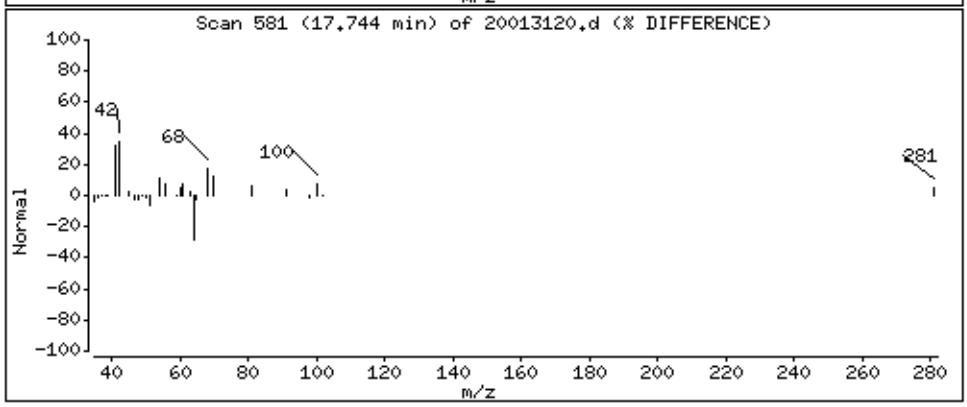












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

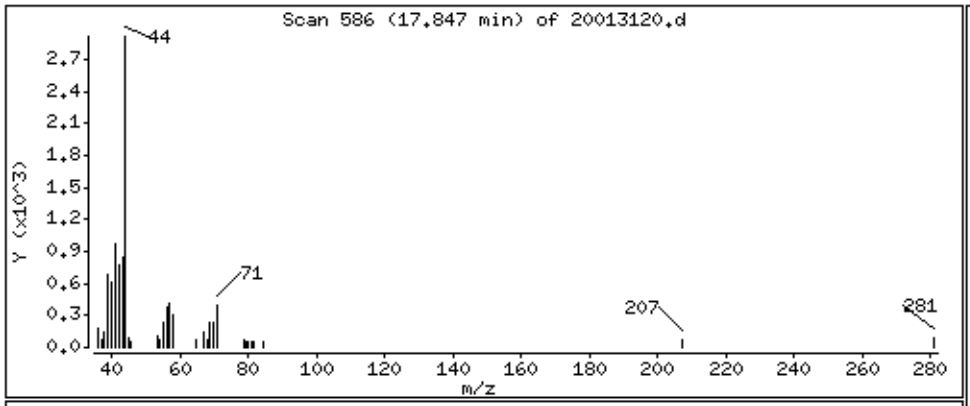
Operator: gh

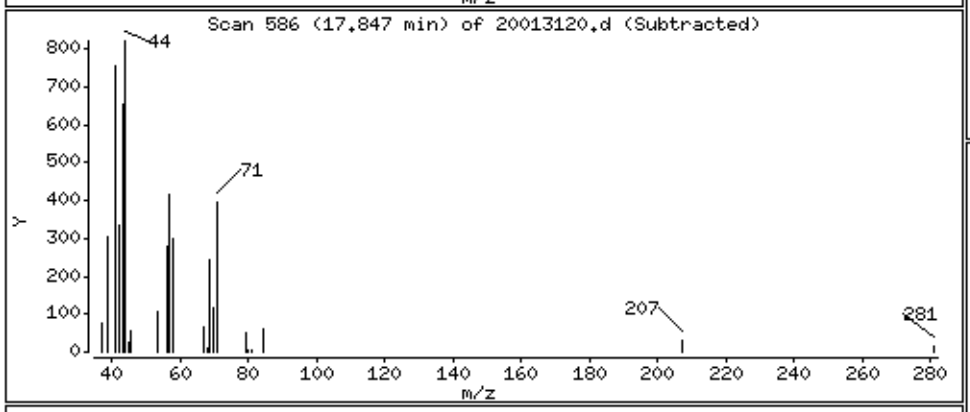
Column phase: RTX-624

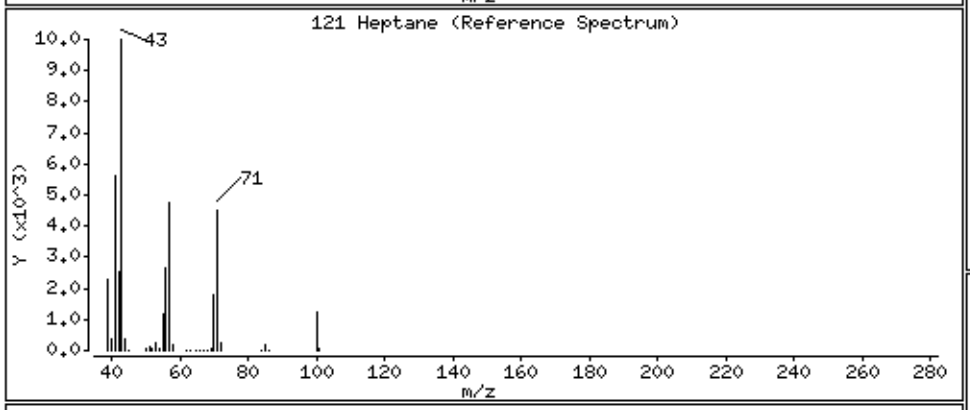
Column diameter: 0.32

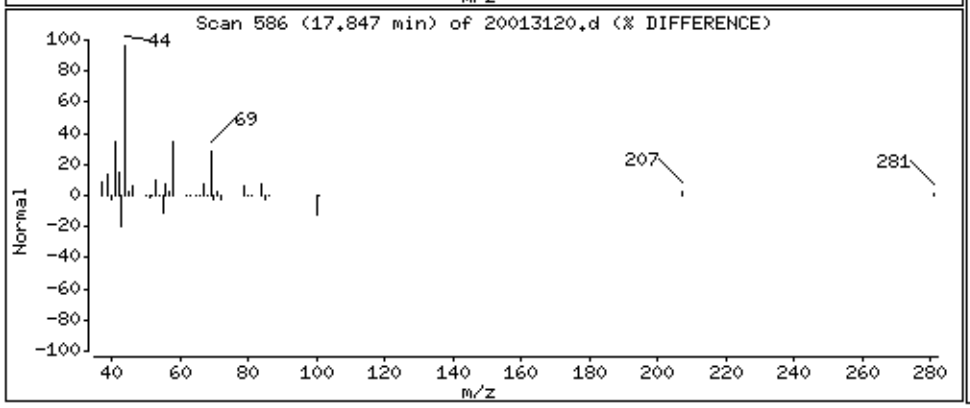
121 Heptane

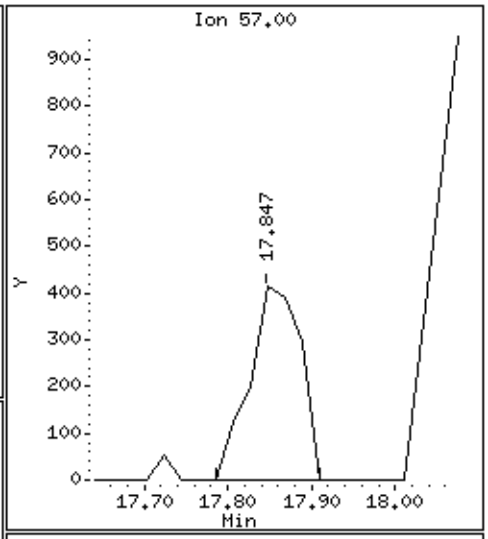
Concentration: 0.09329 PPBV

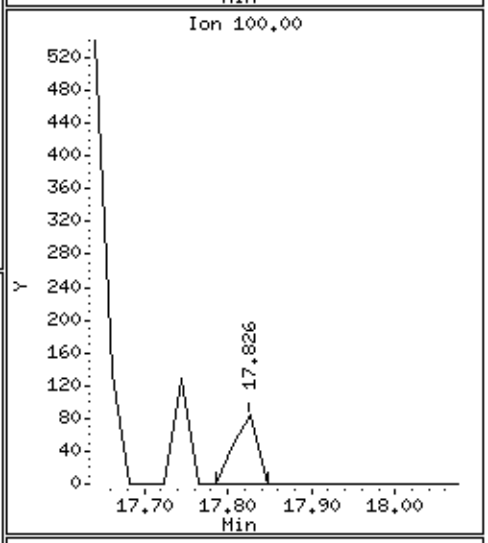


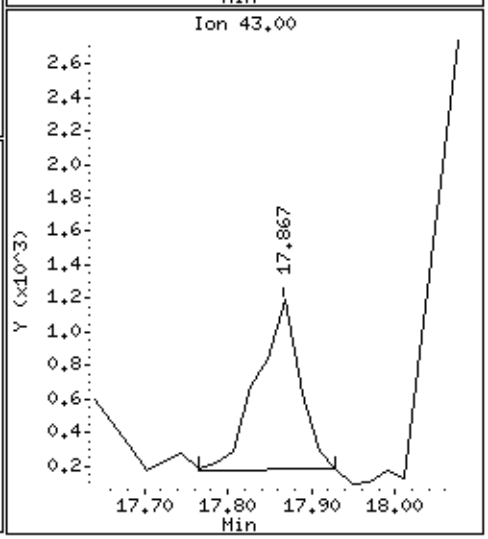












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

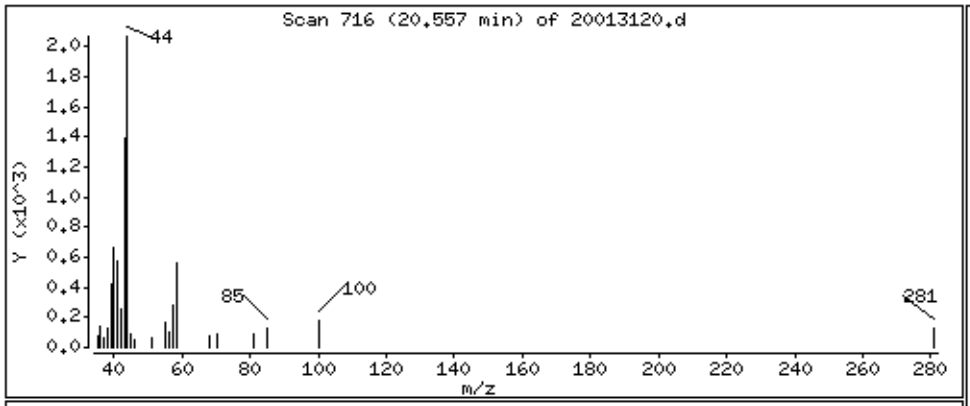
Operator: gh

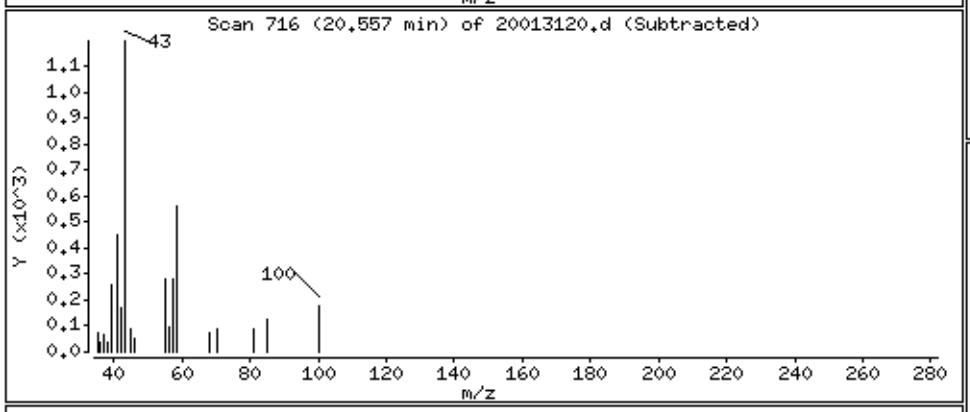
Column phase: RTX-624

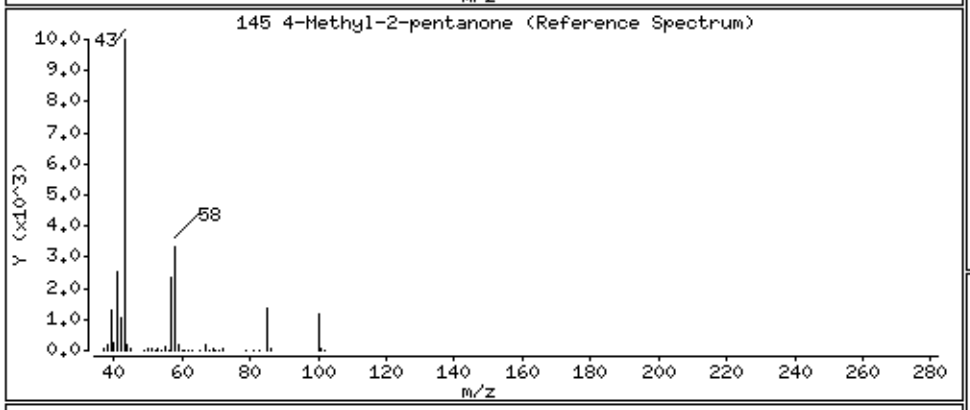
Column diameter: 0.32

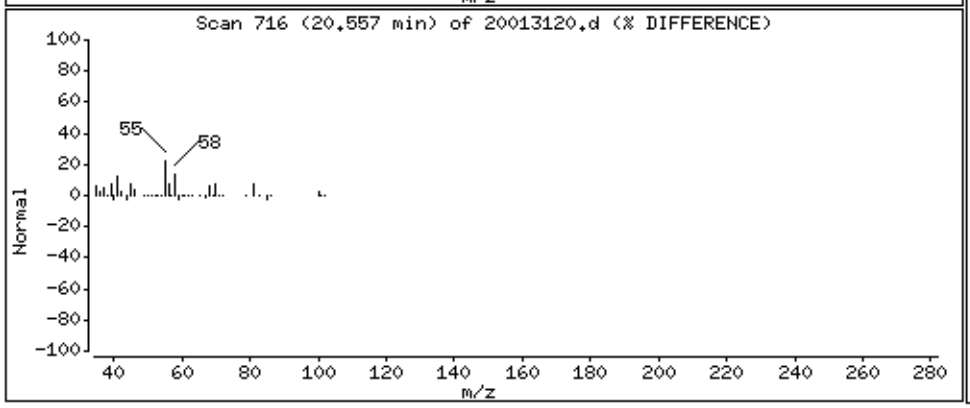
145 4-Methyl-2-pentanone

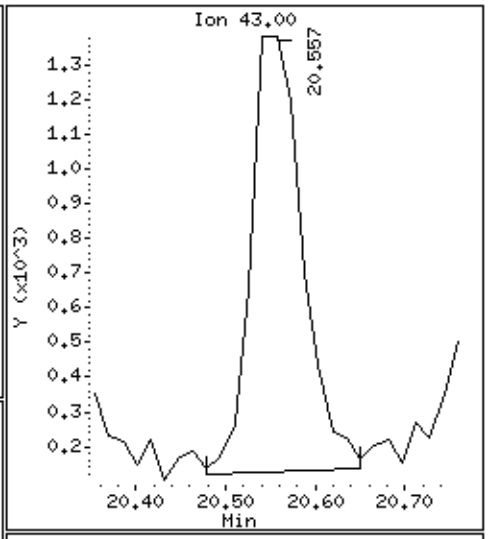
Concentration: 0.1264 PPBV

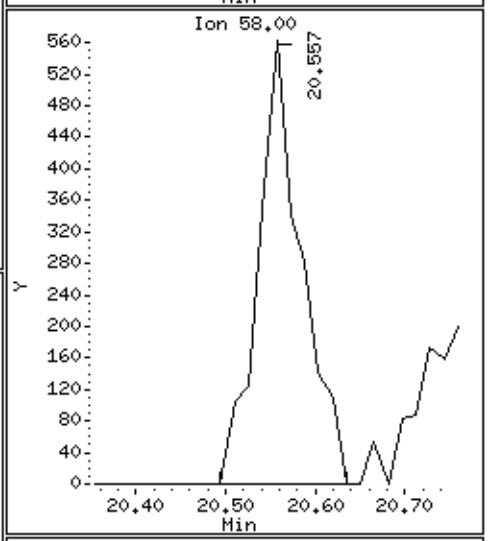


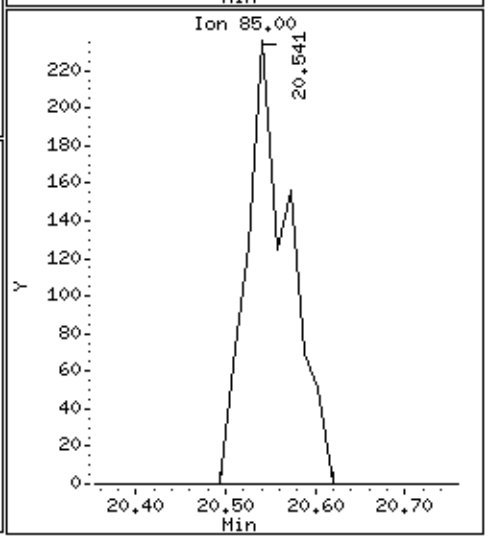












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

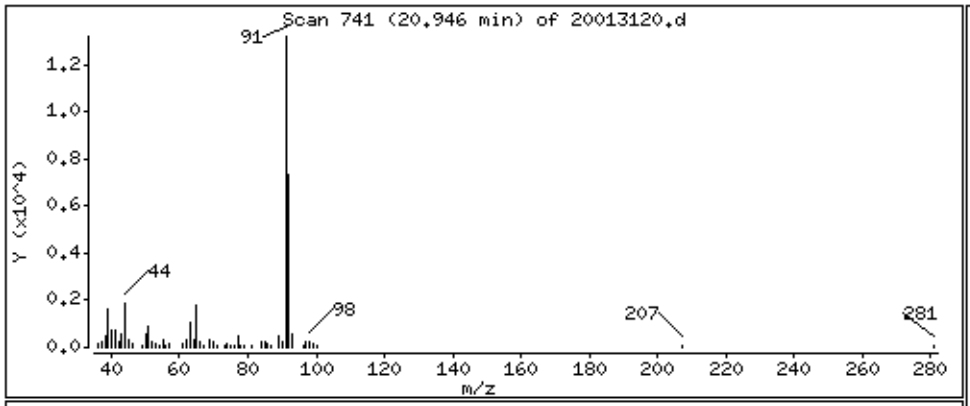
Operator: gh

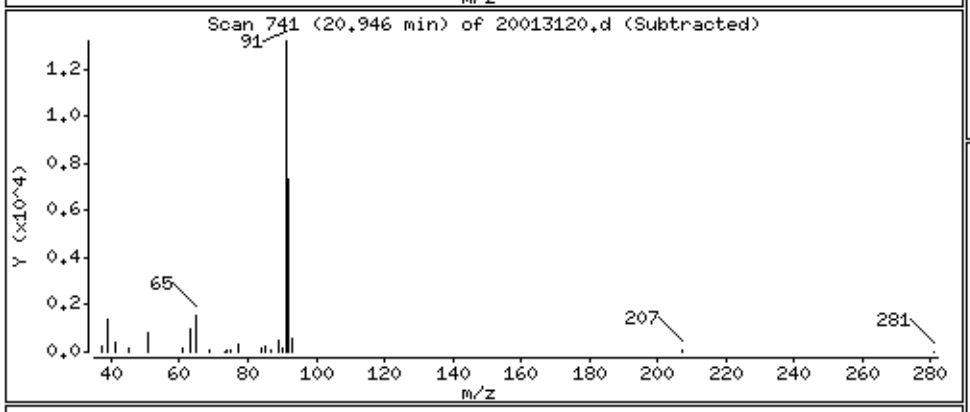
Column phase: RTX-624

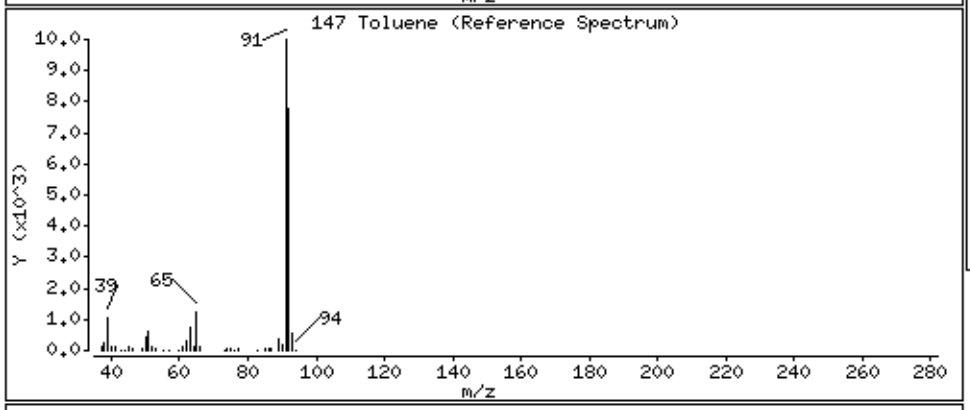
Column diameter: 0.32

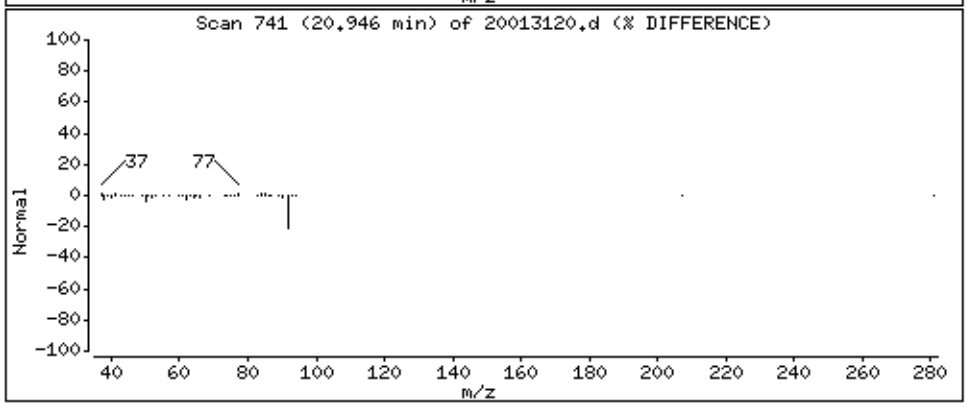
147 Toluene

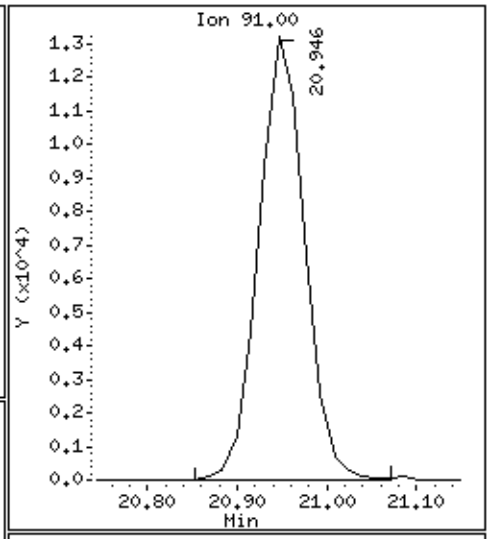
Concentration: 0.5839 PPBV

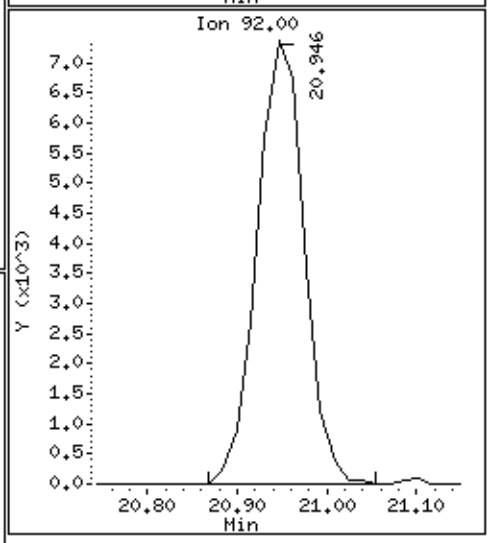












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

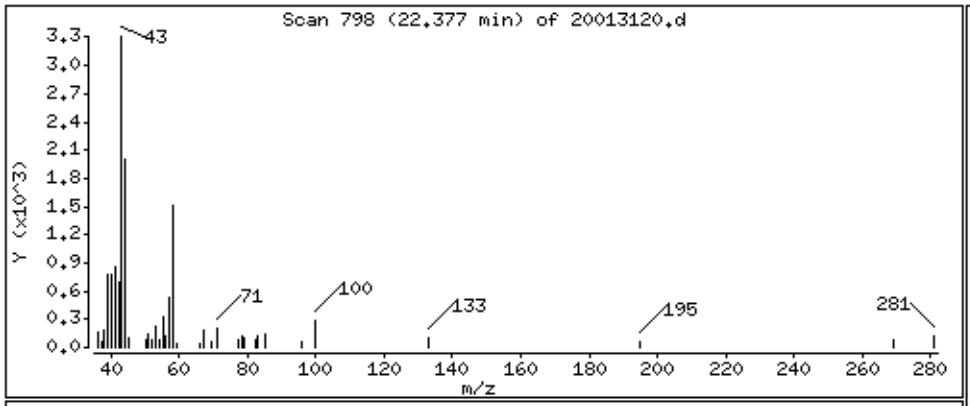
Operator: gh

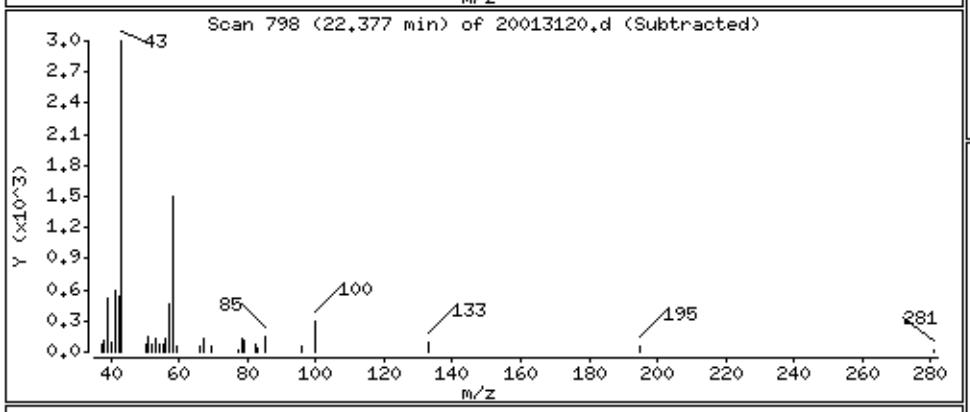
Column phase: RTX-624

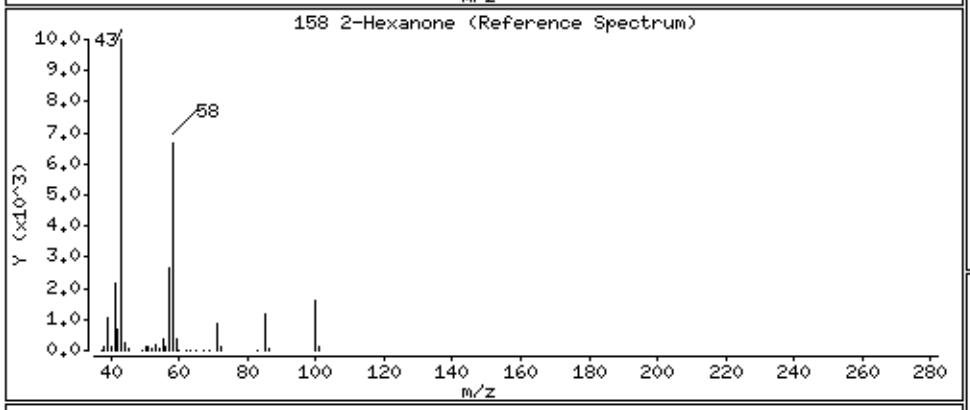
Column diameter: 0.32

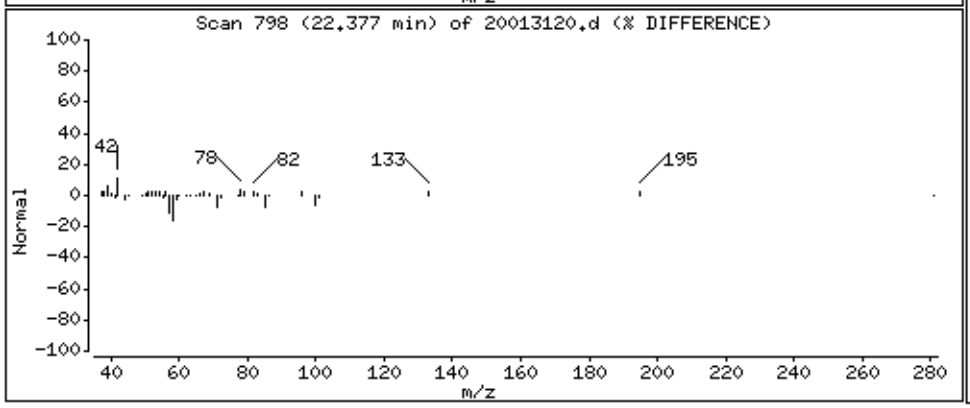
158 2-Hexanone

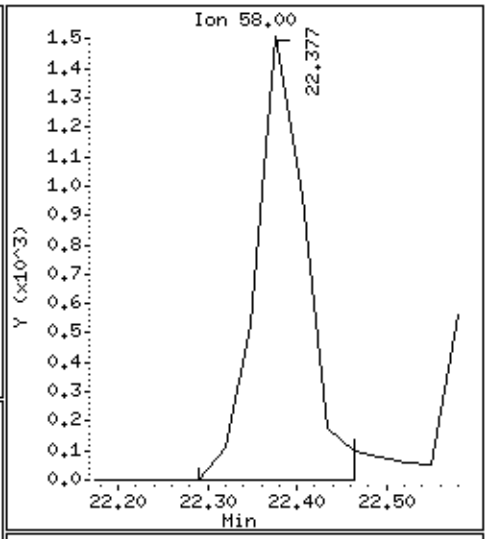
Concentration: 0.2432 PPBV

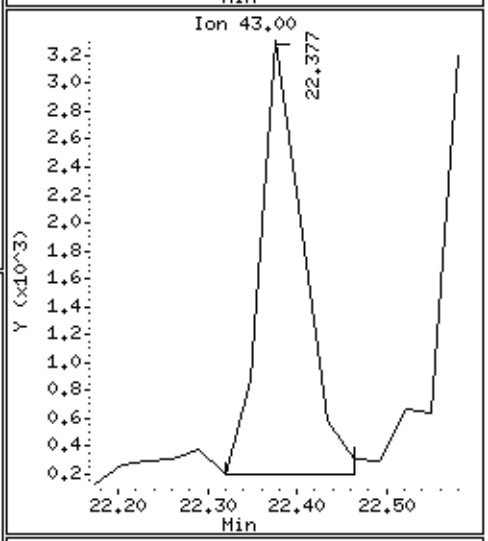


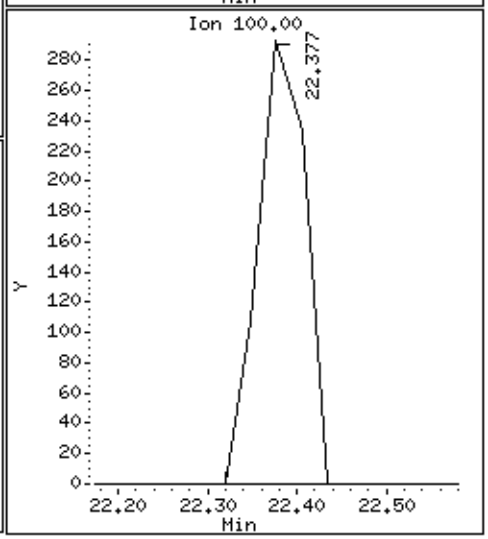












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

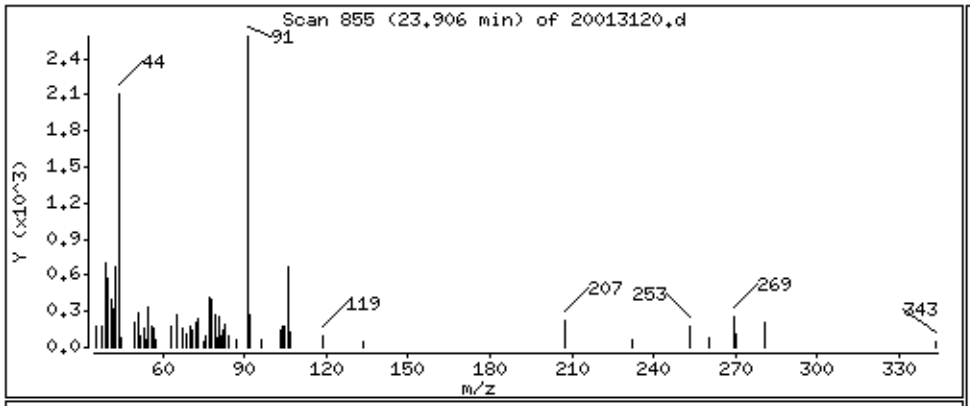
Operator: gh

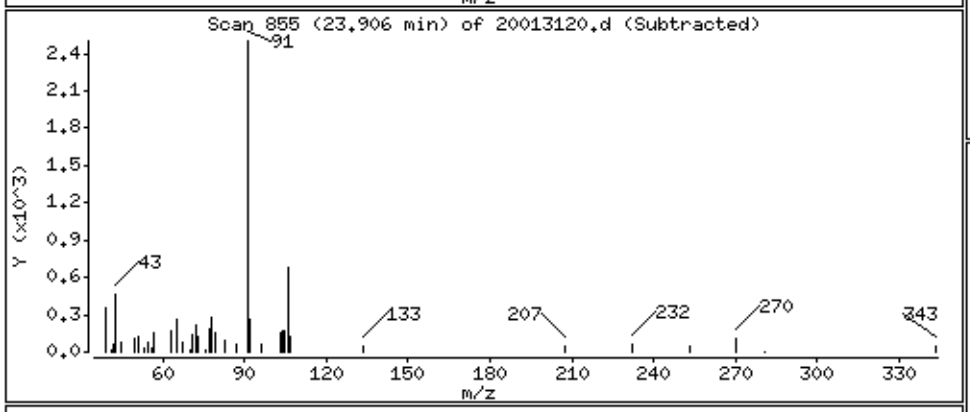
Column phase: RTX-624

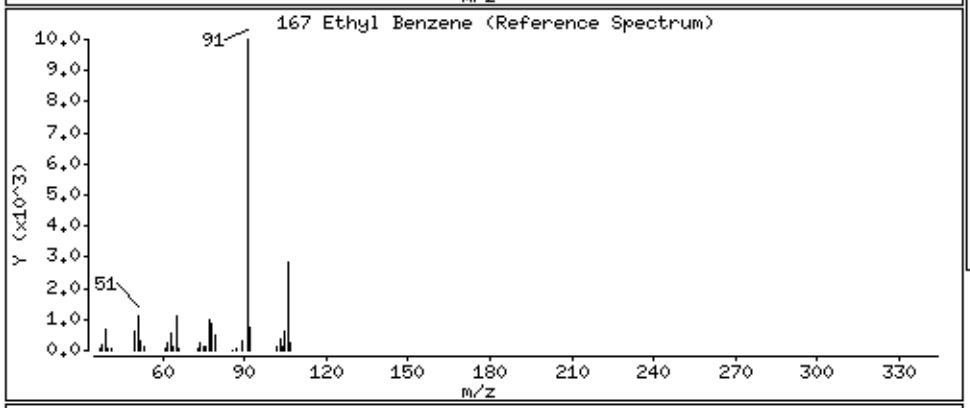
Column diameter: 0.32

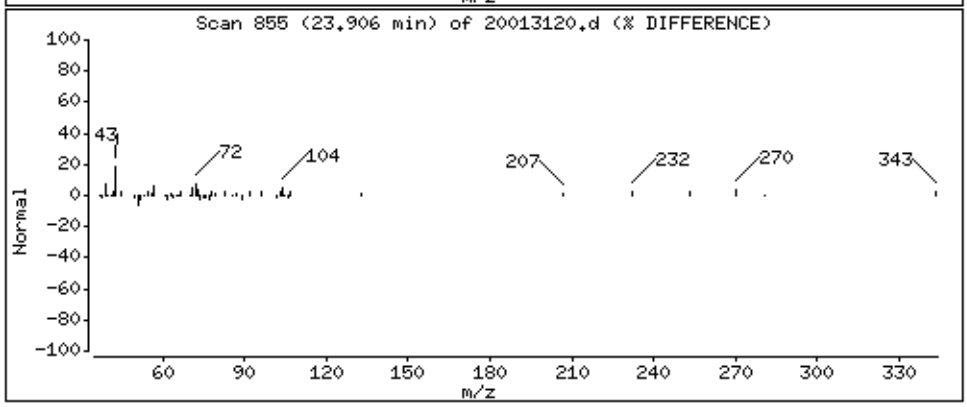
167 Ethyl Benzene

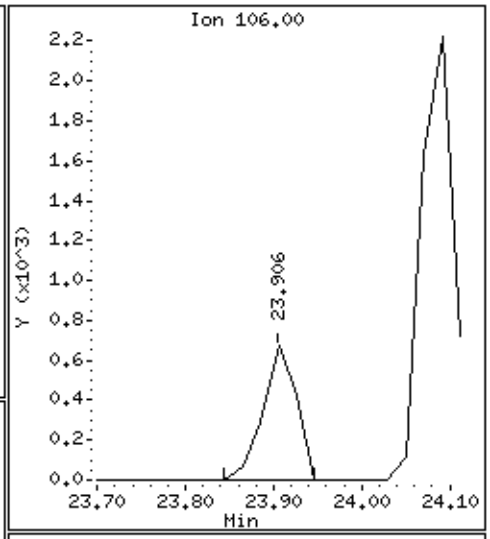
Concentration: 0.05362 PPBV

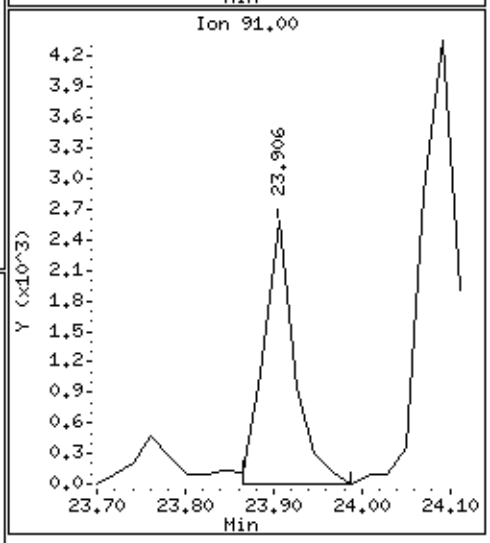












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

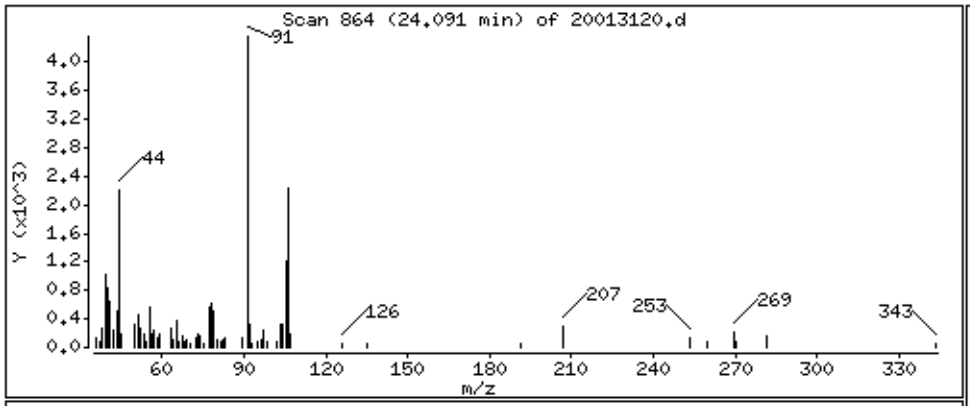
Operator: gh

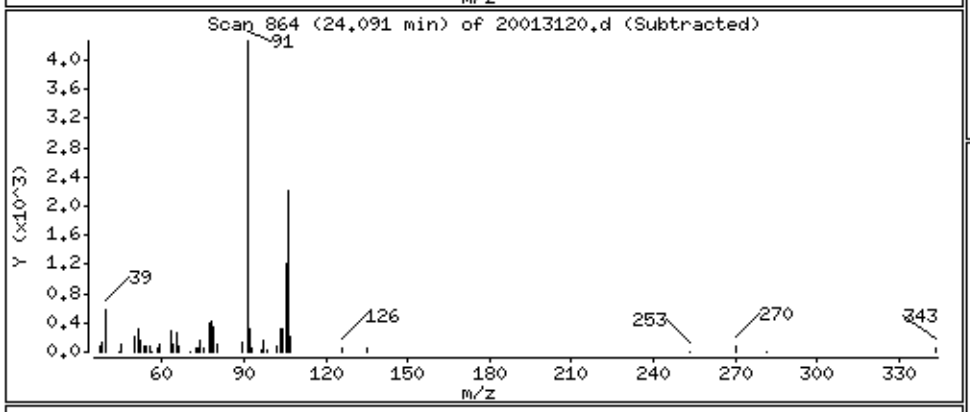
Column phase: RTX-624

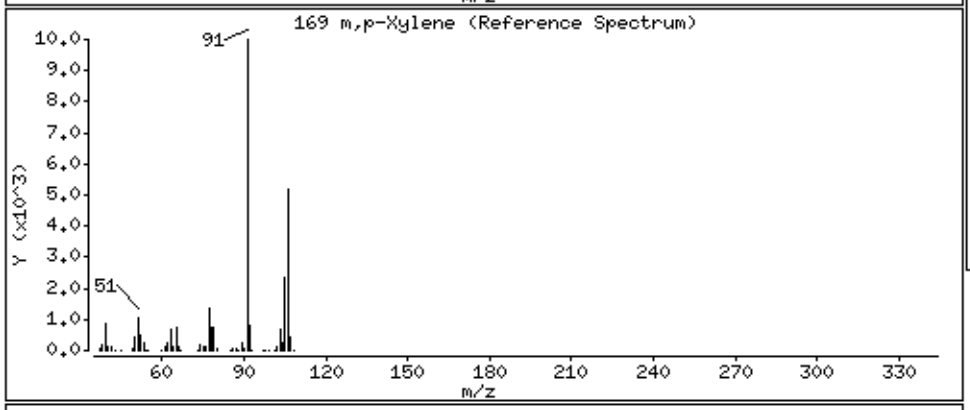
Column diameter: 0.32

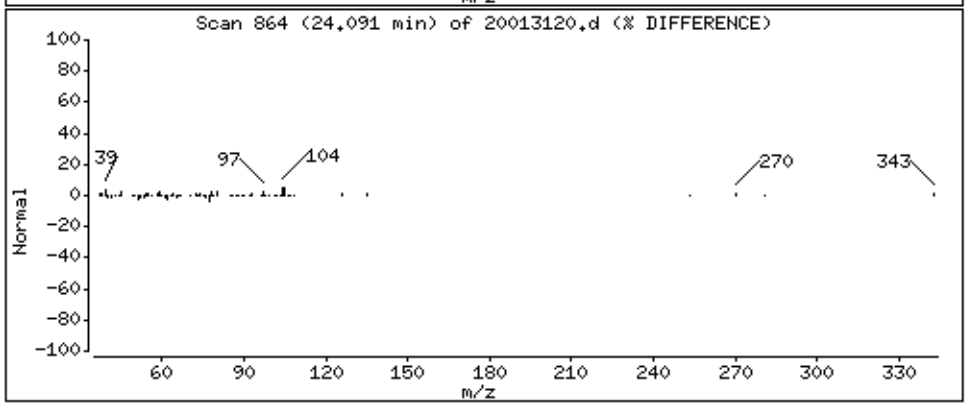
169 m,p-Xylene

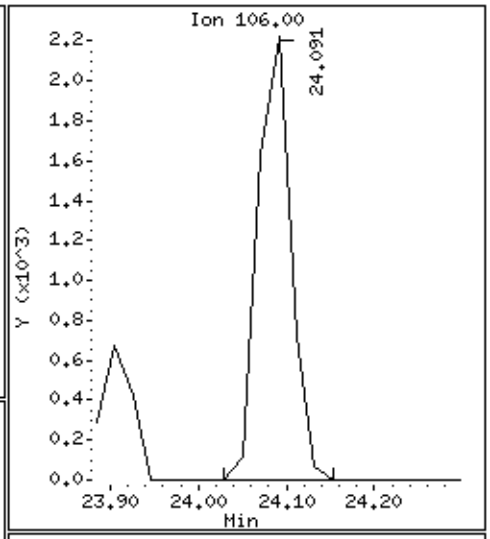
Concentration: 0.1674 PPBV

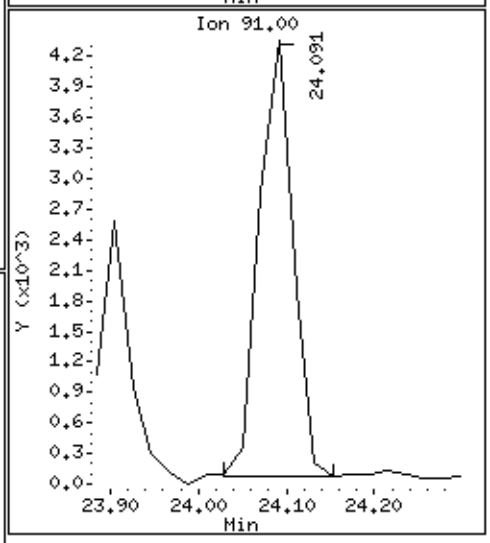












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

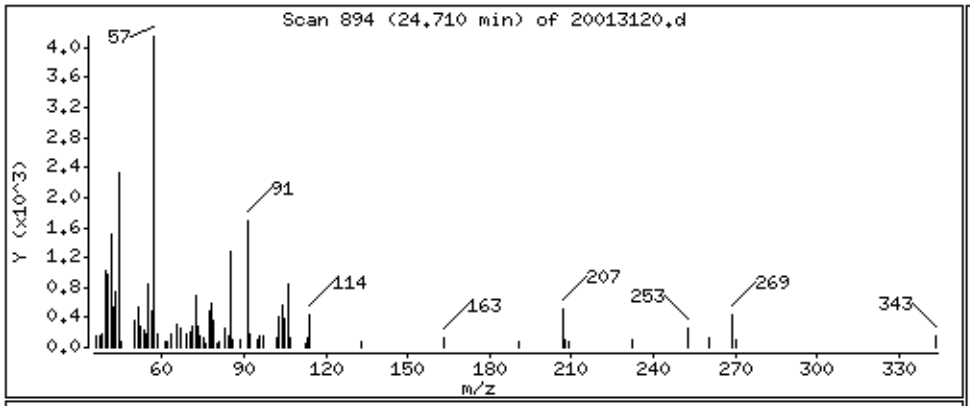
Operator: gh

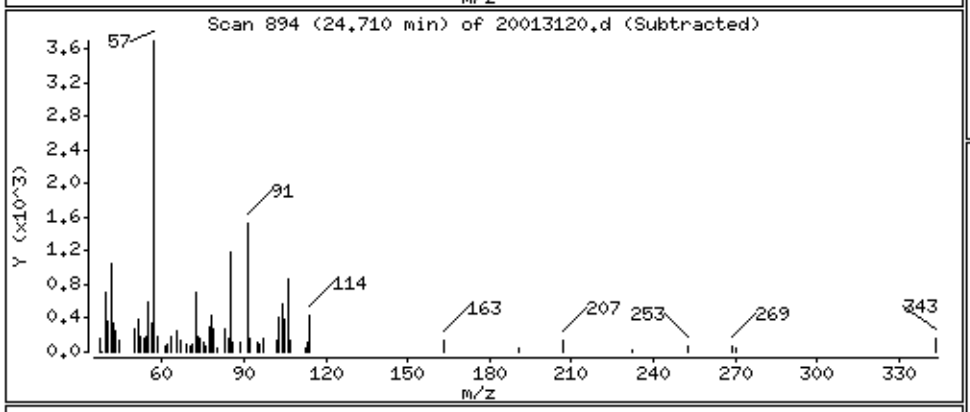
Column phase: RTX-624

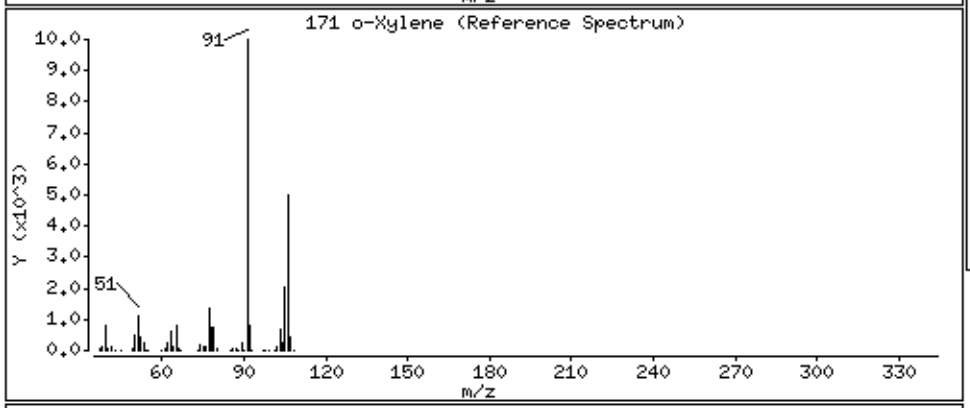
Column diameter: 0.32

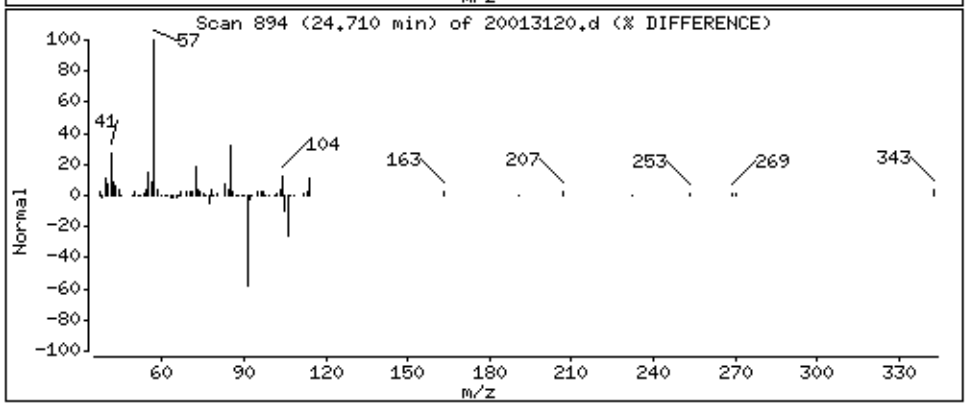
171 o-Xylene

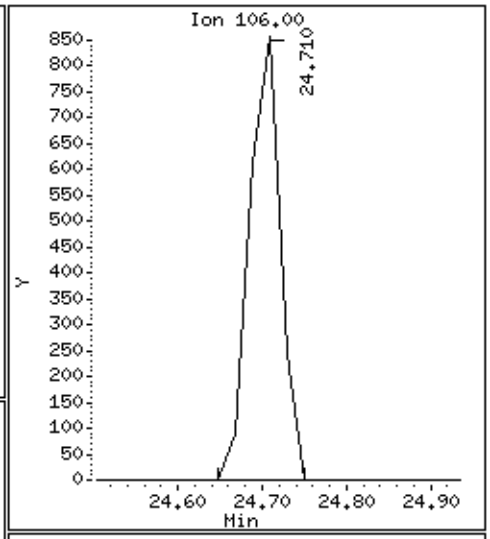
Concentration: 0.06828 PPBV

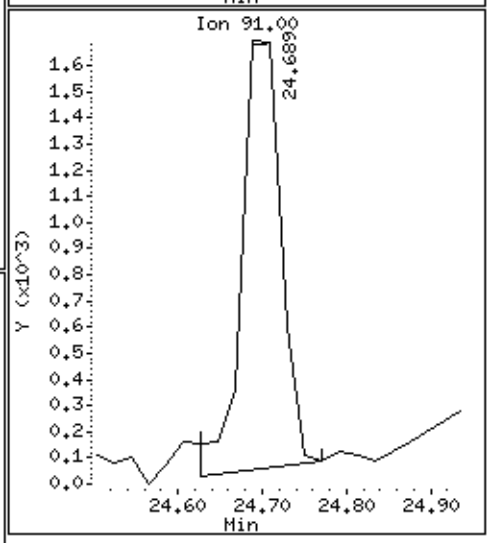












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

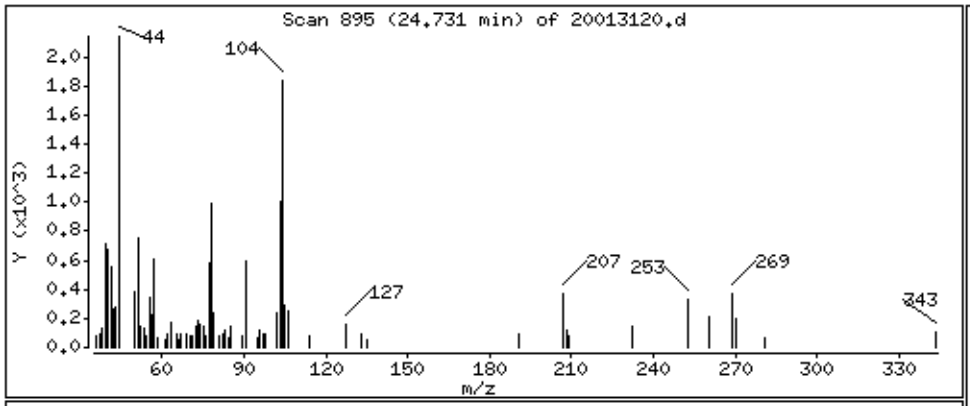
Operator: gh

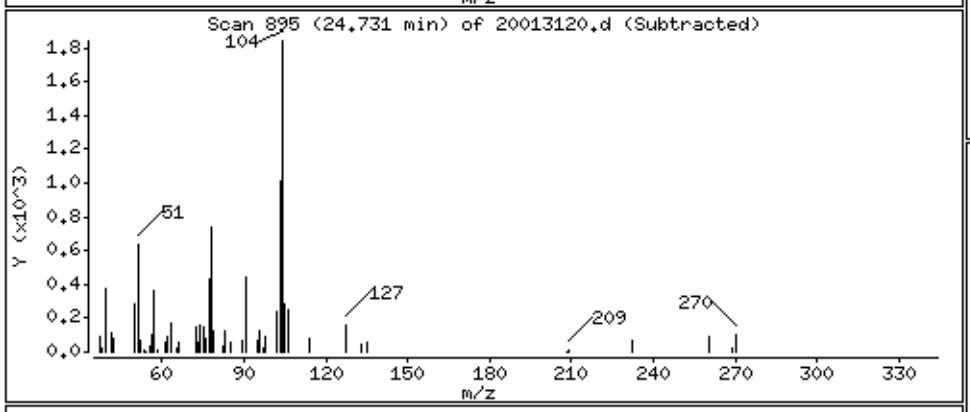
Column phase: RTX-624

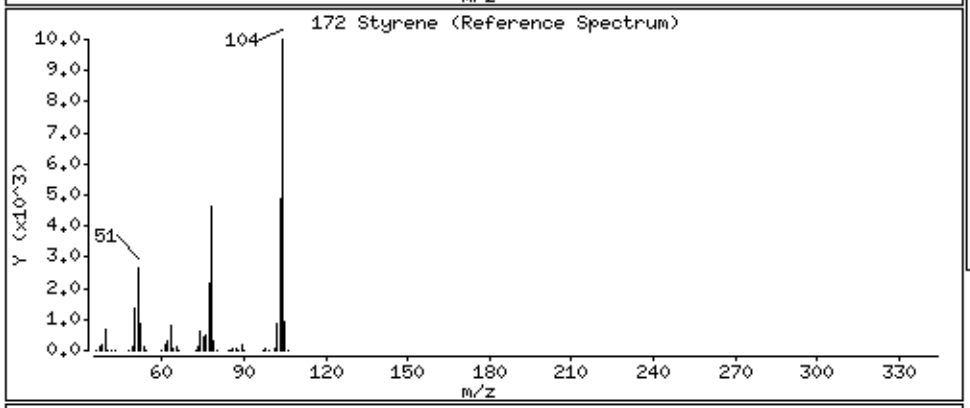
Column diameter: 0.32

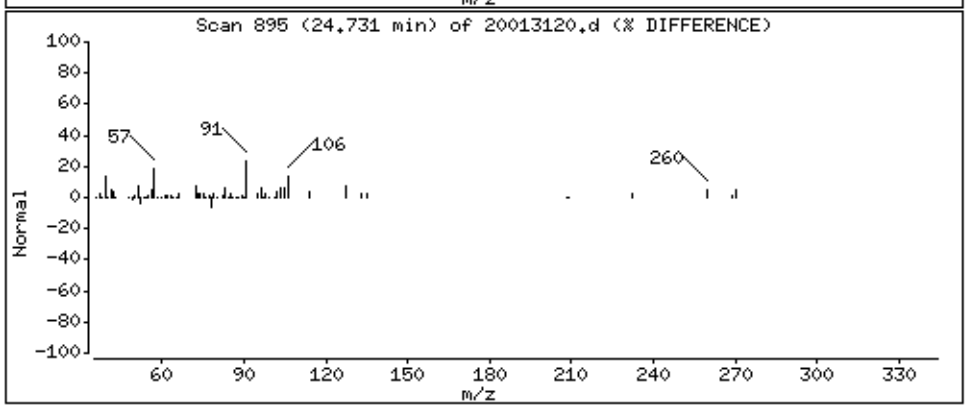
172 Styrene

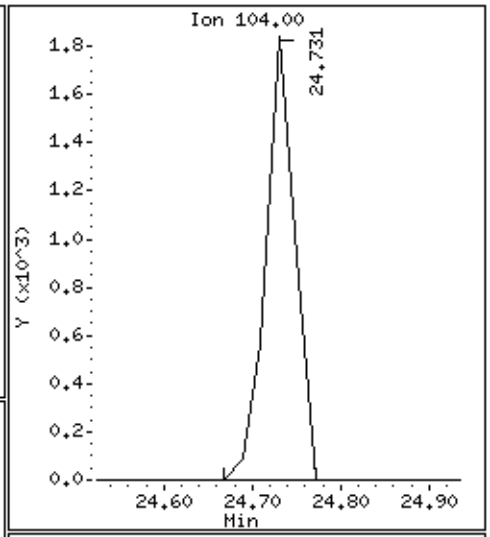
Concentration: 0.08830 PPBV

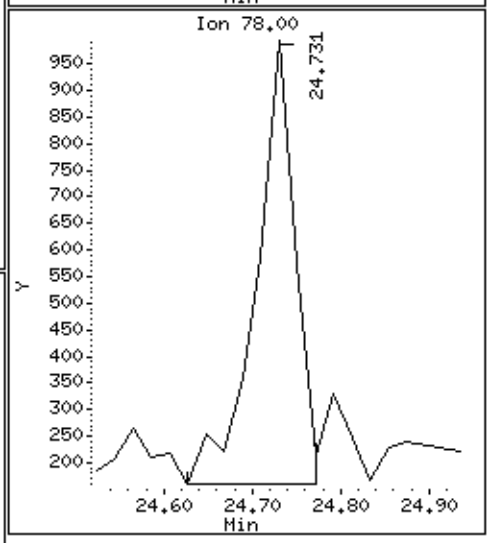












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

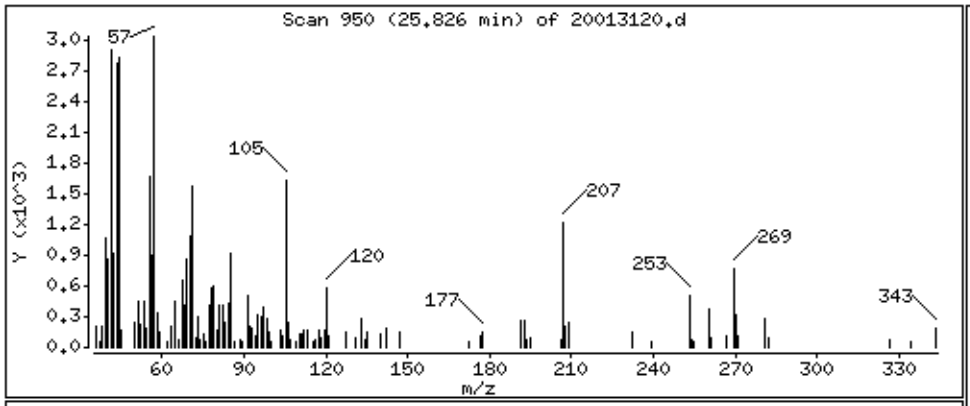
Operator: gh

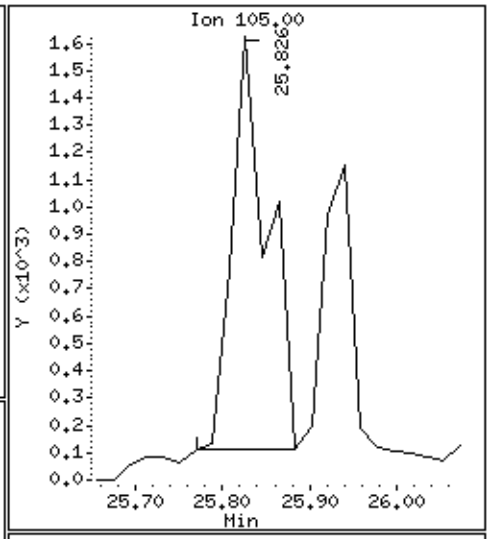
Column phase: RTX-624

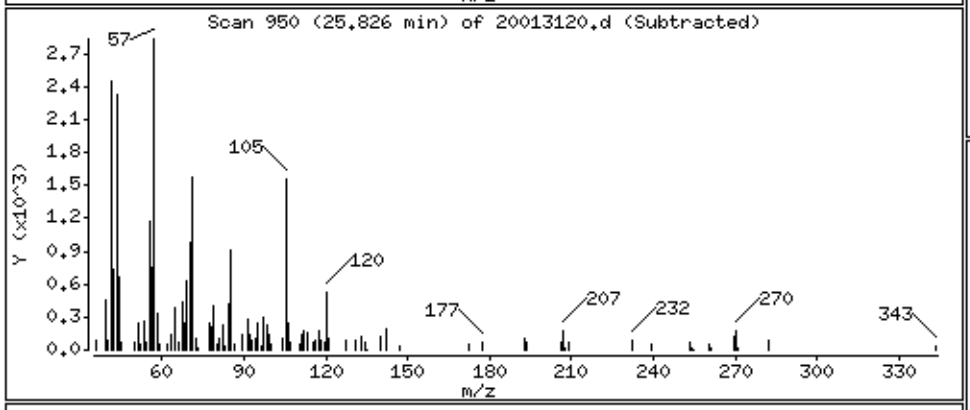
Column diameter: 0.32

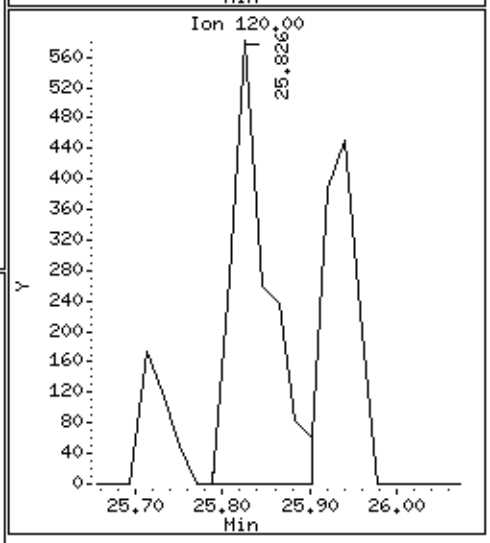
188 4-Ethyltoluene

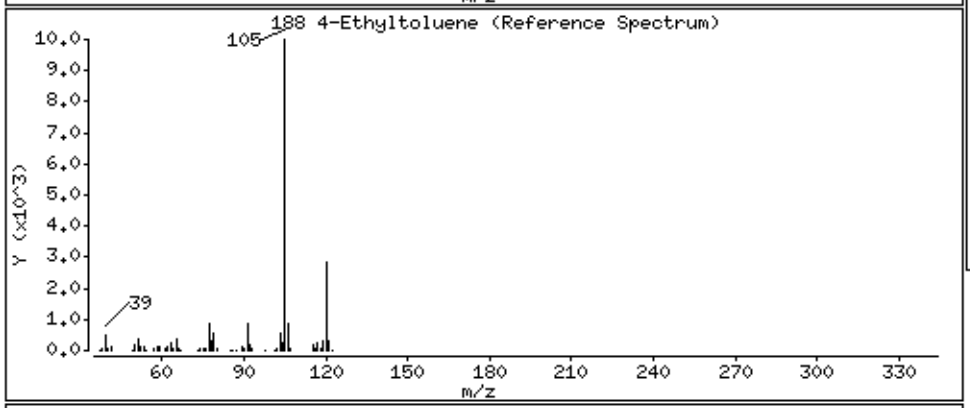
Concentration: 0.05362 PPBV

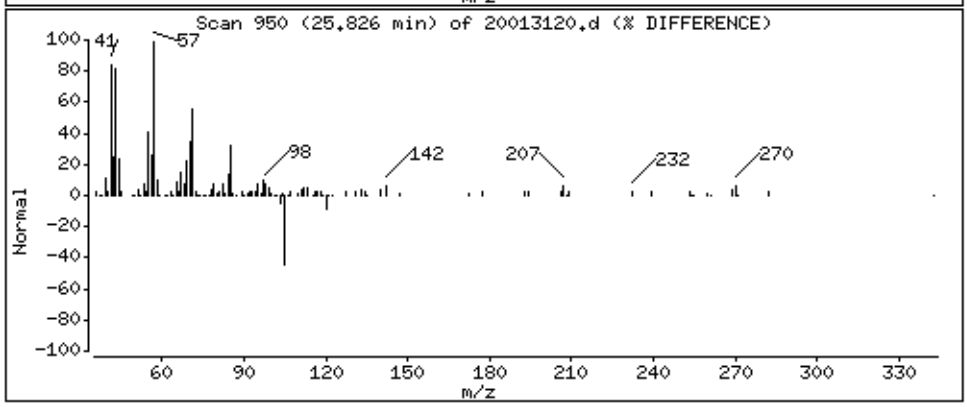












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

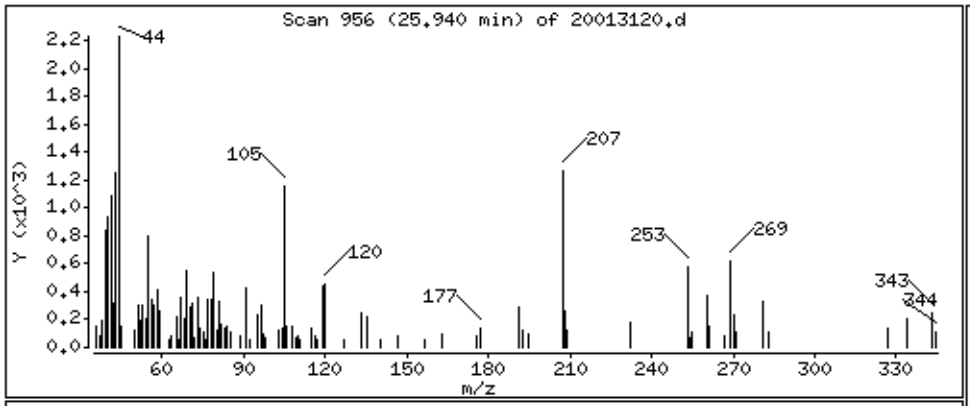
Operator: gh

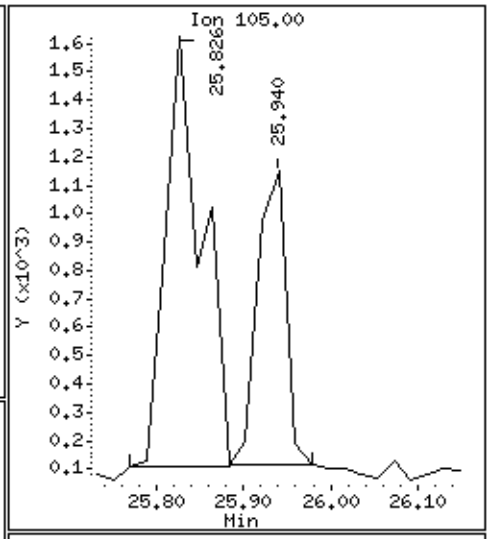
Column phase: RTX-624

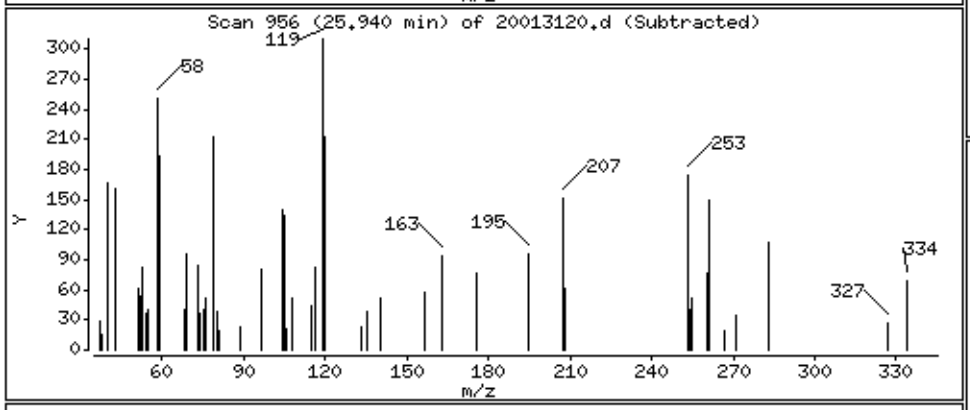
Column diameter: 0.32

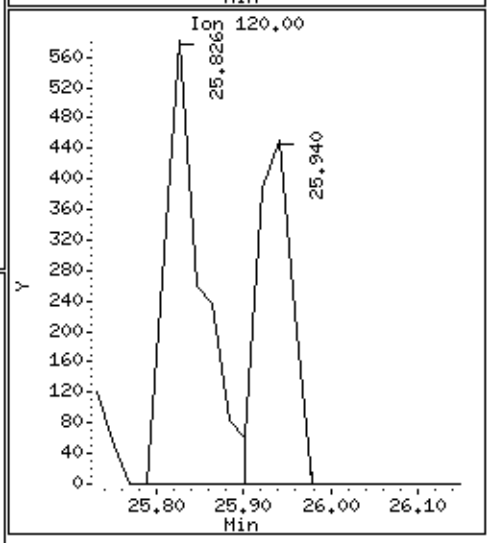
190 1,3,5-Trimethylbenzene

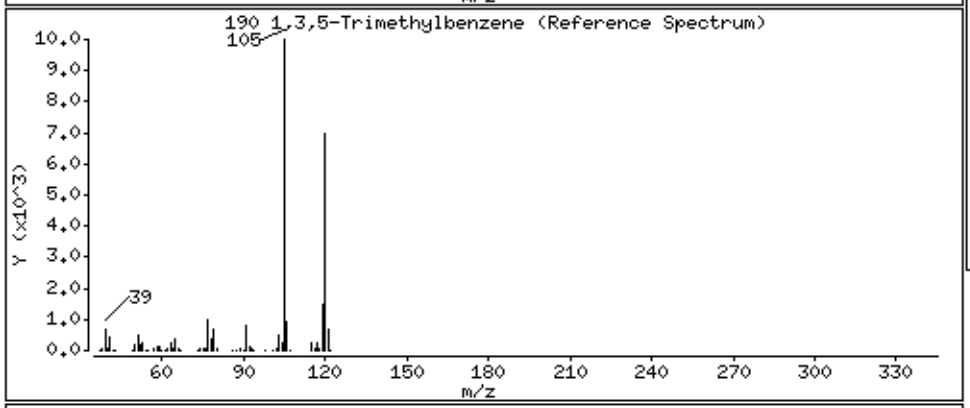
Concentration: 0.03248 PPBV

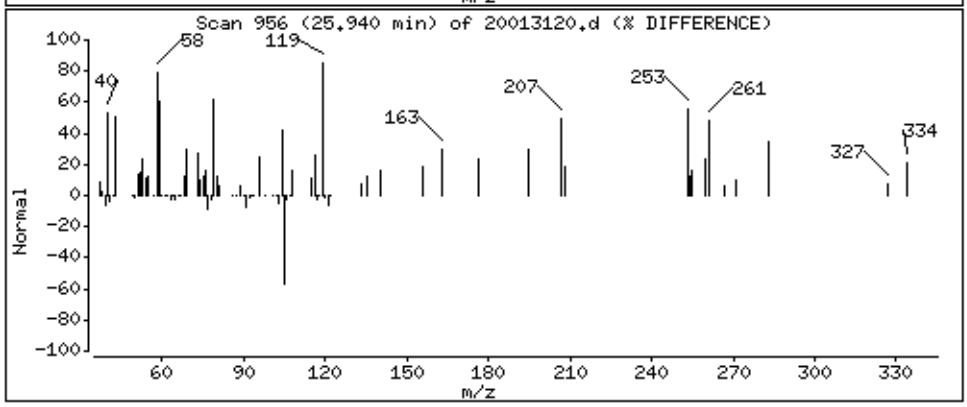












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

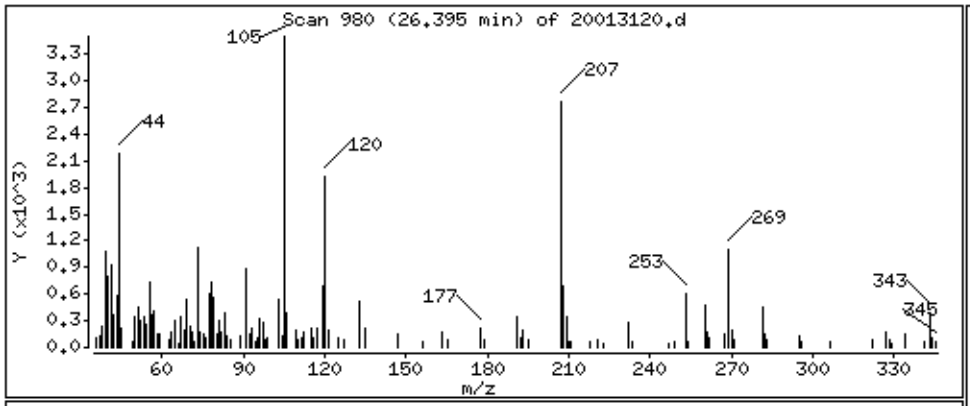
Operator: gh

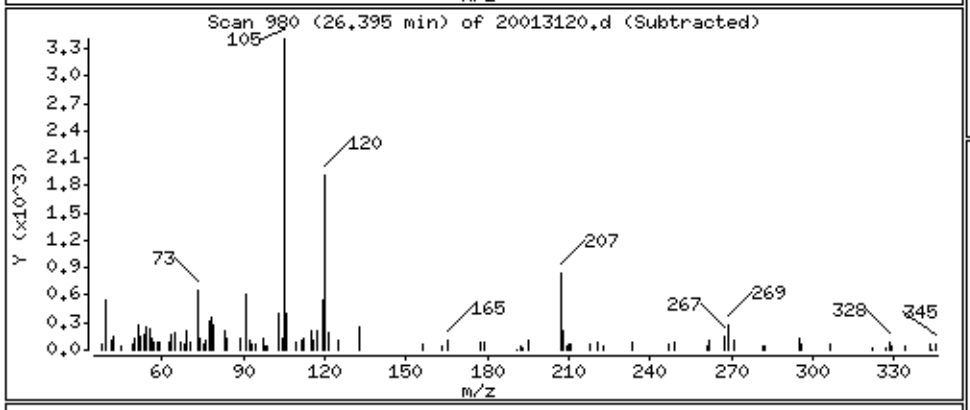
Column phase: RTX-624

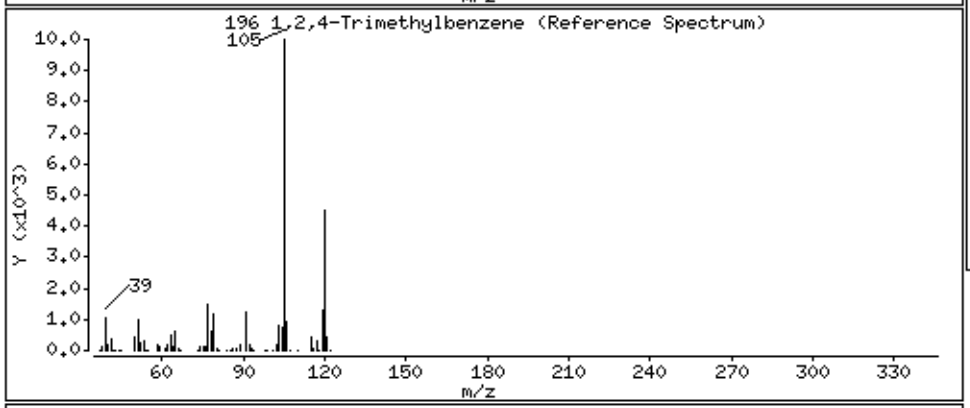
Column diameter: 0.32

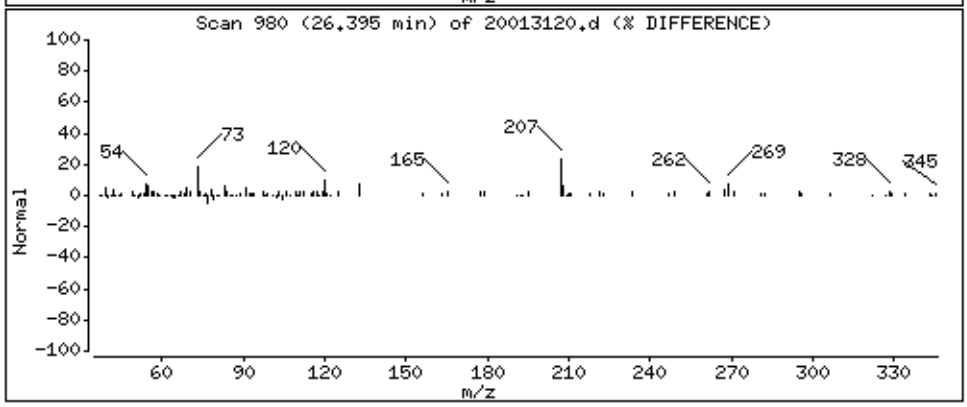
196 1,2,4-Trimethylbenzene

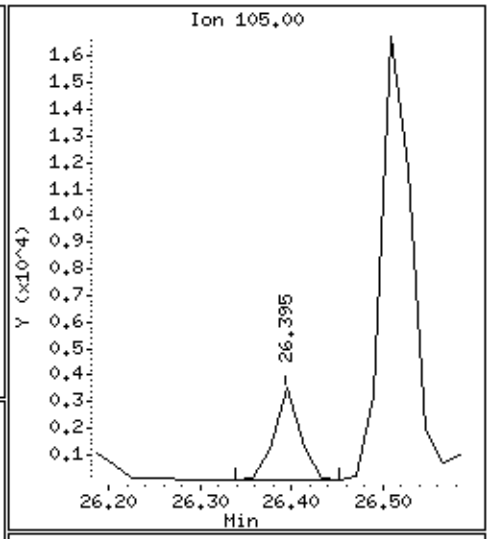
Concentration: 0.09697 PPBV

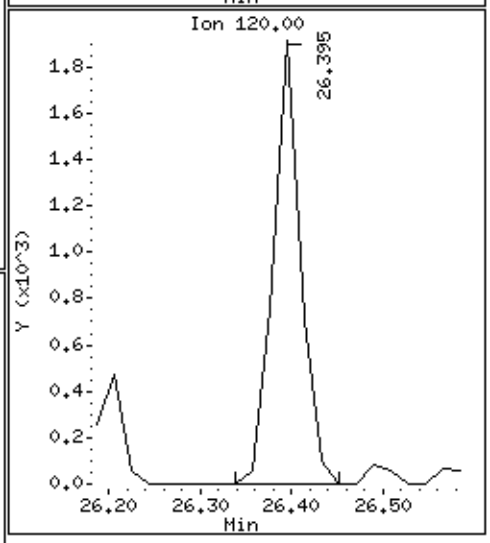












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

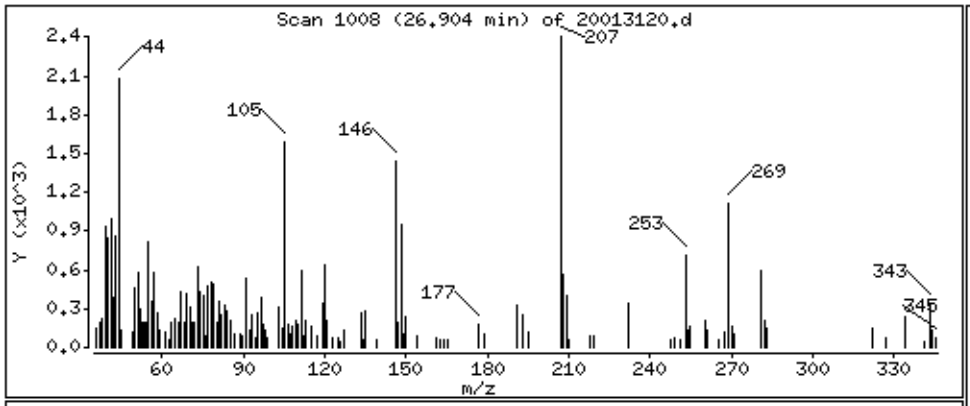
Operator: gh

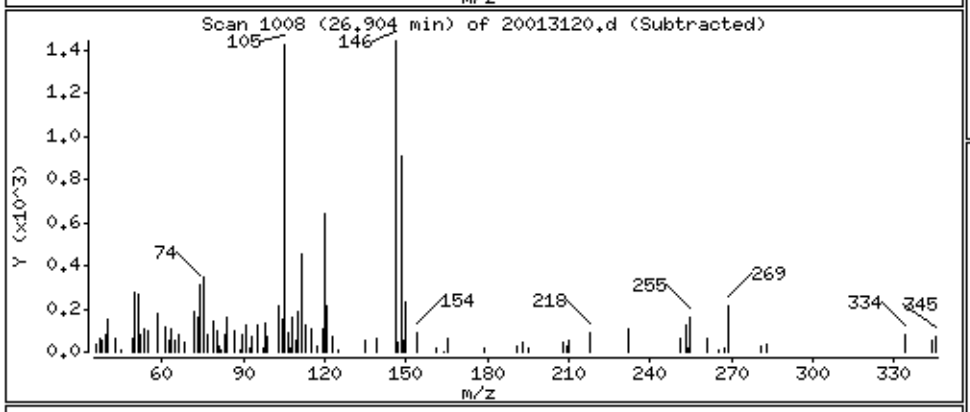
Column phase: RTX-624

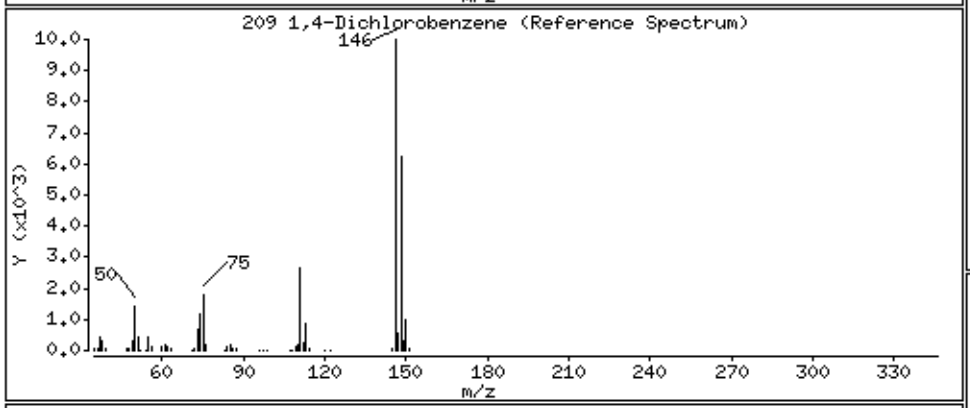
Column diameter: 0.32

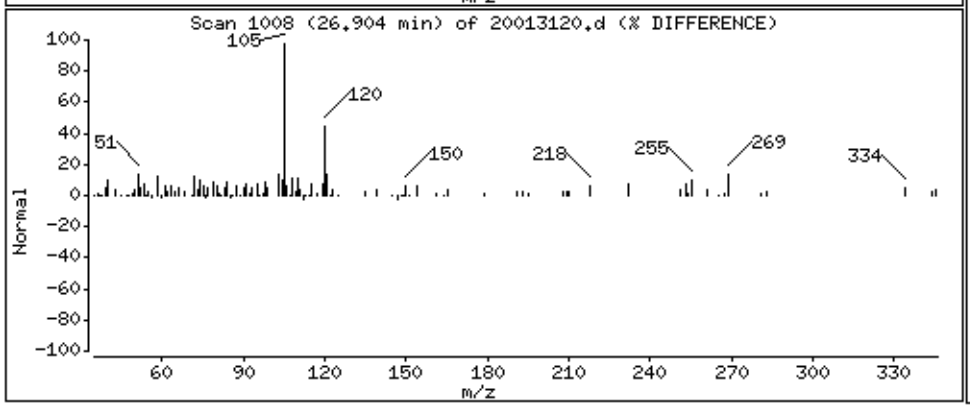
209 1,4-Dichlorobenzene

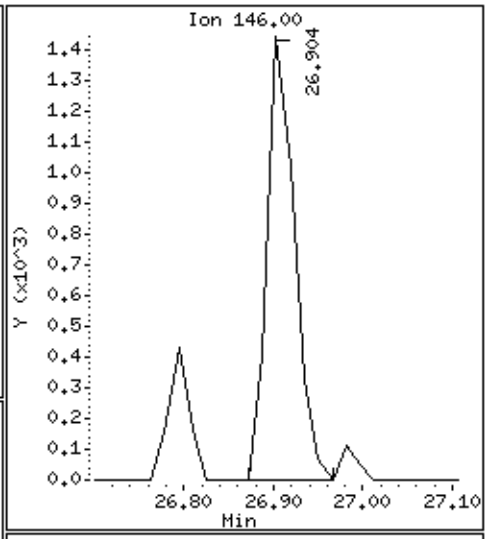
Concentration: 0.05614 PPBV

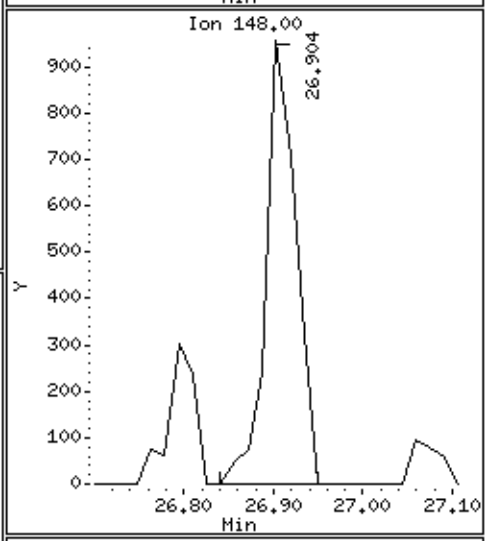


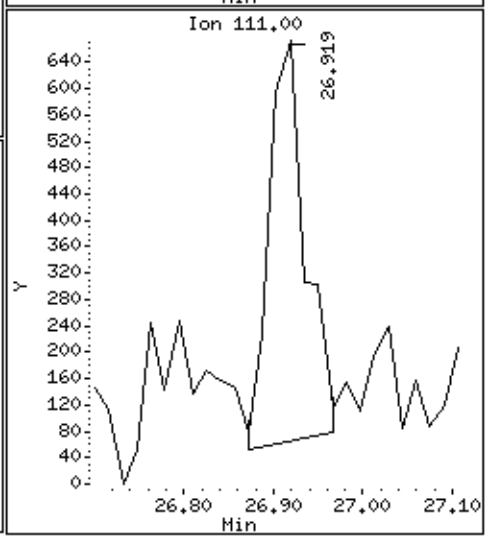












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

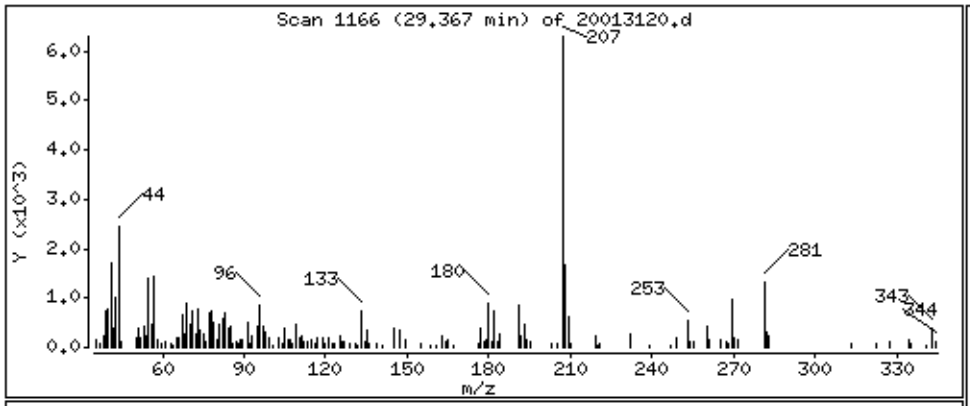
Operator: gh

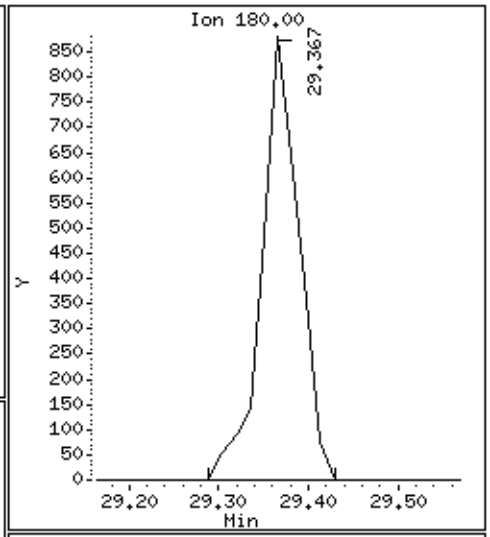
Column phase: RTX-624

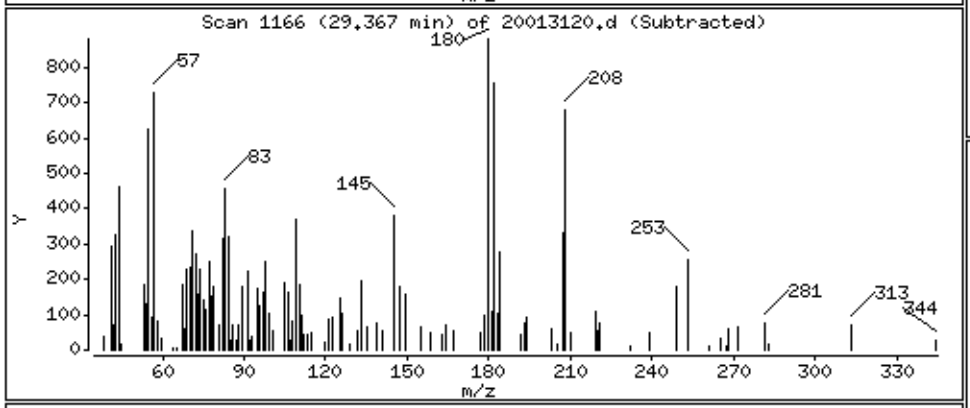
Column diameter: 0.32

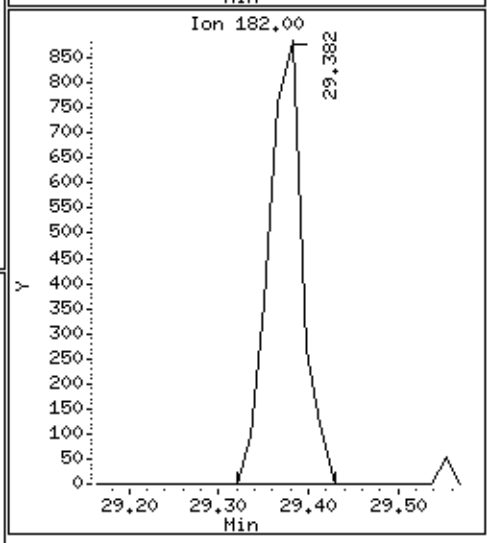
226 1,2,4-Trichlorobenzene

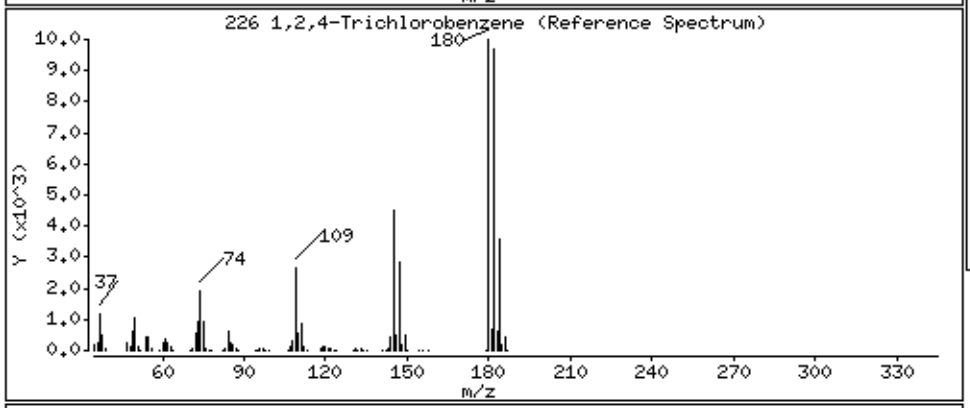
Concentration: 0.04001 PPBV

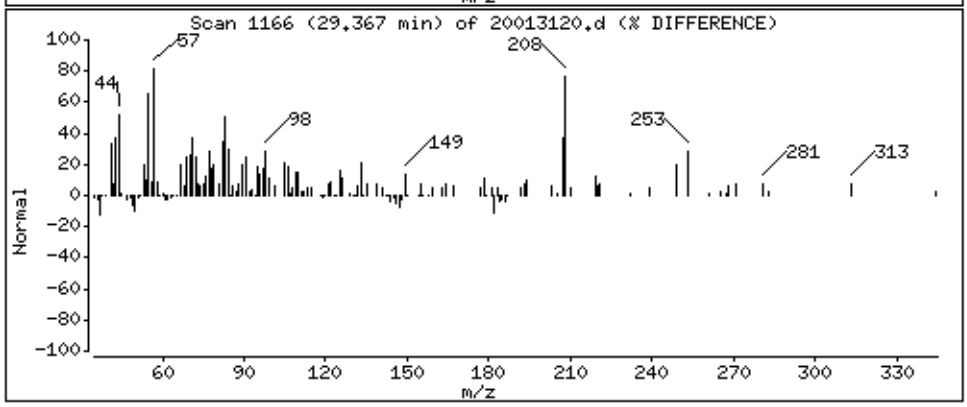












Data File: /chem/msd20.i/31Jan2017.b/20013120.d

Date : 31-JAN-2017 20:57

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00895

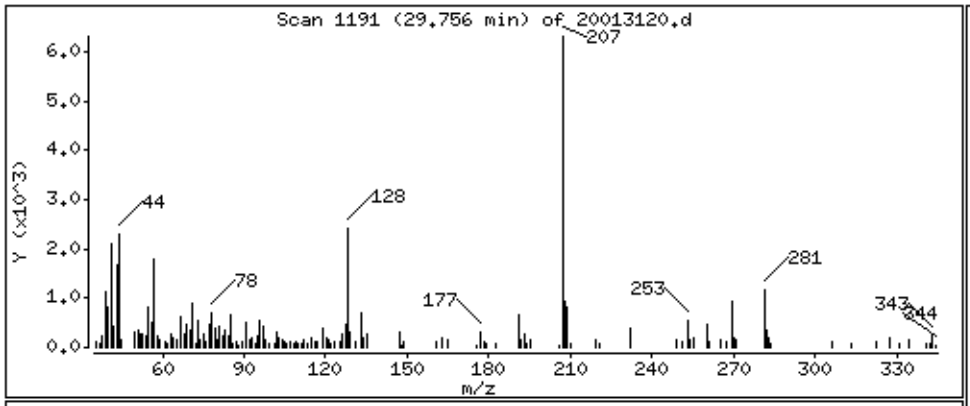
Operator: gh

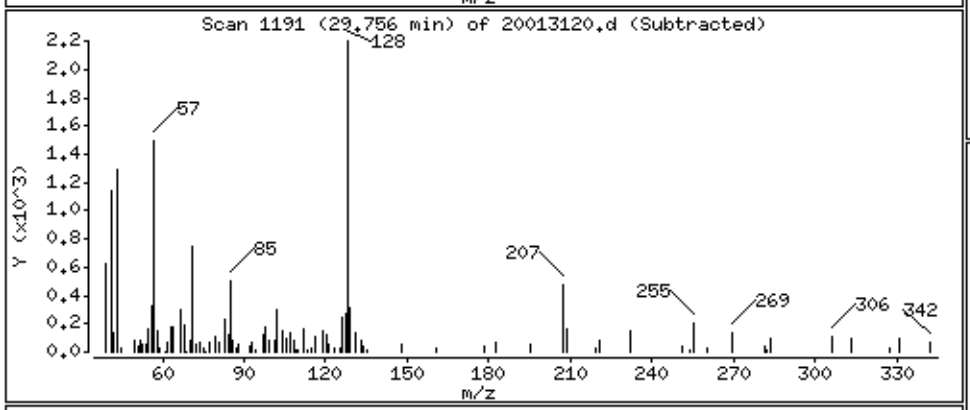
Column phase: RTX-624

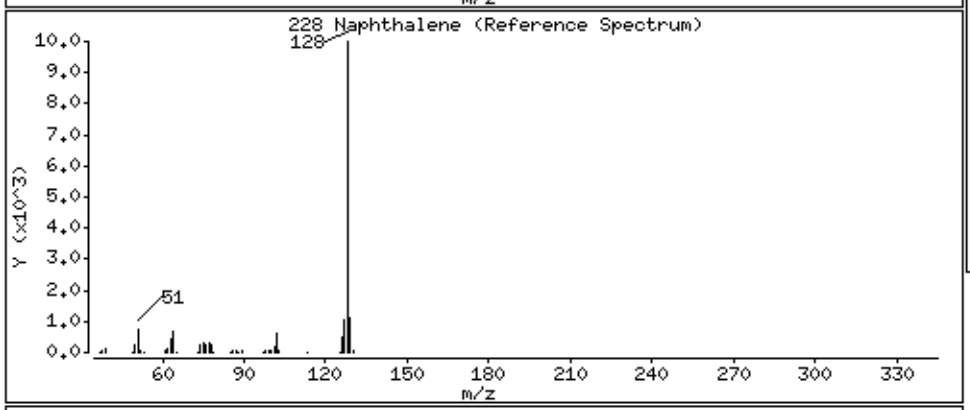
Column diameter: 0.32

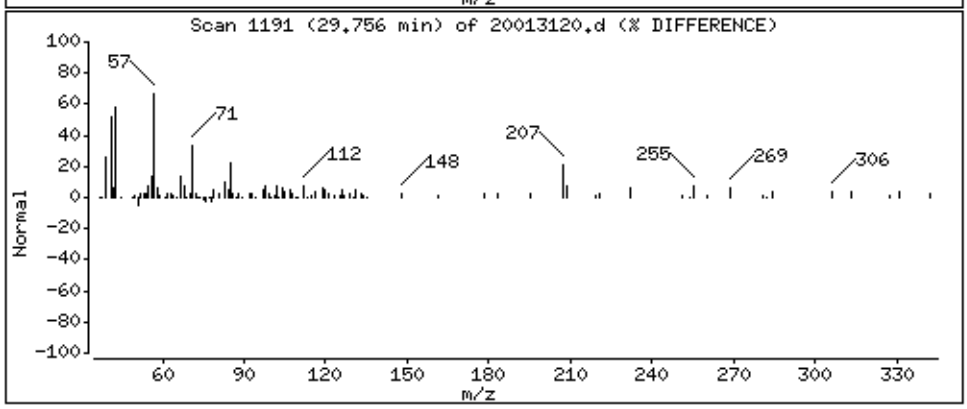
228 Naphthalene

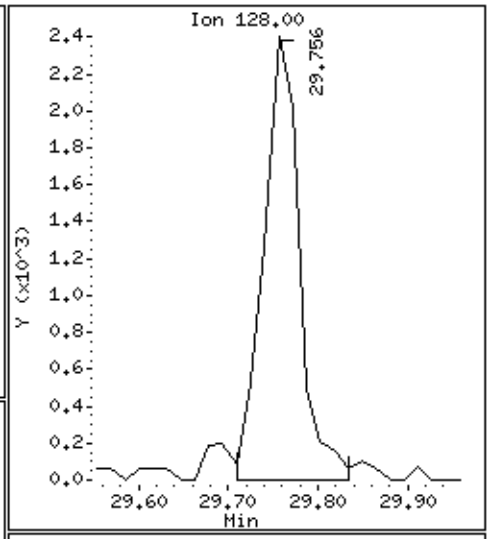
Concentration: 0.05957 PPBV

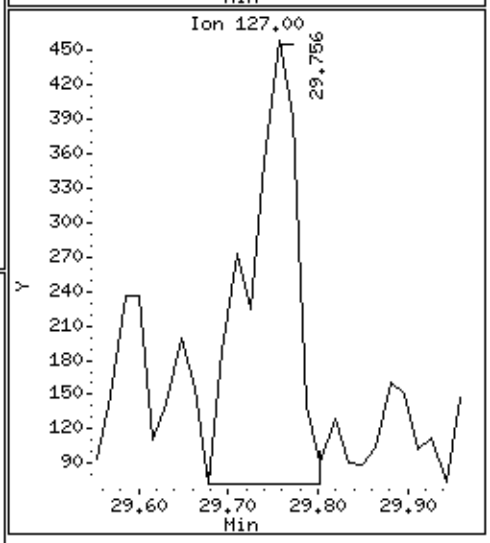












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-4D-012117

Lab ID#: 1701428A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.56	0.83	2.8
Chloromethane	0.84	0.99	1.7	2.0
Freon 11	0.17	0.39	0.94	2.2
Ethanol	0.84	48	1.6	90
Freon 113	0.17	0.081 J	1.3	0.62 J
Acetone	0.84	18	2.0	43
2-Propanol	0.84	24	2.1	58
Carbon Disulfide	0.84	0.22 J	2.6	0.69 J
Methylene Chloride	0.34	0.24 J	1.2	0.84 J
Hexane	0.17	0.075 J	0.59	0.26 J
2-Butanone (Methyl Ethyl Ketone)	0.84	3.0	2.5	9.0
Chloroform	0.17	0.038 J	0.82	0.18 J
Cyclohexane	0.17	0.037 J	0.58	0.13 J
Carbon Tetrachloride	0.17	0.064 J	1.0	0.40 J
Benzene	0.17	0.14 J	0.54	0.43 J
1,2-Dichloroethane	0.17	0.096 J	0.68	0.39 J
Heptane	0.17	0.13 J	0.69	0.54 J
4-Methyl-2-pentanone	0.17	0.14 J	0.69	0.58 J
Toluene	0.17	0.59	0.63	2.2
2-Hexanone	0.84	0.27 J	3.4	1.1 J
Ethyl Benzene	0.17	0.063 J	0.73	0.27 J
m,p-Xylene	0.17	0.14 J	0.73	0.60 J
o-Xylene	0.17	0.057 J	0.73	0.25 J
Styrene	0.17	0.084 J	0.72	0.36 J
4-Ethyltoluene	0.17	0.036 J	0.82	0.18 J
1,2,4-Trimethylbenzene	0.17	0.041 J	0.82	0.20 J
1,4-Dichlorobenzene	0.17	0.047 J	1.0	0.28 J
Naphthalene	0.84	0.023 J	4.4	0.12 J

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Client Sample ID: B30IA-4D-012117

Lab ID#: 1701428A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013121**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**1/31/17 09:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.56	0.83	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	0.99	1.7	2.0
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.39	0.94	2.2
Ethanol	0.84	48	1.6	90
Freon 113	0.17	0.081 J	1.3	0.62 J
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	18	2.0	43
2-Propanol	0.84	24	2.1	58
Carbon Disulfide	0.84	0.22 J	2.6	0.69 J
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	0.24 J	1.2	0.84 J
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	0.075 J	0.59	0.26 J
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	3.0	2.5	9.0
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	0.038 J	0.82	0.18 J
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	0.037 J	0.58	0.13 J
Carbon Tetrachloride	0.17	0.064 J	1.0	0.40 J
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.14 J	0.54	0.43 J
1,2-Dichloroethane	0.17	0.096 J	0.68	0.39 J
Heptane	0.17	0.13 J	0.69	0.54 J
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	0.14 J	0.69	0.58 J
Toluene	0.17	0.59	0.63	2.2
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	0.27 J	3.4	1.1 J

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Client Sample ID: B30IA-4D-012117

Lab ID#: 1701428A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013121**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**1/31/17 09:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	0.063 J	0.73	0.27 J
m,p-Xylene	0.17	0.14 J	0.73	0.60 J
o-Xylene	0.17	0.057 J	0.73	0.25 J
Styrene	0.17	0.084 J	0.72	0.36 J
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	0.036 J	0.82	0.18 J
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	0.041 J	0.82	0.20 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	0.047 J	1.0	0.28 J
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
Naphthalene	0.84	0.023 J	4.4	0.12 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013121.d
Lab Smp Id: 1701428A-05A
Inj Date : 31-JAN-2017 21:36
Operator : gh Inst ID: msd20.i
Smp Info : 250mL# O0898
Misc Info : 6.0"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.68000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	151452	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	118960			46.97- 106.97	78.55
16.726	16.696 (1.000)	49	190930			76.21- 136.21	126.07
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	472444	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	75747			0.00- 45.59	16.03
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	451172	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	253591			23.26- 83.26	56.21
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.621	17.621 (1.053)	65	223867	5.99063	5.991	80.00- 120.00	100.00
17.621	17.621 (1.053)	67	116989			31.78- 91.78	52.26
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	435745	4.82379	4.824	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	53964			0.00- 40.33	12.38

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    274012                    35.56-  95.56    62.88
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    254710 5.29026    5.290  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    290089                   79.94- 139.94   113.89
 25.466  25.466 (1.072)   176    244671                   67.24- 127.24    96.06
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.696   4.648 (0.281)    85     38422 0.33467   0.5622  70.00- 130.00   100.00
  4.648   4.648 (0.278)    87     11312                    0.00-  30.00    29.44
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.553 (0.395)    50     20896 0.59214   0.9948  80.00- 120.00   100.00
  6.601   6.553 (0.395)    52      7991                    3.24-  63.24    38.24
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101     26410 0.22976   0.3860  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103     17885                   34.37-  94.37    67.72
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45    438892 28.3520   47.631  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46    171827                   10.33-  70.33    39.15
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.763  12.763 (0.763)   151      4161 0.04850  0.08148  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      2242                   33.68-  93.68    53.88
 12.763  12.736 (0.763)   101      4382                   86.77- 146.77   105.31
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58    231774 10.8609   18.246  80.00- 120.00   100.00
 13.093  13.066 (0.783)    43    700060                  253.28- 313.28   302.04
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.093  13.121 (0.783)    76     15660 0.13270   0.2229  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.533 (0.811)    45    804907 14.0408   23.588  80.00- 120.00   100.00
 13.560  13.533 (0.811)    43    274116                    0.00-  52.74    34.06
 13.560  13.533 (0.811)    59     35659                    0.00-  34.43     4.43
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      6695 0.14456   0.2428  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      7820                   80.28- 140.28   116.80
 14.027  14.027 (0.839)    51      2625                    4.61-  64.61    39.21
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	2742	0.04481	0.07529	80.00- 120.00	100.00(a)
14.933	14.878 (0.893)	43	8996			28.29- 88.29	328.08
0.000	14.878 (0.000)	86	0			0.00- 48.18	0.00
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.977)	72	37822	1.81761	3.054	80.00- 120.00	100.00
16.344	16.324 (0.977)	43	150380			300.25- 360.25	397.60
16.344	16.324 (0.977)	57	12033			0.00- 58.21	31.81
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	2104	0.02235	0.03756	80.00- 120.00	100.00(a)
16.819	16.819 (1.006)	85	1139			34.75- 94.75	54.13
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	1362	0.02213	0.03718	80.00- 120.00	100.00(a)
17.035	17.035 (1.018)	56	3748			76.62- 136.62	275.18
17.035	17.035 (1.018)	41	5720			21.84- 81.84	419.97
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	3081	0.03805	0.06392	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	3342			73.50- 133.50	108.47
116 Benzene					CAS #: 71-43-2		
17.621	17.621 (0.968)	78	9101	0.08062	0.1354	80.00- 120.00	100.00(a)
17.621	17.621 (0.968)	77	3017			0.00- 53.26	33.15
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	2497	0.05706	0.09585	80.00- 120.00	100.00(a)
17.744	17.744 (0.974)	64	1424			2.82- 62.82	57.03
121 Heptane					CAS #: 142-82-5		
17.867	17.847 (0.981)	57	2287	0.07890	0.1326	80.00- 120.00	100.00(a)
0.000	17.847 (0.000)	100	0			8.23- 68.23	0.00
17.867	17.847 (0.981)	43	6280			141.33- 201.33	274.60
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	5228	0.08491	0.1426	80.00- 120.00	100.00(a)
20.557	20.557 (1.129)	58	2117			12.96- 72.96	40.49
20.541	20.557 (1.128)	85	697			0.00- 50.79	13.33
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	43832	0.35292	0.5929	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	25835			29.12- 89.12	58.94
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	6246	0.16301	0.2738	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone (continued)							
22.377	22.377 (0.942)	43	12126			137.01- 197.01	194.14
22.377	22.377 (0.942)	100	1233			0.00- 53.27	19.74
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.906 (1.006)	106	1981	0.03755	0.06308	80.00- 120.00	100.00(a)
23.906	23.906 (1.006)	91	6169			275.87- 335.87	311.41
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	4547	0.08196	0.1377	80.00- 120.00	100.00(a)
24.091	24.091 (1.014)	91	9614			163.30- 223.30	211.44
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	1752	0.03389	0.05694	80.00- 120.00	100.00(a)
24.689	24.710 (1.039)	91	4566			172.76- 232.76	260.62
172 Styrene					CAS #: 100-42-5		
24.731	24.731 (1.041)	104	3819	0.05034	0.08458	80.00- 120.00	100.00(a)
24.731	24.731 (1.041)	78	2278			18.49- 78.49	59.65
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	2775	0.02163	0.03634	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	837			1.16- 61.16	30.16
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	2697	0.02436	0.04092	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	947			17.83- 77.83	35.11
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.904 (1.132)	146	2399	0.02792	0.04690	80.00- 120.00	100.00(a)
26.903	26.904 (1.132)	148	1592			33.90- 93.90	66.36
26.903	26.904 (1.132)	111	1186			6.77- 66.77	49.44
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	2491	0.01391	0.02336	80.00- 120.00	100.00(a)
29.741	29.756 (1.252)	127	473			0.00- 42.38	18.99

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: msd20.i
Lab File ID: 20013121.d
Lab Smp Id: 1701428A-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 6.0"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	151452	-20.15
123 1,4-Difluorobenze	617206	370324	864088	472444	-23.45
163 Chlorobenzene-d5	554897	332938	776856	451172	-18.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 12:35

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-05A
Level: LOW Operator: gh
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 6.0"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.991	119.81	70-130
$ 146 Toluene-d8	5.000	4.824	96.48	70-130
$ 177 4-Bromofluorobenze	5.000	5.290	105.81	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

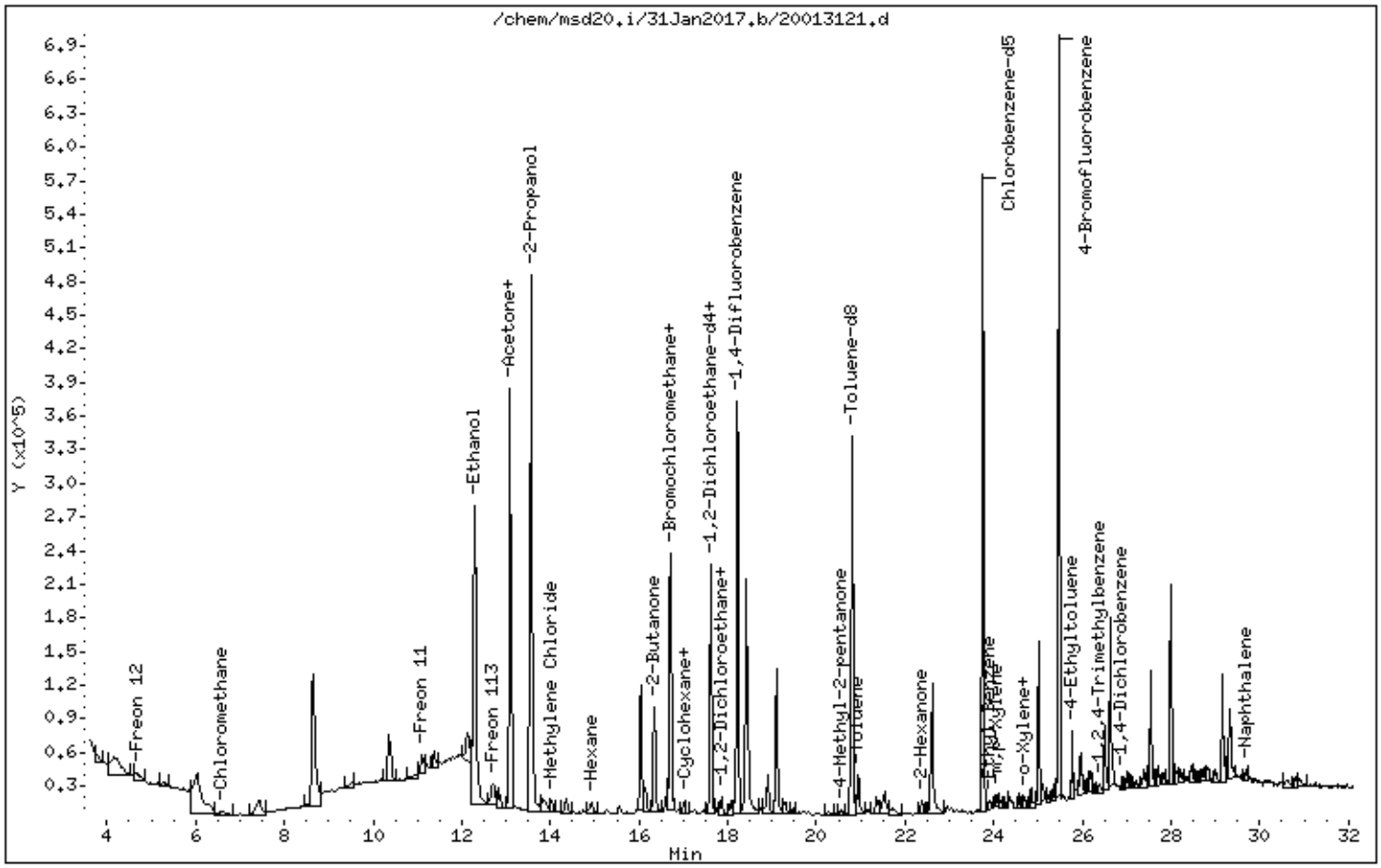
Instrument: msd20.i

Sample Info: 250mL# 00898

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

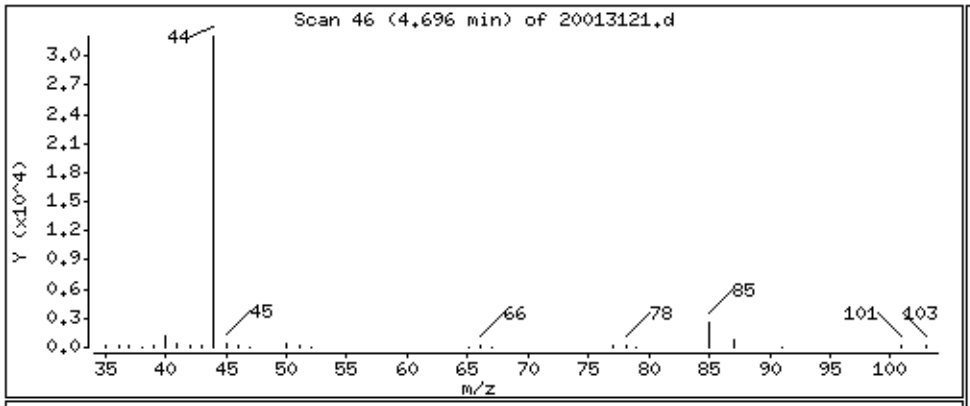
Operator: gh

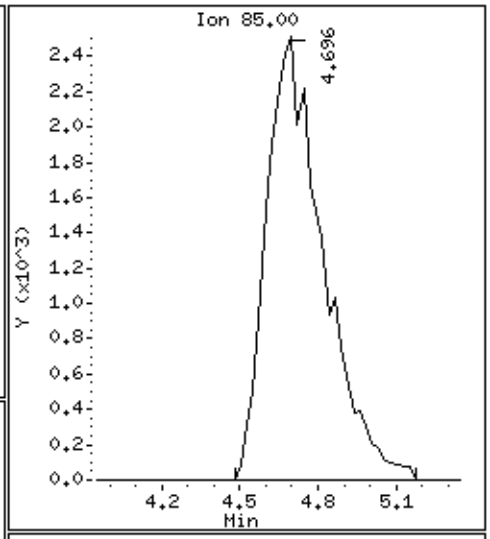
Column phase: RTX-624

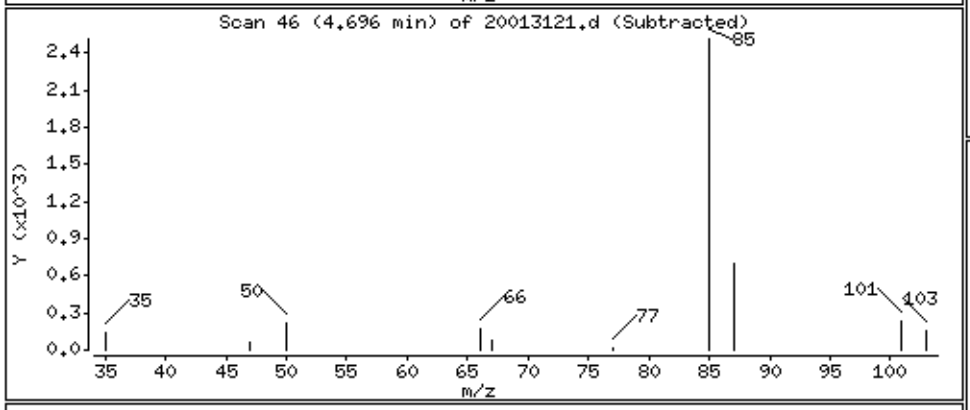
Column diameter: 0.32

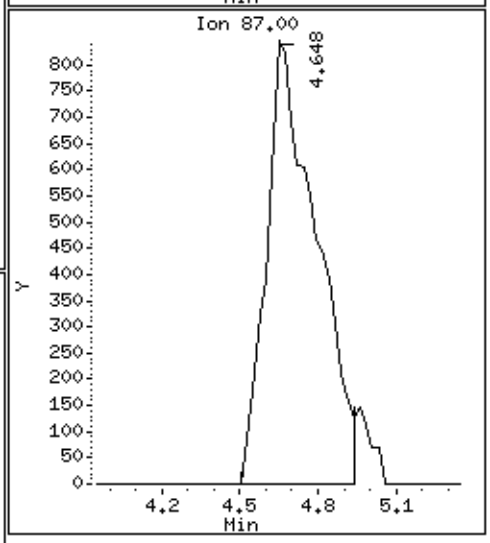
11 Freon 12

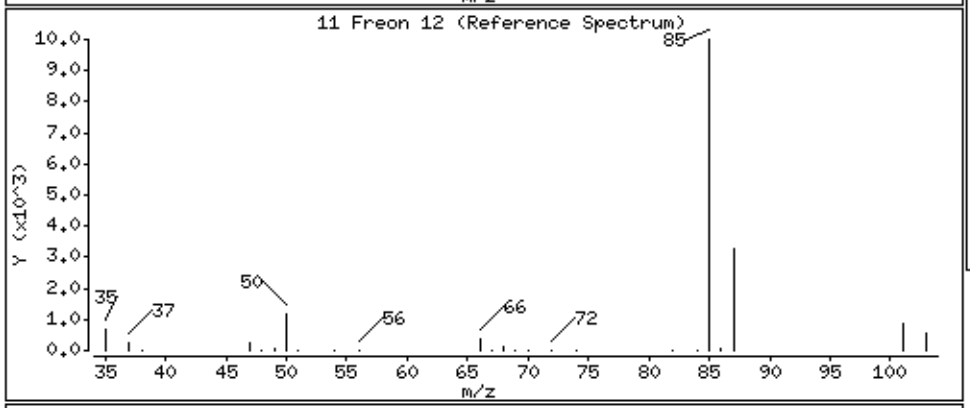
Concentration: 0.5622 PPBV

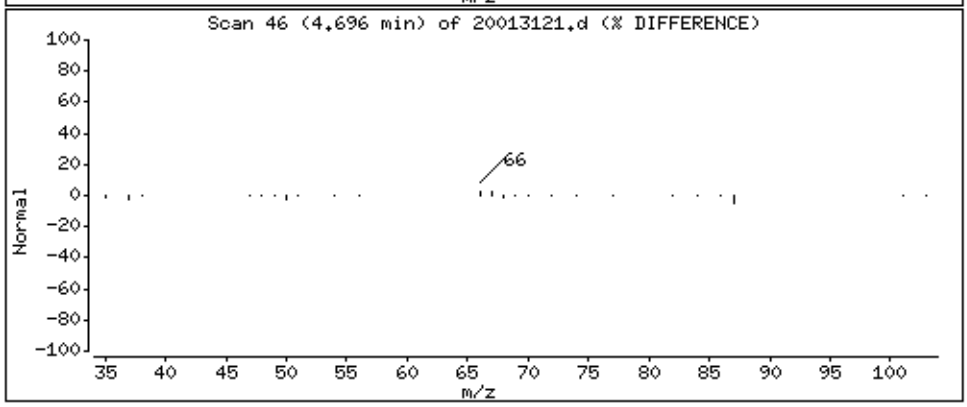












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

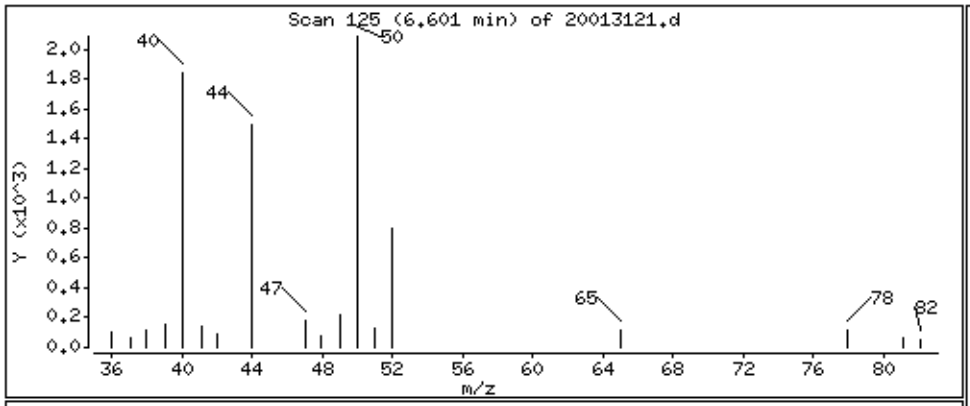
Operator: gh

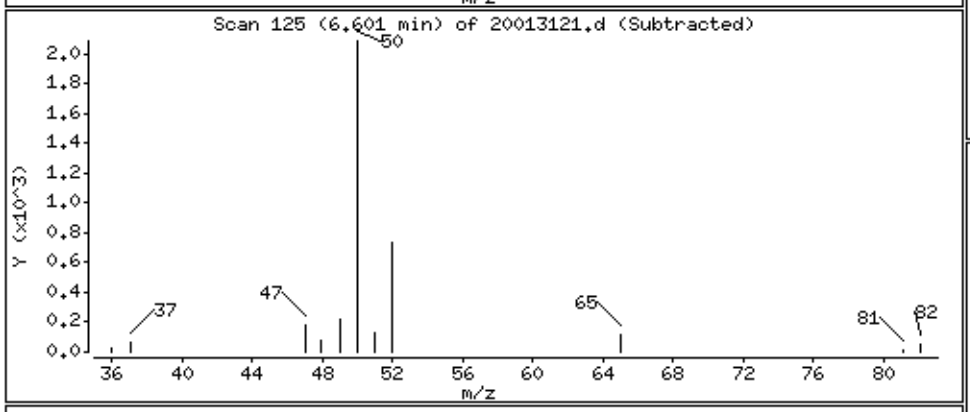
Column phase: RTX-624

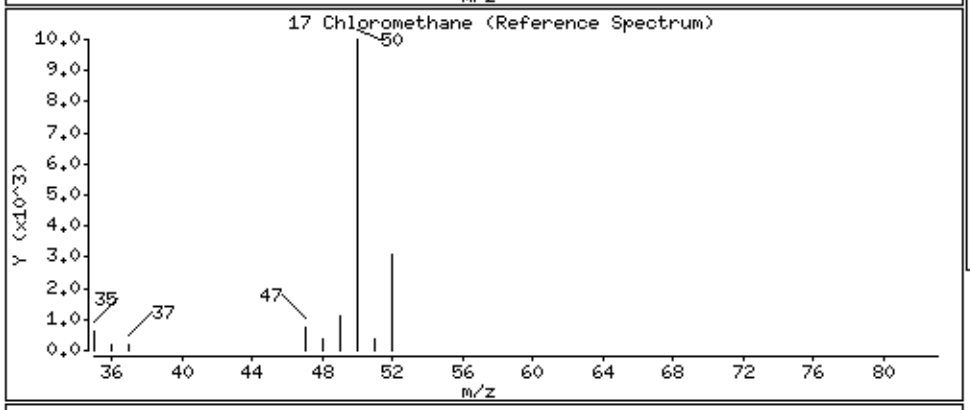
Column diameter: 0.32

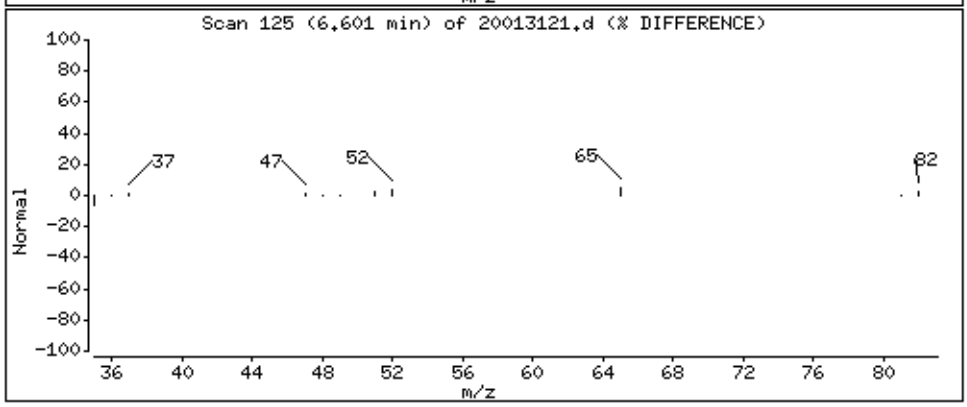
17 Chloromethane

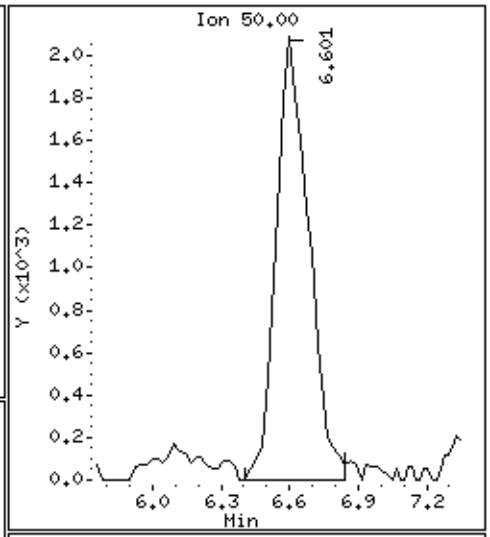
Concentration: 0.9948 PPBV

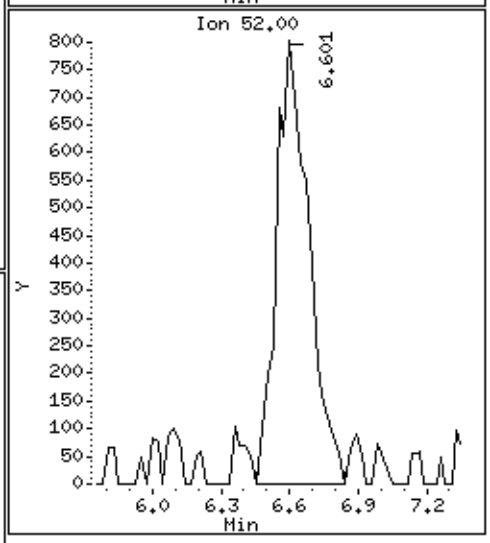












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

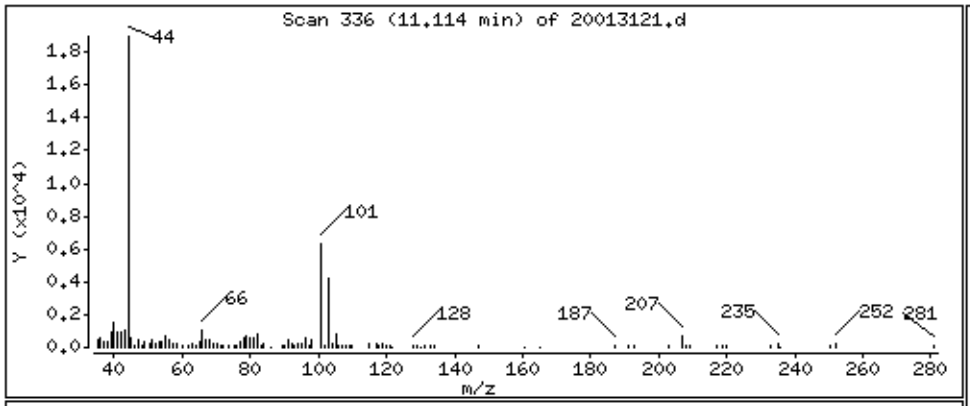
Operator: gh

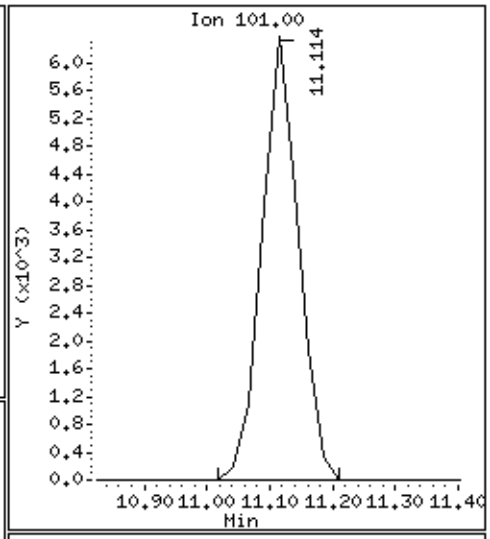
Column phase: RTX-624

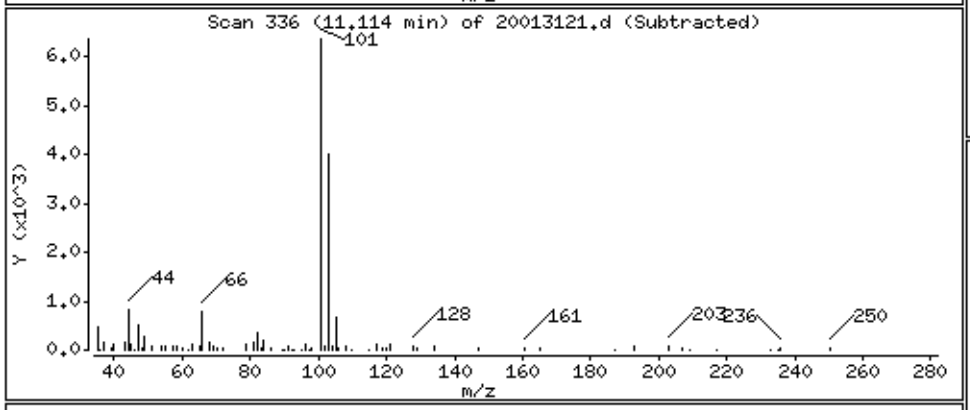
Column diameter: 0.32

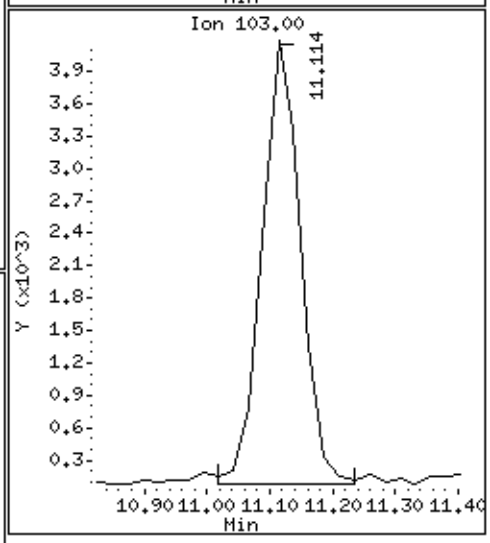
35 Freon 11

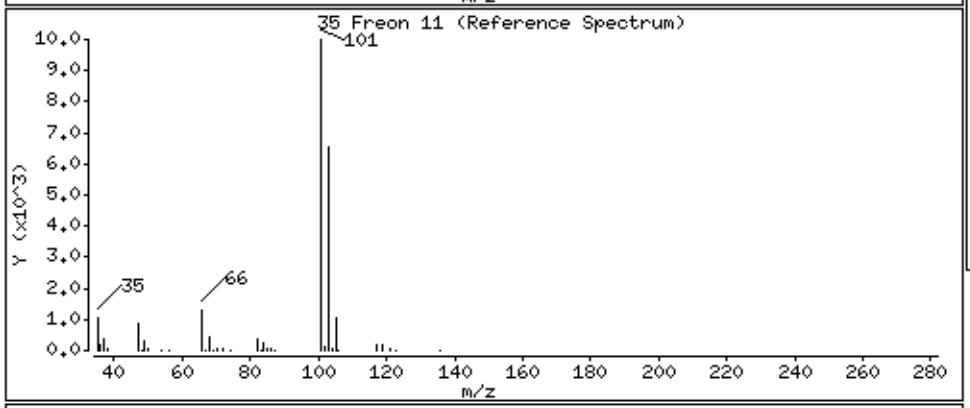
Concentration: 0.3860 PPBV

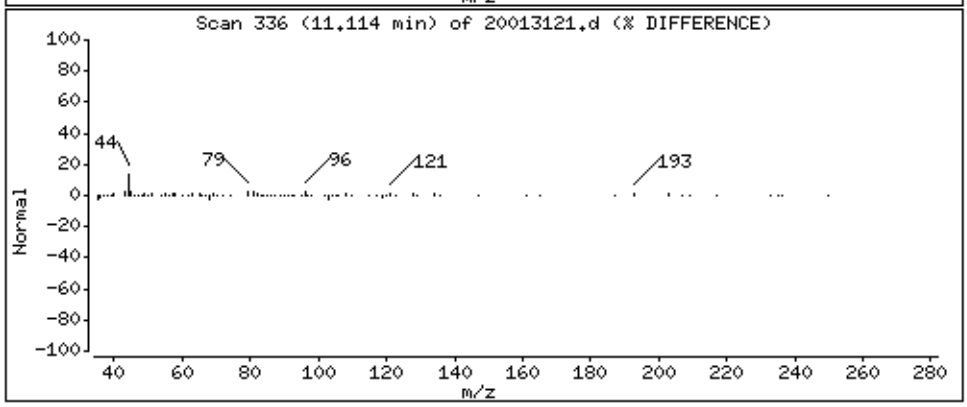












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

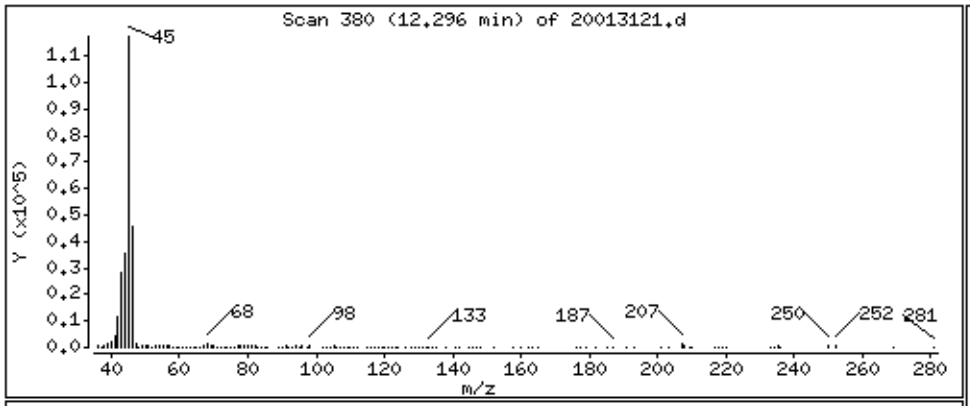
Operator: gh

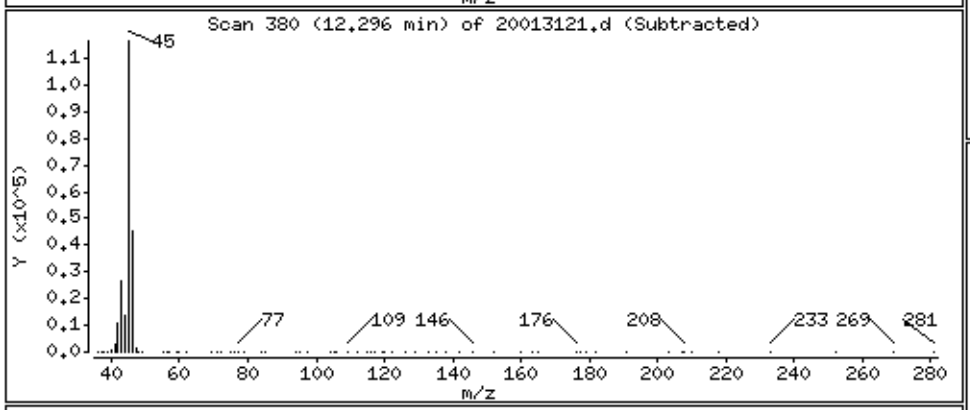
Column phase: RTX-624

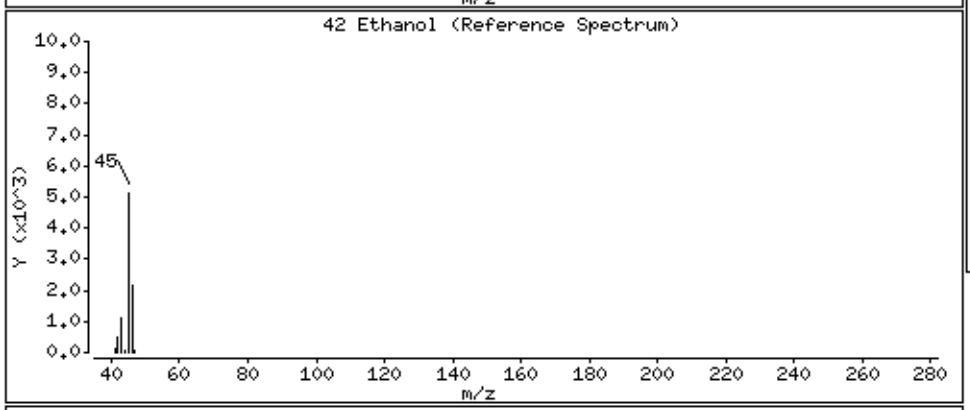
Column diameter: 0.32

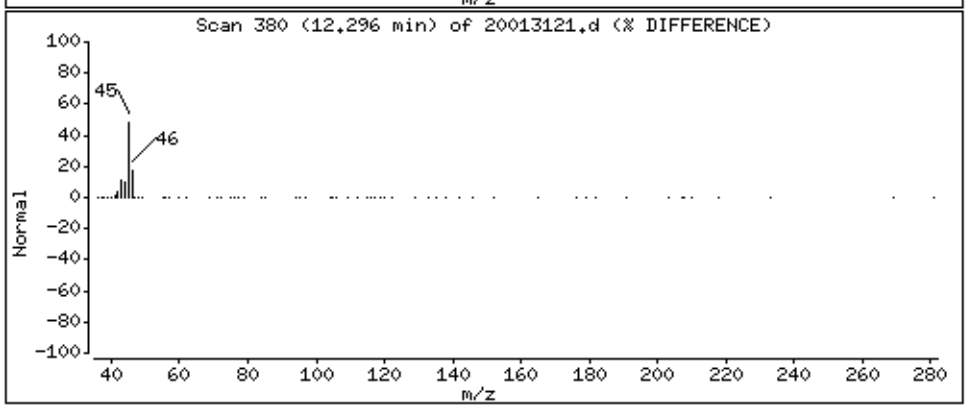
42 Ethanol

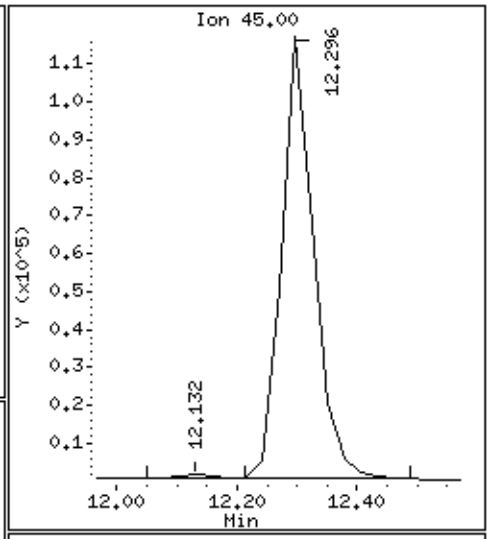
Concentration: 47.631 PPBV

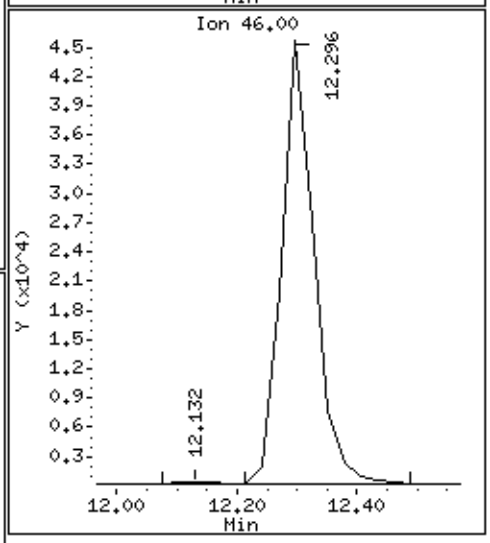












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

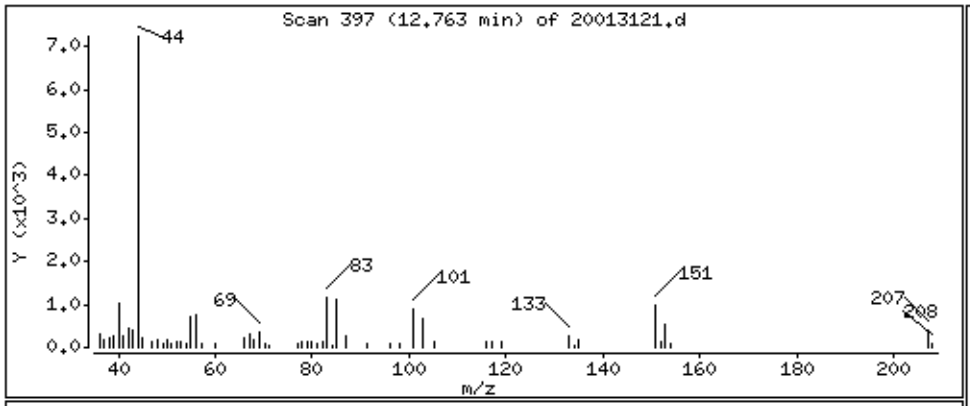
Operator: gh

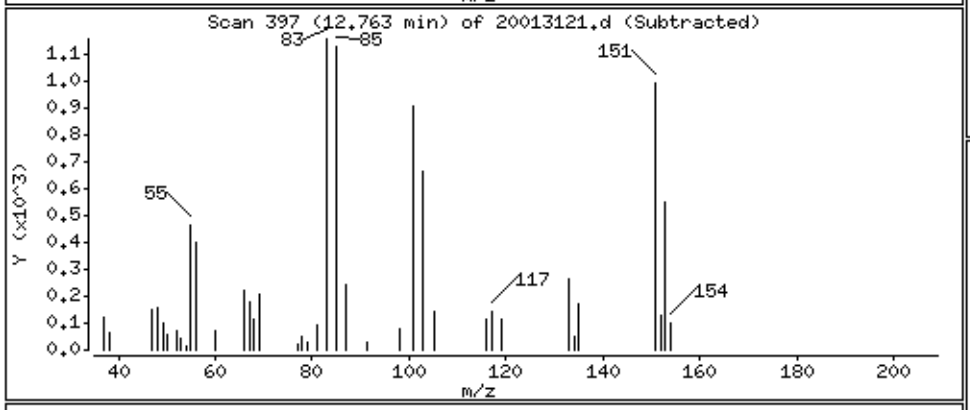
Column phase: RTX-624

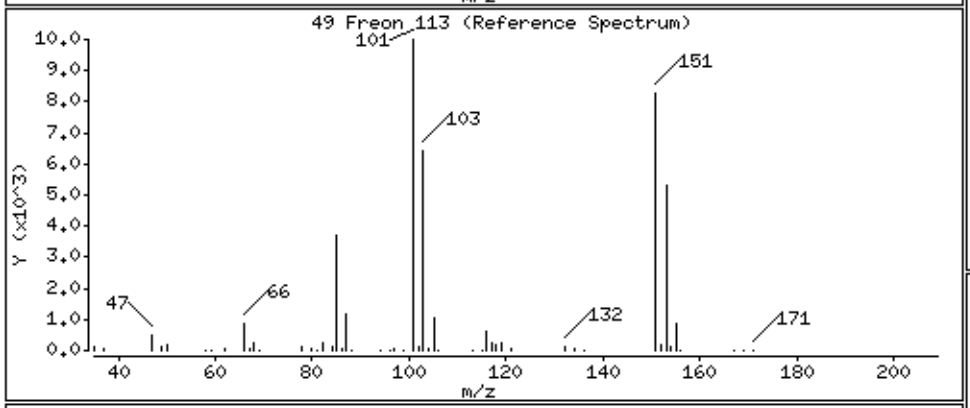
Column diameter: 0.32

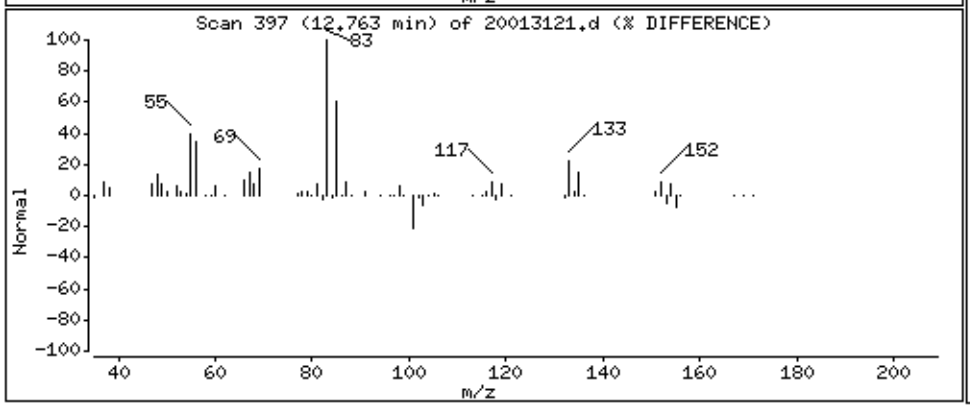
49 Freon 113

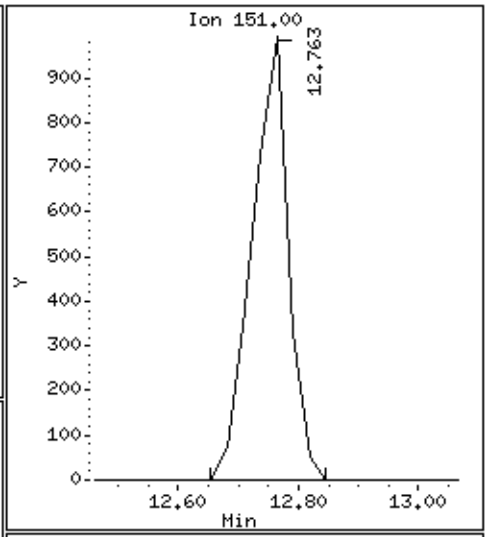
Concentration: 0.08148 PPBV

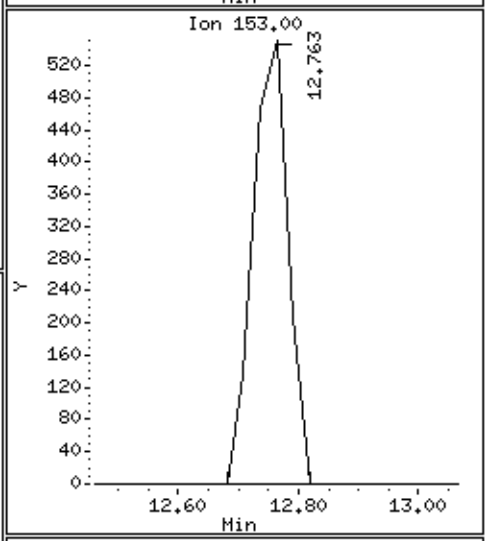


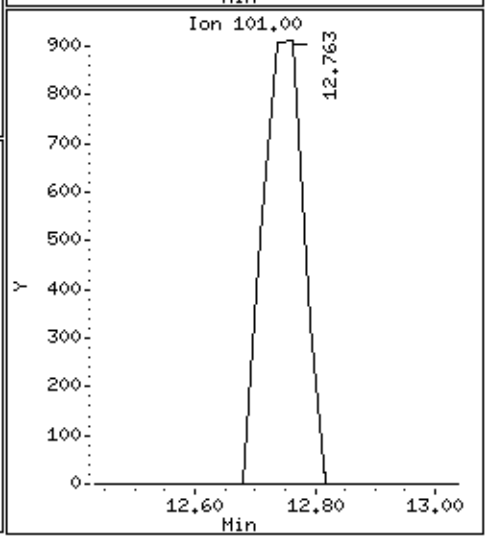












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

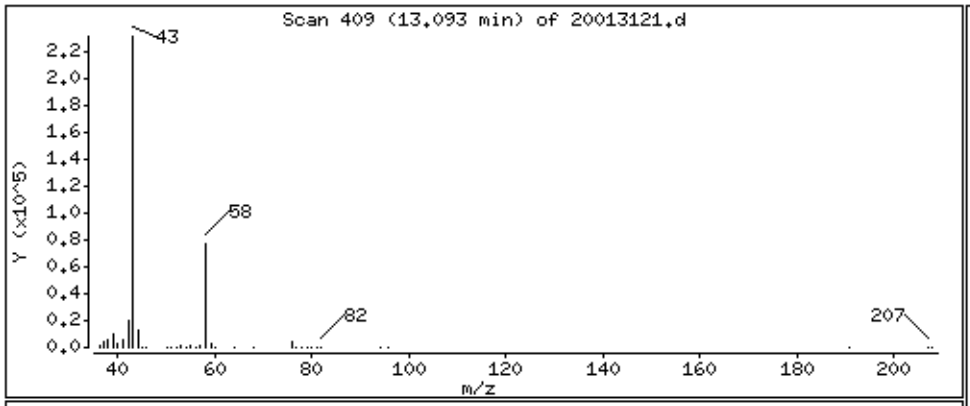
Operator: gh

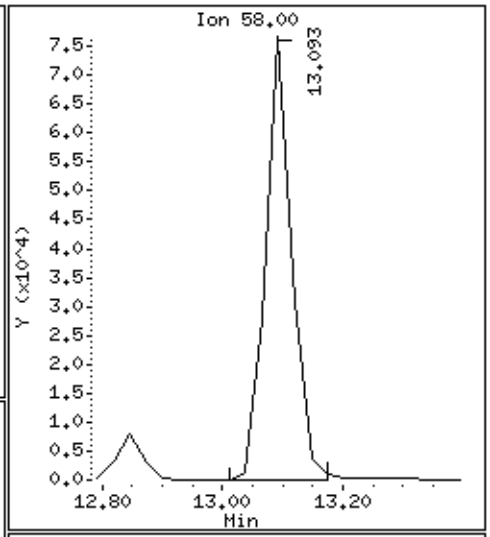
Column phase: RTX-624

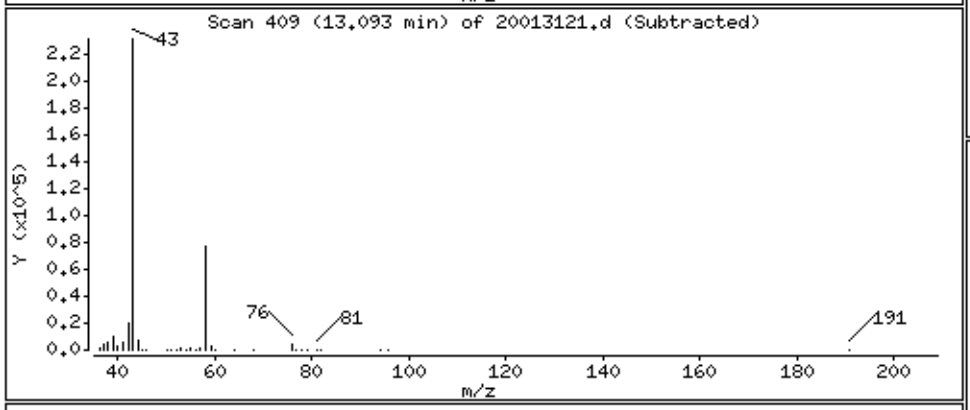
Column diameter: 0.32

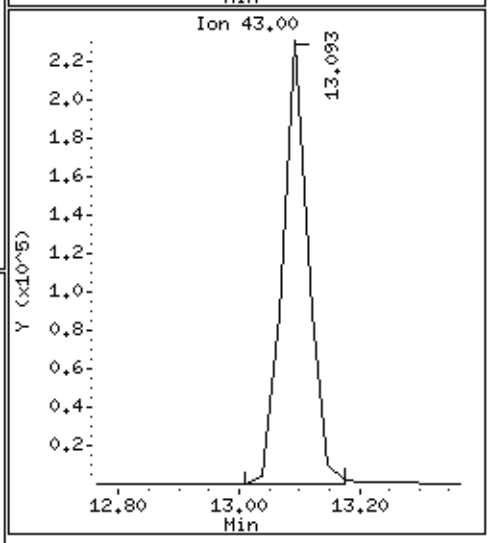
52 Acetone

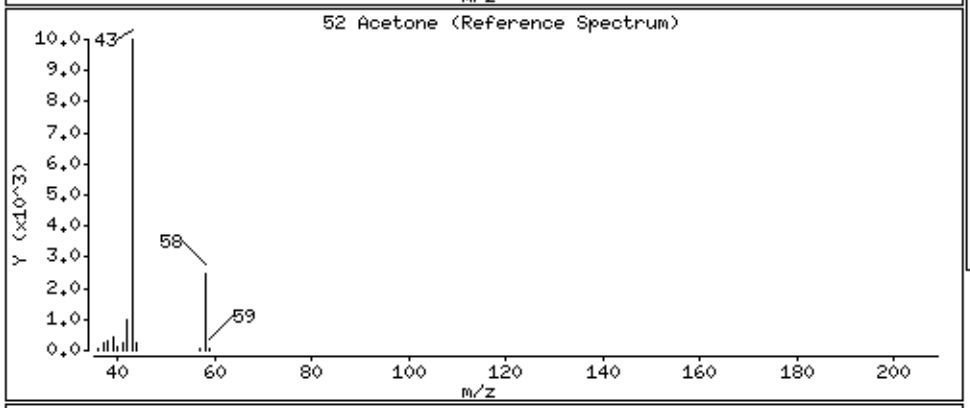
Concentration: 18.246 PPBV

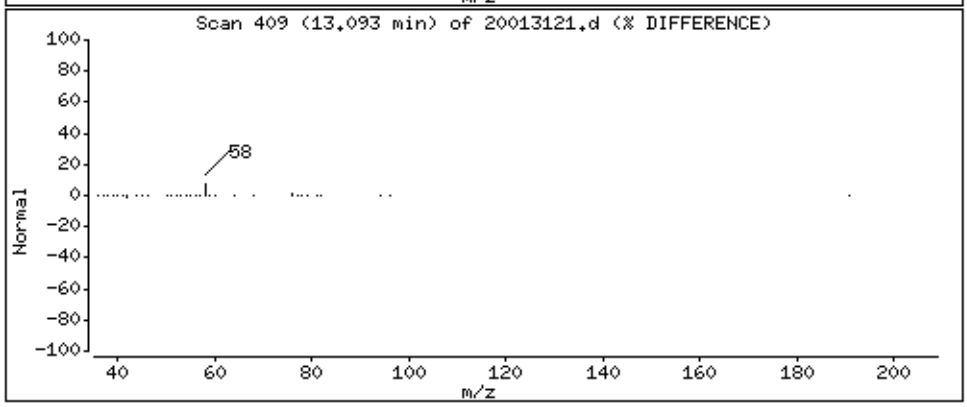












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

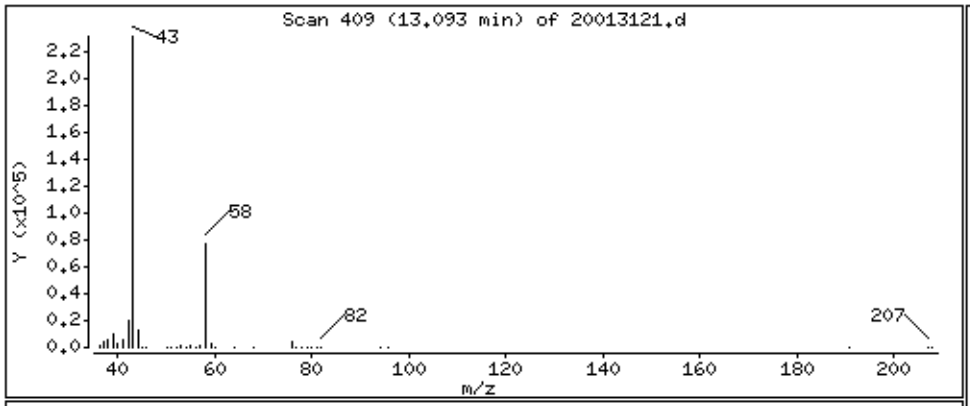
Operator: gh

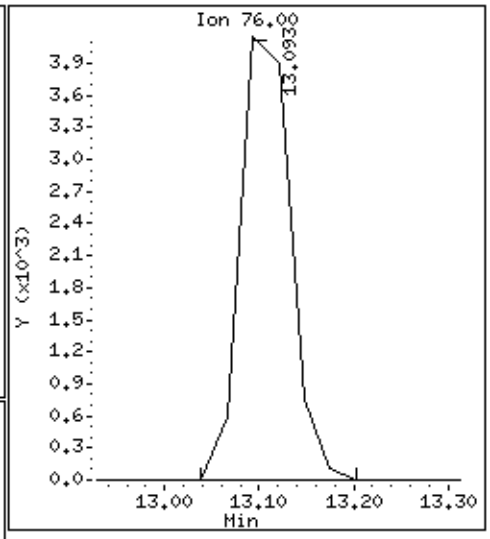
Column phase: RTX-624

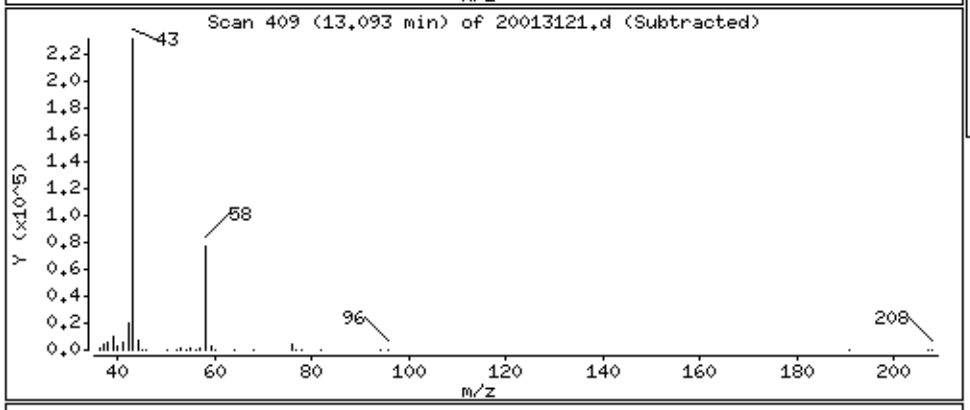
Column diameter: 0.32

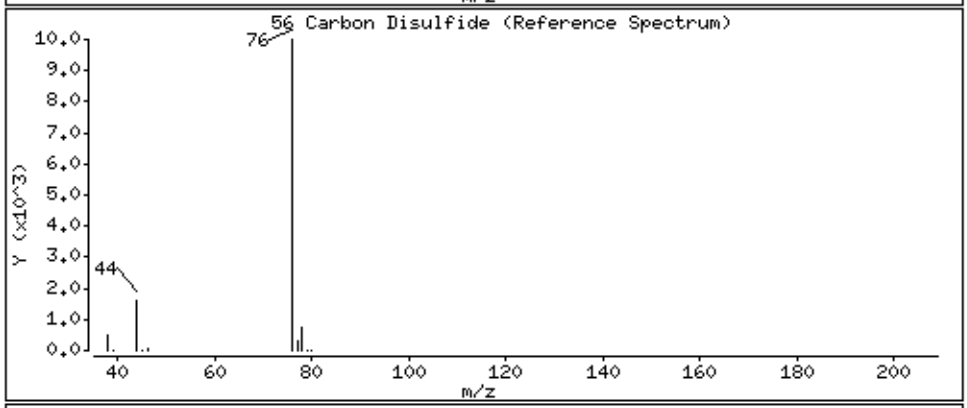
56 Carbon Disulfide

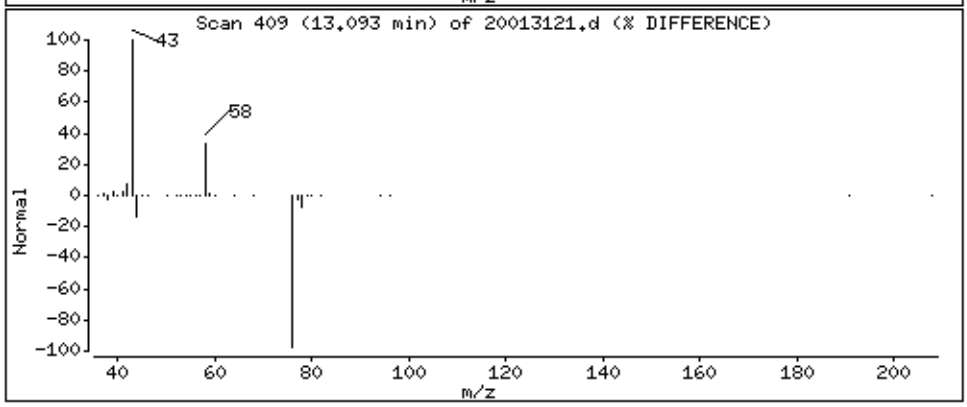
Concentration: 0.2229 PPBV











Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

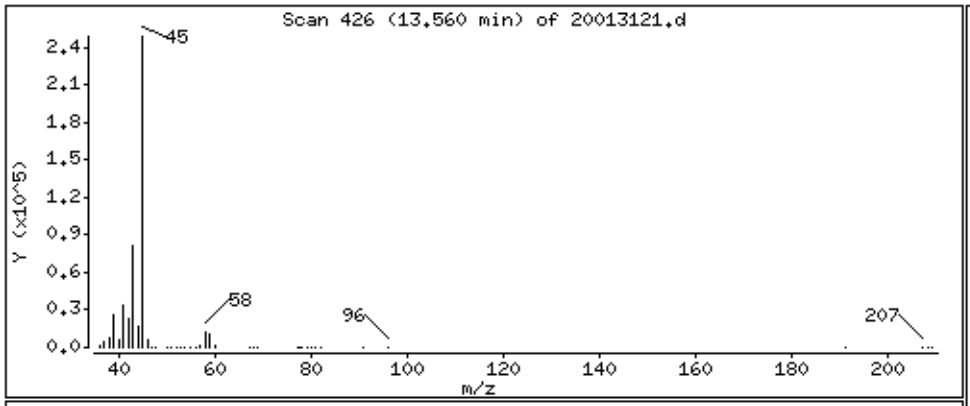
Operator: gh

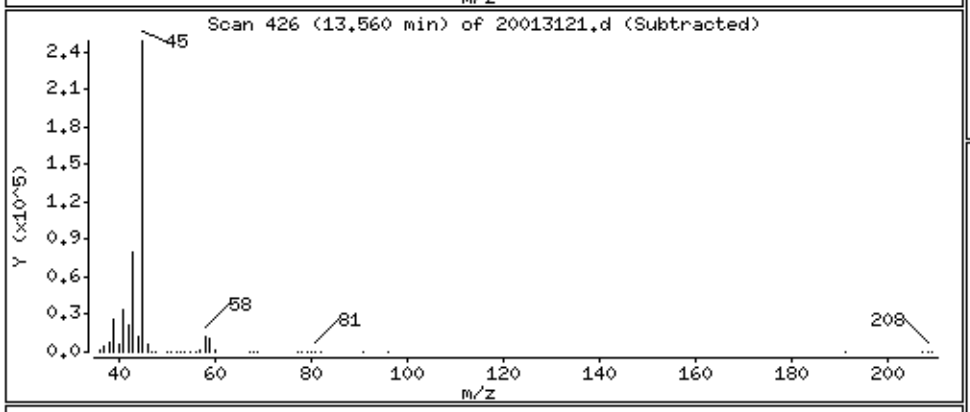
Column phase: RTX-624

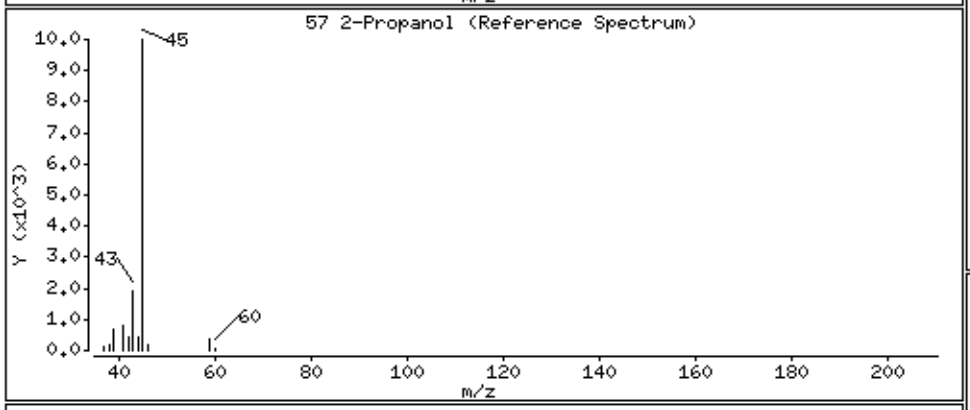
Column diameter: 0.32

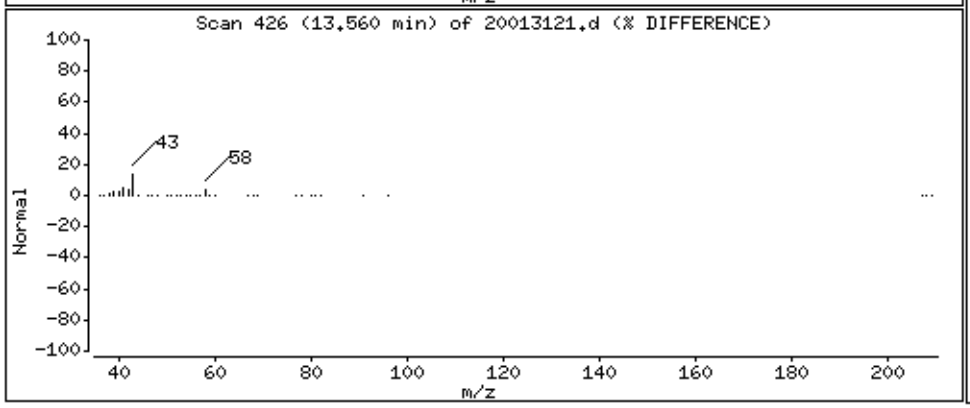
57 2-Propanol

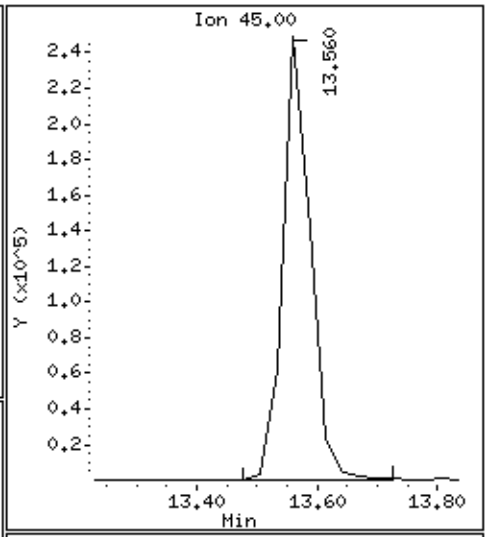
Concentration: 23.588 PPBV

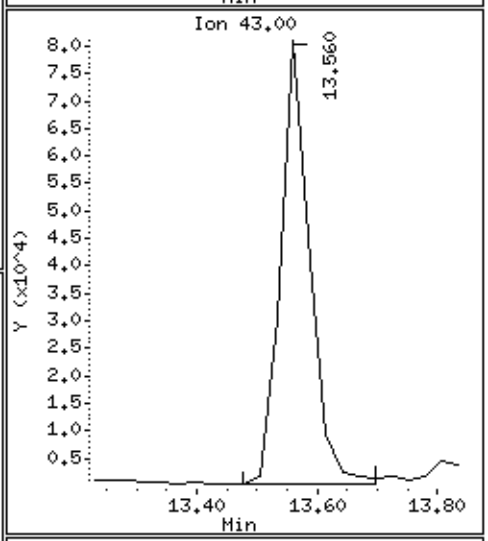


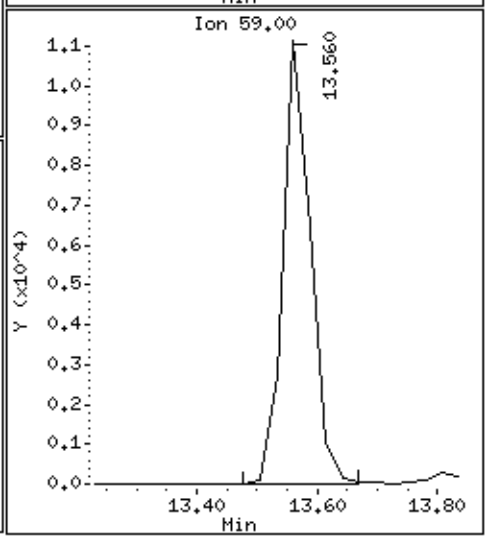












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

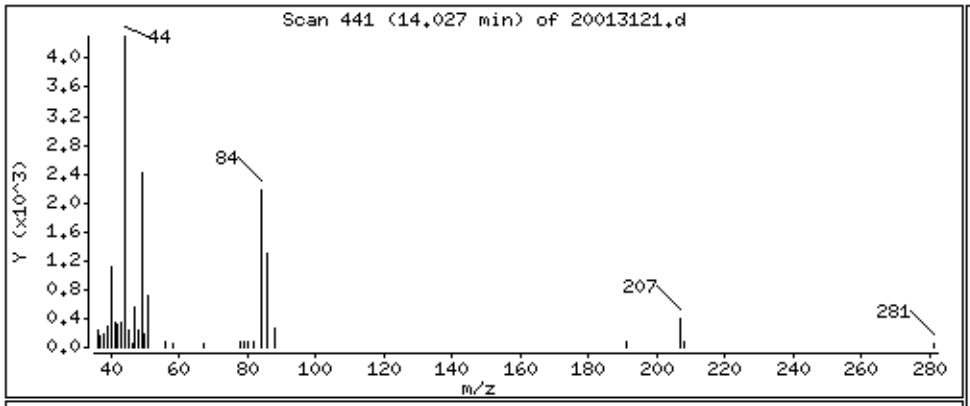
Operator: gh

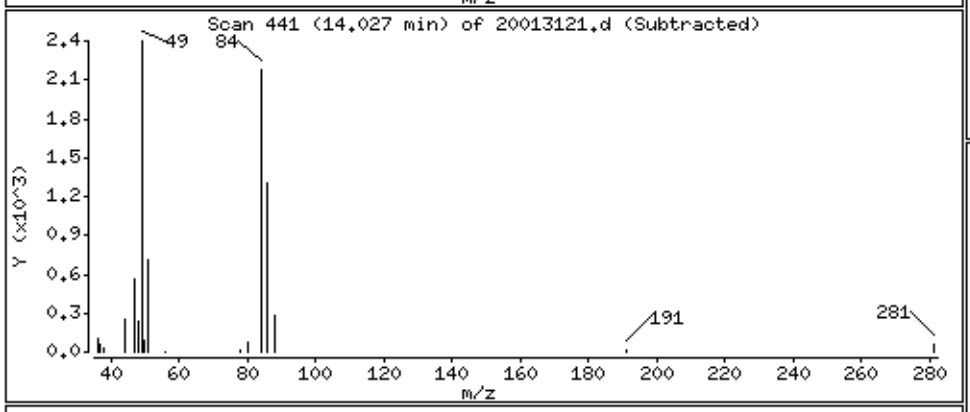
Column phase: RTX-624

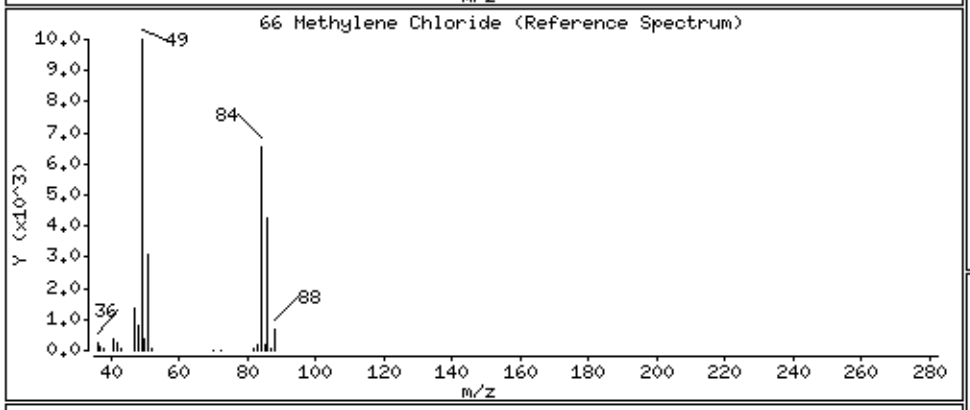
Column diameter: 0.32

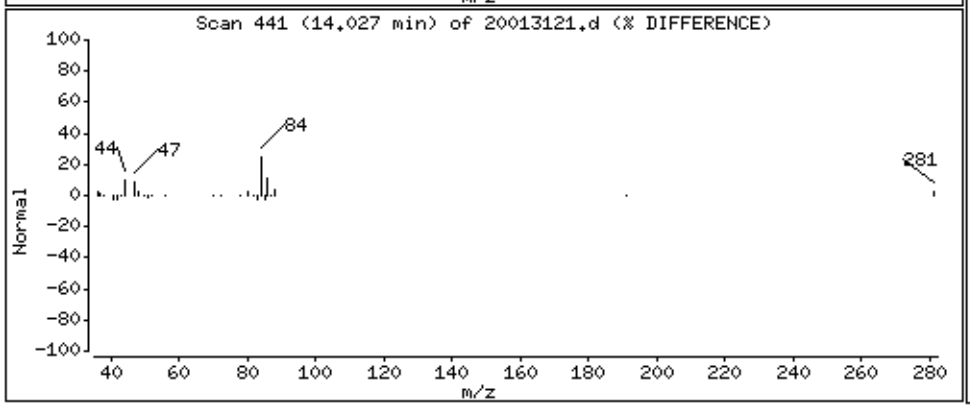
66 Methylene Chloride

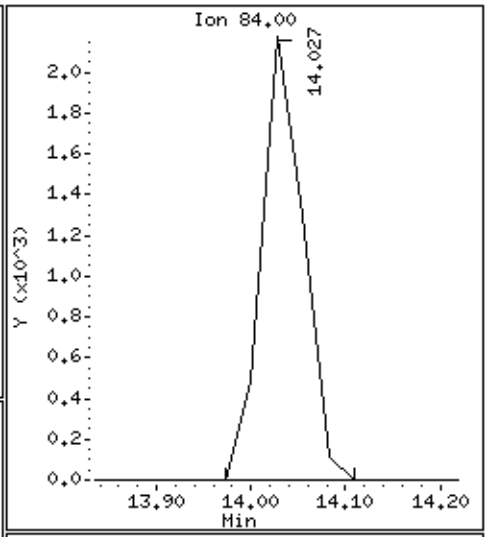
Concentration: 0.2428 PPBV

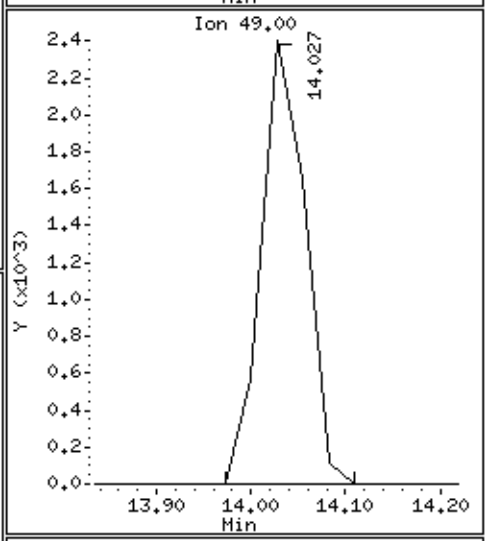


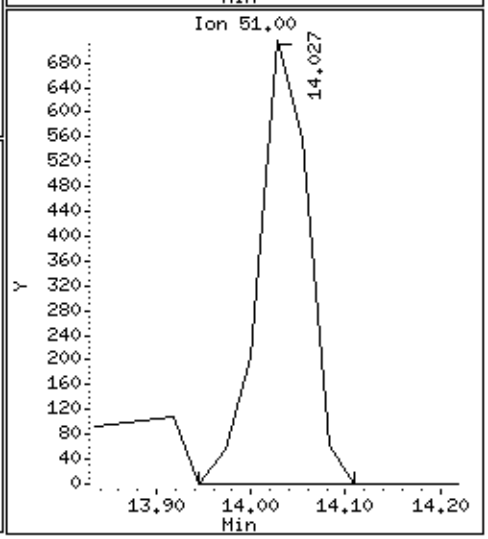












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

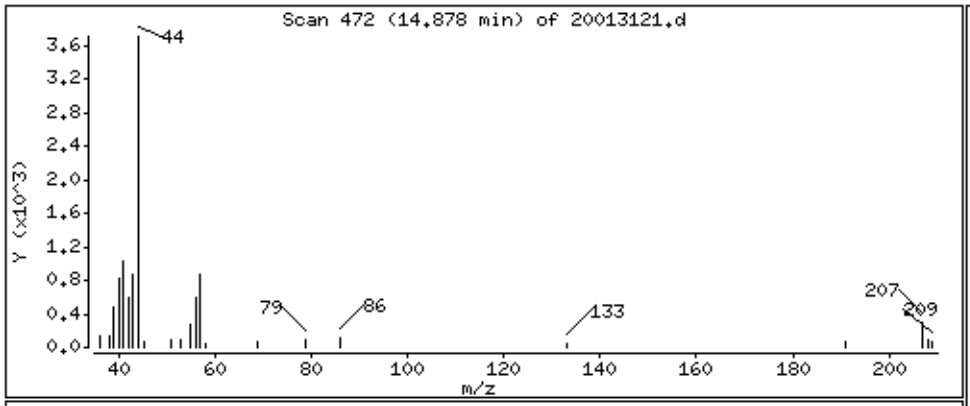
Operator: gh

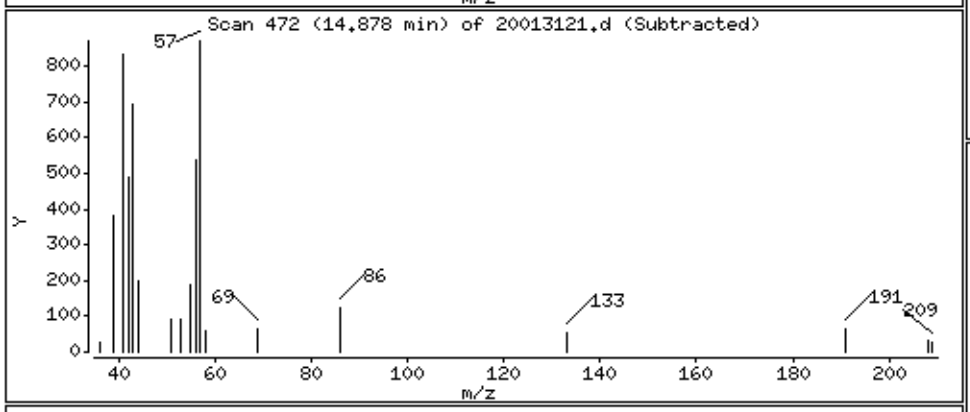
Column phase: RTX-624

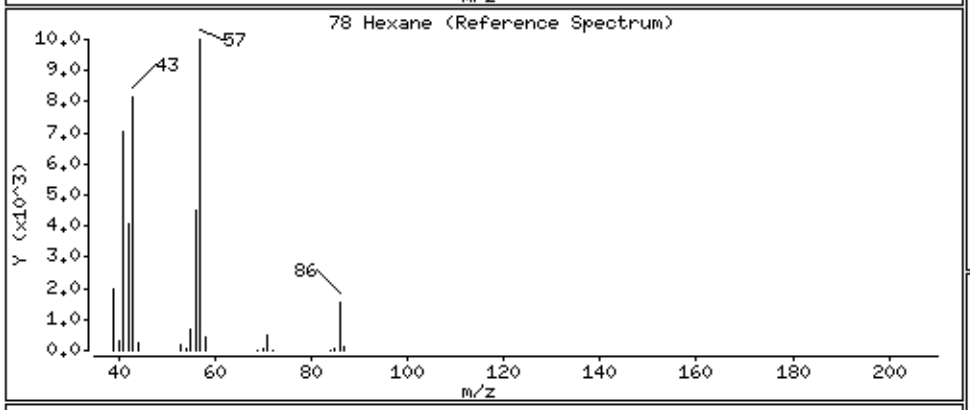
Column diameter: 0.32

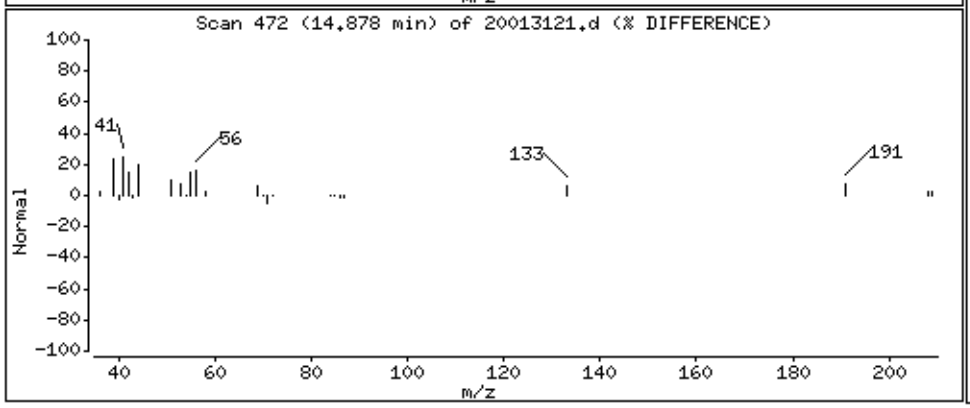
78 Hexane

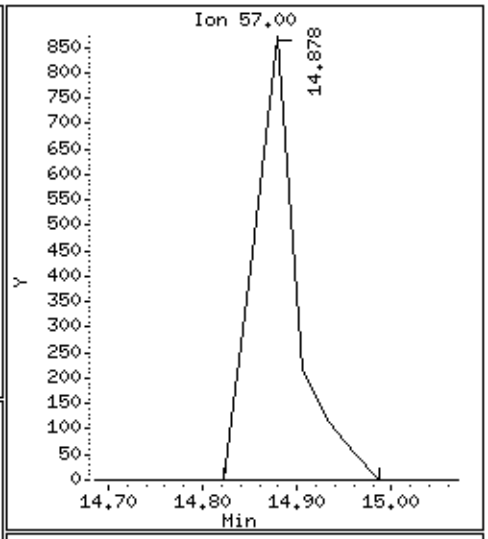
Concentration: 0.07529 PPBV

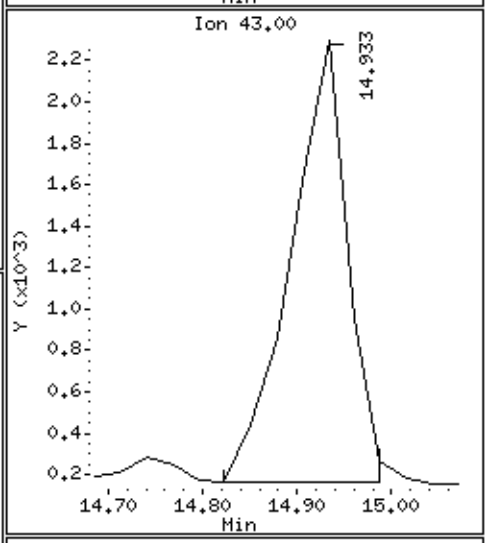


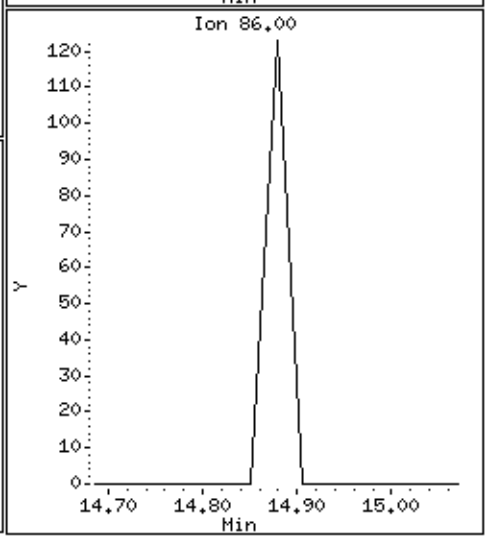












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

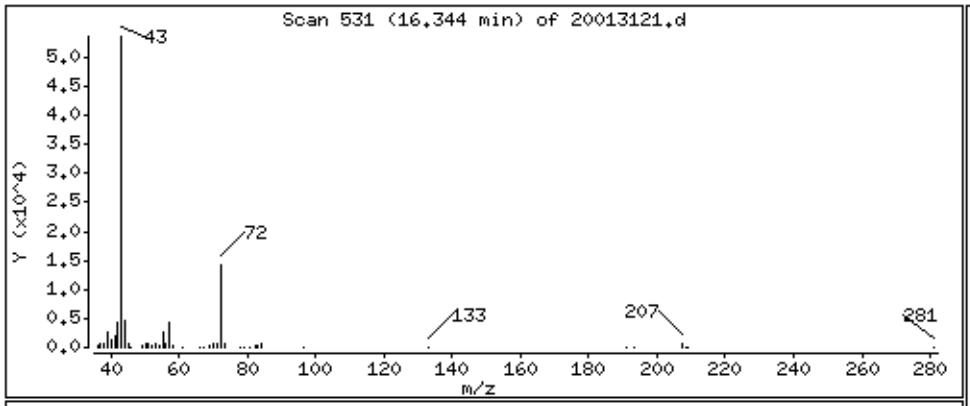
Operator: gh

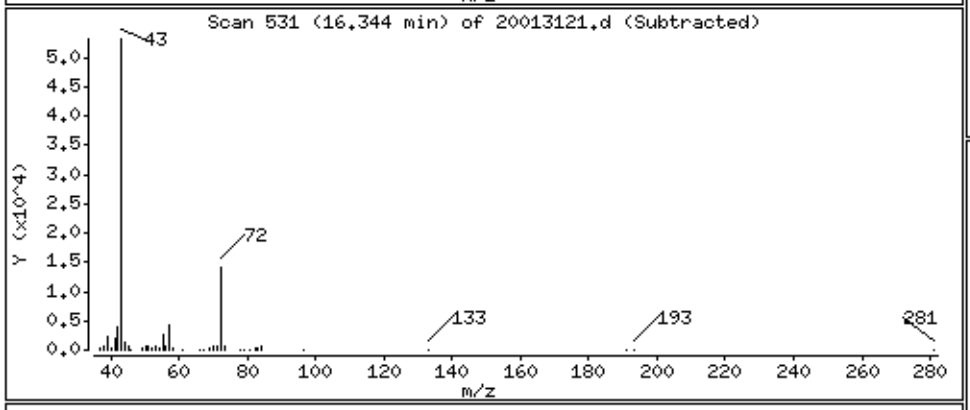
Column phase: RTX-624

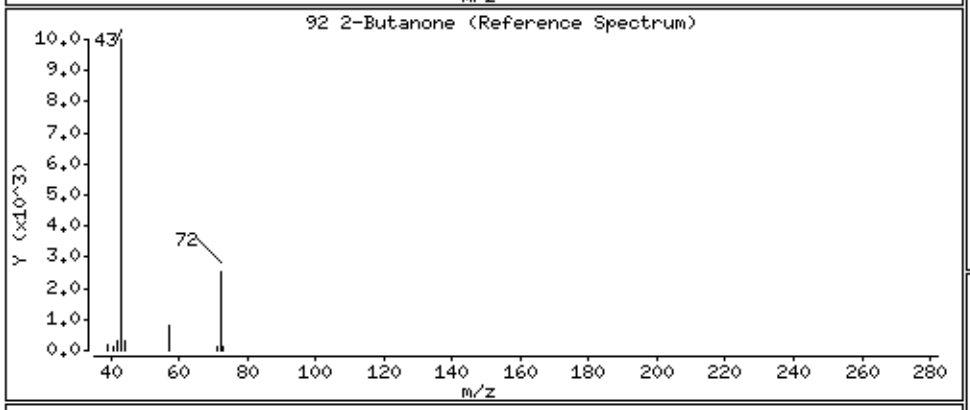
Column diameter: 0.32

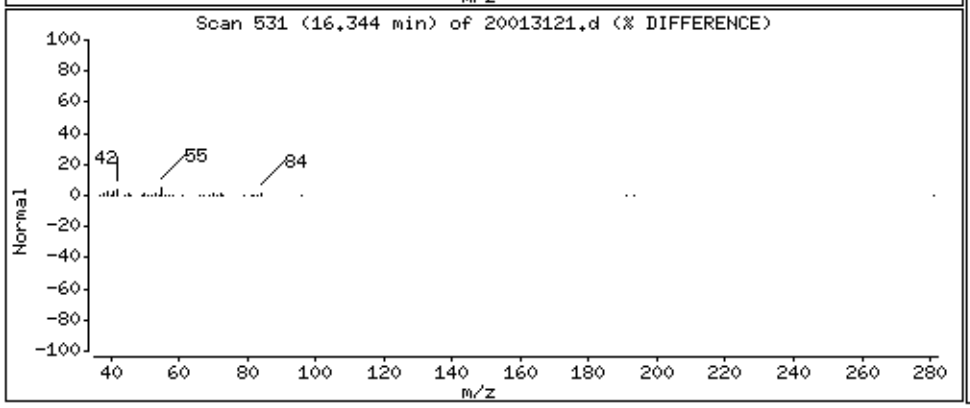
92 2-Butanone

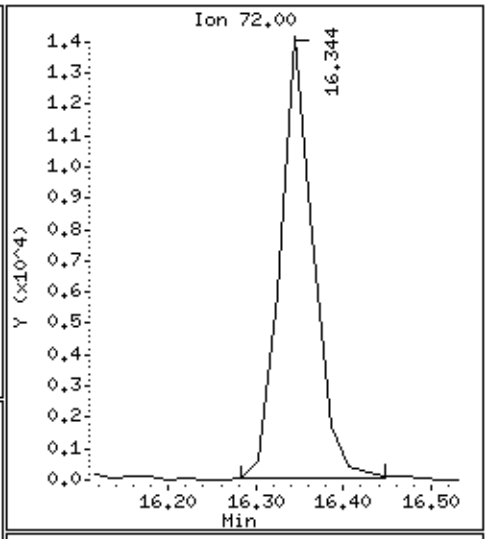
Concentration: 3.054 PPBV

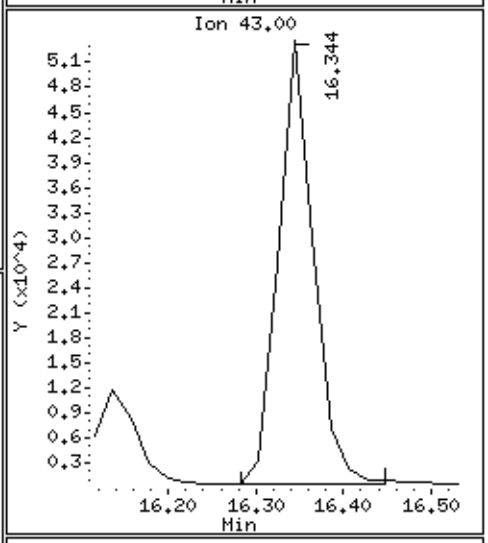


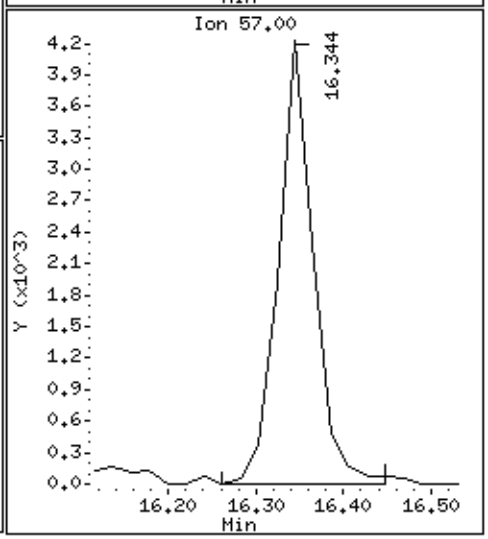












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

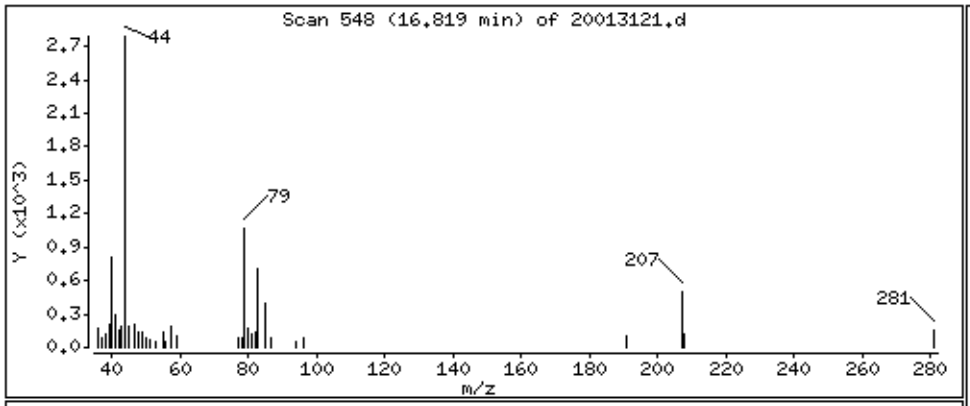
Operator: gh

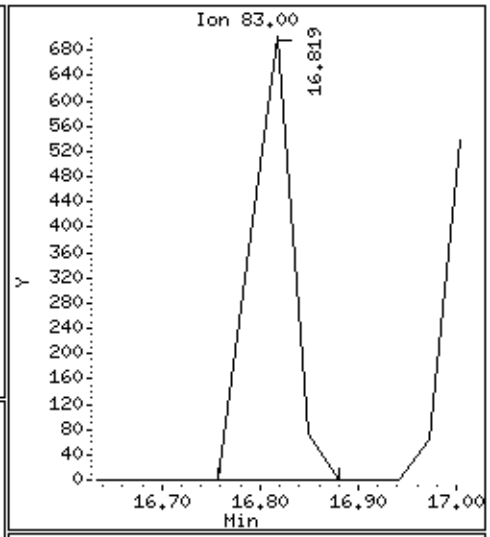
Column phase: RTX-624

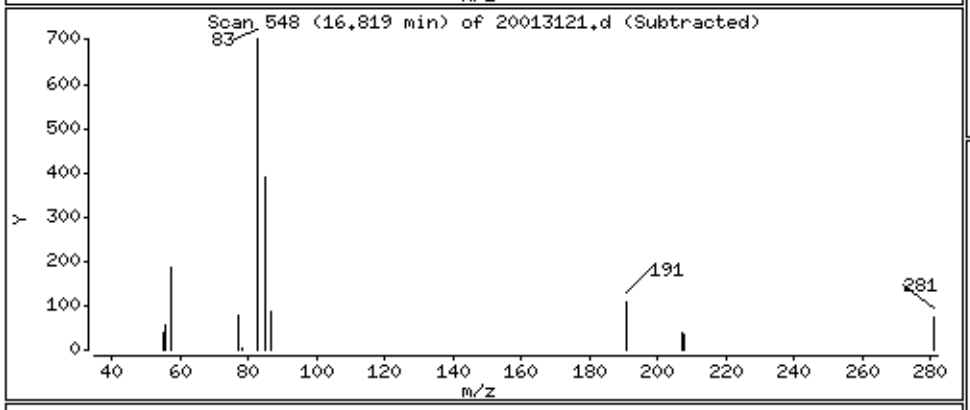
Column diameter: 0.32

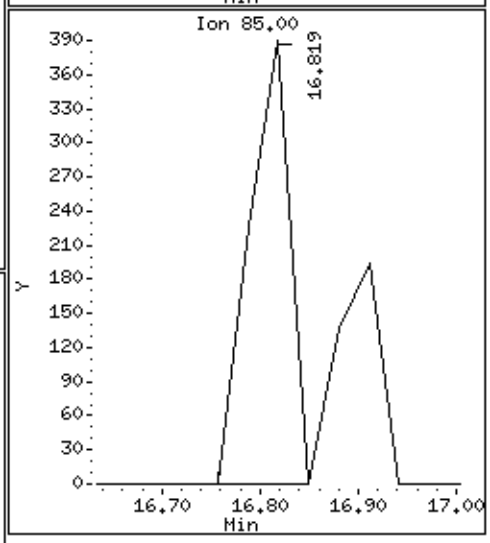
100 Chloroform

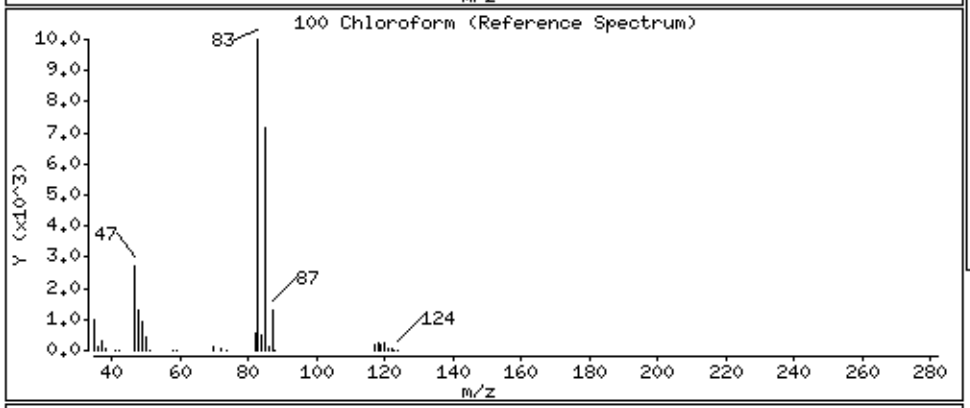
Concentration: 0.03756 PPBV

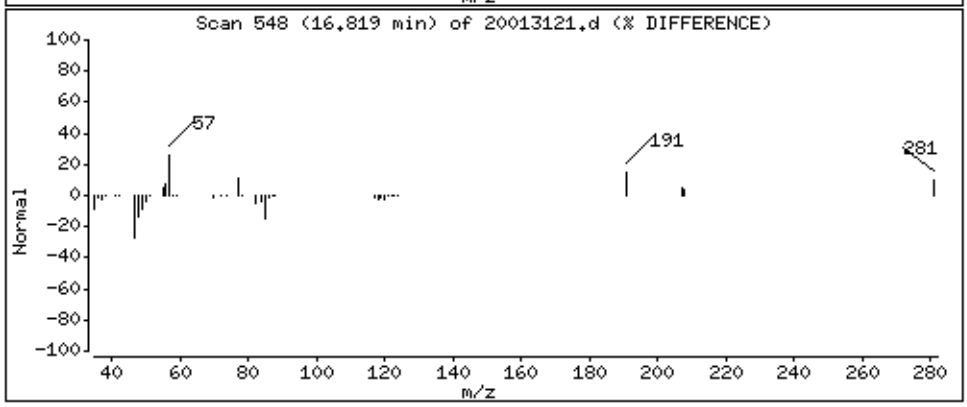












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

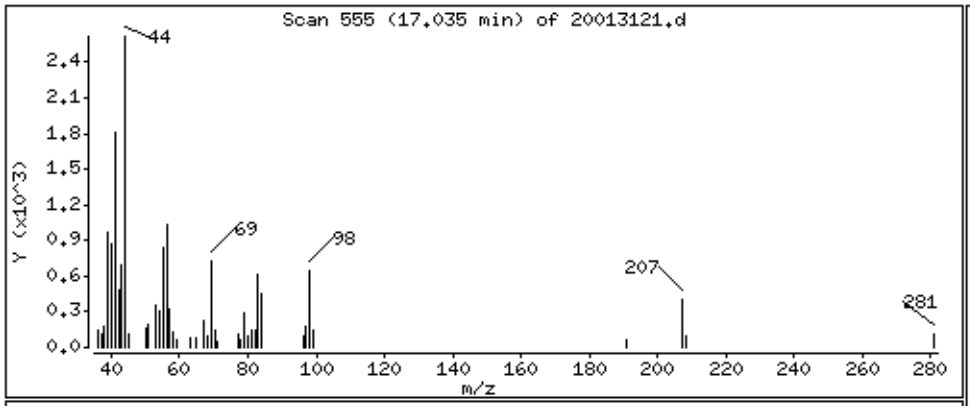
Operator: gh

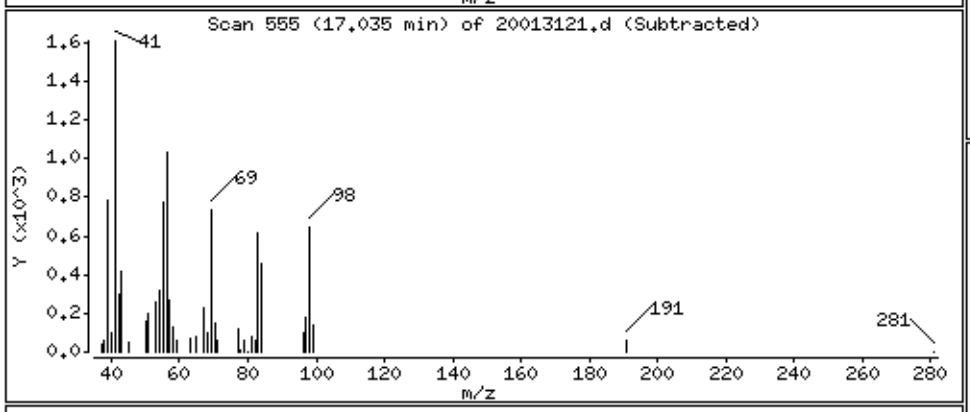
Column phase: RTX-624

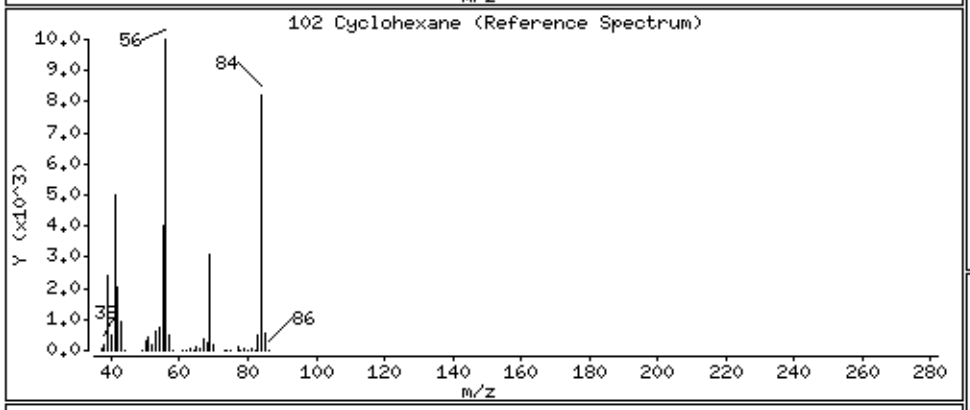
Column diameter: 0.32

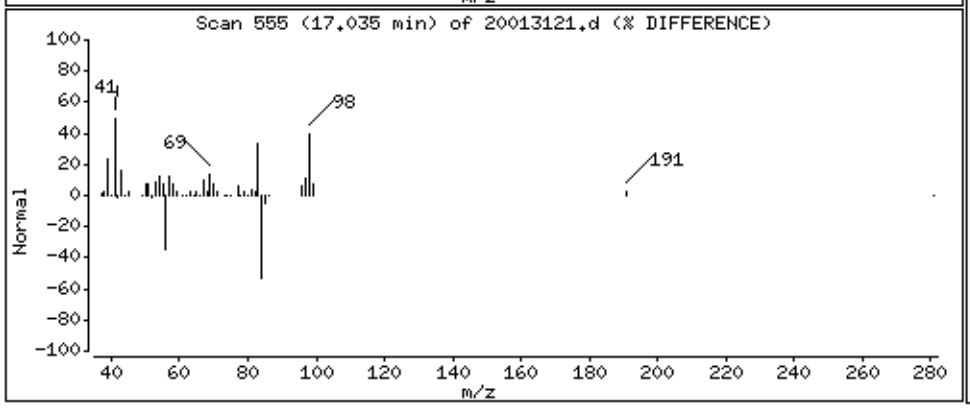
102 Cyclohexane

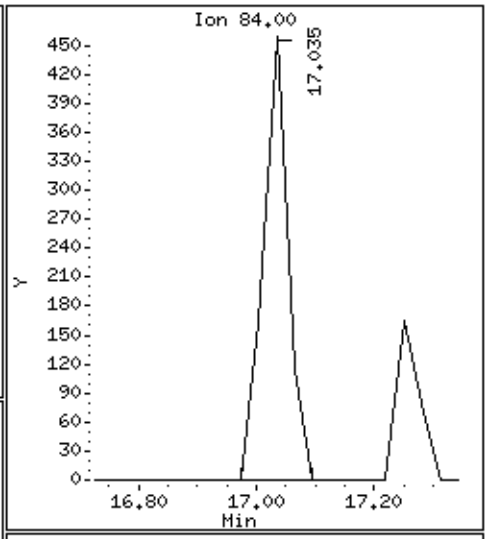
Concentration: 0.03718 PPBV

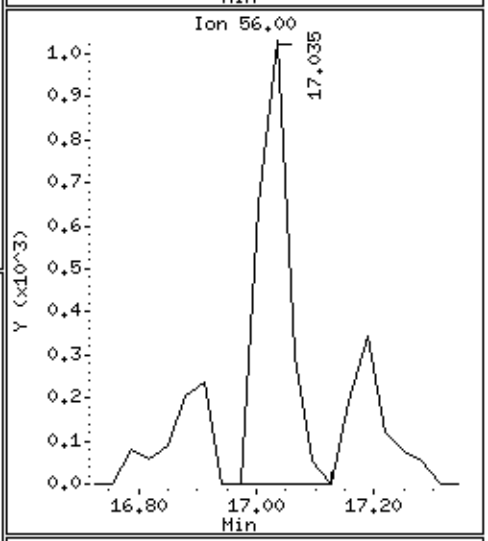


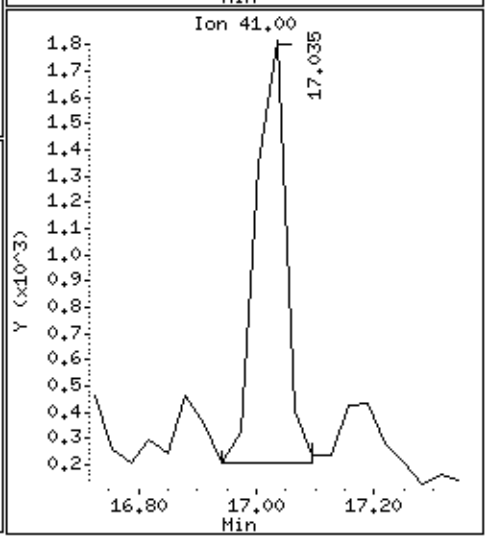












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

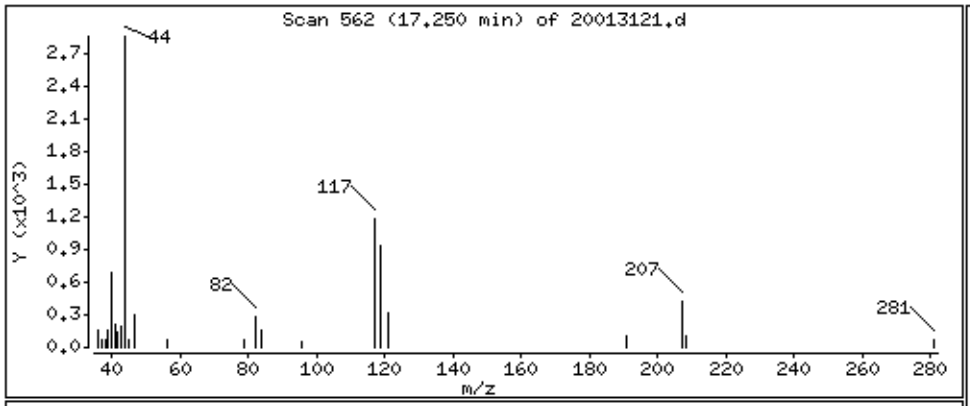
Operator: gh

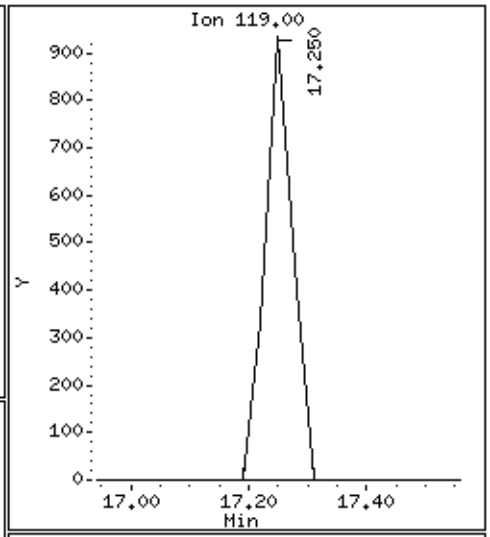
Column phase: RTX-624

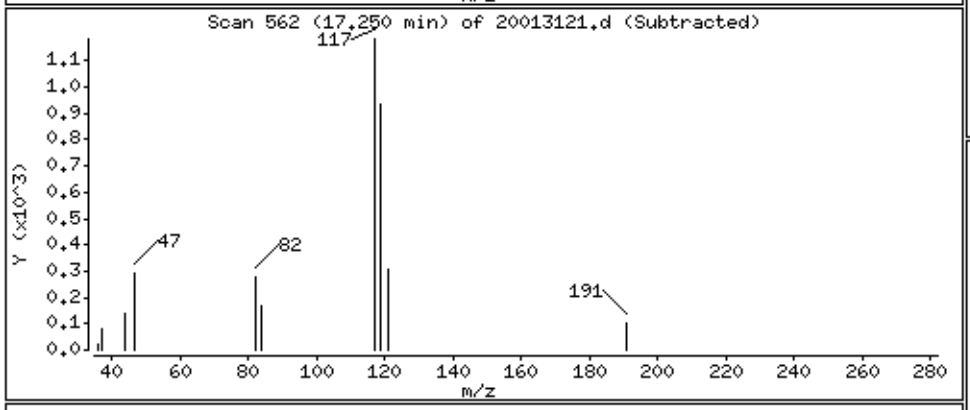
Column diameter: 0.32

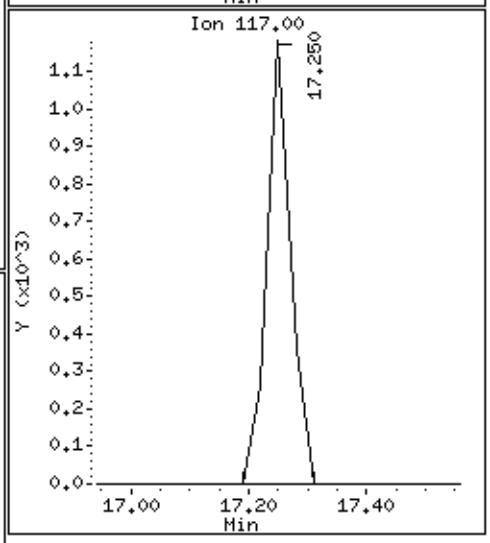
106 Carbon Tetrachloride

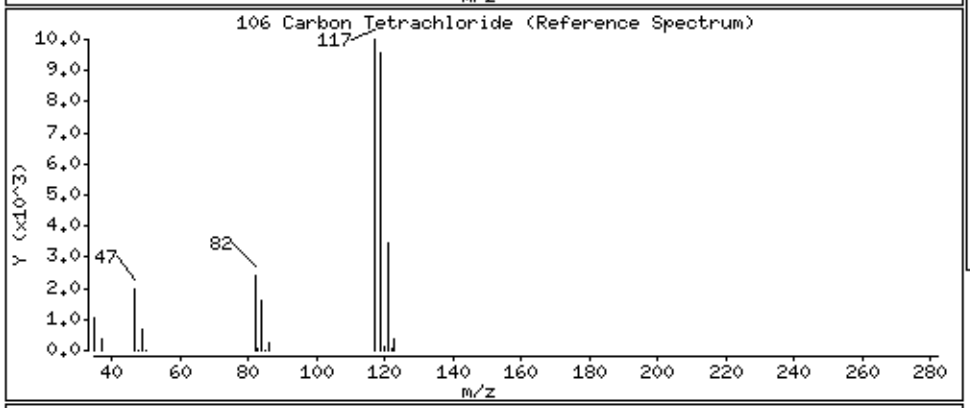
Concentration: 0.06392 PPBV

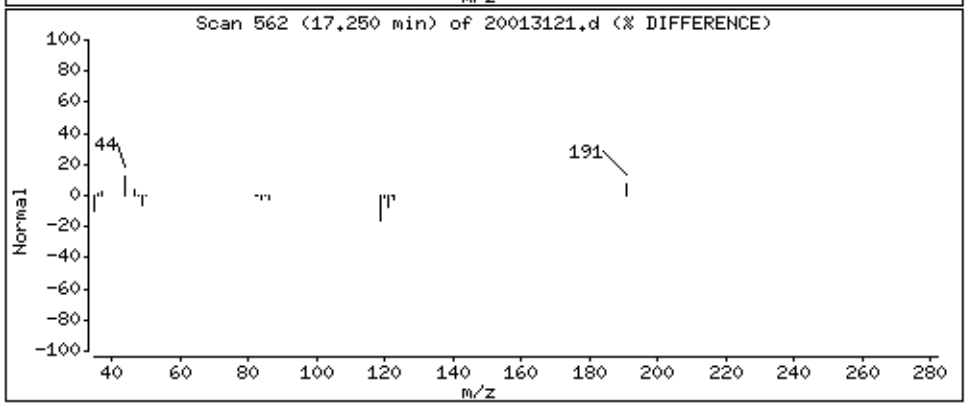












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

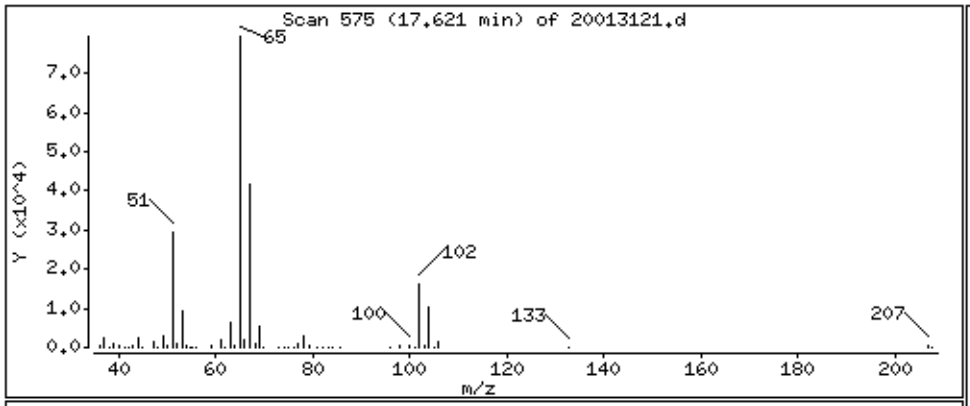
Operator: gh

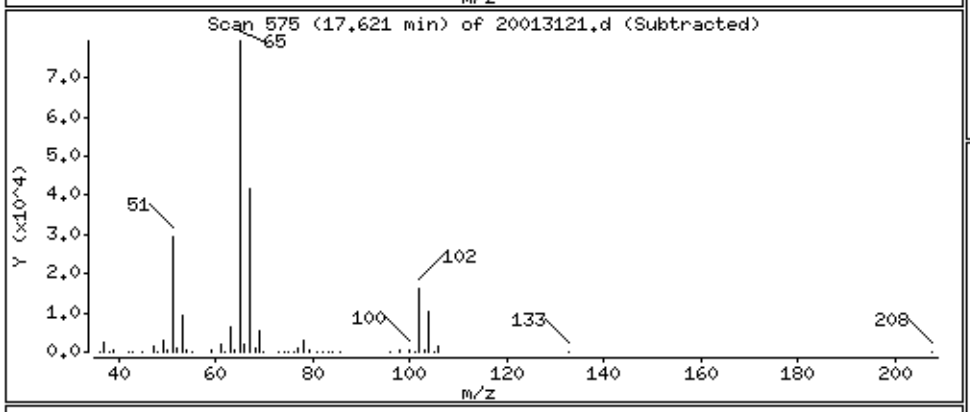
Column phase: RTX-624

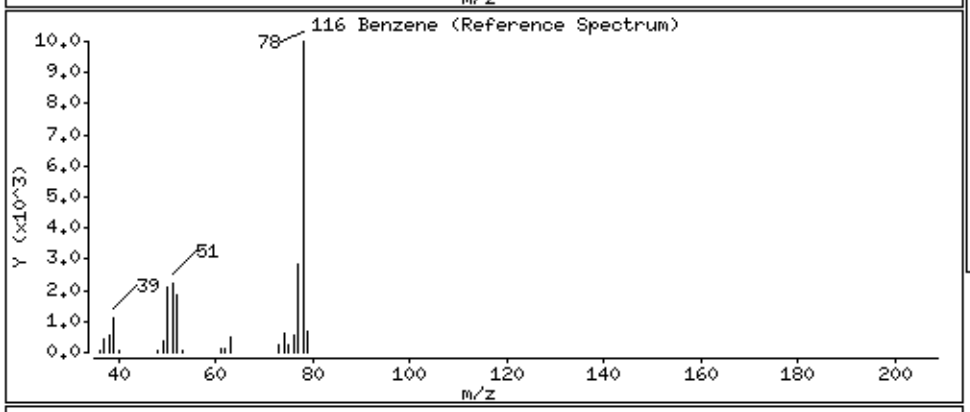
Column diameter: 0.32

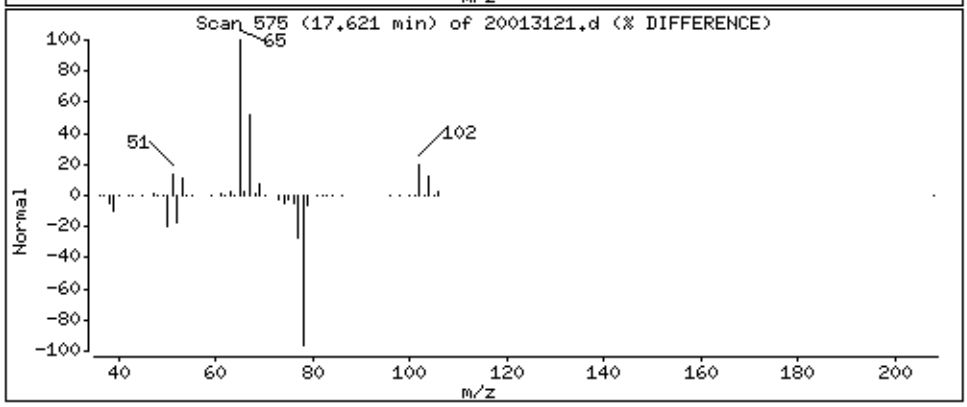
116 Benzene

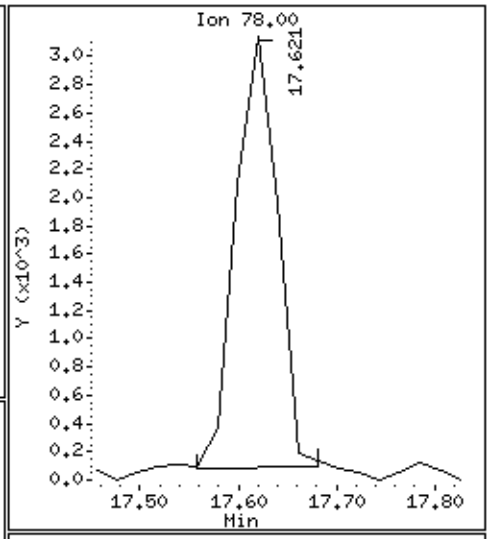
Concentration: 0.1354 PPBV

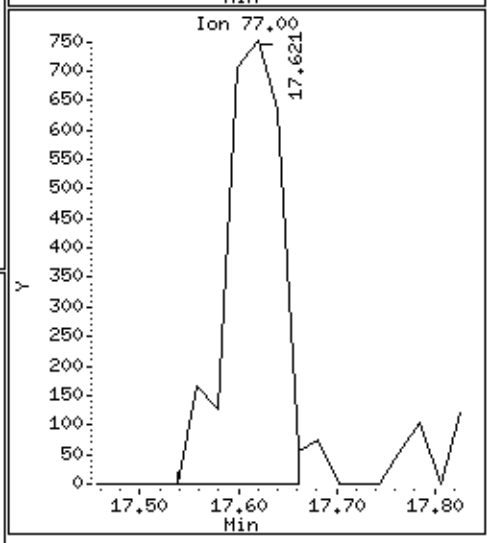












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

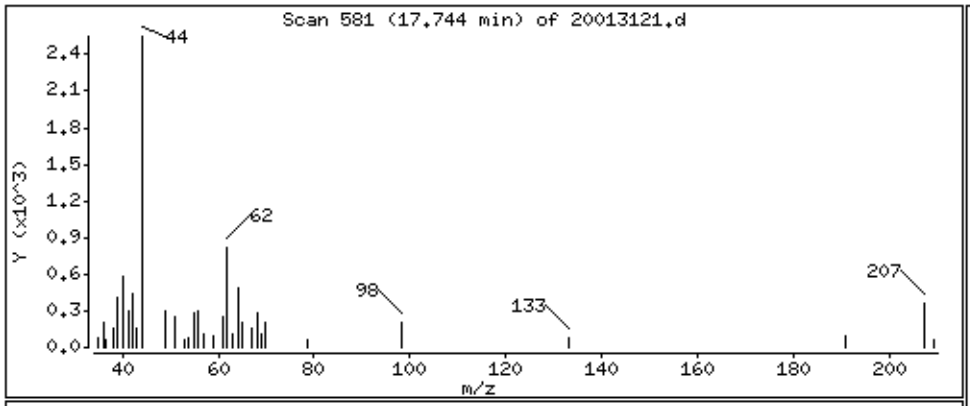
Operator: gh

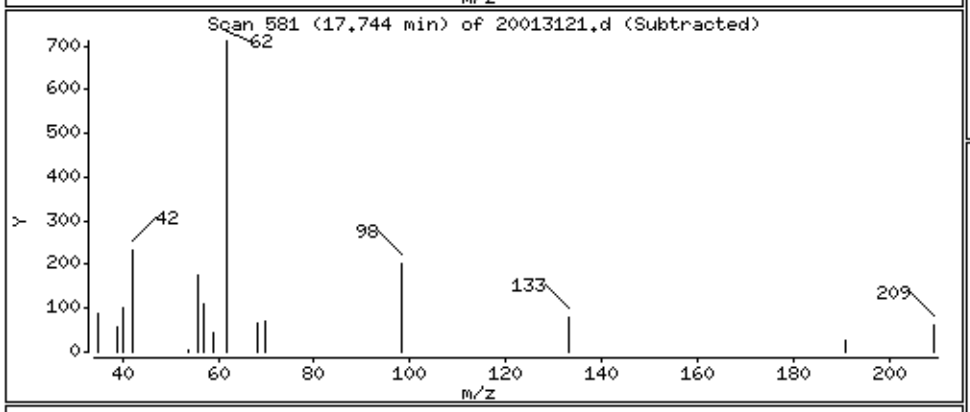
Column phase: RTX-624

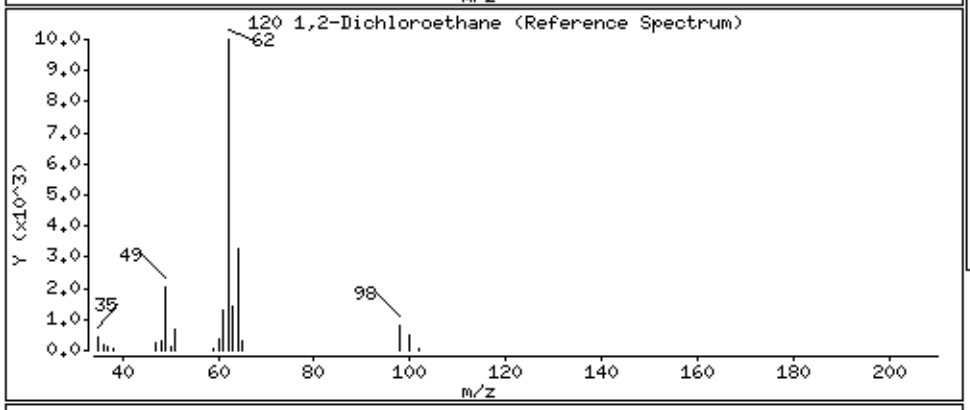
Column diameter: 0.32

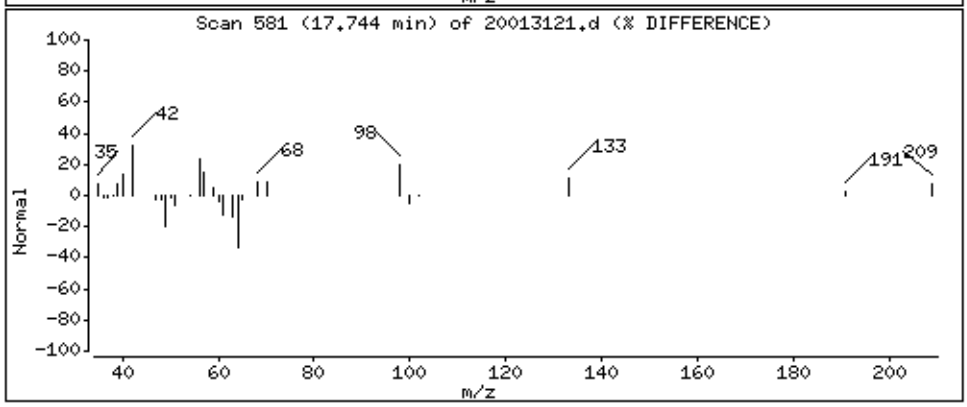
120 1,2-Dichloroethane

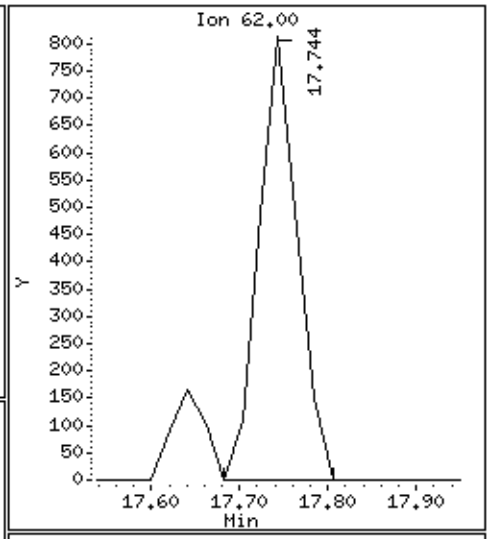
Concentration: 0.09585 PPBV

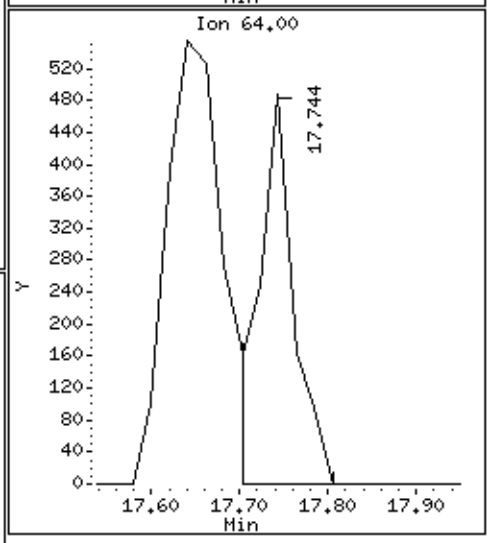












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

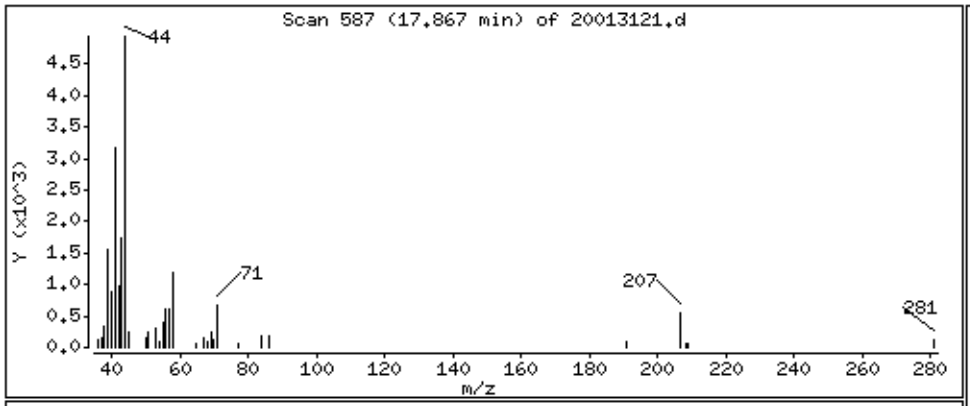
Operator: gh

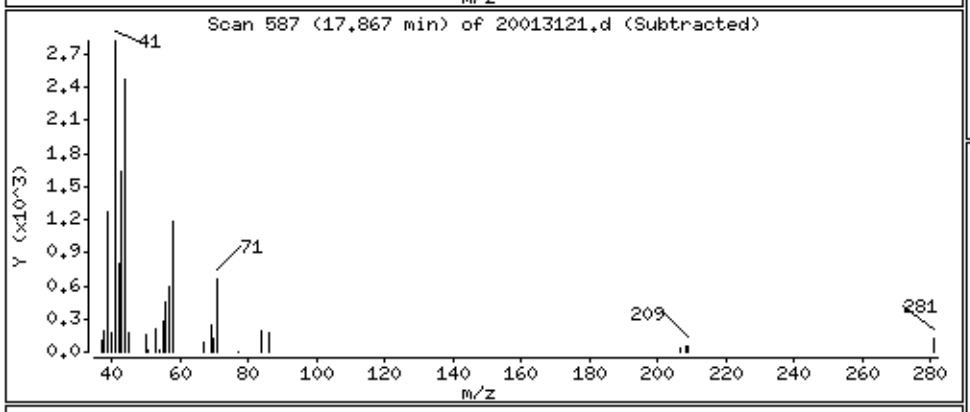
Column phase: RTX-624

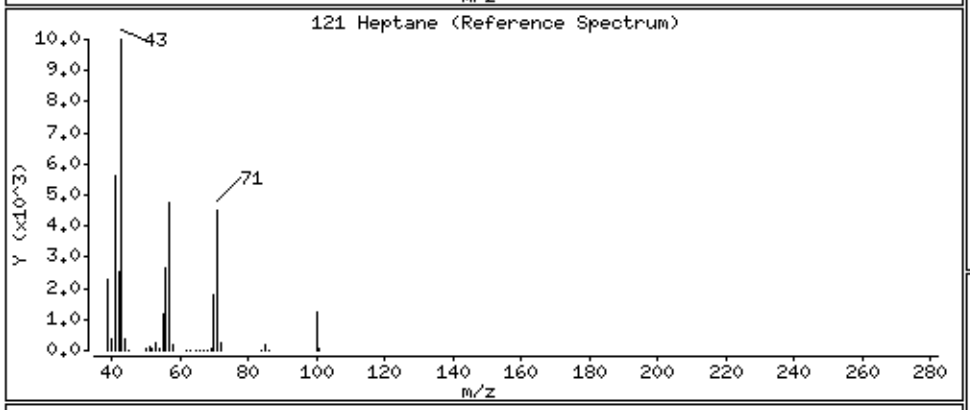
Column diameter: 0.32

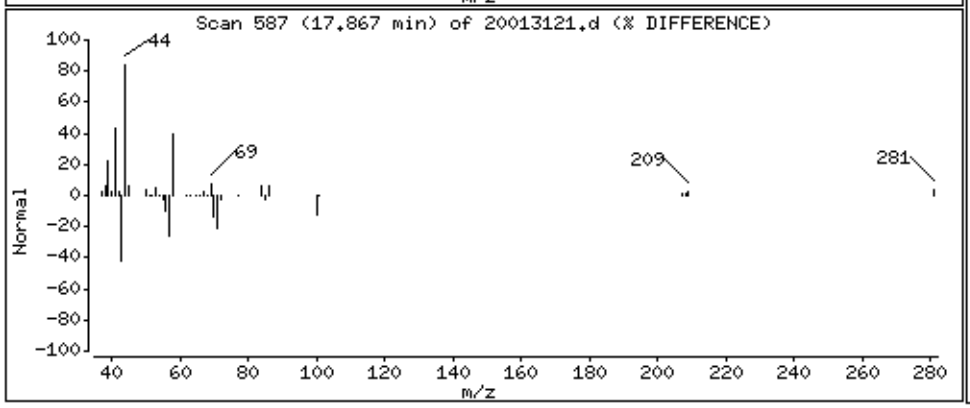
121 Heptane

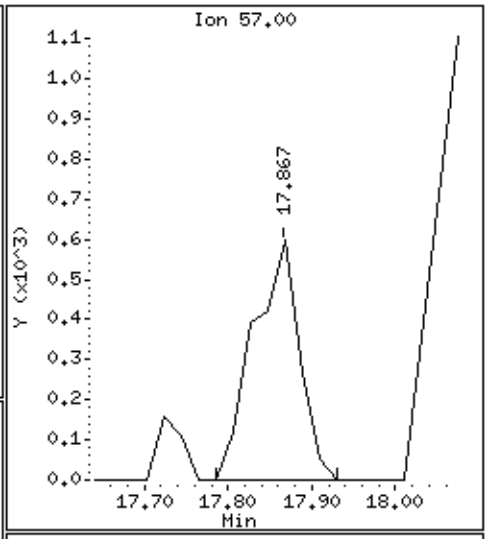
Concentration: 0.1326 PPBV

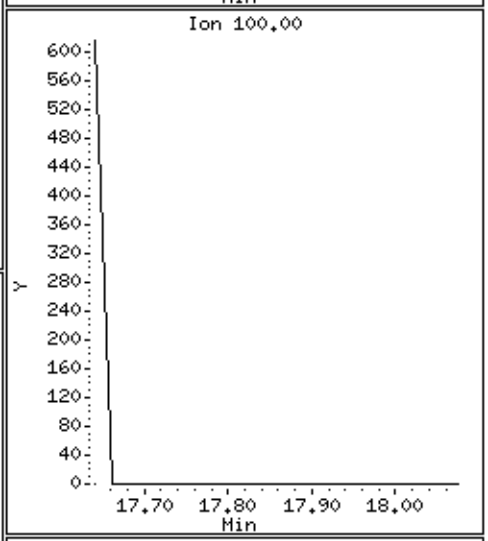


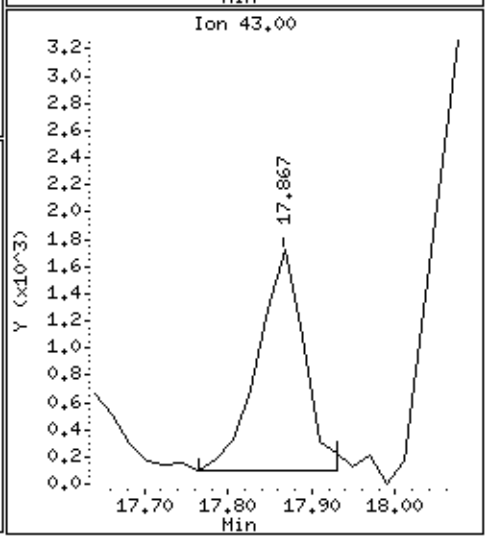












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

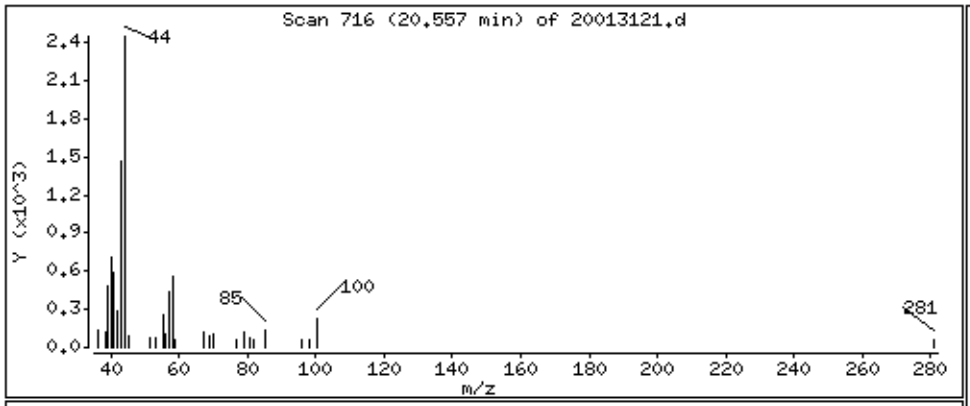
Operator: gh

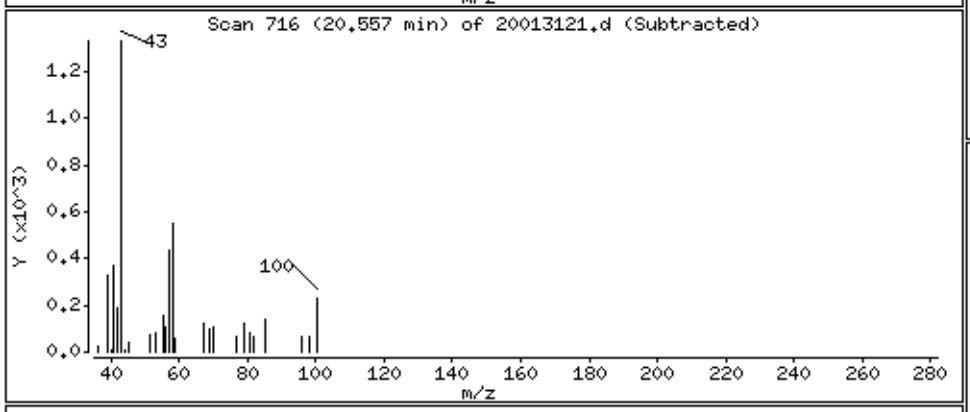
Column phase: RTX-624

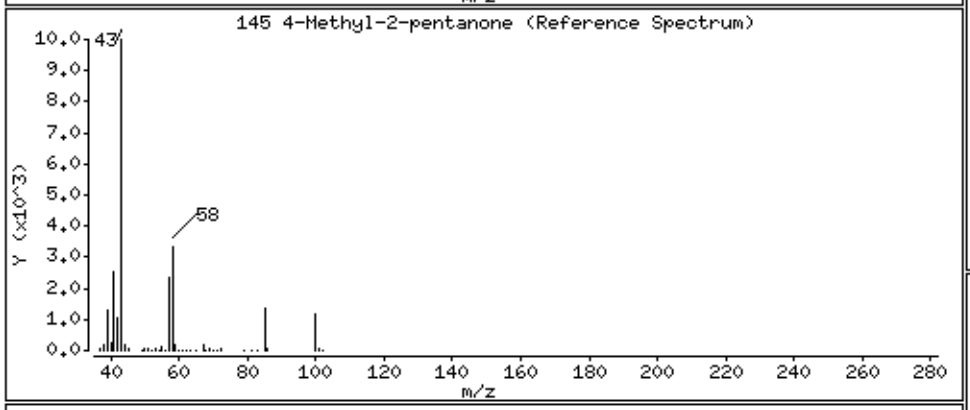
Column diameter: 0.32

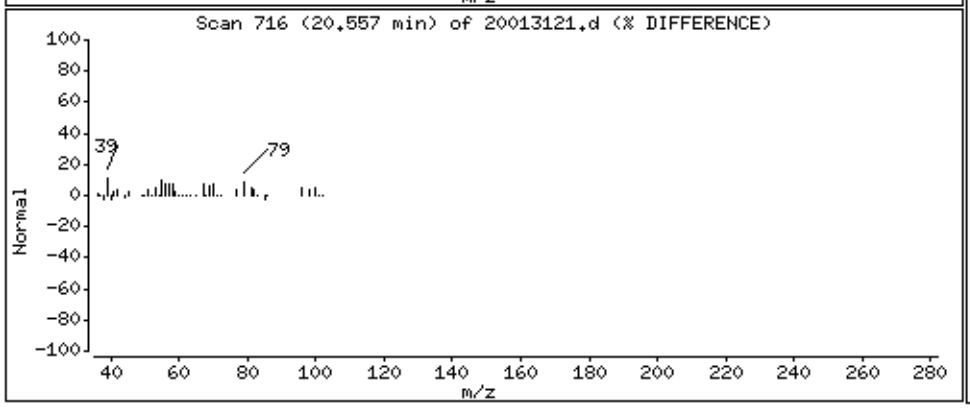
145 4-Methyl-2-pentanone

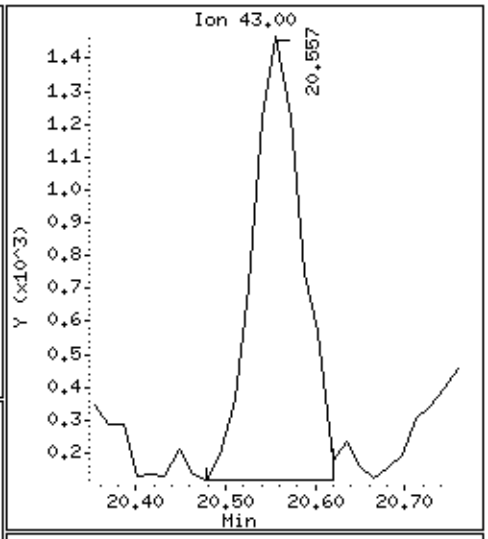
Concentration: 0.1426 PPBV

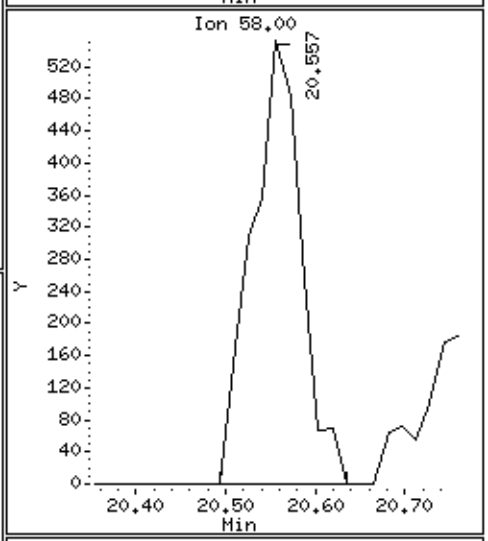


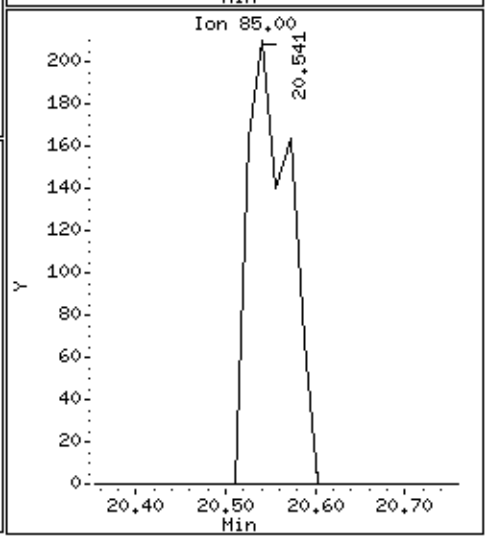












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

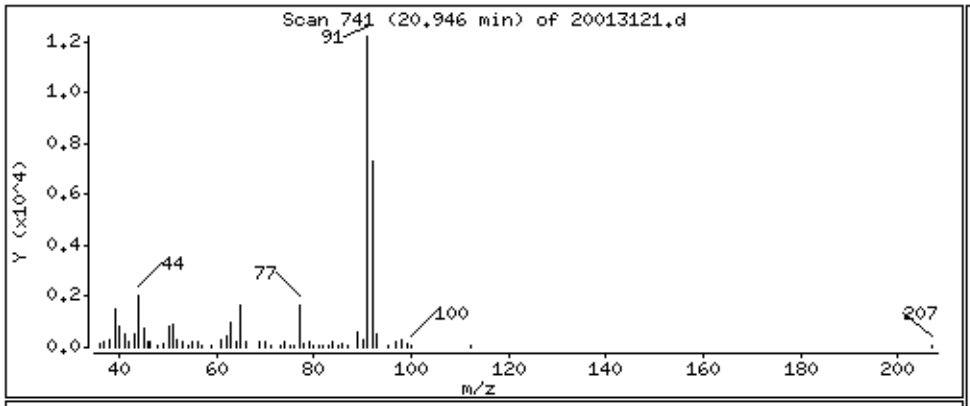
Operator: gh

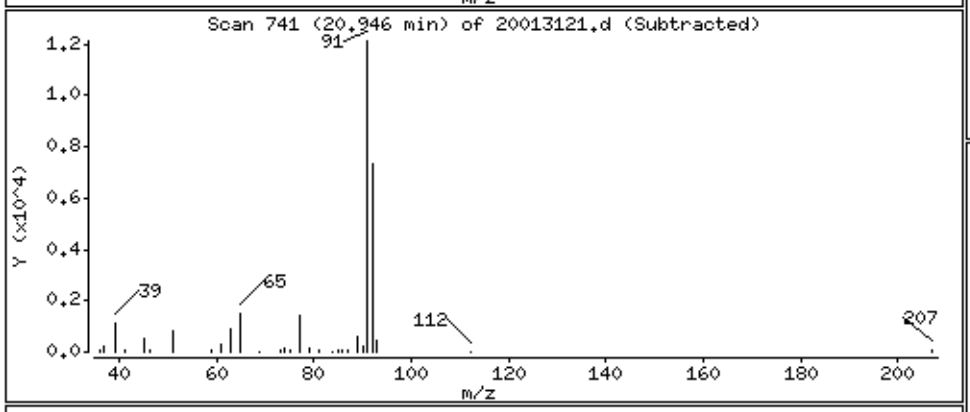
Column phase: RTX-624

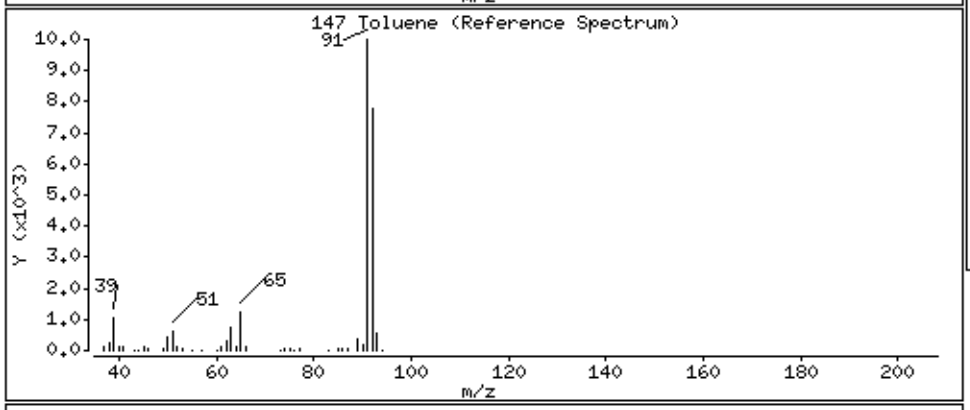
Column diameter: 0.32

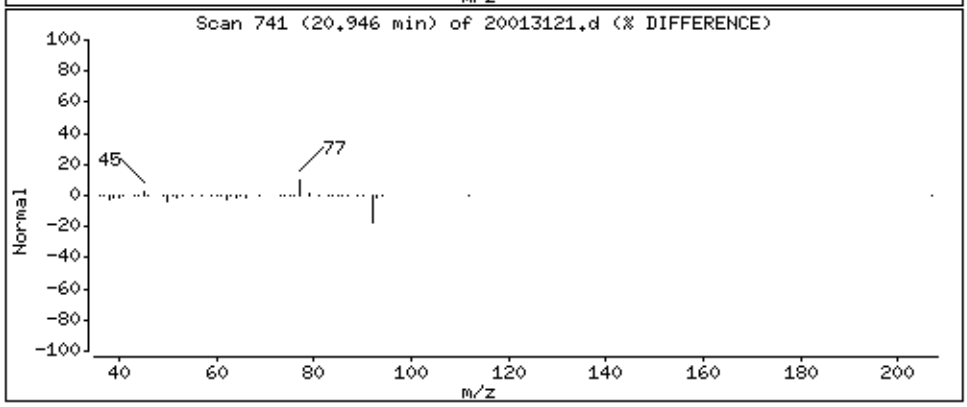
147 Toluene

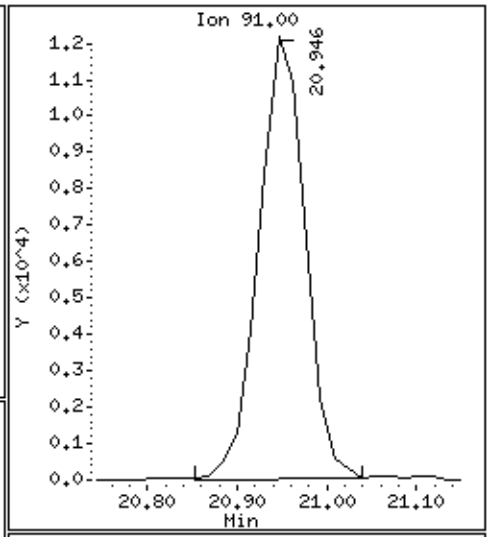
Concentration: 0.5929 PPBV

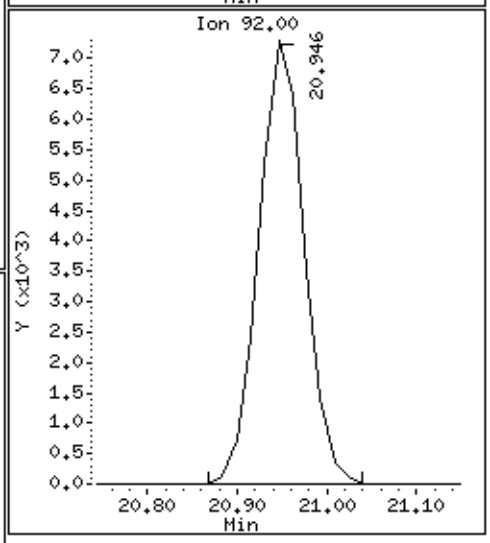












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

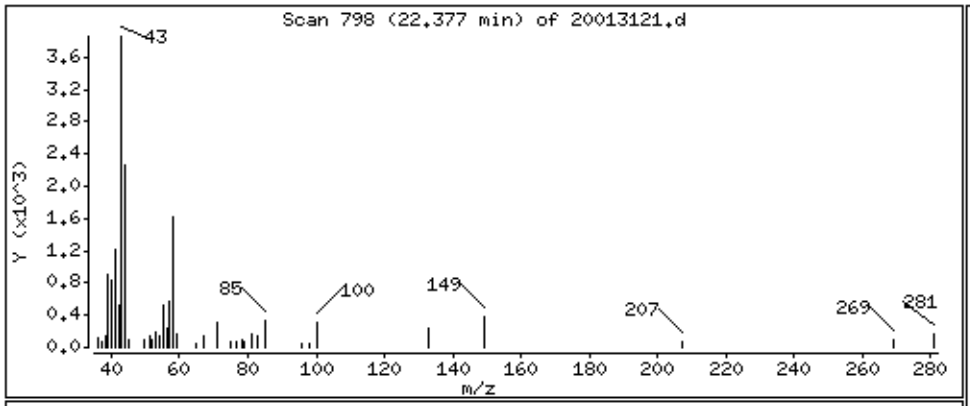
Operator: gh

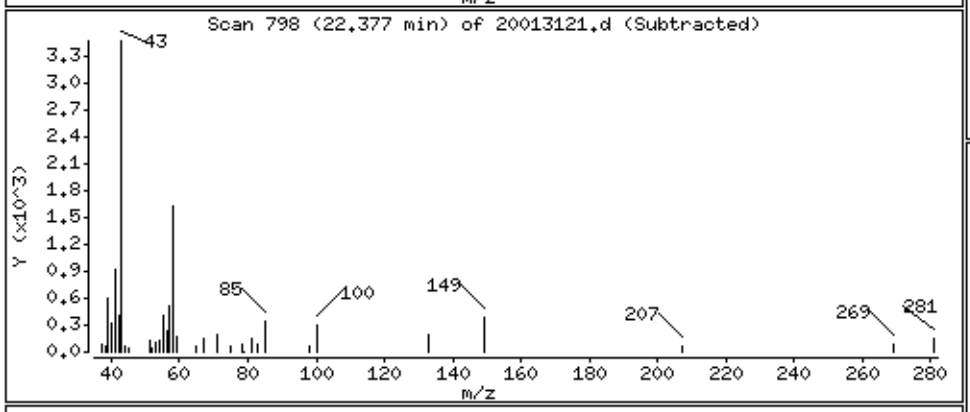
Column phase: RTX-624

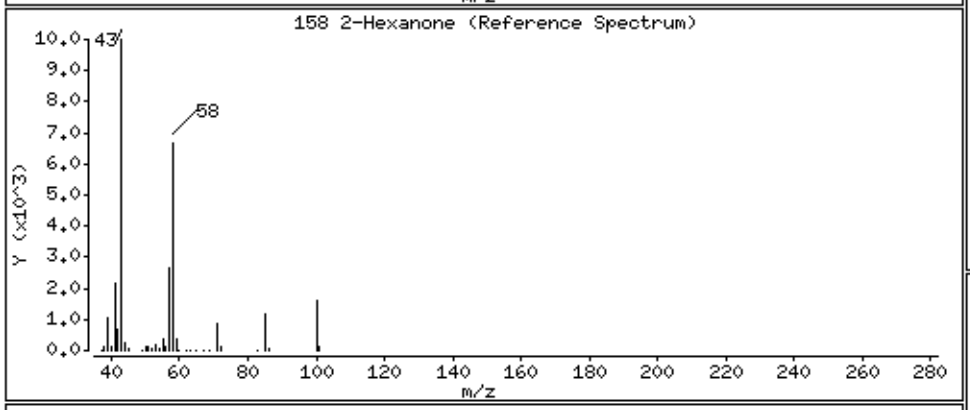
Column diameter: 0.32

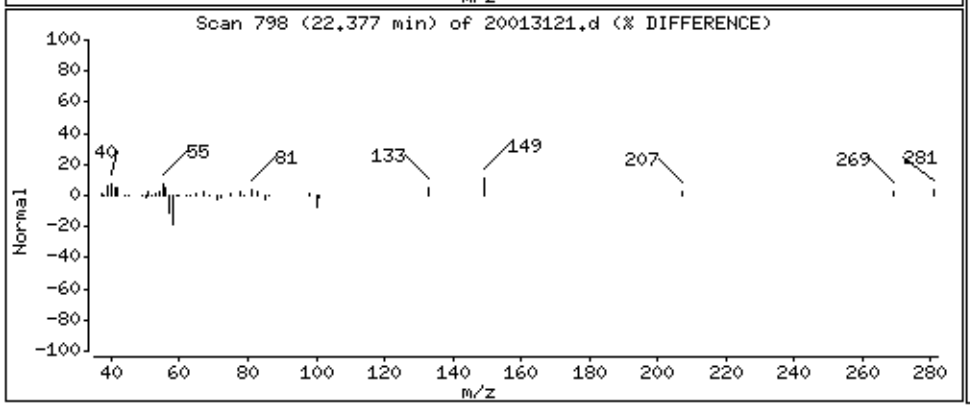
158 2-Hexanone

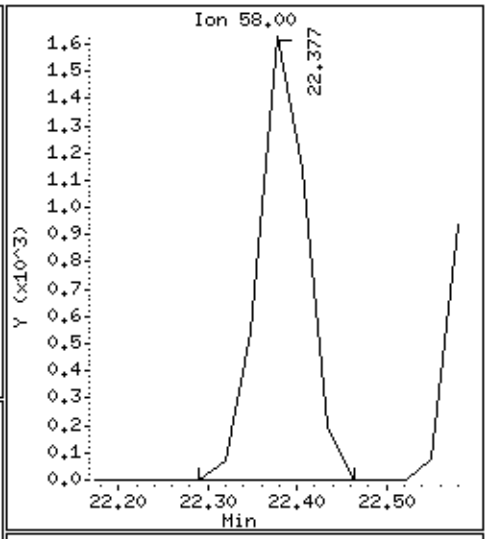
Concentration: 0.2738 PPBV

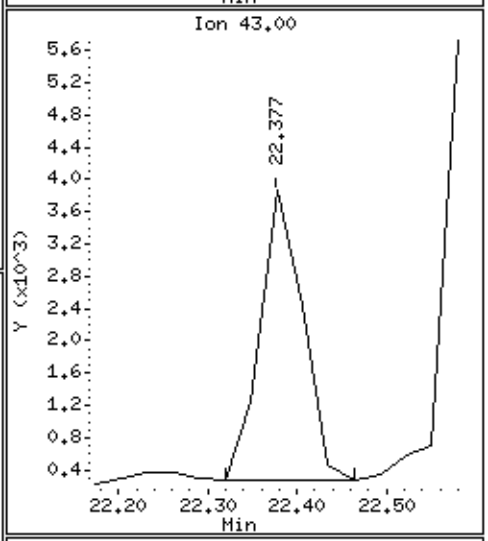


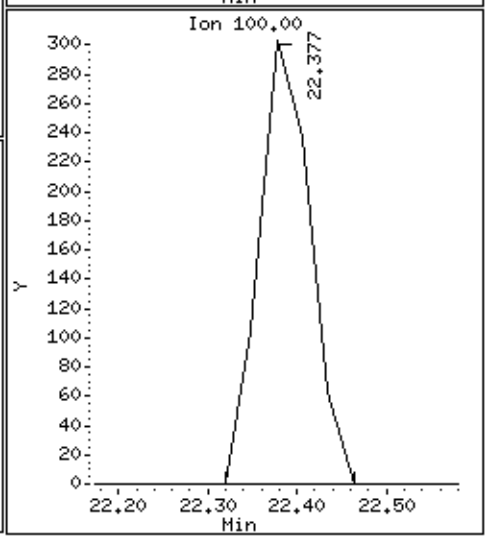












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

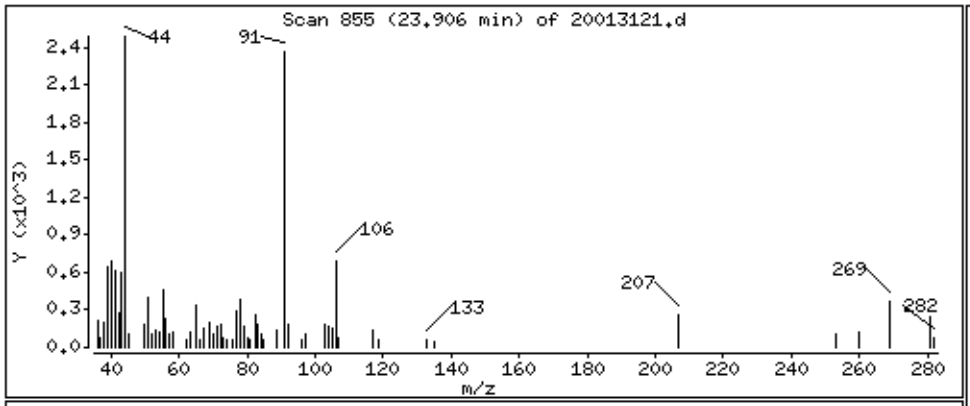
Operator: gh

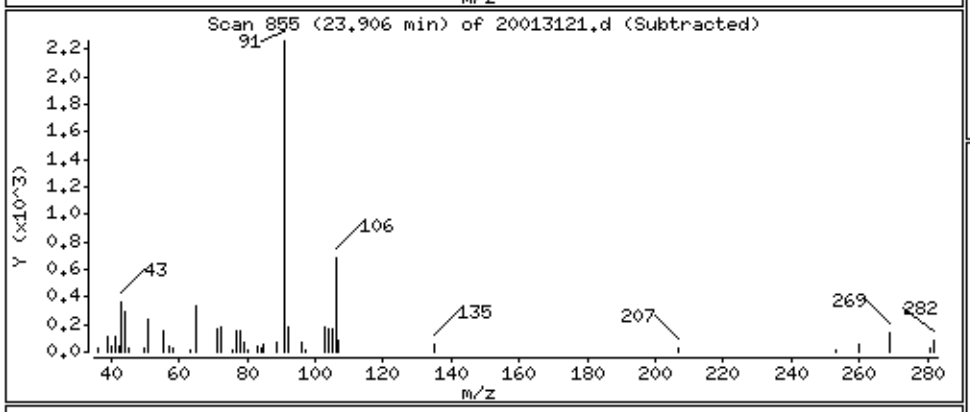
Column phase: RTX-624

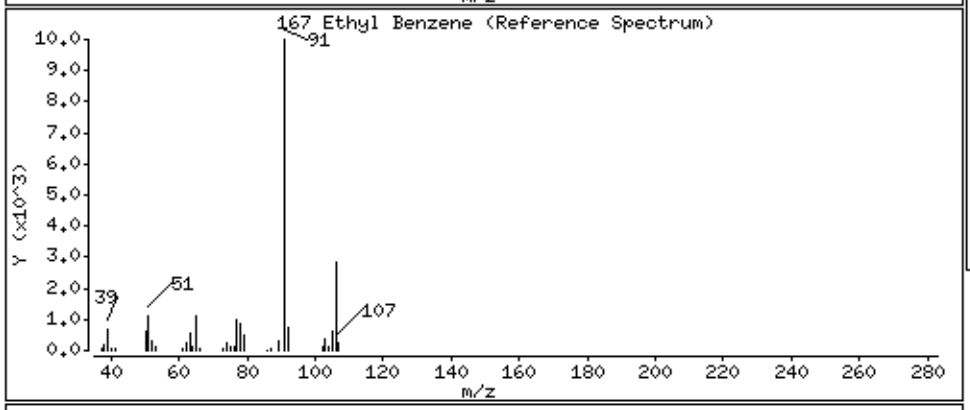
Column diameter: 0.32

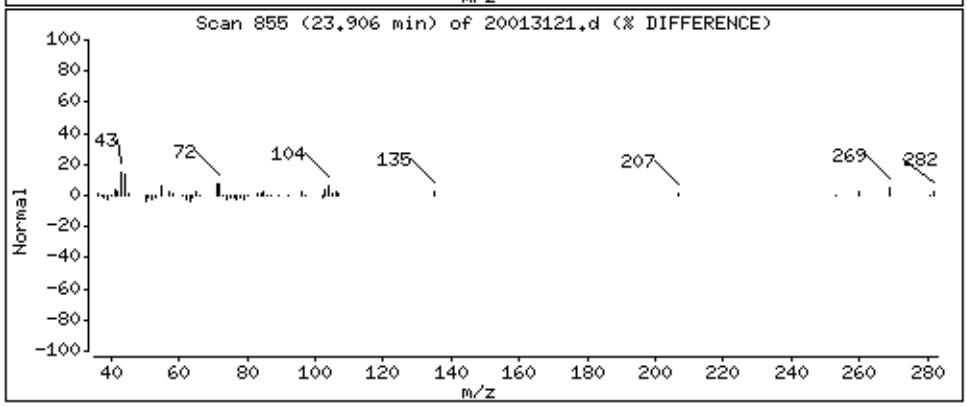
167 Ethyl Benzene

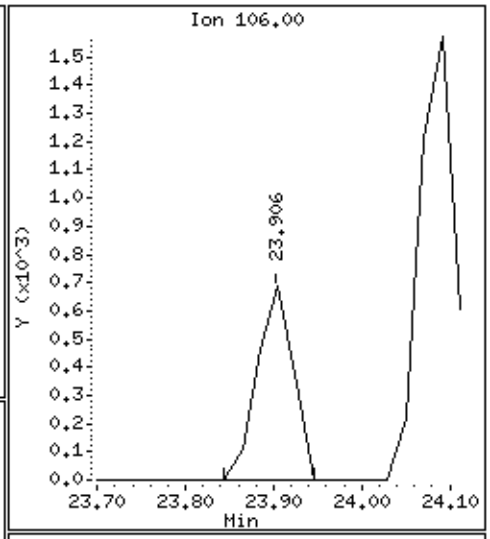
Concentration: 0.06308 PPBV

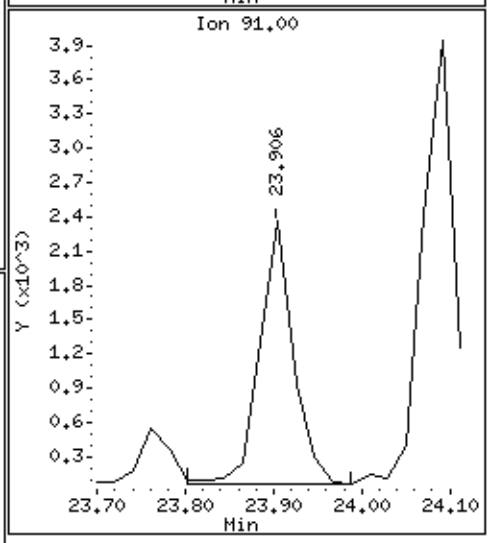












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

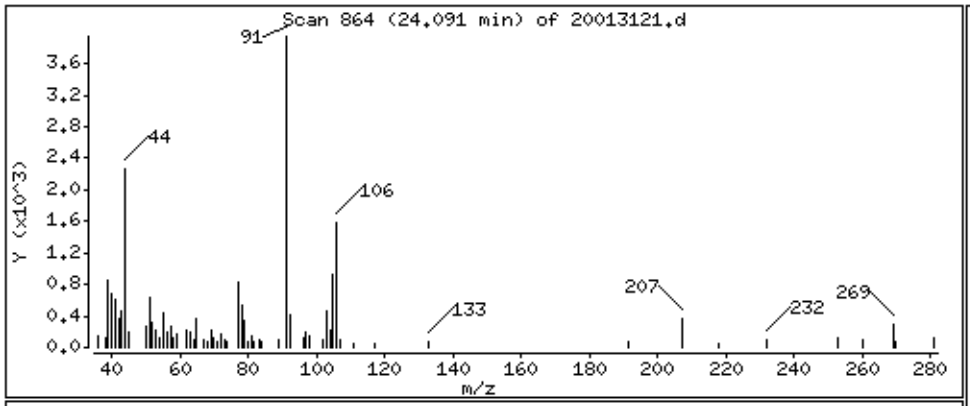
Operator: gh

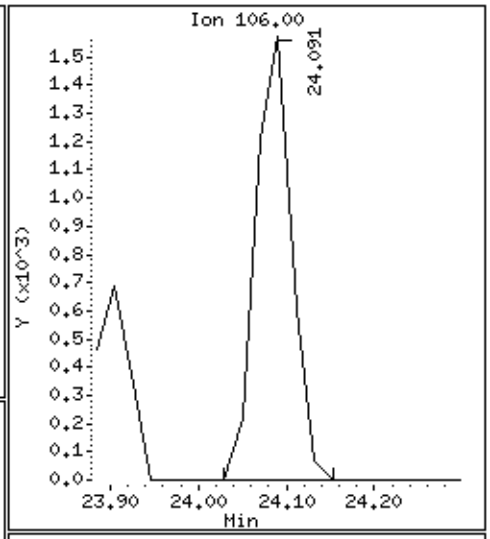
Column phase: RTX-624

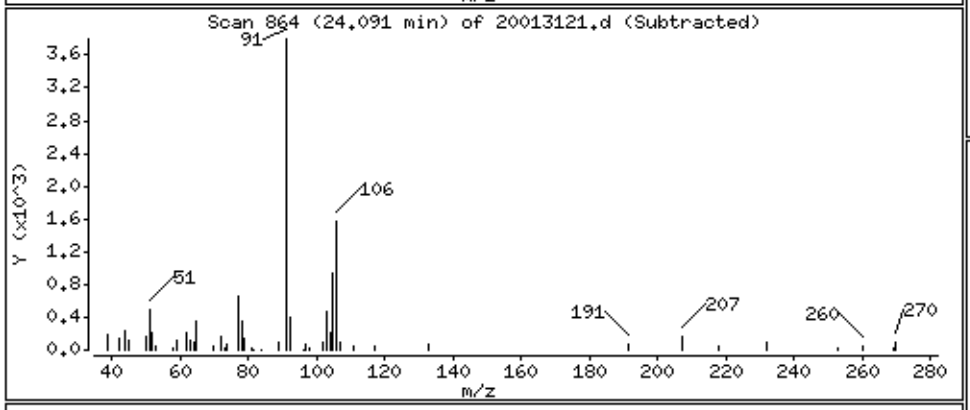
Column diameter: 0.32

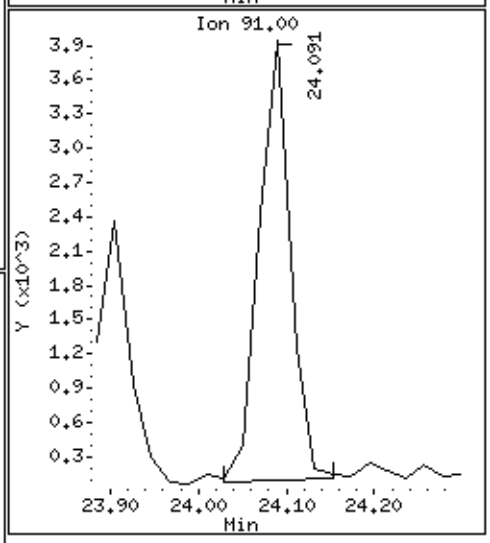
169 m,p-Xylene

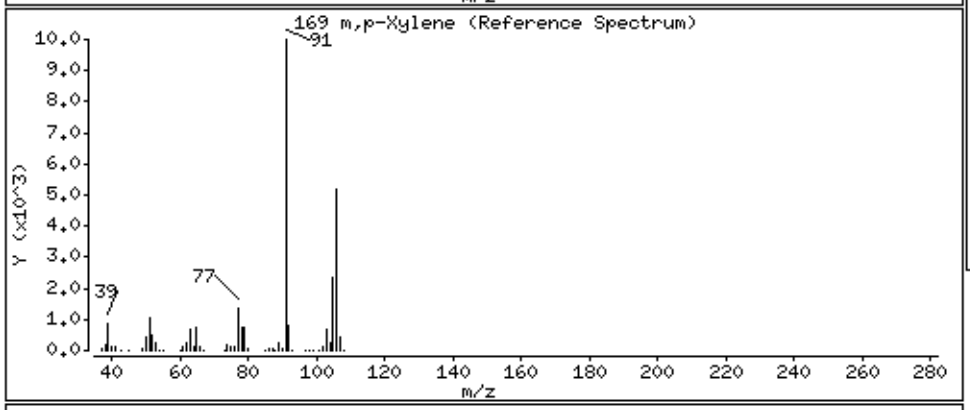
Concentration: 0.1377 PPBV

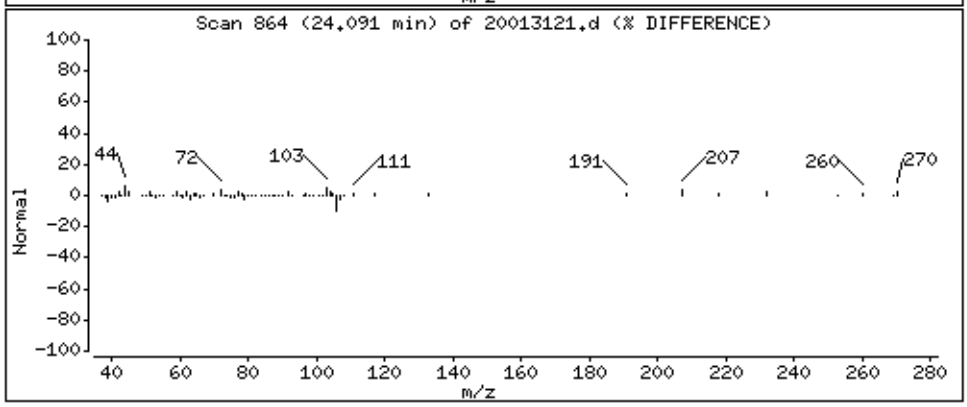












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

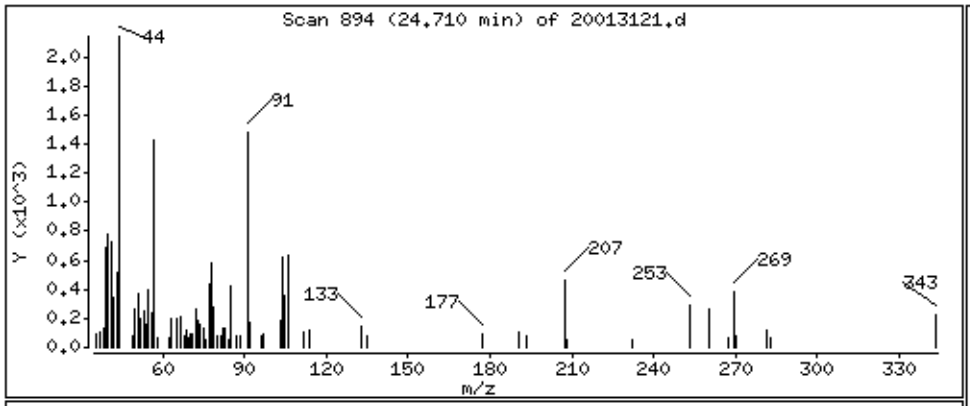
Operator: gh

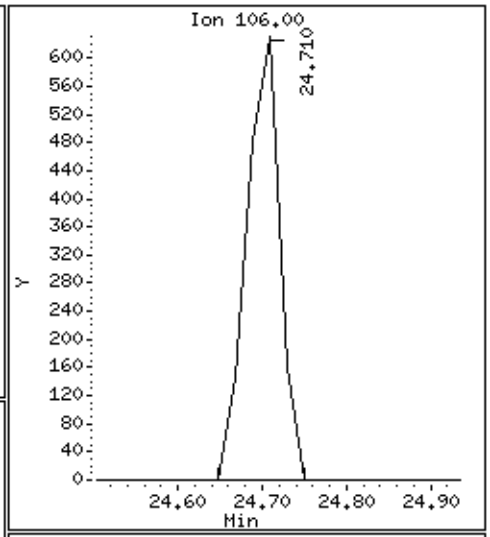
Column phase: RTX-624

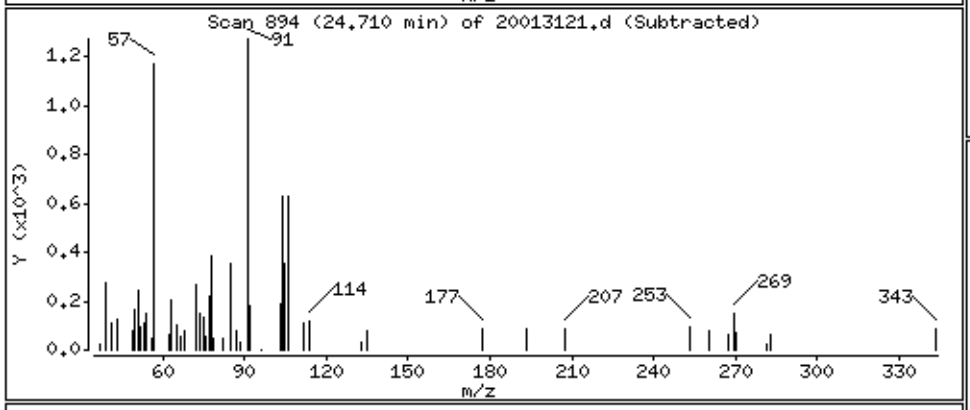
Column diameter: 0.32

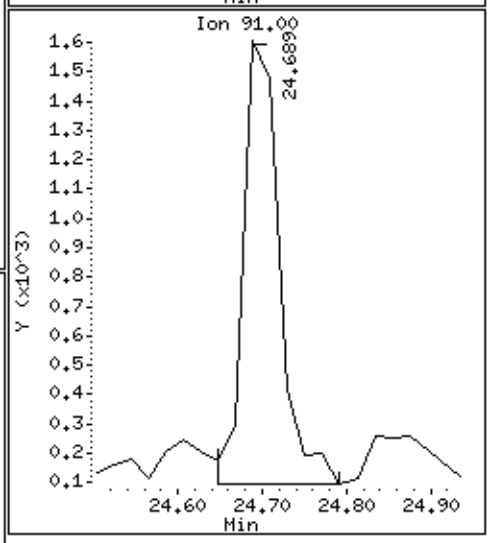
171 o-Xylene

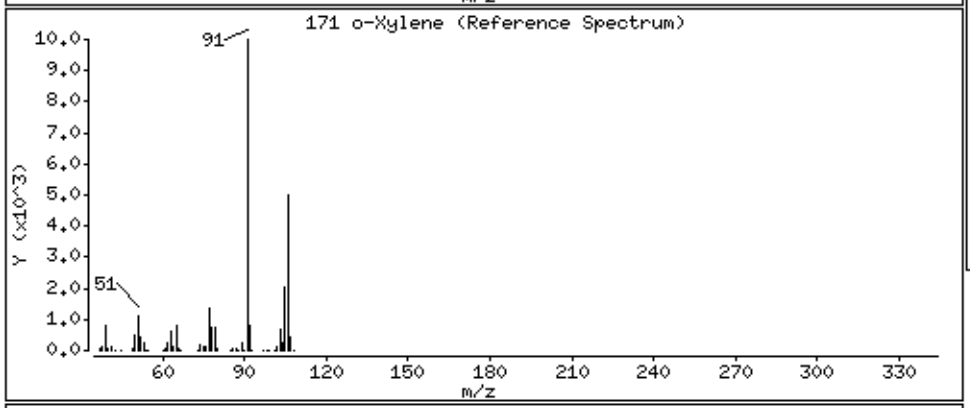
Concentration: 0.05694 PPBV

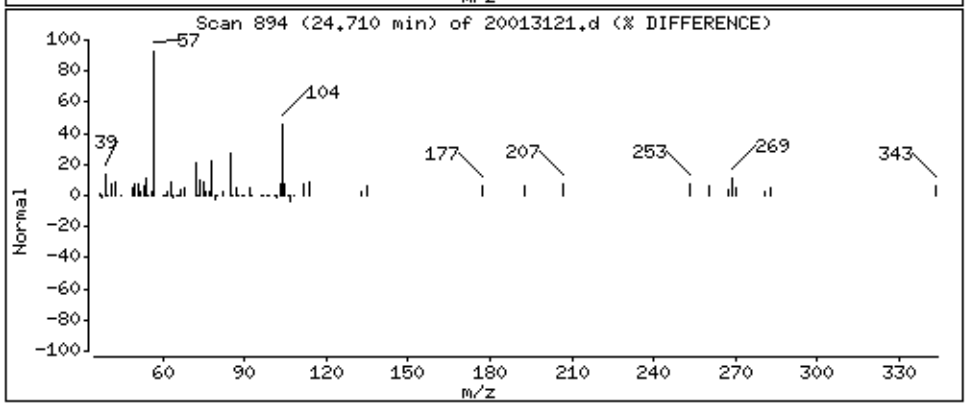












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

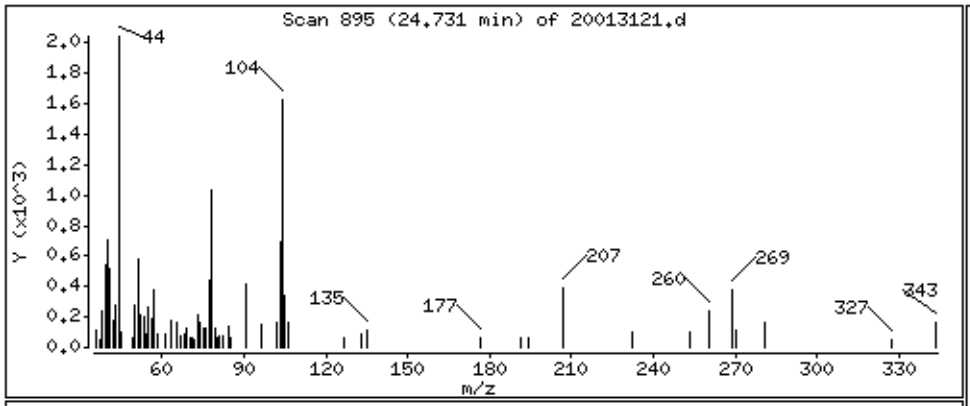
Operator: gh

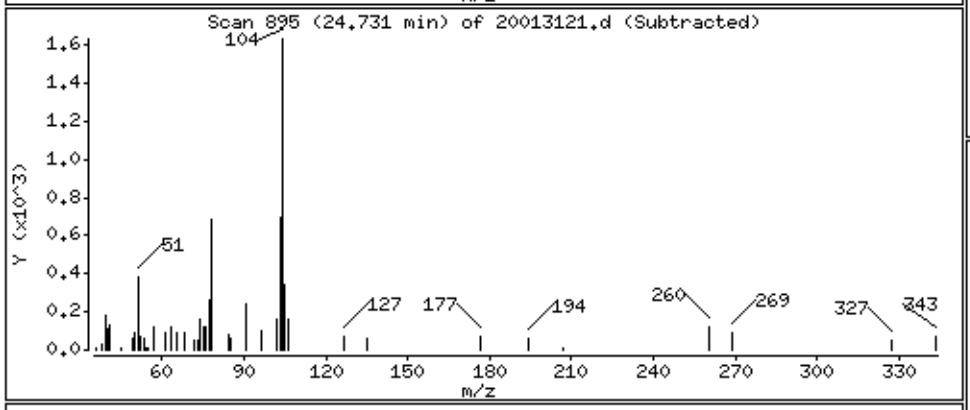
Column phase: RTX-624

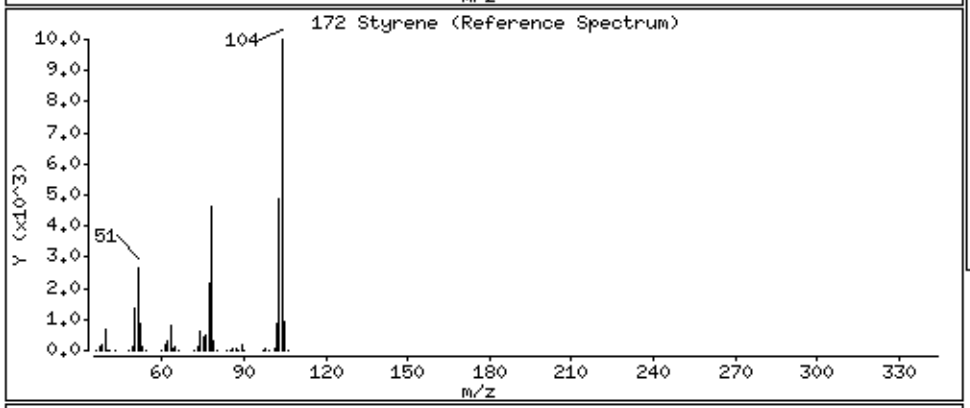
Column diameter: 0.32

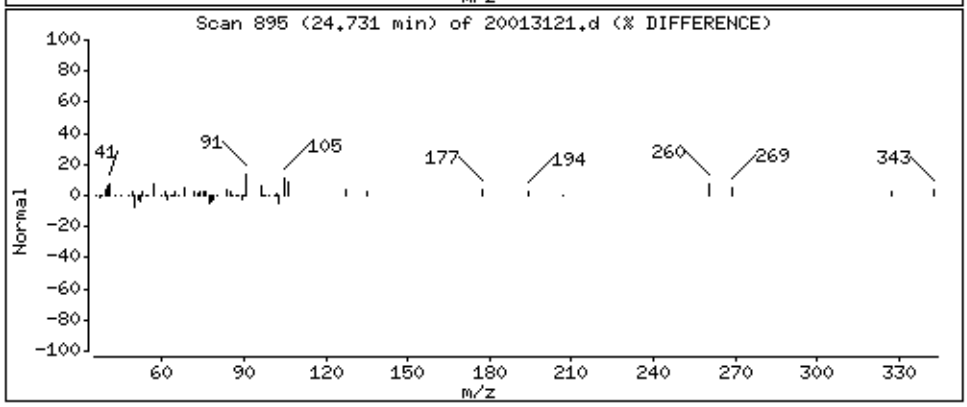
172 Styrene

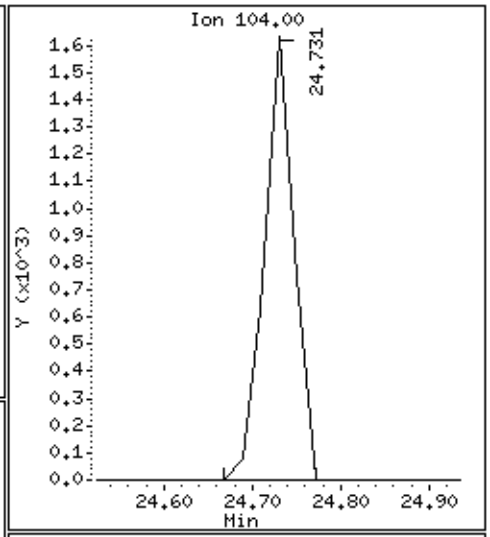
Concentration: 0.08458 PPBV

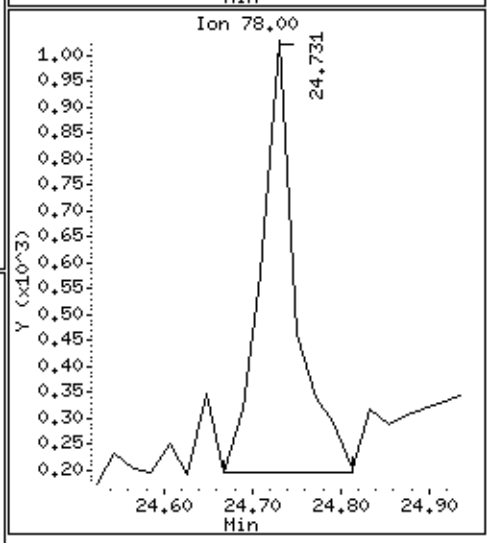












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

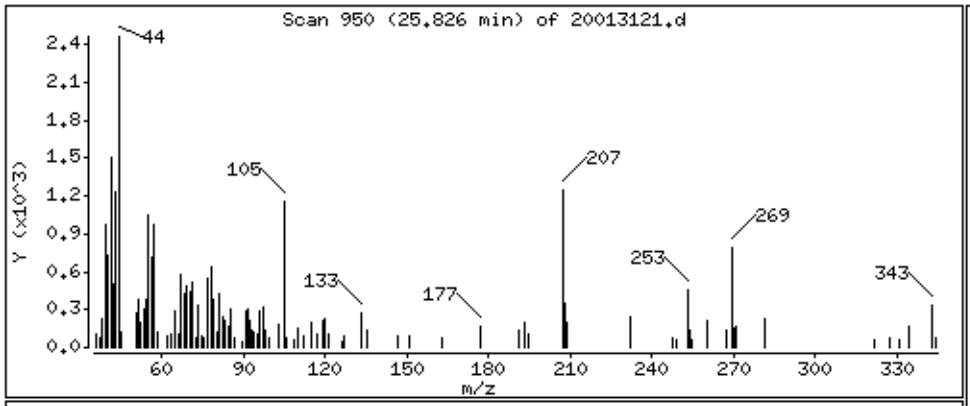
Operator: gh

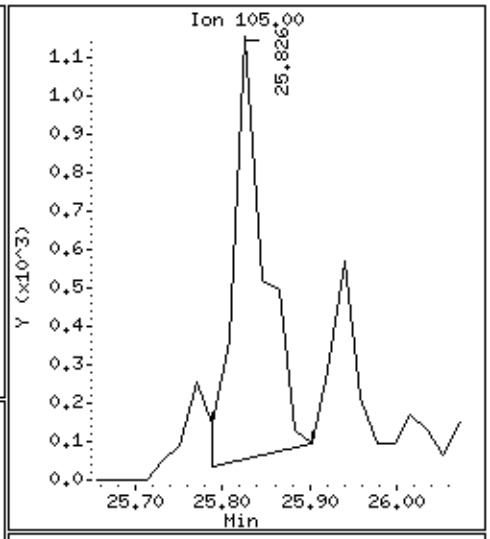
Column phase: RTX-624

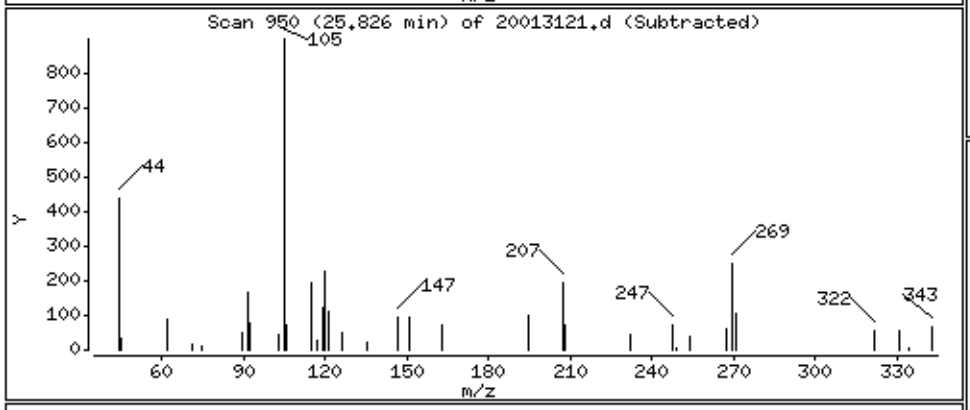
Column diameter: 0.32

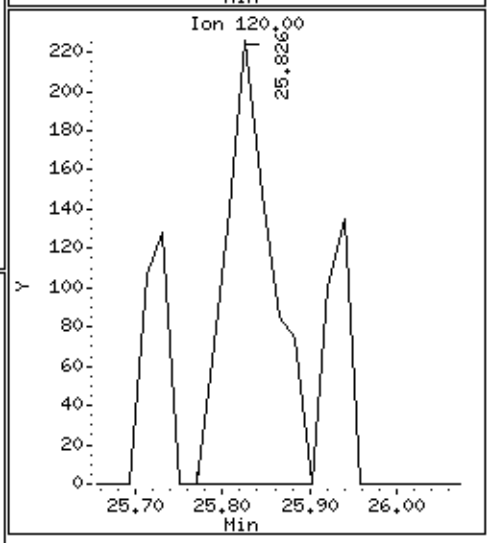
188 4-Ethyltoluene

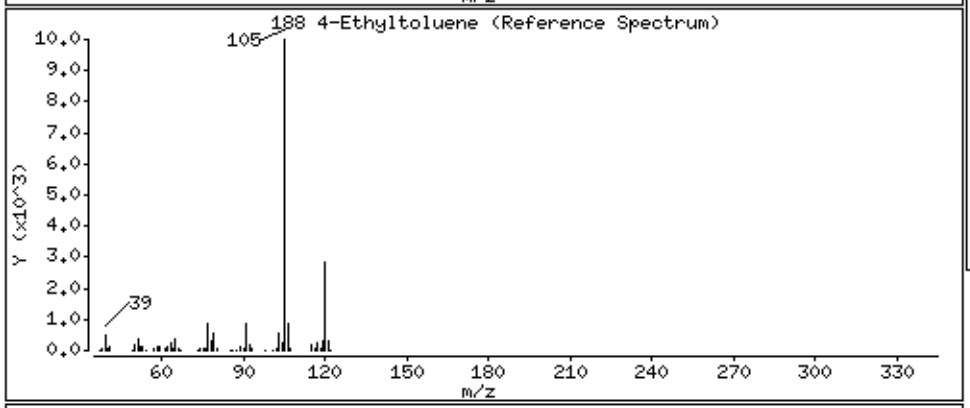
Concentration: 0.03634 PPBV

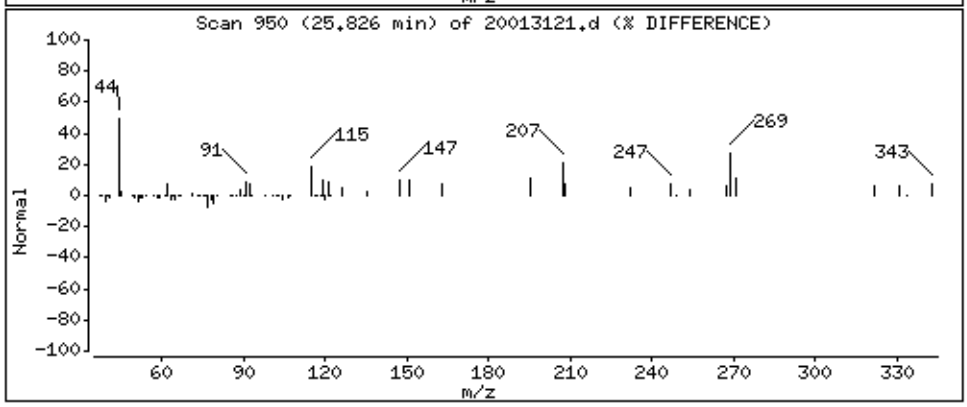












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

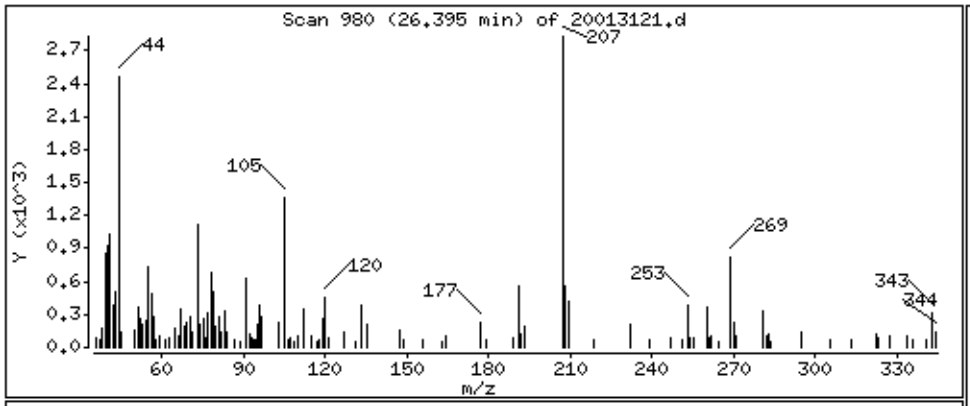
Operator: gh

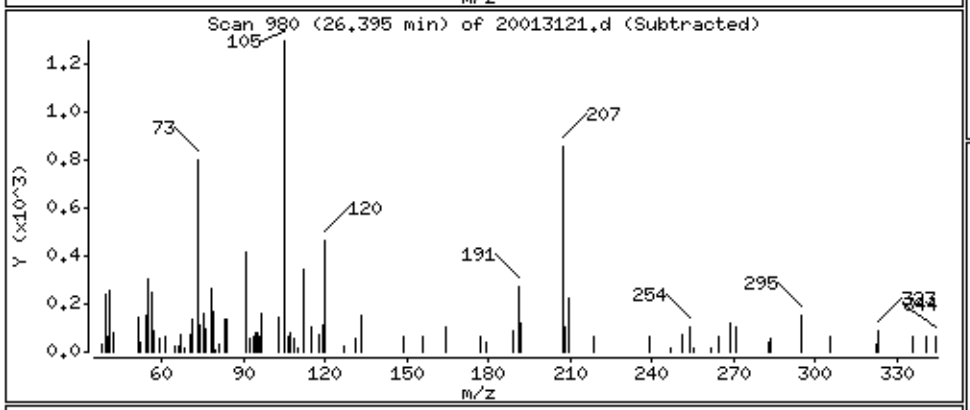
Column phase: RTX-624

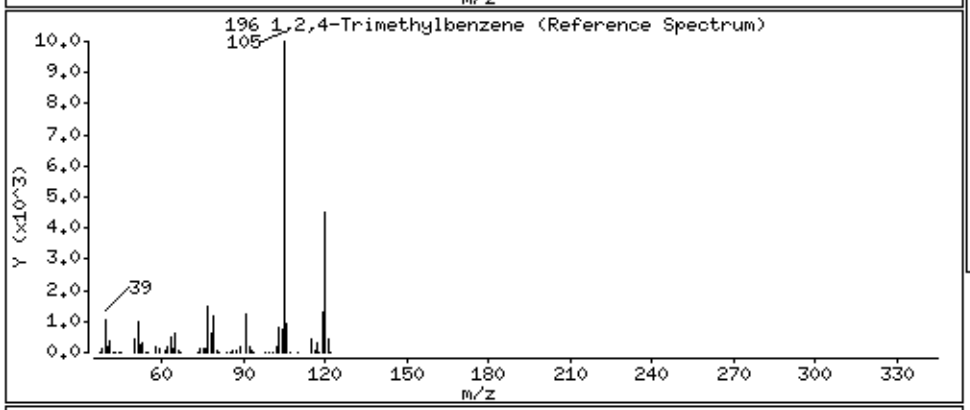
Column diameter: 0.32

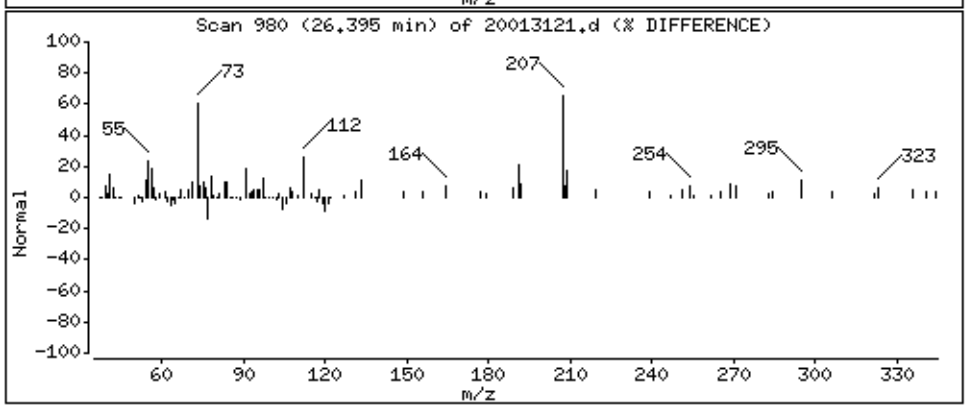
196 1,2,4-Trimethylbenzene

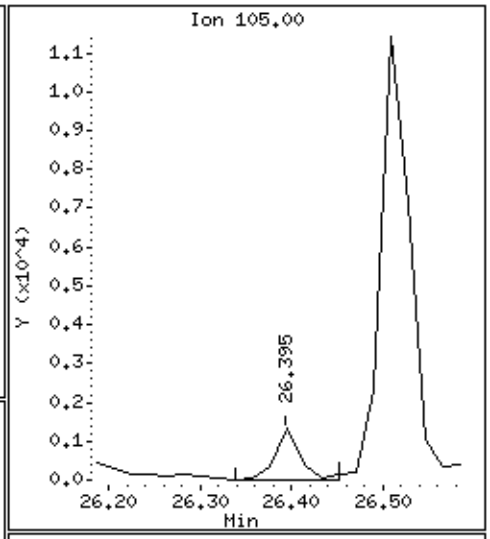
Concentration: 0.04092 PPBV

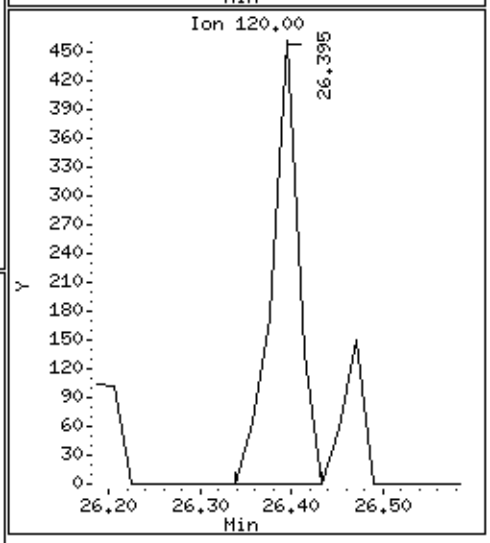












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

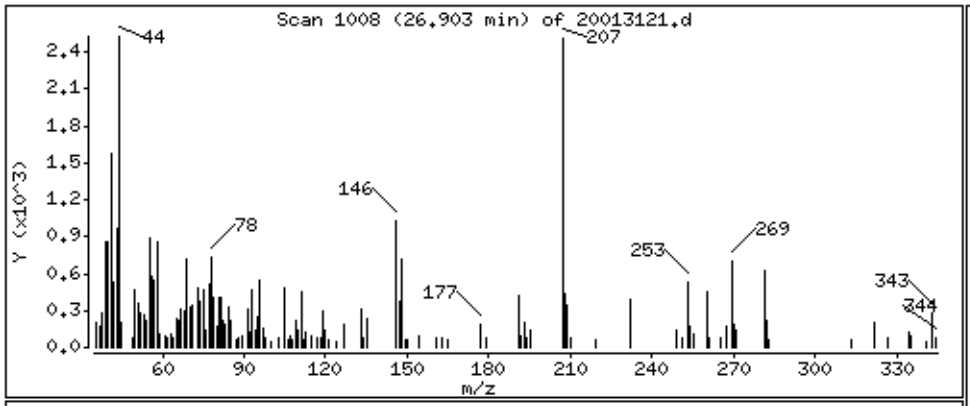
Operator: gh

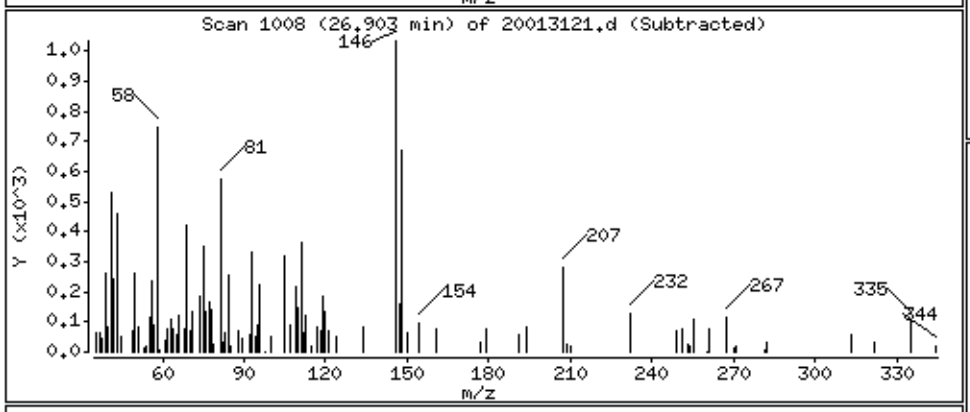
Column phase: RTX-624

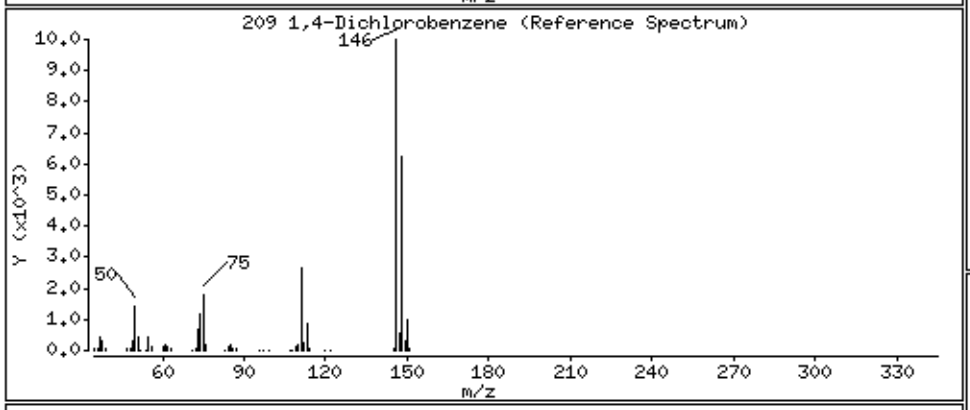
Column diameter: 0.32

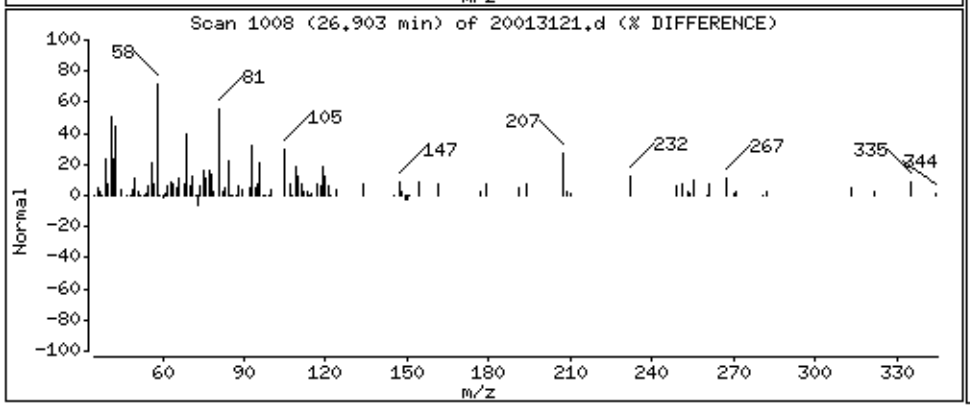
209 1,4-Dichlorobenzene

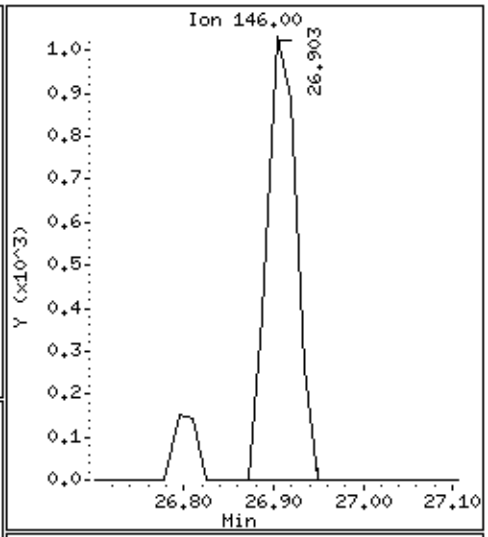
Concentration: 0.04690 PPBV

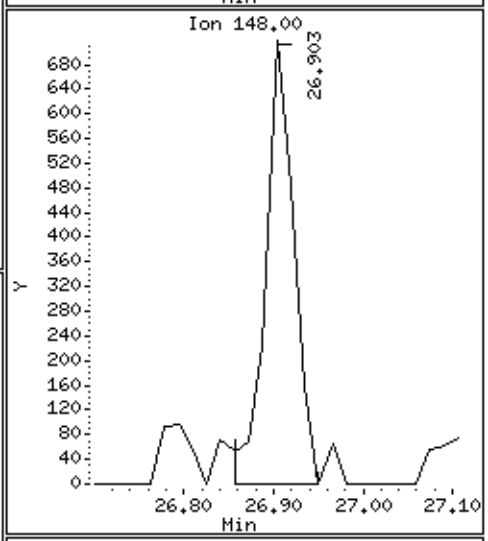


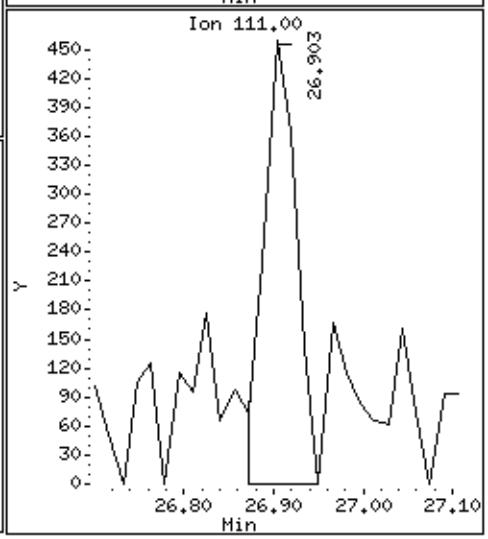












Data File: /chem/msd20.i/31Jan2017.b/20013121.d

Date : 31-JAN-2017 21:36

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00898

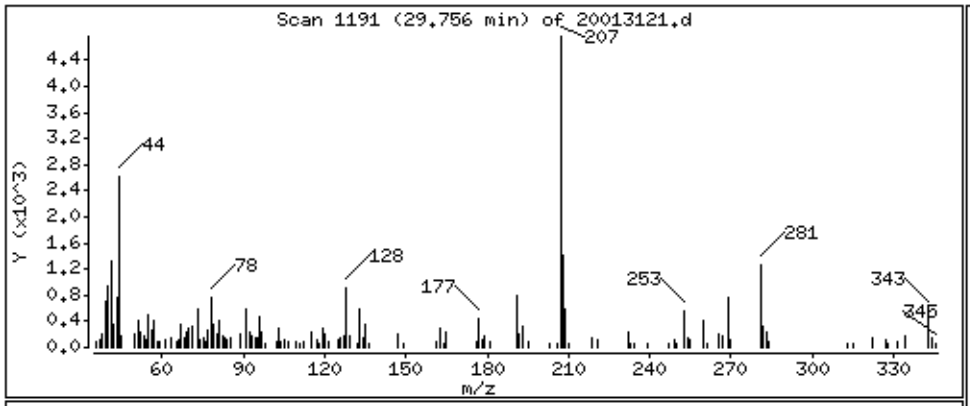
Operator: gh

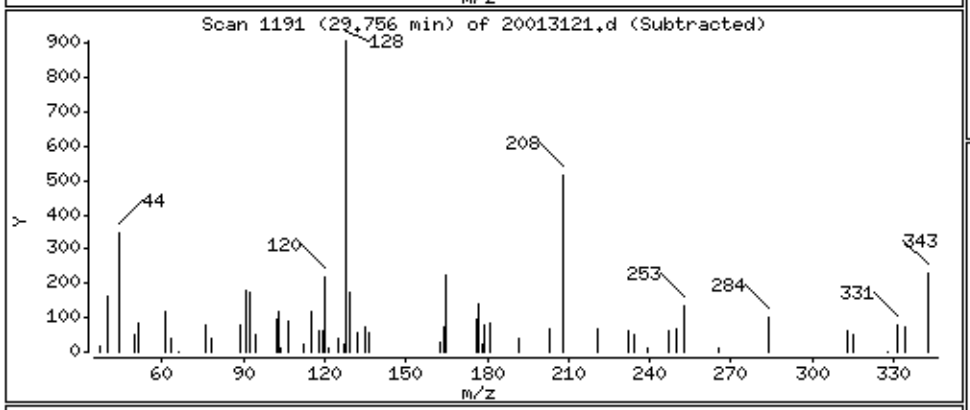
Column phase: RTX-624

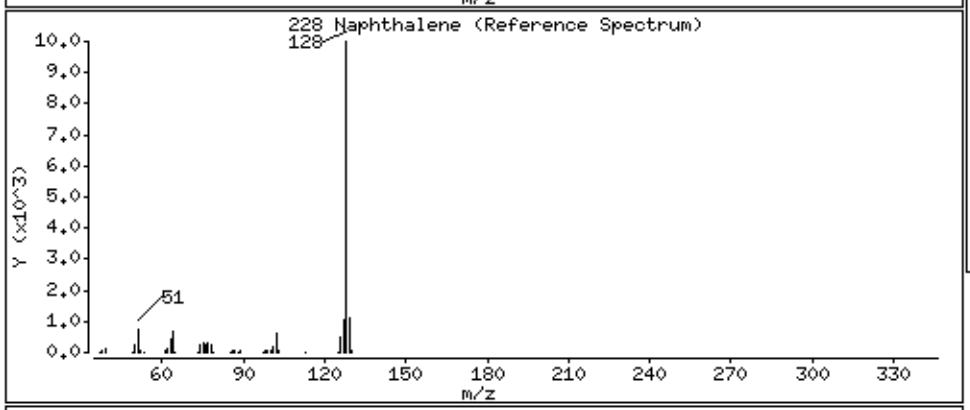
Column diameter: 0.32

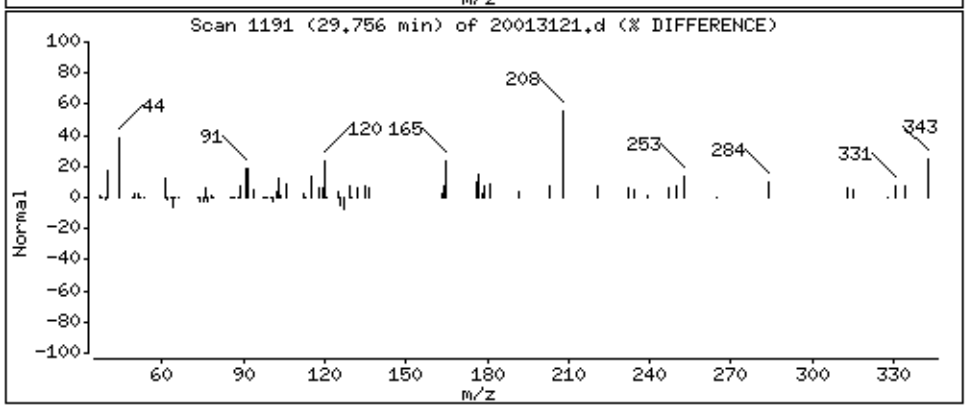
228 Naphthalene

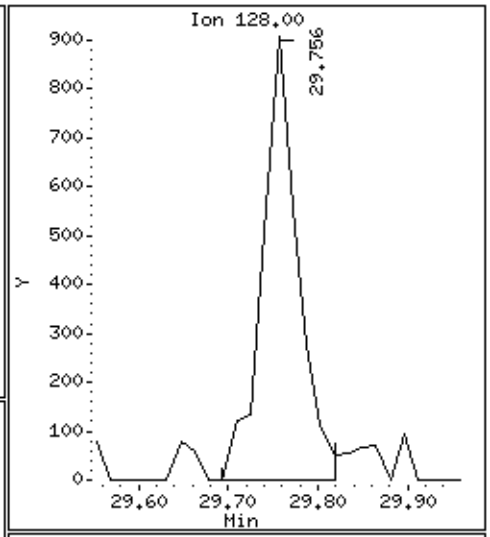
Concentration: 0.02336 PPBV

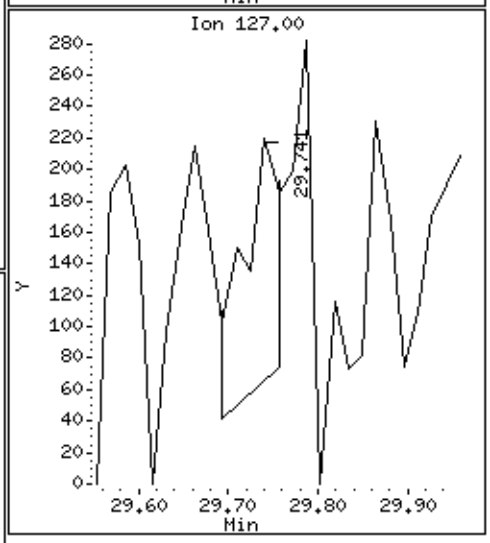












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-5-012117

Lab ID#: 1701428A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Chloromethane	0.82	1.1	1.7	2.4
Freon 11	0.16	0.38	0.92	2.2
Ethanol	0.82	42	1.5	80
Freon 113	0.16	0.082 J	1.2	0.63 J
Acetone	0.82	11	1.9	27
2-Propanol	0.82	16	2.0	40
Carbon Disulfide	0.82	0.091 J	2.6	0.28 J
Methylene Chloride	0.33	0.24 J	1.1	0.84 J
Hexane	0.16	0.067 J	0.58	0.24 J
2-Butanone (Methyl Ethyl Ketone)	0.82	1.1	2.4	3.1
Chloroform	0.16	0.037 J	0.80	0.18 J
Cyclohexane	0.16	0.030 J	0.56	0.10 J
Carbon Tetrachloride	0.16	0.064 J	1.0	0.40 J
Benzene	0.16	0.21	0.52	0.68
1,2-Dichloroethane	0.16	0.075 J	0.66	0.30 J
1,4-Dioxane	0.16	0.066 J	0.59	0.24 J
4-Methyl-2-pentanone	0.16	0.10 J	0.67	0.43 J
Toluene	0.16	0.92	0.62	3.4
Ethyl Benzene	0.16	0.18	0.71	0.78
m,p-Xylene	0.16	0.66	0.71	2.8
o-Xylene	0.16	0.56	0.71	2.4
Styrene	0.16	0.18	0.70	0.78
Cumene	0.16	0.091 J	0.81	0.45 J
Propylbenzene	0.16	0.37	0.81	1.8
4-Ethyltoluene	0.16	4.1	0.81	20
1,3,5-Trimethylbenzene	0.16	1.6	0.81	8.1
1,2,4-Trimethylbenzene	0.16	6.6	0.81	32
1,4-Dichlorobenzene	0.16	0.062 J	0.99	0.37 J
Naphthalene	0.82	0.65 J	4.3	3.4 J

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Client Sample ID: B30IA-5-012117

Lab ID#: 1701428A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013122**	**Date of Collection:**	**1/21/17 6:25:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**1/31/17 10:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	1.1	1.7	2.4
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.38	0.92	2.2
Ethanol	0.82	42	1.5	80
Freon 113	0.16	0.082 J	1.2	0.63 J
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	11	1.9	27
2-Propanol	0.82	16	2.0	40
Carbon Disulfide	0.82	0.091 J	2.6	0.28 J
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.24 J	1.1	0.84 J
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.067 J	0.58	0.24 J
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	1.1	2.4	3.1
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	0.037 J	0.80	0.18 J
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	0.030 J	0.56	0.10 J
Carbon Tetrachloride	0.16	0.064 J	1.0	0.40 J
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.21	0.52	0.68
1,2-Dichloroethane	0.16	0.075 J	0.66	0.30 J
Heptane	0.16	Not Detected	0.67	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	0.066 J	0.59	0.24 J
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	0.10 J	0.67	0.43 J
Toluene	0.16	0.92	0.62	3.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.4	Not Detected

eurofins | Air Toxics

Client Sample ID: B30IA-5-012117

Lab ID#: 1701428A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013122**	**Date of Collection:**	**1/21/17 6:25:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**1/31/17 10:15 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	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.18	0.71	0.78
m,p-Xylene	0.16	0.66	0.71	2.8
o-Xylene	0.16	0.56	0.71	2.4
Styrene	0.16	0.18	0.70	0.78
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	0.091 J	0.81	0.45 J
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	0.37	0.81	1.8
4-Ethyltoluene	0.16	4.1	0.81	20
1,3,5-Trimethylbenzene	0.16	1.6	0.81	8.1
1,2,4-Trimethylbenzene	0.16	6.6	0.81	32
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	0.062 J	0.99	0.37 J
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
Naphthalene	0.82	0.65 J	4.3	3.4 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	128	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013122.d
Lab Smp Id: 1701428A-06A
Inj Date : 31-JAN-2017 22:15
Operator : gh Inst ID: msd20.i
Smp Info : 250mL#37787
Misc Info : 5.5"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.64000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	144589	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	110017			46.97- 106.97	76.09
16.726	16.696 (1.000)	49	178454			76.21- 136.21	123.42
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	394715	5.00000		80.00- 120.00	100.00
18.231	18.209 (1.000)	88	61491			0.00- 45.59	15.58
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	391699	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	220955			23.26- 83.26	56.41
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.621 (1.053)	65	228641	6.40879	6.409	80.00- 120.00	100.00
17.620	17.621 (1.053)	67	116107			31.78- 91.78	50.78
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	390805	5.17825	5.178	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	48247			0.00- 40.33	12.35

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    247197                    35.56-  95.56    63.25
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    226796 5.42570    5.426  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    258059                   79.94- 139.94   113.78
 25.466  25.466 (1.072)   176    215752                   67.24- 127.24    95.13
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.696   4.648 (0.281)    85     32278 0.29450   0.4830  70.00- 130.00   100.00
  4.720   4.648 (0.282)    87      6010                    0.00-  30.00    18.62
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.553 (0.395)    50     23577 0.69982    1.148  80.00- 120.00   100.00
  6.601   6.553 (0.395)    52      7999                    3.24-  63.24    33.93
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101     25733 0.23449   0.3846  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103     16230                   34.37-  94.37    63.07
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45    381693 25.8274   42.357  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46    143664                   10.33-  70.33    37.64
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.761)   151      4110 0.05018  0.08230  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      2745                   33.68-  93.68    66.79
 12.736  12.736 (0.761)   101      5227                   86.77- 146.77   127.18
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58    142128 6.97626   11.441  80.00- 120.00   100.00
 13.093  13.066 (0.783)    43    417072                  253.28- 313.28   293.45
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.093  13.121 (0.783)    76      6282 0.05576  0.09144  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.533 (0.811)    45    539212 9.85247   16.158  80.00- 120.00   100.00
 13.560  13.533 (0.811)    43    207414                    0.00-  52.74    38.47
 13.560  13.533 (0.811)    59     24829                    0.00-  34.43     4.60
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      6482 0.14660   0.2404  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      7325                   80.28- 140.28   113.01
 14.027  14.027 (0.839)    51      2947                    4.61-  64.61    45.46
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	2396	0.04102	0.06727	80.00- 120.00	100.00(a)
14.933	14.878 (0.893)	43	4581			28.29- 88.29	191.19
14.878	14.878 (0.889)	86	326			0.00- 48.18	13.61
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.977)	72	12935	0.65112	1.068	80.00- 120.00	100.00
16.344	16.324 (0.977)	43	51605			300.25- 360.25	398.96
16.344	16.324 (0.977)	57	4220			0.00- 58.21	32.62
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	2021	0.02249	0.03689	80.00- 120.00	100.00(a)
16.819	16.819 (1.006)	85	1616			34.75- 94.75	79.96
102 Cyclohexane					CAS #: 110-82-7		
17.034	17.035 (1.018)	84	1092	0.01859	0.03048	80.00- 120.00	100.00(a)
17.034	17.035 (1.018)	56	1764			76.62- 136.62	161.54
17.034	17.035 (1.018)	41	2136			21.84- 81.84	195.60
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	3031	0.03921	0.06430	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	3202			73.50- 133.50	105.64
116 Benzene					CAS #: 71-43-2		
17.620	17.621 (0.968)	78	12346	0.13090	0.2147	80.00- 120.00	100.00
17.620	17.621 (0.968)	77	3278			0.00- 53.26	26.55
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	1668	0.04562	0.07481	80.00- 120.00	100.00(a)
17.764	17.744 (0.976)	64	716			2.82- 62.82	42.93
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.190 (1.055)	88	887	0.04013	0.06581	80.00- 120.00	100.00(a)
19.213	19.190 (1.055)	58	293			32.65- 92.65	33.03
19.279	19.190 (1.059)	57	157			0.00- 50.00	17.70
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.556	20.557 (1.129)	43	3286	0.06388	0.1048	80.00- 120.00	100.00(a)
20.556	20.557 (1.129)	58	964			12.96- 72.96	29.34
0.000	20.557 (0.000)	85	0			0.00- 50.79	0.00
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	57902	0.55801	0.9151	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	32438			29.12- 89.12	56.02
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.906 (1.006)	106	4994	0.10902	0.1788	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
167 Ethyl Benzene (continued)							
23.905	23.906 (1.006)	91	16728			275.87- 335.87	334.96
169 m,p-Xylene						CAS #: 108-38-3	
24.091	24.091 (1.014)	106	19339	0.40153	0.6585	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	36892			163.30- 223.30	190.76
171 o-Xylene						CAS #: 95-47-6	
24.710	24.710 (1.040)	106	15197	0.33862	0.5553	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	32817			172.76- 232.76	215.94
172 Styrene						CAS #: 100-42-5	
24.730	24.731 (1.041)	104	7382	0.11209	0.1838	80.00- 120.00	100.00
24.730	24.731 (1.041)	78	5598			18.49- 78.49	75.83
175 Cumene						CAS #: 98-82-8	
25.181	25.182 (1.060)	105	7983	0.05578	0.09147	80.00- 120.00	100.00(a)
25.181	25.182 (1.060)	120	2145			0.00- 57.81	26.87
182 Propylbenzene						CAS #: 103-65-1	
25.712	25.713 (1.082)	91	31126	0.22755	0.3732	80.00- 120.00	100.00
25.712	25.713 (1.082)	120	6255			0.00- 54.36	20.10
188 4-Ethyltoluene						CAS #: 622-96-8	
25.826	25.864 (1.087)	105	279216	2.50702	4.112	80.00- 120.00	100.00
25.826	25.864 (1.087)	120	86322			1.16- 61.16	30.92
190 1,3,5-Trimethylbenzene						CAS #: 108-67-8	
25.940	25.940 (1.092)	105	99845	1.00441	1.647	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	49629			20.44- 80.44	49.71
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6	
26.395	26.395 (1.111)	105	387029	4.02612	6.603	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	178832			17.83- 77.83	46.21
209 1,4-Dichlorobenzene						CAS #: 106-46-7	
26.903	26.904 (1.132)	146	2803	0.03757	0.06161	80.00- 120.00	100.00(a)
26.903	26.904 (1.132)	148	1642			33.90- 93.90	58.58
26.919	26.904 (1.133)	111	1673			6.77- 66.77	59.69
228 Naphthalene						CAS #: 91-20-3	
29.756	29.756 (1.252)	128	62079	0.39920	0.6547	80.00- 120.00	100.00(a)
29.756	29.756 (1.252)	127	8113			0.00- 42.38	13.07

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: msd20.i
Lab File ID: 20013122.d
Lab Smp Id: 1701428A-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.5"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	144589	-23.77
123 1,4-Difluorobenze	617206	370324	864088	394715	-36.05
163 Chlorobenzene-d5	554897	332938	776856	391699	-29.41

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 12:39

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-06A
Level: LOW Operator: gh
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.5"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.409	128.18	70-130
$ 146 Toluene-d8	5.000	5.178	103.56	70-130
$ 177 4-Bromofluorobenze	5.000	5.426	108.51	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

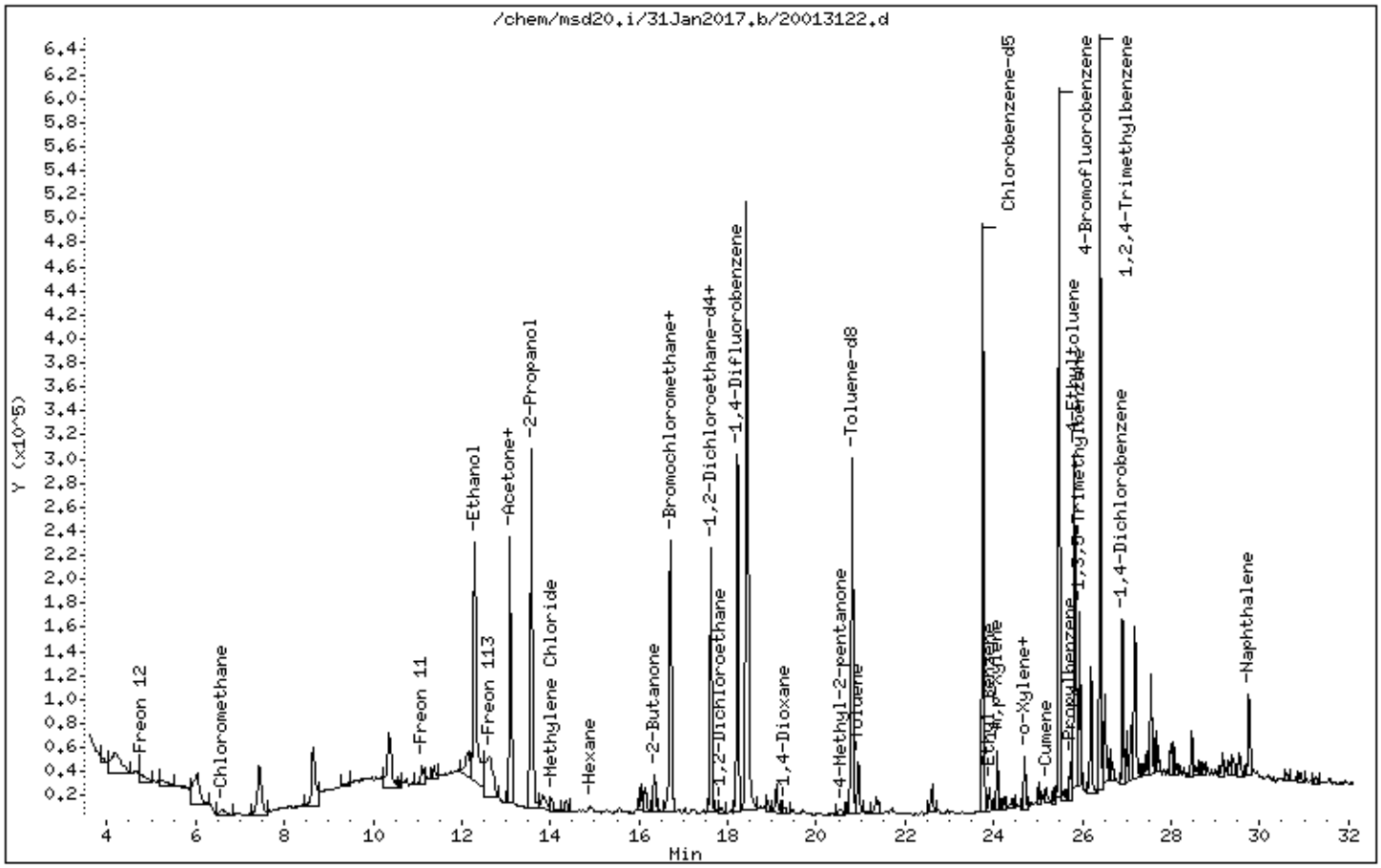
Instrument: msd20.i

Sample Info: 250mL#37787

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

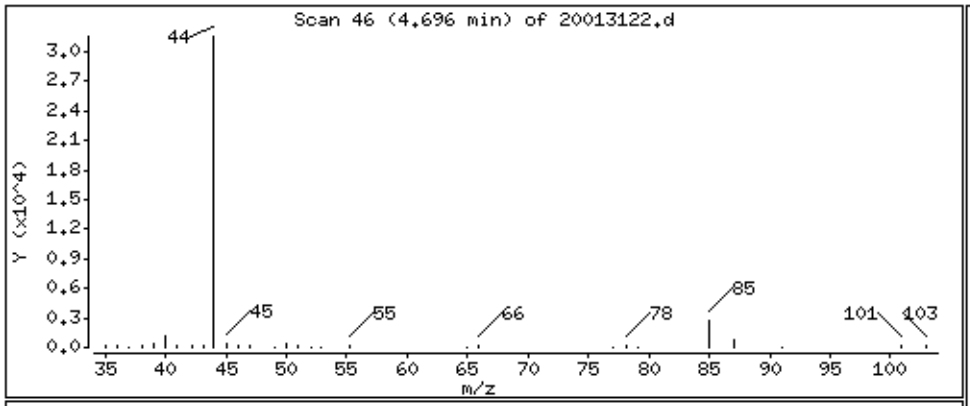
Operator: gh

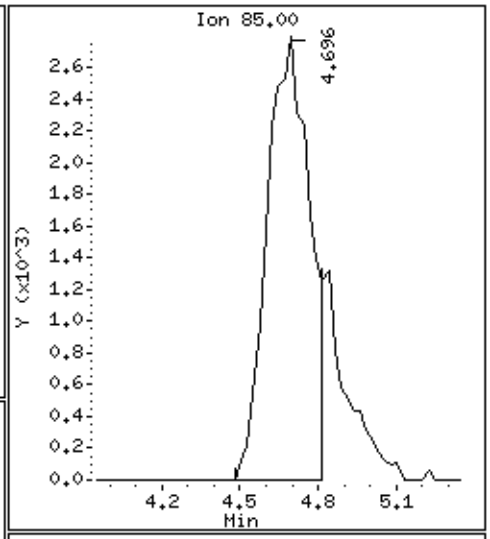
Column phase: RTX-624

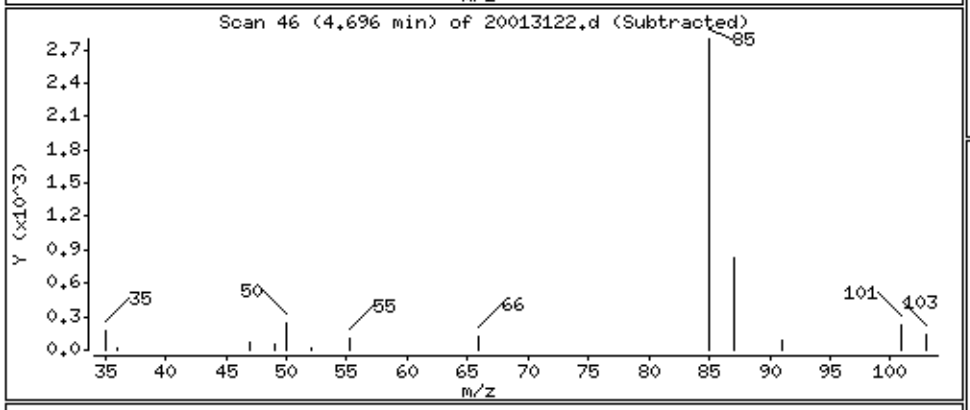
Column diameter: 0.32

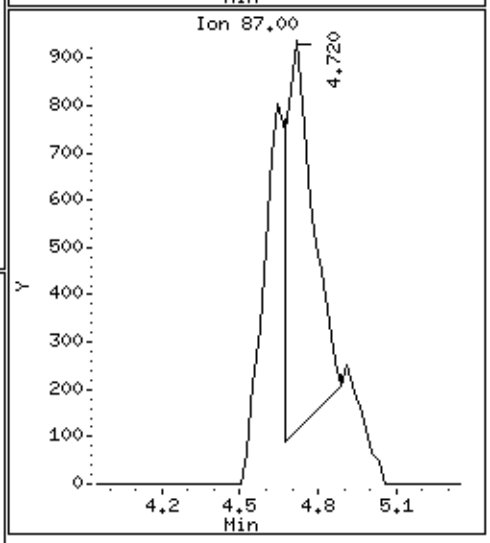
11 Freon 12

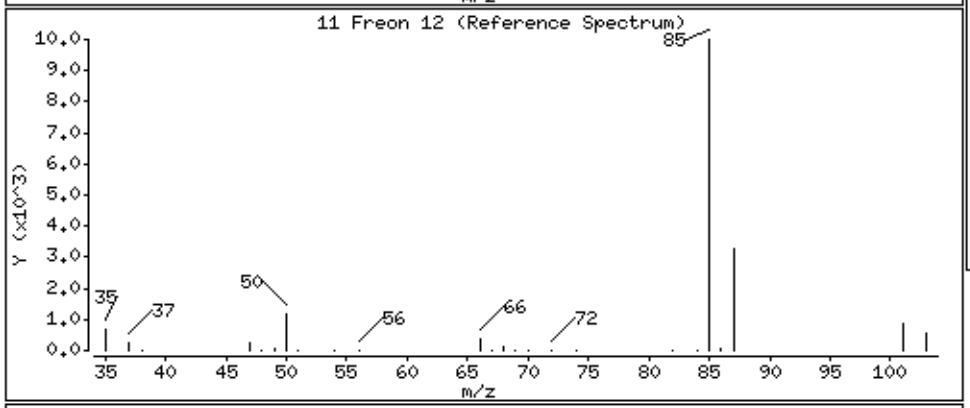
Concentration: 0.4830 PPBV

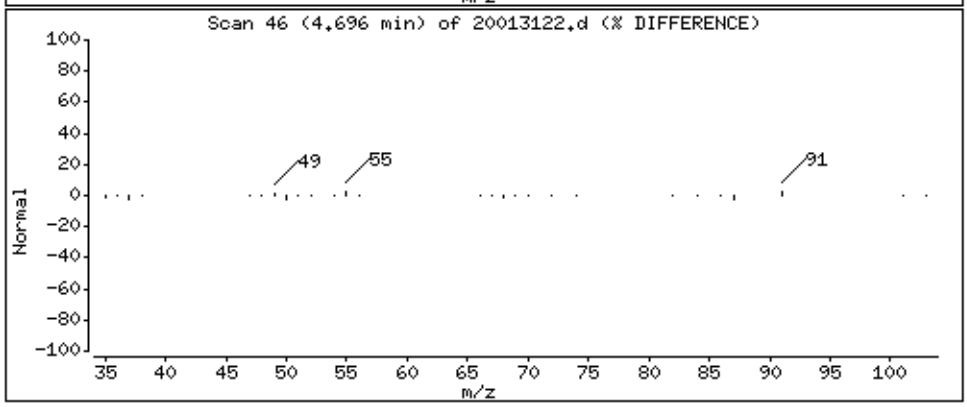












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

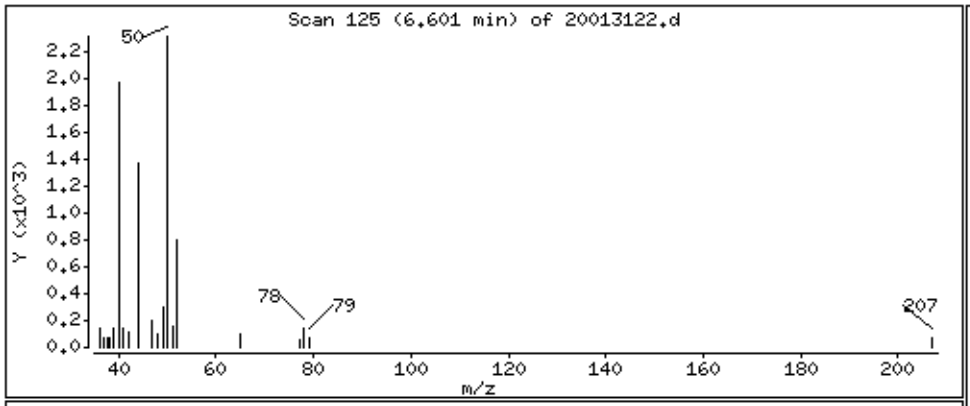
Operator: gh

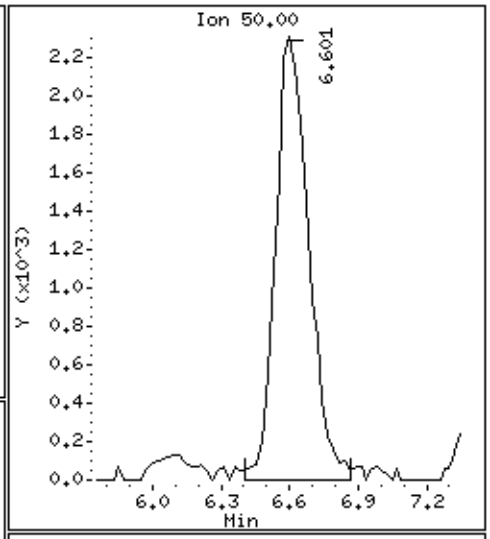
Column phase: RTX-624

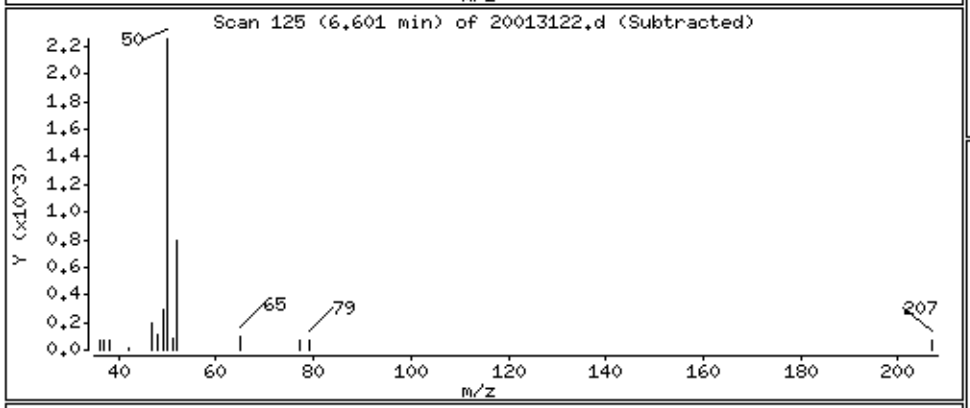
Column diameter: 0.32

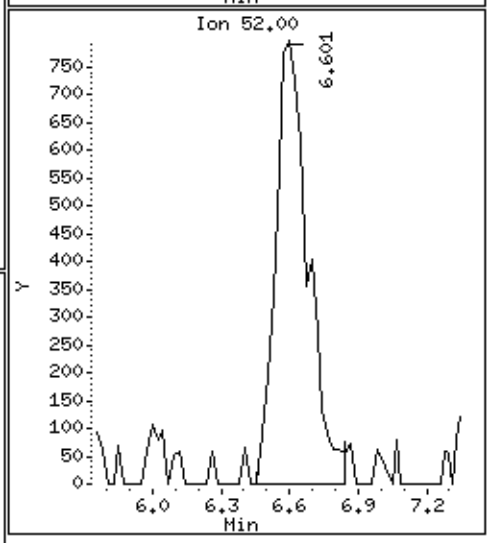
17 Chloromethane

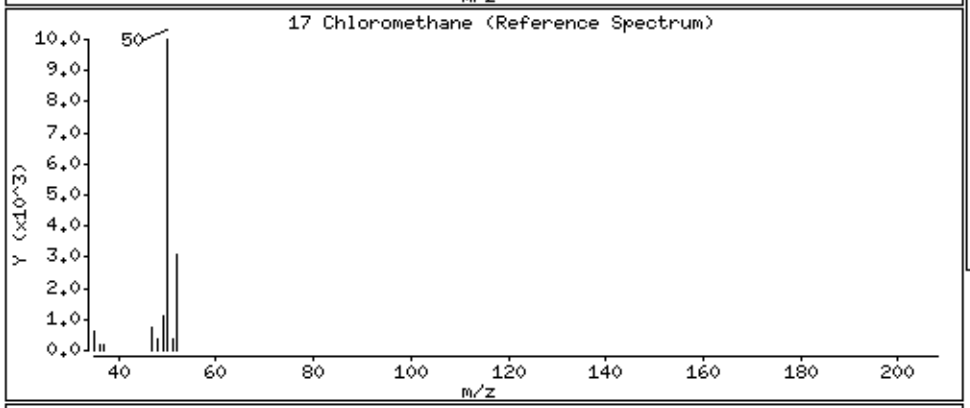
Concentration: 1.148 PPBV

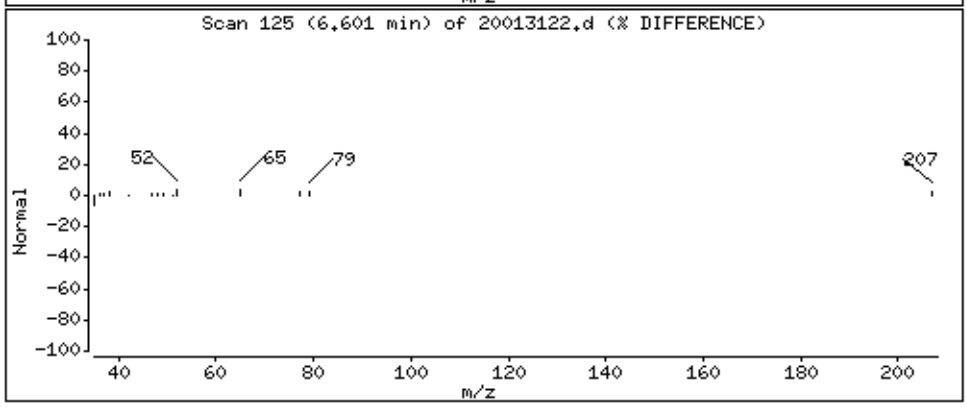












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

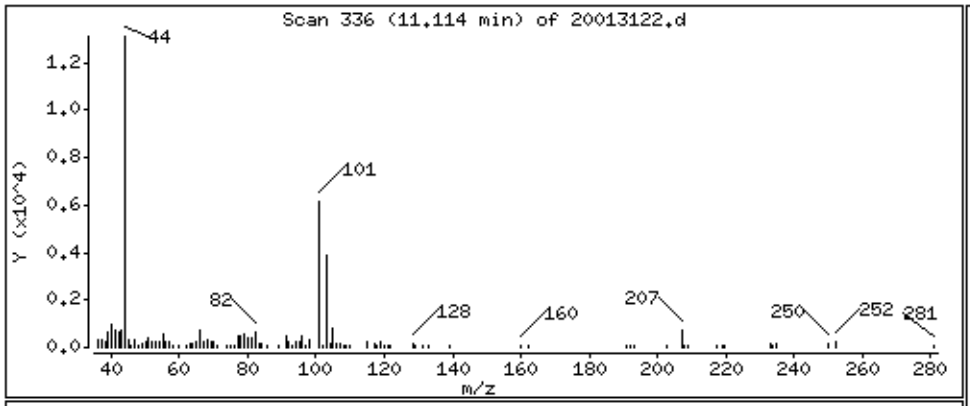
Operator: gh

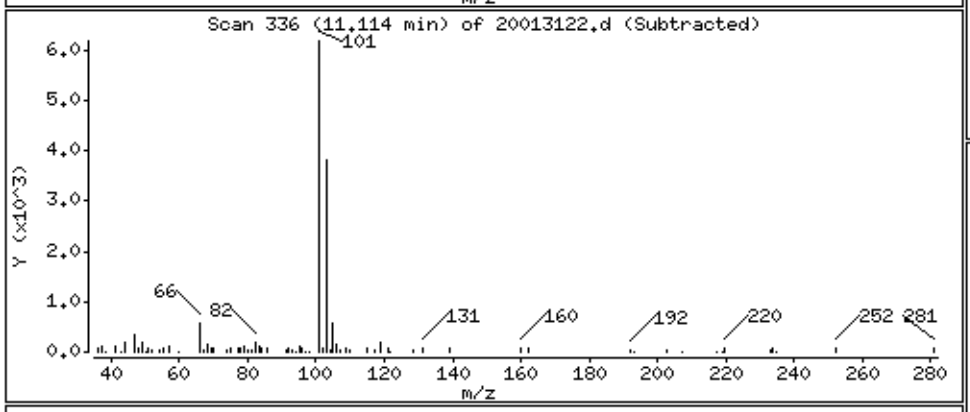
Column phase: RTX-624

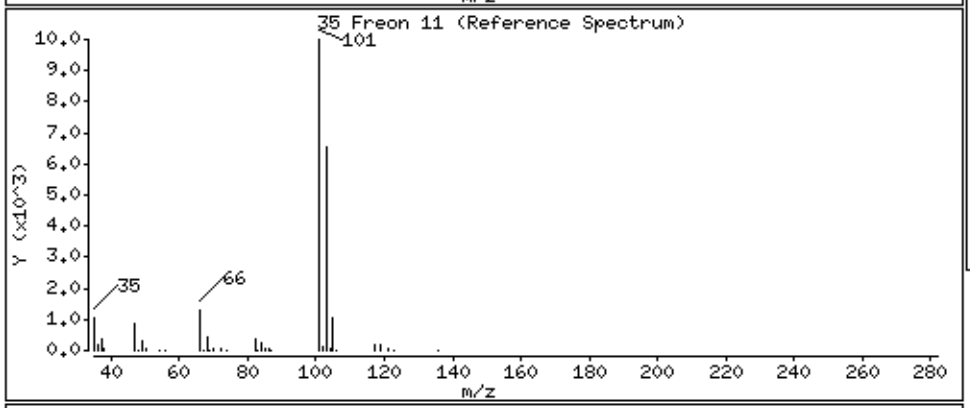
Column diameter: 0.32

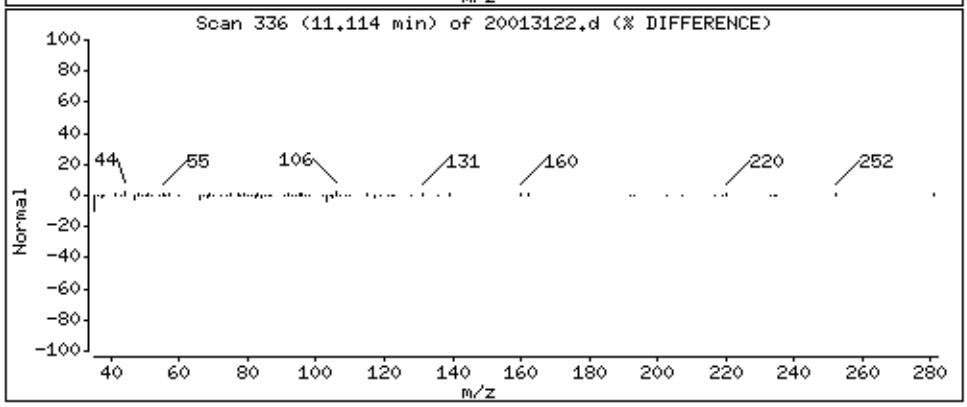
35 Freon 11

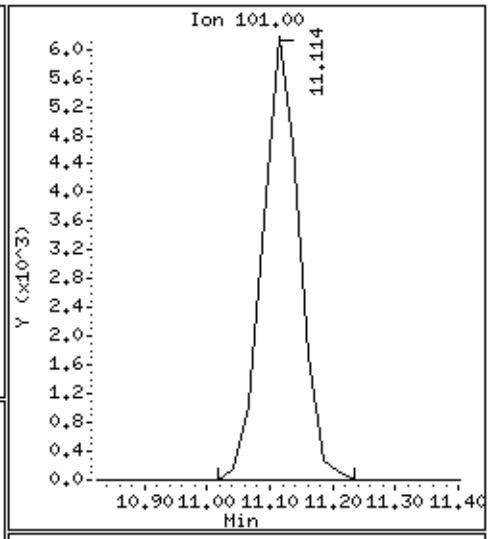
Concentration: 0.3846 PPBV

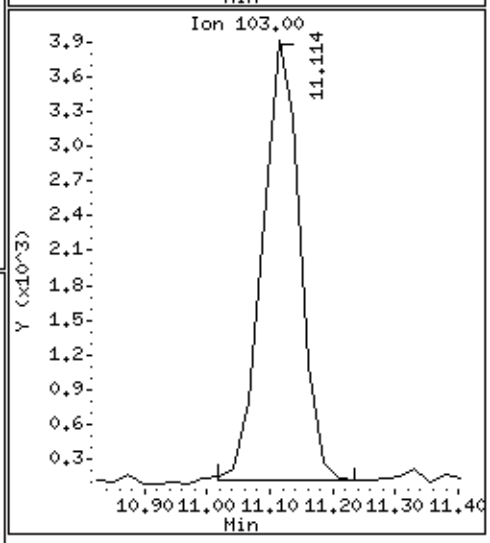












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

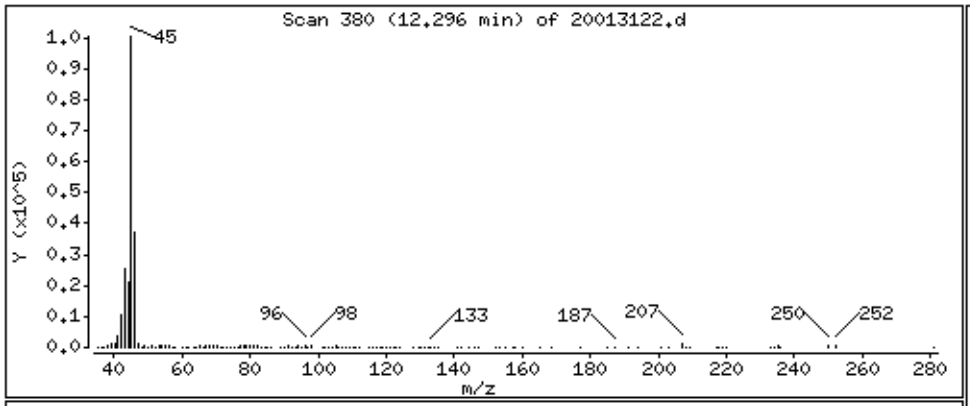
Operator: gh

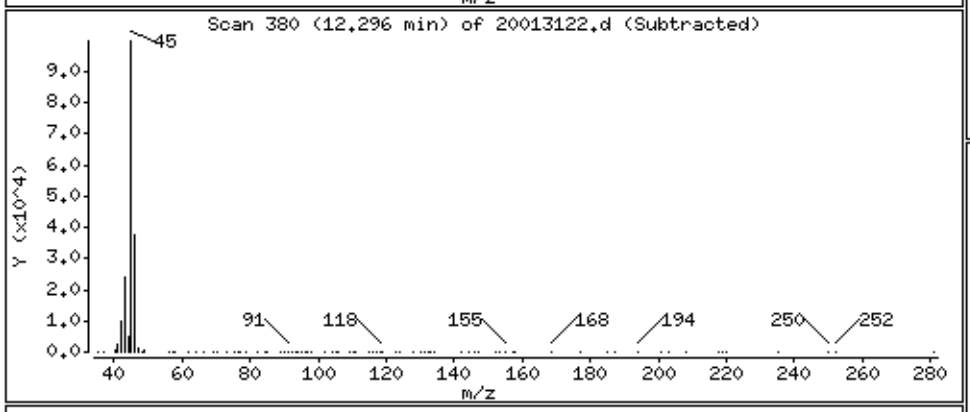
Column phase: RTX-624

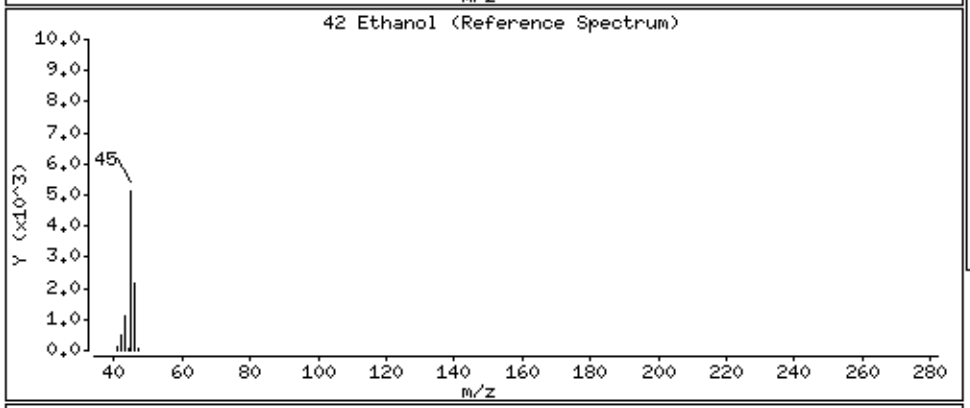
Column diameter: 0.32

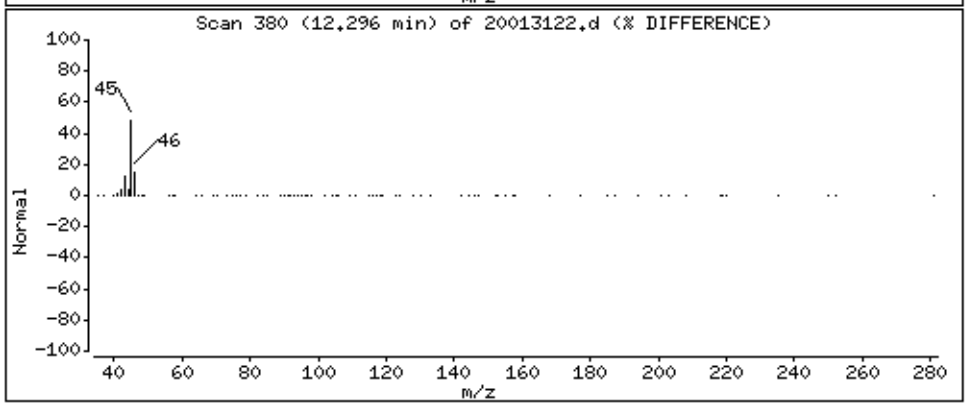
42 Ethanol

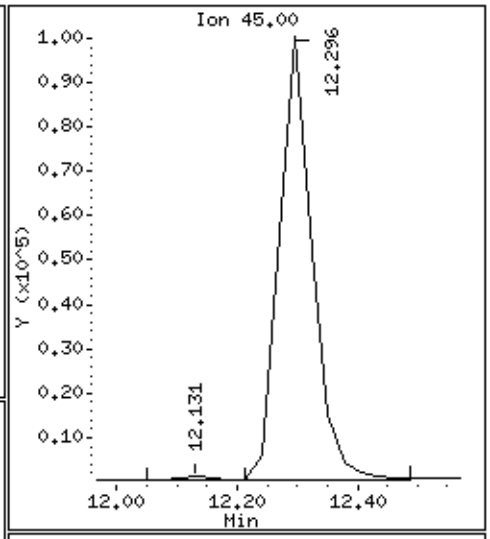
Concentration: 42.357 PPBV

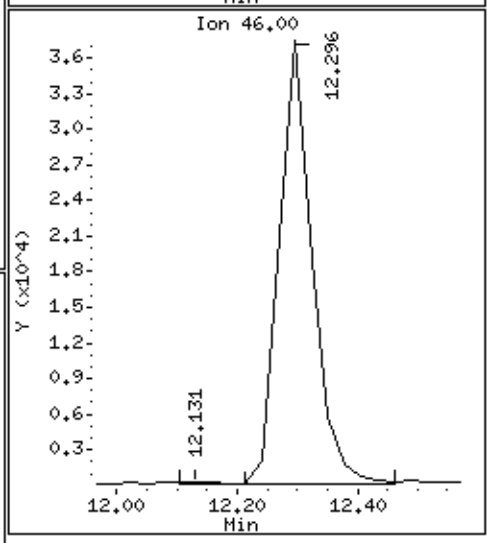












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

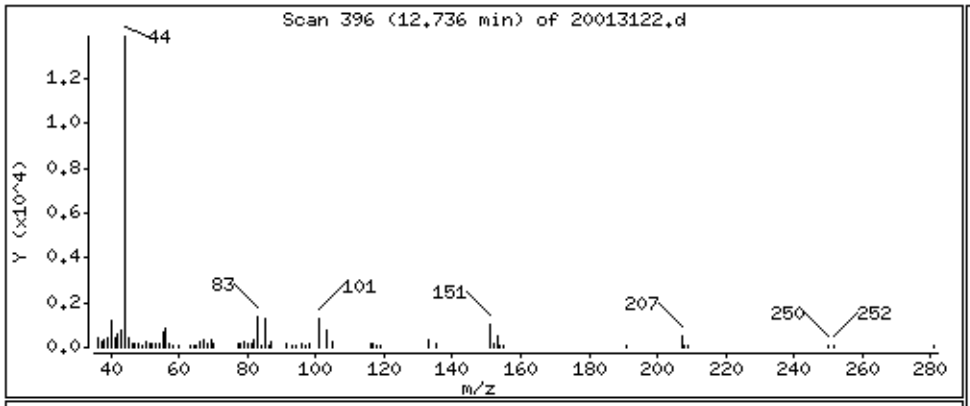
Operator: gh

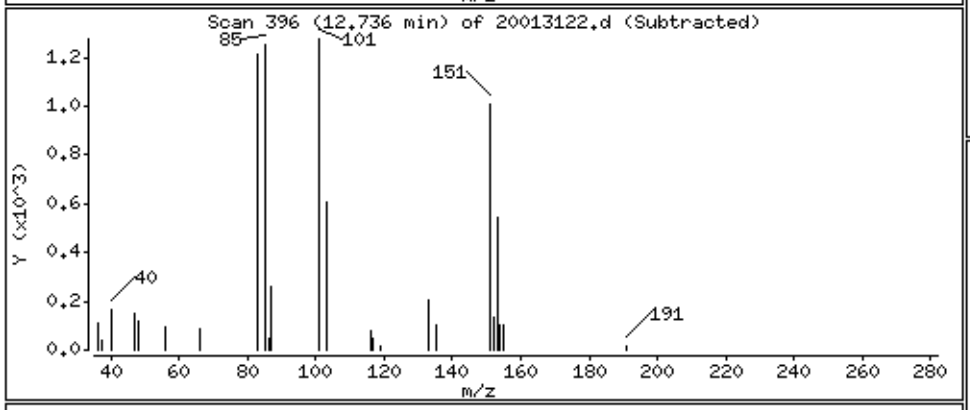
Column phase: RTX-624

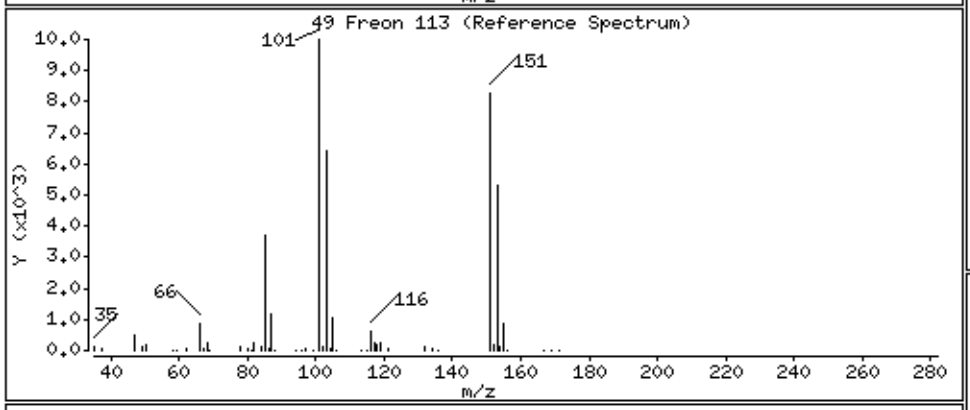
Column diameter: 0.32

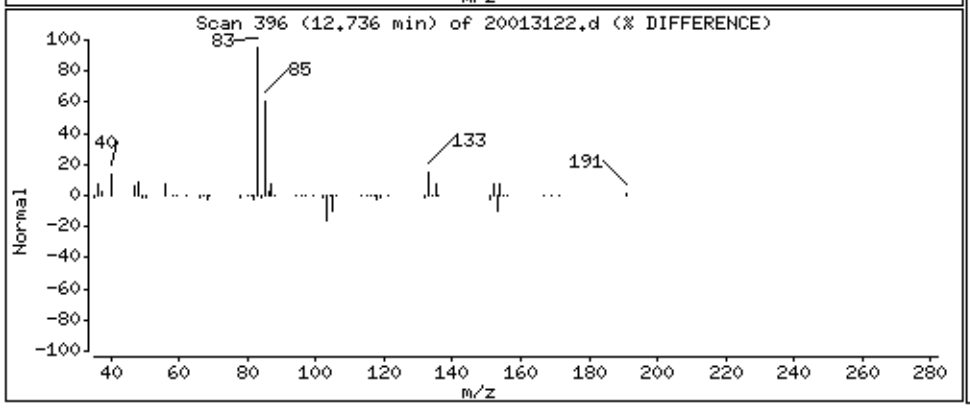
49 Freon 113

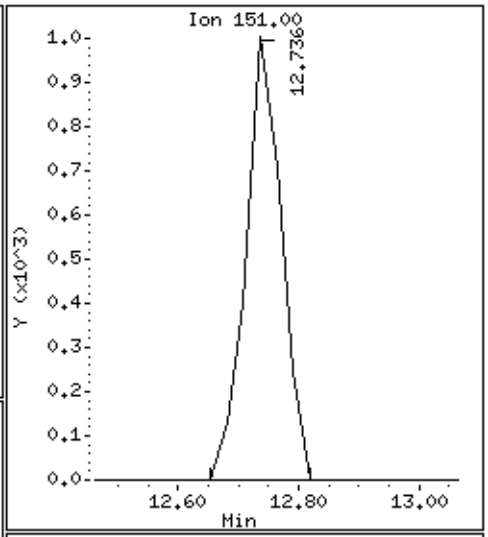
Concentration: 0.08230 PPBV

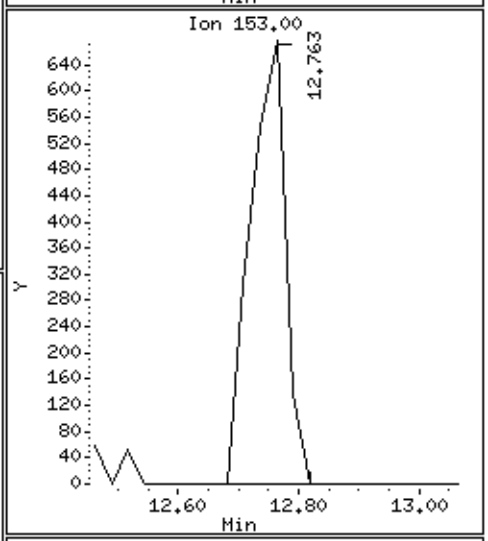


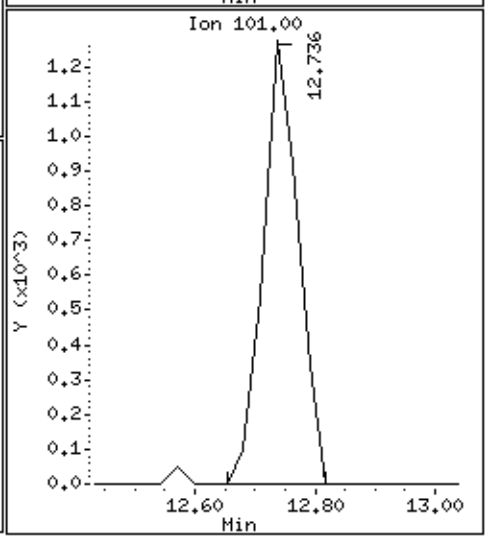












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

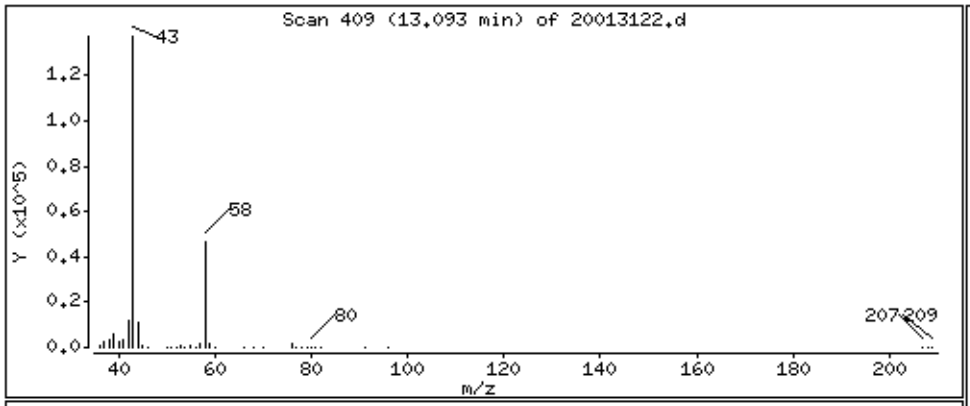
Operator: gh

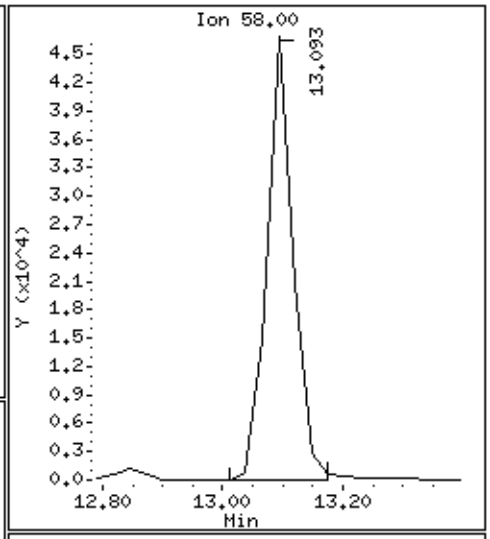
Column phase: RTX-624

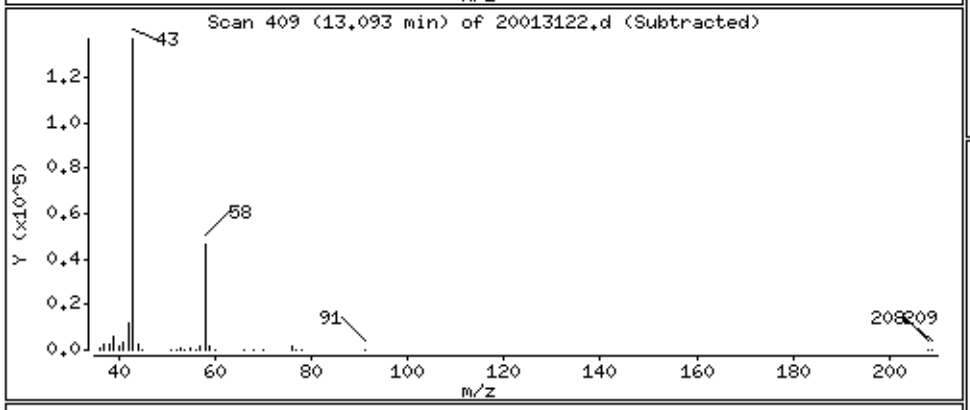
Column diameter: 0.32

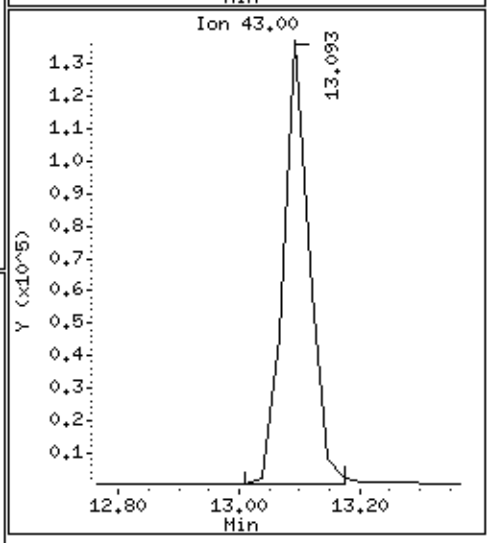
52 Acetone

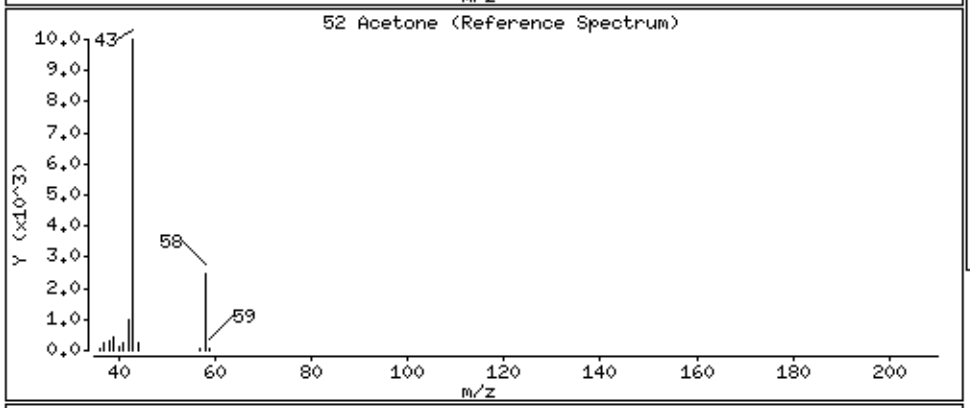
Concentration: 11.441 PPBV

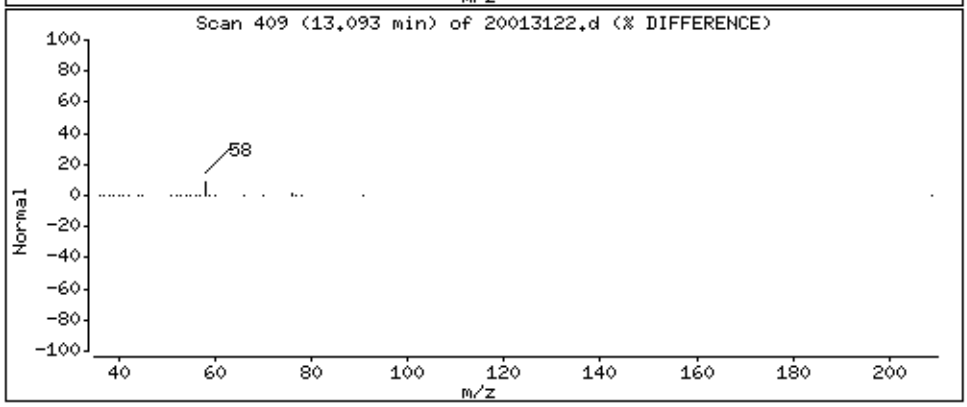












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

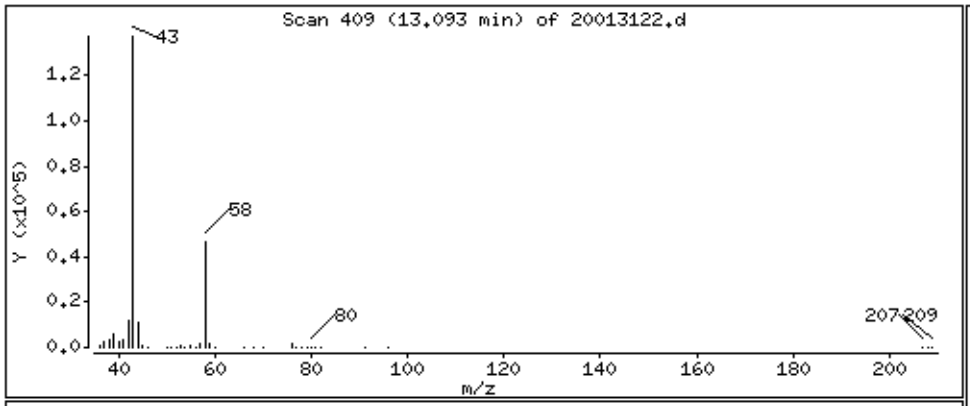
Operator: gh

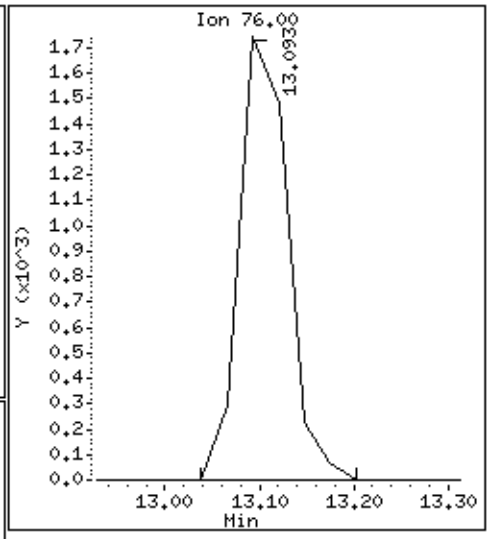
Column phase: RTX-624

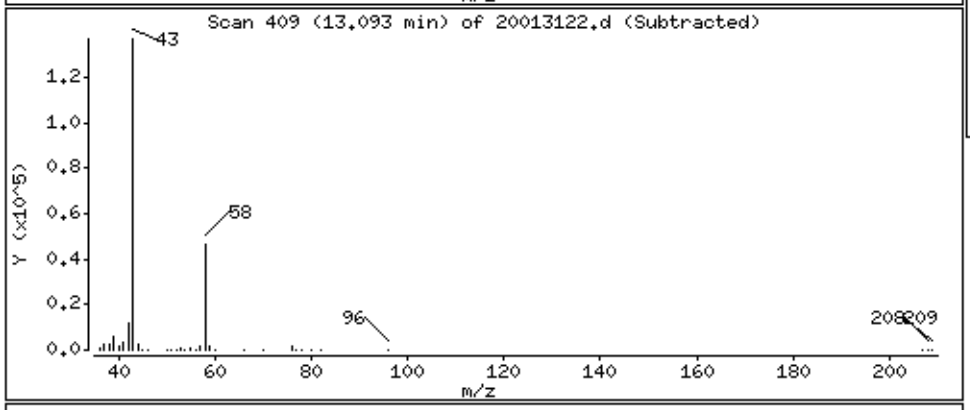
Column diameter: 0.32

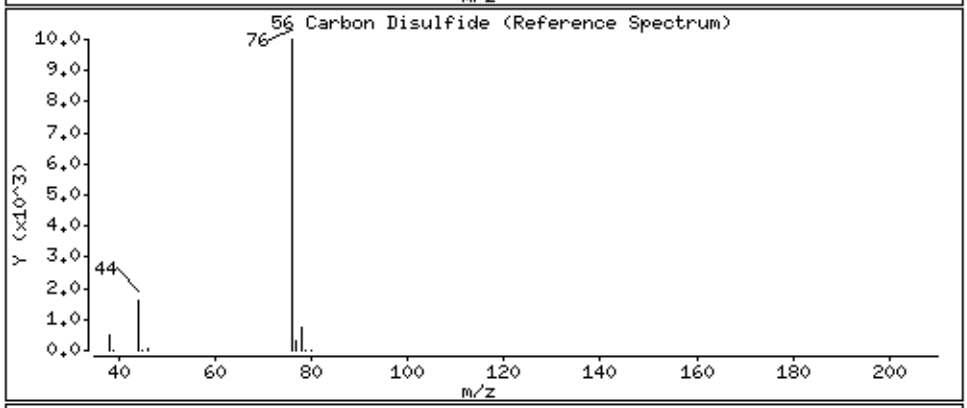
56 Carbon Disulfide

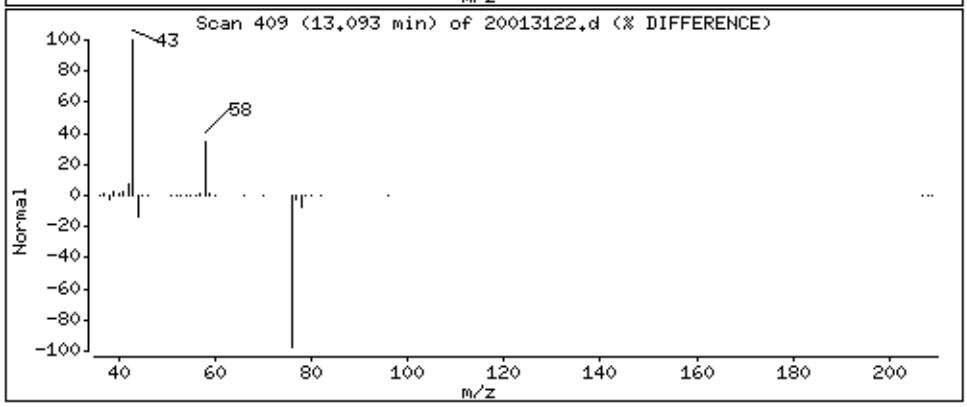
Concentration: 0.09144 PPBV











Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

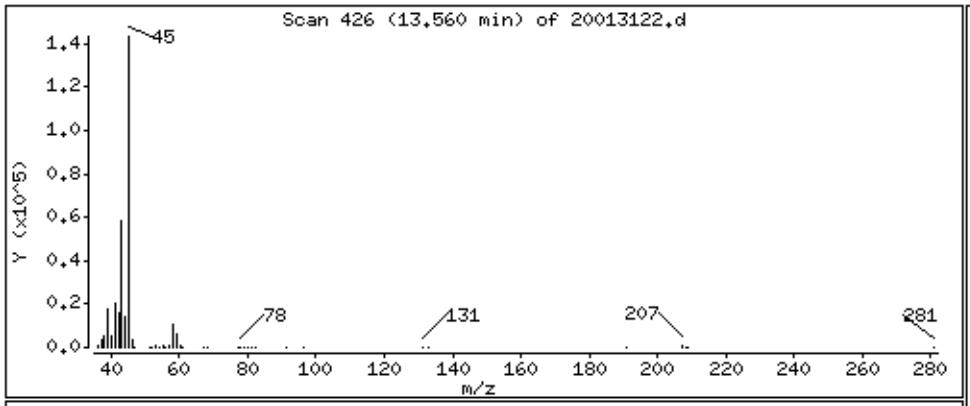
Operator: gh

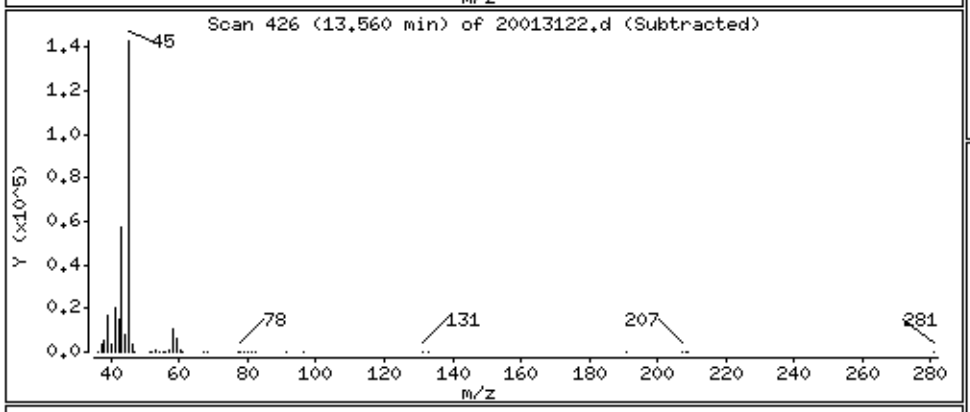
Column phase: RTX-624

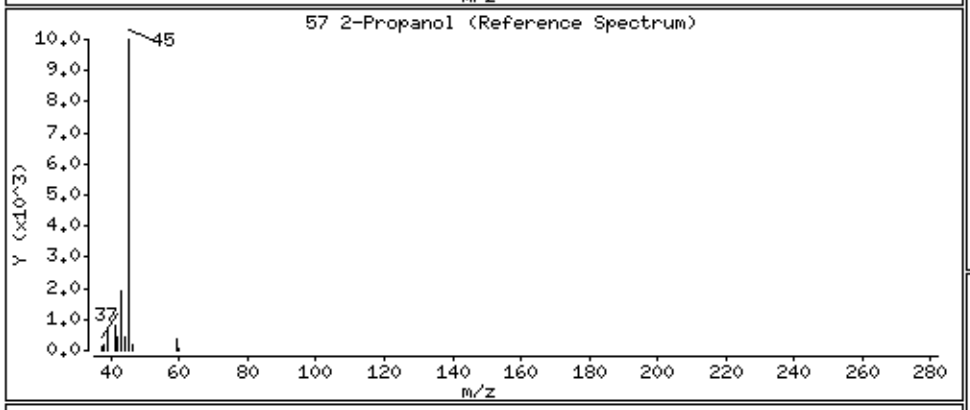
Column diameter: 0.32

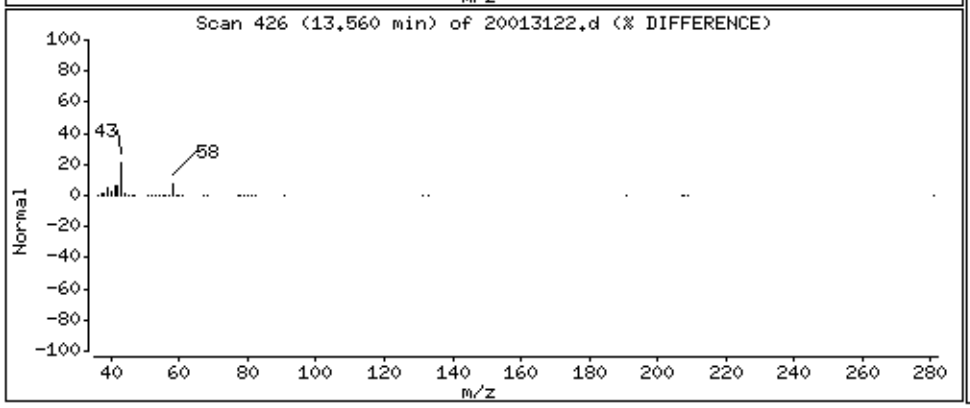
57 2-Propanol

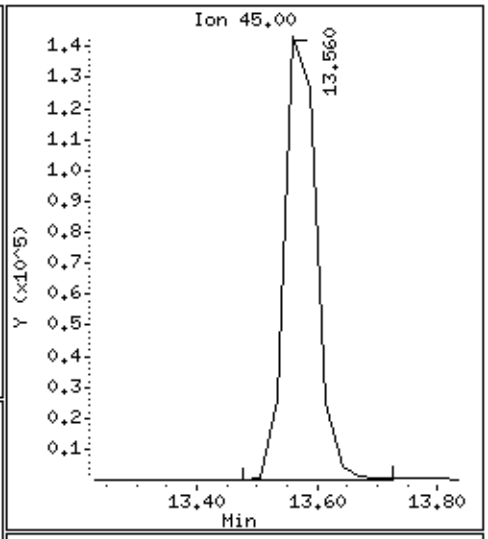
Concentration: 16.158 PPBV

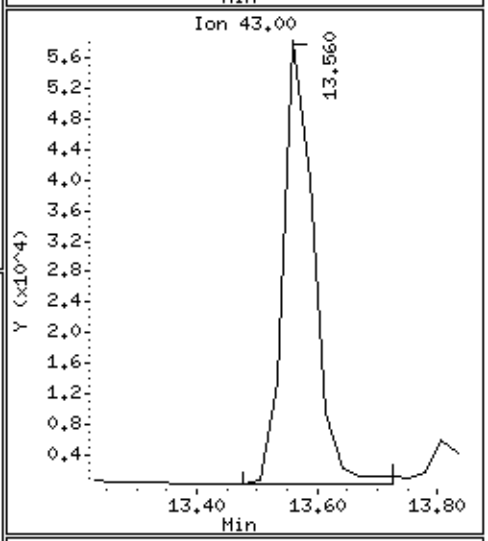


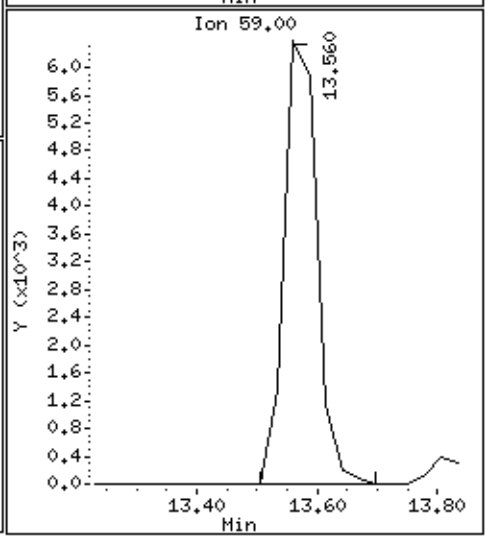












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

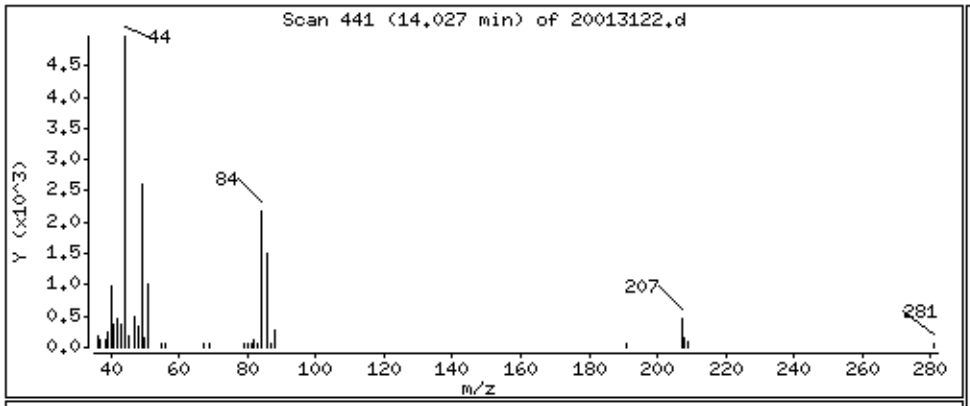
Operator: gh

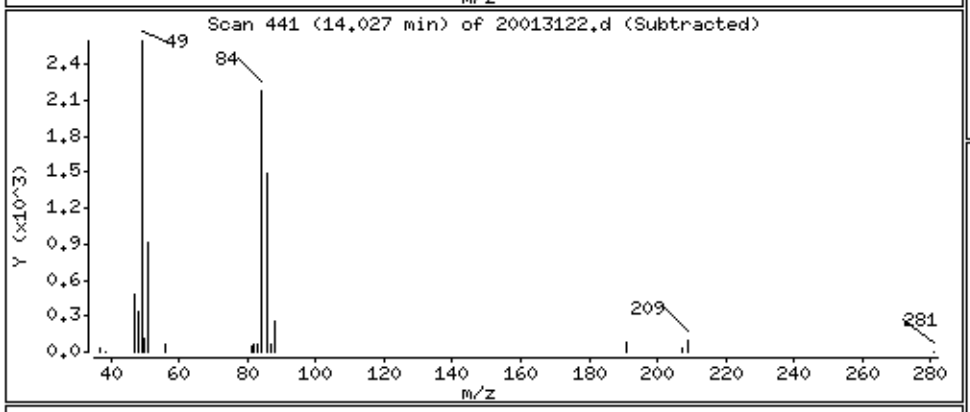
Column phase: RTX-624

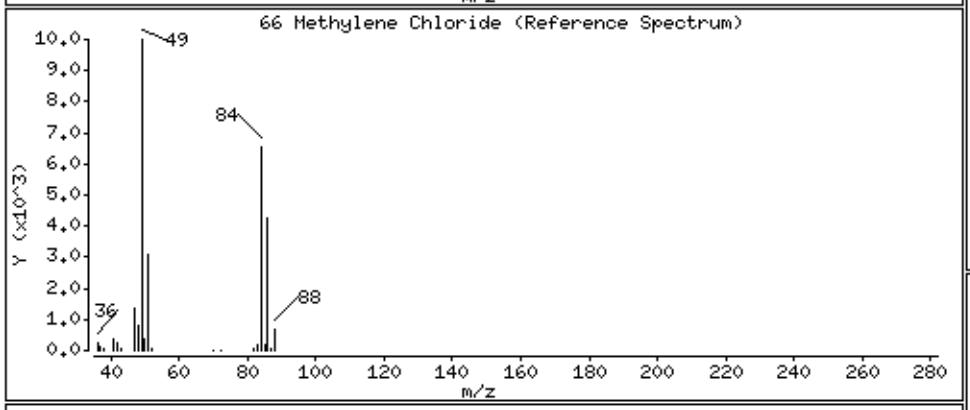
Column diameter: 0.32

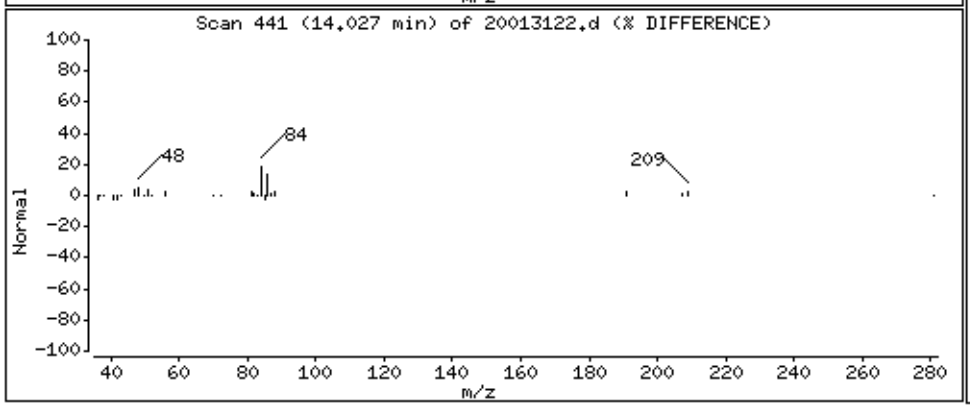
66 Methylene Chloride

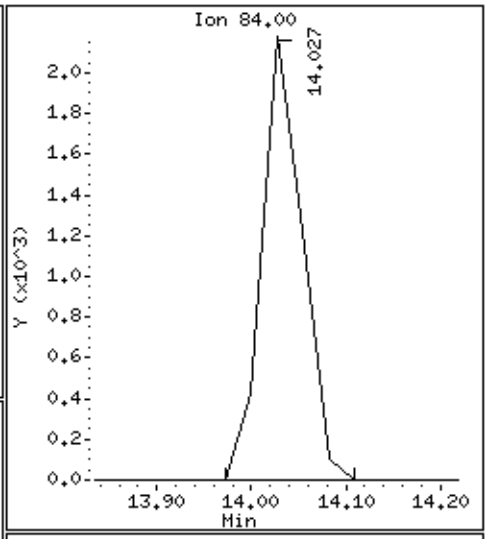
Concentration: 0.2404 PPBV

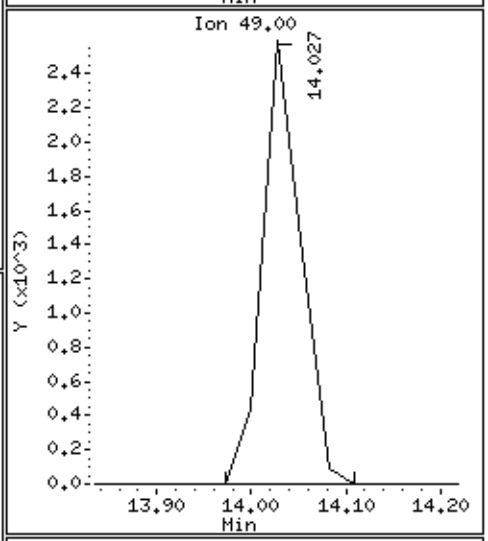


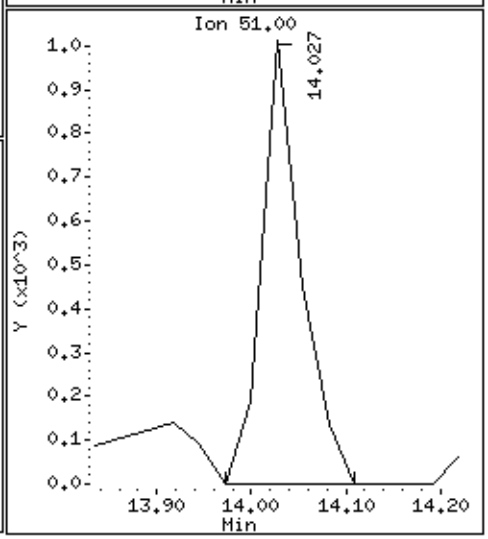












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

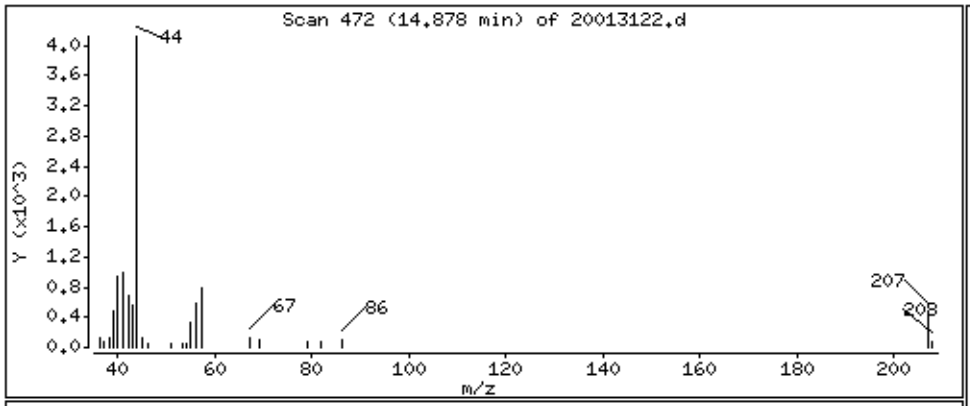
Operator: gh

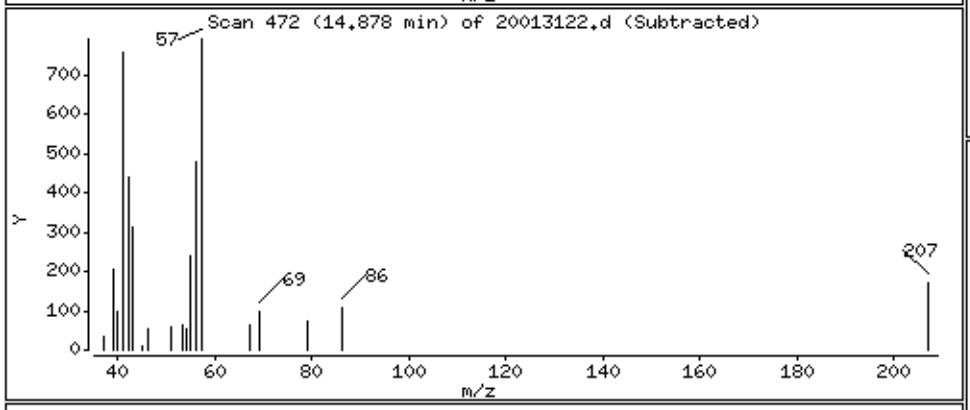
Column phase: RTX-624

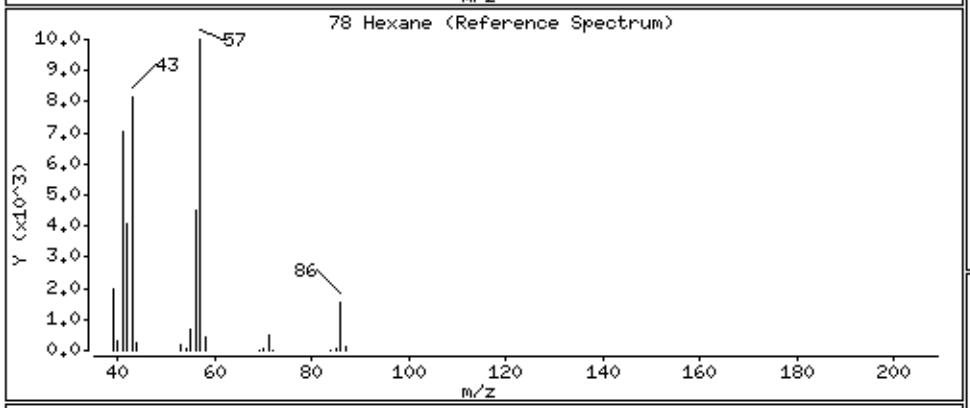
Column diameter: 0.32

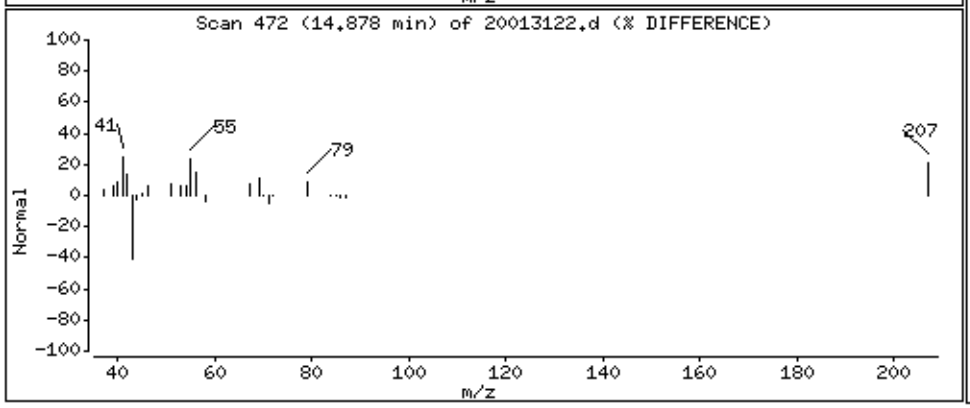
78 Hexane

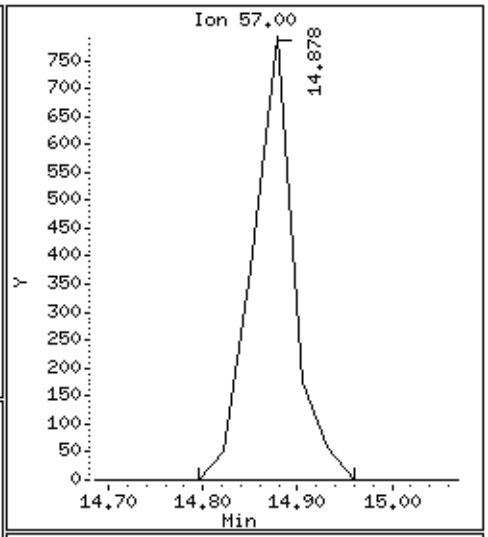
Concentration: 0.06727 PPBV

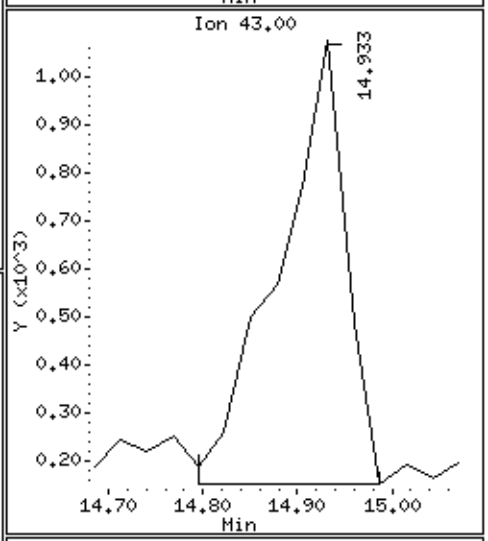


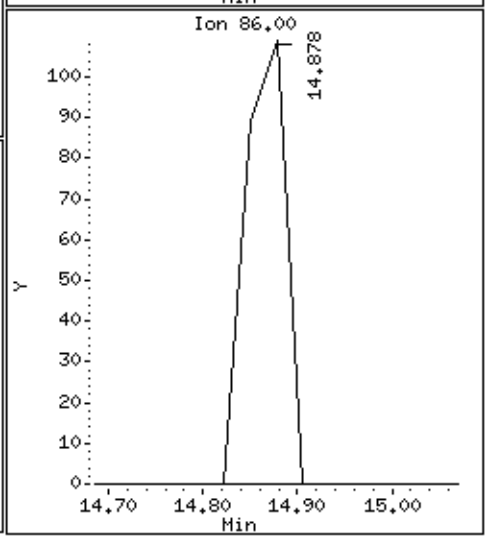












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

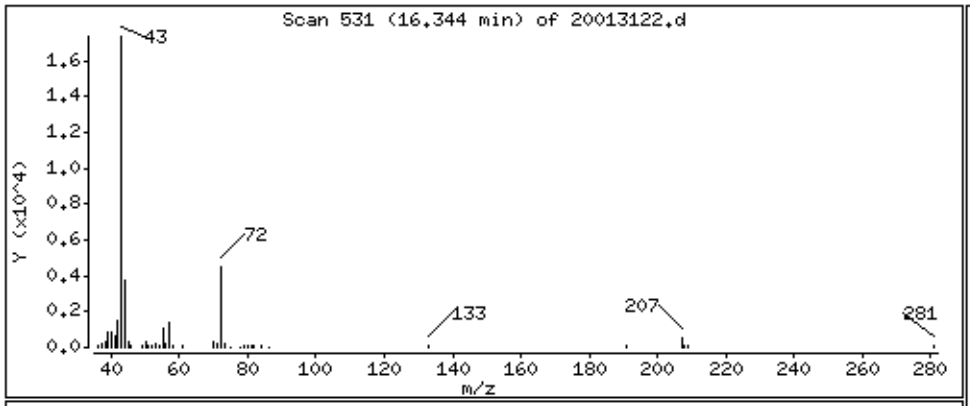
Operator: gh

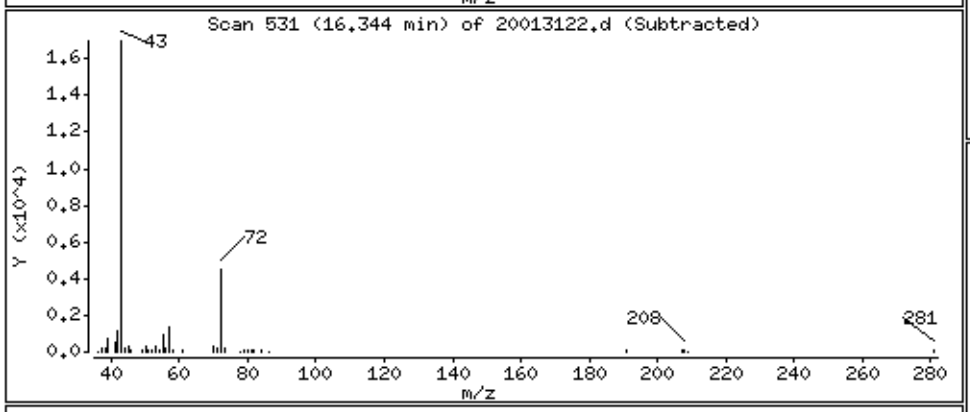
Column phase: RTX-624

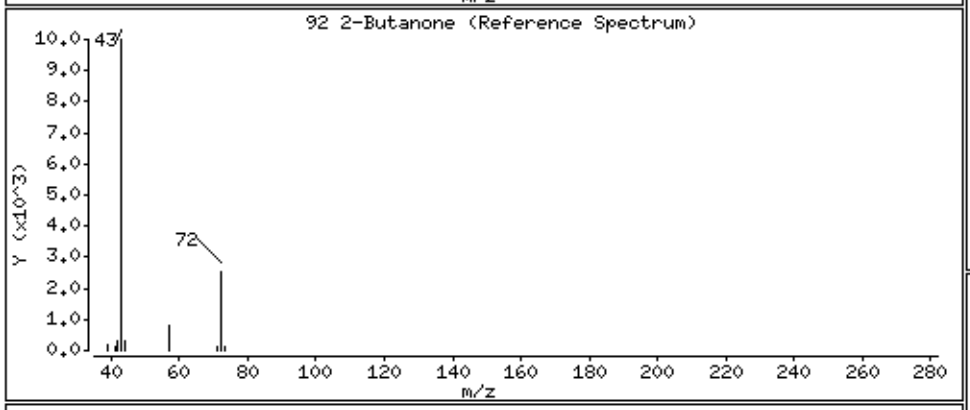
Column diameter: 0.32

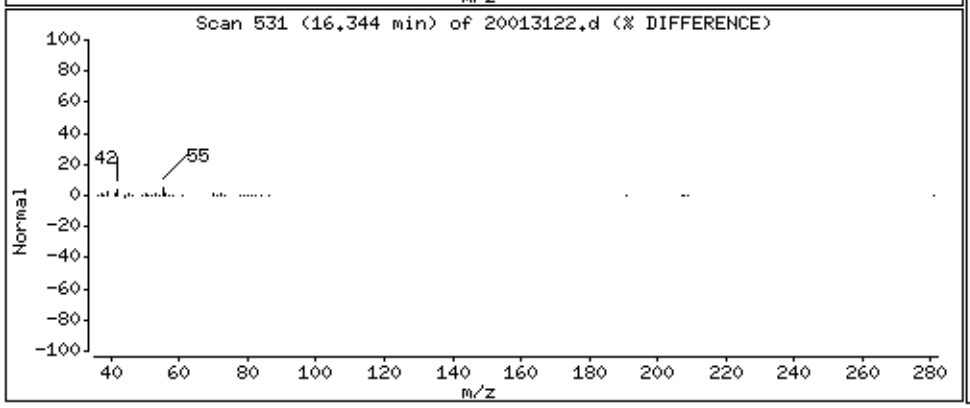
92 2-Butanone

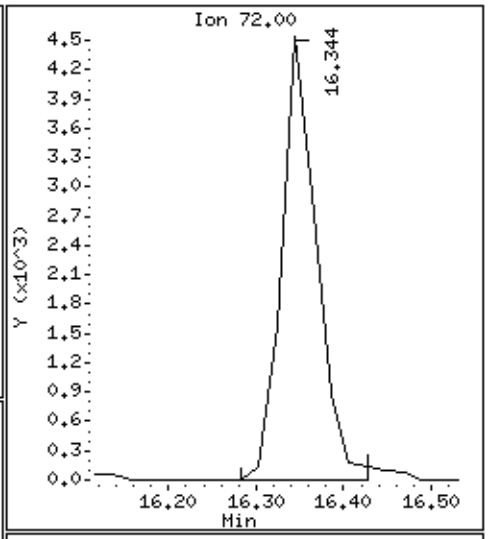
Concentration: 1.068 PPBV

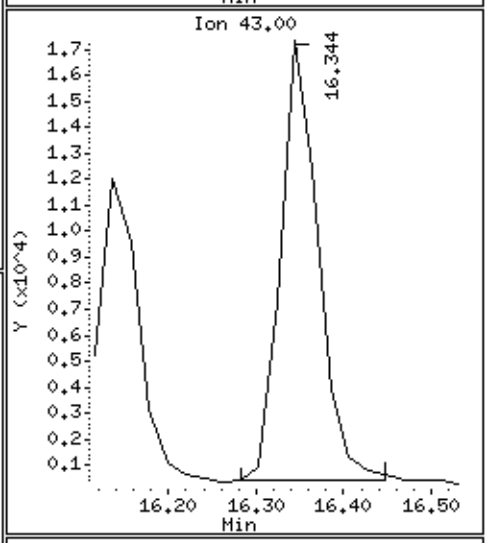


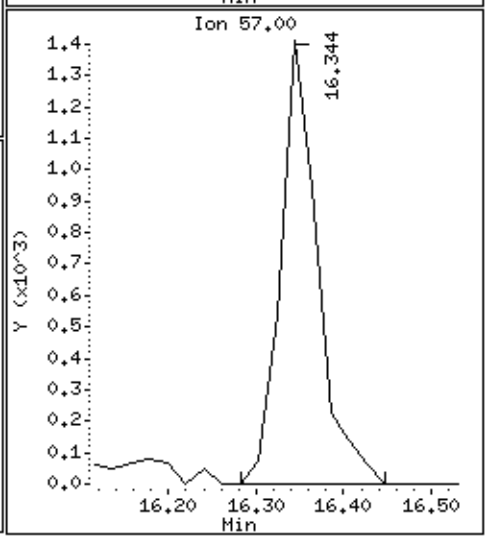












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

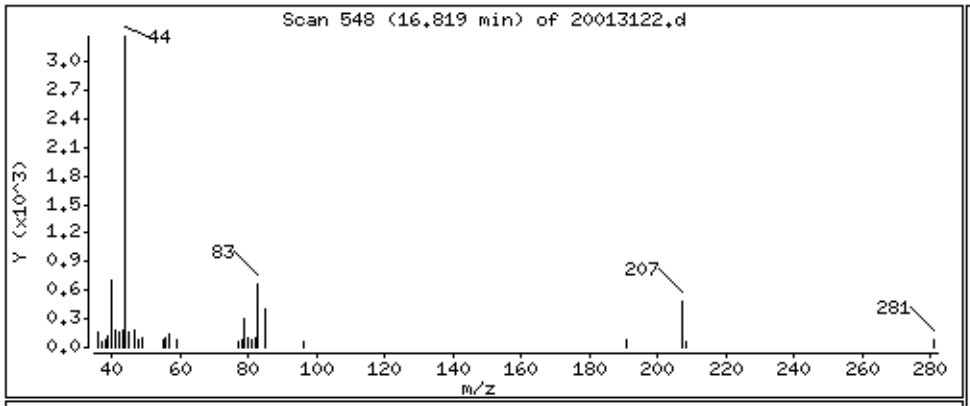
Operator: gh

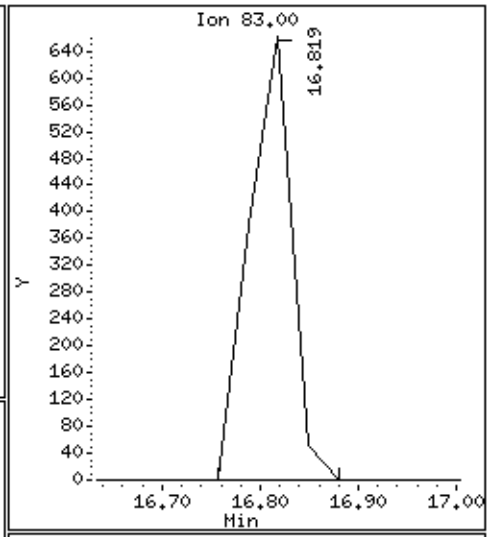
Column phase: RTX-624

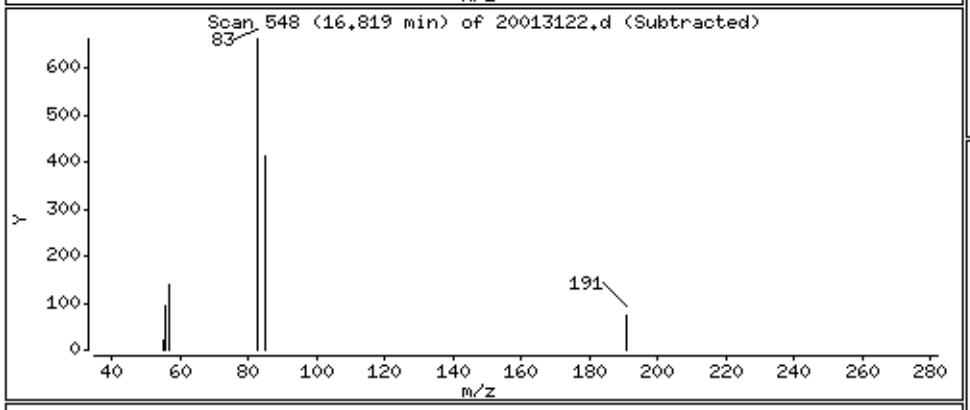
Column diameter: 0.32

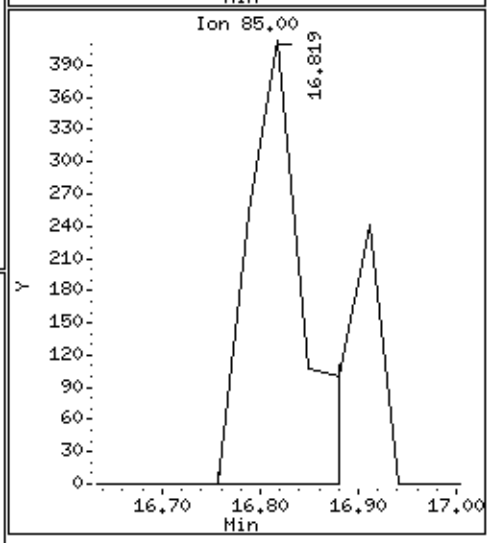
100 Chloroform

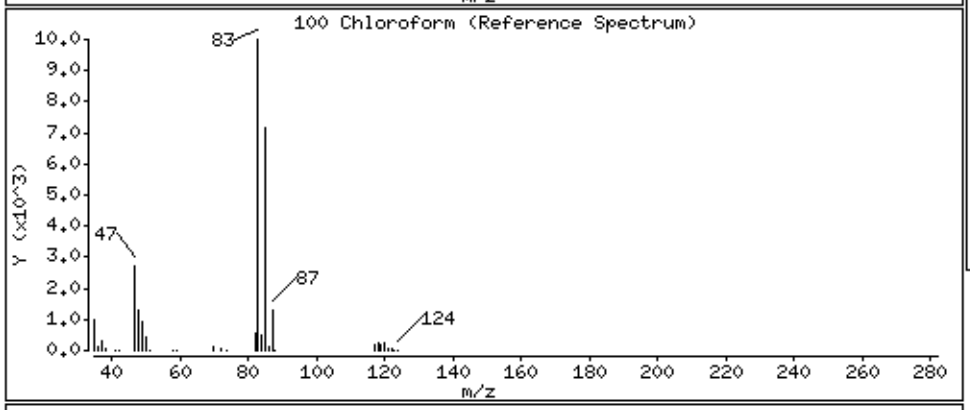
Concentration: 0.03689 PPBV

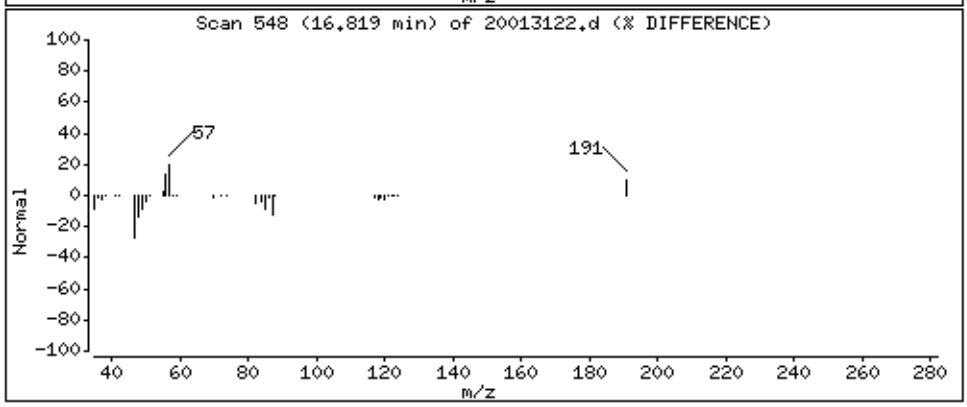












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

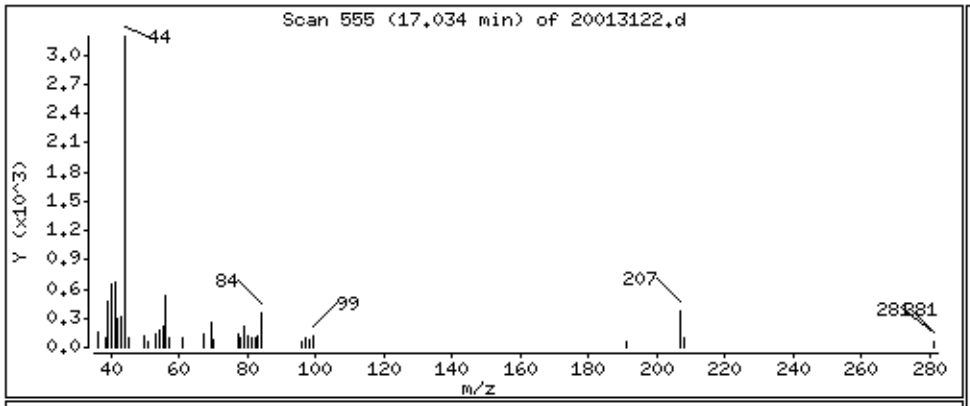
Operator: gh

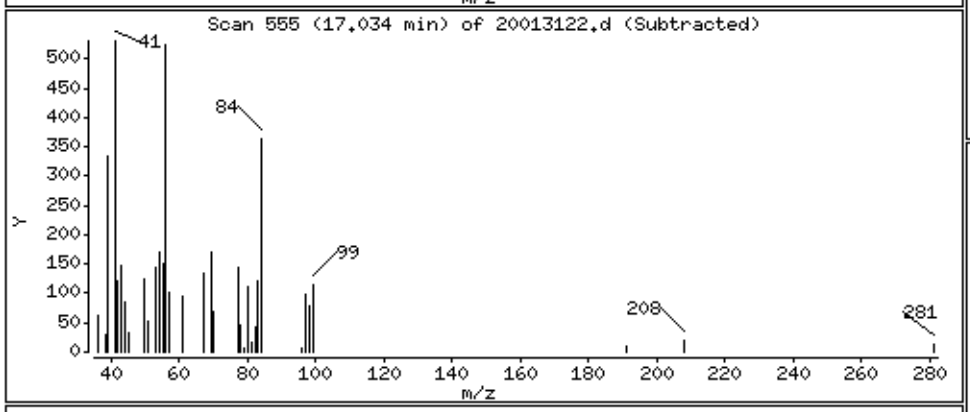
Column phase: RTX-624

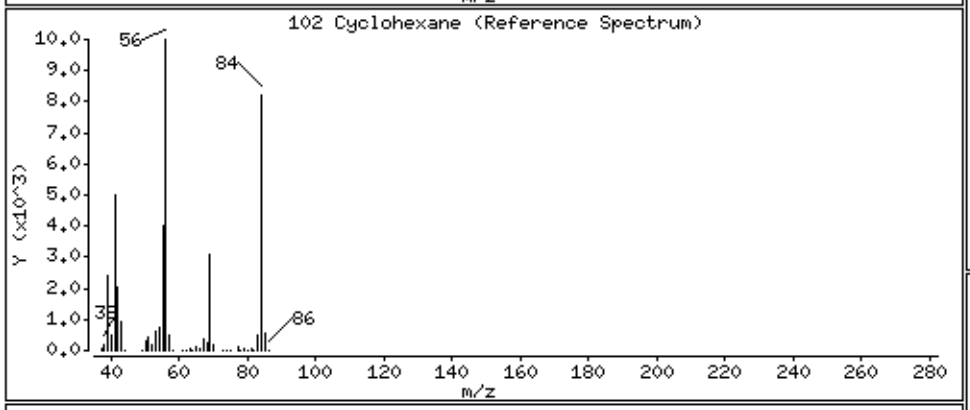
Column diameter: 0.32

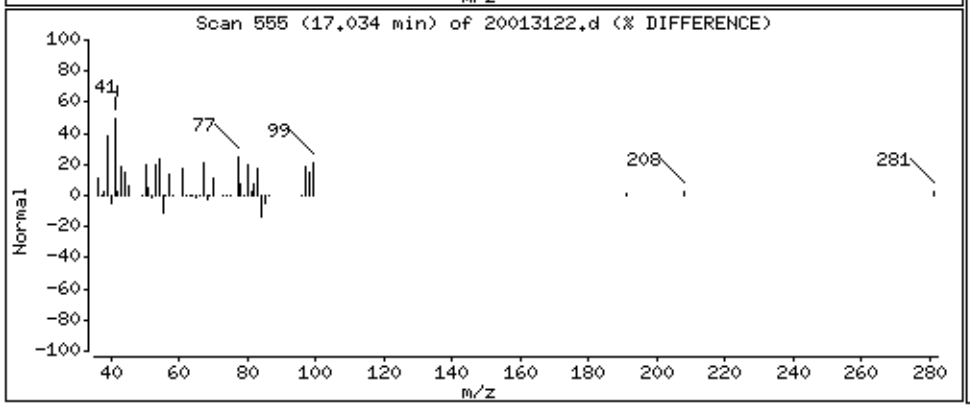
102 Cyclohexane

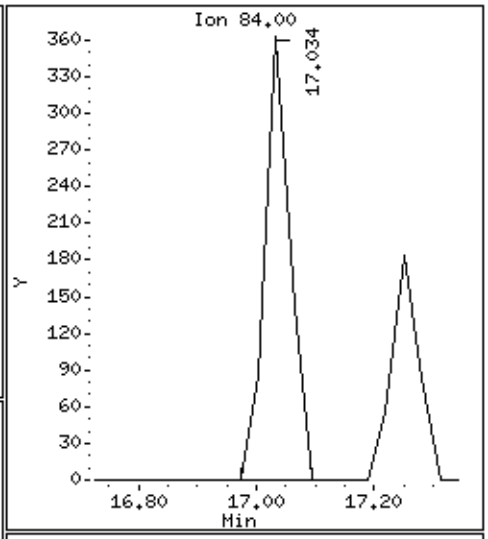
Concentration: 0.03048 PPBV

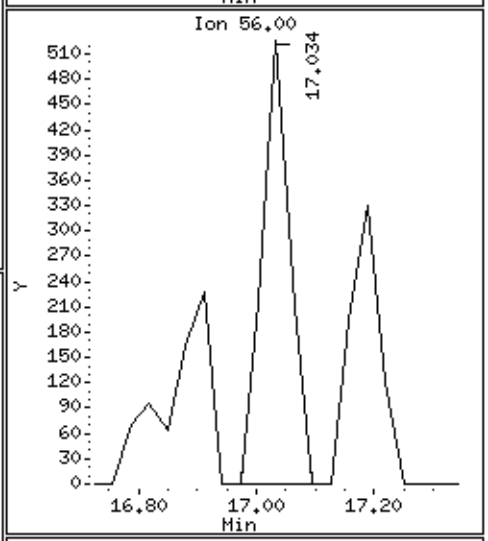


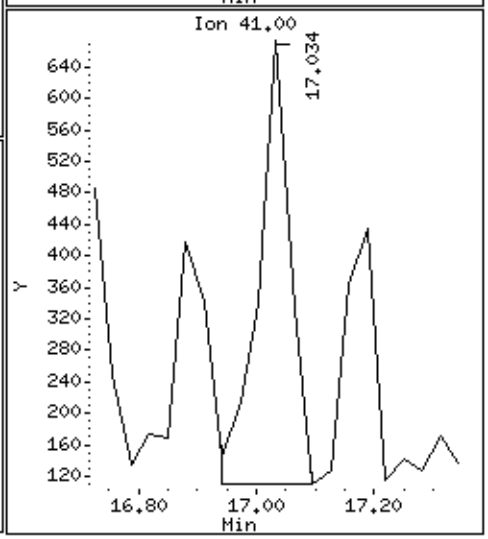












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

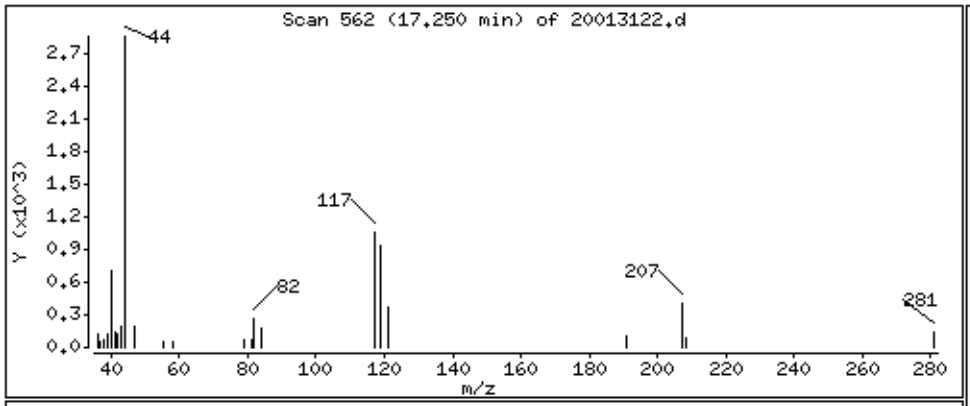
Operator: gh

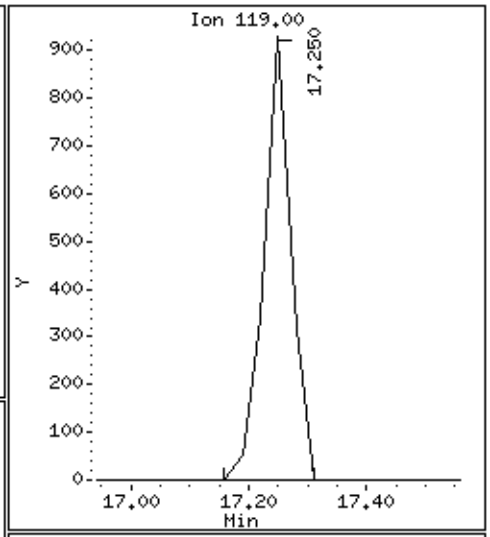
Column phase: RTX-624

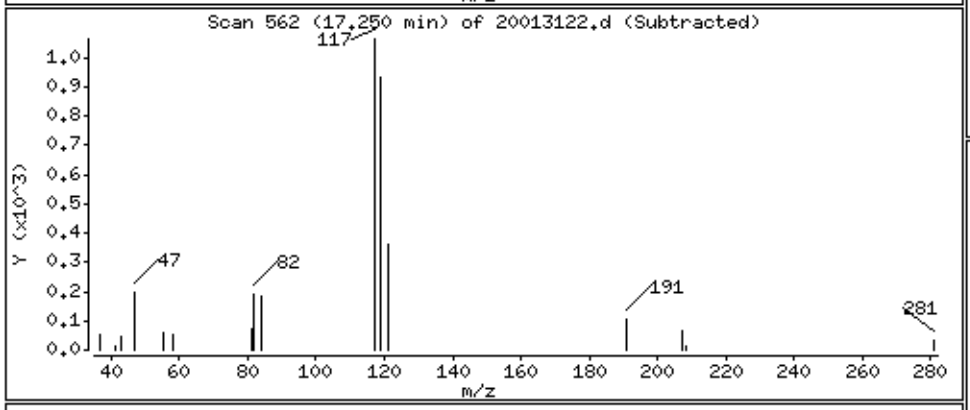
Column diameter: 0.32

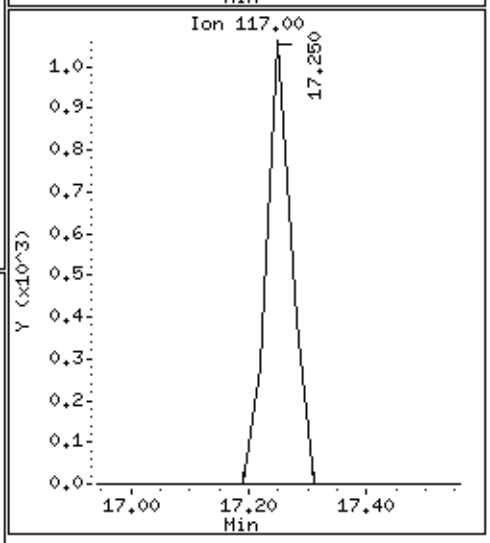
106 Carbon Tetrachloride

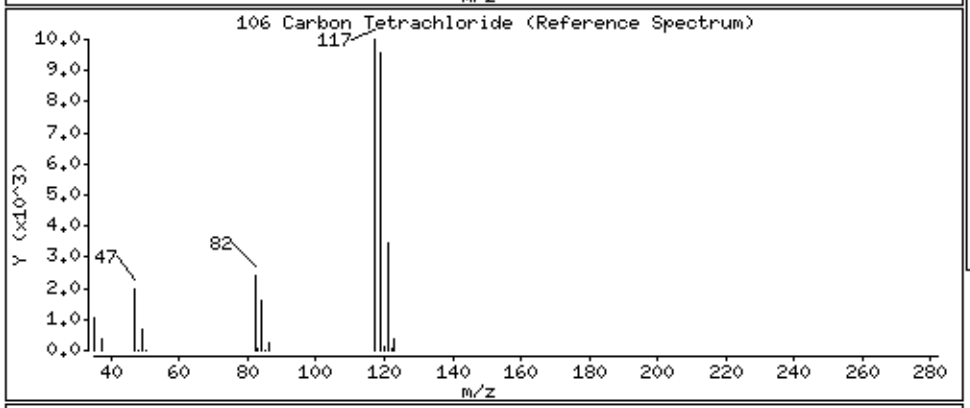
Concentration: 0.06430 PPBV

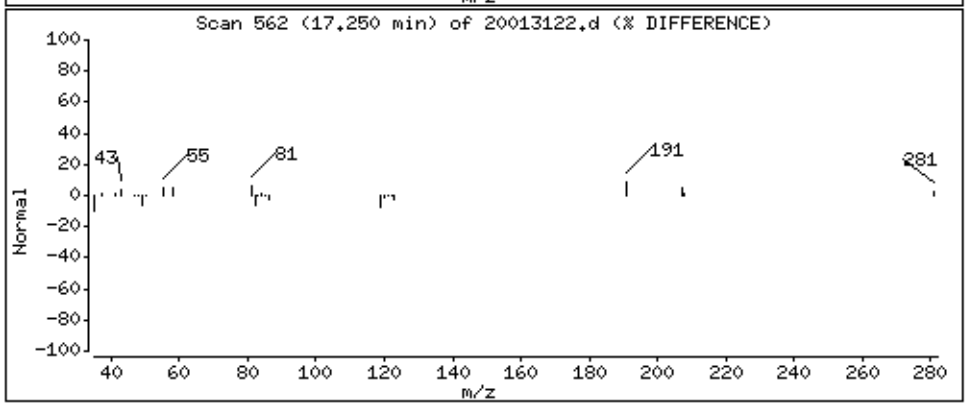












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

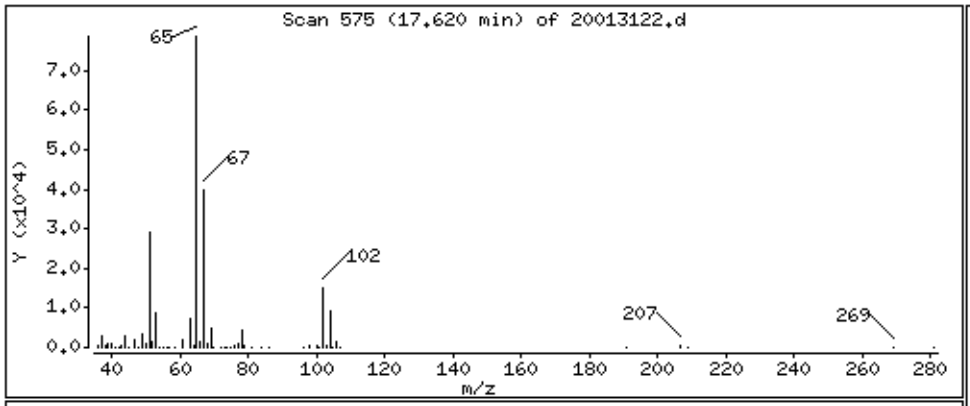
Operator: gh

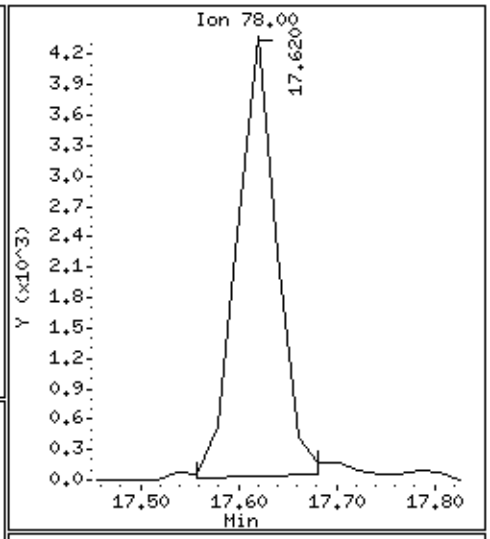
Column phase: RTX-624

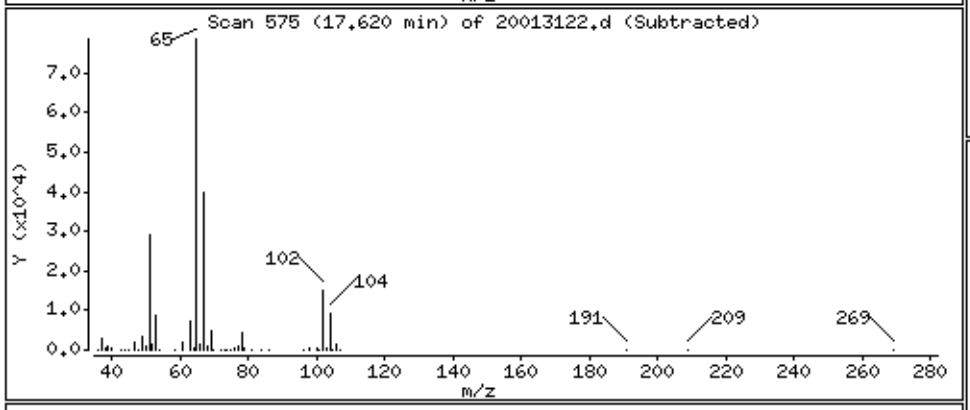
Column diameter: 0.32

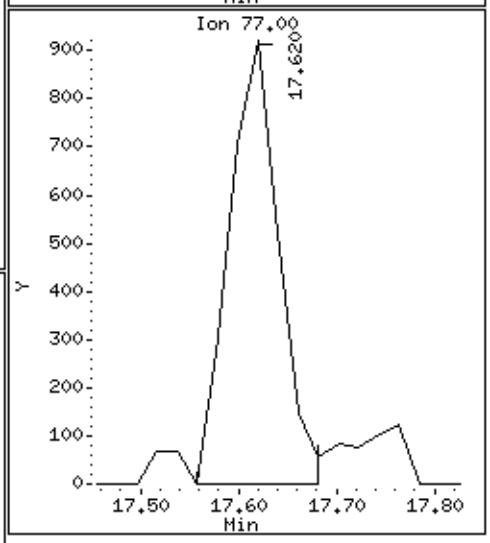
116 Benzene

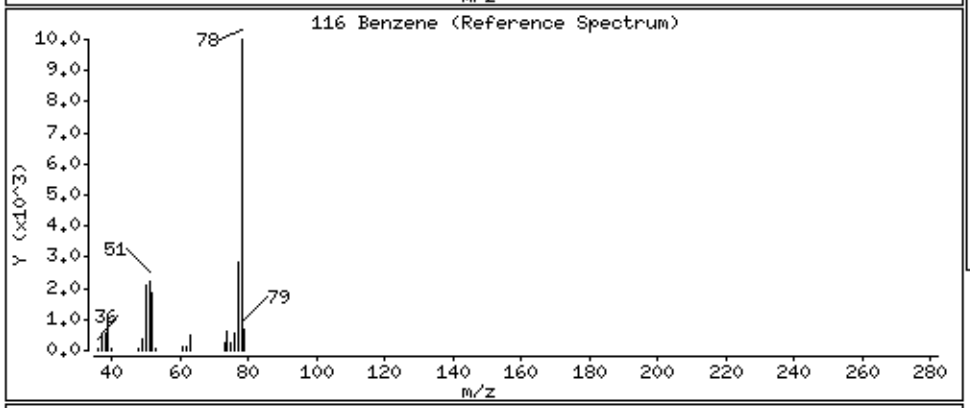
Concentration: 0.2147 PPBV

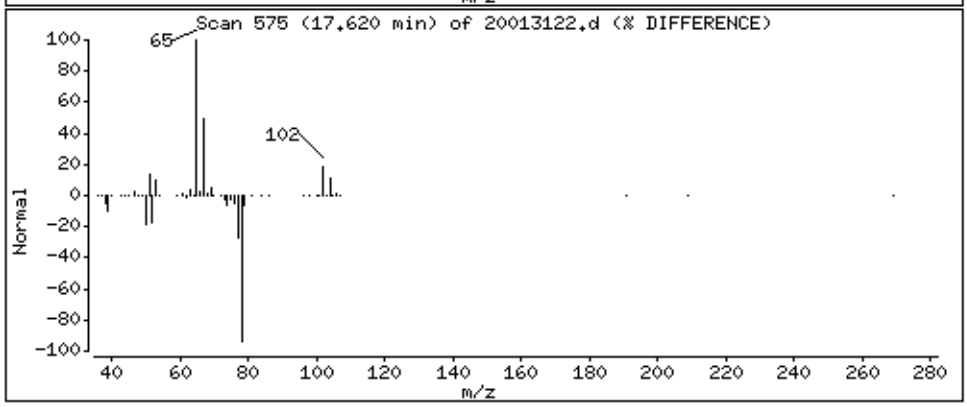












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

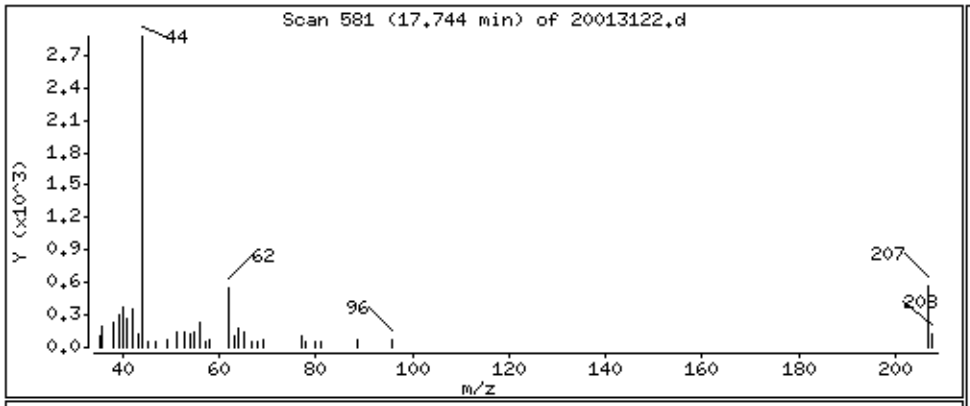
Operator: gh

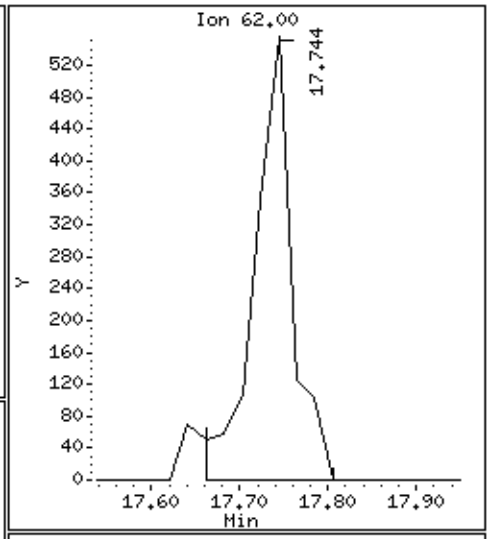
Column phase: RTX-624

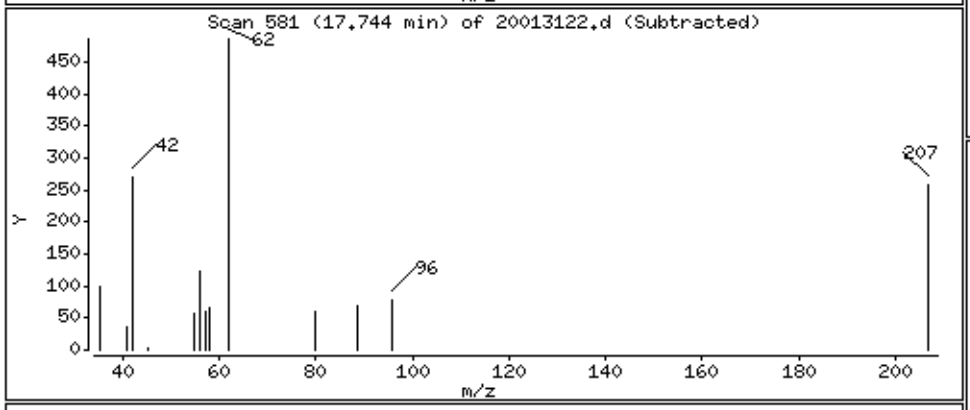
Column diameter: 0.32

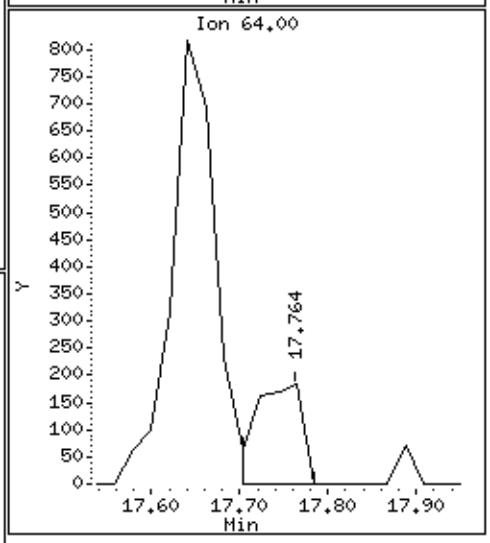
120 1,2-Dichloroethane

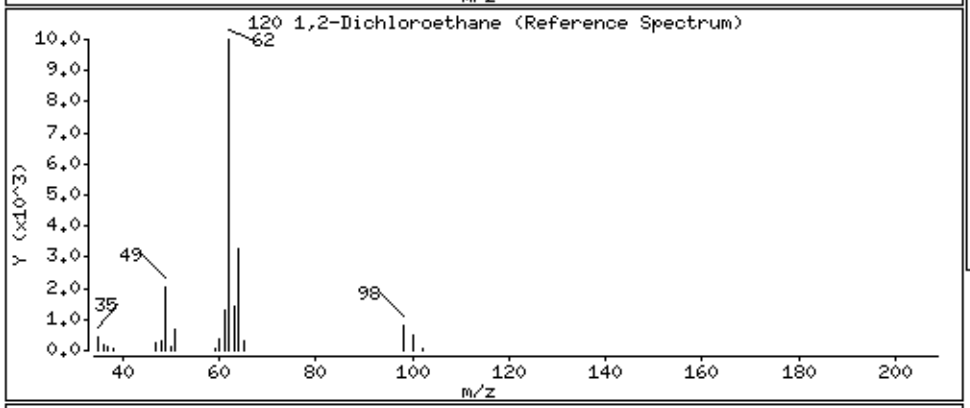
Concentration: 0.07481 PPBV

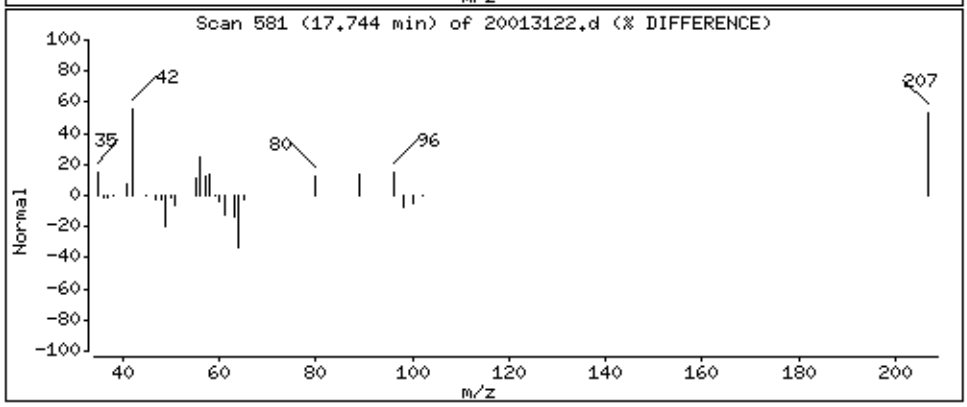












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

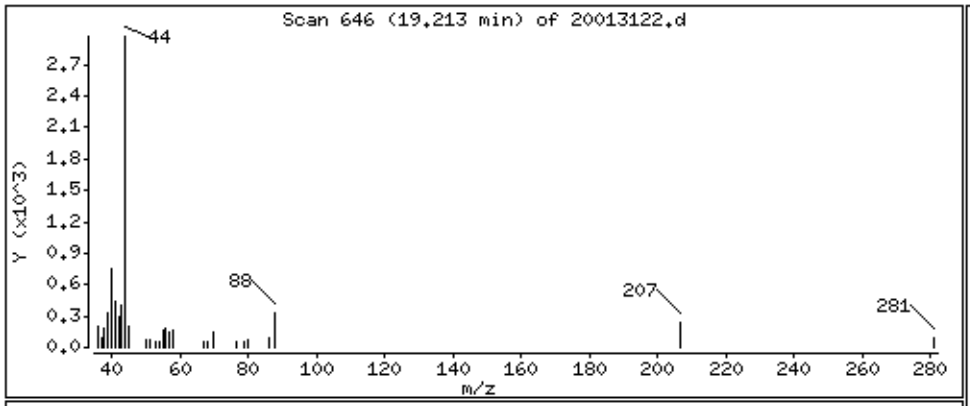
Operator: gh

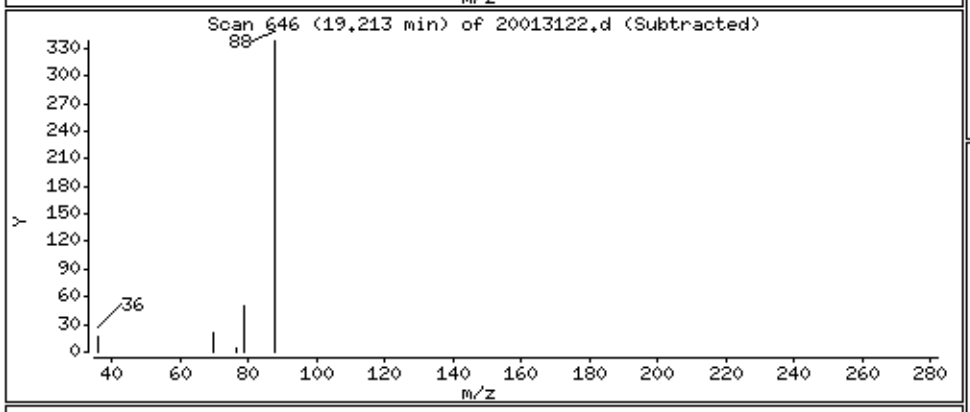
Column phase: RTX-624

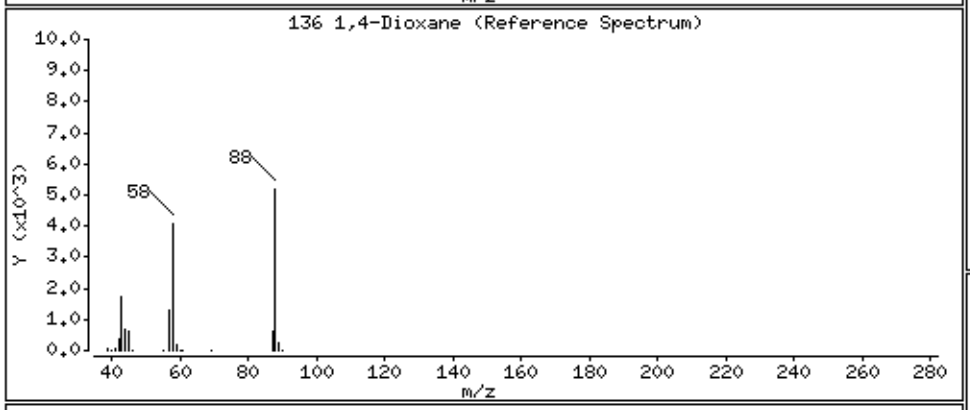
Column diameter: 0.32

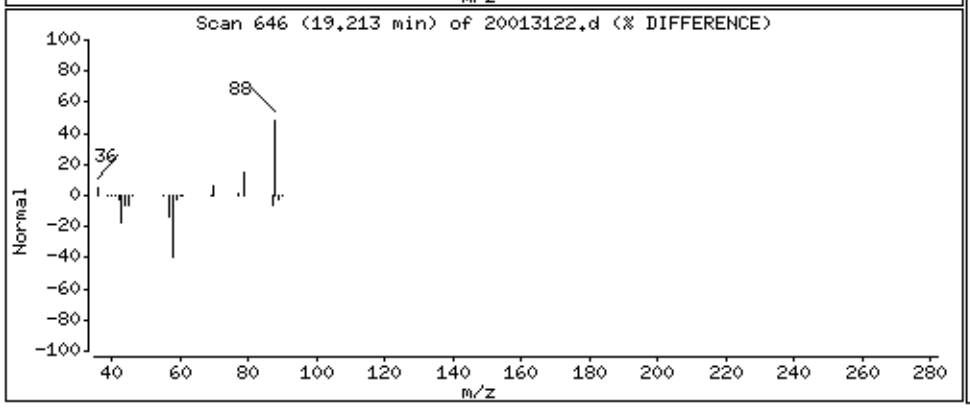
136 1,4-Dioxane

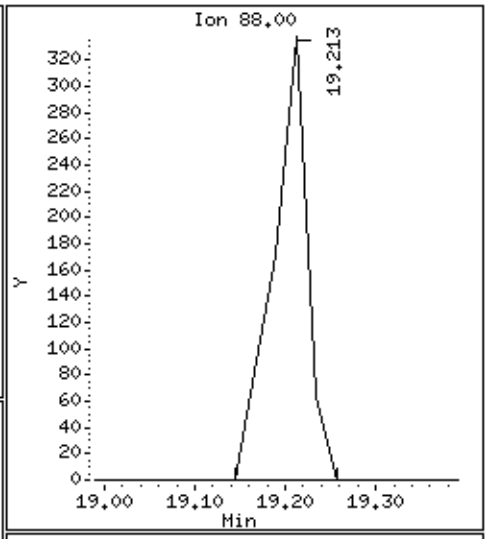
Concentration: 0.06581 PPBV

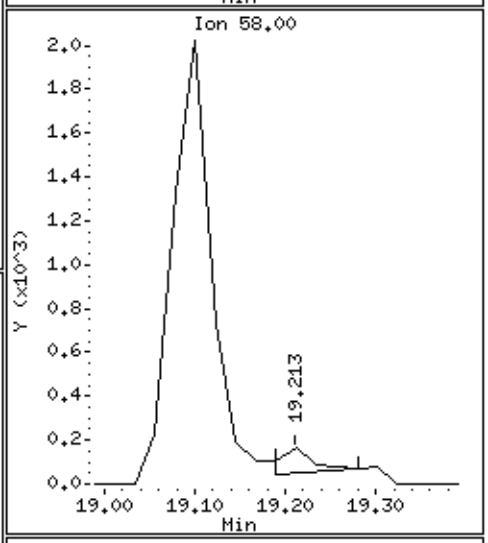


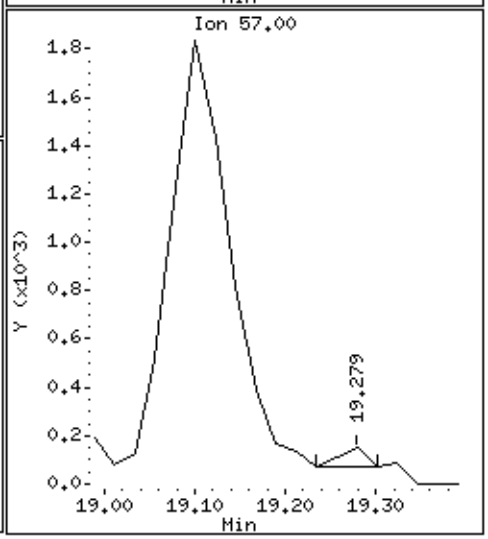












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

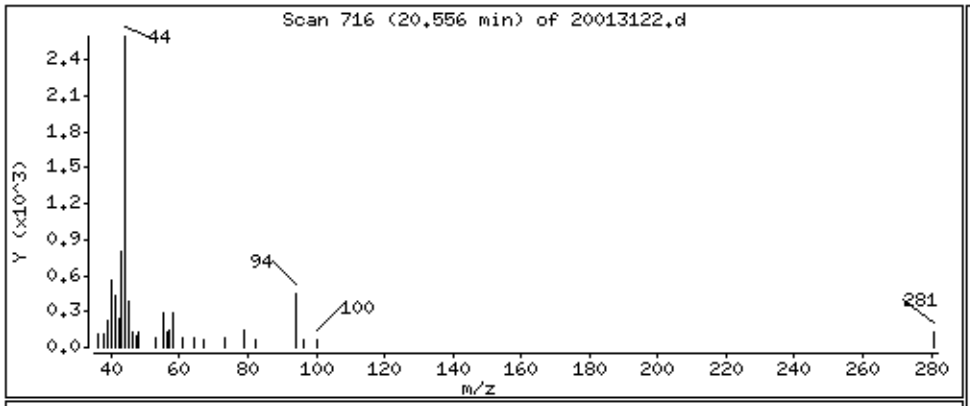
Operator: gh

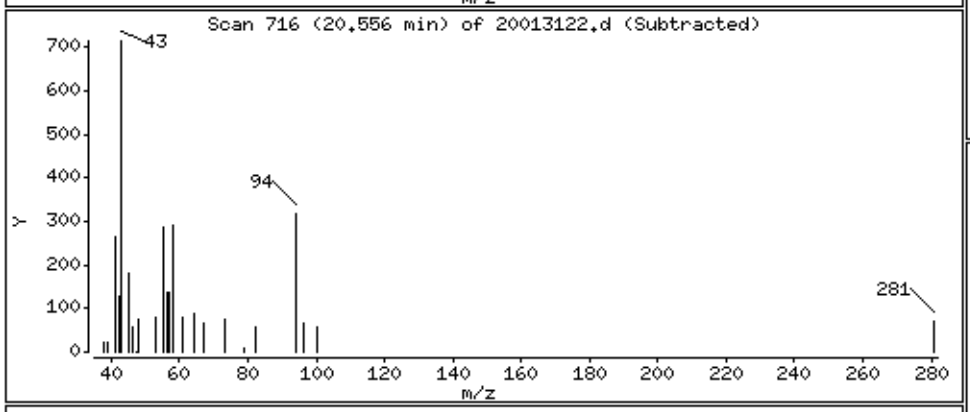
Column phase: RTX-624

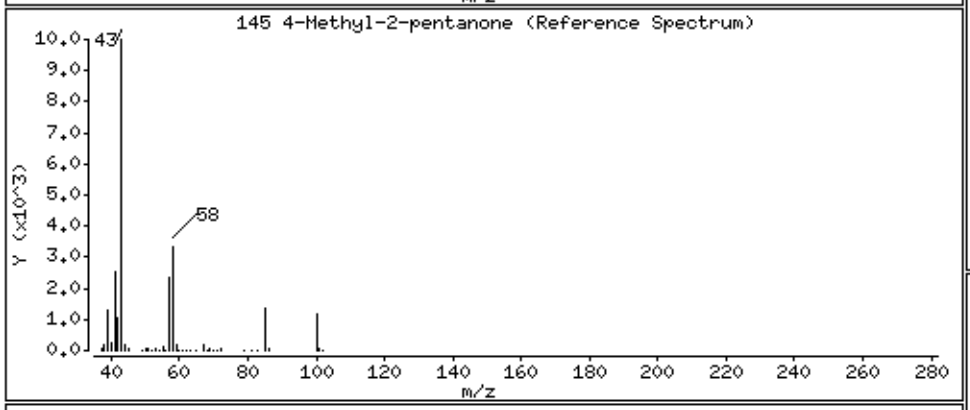
Column diameter: 0.32

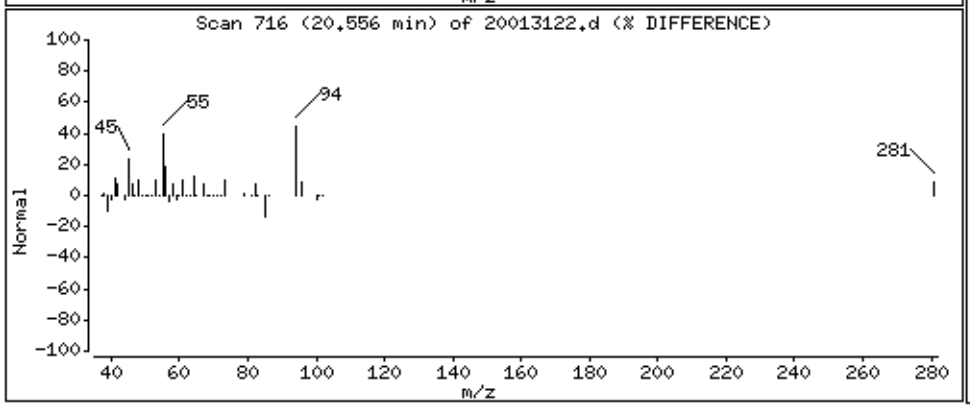
145 4-Methyl-2-pentanone

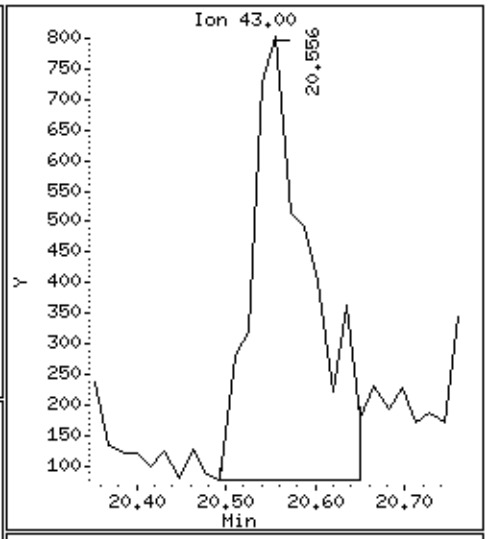
Concentration: 0.1048 PPBV

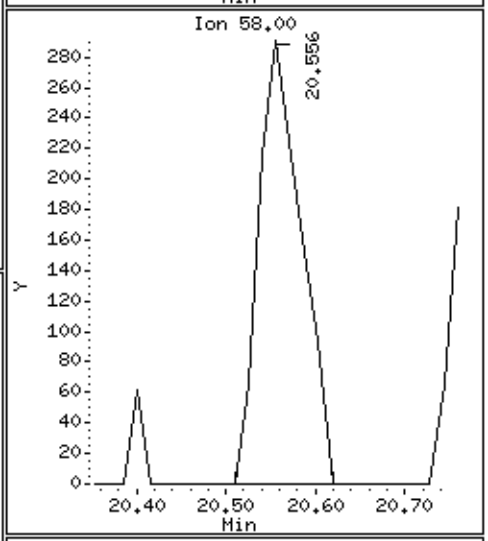


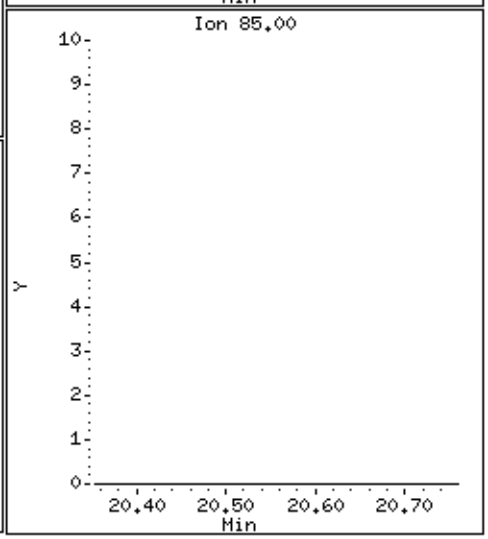












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

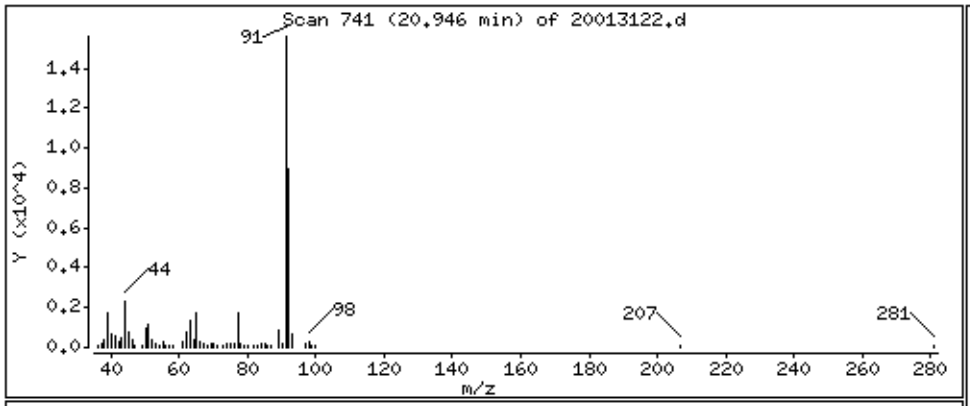
Operator: gh

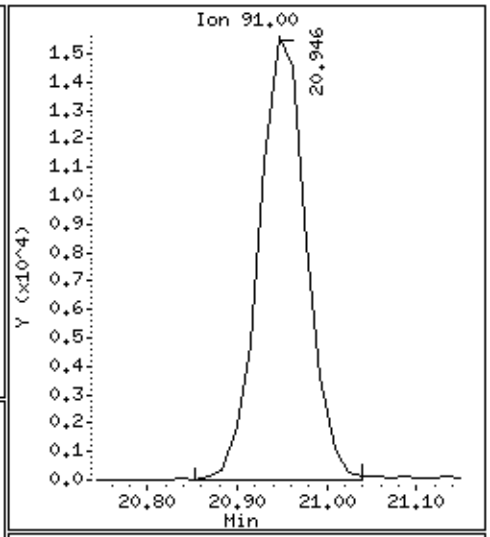
Column phase: RTX-624

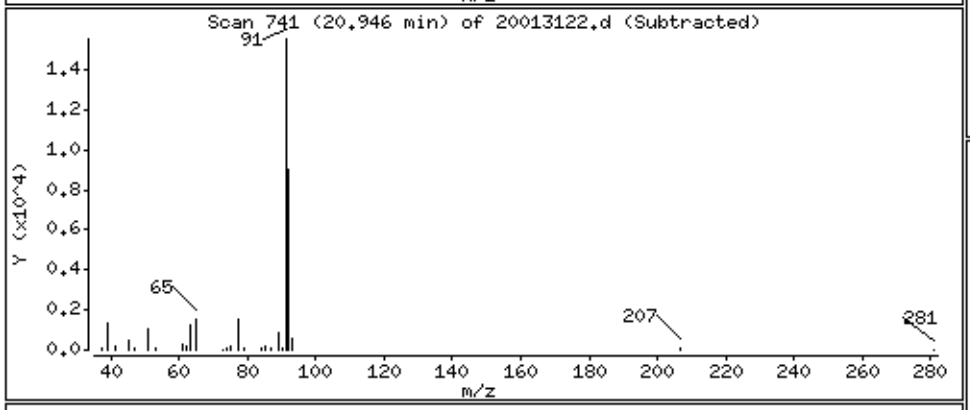
Column diameter: 0.32

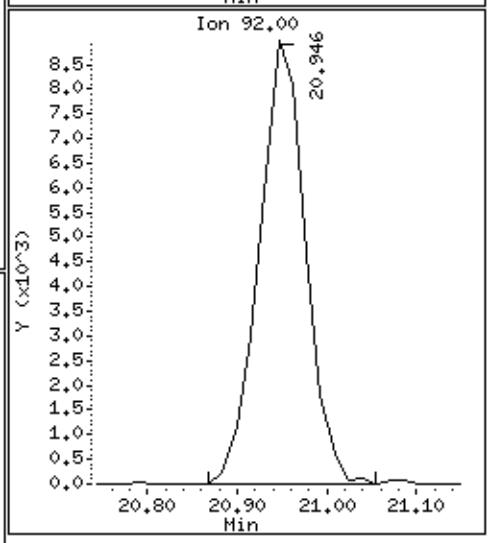
147 Toluene

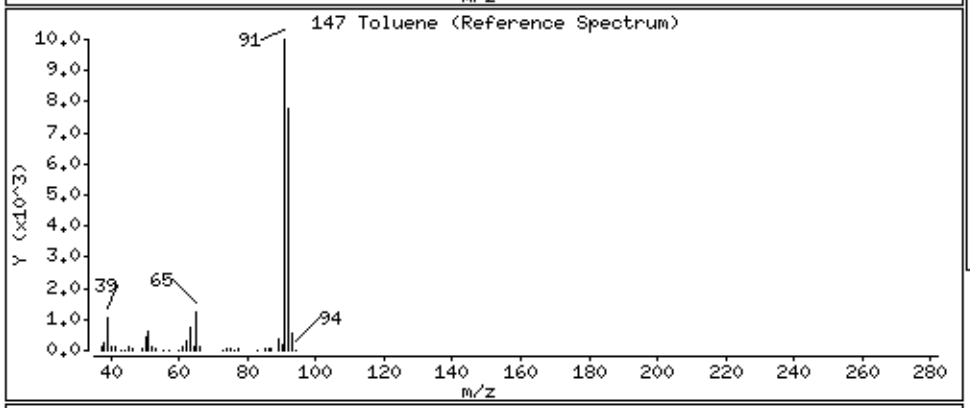
Concentration: 0.9151 PPBV

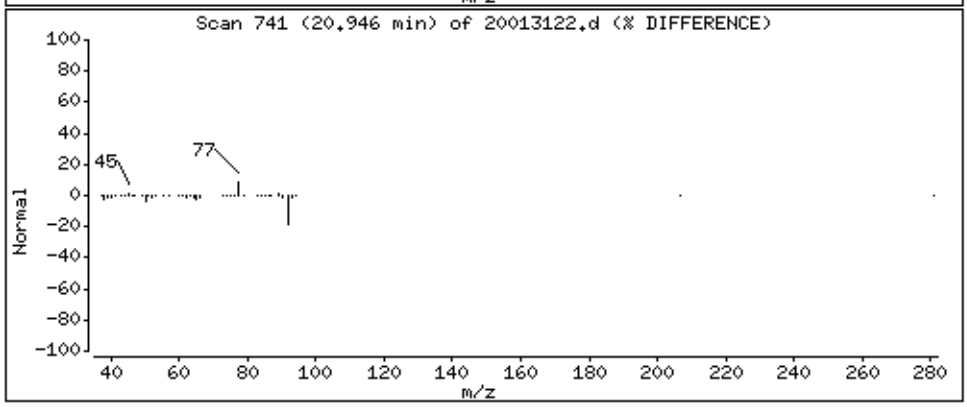












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

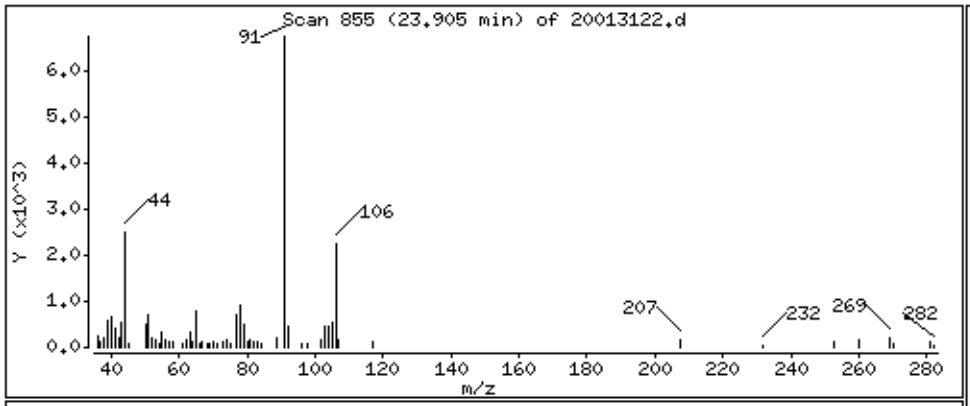
Operator: gh

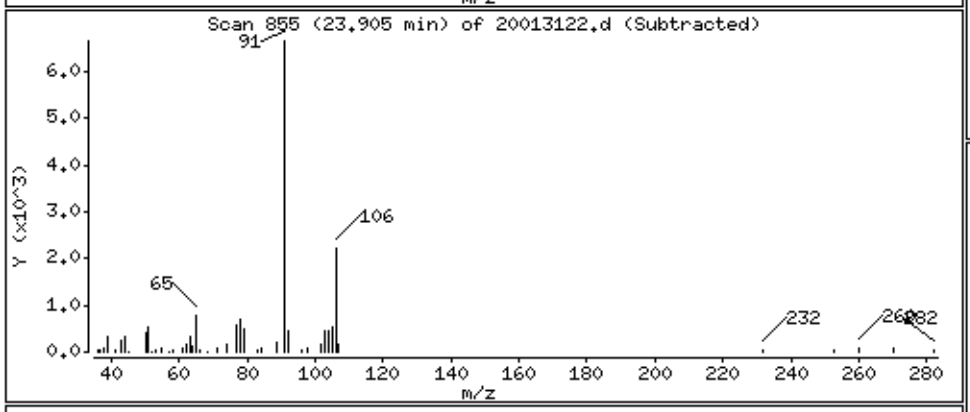
Column phase: RTX-624

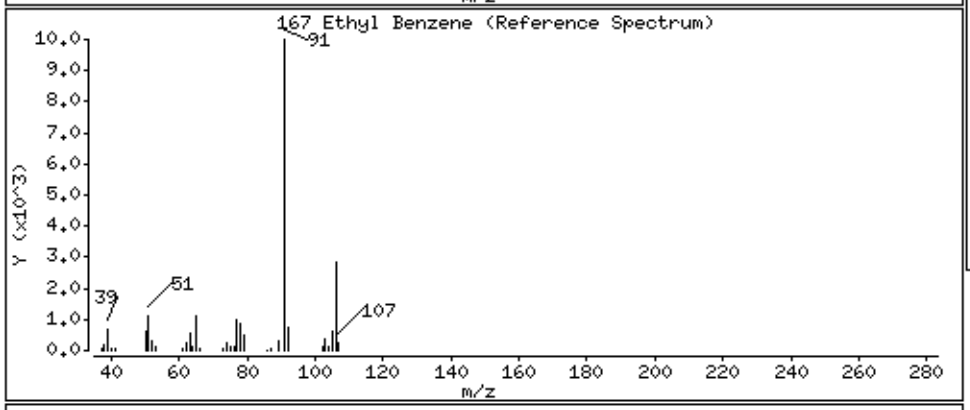
Column diameter: 0.32

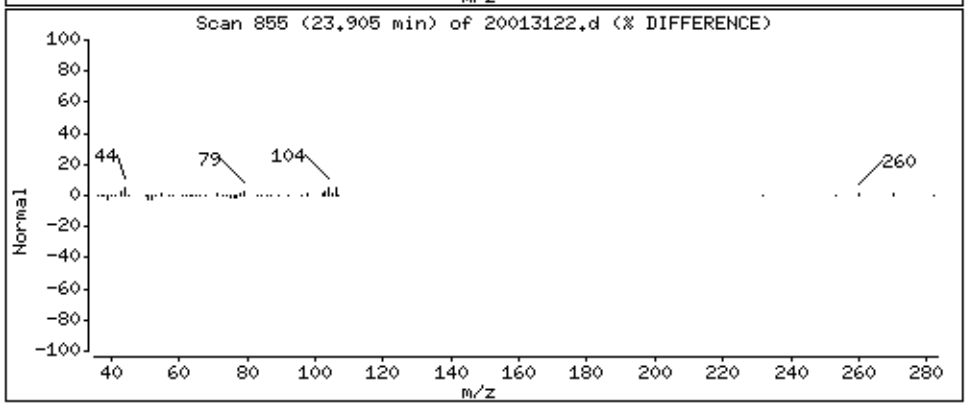
167 Ethyl Benzene

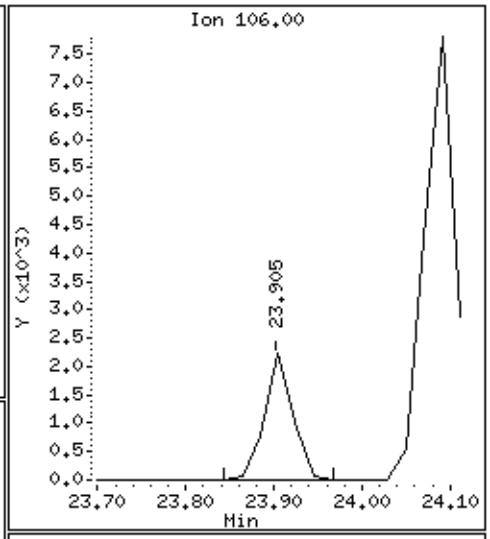
Concentration: 0.1788 PPBV

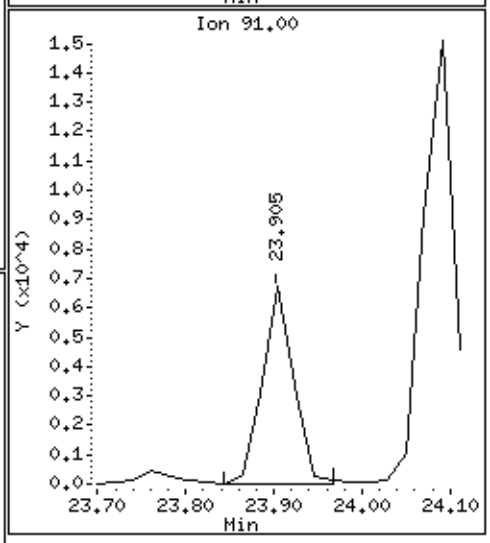












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

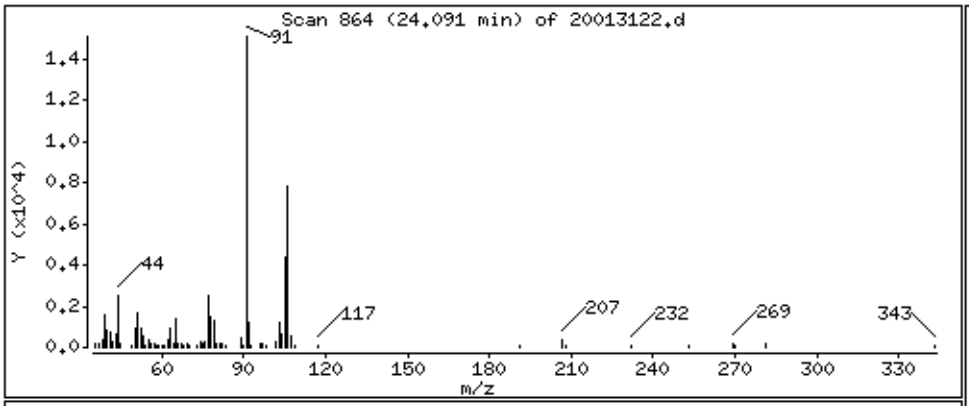
Operator: gh

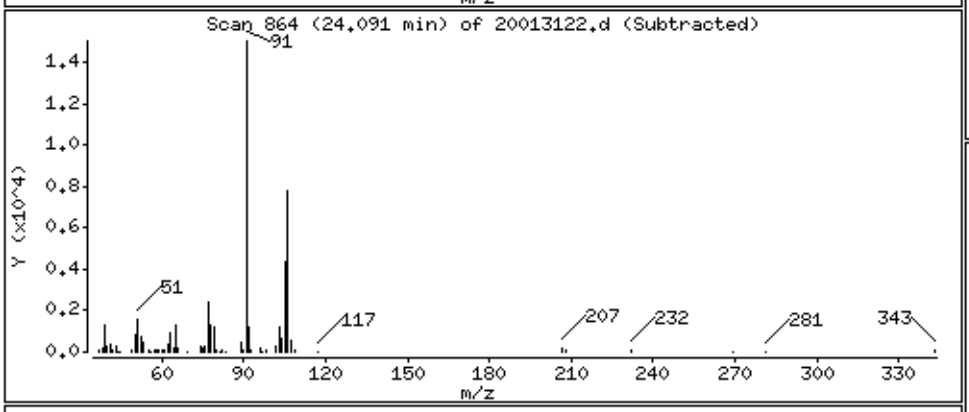
Column phase: RTX-624

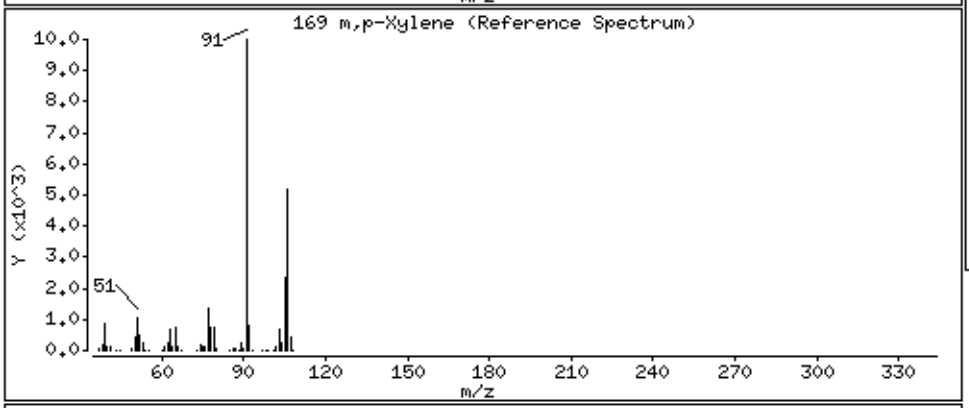
Column diameter: 0.32

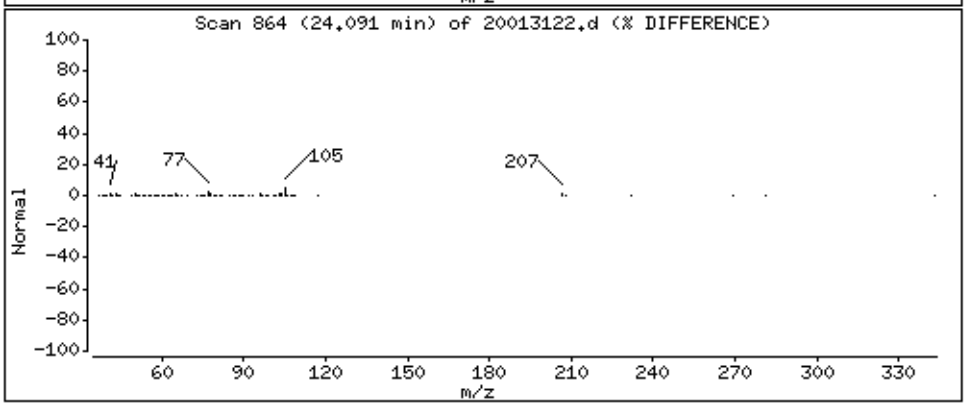
169 m,p-Xylene

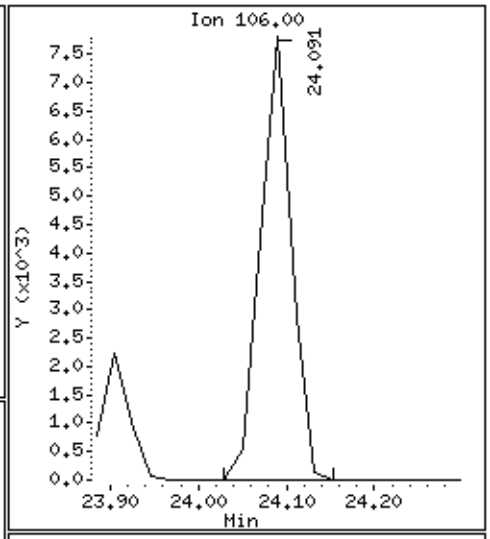
Concentration: 0.6585 PPBV

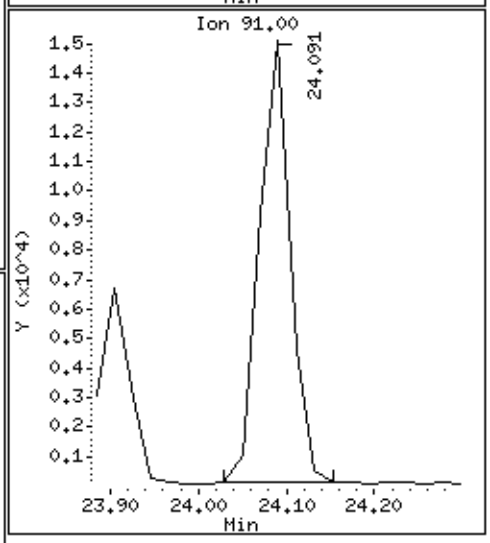












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

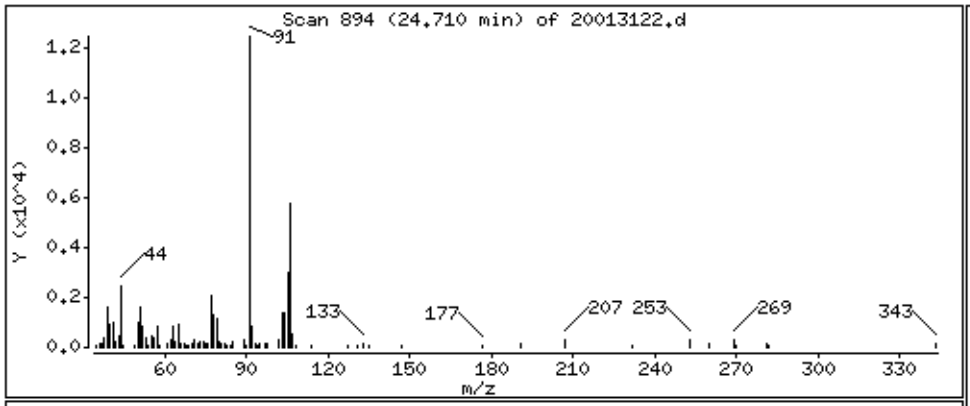
Operator: gh

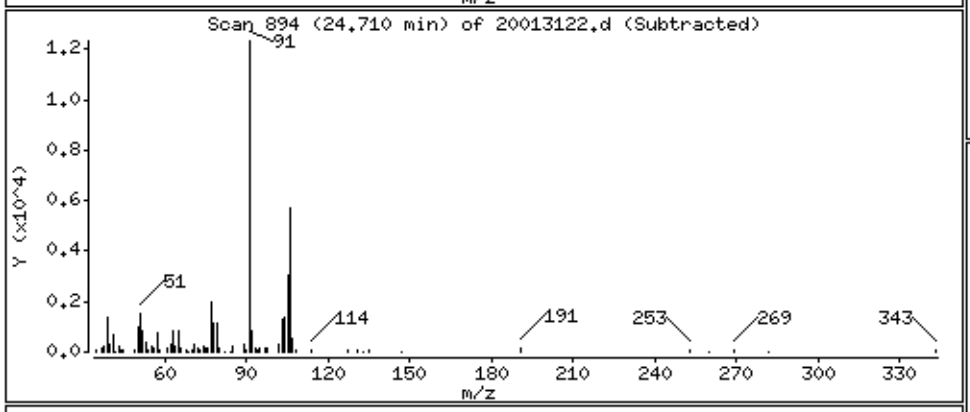
Column phase: RTX-624

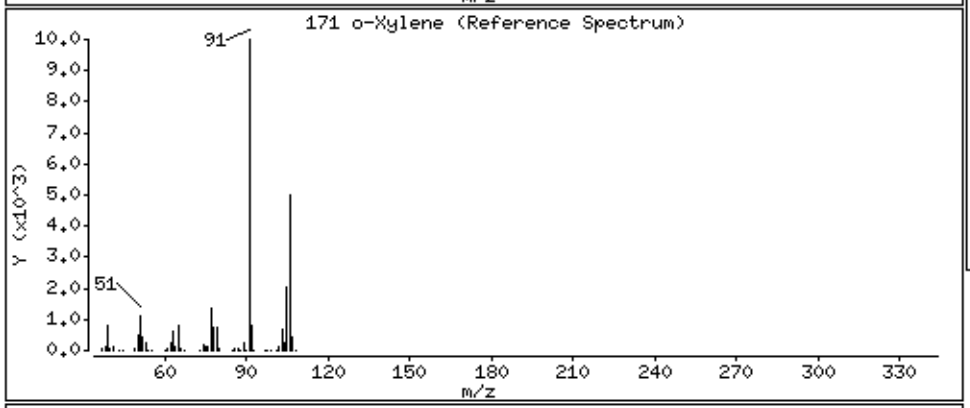
Column diameter: 0.32

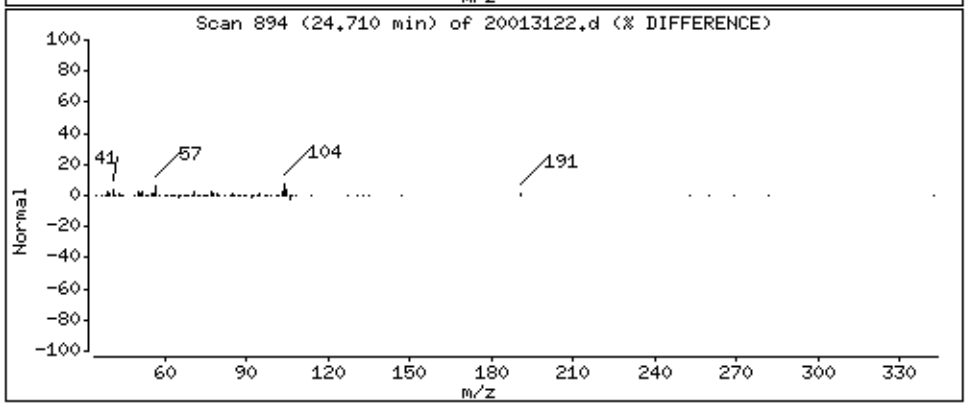
171 o-Xylene

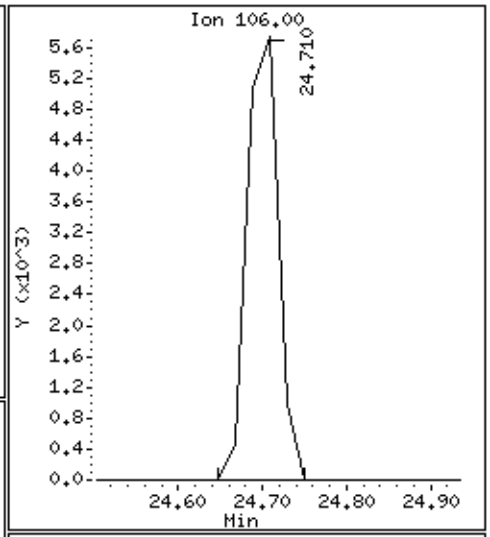
Concentration: 0.5553 PPBV

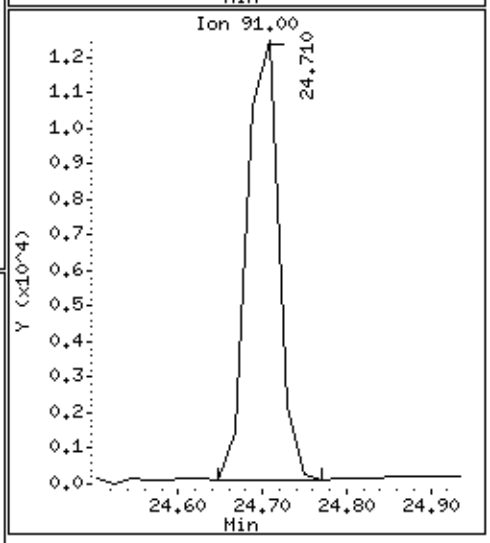












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

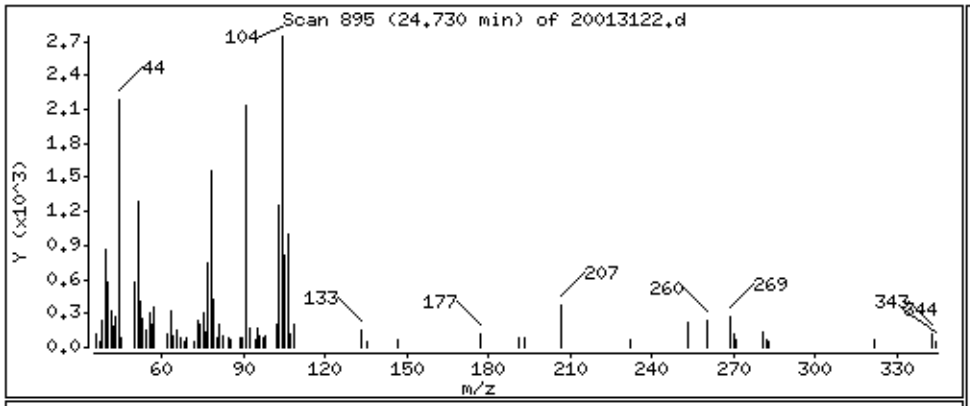
Operator: gh

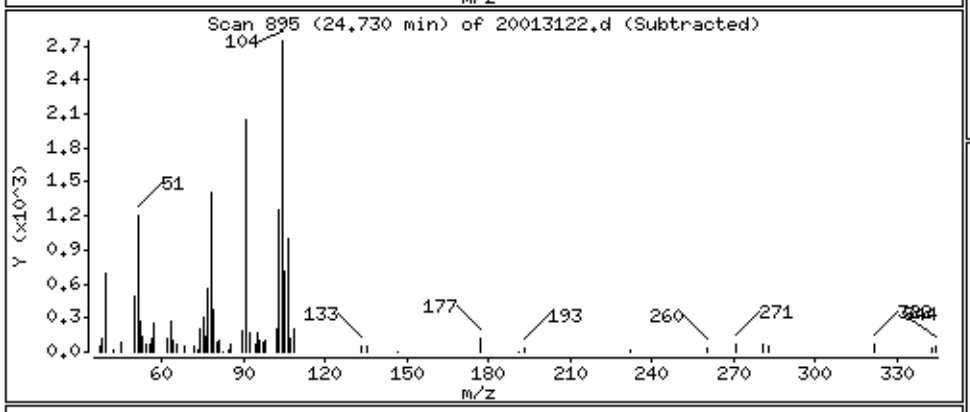
Column phase: RTX-624

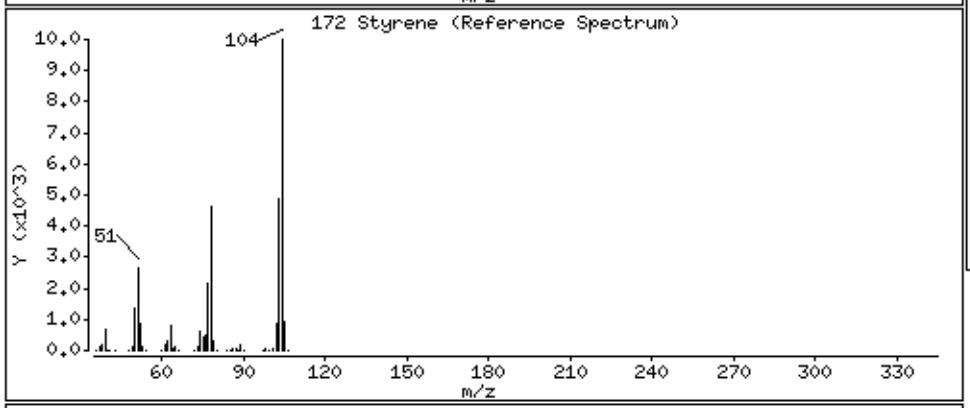
Column diameter: 0.32

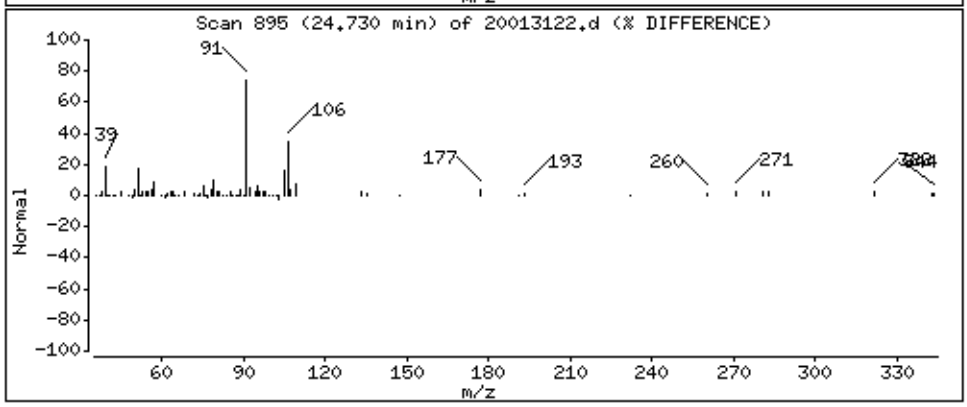
172 Styrene

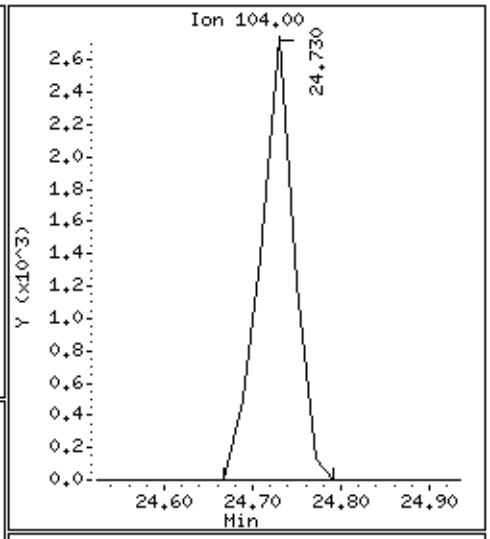
Concentration: 0.1838 PPBV

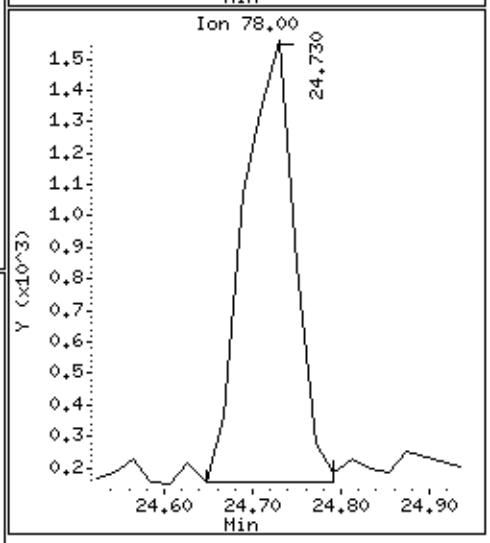












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

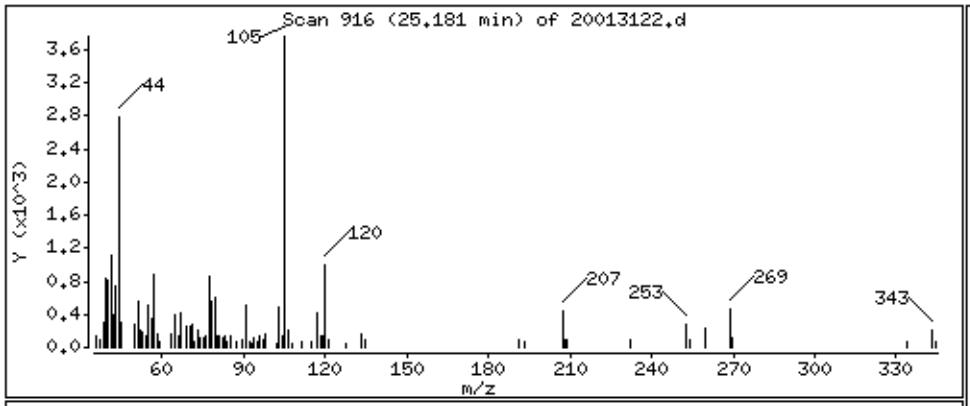
Operator: gh

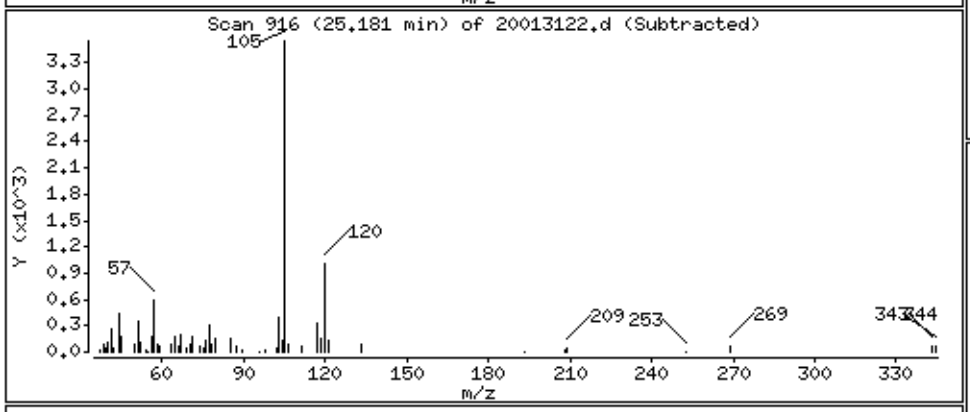
Column phase: RTX-624

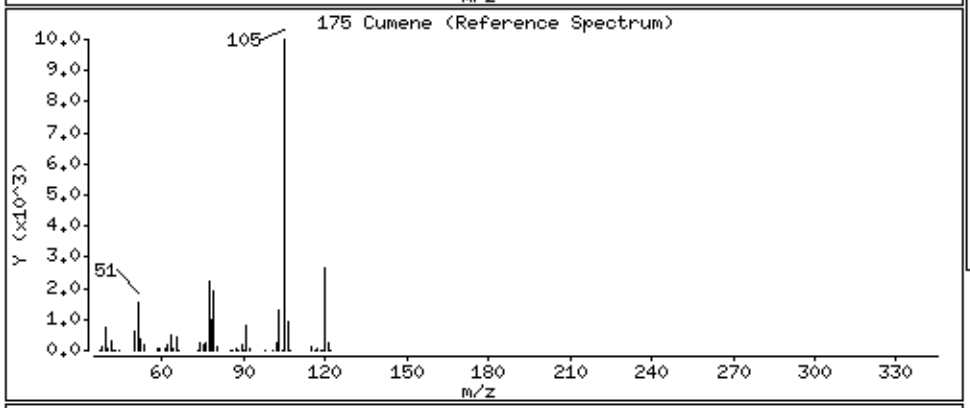
Column diameter: 0.32

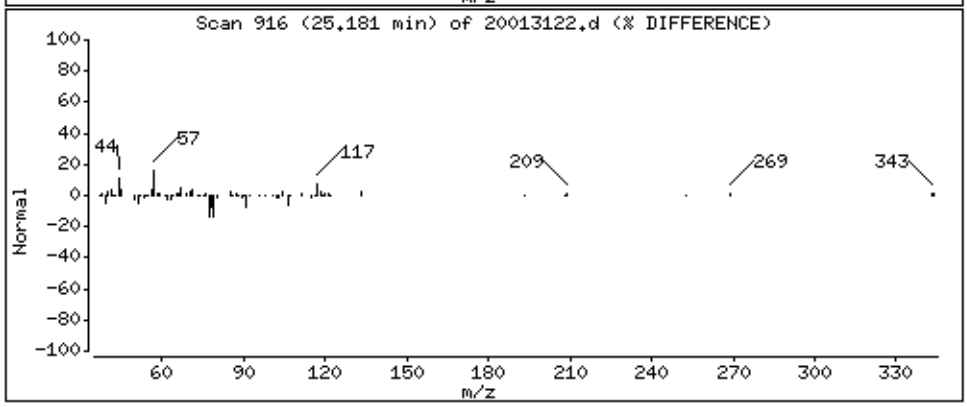
175 Cumene

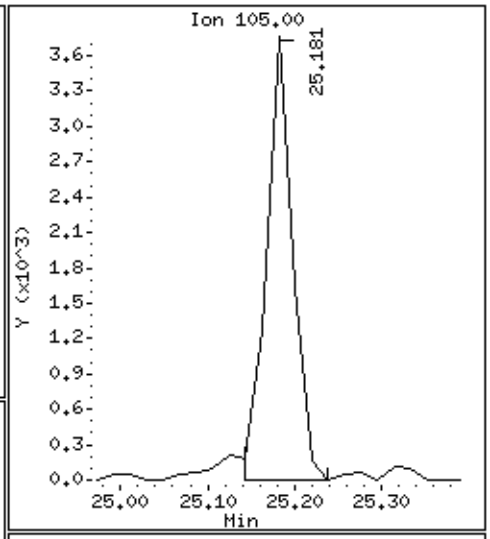
Concentration: 0.09147 PPBV

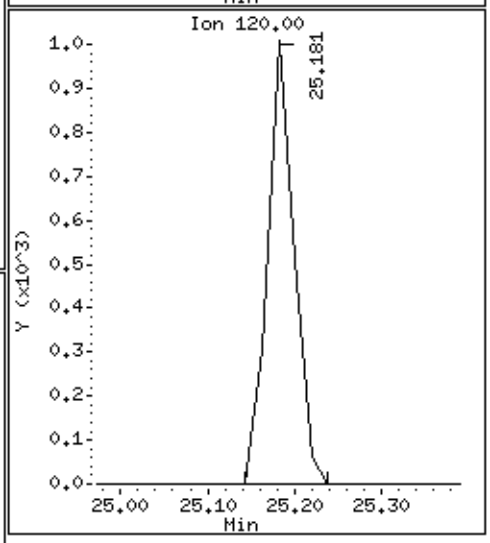












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

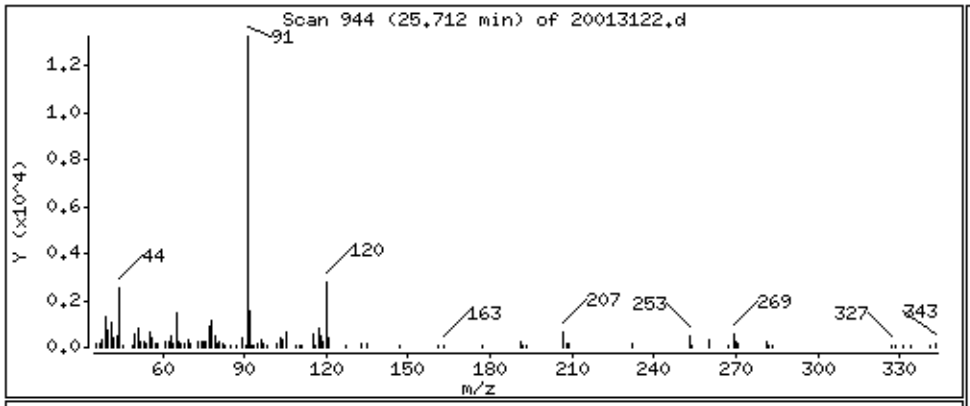
Operator: gh

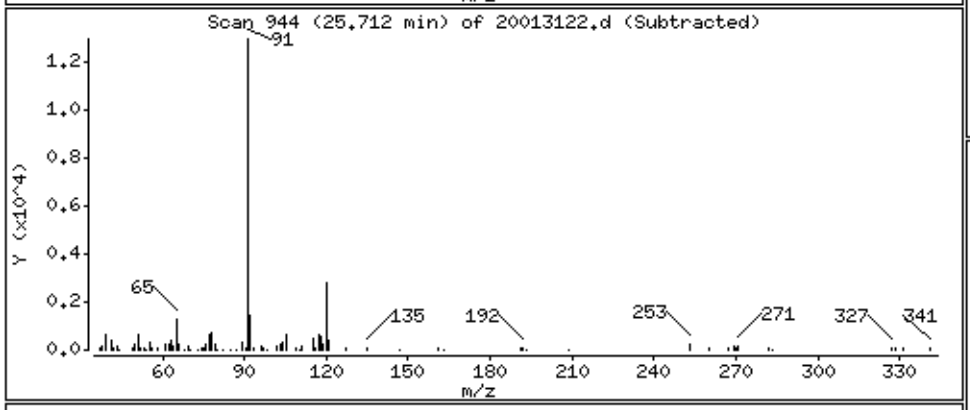
Column phase: RTX-624

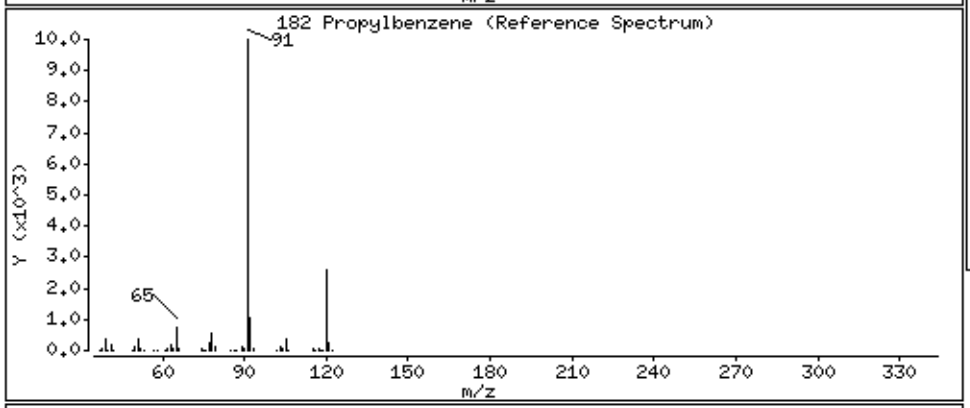
Column diameter: 0.32

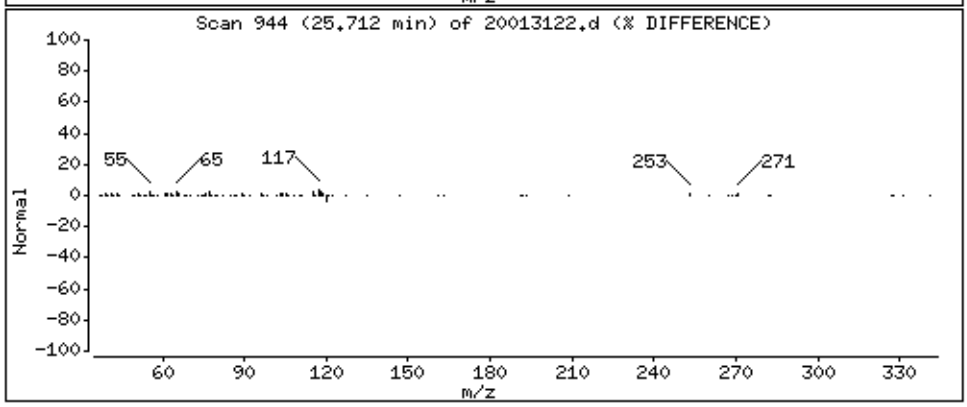
182 Propylbenzene

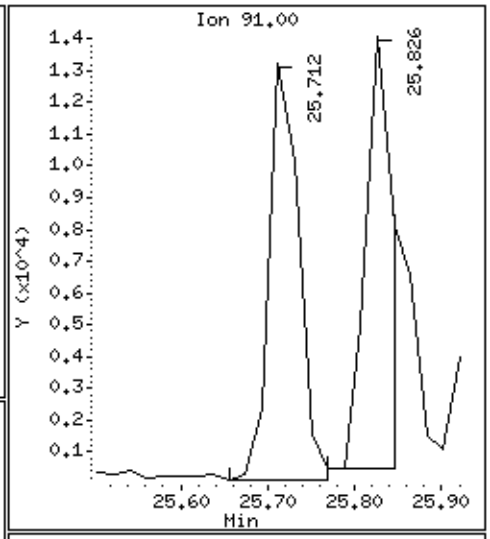
Concentration: 0.3732 PPBV

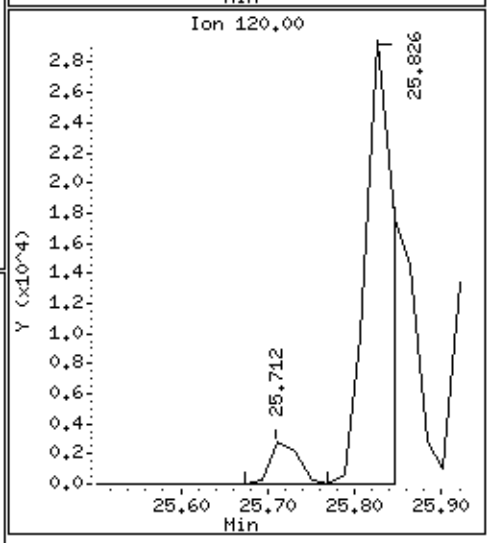












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

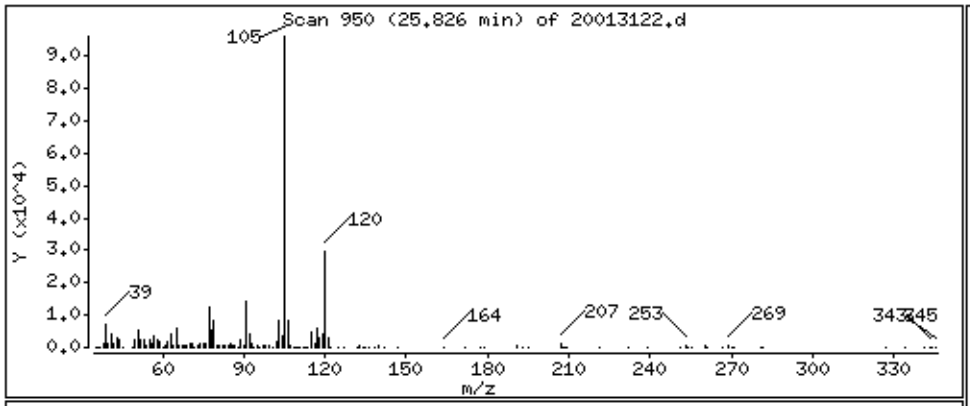
Operator: gh

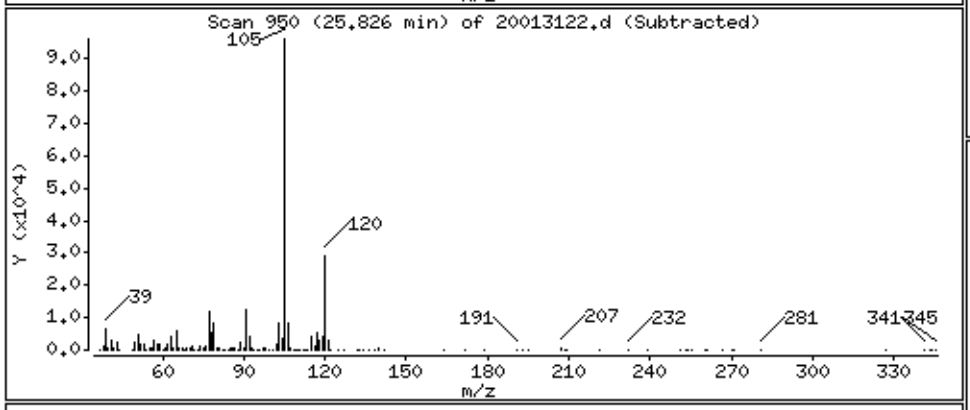
Column phase: RTX-624

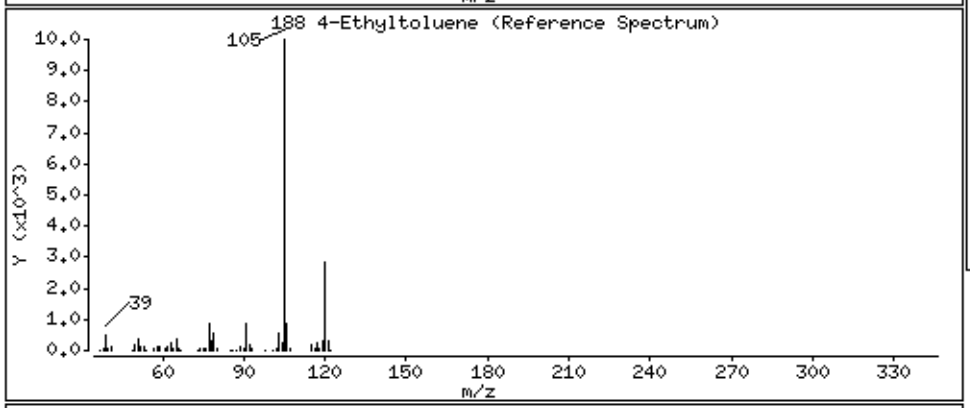
Column diameter: 0.32

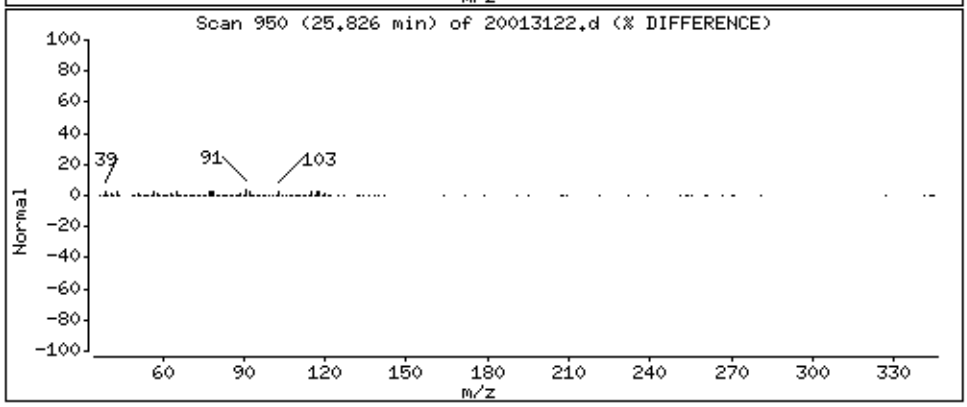
188 4-Ethyltoluene

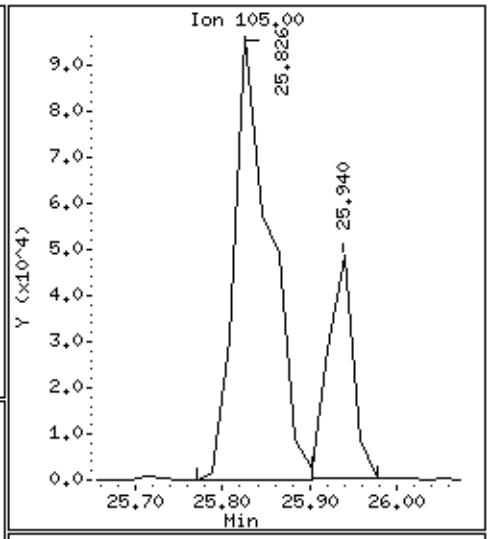
Concentration: 4.112 PPBV

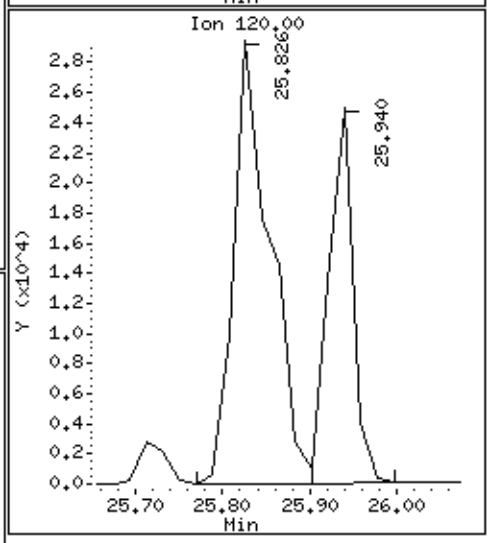












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

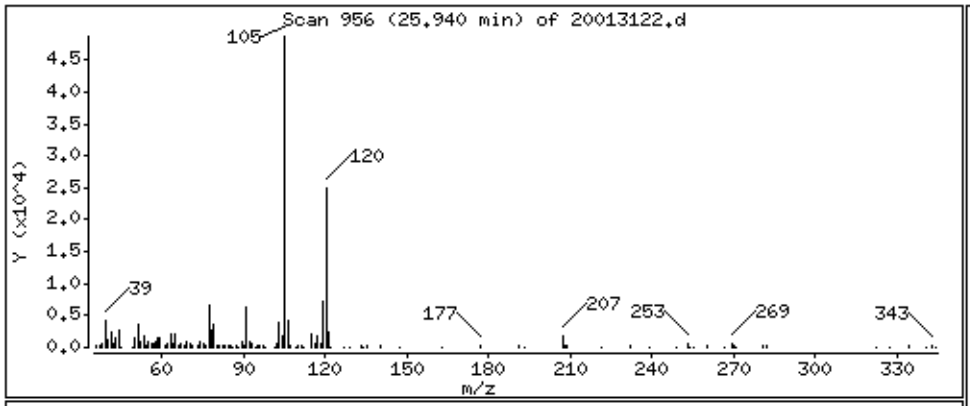
Operator: gh

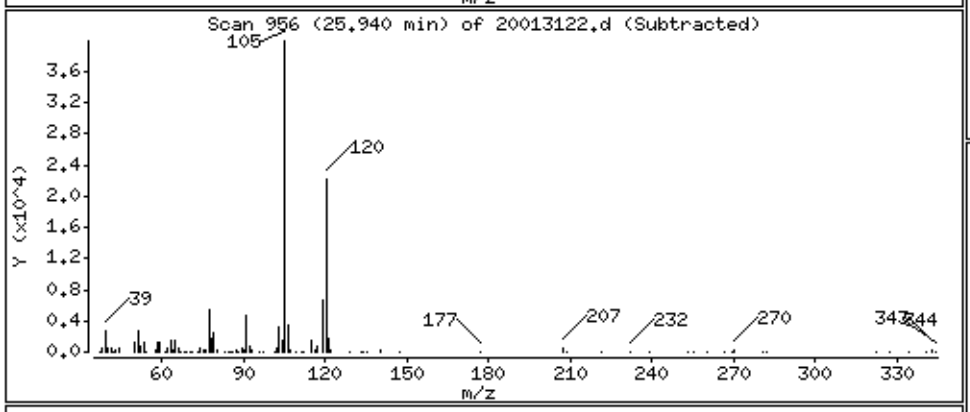
Column phase: RTX-624

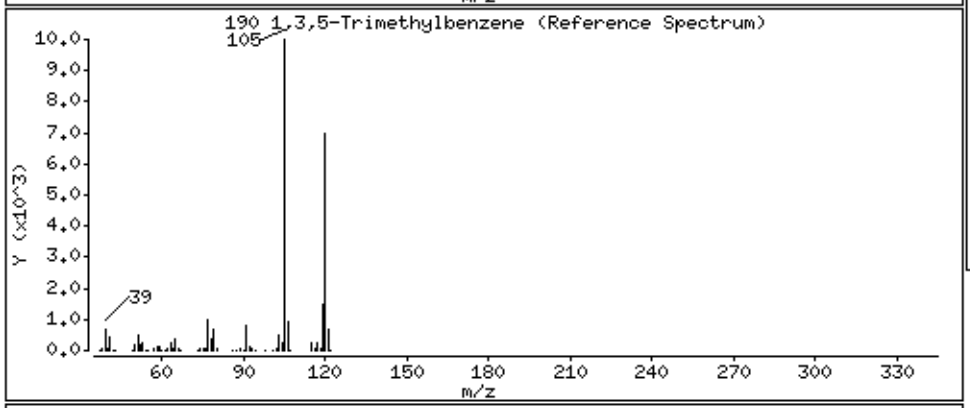
Column diameter: 0.32

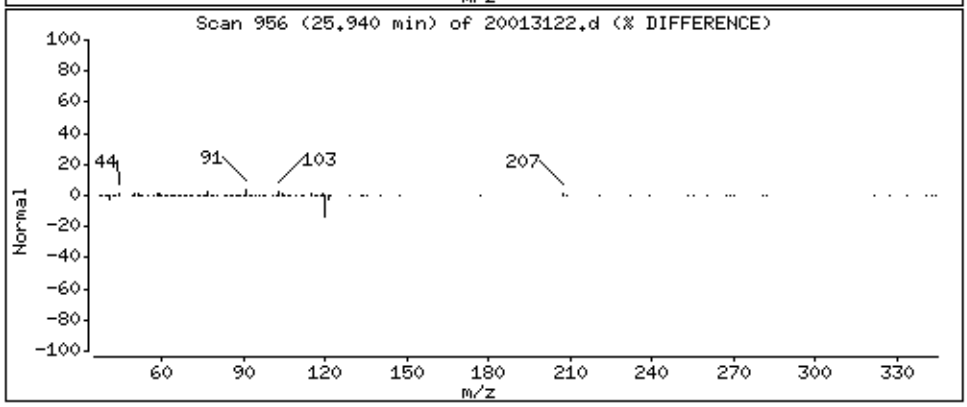
190 1,3,5-Trimethylbenzene

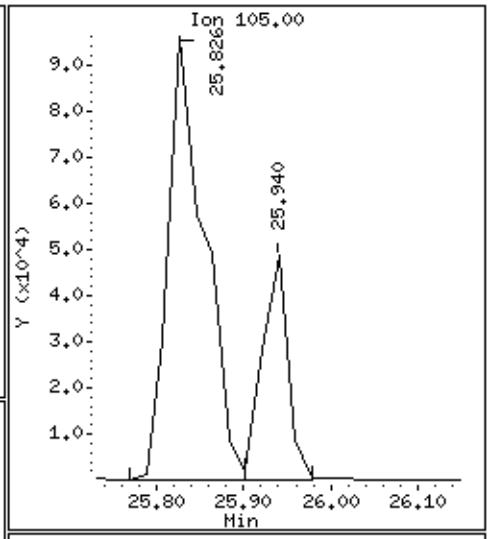
Concentration: 1.647 PPBV

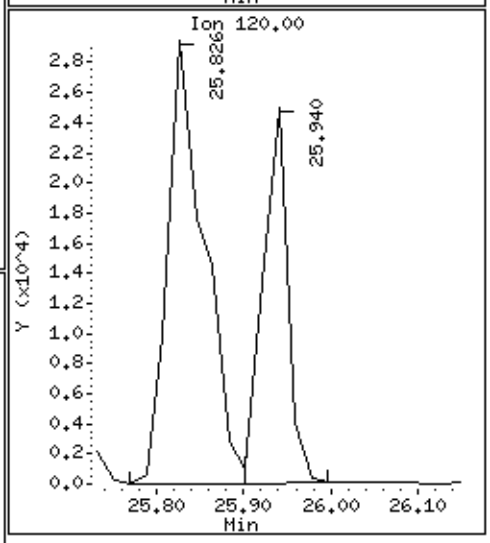












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

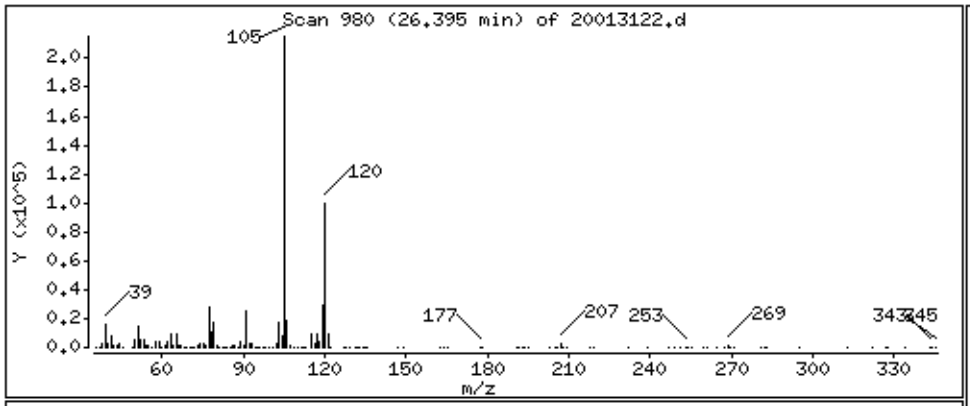
Operator: gh

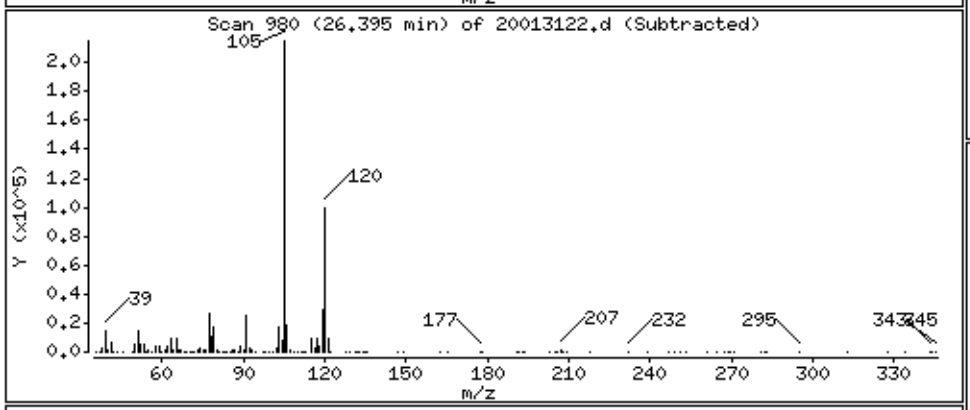
Column phase: RTX-624

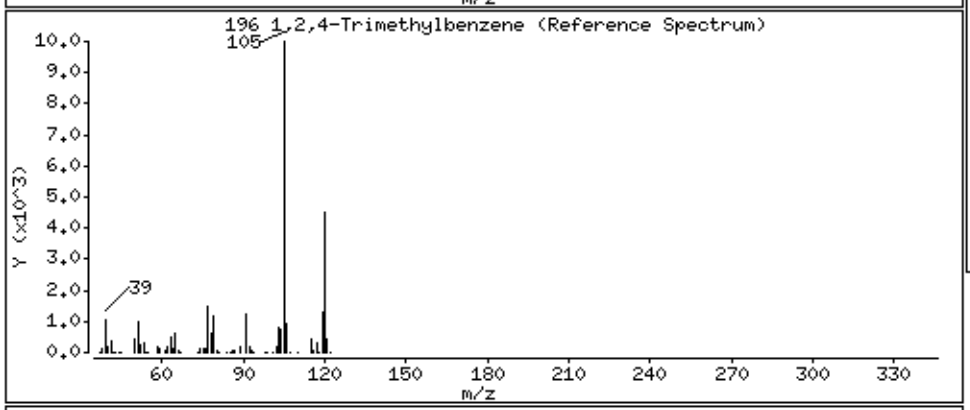
Column diameter: 0.32

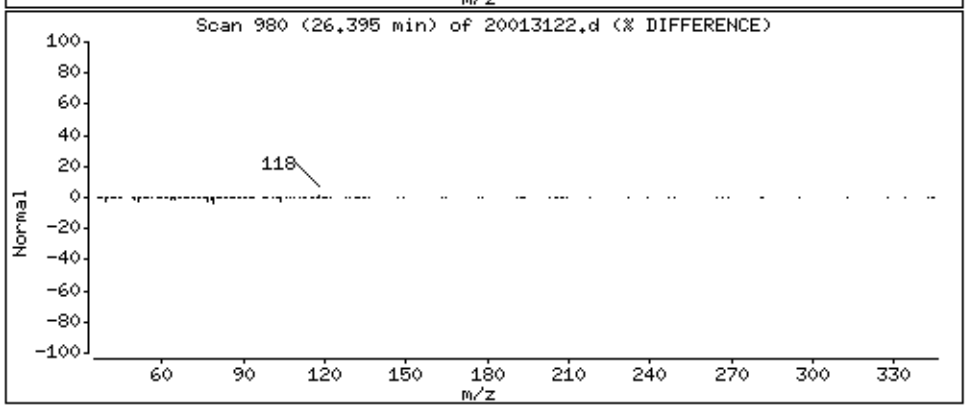
196 1,2,4-Trimethylbenzene

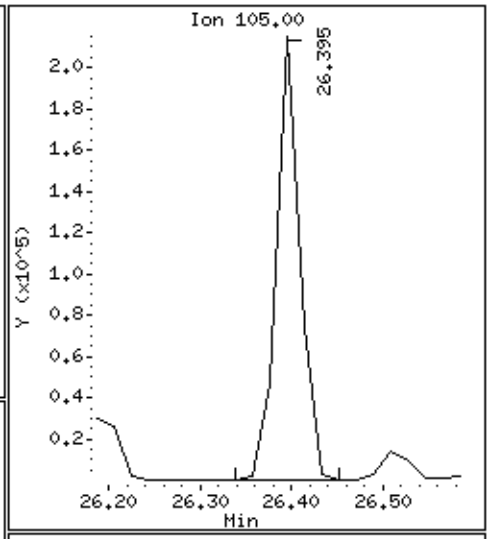
Concentration: 6.603 PPBV

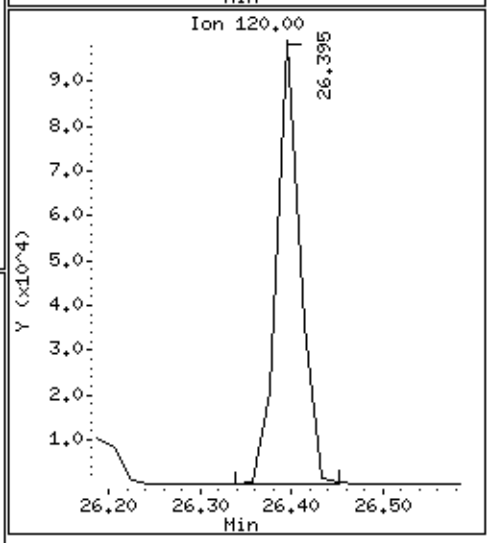












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

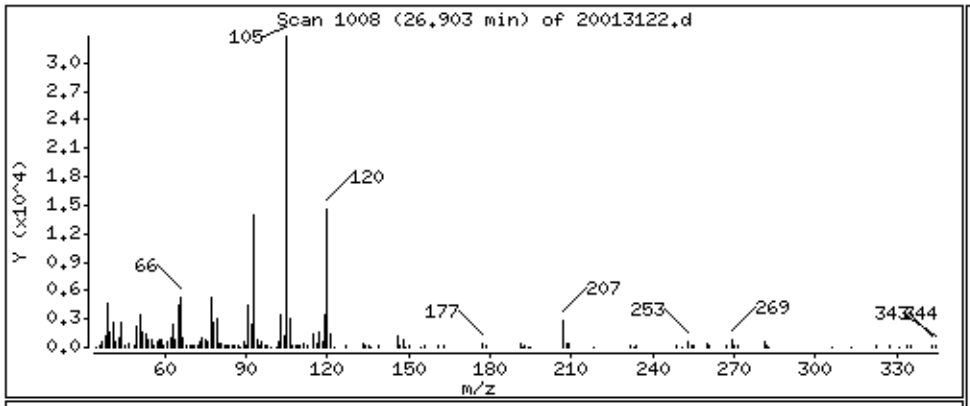
Operator: gh

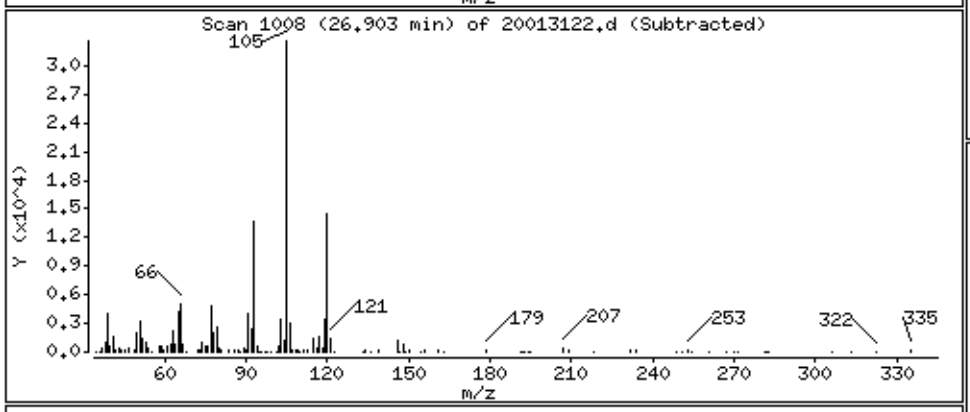
Column phase: RTX-624

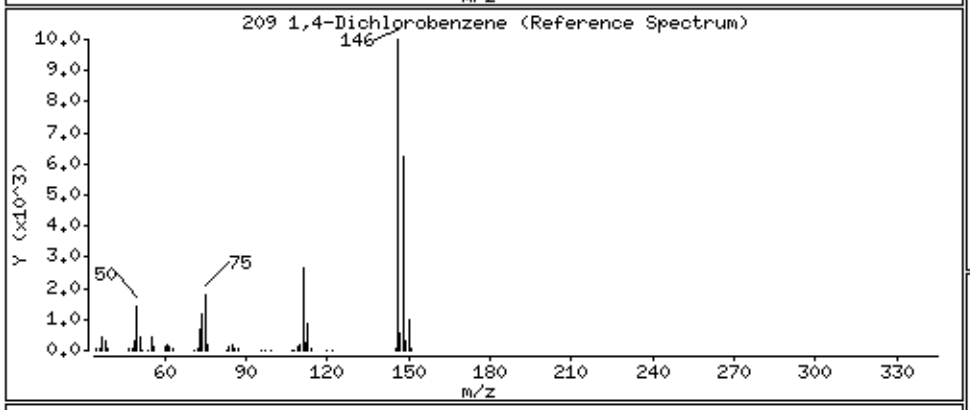
Column diameter: 0.32

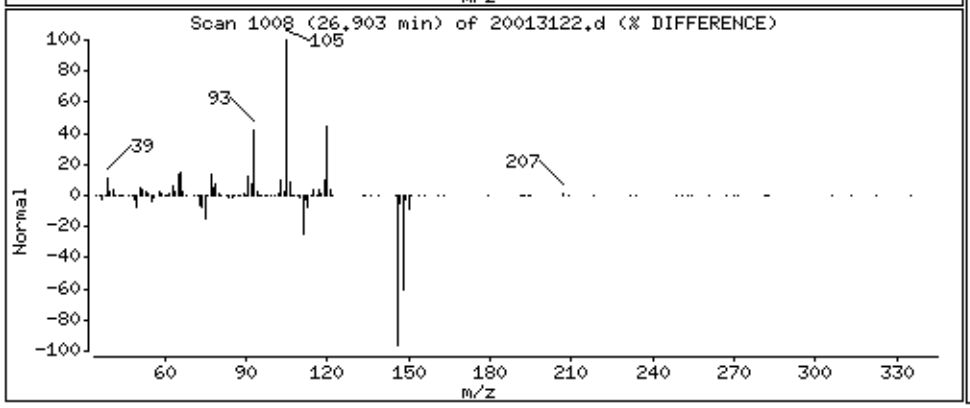
209 1,4-Dichlorobenzene

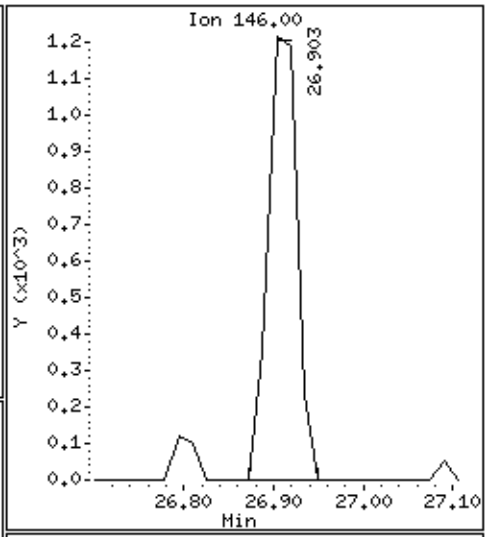
Concentration: 0.06161 PPBV

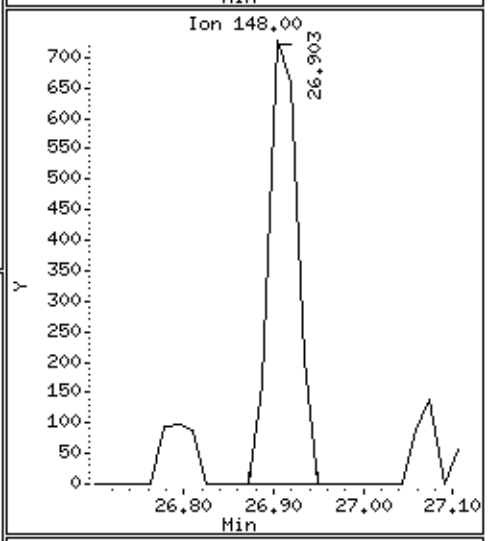


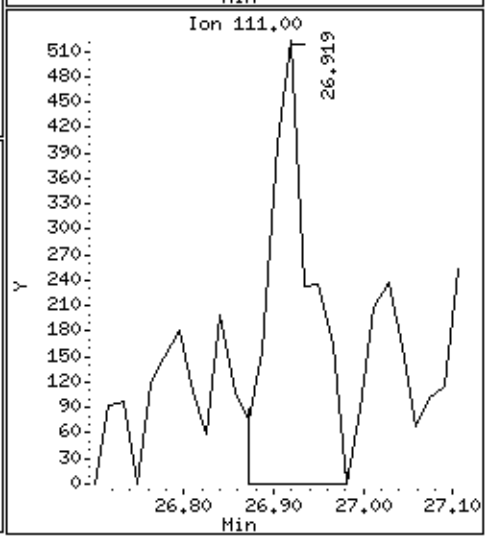












Data File: /chem/msd20.i/31Jan2017.b/20013122.d

Date : 31-JAN-2017 22:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL#37787

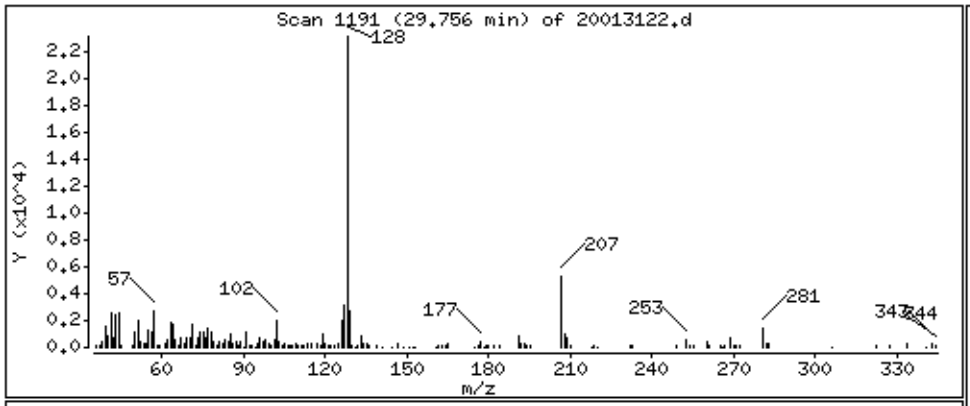
Operator: gh

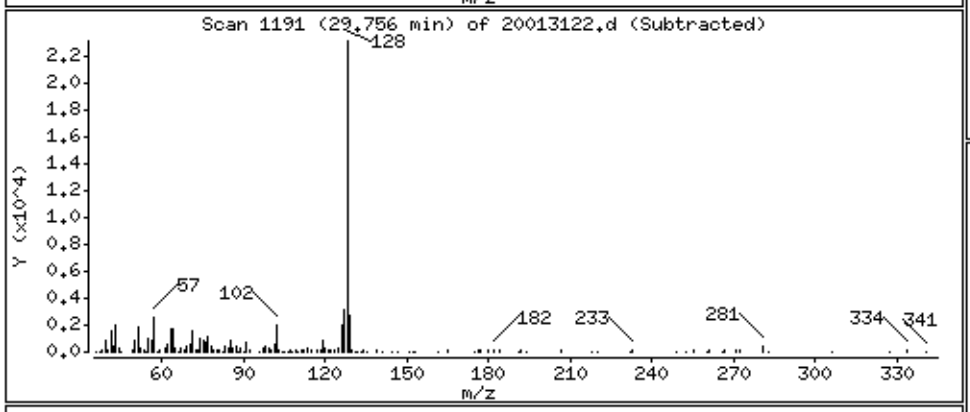
Column phase: RTX-624

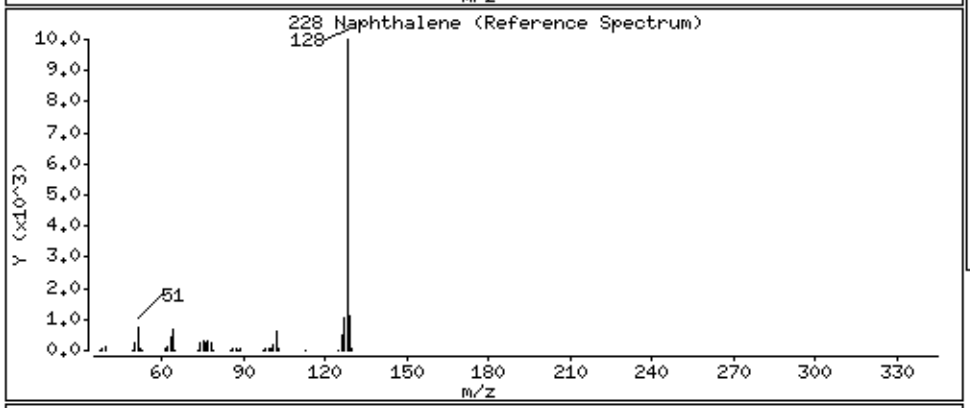
Column diameter: 0.32

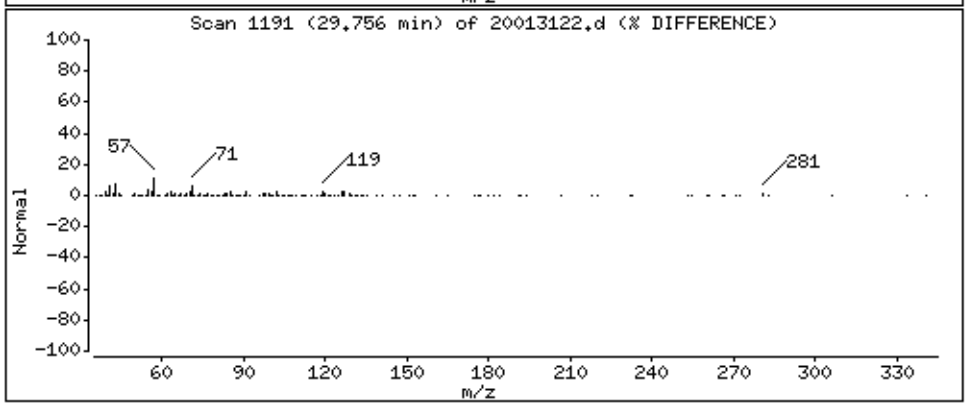
228 Naphthalene

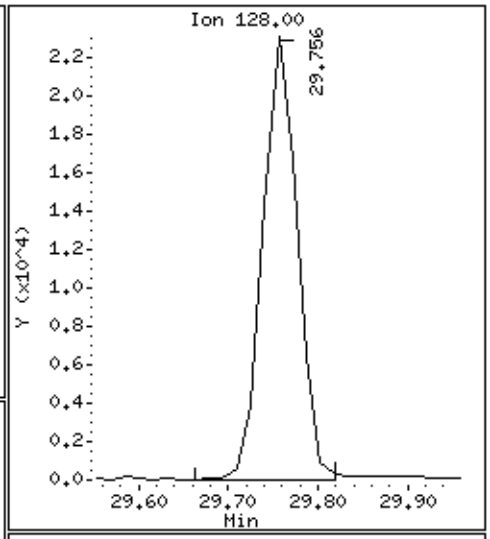
Concentration: 0.6547 PPBV

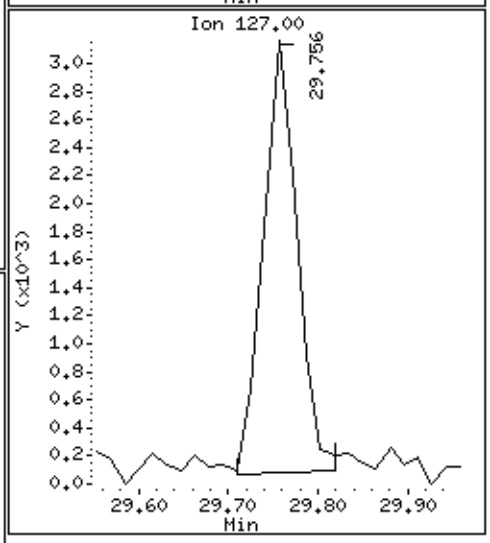












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B1830AA-012117

Lab ID#: 1701428A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.60	0.81	2.9
Chloromethane	0.82	1.2	1.7	2.4
Freon 11	0.16	0.39	0.92	2.2
Ethanol	0.82	1.9	1.5	3.6
Freon 113	0.16	0.088 J	1.2	0.67 J
Acetone	0.82	9.5	1.9	22
2-Propanol	0.82	2.0	2.0	4.9
Carbon Disulfide	0.82	0.93	2.6	2.9
Methylene Chloride	0.33	0.17 J	1.1	0.60 J
Hexane	0.16	0.16 J	0.58	0.55 J
2-Butanone (Methyl Ethyl Ketone)	0.82	1.0	2.4	3.0
Carbon Tetrachloride	0.16	0.18	1.0	1.1
Benzene	0.16	0.19	0.52	0.60
Heptane	0.16	0.15 J	0.67	0.63 J
4-Methyl-2-pentanone	0.16	0.074 J	0.67	0.30 J
Toluene	0.16	0.43	0.62	1.6
2-Hexanone	0.82	0.20 J	3.4	0.80 J
Ethyl Benzene	0.16	0.051 J	0.71	0.22 J
m,p-Xylene	0.16	0.14 J	0.71	0.61 J
o-Xylene	0.16	0.057 J	0.71	0.25 J
Styrene	0.16	0.038 J	0.70	0.16 J
4-Ethyltoluene	0.16	0.12 J	0.81	0.60 J
1,3,5-Trimethylbenzene	0.16	0.066 J	0.81	0.32 J
1,2,4-Trimethylbenzene	0.16	0.11 J	0.81	0.55 J
1,4-Dichlorobenzene	0.16	0.033 J	0.99	0.20 J
Naphthalene	0.82	0.51 J	4.3	2.7 J

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Client Sample ID: B1830AA-012117

Lab ID#: 1701428A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013126**	**Date of Collection:**	**1/21/17 6:42:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**2/1/17 09:11 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.60	0.81	2.9
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	1.2	1.7	2.4
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.39	0.92	2.2
Ethanol	0.82	1.9	1.5	3.6
Freon 113	0.16	0.088 J	1.2	0.67 J
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	9.5	1.9	22
2-Propanol	0.82	2.0	2.0	4.9
Carbon Disulfide	0.82	0.93	2.6	2.9
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.17 J	1.1	0.60 J
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.16 J	0.58	0.55 J
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	1.0	2.4	3.0
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	Not Detected	0.56	Not Detected
Carbon Tetrachloride	0.16	0.18	1.0	1.1
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.19	0.52	0.60
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	0.15 J	0.67	0.63 J
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	0.074 J	0.67	0.30 J
Toluene	0.16	0.43	0.62	1.6
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	0.20 J	3.4	0.80 J

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Client Sample ID: B1830AA-012117

Lab ID#: 1701428A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013126**	**Date of Collection:**	**1/21/17 6:42:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**2/1/17 09:11 AM**

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	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.051 J	0.71	0.22 J
m,p-Xylene	0.16	0.14 J	0.71	0.61 J
o-Xylene	0.16	0.057 J	0.71	0.25 J
Styrene	0.16	0.038 J	0.70	0.16 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	0.12 J	0.81	0.60 J
1,3,5-Trimethylbenzene	0.16	0.066 J	0.81	0.32 J
1,2,4-Trimethylbenzene	0.16	0.11 J	0.81	0.55 J
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	0.033 J	0.99	0.20 J
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
Naphthalene	0.82	0.51 J	4.3	2.7 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	106	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013126.d
Lab Smp Id: 1701428A-07A
Inj Date : 01-FEB-2017 09:11
Operator : sw Inst ID: msd20.i
Smp Info : 250mL #33585
Misc Info : 5.5"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.64000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	145174	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	114398			46.97- 106.97	78.80
16.726	16.696 (1.000)	49	176686			76.21- 136.21	121.71
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	376976	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	60331			0.00- 45.59	16.00
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	388221	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	219030			23.26- 83.26	56.42
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.621 (1.053)	65	224520	6.26792	6.268	80.00- 120.00	100.00
17.620	17.621 (1.053)	67	113331			31.78- 91.78	50.48
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	354423	4.91716	4.917	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	47055			0.00- 40.33	13.28

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    222575                    35.56-  95.56    62.80
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    218886 5.28338    5.283  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    257493                   79.94- 139.94   117.64
 25.466  25.466 (1.072)   176    208955                   67.24- 127.24    95.46
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.648 (0.279)    85     39984 0.36334   0.5959  70.00- 130.00   100.00
  4.672   4.648 (0.279)    87     10705                    0.00-  30.00    26.77
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.576   6.553 (0.393)    50     24478 0.72364    1.187  80.00- 120.00   100.00
  6.576   6.553 (0.393)    52      7800                    3.24-  63.24    31.87
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101     26183 0.23764   0.3897  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103     12491                   34.37-  94.37    47.71
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45     17059 1.14969    1.885  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46      6856                   10.33-  70.33    40.19
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.761)   151      4398 0.05349  0.08772  80.00- 120.00   100.00(a)
 12.736  12.763 (0.761)   153      2847                   33.68-  93.68    64.74
 12.736  12.736 (0.761)   101      4970                   86.77- 146.77   113.00
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58    118634 5.79962    9.511  80.00- 120.00   100.00
 13.093  13.066 (0.783)    43    347016                  253.28- 313.28   292.51
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.093  13.121 (0.783)    76     64230 0.56780   0.9312  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.533 (0.811)    45     66817 1.21596    1.994  80.00- 120.00   100.00
 13.560  13.533 (0.811)    43     41004                    0.00-  52.74    61.37
 13.560  13.533 (0.811)    59      3581                    0.00-  34.43     5.36
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      4699 0.10586   0.1736  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      5541                   80.28- 140.28   117.91
 14.027  14.027 (0.839)    51      2184                    4.61-  64.61    46.48
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	5620	0.09583	0.1572	80.00- 120.00	100.00(a)
14.878	14.878 (0.889)	43	6202			28.29- 88.29	110.35
14.878	14.878 (0.889)	86	1014			0.00- 48.18	18.05
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.977)	72	12566	0.63004	1.033	80.00- 120.00	100.00
16.344	16.324 (0.977)	43	49699			300.25- 360.25	395.48
16.344	16.324 (0.977)	57	4076			0.00- 58.21	32.43
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	8313	0.10710	0.1756	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	3898			73.50- 133.50	46.90
116 Benzene					CAS #: 71-43-2		
17.620	17.621 (0.968)	78	10235	0.11363	0.1864	80.00- 120.00	100.00
17.620	17.621 (0.968)	77	3103			0.00- 53.26	30.32
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	2183	0.09442	0.1548	80.00- 120.00	100.00(a)
17.847	17.847 (0.980)	100	523			8.23- 68.23	23.97
17.847	17.847 (0.980)	43	5912			141.33- 201.33	270.72
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.556	20.557 (1.129)	43	2206	0.04492	0.07366	80.00- 120.00	100.00(a)
20.556	20.557 (1.129)	58	958			12.96- 72.96	43.42
20.541	20.557 (1.128)	85	266			0.00- 50.79	12.08
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	26030	0.26266	0.4308	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	13914			29.12- 89.12	53.45
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	3936	0.11940	0.1958	80.00- 120.00	100.00(a)
22.377	22.377 (0.942)	43	8838			137.01- 197.01	224.52
22.377	22.377 (0.942)	100	777			0.00- 53.27	19.74
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.906 (1.006)	106	1423	0.03135	0.05141	80.00- 120.00	100.00(a)
23.905	23.906 (1.006)	91	4050			275.87- 335.87	284.60
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	4080	0.08548	0.1402	80.00- 120.00	100.00(a)
24.091	24.091 (1.014)	91	9877			163.30- 223.30	242.07
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	1540	0.03464	0.05681	80.00- 120.00	100.00(a)

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
171 o-Xylene (continued)								
24.710	24.710	(1.040)	91	4140			172.76- 232.76	268.73
172 Styrene						CAS #: 100-42-5		
24.730	24.731	(1.041)	104	1507	0.02309	0.03787	80.00- 120.00	100.00(a)
24.730	24.731	(1.041)	78	1616			18.49- 78.49	107.24
188 4-Ethyltoluene						CAS #: 622-96-8		
25.826	25.864	(1.087)	105	8281	0.07502	0.1230	80.00- 120.00	100.00(a)
25.826	25.864	(1.087)	120	2936			1.16- 61.16	35.46
190 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
25.940	25.940	(1.092)	105	3982	0.04042	0.06629	80.00- 120.00	100.00(a)
25.940	25.940	(1.092)	120	2207			20.44- 80.44	55.43
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
26.395	26.395	(1.111)	105	6458	0.06778	0.1112	80.00- 120.00	100.00(a)
26.395	26.395	(1.111)	120	3539			17.83- 77.83	54.81
209 1,4-Dichlorobenzene						CAS #: 106-46-7		
26.903	26.904	(1.132)	146	1485	0.02009	0.03294	80.00- 120.00	100.00(a)
26.919	26.904	(1.133)	148	1435			33.90- 93.90	96.65
26.919	26.904	(1.133)	111	1069			6.77- 66.77	71.98
228 Naphthalene						CAS #: 91-20-3		
29.772	29.756	(1.253)	128	48285	0.31328	0.5138	80.00- 120.00	100.00(a)
29.772	29.756	(1.253)	127	7728			0.00- 42.38	16.01

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: msd20.i
Lab File ID: 20013126.d
Lab Smp Id: 1701428A-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.5"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	145174	-23.46
123 1,4-Difluorobenze	617206	370324	864088	376976	-38.92
163 Chlorobenzene-d5	554897	332938	776856	388221	-30.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 12:50

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-07A
Level: LOW Operator: sw
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 5.5"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.268	125.36	70-130
$ 146 Toluene-d8	5.000	4.917	98.34	70-130
$ 177 4-Bromofluorobenze	5.000	5.283	105.67	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

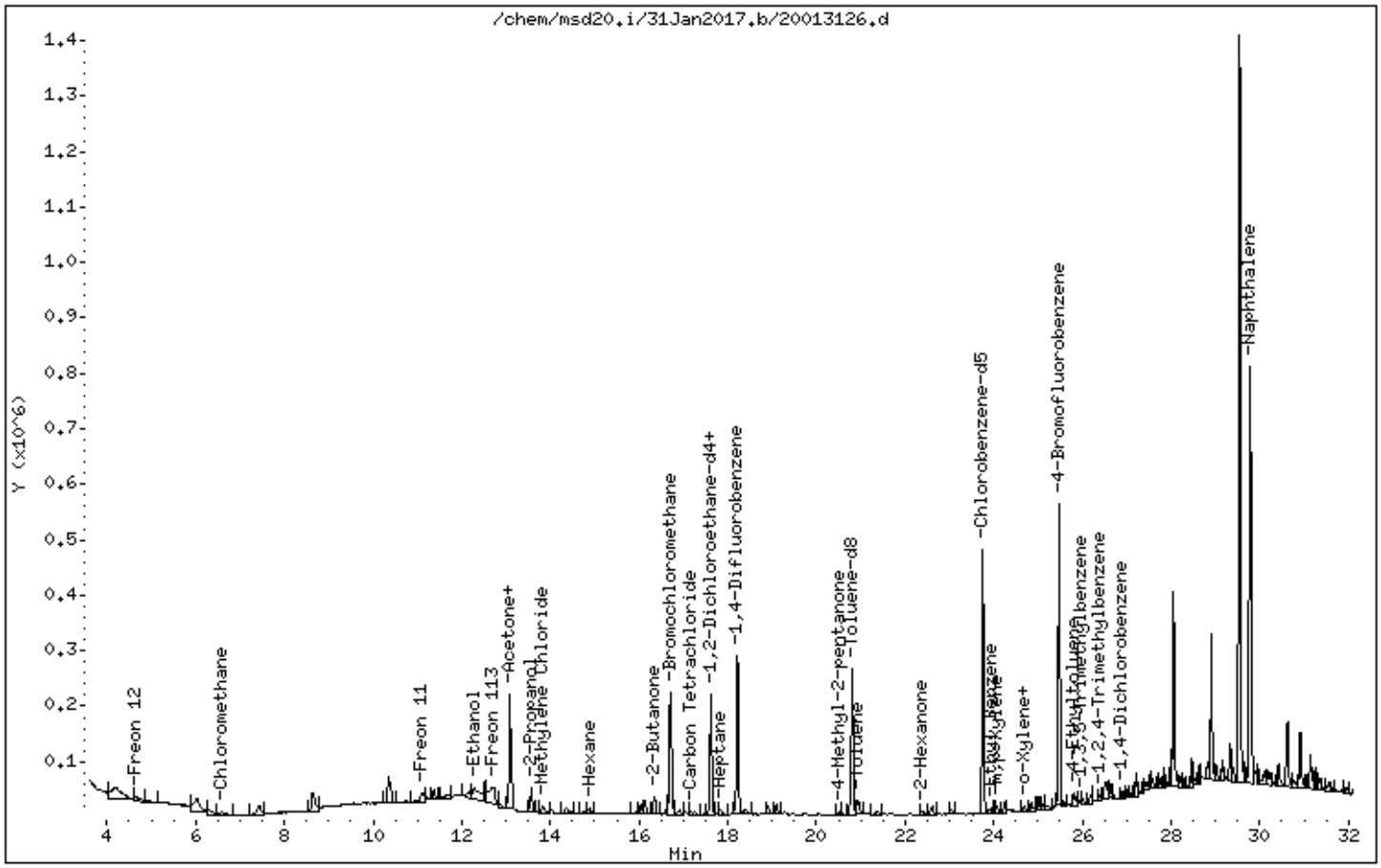
Instrument: msd20.i

Sample Info: 250mL #33585

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

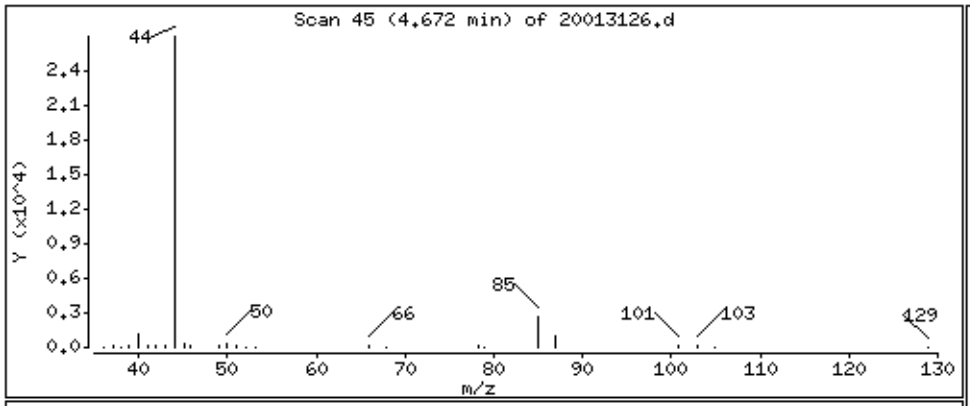
Operator: sw

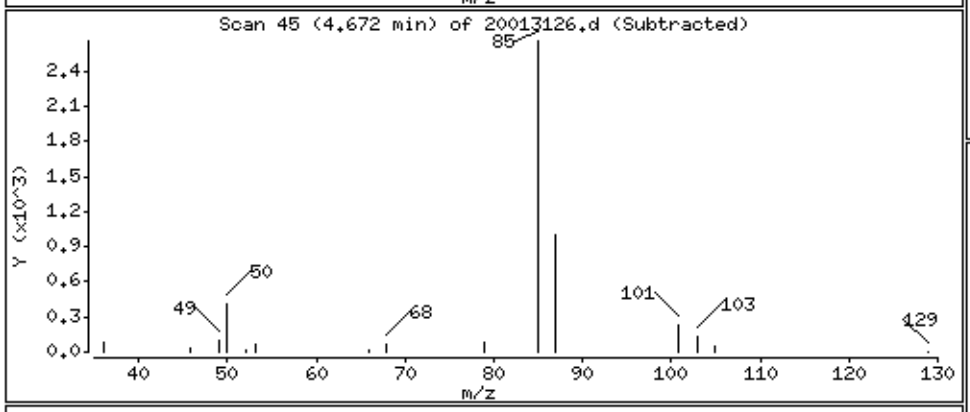
Column phase: RTX-624

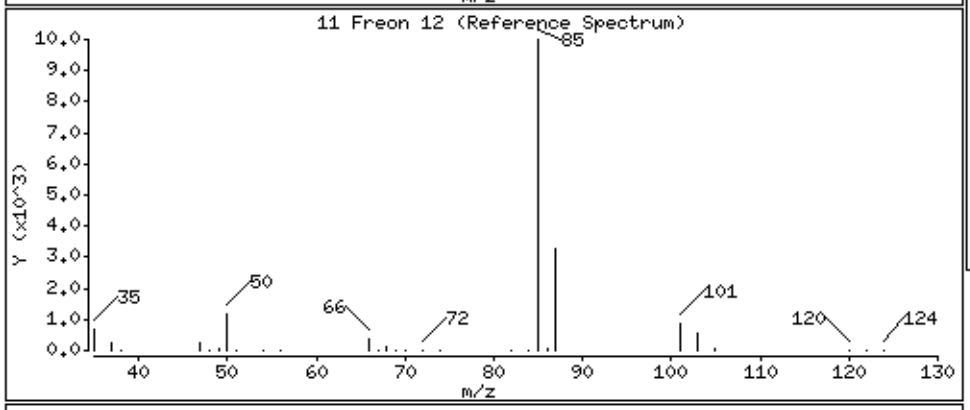
Column diameter: 0.32

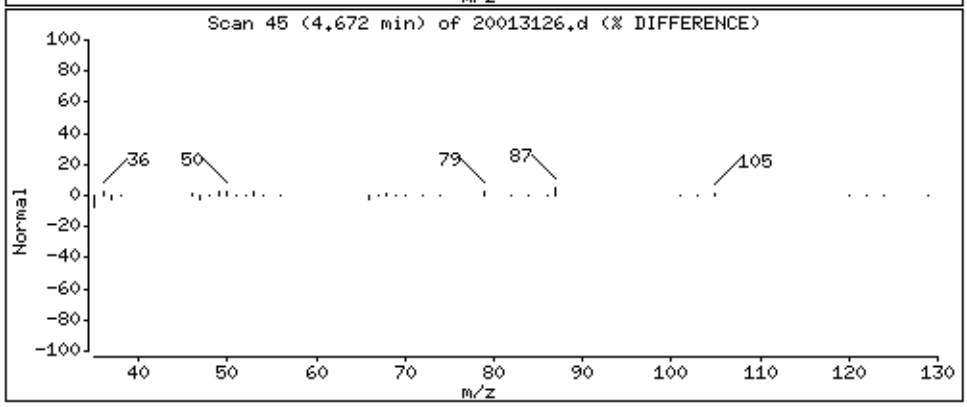
11 Freon 12

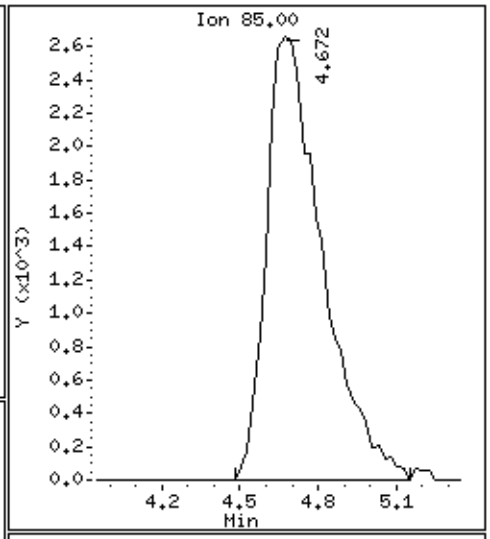
Concentration: 0.5959 PPBV

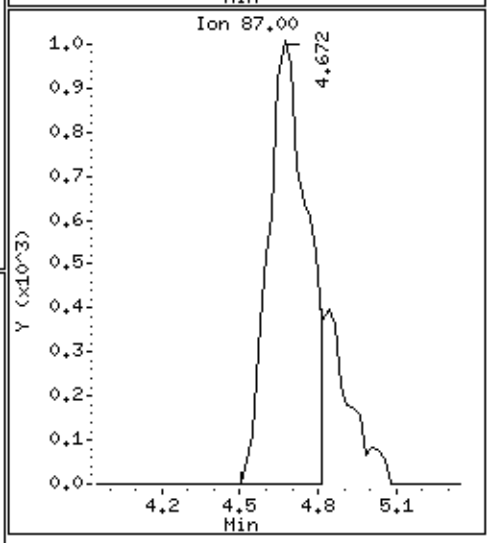












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

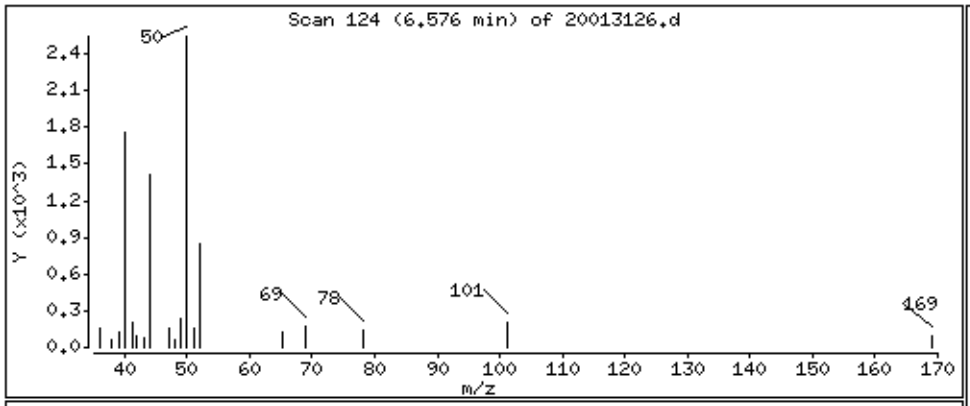
Operator: sw

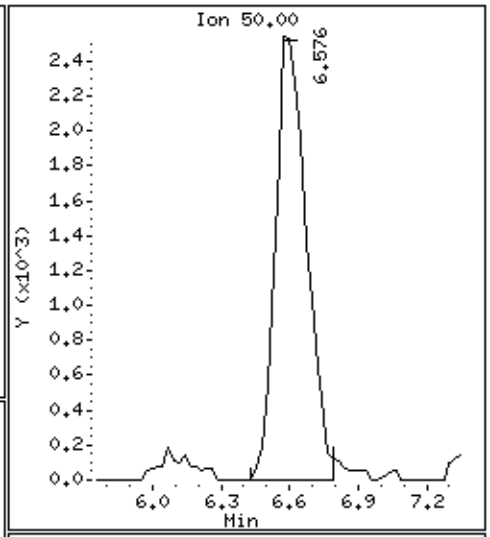
Column phase: RTX-624

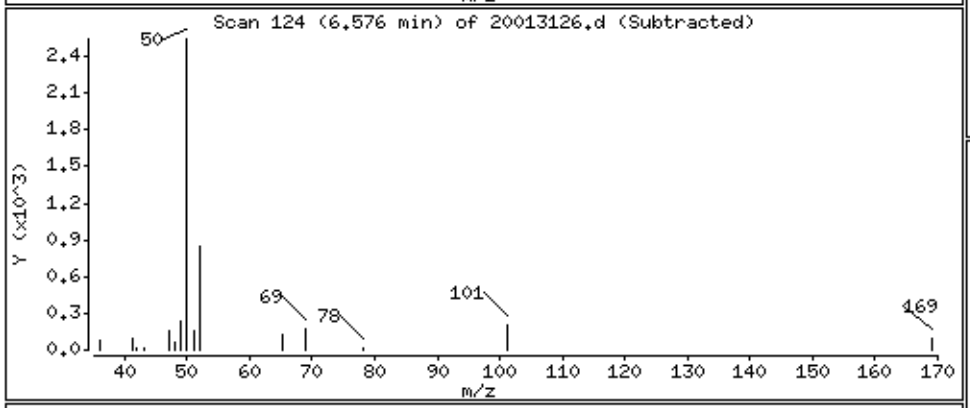
Column diameter: 0.32

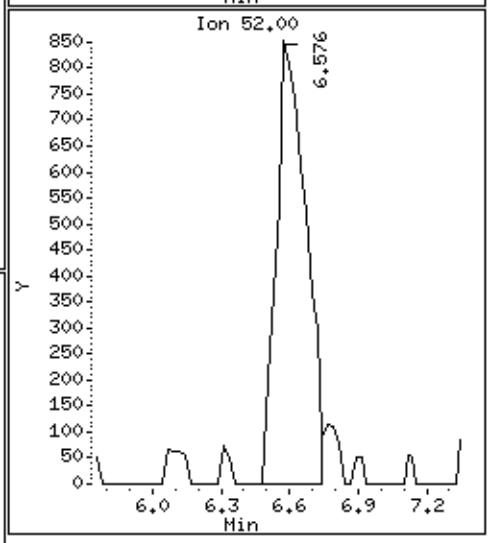
17 Chloromethane

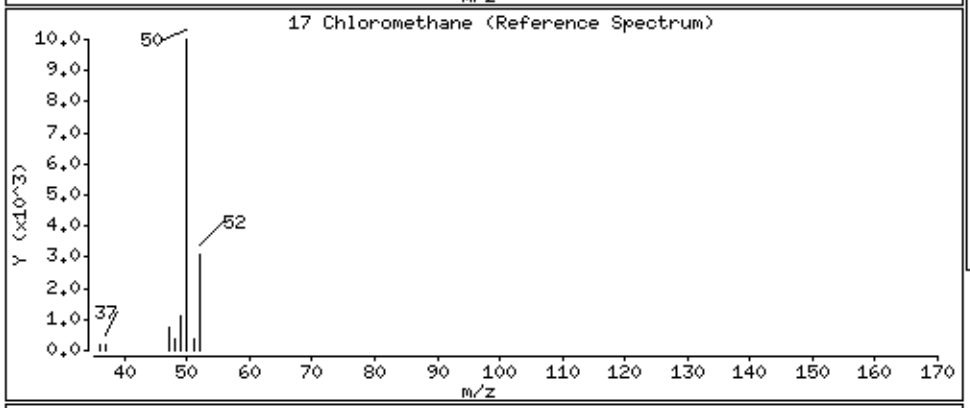
Concentration: 1.187 PPBV

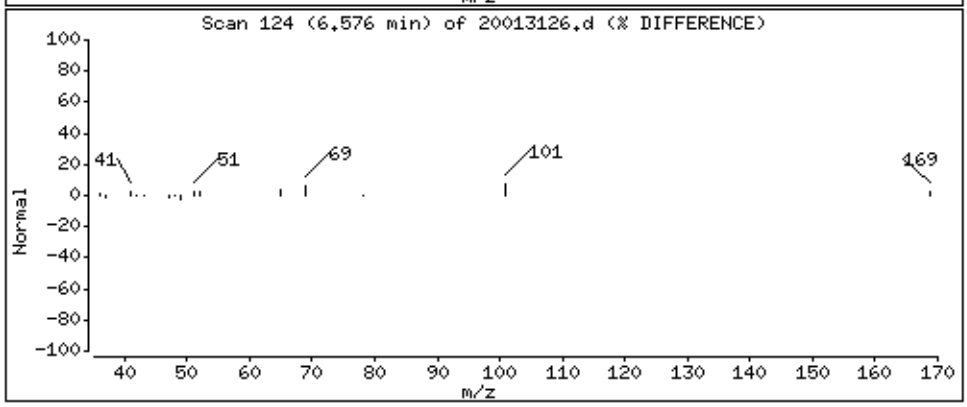












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

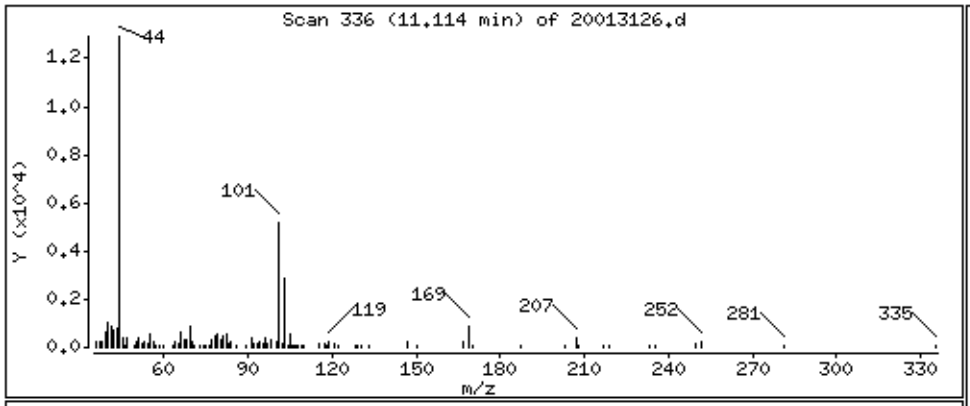
Operator: sw

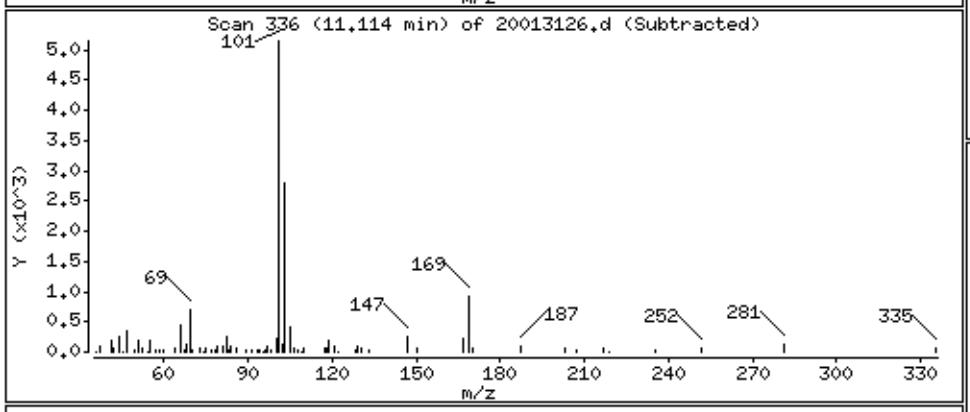
Column phase: RTX-624

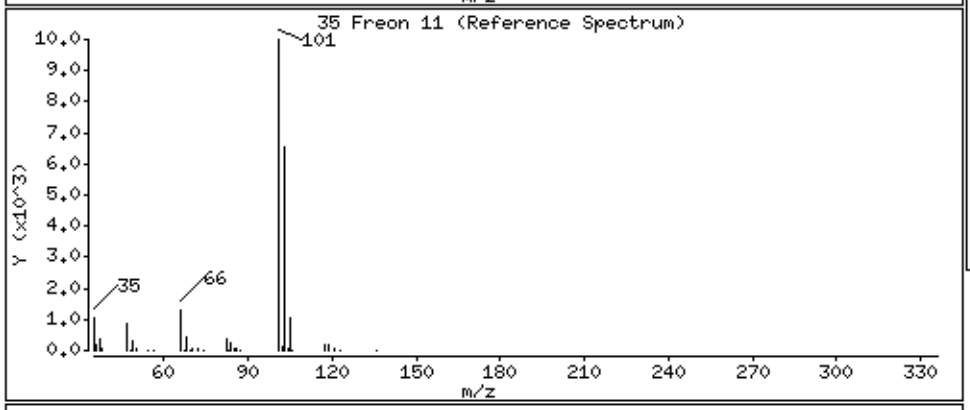
Column diameter: 0.32

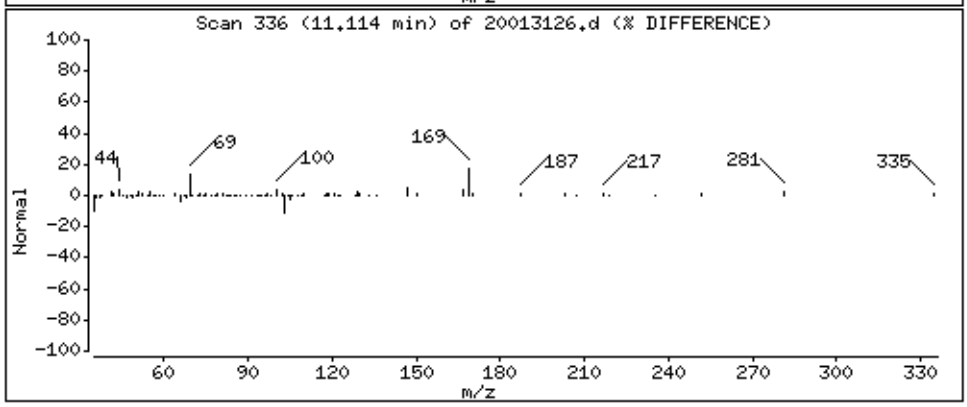
35 Freon 11

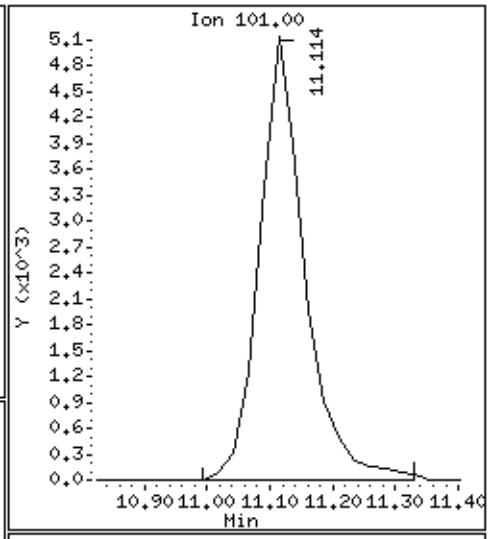
Concentration: 0.3897 PPBV

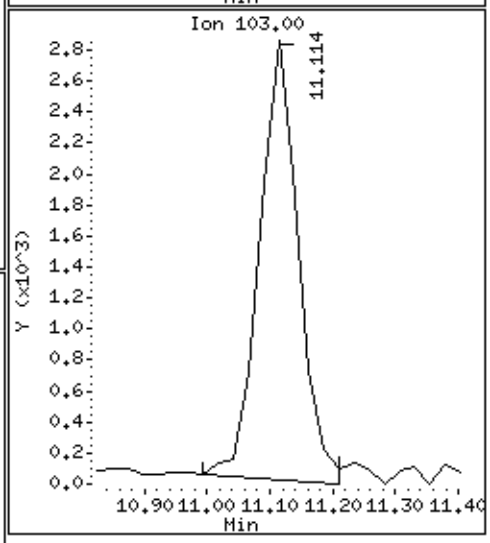












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

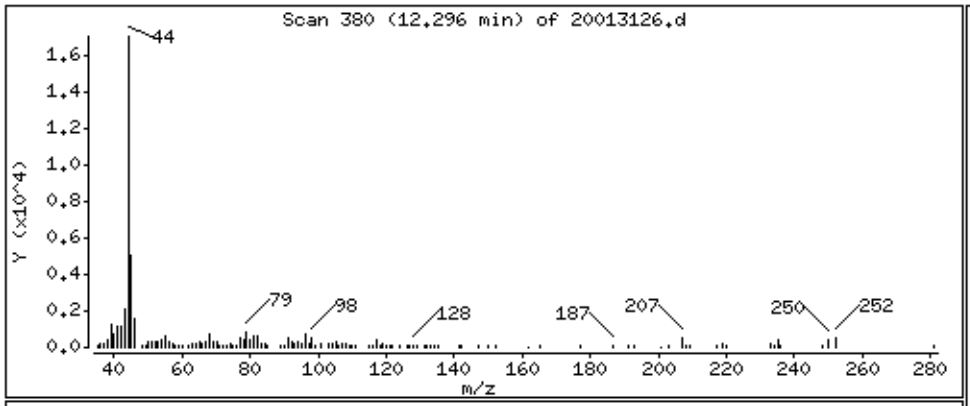
Operator: sw

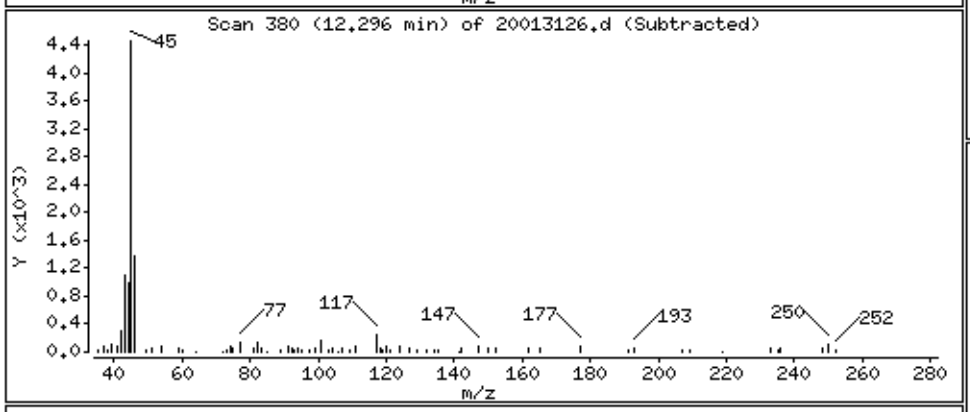
Column phase: RTX-624

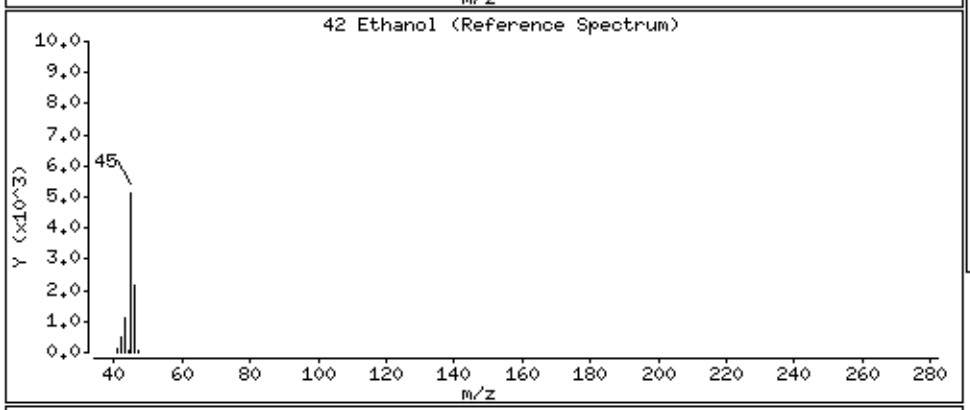
Column diameter: 0.32

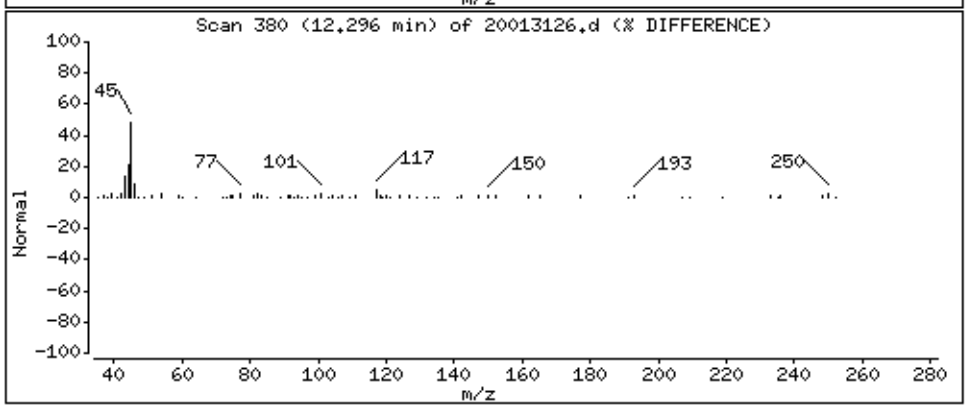
42 Ethanol

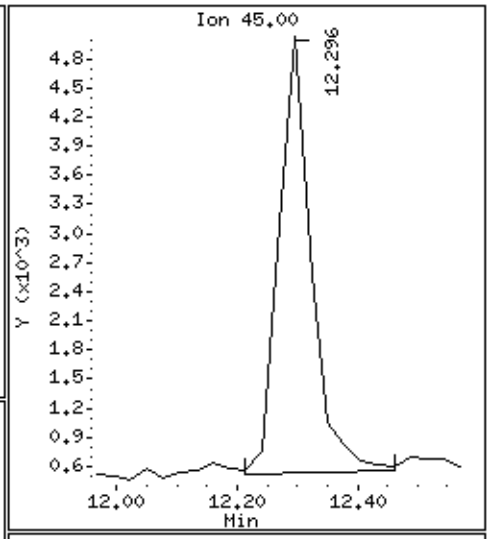
Concentration: 1.885 PPBV

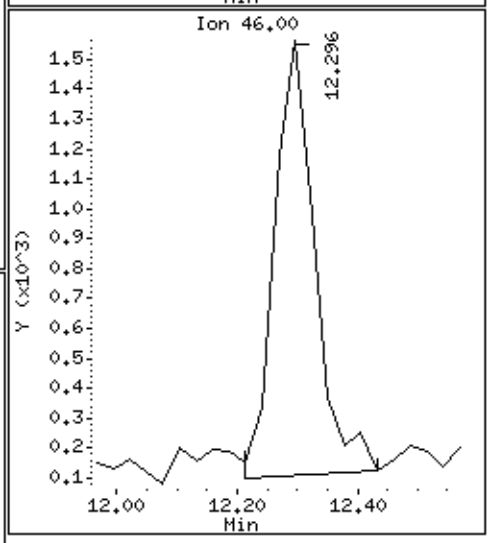












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

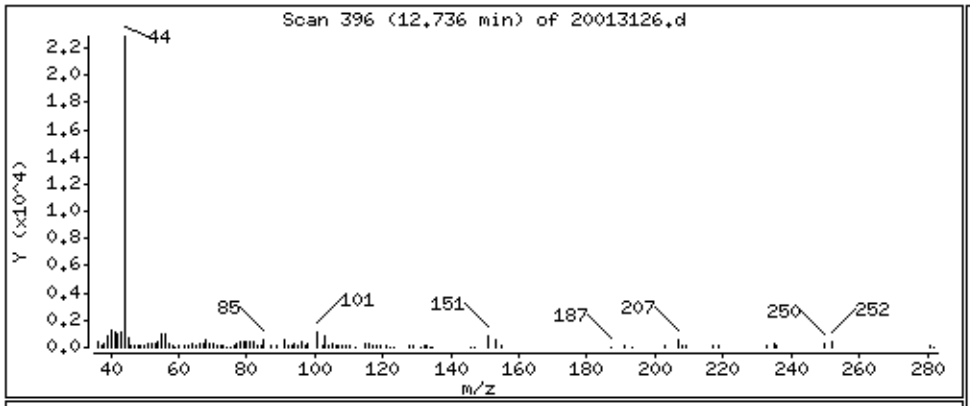
Operator: sw

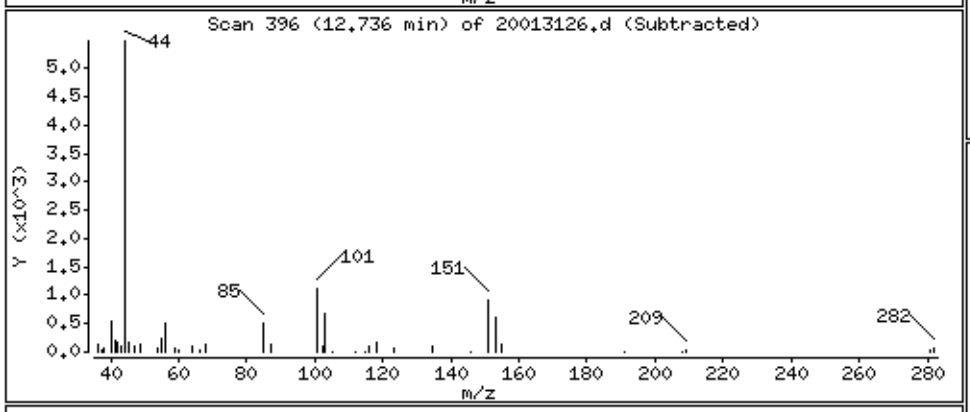
Column phase: RTX-624

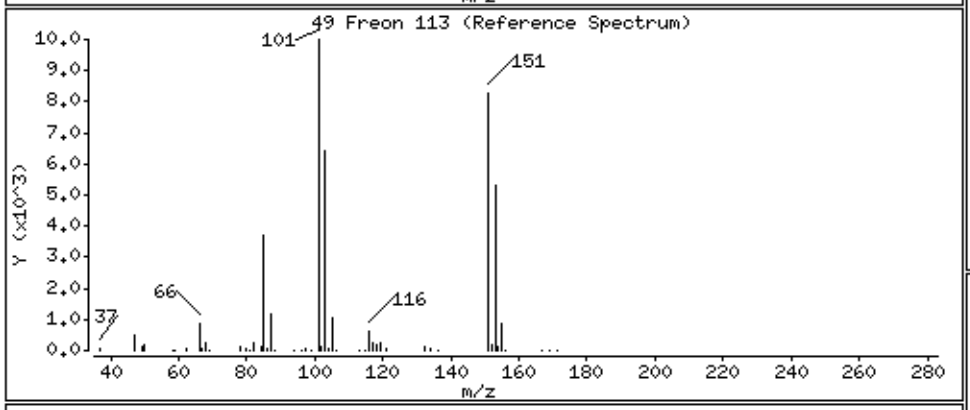
Column diameter: 0.32

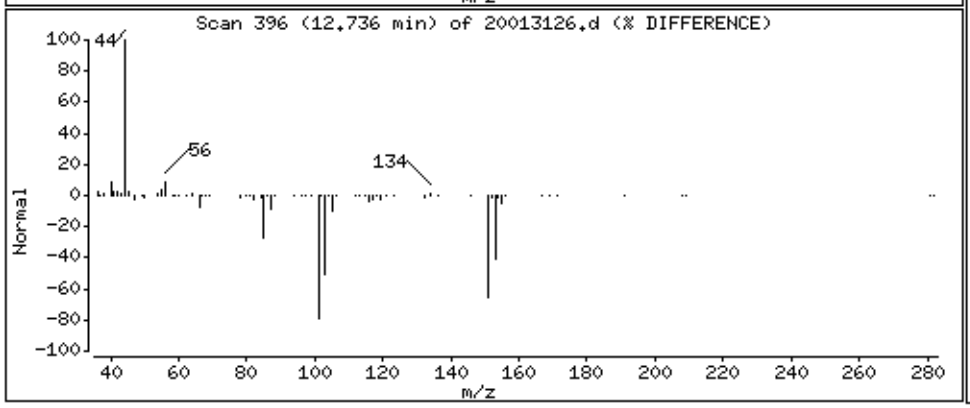
49 Freon 113

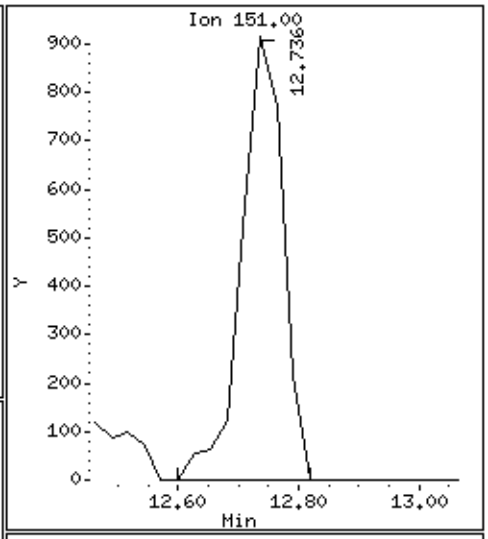
Concentration: 0.08772 PPBV

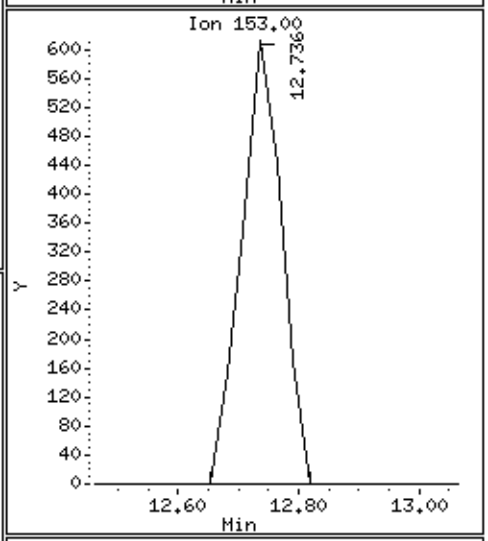


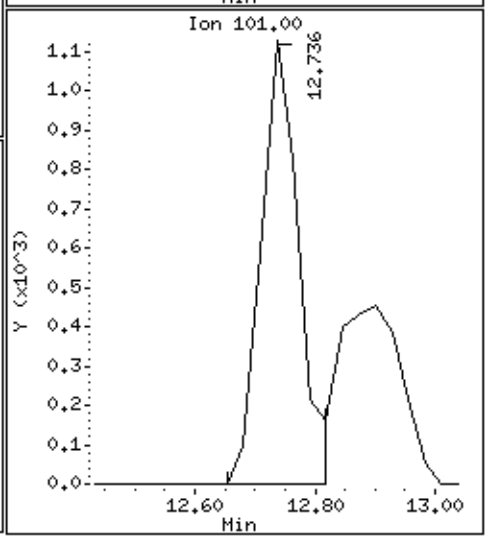












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

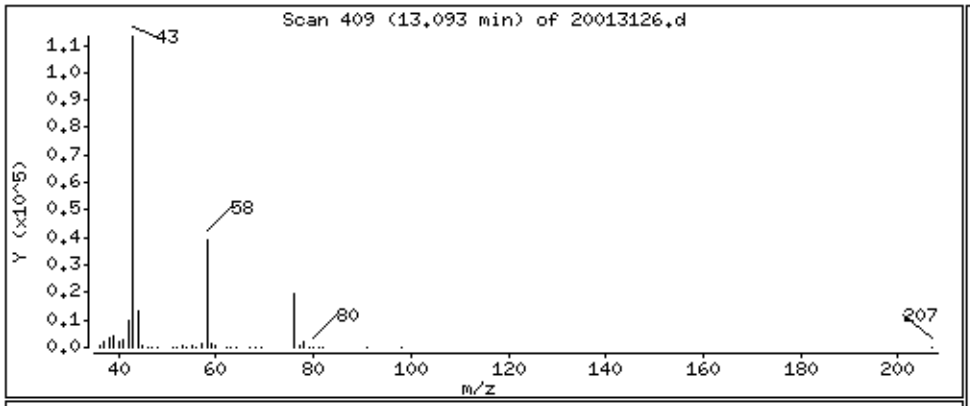
Operator: sw

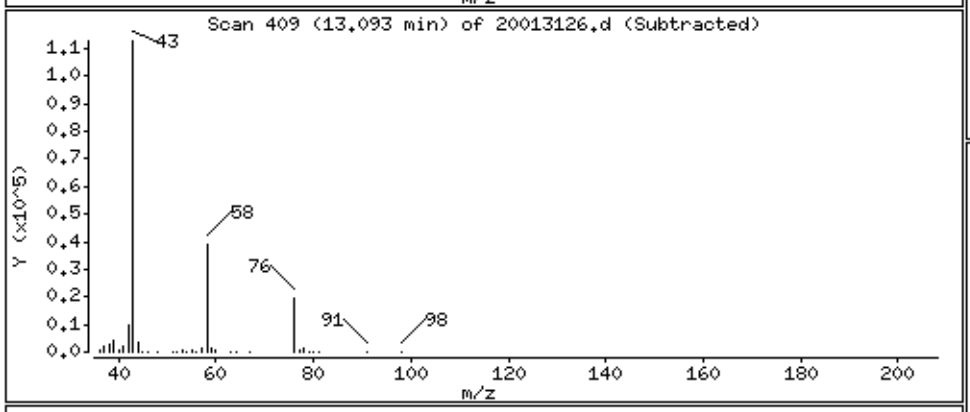
Column phase: RTX-624

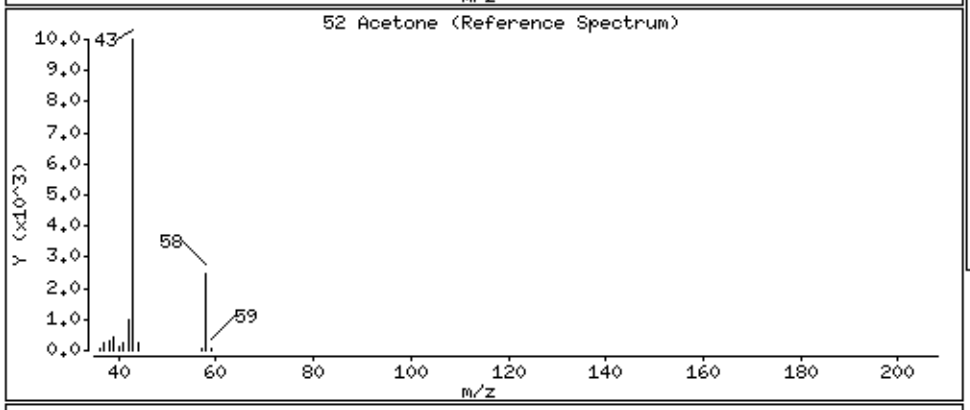
Column diameter: 0.32

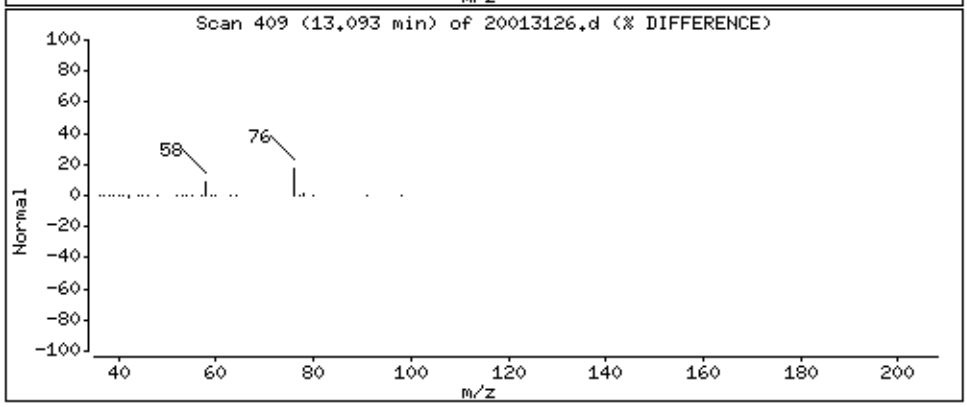
52 Acetone

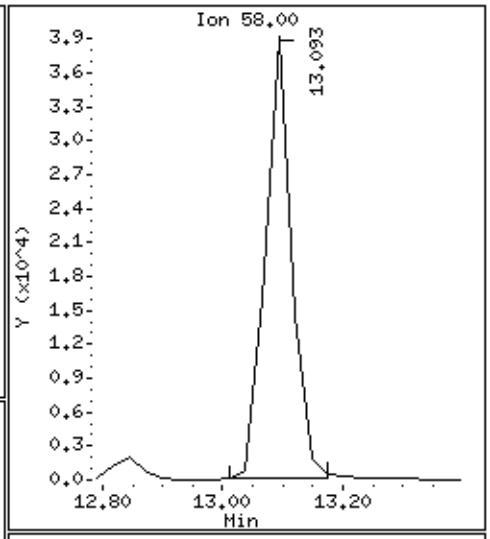
Concentration: 9.511 PPBV

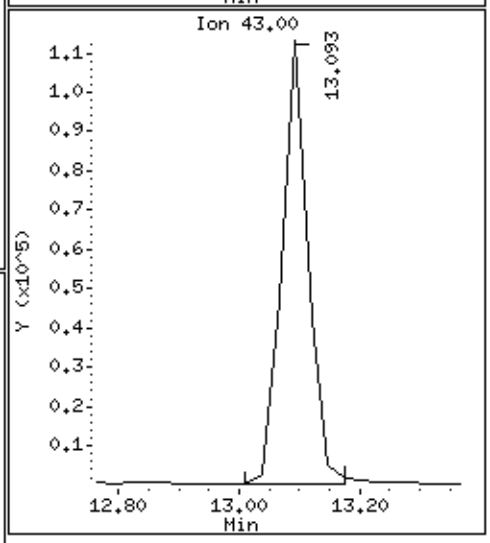












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

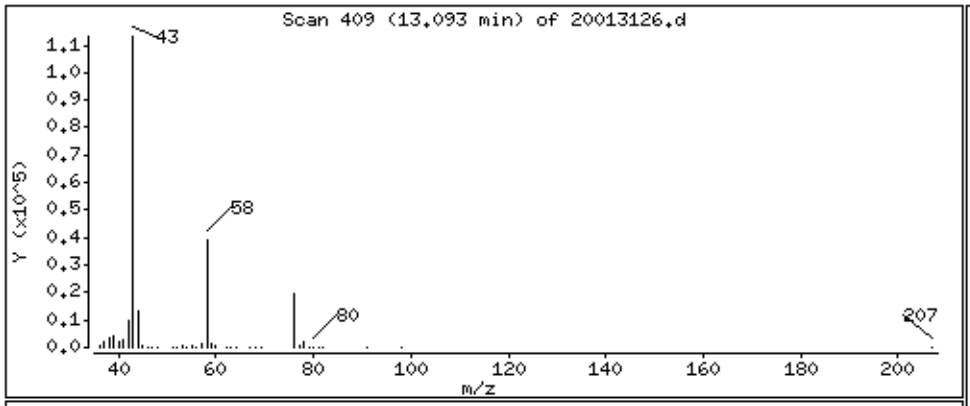
Operator: sw

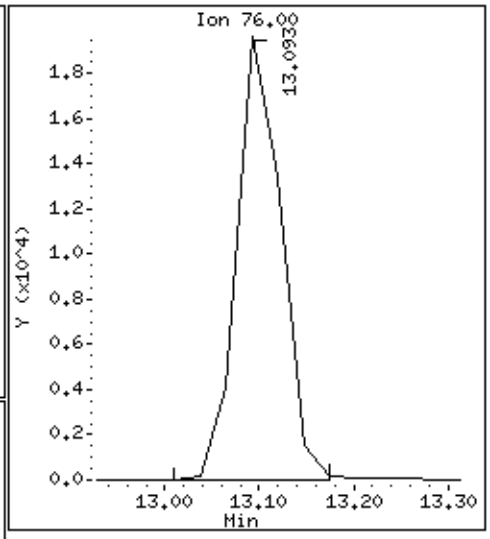
Column phase: RTX-624

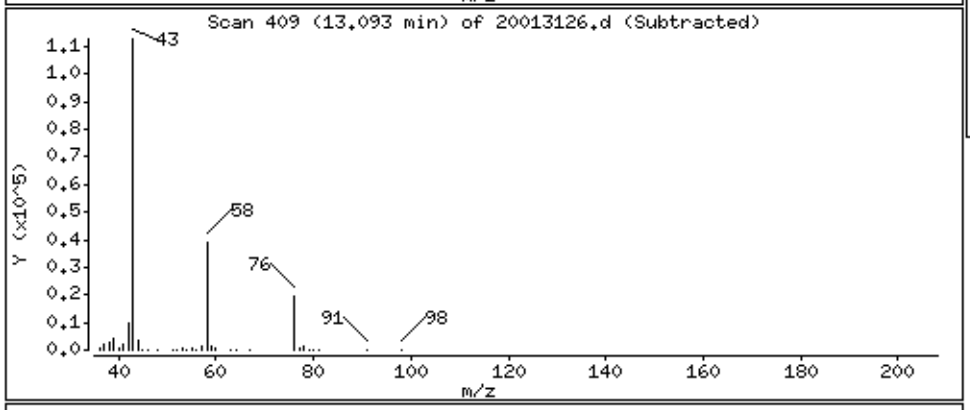
Column diameter: 0.32

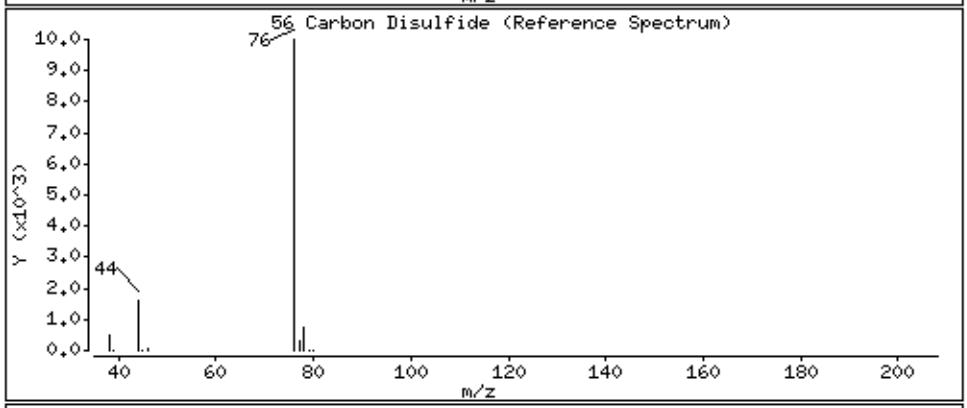
56 Carbon Disulfide

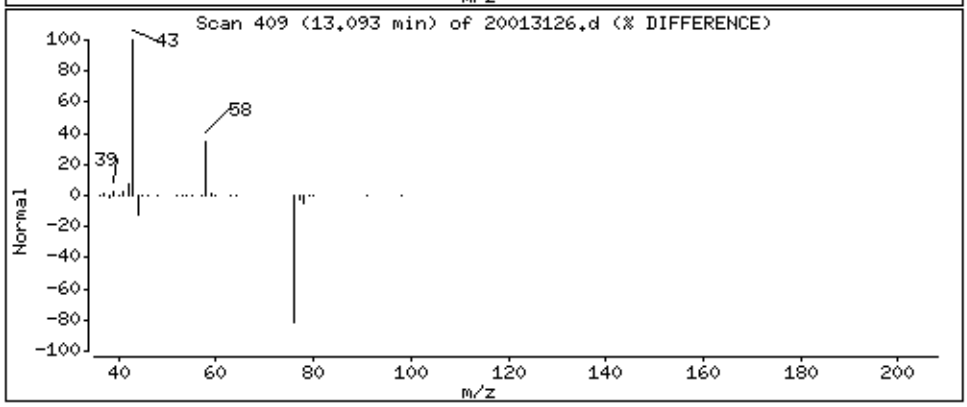
Concentration: 0.9312 PPBV











Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

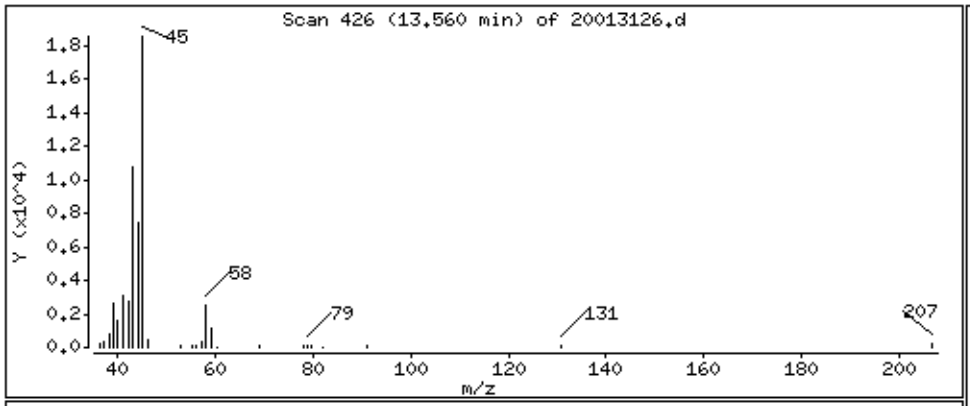
Operator: sw

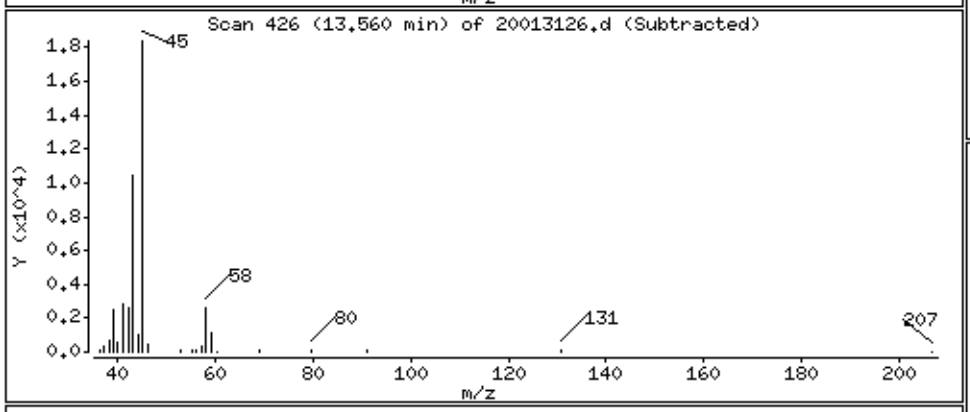
Column phase: RTX-624

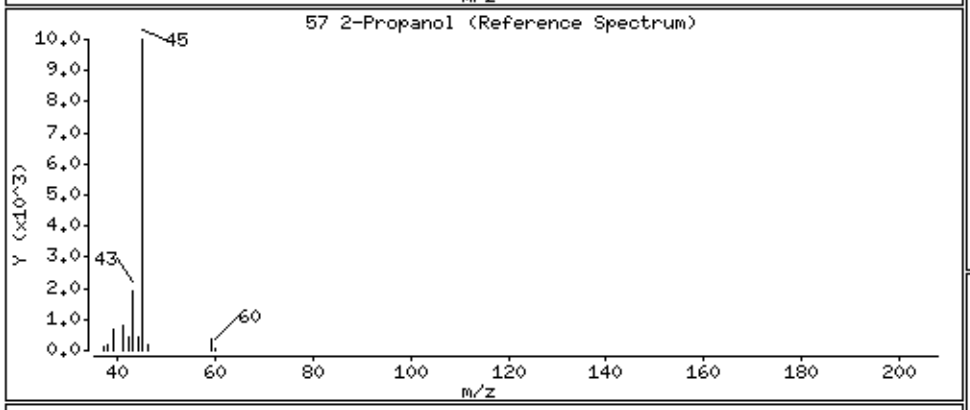
Column diameter: 0.32

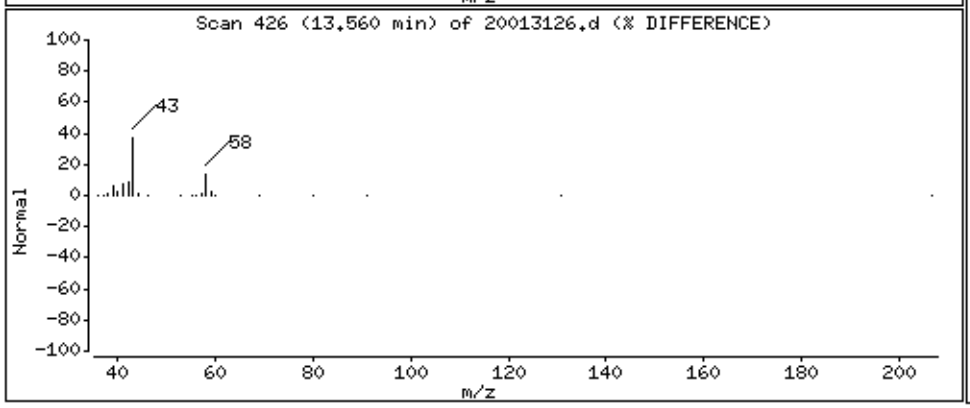
57 2-Propanol

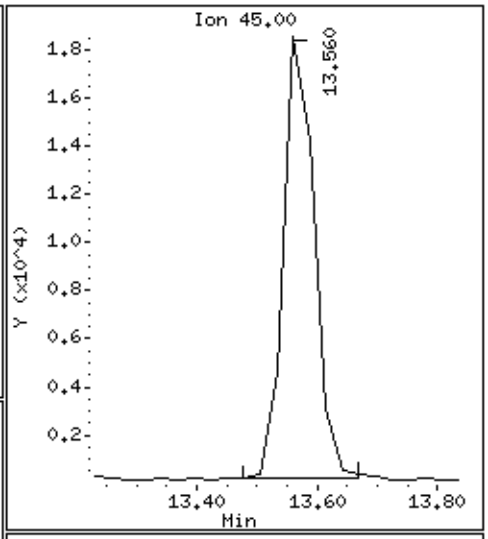
Concentration: 1.994 PPBV

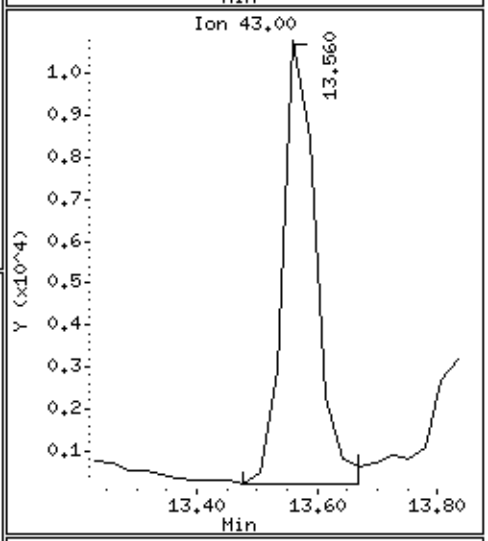


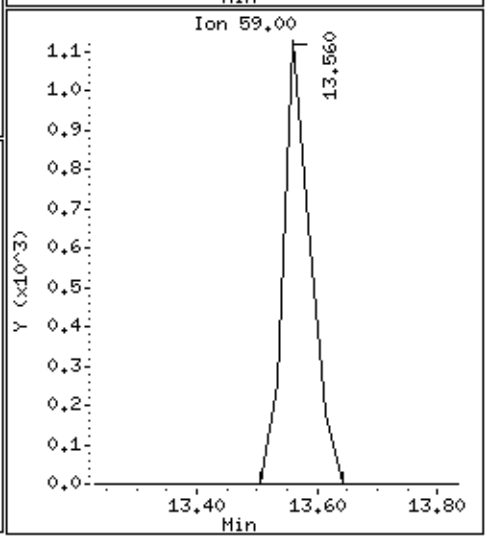












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

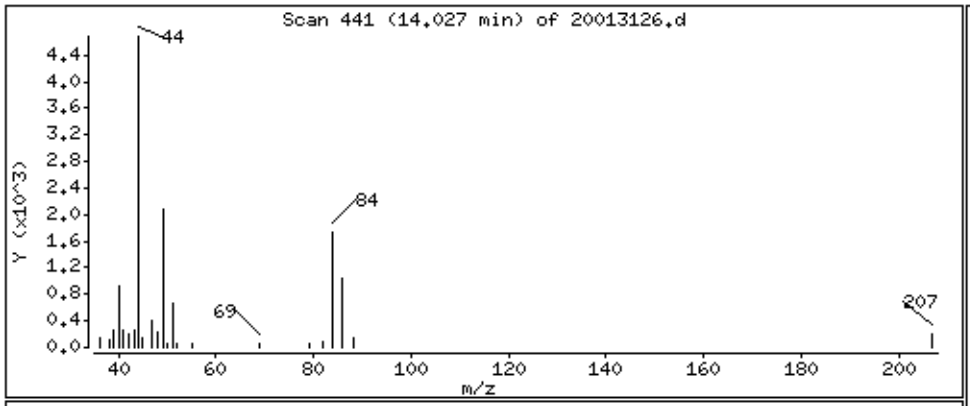
Operator: sw

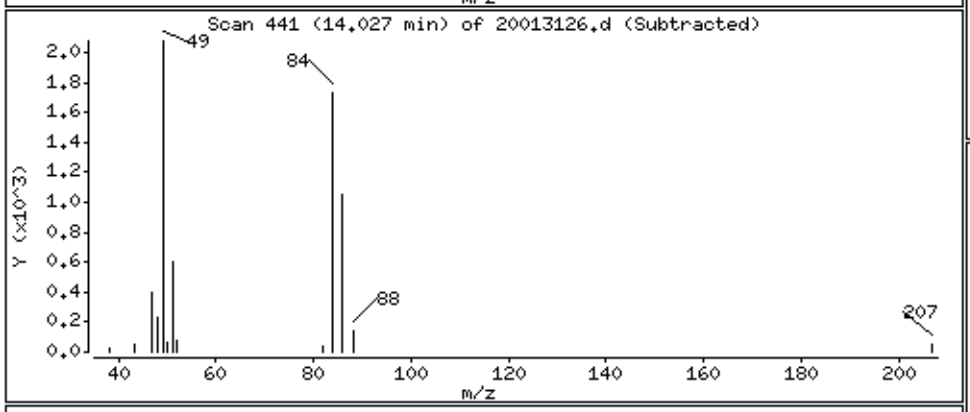
Column phase: RTX-624

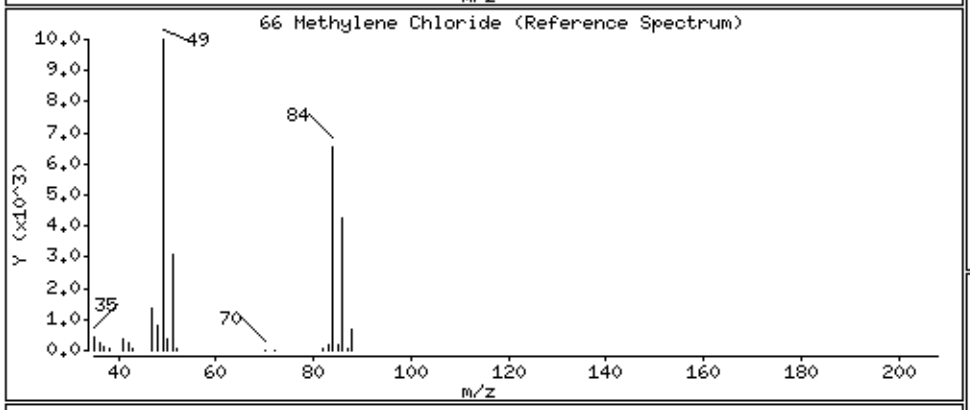
Column diameter: 0.32

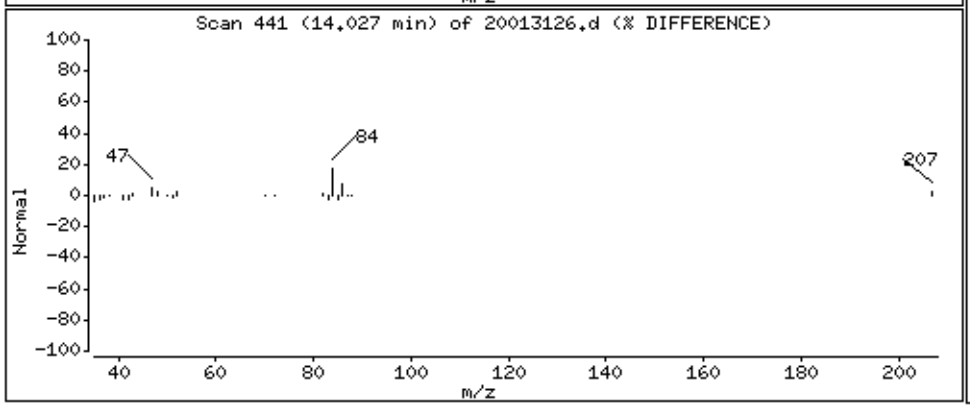
66 Methylene Chloride

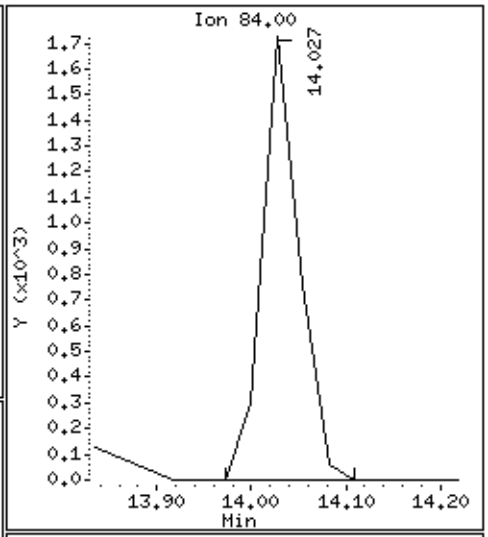
Concentration: 0.1736 PPBV

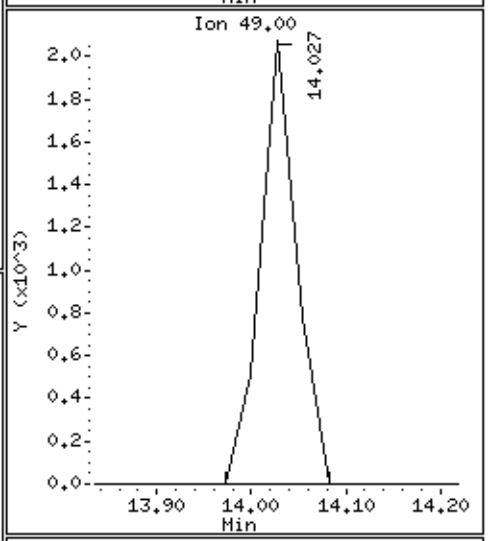


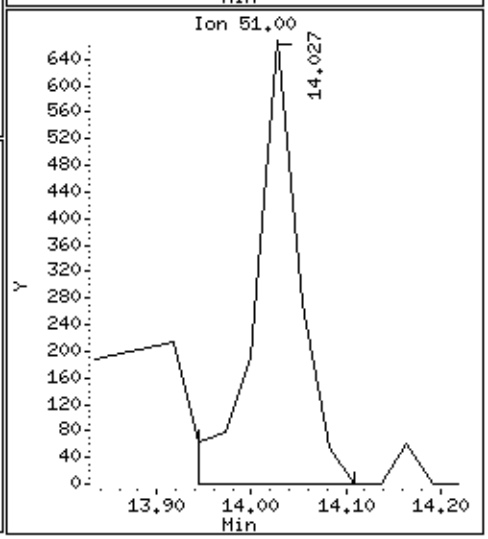












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

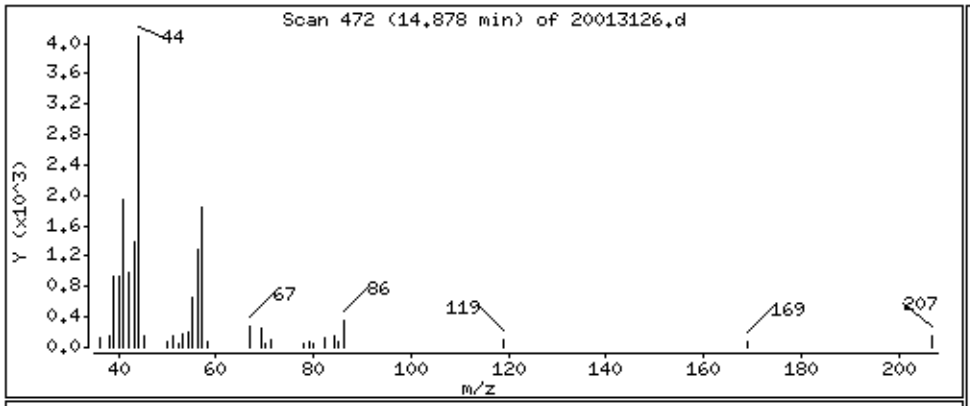
Operator: sw

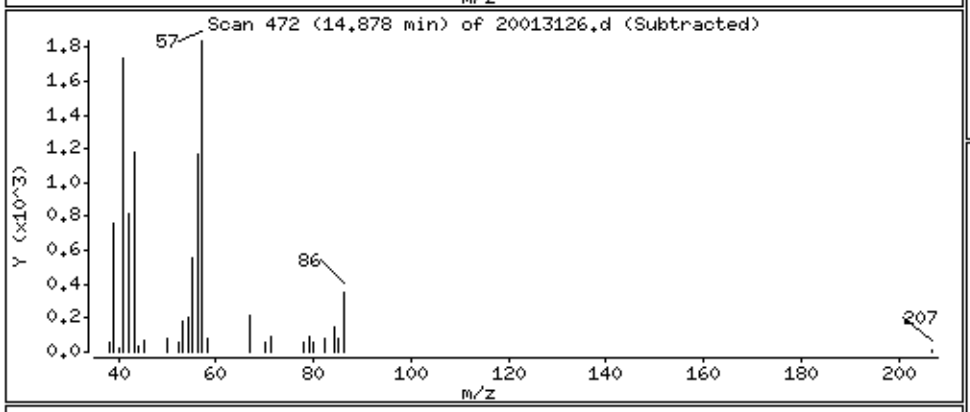
Column phase: RTX-624

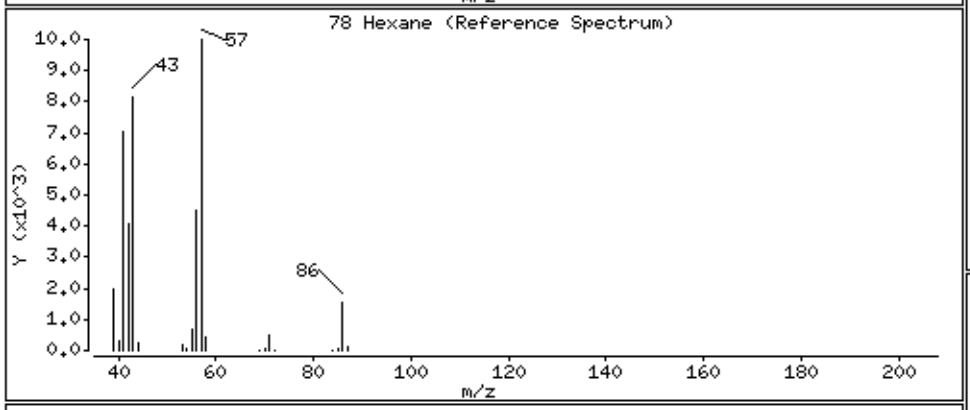
Column diameter: 0.32

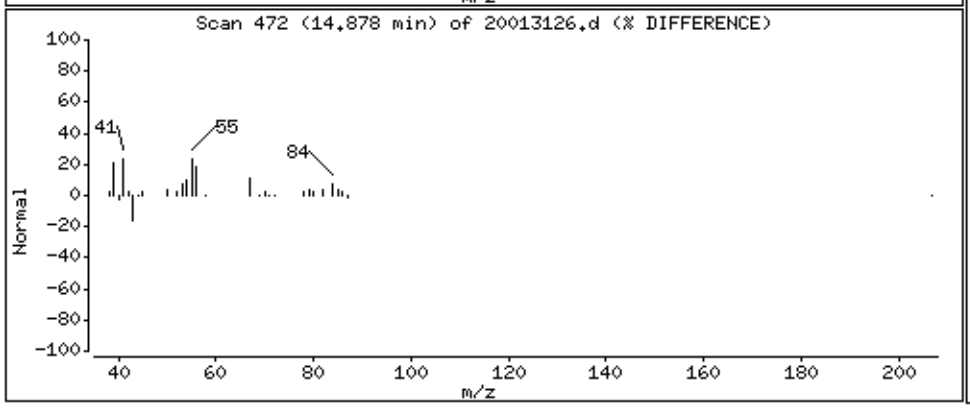
78 Hexane

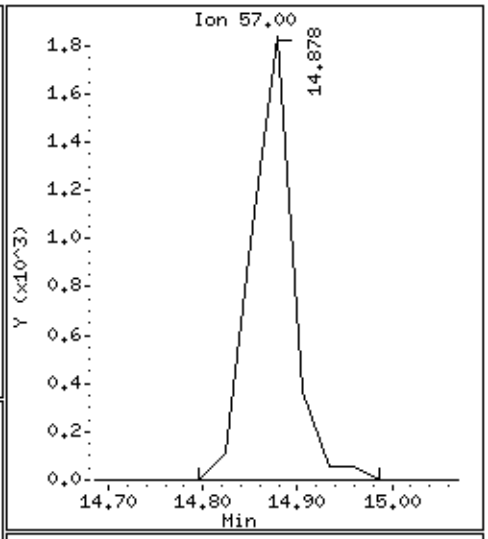
Concentration: 0.1572 PPBV

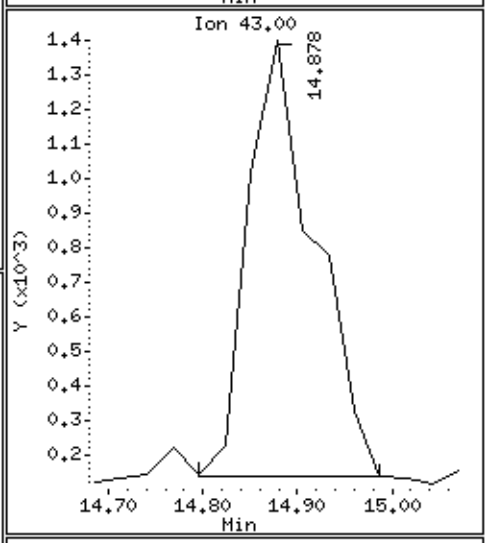


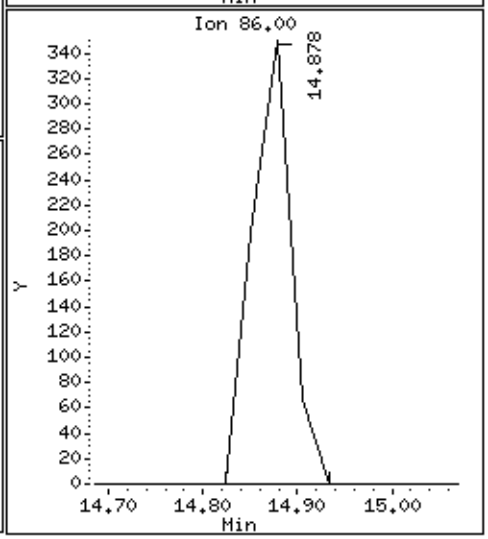












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

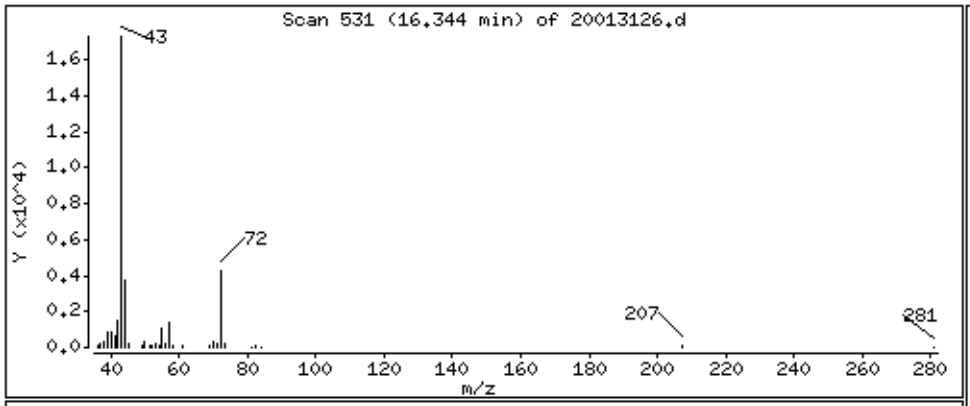
Operator: sw

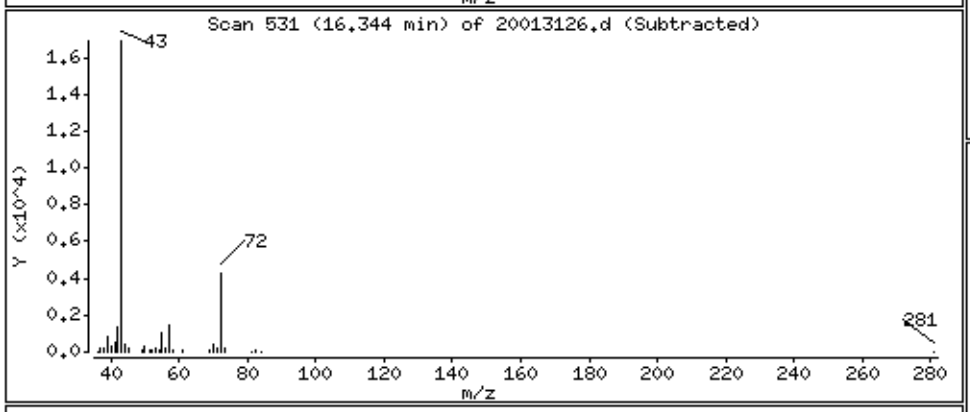
Column phase: RTX-624

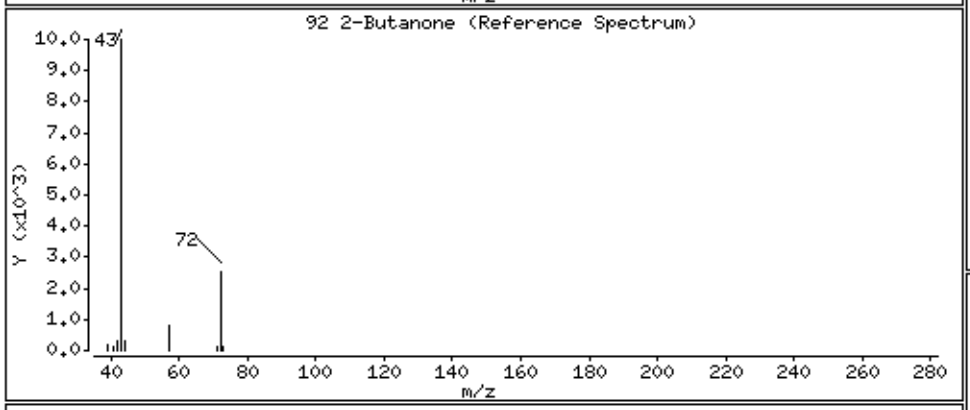
Column diameter: 0.32

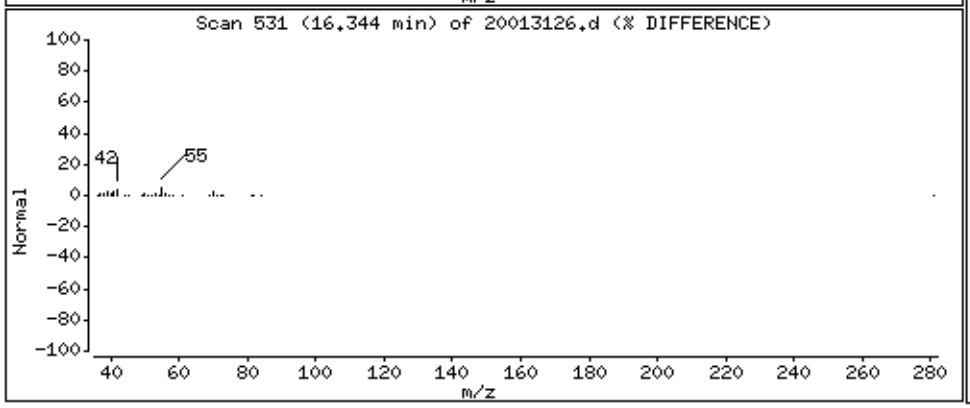
92 2-Butanone

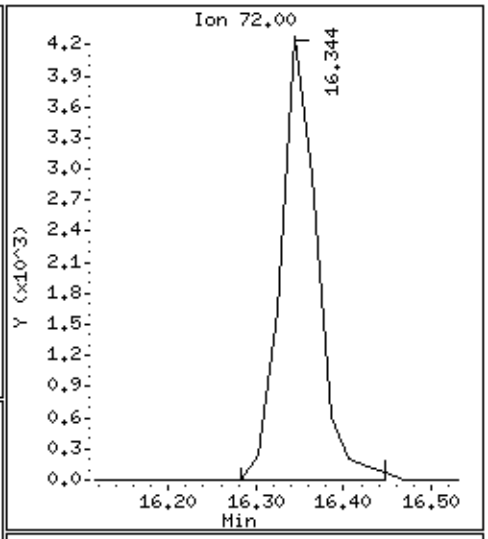
Concentration: 1.033 PPBV

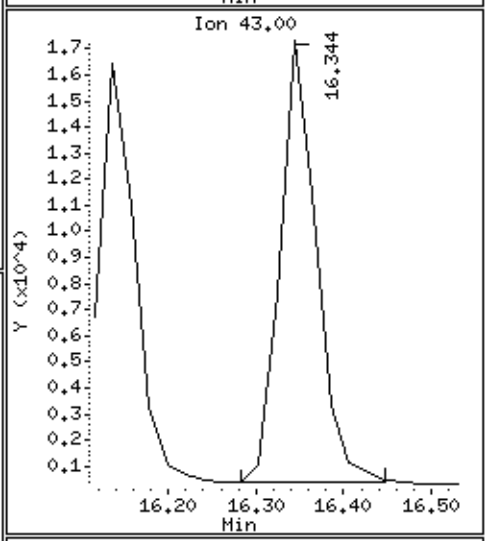


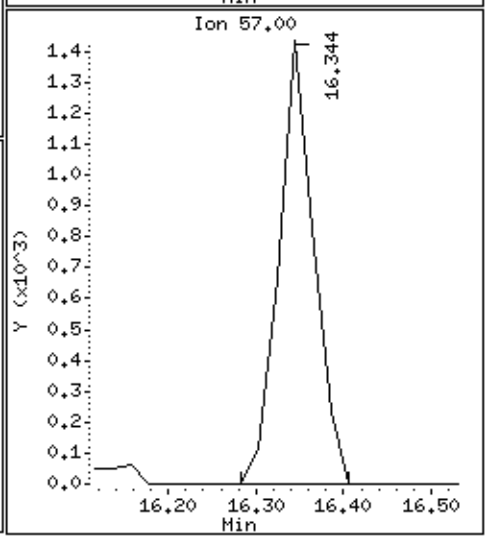












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

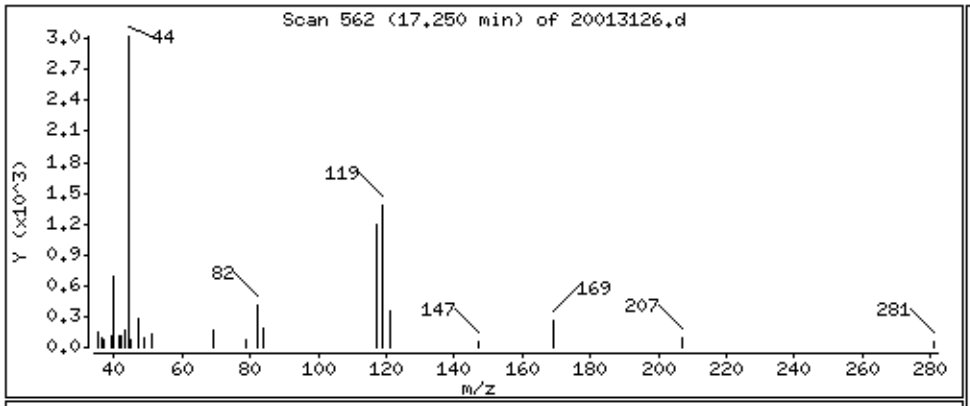
Operator: sw

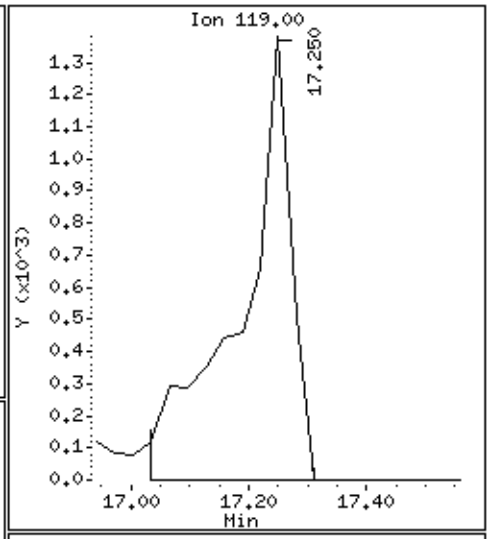
Column phase: RTX-624

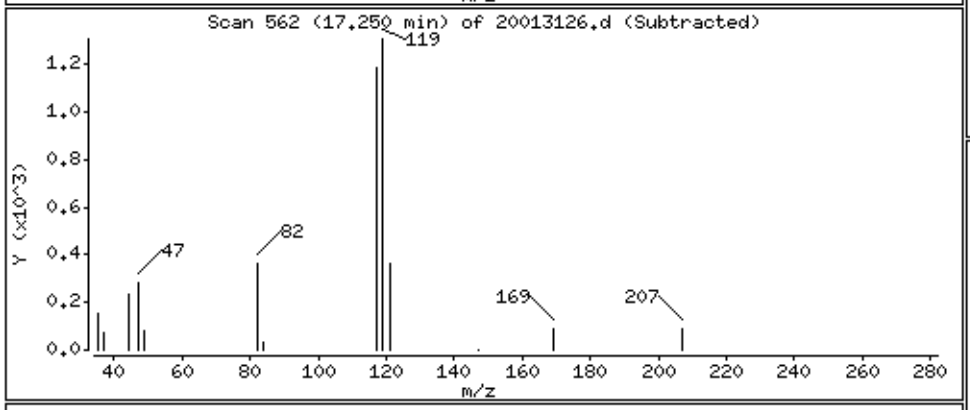
Column diameter: 0.32

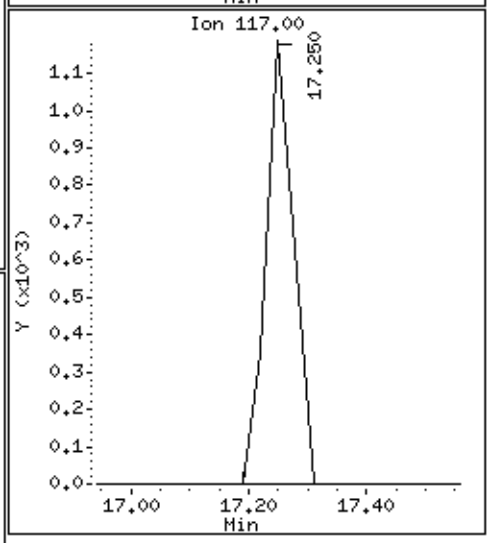
106 Carbon Tetrachloride

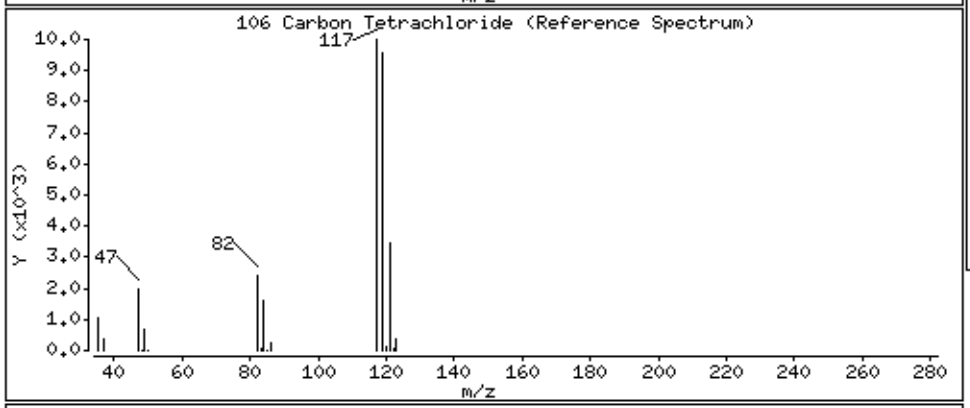
Concentration: 0.1756 PPBV

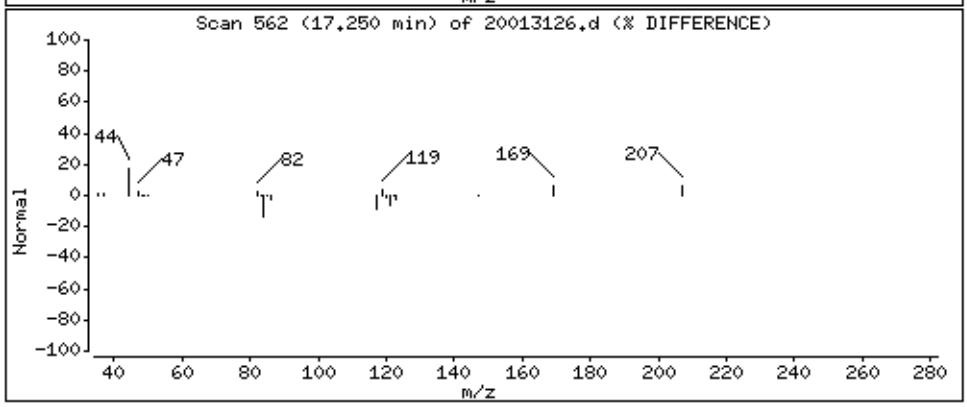












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

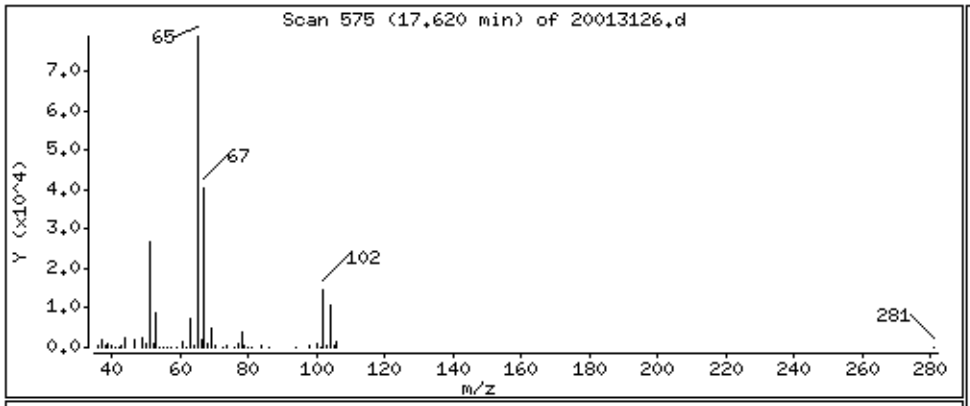
Operator: sw

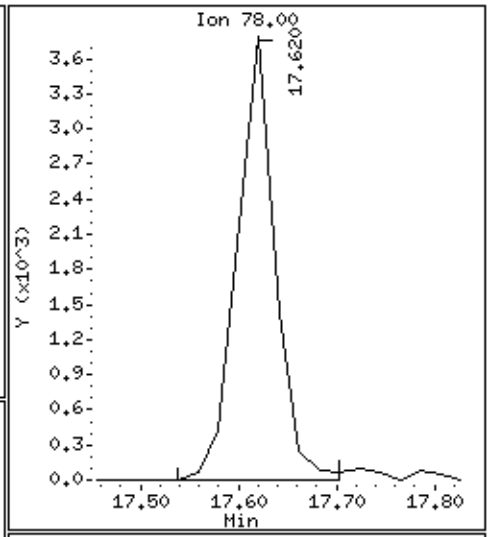
Column phase: RTX-624

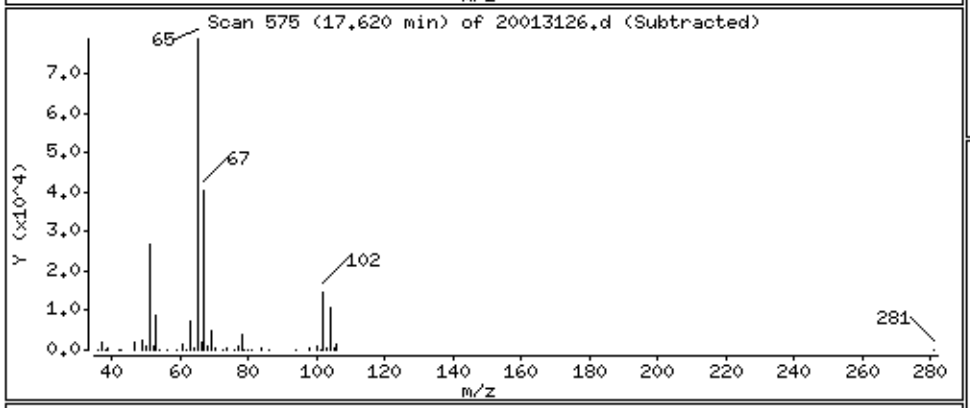
Column diameter: 0.32

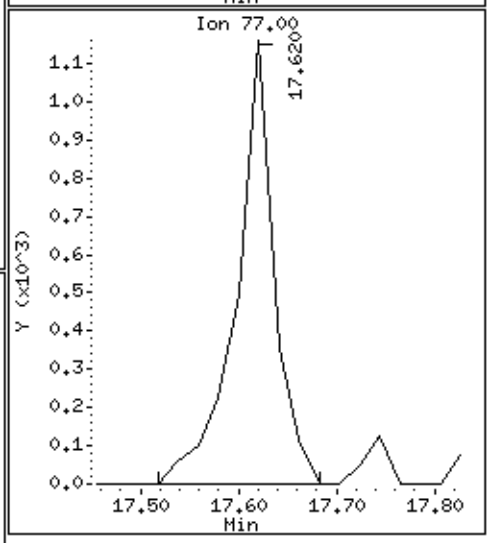
116 Benzene

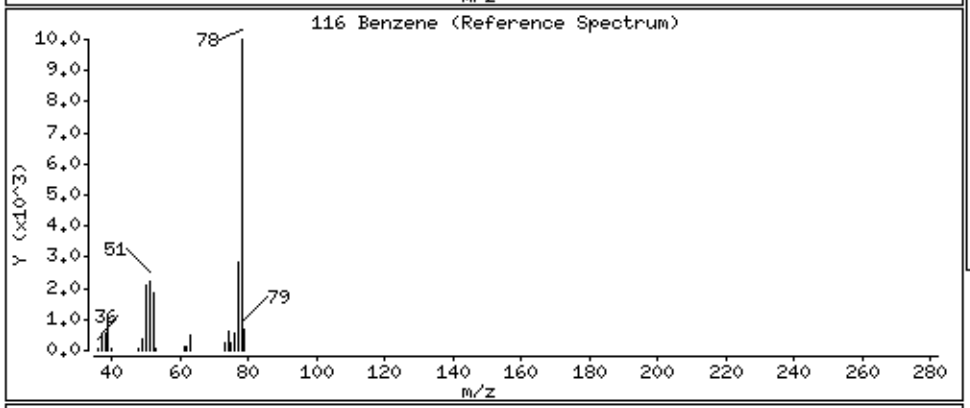
Concentration: 0.1864 PPBV

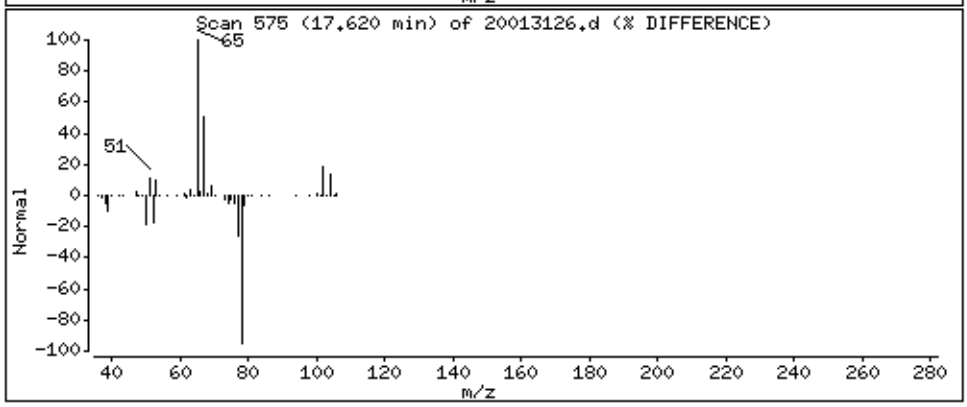












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

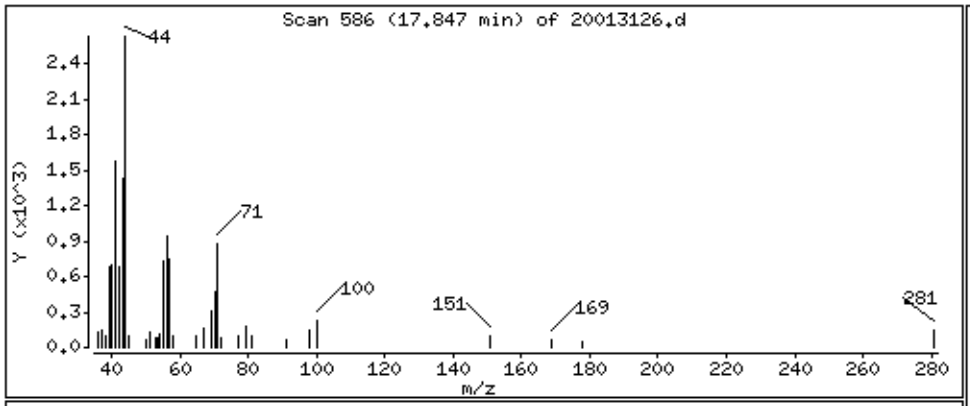
Operator: sw

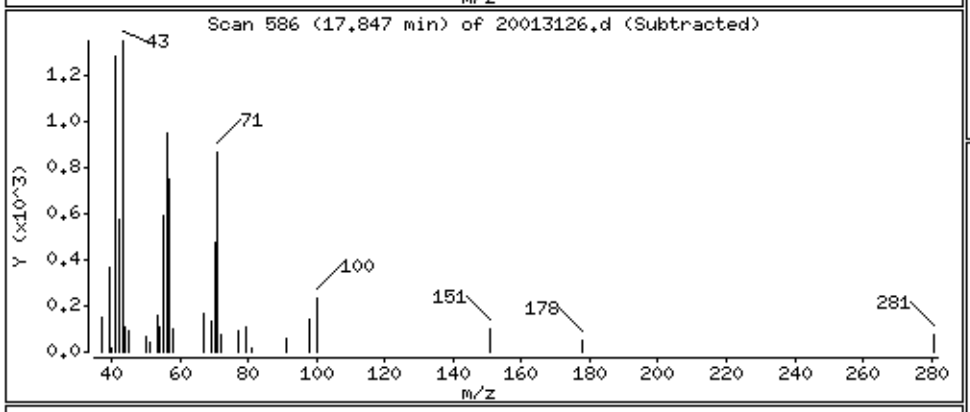
Column phase: RTX-624

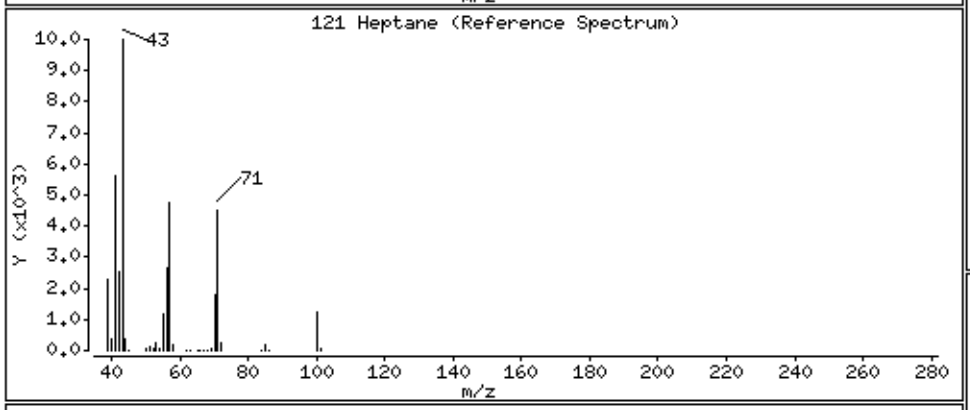
Column diameter: 0.32

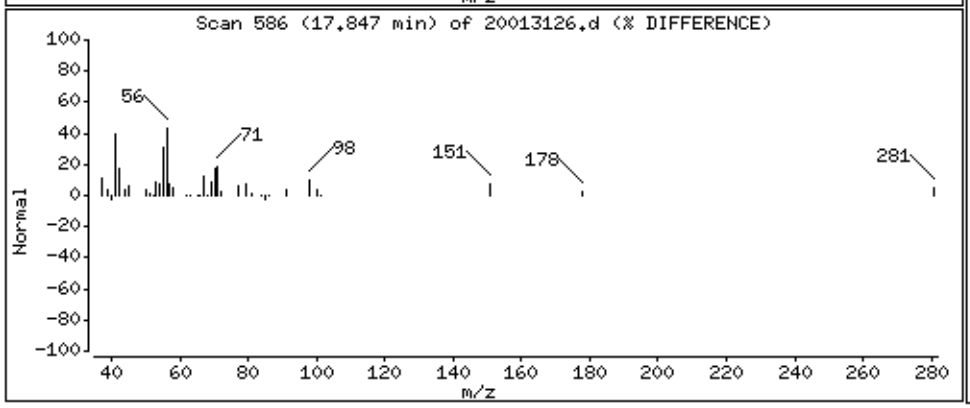
121 Heptane

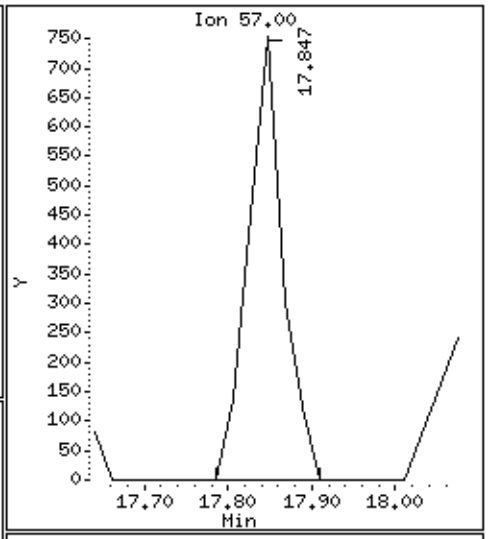
Concentration: 0.1548 PPBV

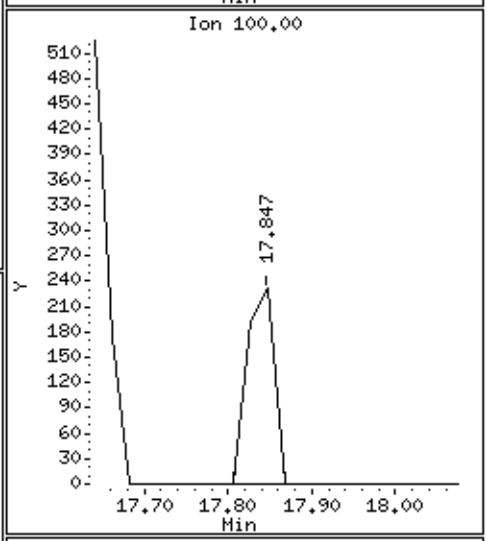


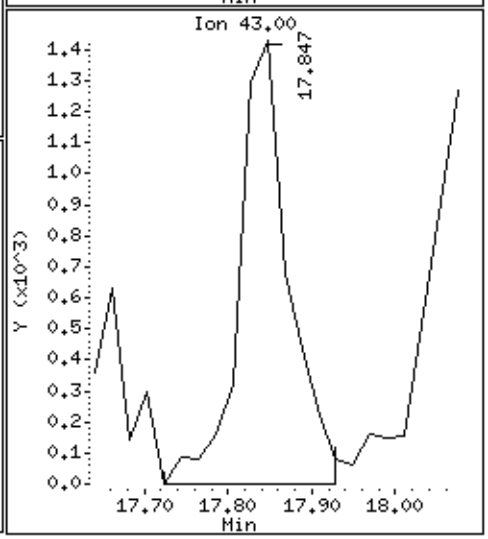












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

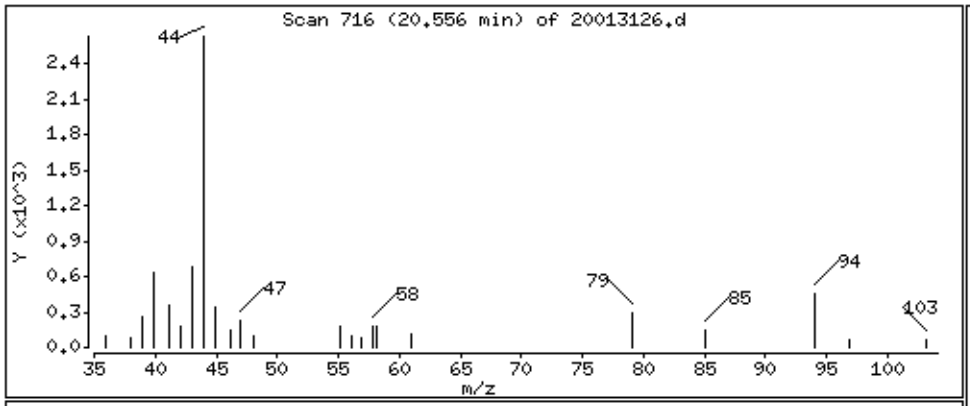
Operator: sw

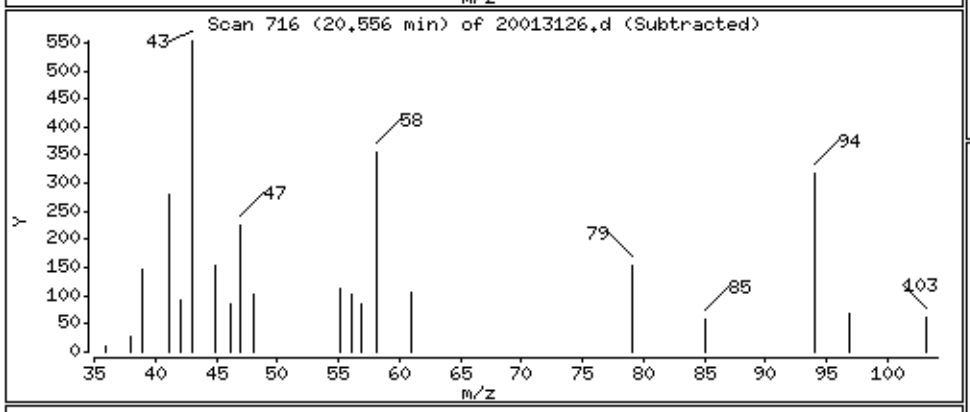
Column phase: RTX-624

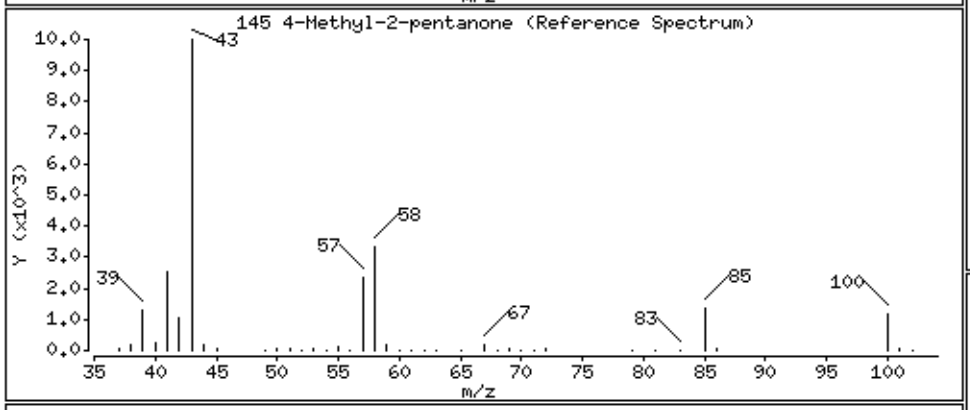
Column diameter: 0.32

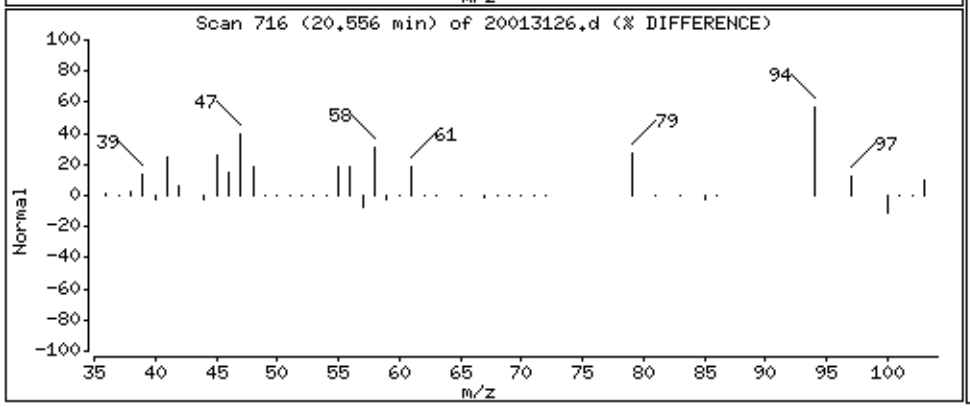
145 4-Methyl-2-pentanone

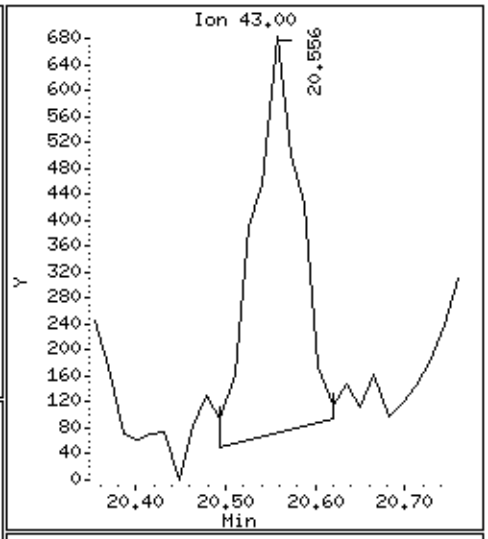
Concentration: 0.07366 PPBV

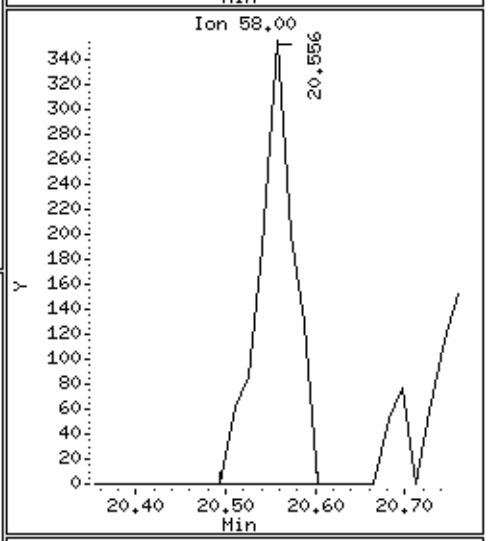


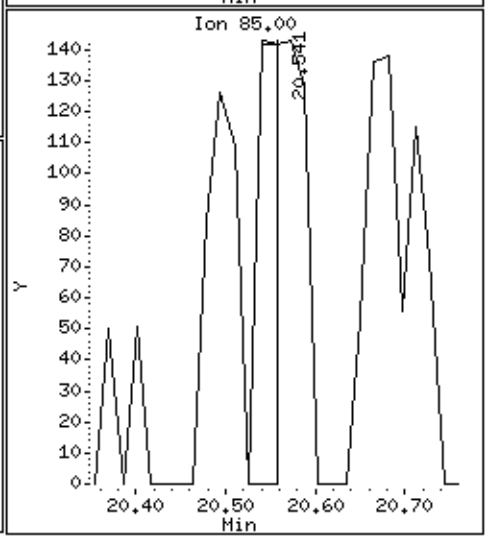












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

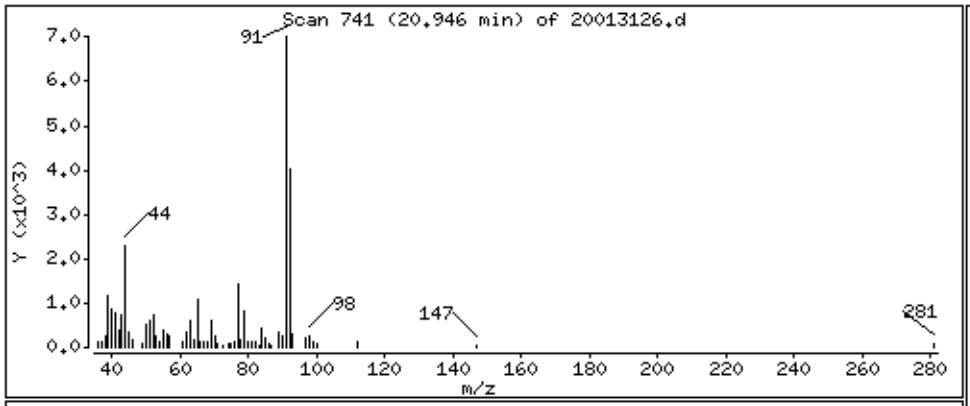
Operator: sw

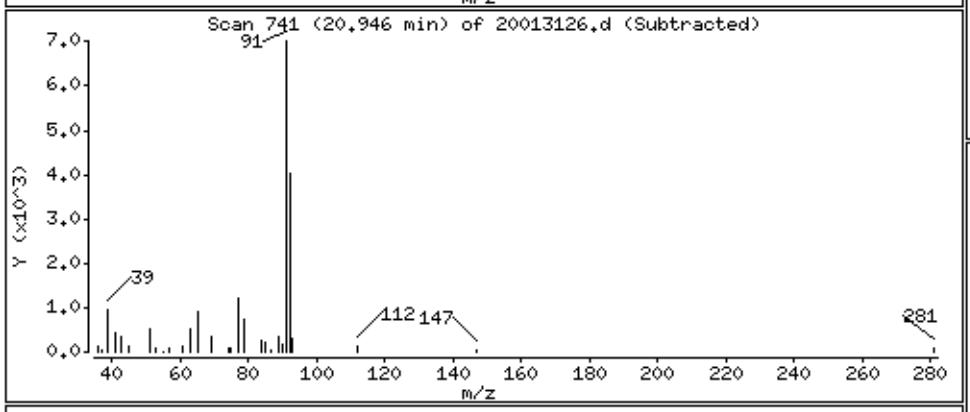
Column phase: RTX-624

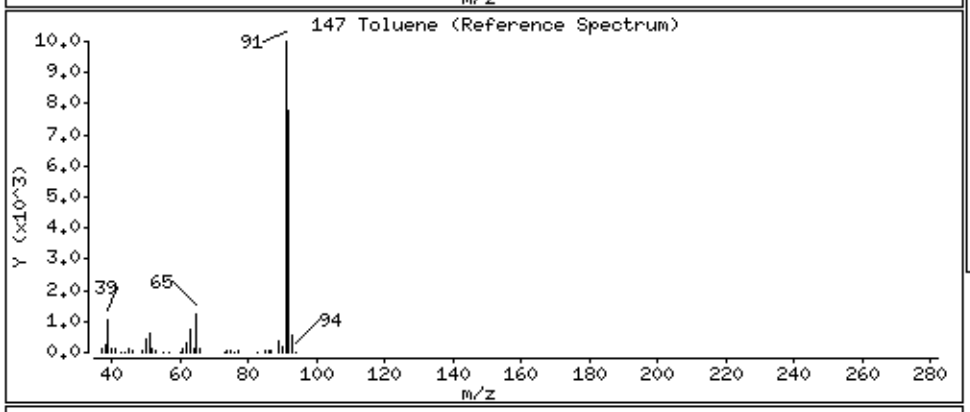
Column diameter: 0.32

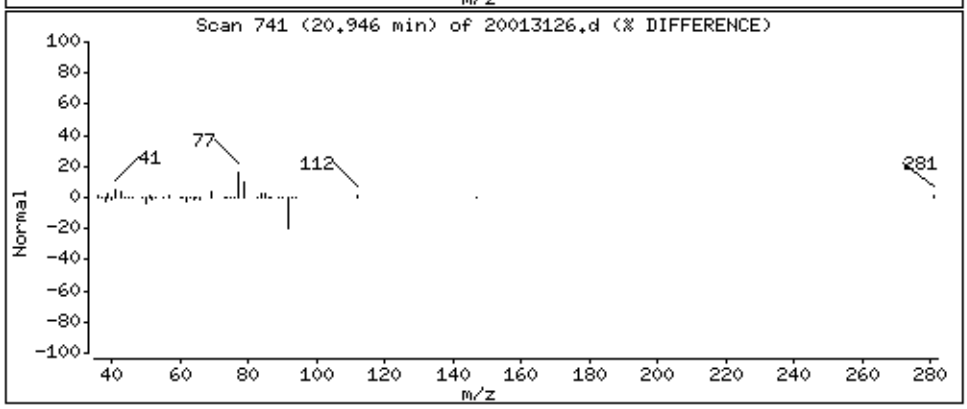
147 Toluene

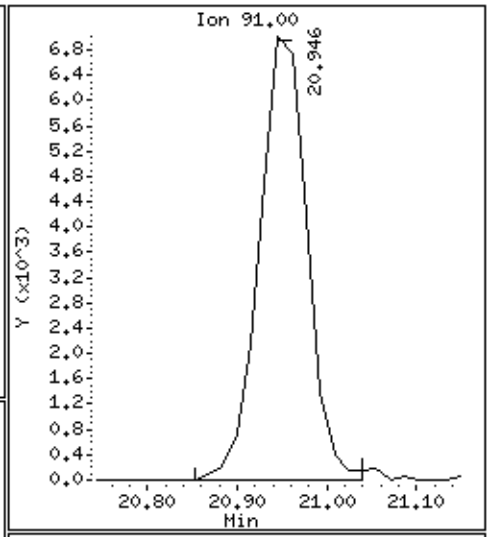
Concentration: 0.4308 PPBV

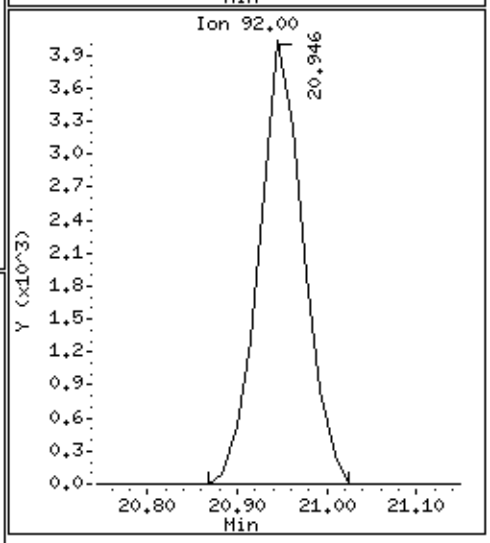












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

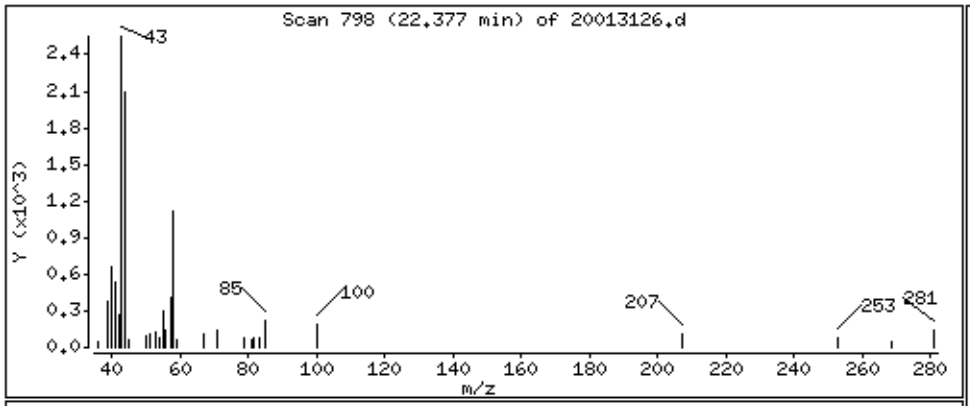
Operator: sw

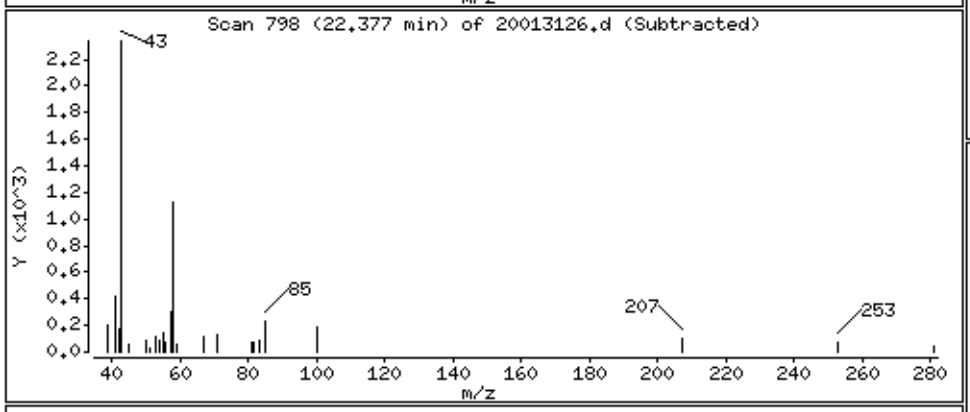
Column phase: RTX-624

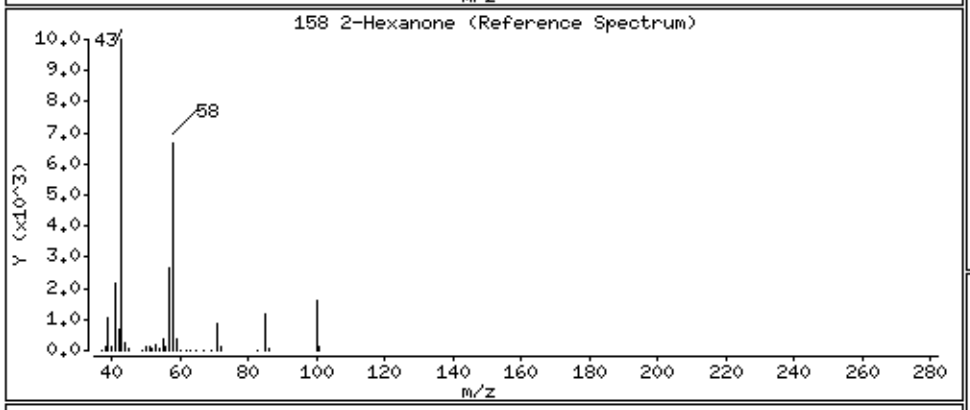
Column diameter: 0.32

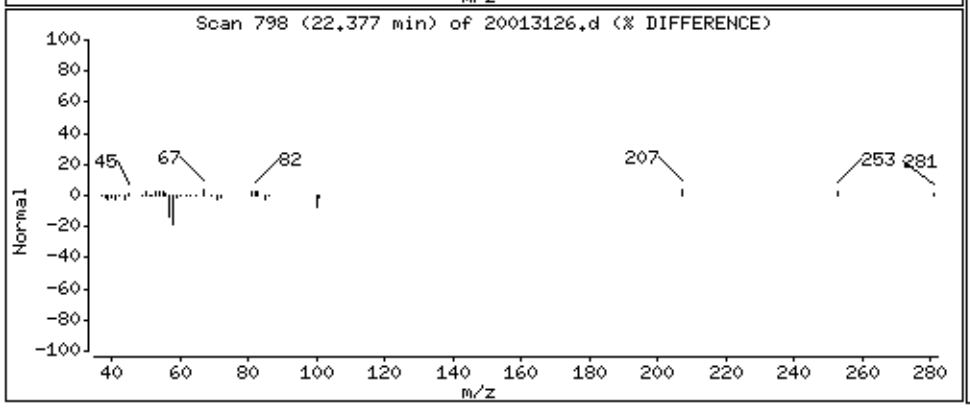
158 2-Hexanone

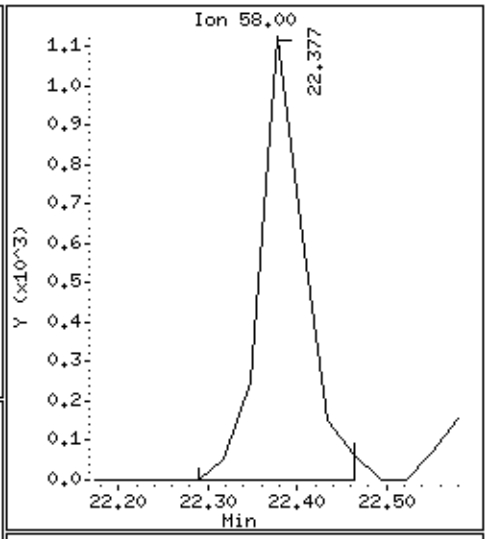
Concentration: 0.1958 PPBV

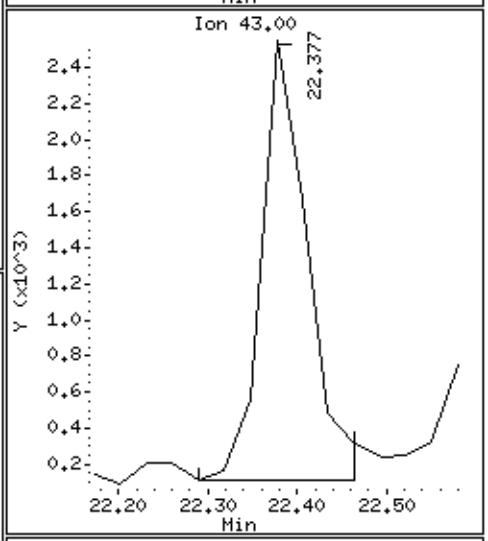


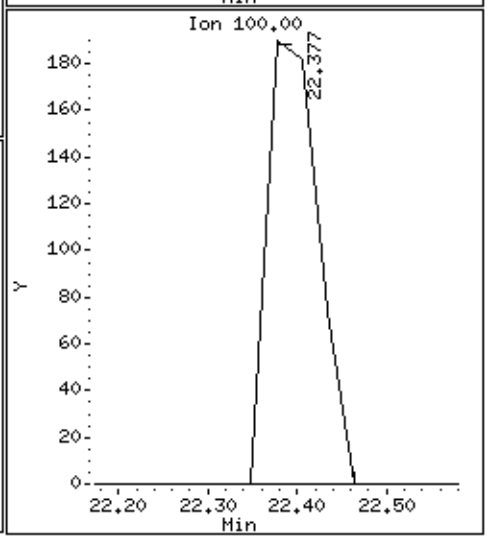












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

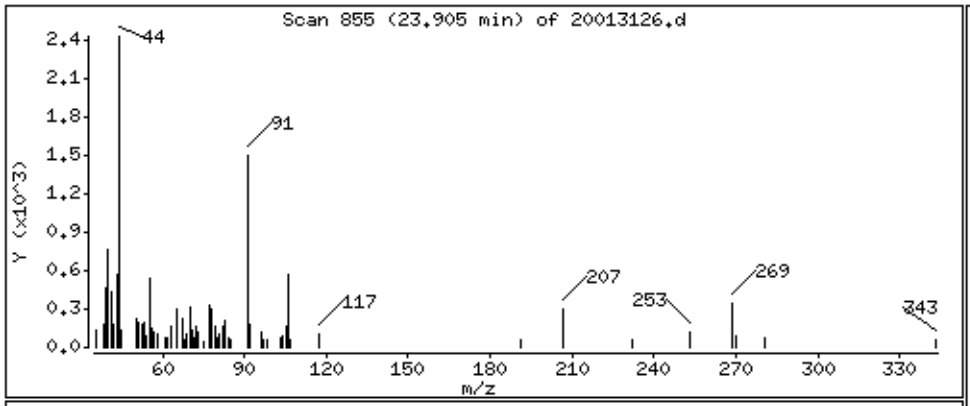
Operator: sw

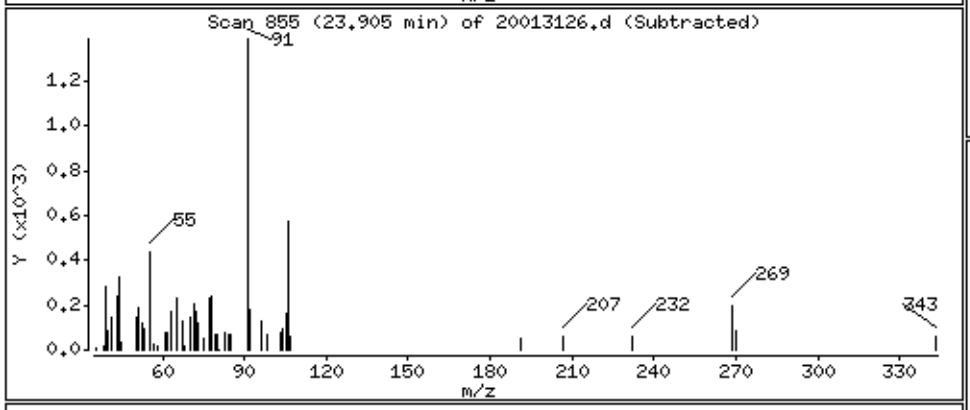
Column phase: RTX-624

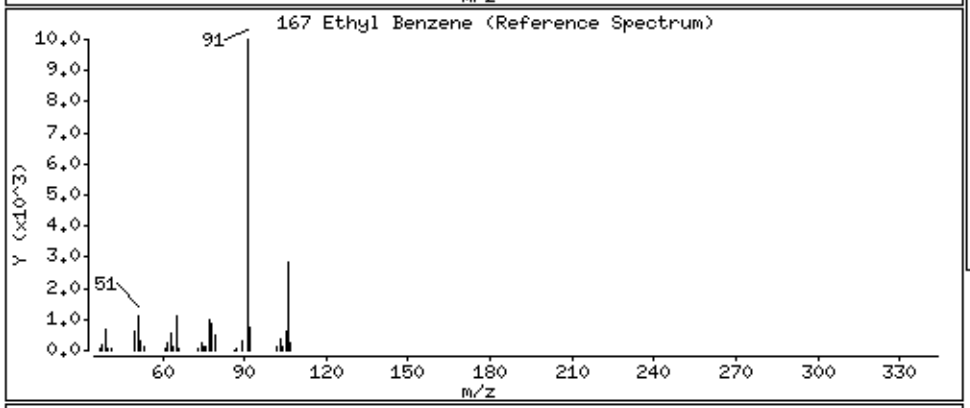
Column diameter: 0.32

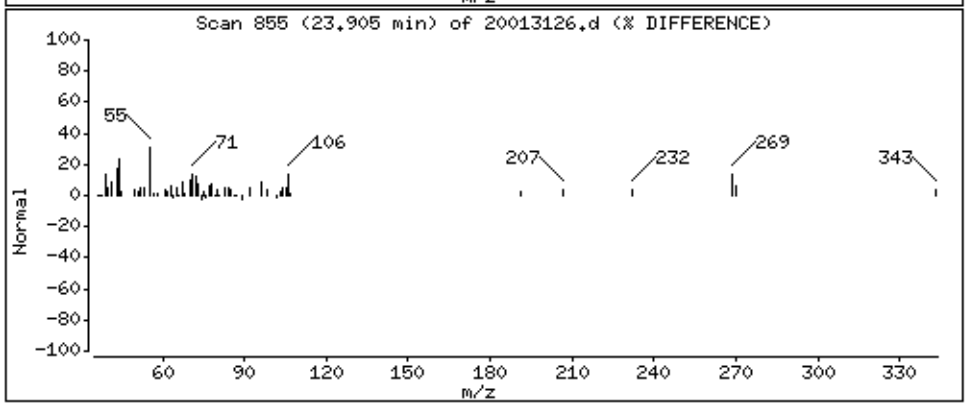
167 Ethyl Benzene

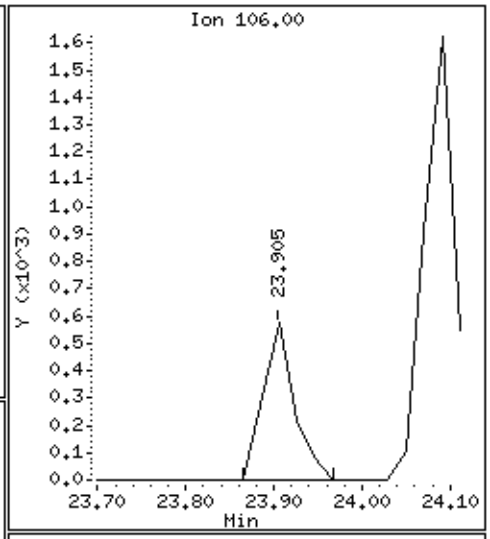
Concentration: 0.05141 PPBV

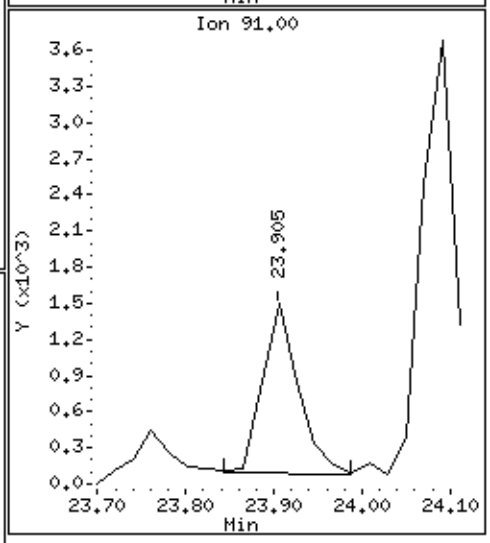












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

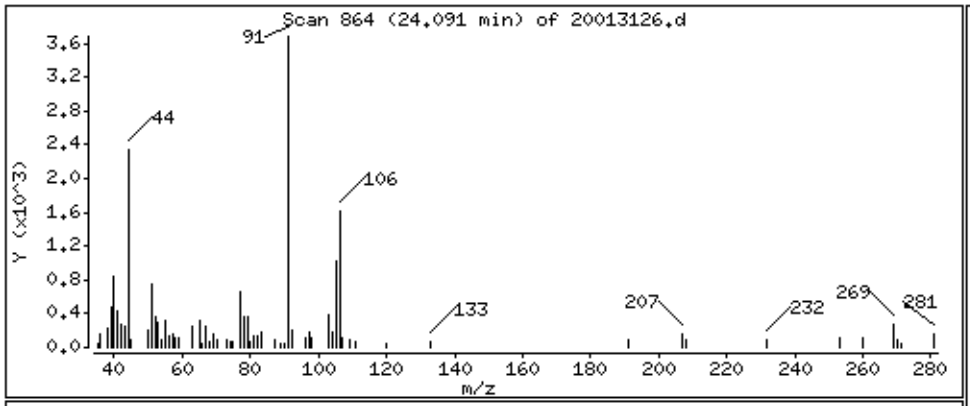
Operator: sw

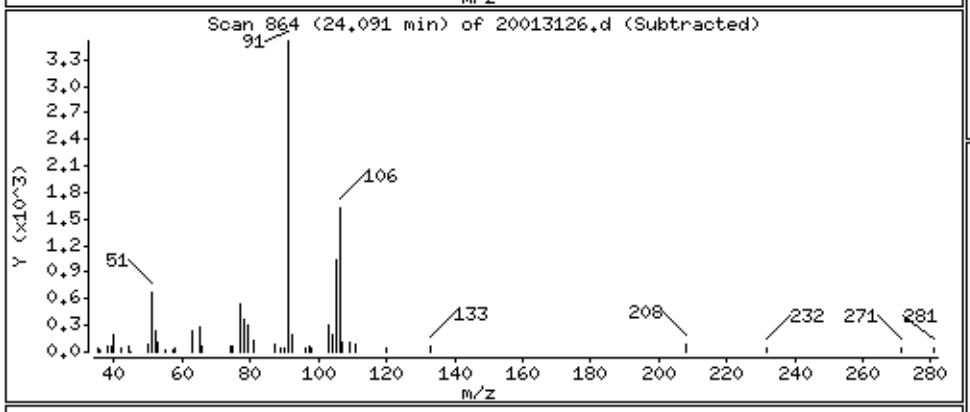
Column phase: RTX-624

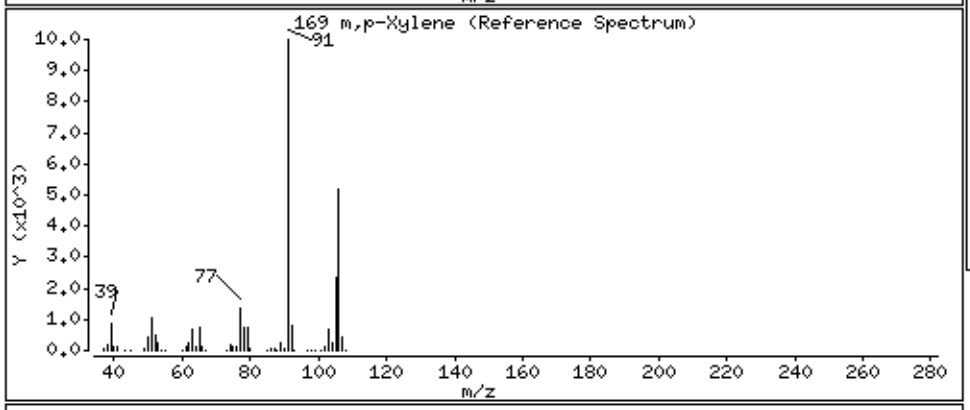
Column diameter: 0.32

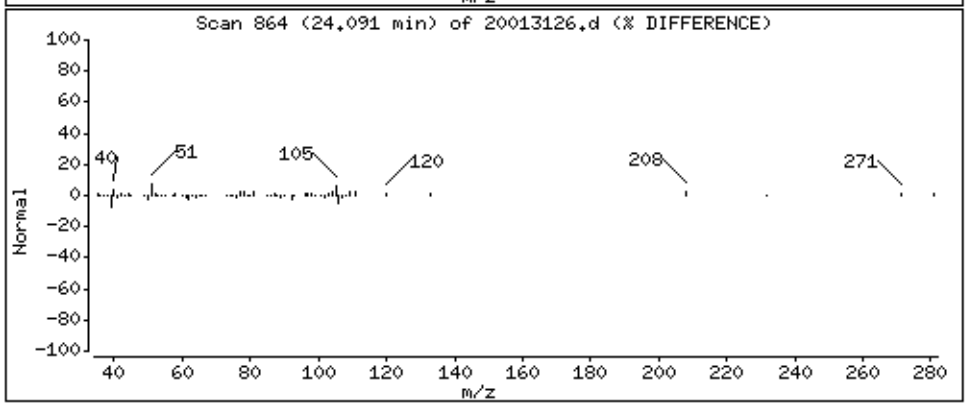
169 m,p-Xylene

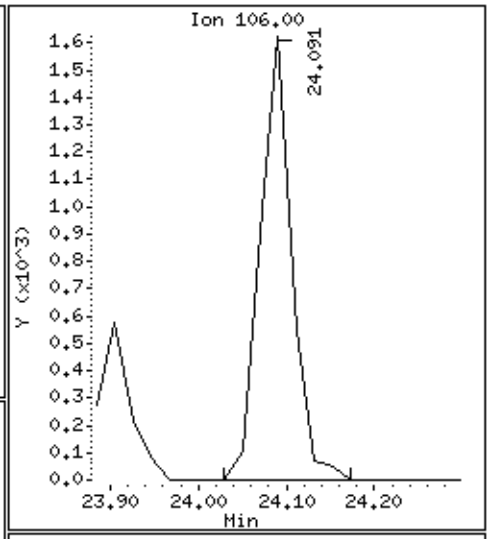
Concentration: 0.1402 PPBV

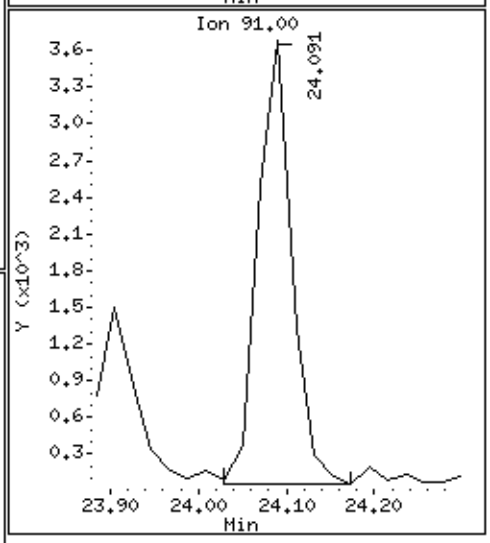












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

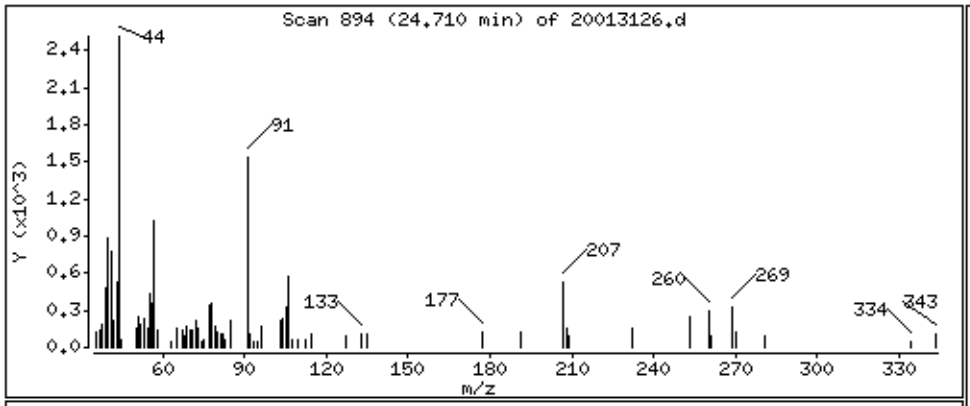
Operator: sw

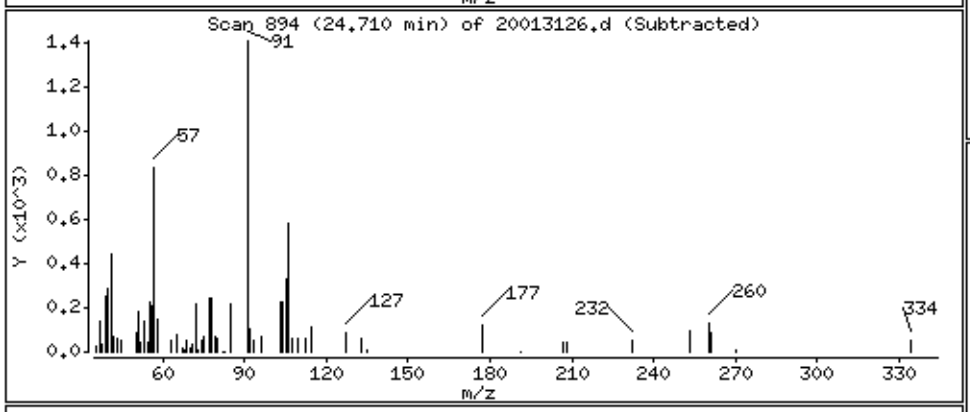
Column phase: RTX-624

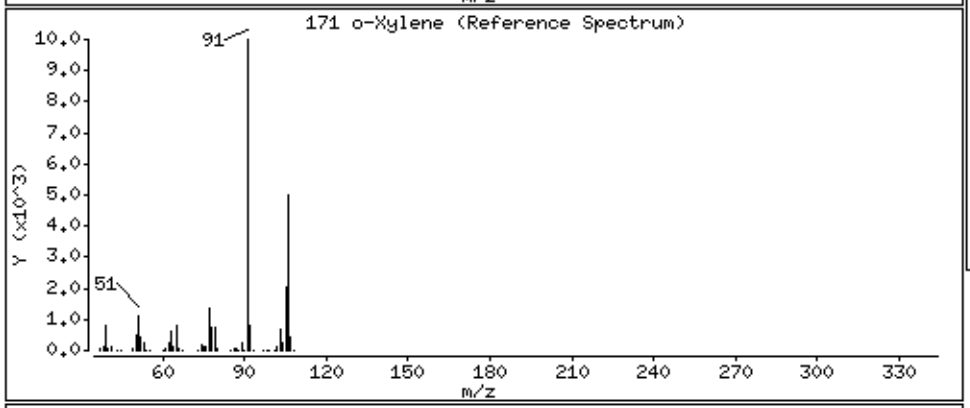
Column diameter: 0.32

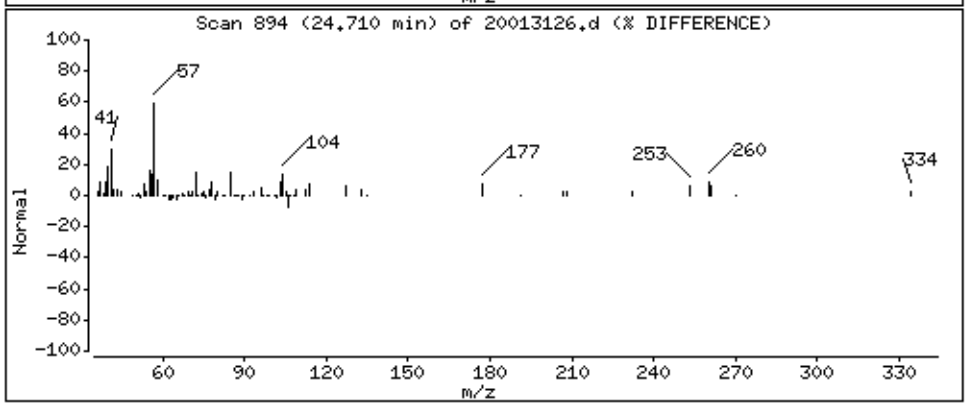
171 o-Xylene

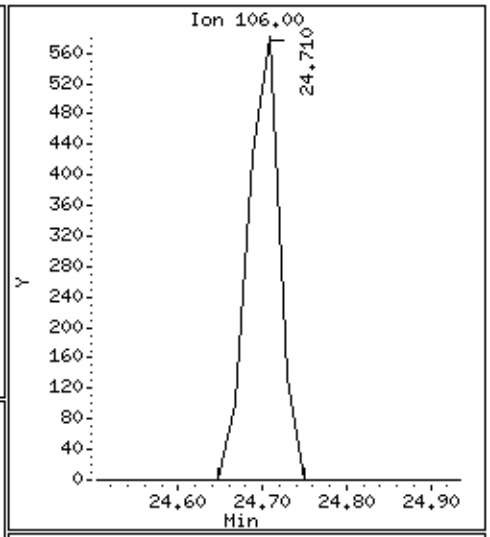
Concentration: 0.05681 PPBV

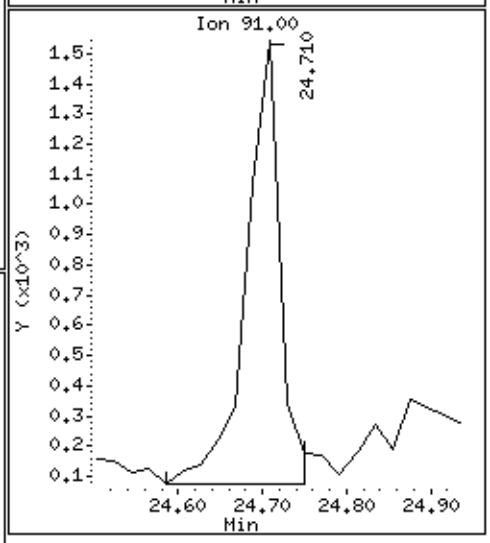












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

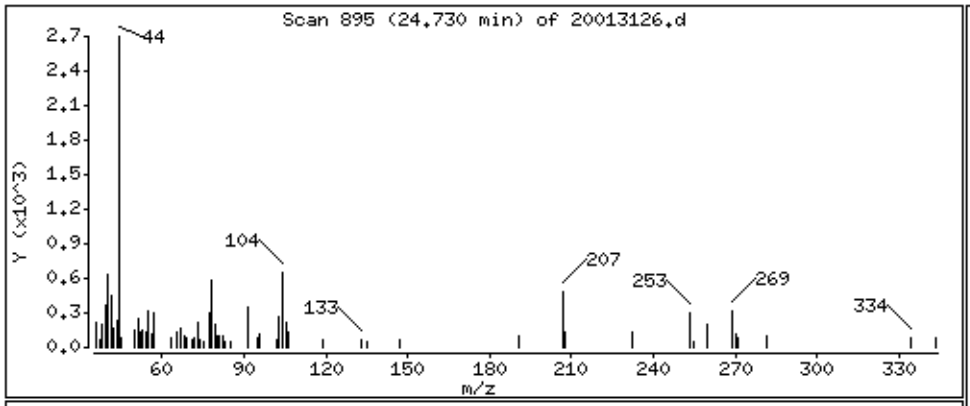
Operator: sw

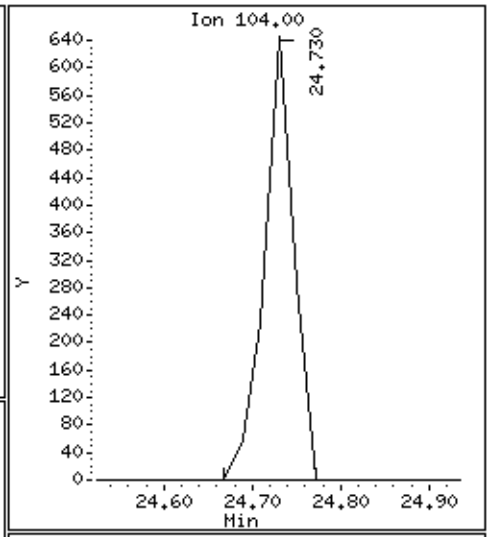
Column phase: RTX-624

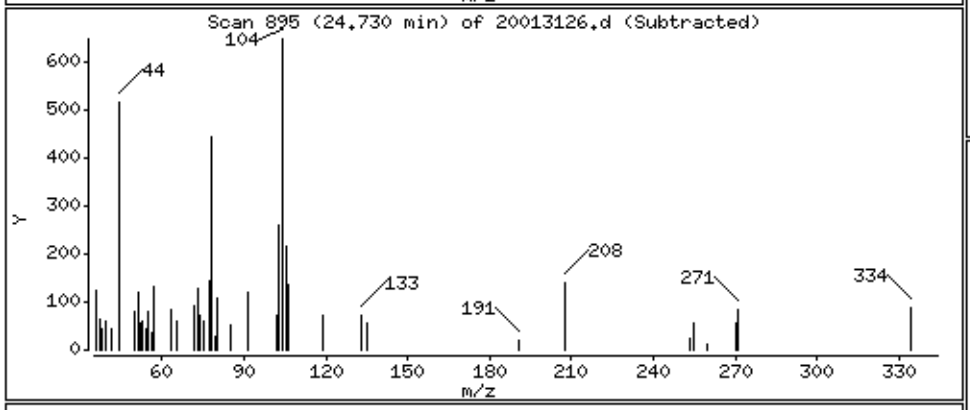
Column diameter: 0.32

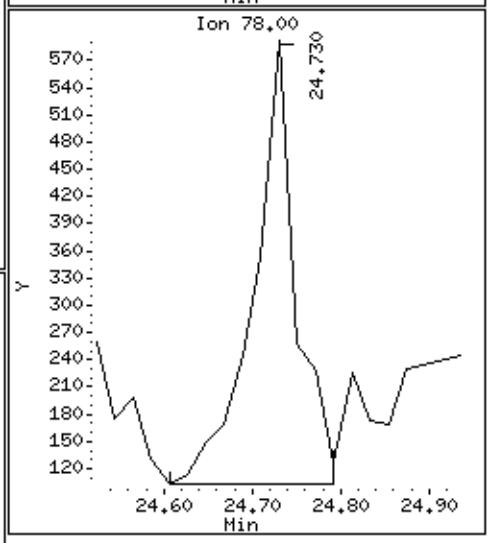
172 Styrene

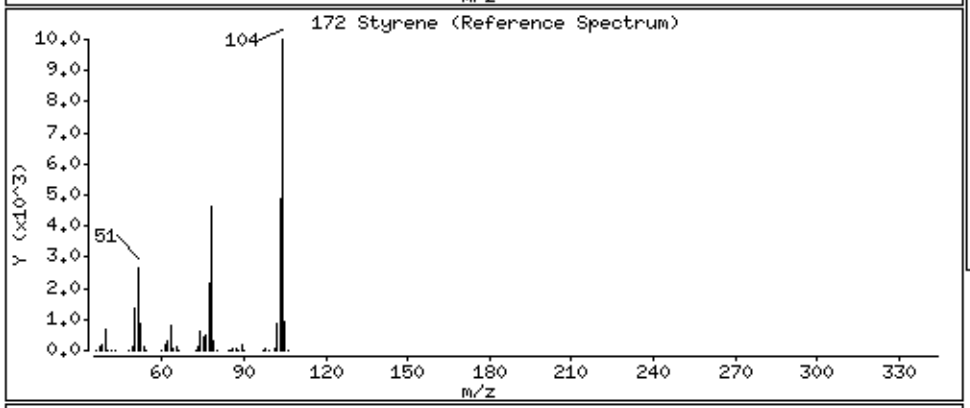
Concentration: 0.03787 PPBV

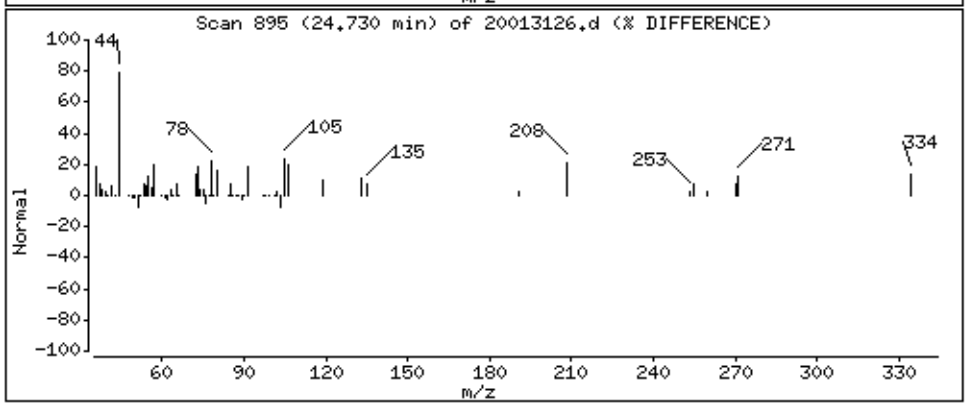












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

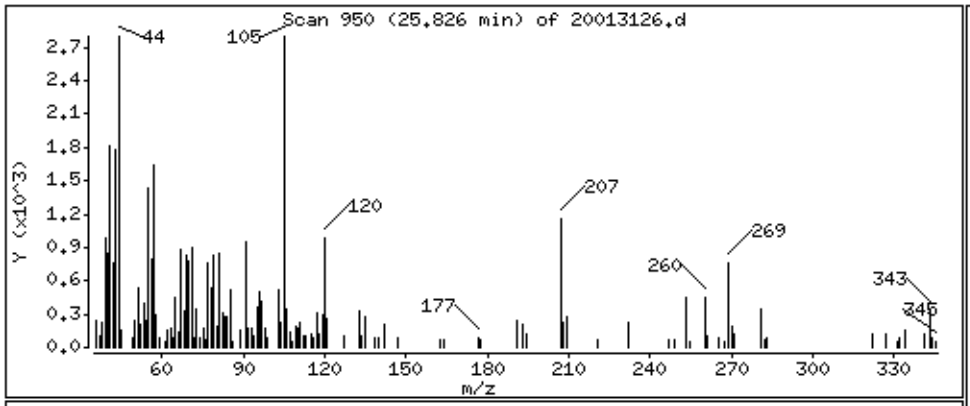
Operator: sw

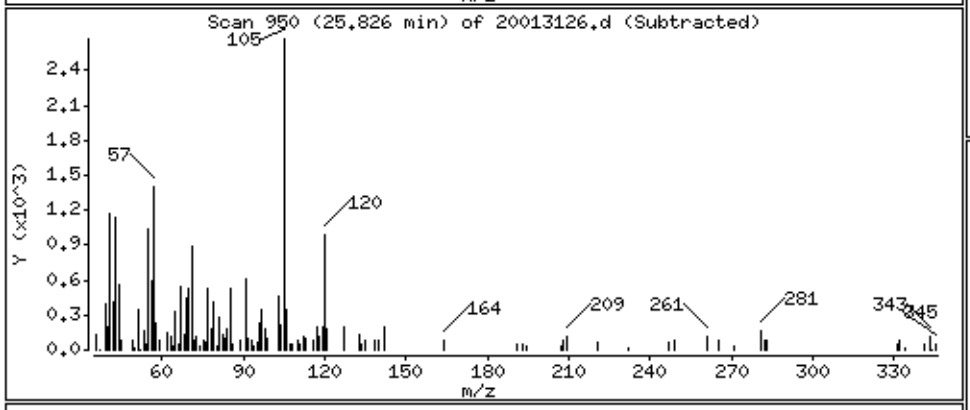
Column phase: RTX-624

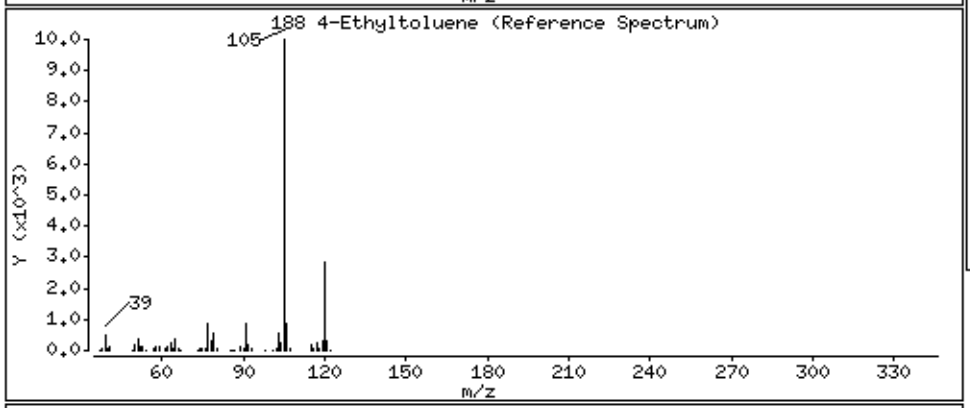
Column diameter: 0.32

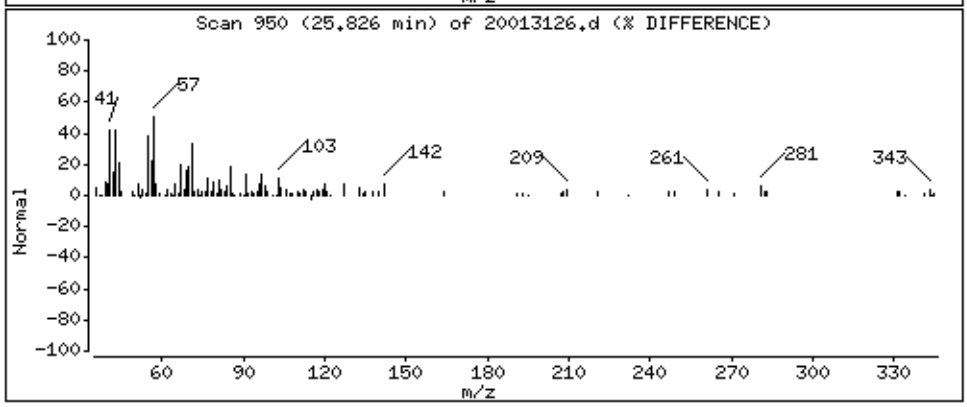
188 4-Ethyltoluene

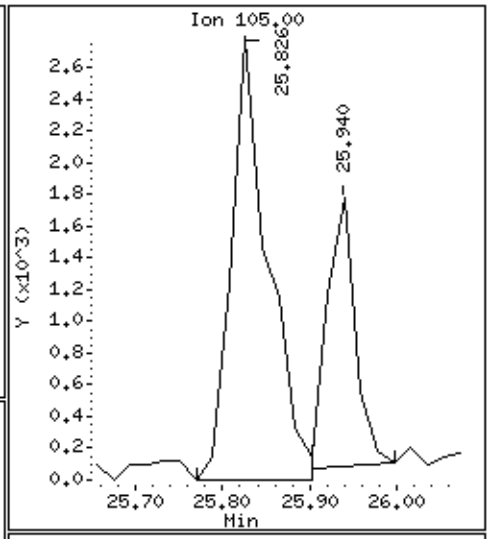
Concentration: 0.1230 PPBV

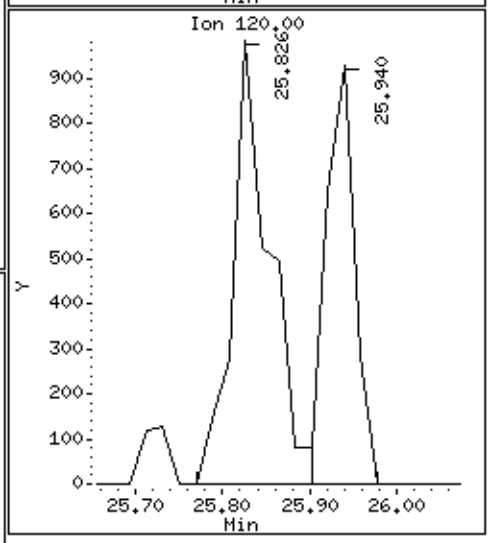












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

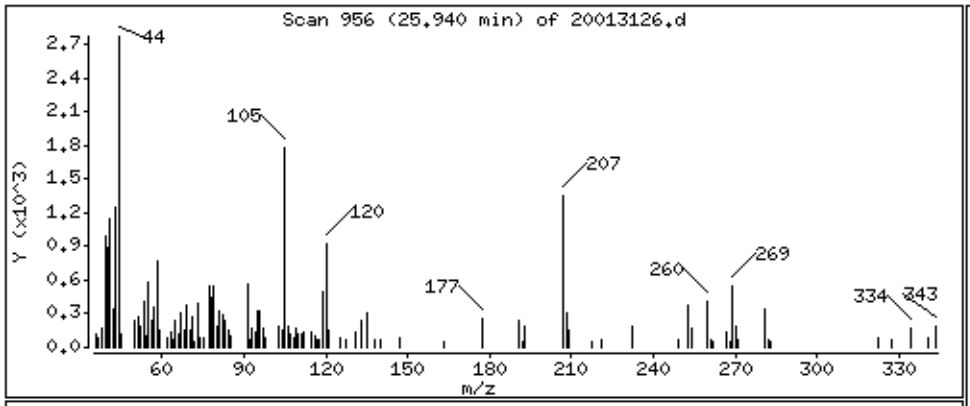
Operator: sw

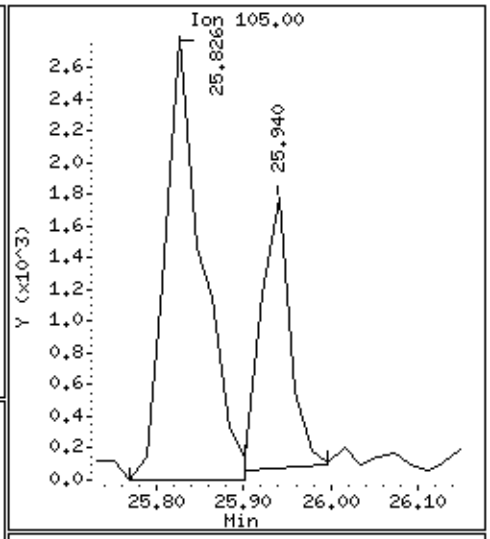
Column phase: RTX-624

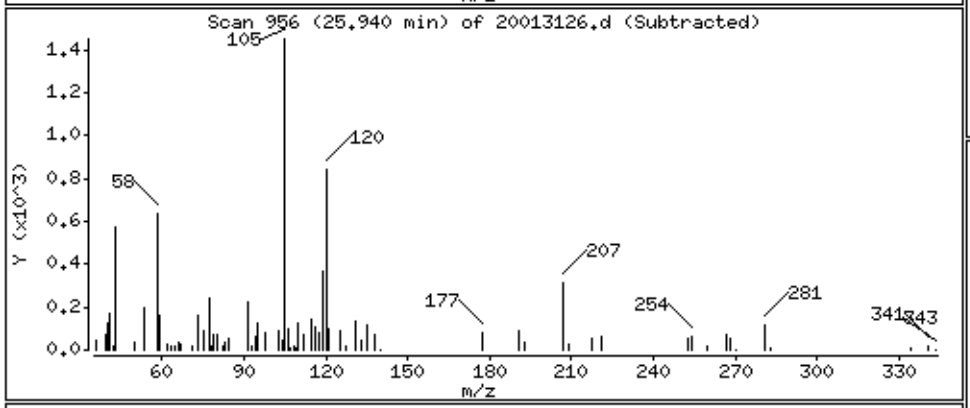
Column diameter: 0.32

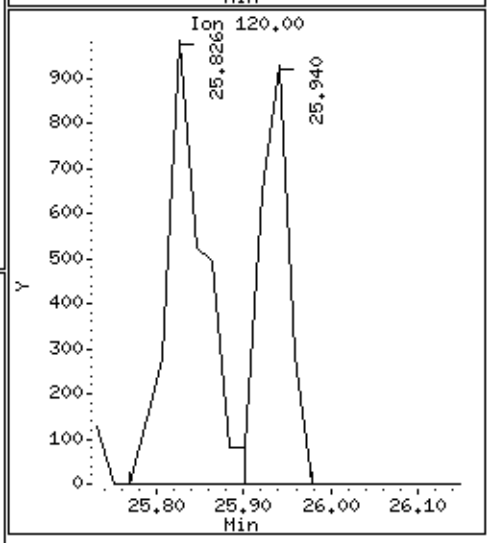
190 1,3,5-Trimethylbenzene

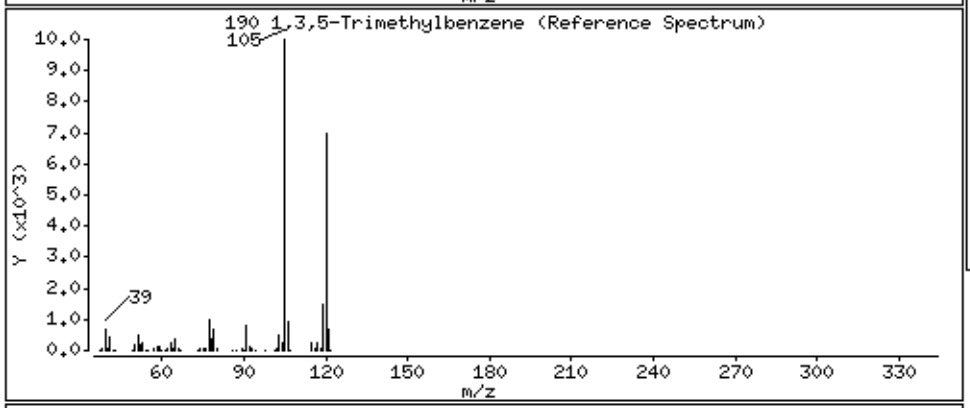
Concentration: 0.06629 PPBV

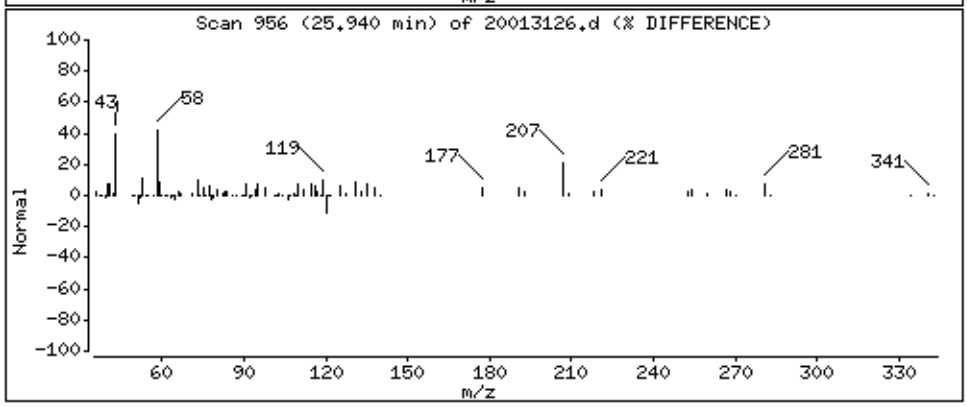












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

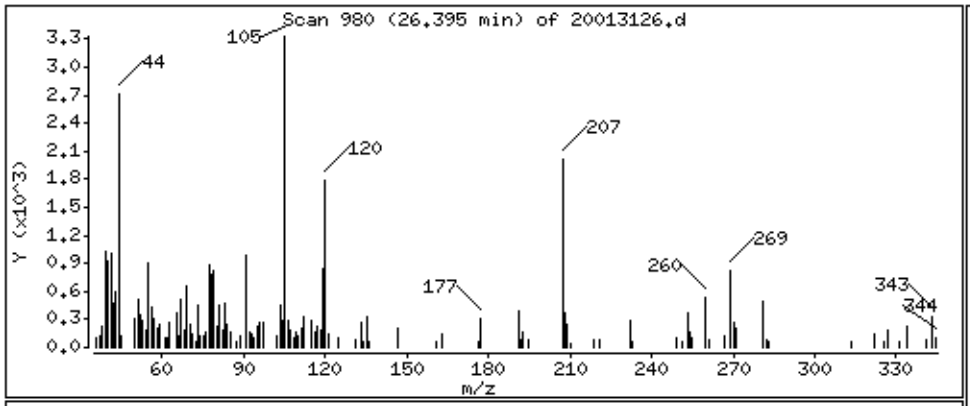
Operator: sw

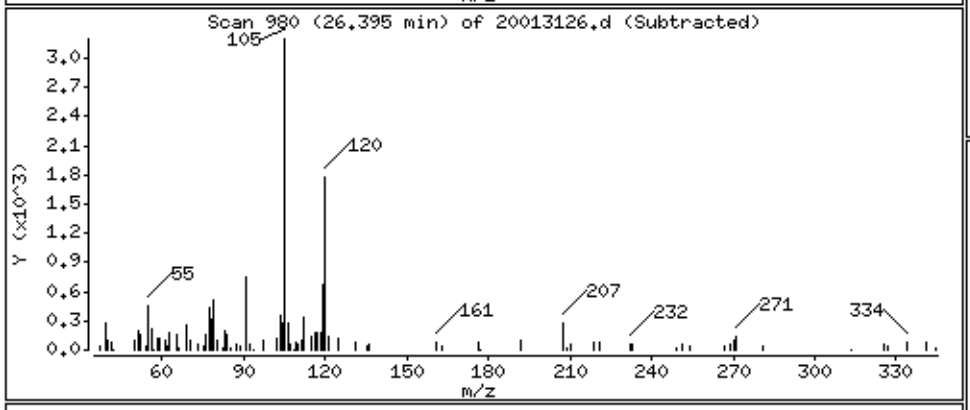
Column phase: RTX-624

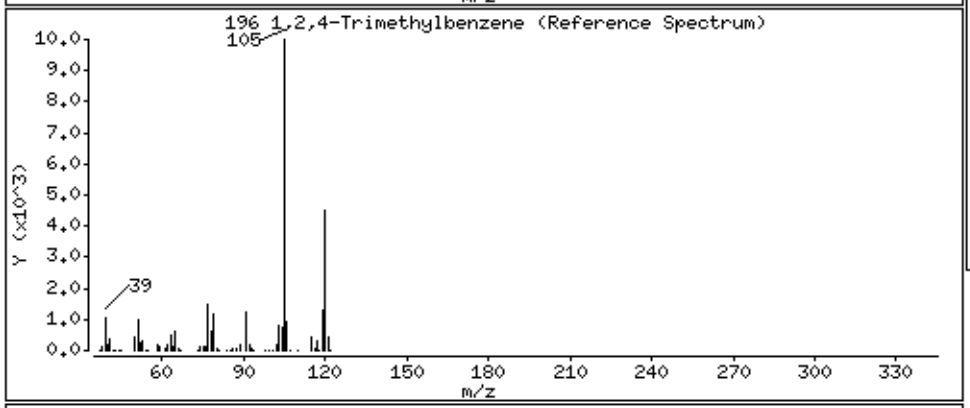
Column diameter: 0.32

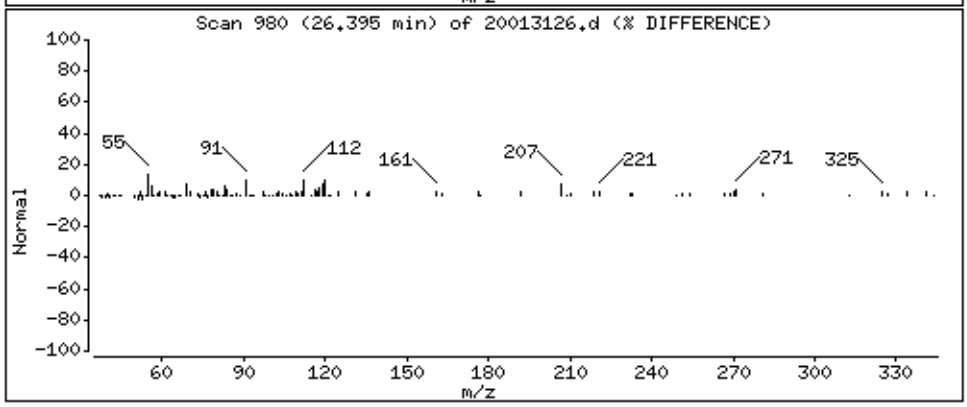
196 1,2,4-Trimethylbenzene

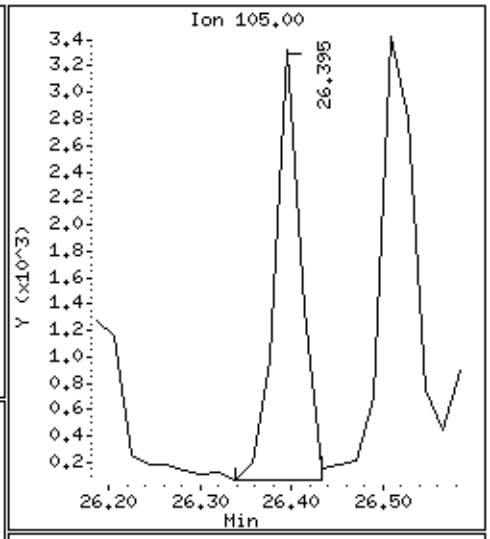
Concentration: 0.1112 PPBV

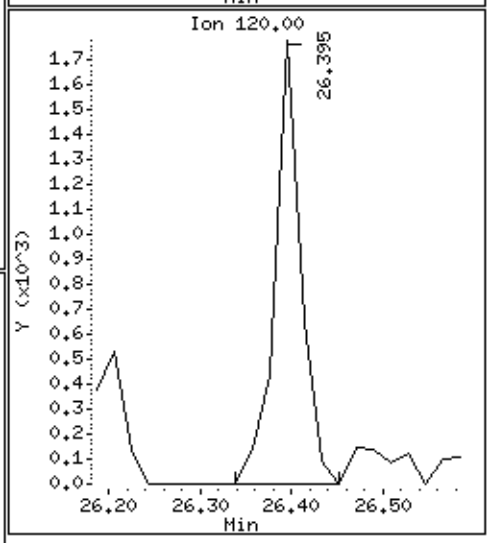












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

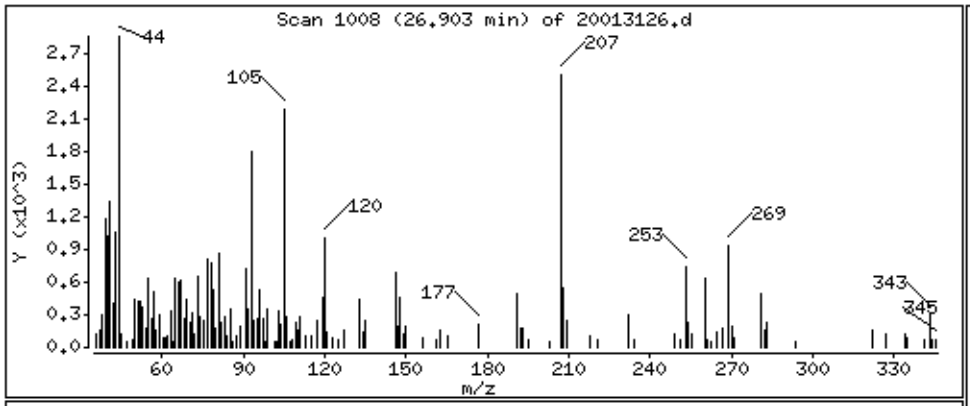
Operator: sw

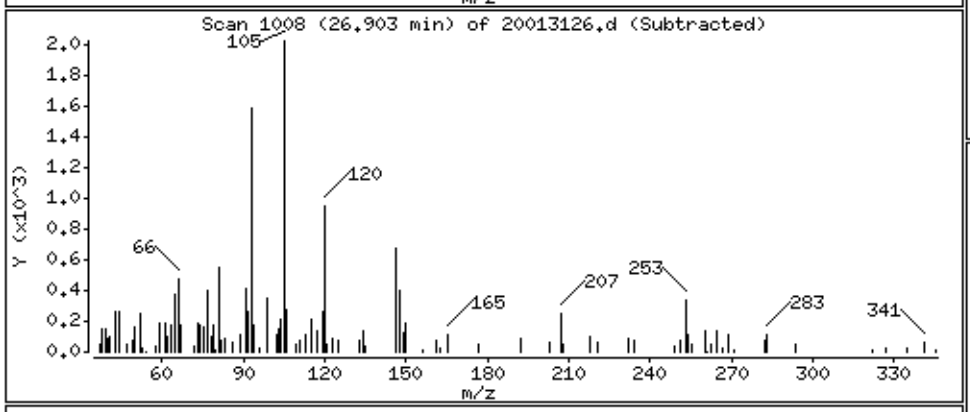
Column phase: RTX-624

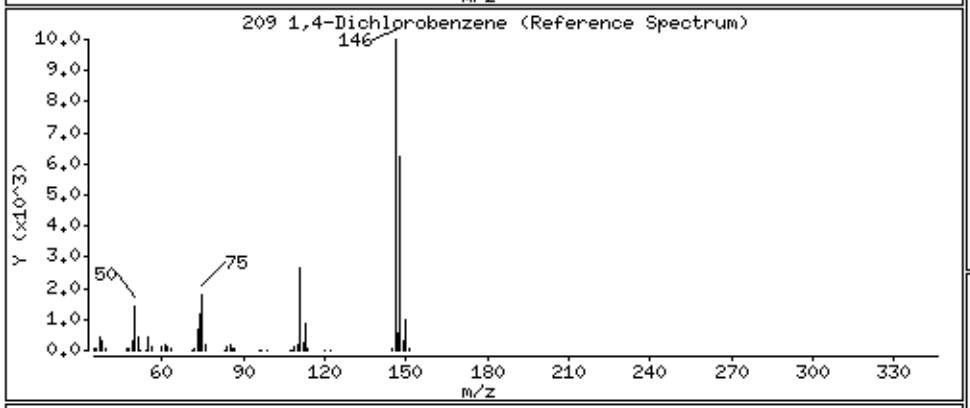
Column diameter: 0.32

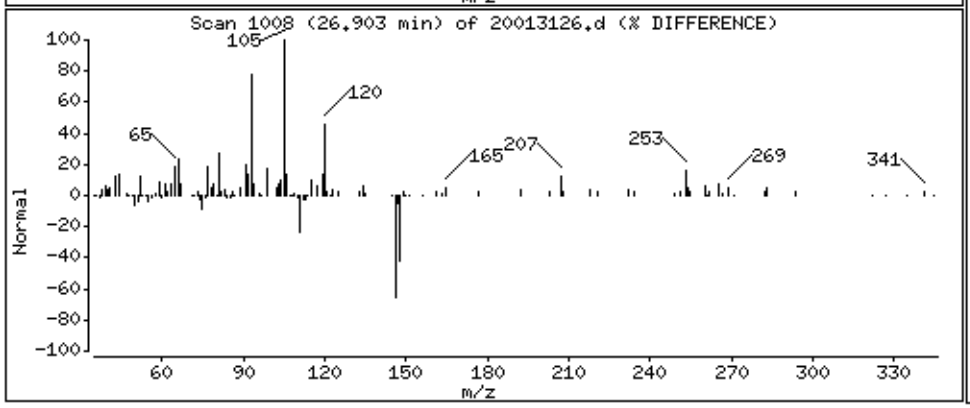
209 1,4-Dichlorobenzene

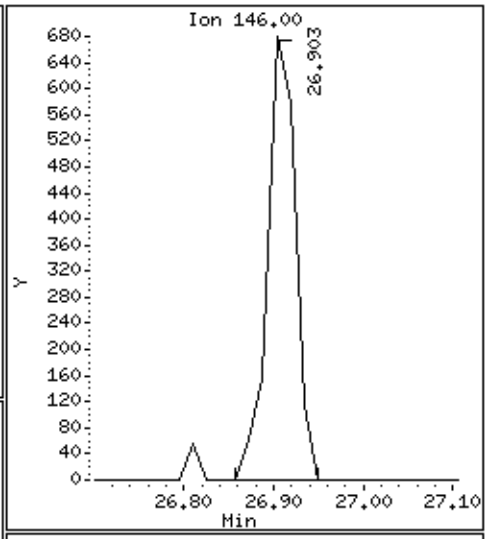
Concentration: 0.03294 PPBV

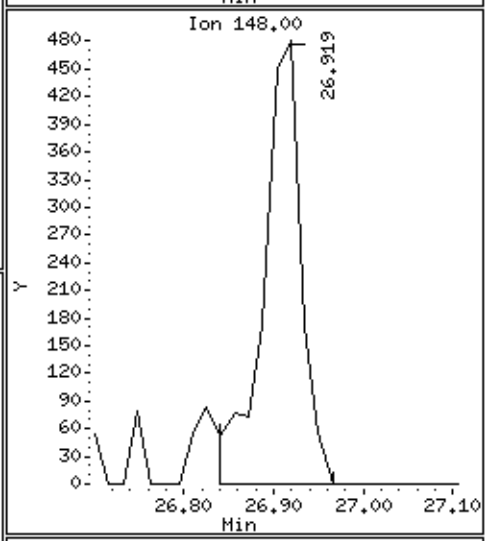


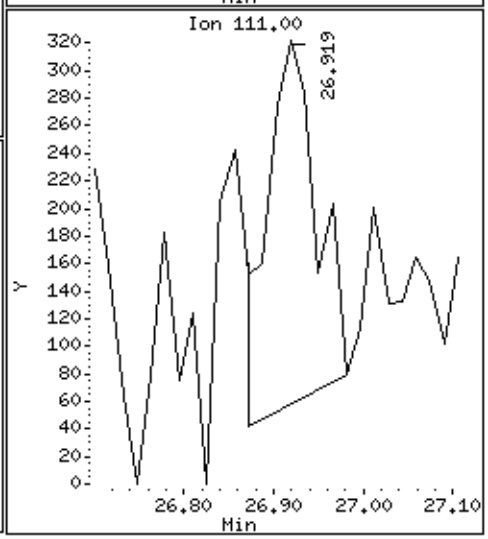












Data File: /chem/msd20.i/31Jan2017.b/20013126.d

Date : 01-FEB-2017 09:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL #33585

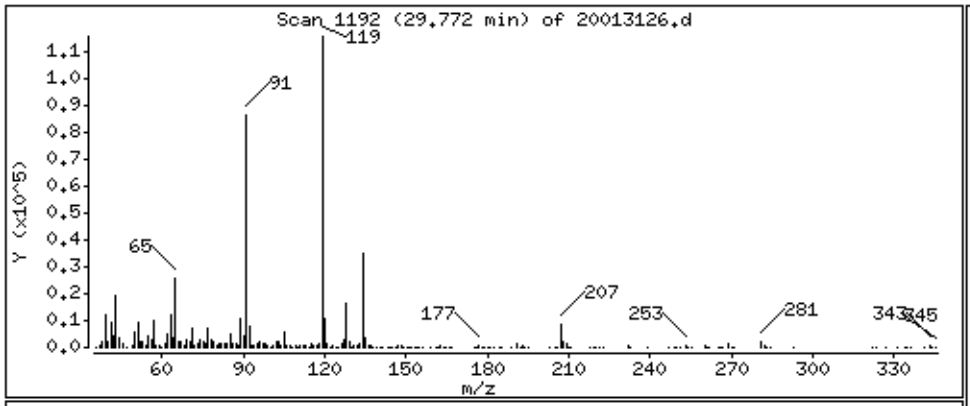
Operator: sw

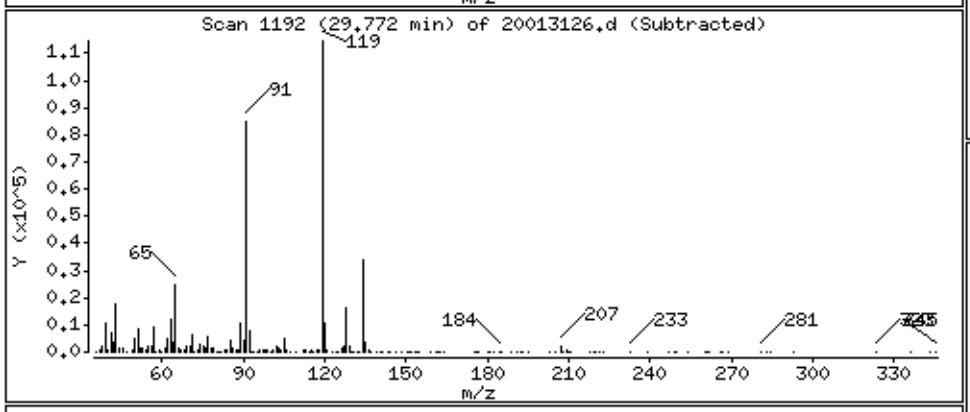
Column phase: RTX-624

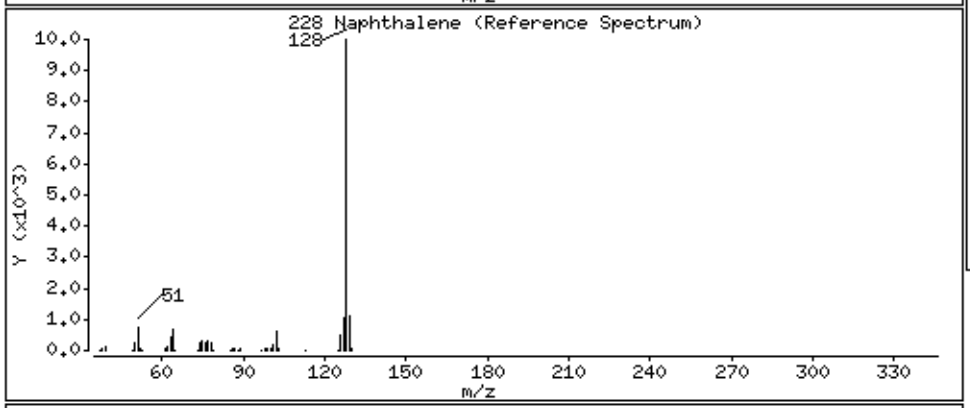
Column diameter: 0.32

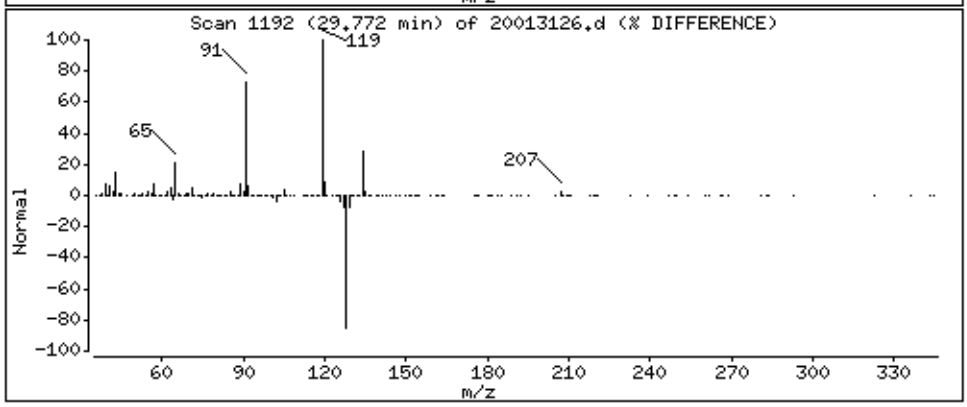
228 Naphthalene

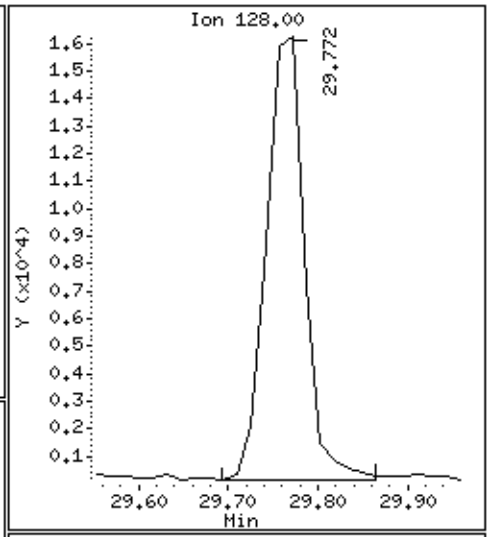
Concentration: 0.5138 PPBV

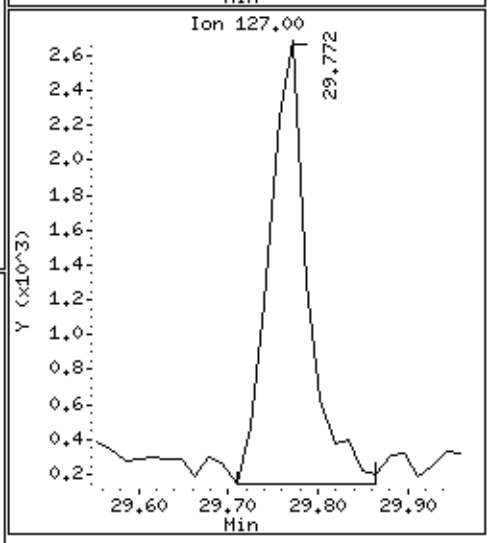












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B18IA-1-012117

Lab ID#: 1701428A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.88	2.8
Chloromethane	0.90	1.1	1.8	2.3
Freon 11	0.18	2.9	1.0	16
Ethanol	0.90	66	1.7	120
Freon 113	0.18	0.065 J	1.4	0.50 J
Acetone	0.90	160 E	2.1	380 E
2-Propanol	0.90	3.2	2.2	7.8
Carbon Disulfide	0.90	0.092 J	2.8	0.29 J
Methylene Chloride	0.36	0.26 J	1.2	0.89 J
Hexane	0.18	0.13 J	0.63	0.45 J
2-Butanone (Methyl Ethyl Ketone)	0.90	2.3	2.6	6.8
Chloroform	0.18	0.065 J	0.87	0.32 J
Cyclohexane	0.18	0.058 J	0.62	0.20 J
Carbon Tetrachloride	0.18	0.078 J	1.1	0.49 J
Benzene	0.18	0.19	0.57	0.62
1,2-Dichloroethane	0.18	1.5 J0	0.72	6.2 J0
Heptane	0.18	0.11 J	0.73	0.45 J
Trichloroethene	0.18	0.52	0.96	2.8
4-Methyl-2-pentanone	0.18	0.31 J0	0.73	1.3 J0
Toluene	0.18	2.5	0.67	9.6
2-Hexanone	0.90	0.22 J	3.7	0.90 J
Ethyl Benzene	0.18	0.23	0.78	1.0
m,p-Xylene	0.18	0.52	0.78	2.2
o-Xylene	0.18	0.27	0.78	1.2
Styrene	0.18	0.095 J	0.76	0.40 J
4-Ethyltoluene	0.18	0.093 J	0.88	0.46 J
1,2,4-Trimethylbenzene	0.18	0.11 J	0.88	0.55 J
1,4-Dichlorobenzene	0.18	0.045 J	1.1	0.27 J
Naphthalene	0.90	0.032 J	4.7	0.17 J

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Client Sample ID: B18IA-1-012117

Lab ID#: 1701428A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013124**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**2/1/17 07:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.88	2.8
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.90	1.1	1.8	2.3
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.90	Not Detected	3.5	Not Detected
Chloroethane	0.90	Not Detected	2.4	Not Detected
Freon 11	0.18	2.9	1.0	16
Ethanol	0.90	66	1.7	120
Freon 113	0.18	0.065 J	1.4	0.50 J
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	160 E	2.1	380 E
2-Propanol	0.90	3.2	2.2	7.8
Carbon Disulfide	0.90	0.092 J	2.8	0.29 J
3-Chloropropene	0.90	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	0.26 J	1.2	0.89 J
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Hexane	0.18	0.13 J	0.63	0.45 J
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	2.3	2.6	6.8
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.18	0.065 J	0.87	0.32 J
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Cyclohexane	0.18	0.058 J	0.62	0.20 J
Carbon Tetrachloride	0.18	0.078 J	1.1	0.49 J
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.18	0.19	0.57	0.62
1,2-Dichloroethane	0.18	1.5 J0	0.72	6.2 J0
Heptane	0.18	0.11 J	0.73	0.45 J
Trichloroethene	0.18	0.52	0.96	2.8
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
1,4-Dioxane	0.18	Not Detected	0.64	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
4-Methyl-2-pentanone	0.18	0.31 J0	0.73	1.3 J0
Toluene	0.18	2.5	0.67	9.6
trans-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.90	0.22 J	3.7	0.90 J

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Client Sample ID: B18IA-1-012117

Lab ID#: 1701428A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013124**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**2/1/17 07:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	0.23	0.78	1.0
m,p-Xylene	0.18	0.52	0.78	2.2
o-Xylene	0.18	0.27	0.78	1.2
Styrene	0.18	0.095 J	0.76	0.40 J
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.88	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.88	Not Detected
4-Ethyltoluene	0.18	0.093 J	0.88	0.46 J
1,3,5-Trimethylbenzene	0.18	Not Detected	0.88	Not Detected
1,2,4-Trimethylbenzene	0.18	0.11 J	0.88	0.55 J
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	0.045 J	1.1	0.27 J
alpha-Chlorotoluene	0.18	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected
Naphthalene	0.90	0.032 J	4.7	0.17 J

J = Estimated value.
E = Exceeds instrument calibration range.
J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013124.d
Lab Smp Id: 1701428A-08A
Inj Date : 01-FEB-2017 07:25
Operator : sw Inst ID: msd20.i
Smp Info : 250mL #N1735
Misc Info : 7.5"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.79000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	162482	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	130338			46.97- 106.97	80.22
16.696	16.696 (1.000)	49	203001			76.21- 136.21	124.94
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	492667	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	75261			0.00- 45.59	15.28
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	476669	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	275154			23.26- 83.26	57.72
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.621	17.621 (1.053)	65	244030	6.08689	6.087	80.00- 120.00	100.00
17.621	17.621 (1.053)	67	123592			31.78- 91.78	50.65
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	481894	5.11569	5.116	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	60975			0.00- 40.33	12.65

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    301925                    35.56-  95.56    62.65
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    260590 5.12287    5.123  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    304113                   79.94- 139.94   116.70
 25.466  25.466 (1.072)   176    248688                   67.24- 127.24    95.43
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.648 (0.279)    85     38533 0.31285   0.5600  70.00- 130.00   100.00
  4.648   4.648 (0.278)    87     10265                    0.00-  30.00    26.64
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.553 (0.395)    50     23389 0.61779    1.106  80.00- 120.00   100.00
  6.601   6.553 (0.395)    52      8869                    3.24-  63.24    37.92
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101    201754 1.63603    2.928  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103    129583                   34.37-  94.37    64.23
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.269  12.269 (0.734)    45    609073 36.6746   65.648  80.00- 120.00   100.00
 12.269  12.269 (0.734)    46    243032                   10.33-  70.33    39.90
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.764  12.763 (0.763)   151      3340 0.03629  0.06496  80.00- 120.00   100.00(a)
 12.764  12.763 (0.763)   153      2234                   33.68-  93.68    66.89
 12.764  12.736 (0.763)   101      4458                   86.77- 146.77   133.47
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.066  13.093 (0.781)    58   2061947 90.0638   161.21  80.00- 120.00   100.00(A)
 13.066  13.066 (0.781)    43   6140922                  253.28- 313.28   297.82
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.093  13.121 (0.783)    76      6504 0.05137  0.09195  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.533  13.533 (0.809)    45    108746 1.76819    3.165  80.00- 120.00   100.00
 13.533  13.533 (0.809)    43     48659                    0.00-  52.74    44.75
 13.560  13.533 (0.811)    59      4741                    0.00-  34.43     4.36
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      7090 0.14270   0.2554  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      8675                   80.28- 140.28   122.36
 14.027  14.027 (0.839)    51      3316                    4.61-  64.61    46.77
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	4719	0.07189	0.1287	80.00- 120.00	100.00(a)
14.906	14.878 (0.891)	43	15550			28.29- 88.29	329.52
14.878	14.878 (0.889)	86	782			0.00- 48.18	16.57
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.977)	72	28947	1.29667	2.321	80.00- 120.00	100.00
16.344	16.324 (0.977)	43	122728			300.25- 360.25	423.97
16.344	16.324 (0.977)	57	9458			0.00- 58.21	32.67
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	3658	0.03623	0.06485	80.00- 120.00	100.00(a)
16.819	16.819 (1.006)	85	2225			34.75- 94.75	60.83
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	2123	0.03215	0.05755	80.00- 120.00	100.00(a)
17.035	17.035 (1.018)	56	5487			76.62- 136.62	258.46
17.035	17.035 (1.018)	41	4374			21.84- 81.84	206.03
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	3803	0.04377	0.07835	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	3445			73.50- 133.50	90.59
116 Benzene					CAS #: 71-43-2		
17.621	17.621 (0.968)	78	12709	0.10796	0.1932	80.00- 120.00	100.00
17.621	17.621 (0.968)	77	3524			0.00- 53.26	27.73
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	39274	0.86056	1.540	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	14525			2.82- 62.82	36.98
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	1850	0.06121	0.1096	80.00- 120.00	100.00(a)
17.847	17.847 (0.980)	100	607			8.23- 68.23	32.81
17.847	17.847 (0.980)	43	3999			141.33- 201.33	216.16
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	16290	0.29058	0.5201	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	15651			61.76- 121.76	96.08
18.610	18.610 (1.022)	97	10294			29.47- 89.47	63.19
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	11123	0.17323	0.3101	80.00- 120.00	100.00
20.541	20.557 (1.128)	58	2092			12.96- 72.96	18.81
20.572	20.557 (1.130)	85	1266			0.00- 50.79	11.38

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	183557	1.41726	2.537	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	107284			29.12- 89.12	58.45
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	4949	0.12225	0.2188	80.00- 120.00	100.00(a)
22.377	22.377 (0.942)	43	9672			137.01- 197.01	195.43
22.406	22.377 (0.943)	100	735			0.00- 53.27	14.85
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.906 (1.006)	106	7259	0.13022	0.2331	80.00- 120.00	100.00
23.906	23.906 (1.006)	91	22901			275.87- 335.87	315.48
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	16959	0.28935	0.5179	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	32874			163.30- 223.30	193.84
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	8286	0.15172	0.2716	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	15069			172.76- 232.76	181.86
172 Styrene					CAS #: 100-42-5		
24.731	24.731 (1.041)	104	4247	0.05299	0.09486	80.00- 120.00	100.00(a)
24.710	24.731 (1.040)	78	3033			18.49- 78.49	71.42
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	7077	0.05222	0.09347	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	2314			1.16- 61.16	32.70
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	7286	0.06228	0.1115	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	3432			17.83- 77.83	47.10
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.904 (1.133)	146	2294	0.02527	0.04523	80.00- 120.00	100.00(a)
26.919	26.904 (1.133)	148	1368			33.90- 93.90	59.63
26.919	26.904 (1.133)	111	1076			6.77- 66.77	46.90
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	3395	0.01794	0.03211	80.00- 120.00	100.00(a)
29.772	29.756 (1.253)	127	1064			0.00- 42.38	31.34

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: msd20.i
Lab File ID: 20013124.d
Lab Smp Id: 1701428A-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 7.5"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	162482	-14.33
123 1,4-Difluorobenze	617206	370324	864088	492667	-20.18
163 Chlorobenzene-d5	554897	332938	776856	476669	-14.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 15:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-08A
Level: LOW Operator: sw
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 7.5"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.087	121.74	70-130
$ 146 Toluene-d8	5.000	5.116	102.31	70-130
$ 177 4-Bromofluorobenze	5.000	5.123	102.46	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

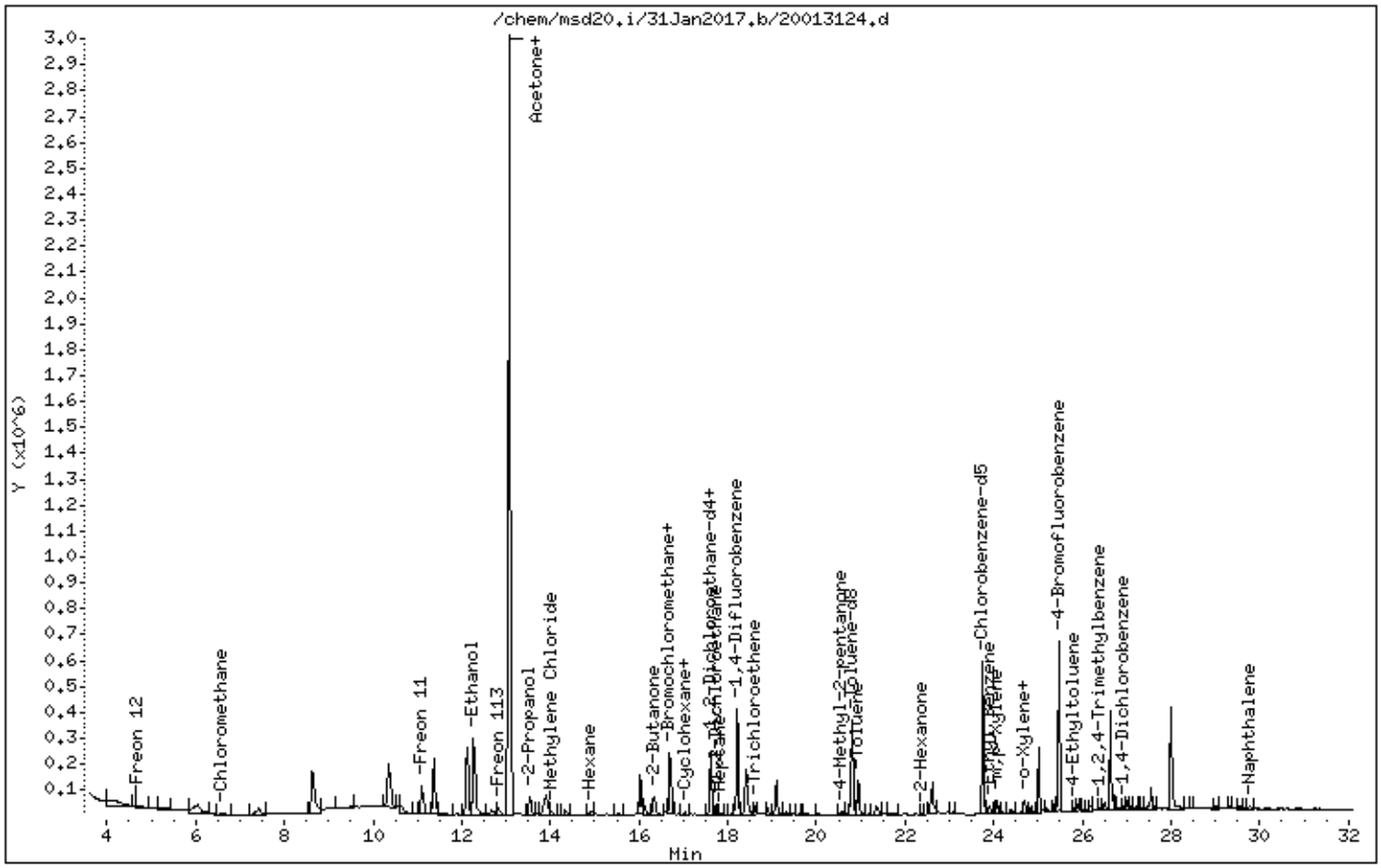
Instrument: msd20.i

Sample Info: 250mL #N1735

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

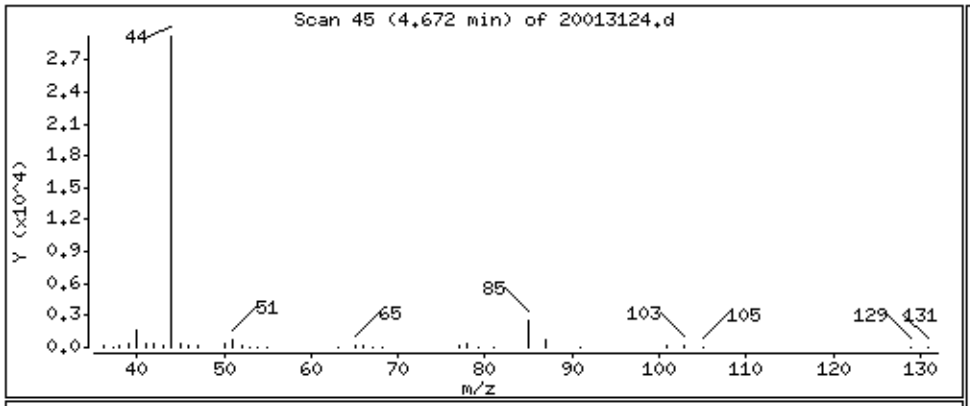
Operator: sw

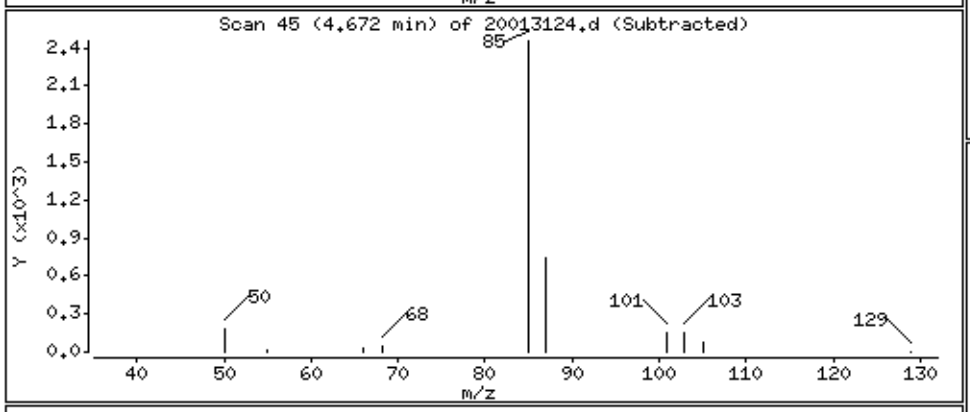
Column phase: RTX-624

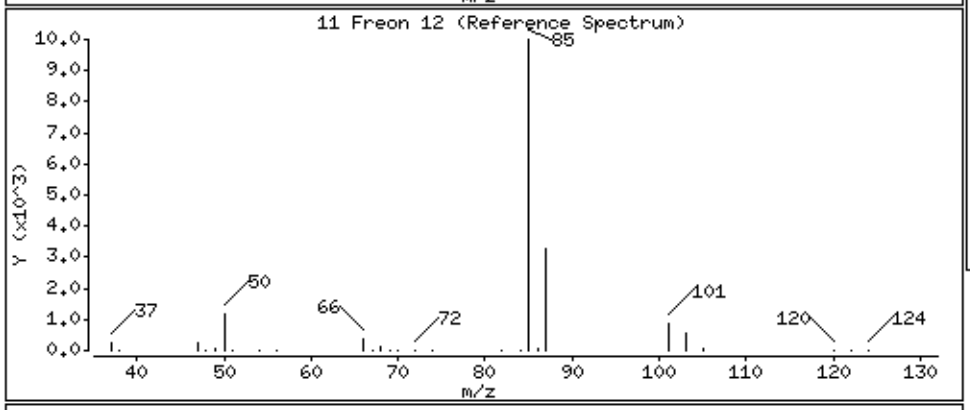
Column diameter: 0.32

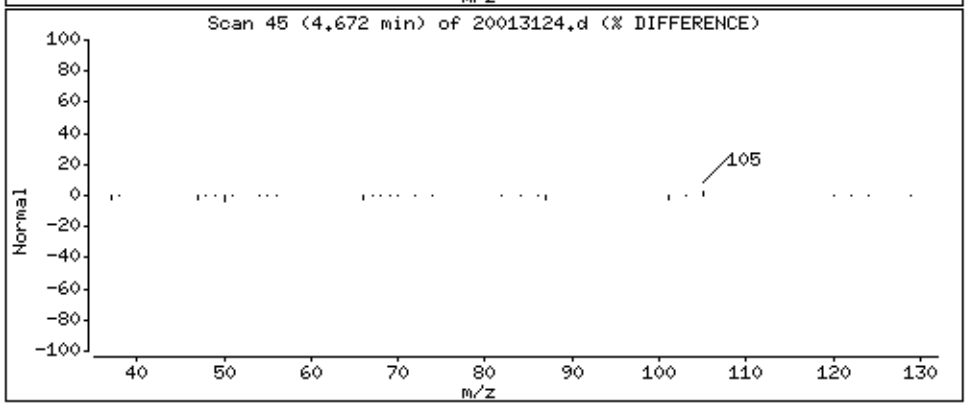
11 Freon 12

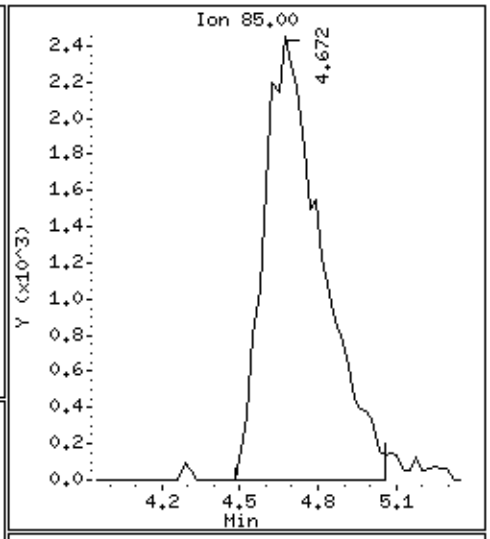
Concentration: 0.5600 PPBV

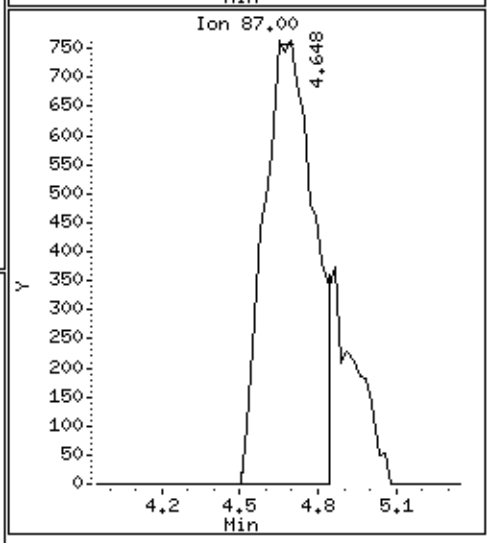












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

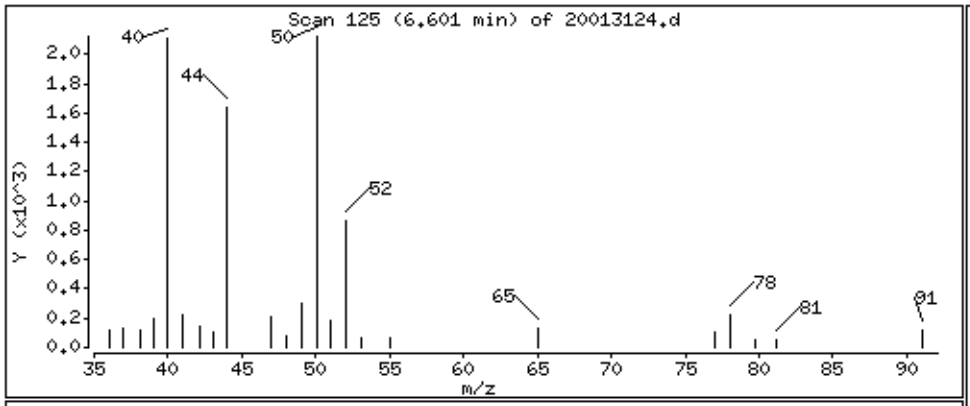
Operator: sw

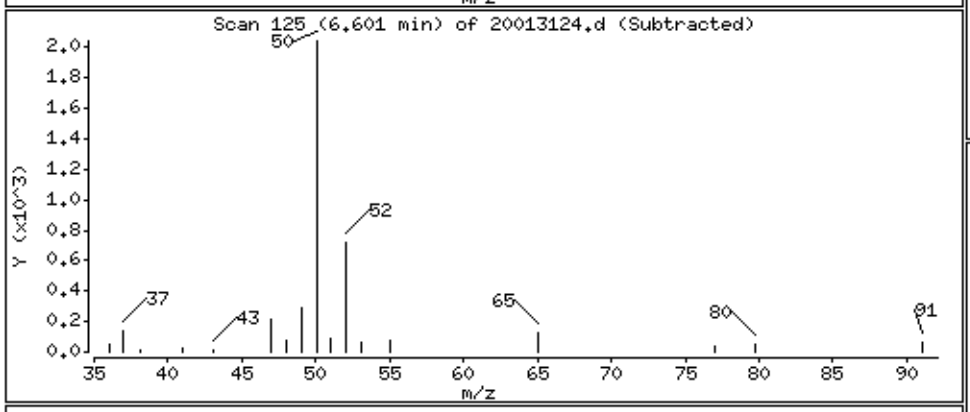
Column phase: RTX-624

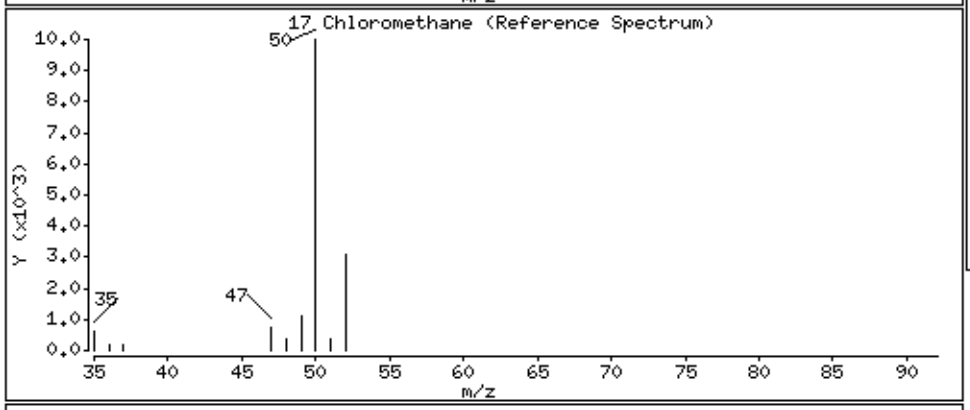
Column diameter: 0.32

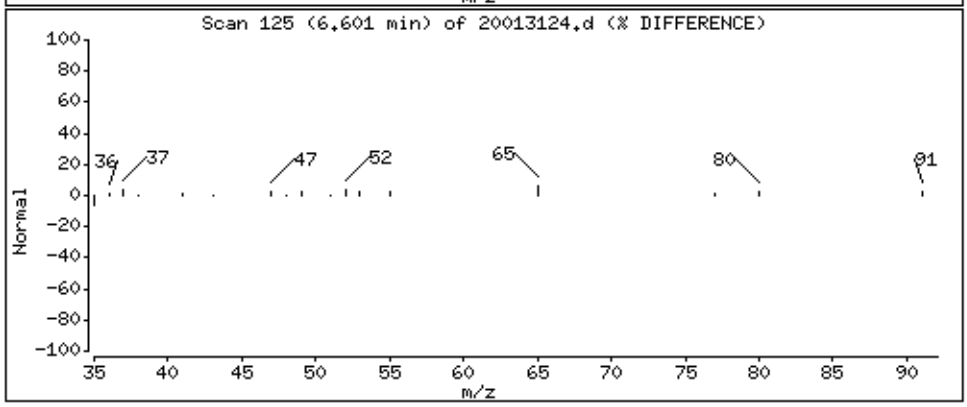
17 Chloromethane

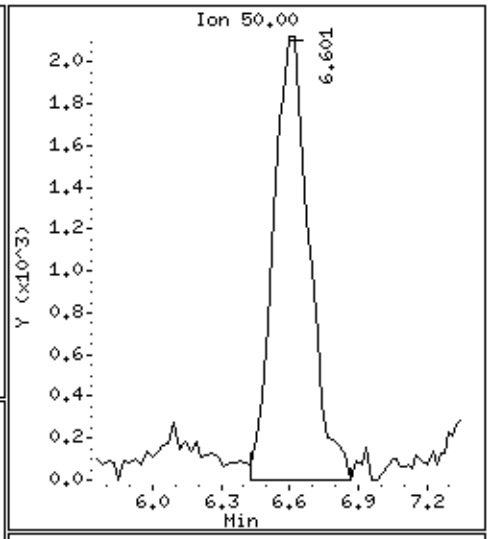
Concentration: 1.106 PPBV

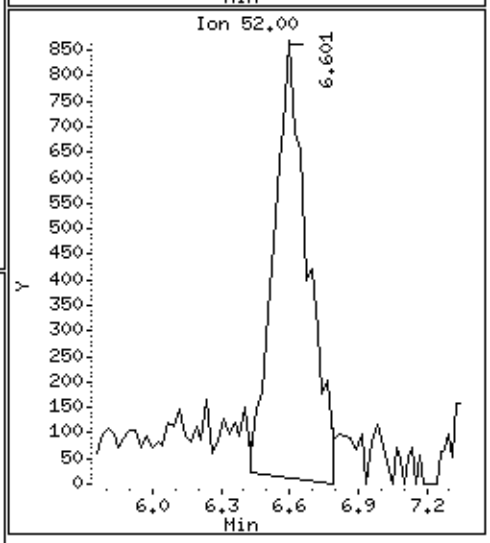












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

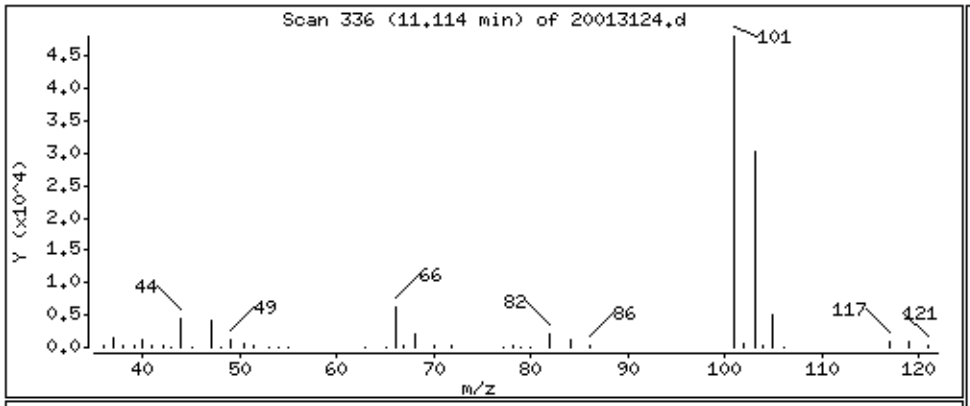
Operator: sw

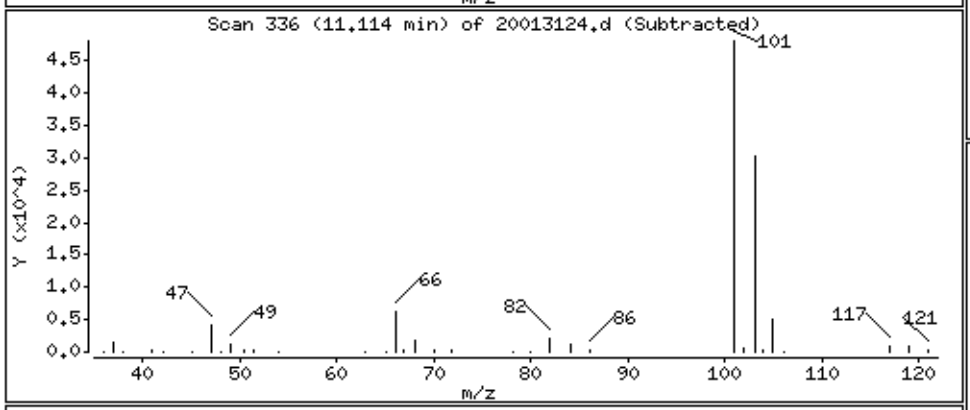
Column phase: RTX-624

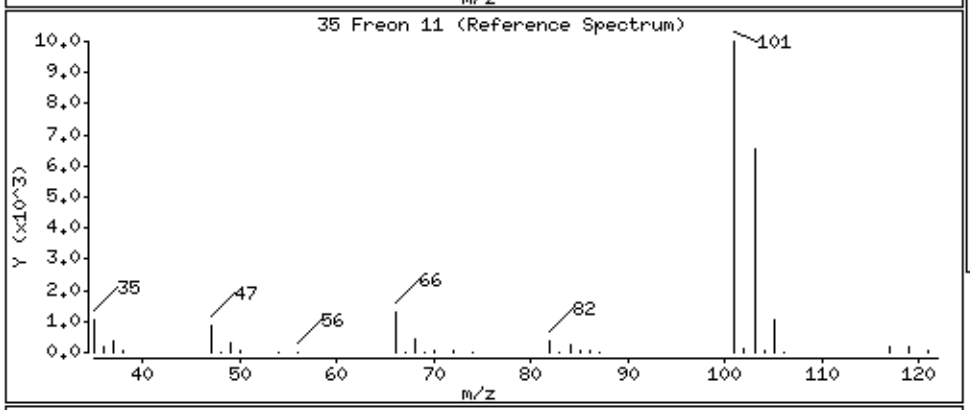
Column diameter: 0.32

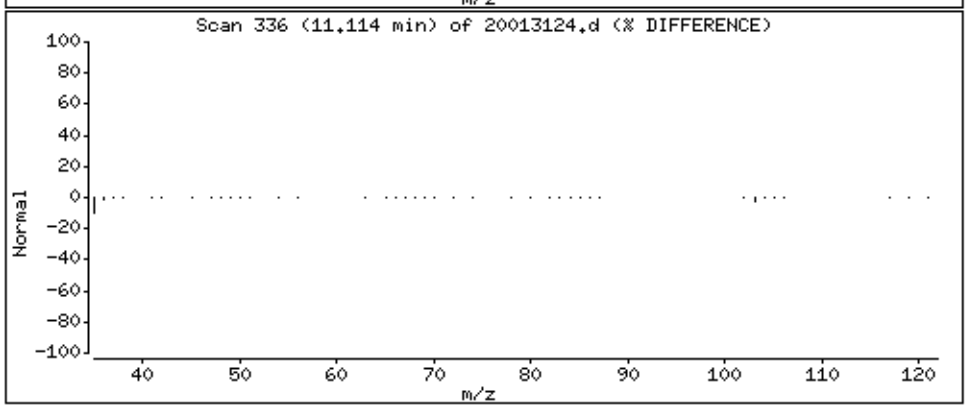
35 Freon 11

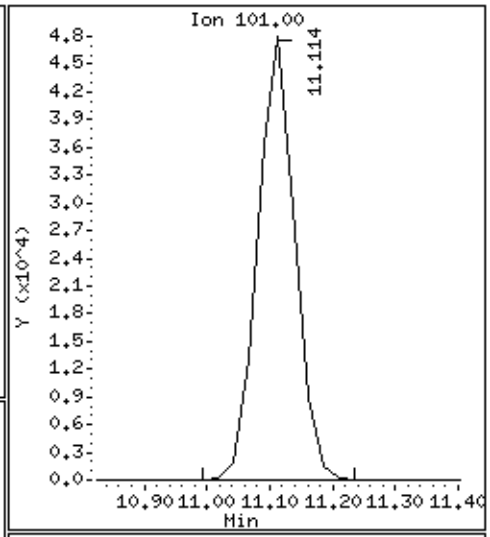
Concentration: 2.928 PPBV

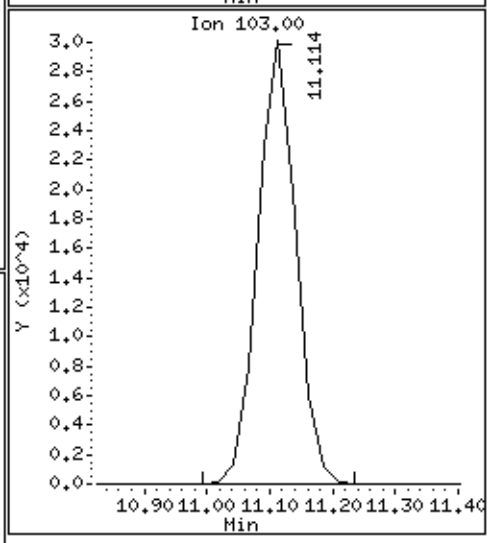












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

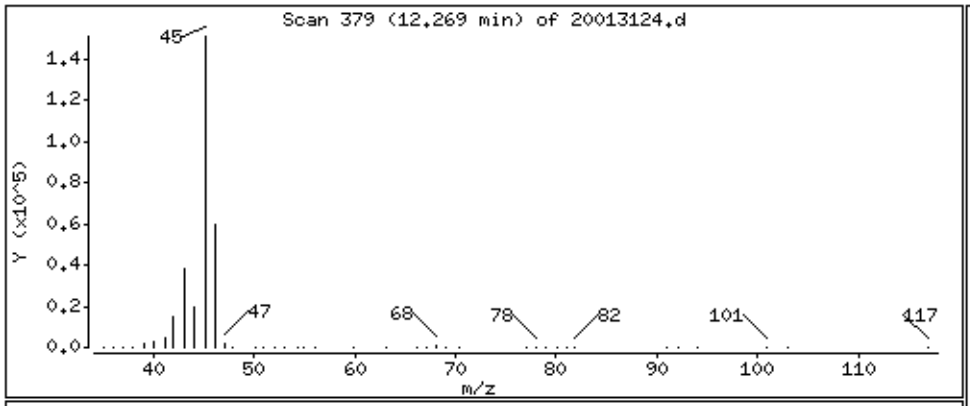
Operator: sw

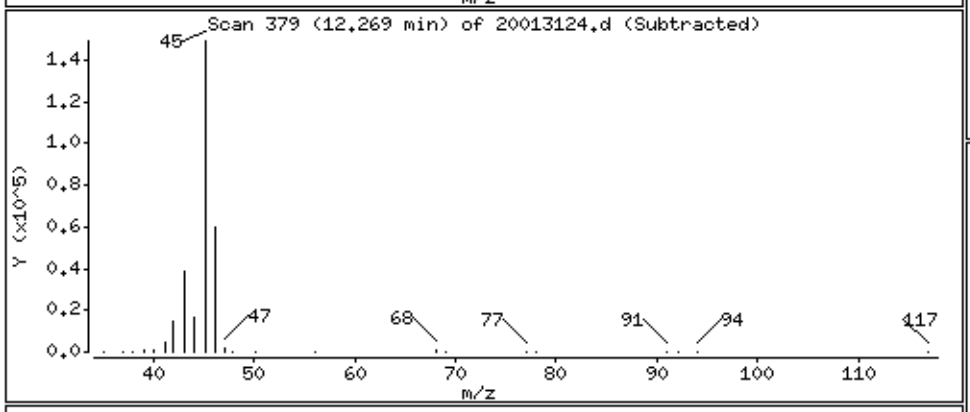
Column phase: RTX-624

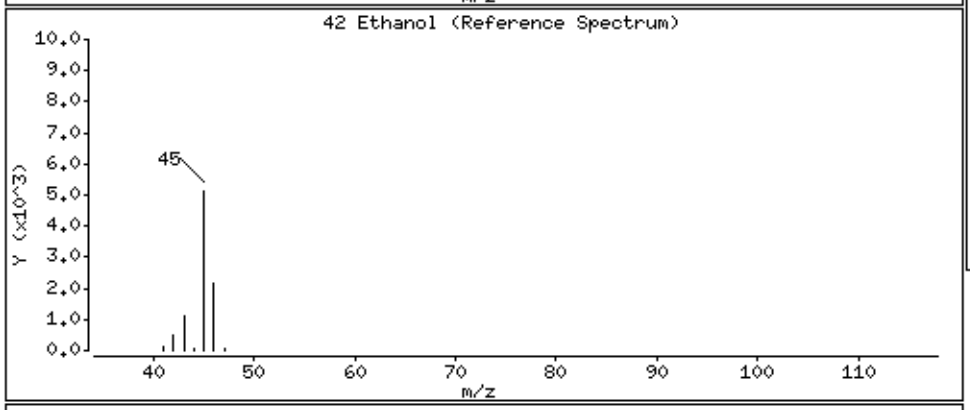
Column diameter: 0.32

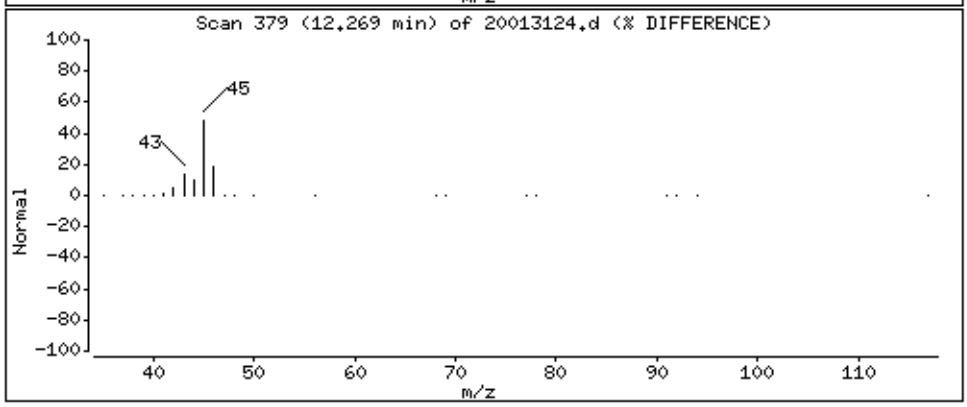
42 Ethanol

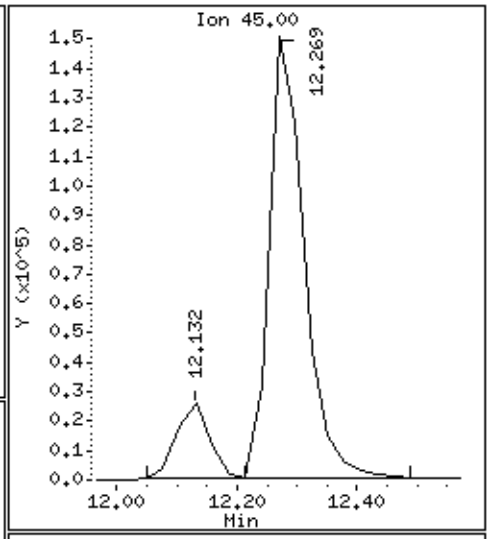
Concentration: 65.648 PPBV

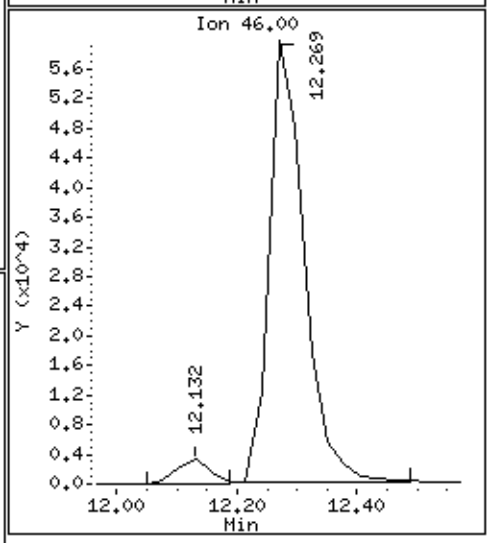












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

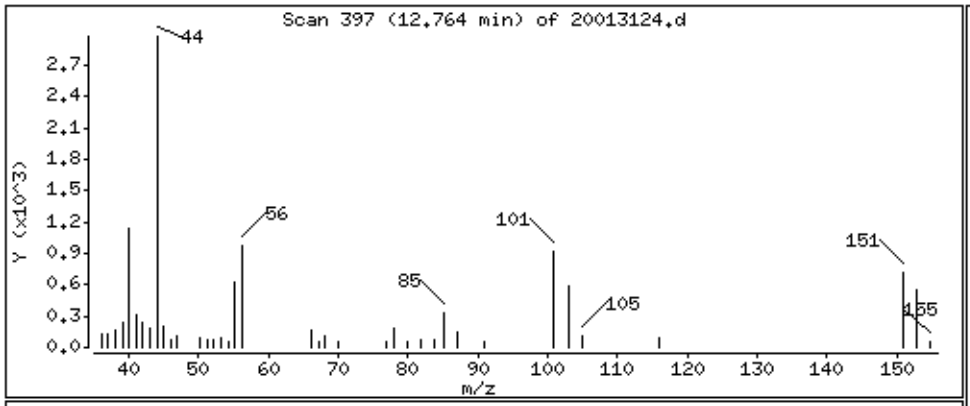
Operator: sw

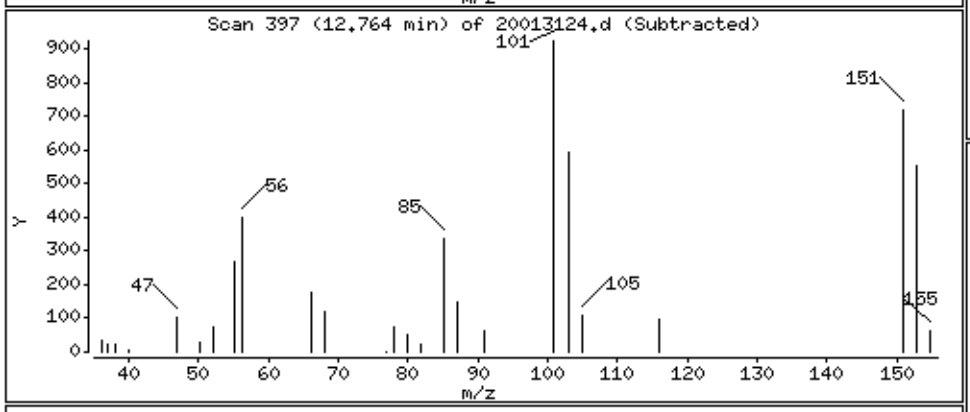
Column phase: RTX-624

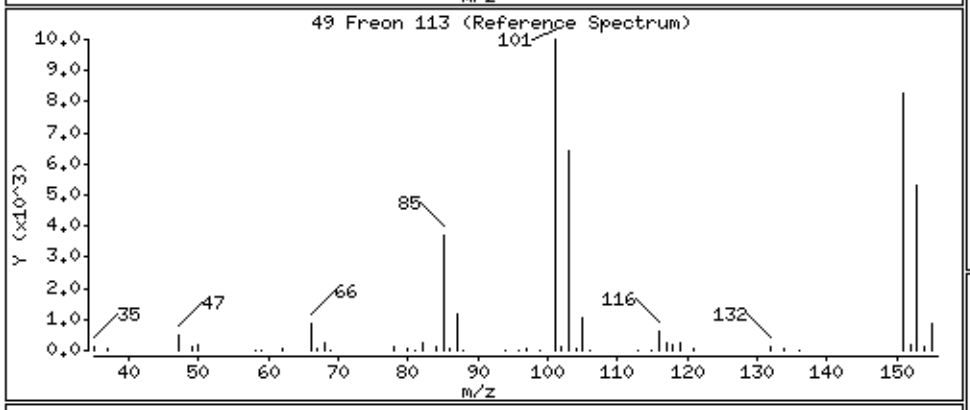
Column diameter: 0.32

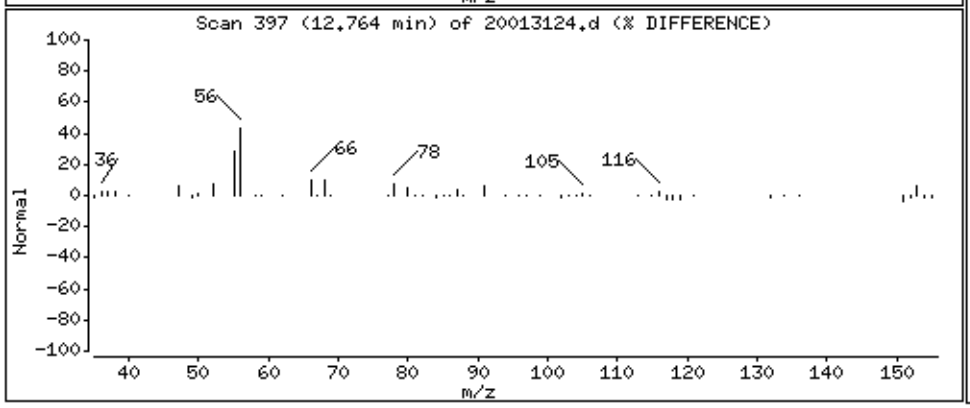
49 Freon 113

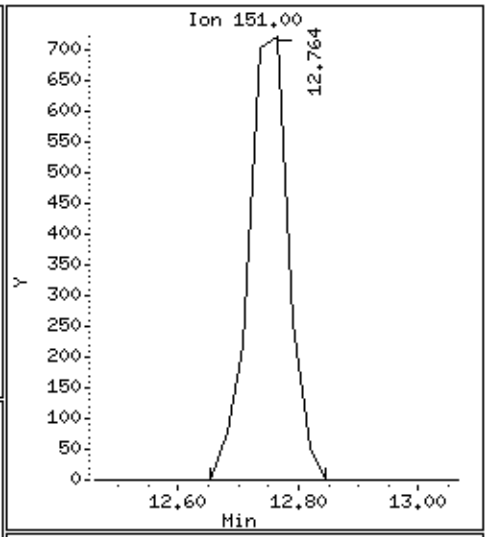
Concentration: 0.06496 PPBV

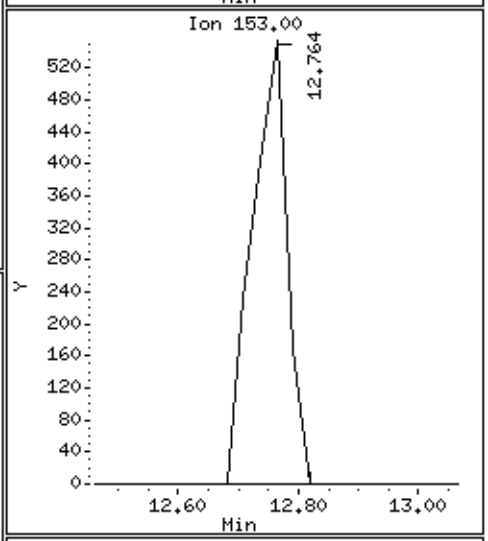


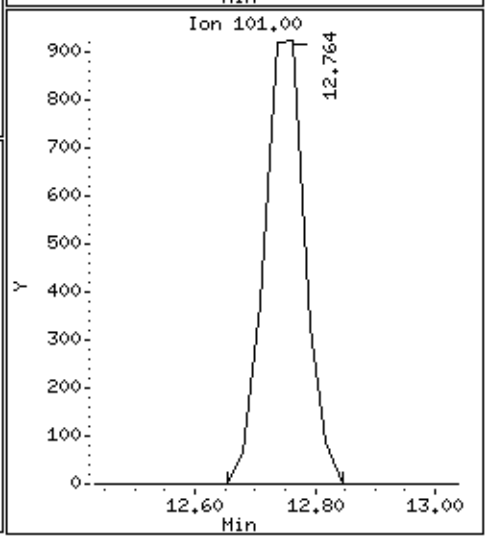












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

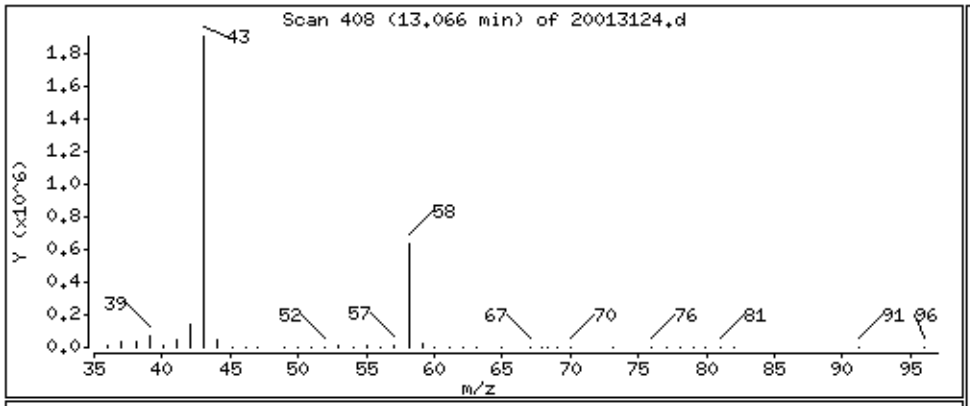
Operator: sw

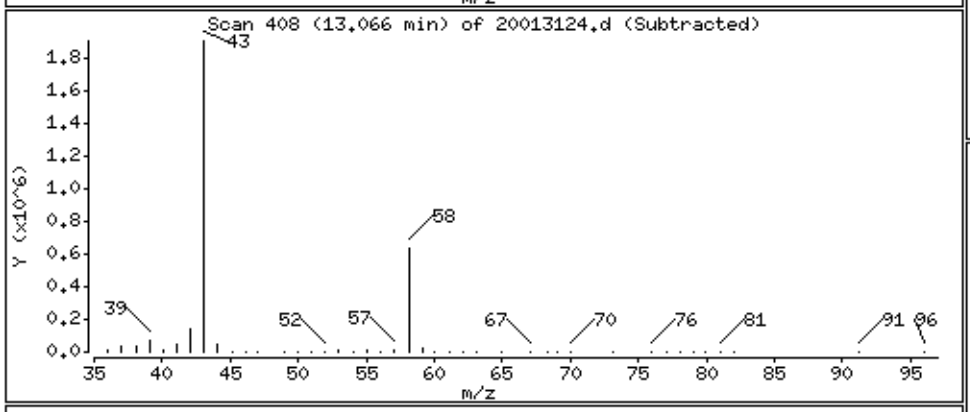
Column phase: RTX-624

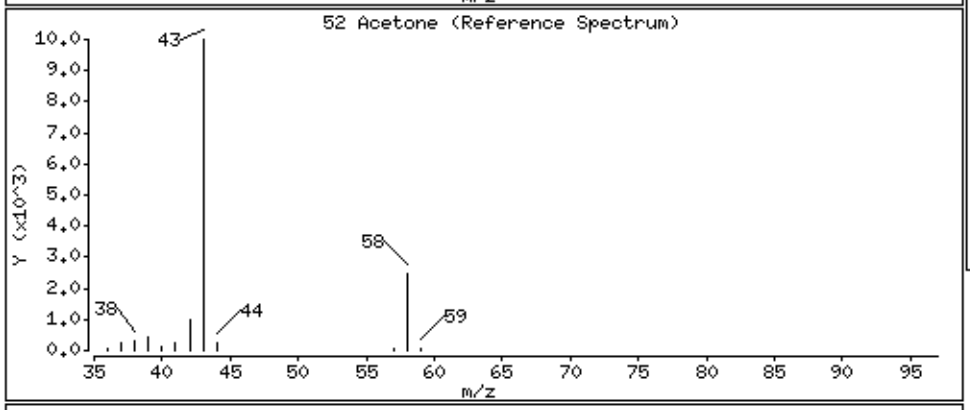
Column diameter: 0.32

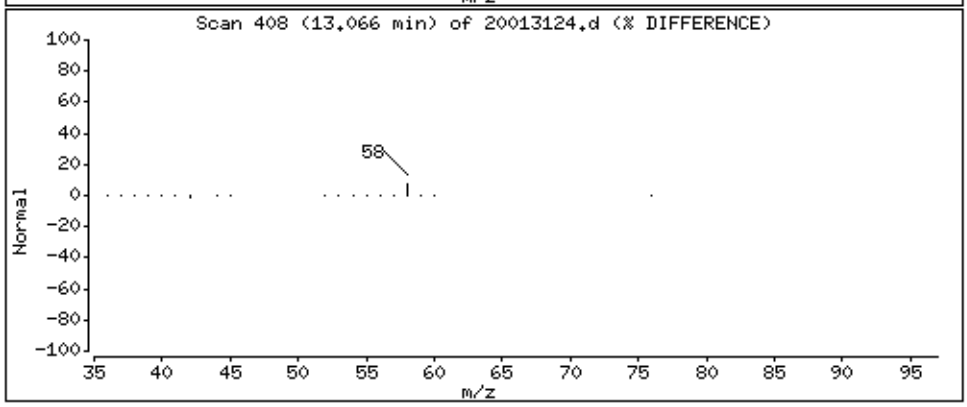
52 Acetone

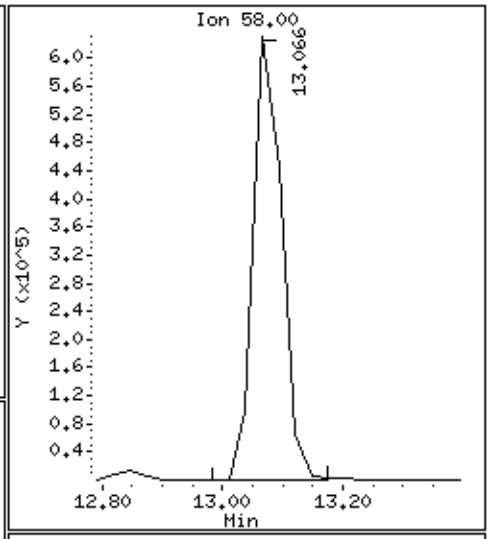
Concentration: 161.21 PPBV

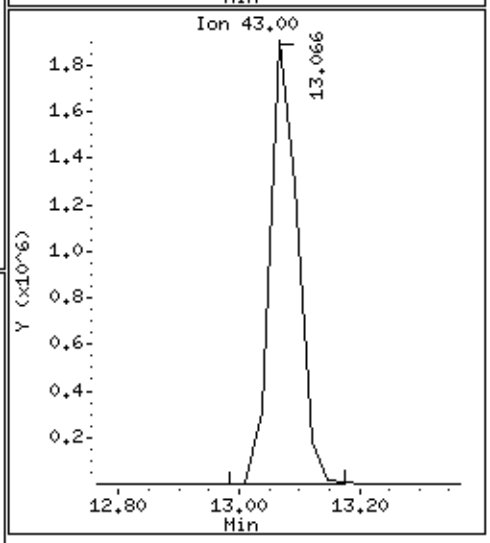












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

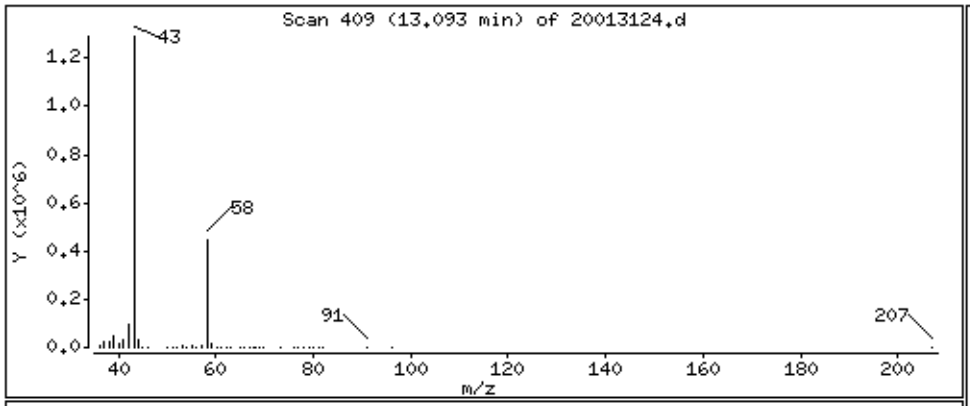
Operator: sw

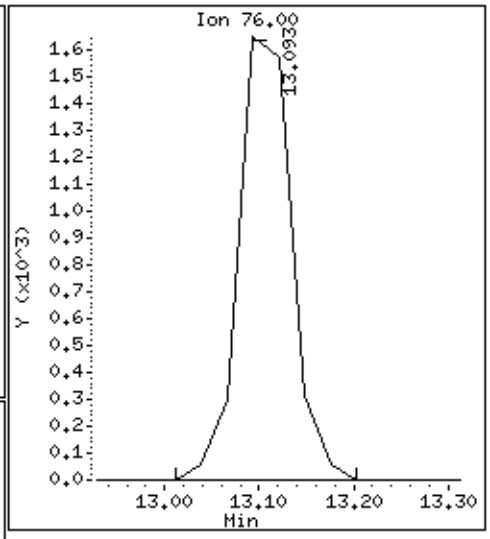
Column phase: RTX-624

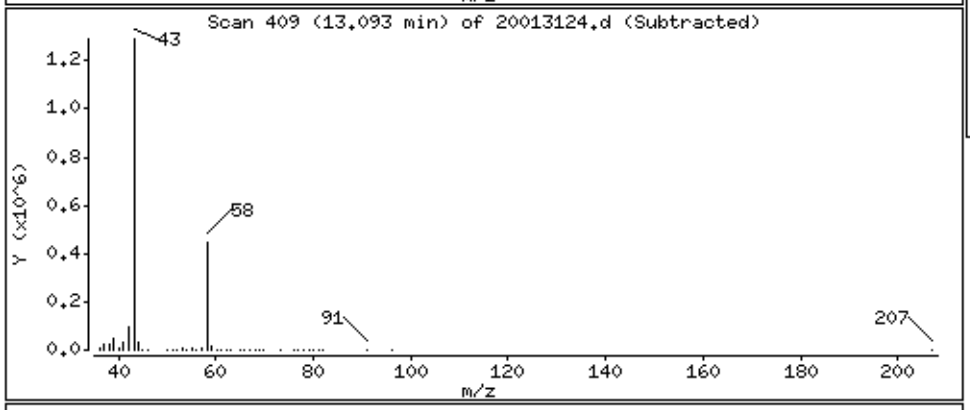
Column diameter: 0.32

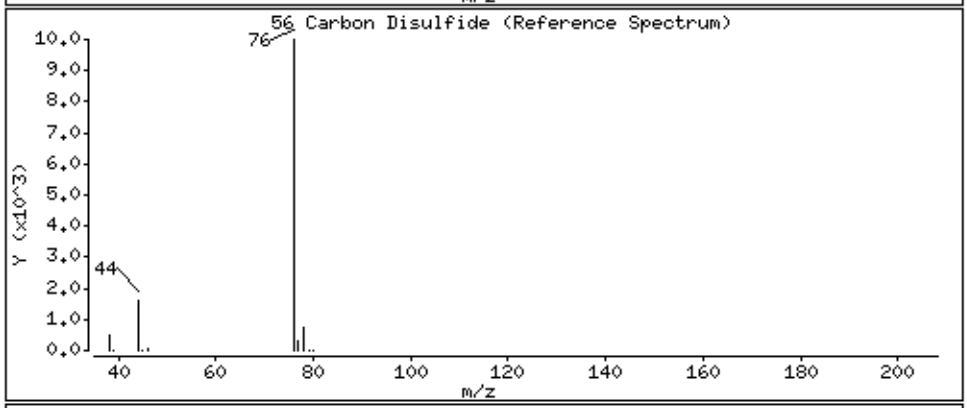
56 Carbon Disulfide

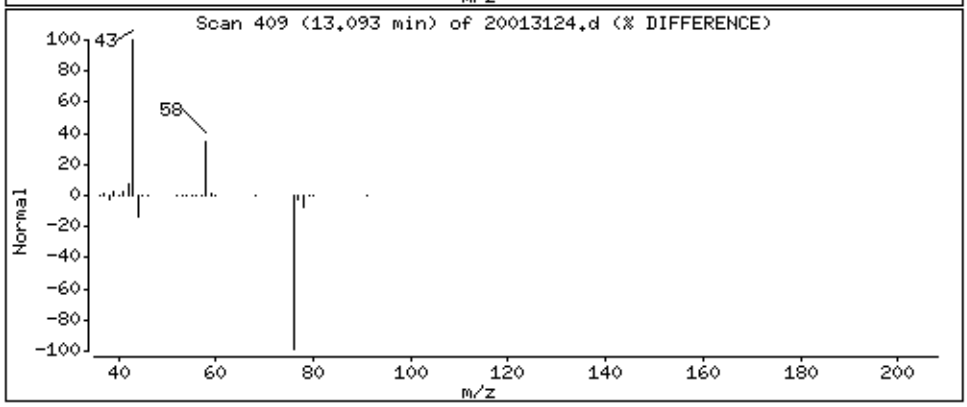
Concentration: 0.09195 PPBV











Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

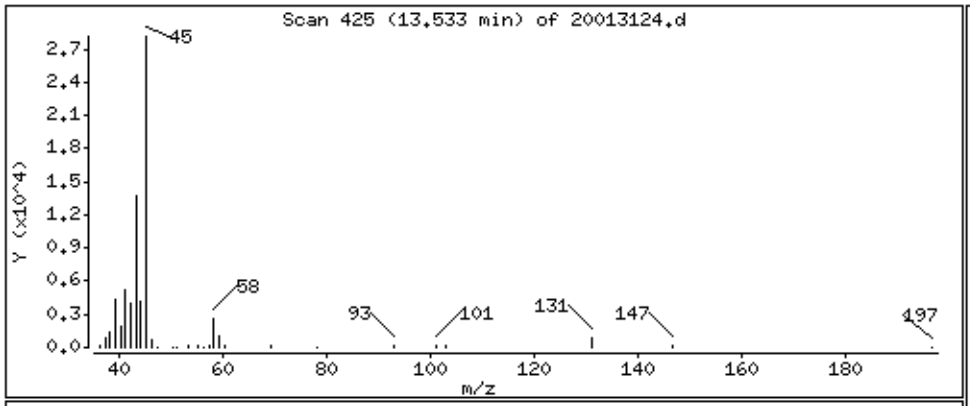
Operator: sw

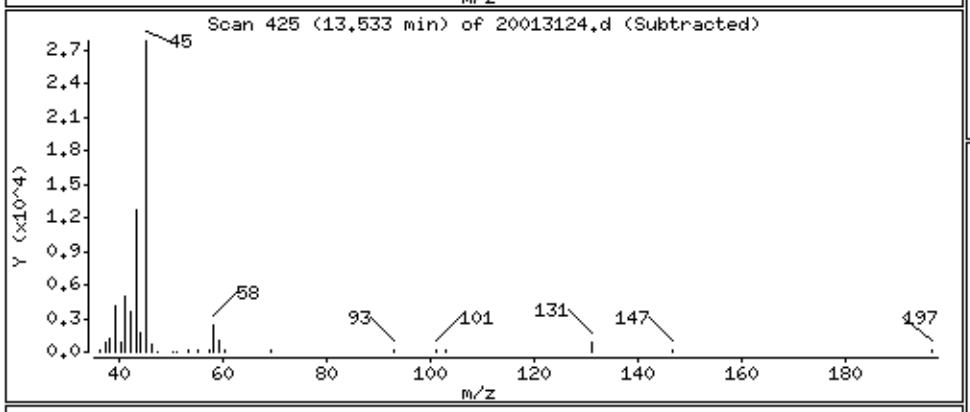
Column phase: RTX-624

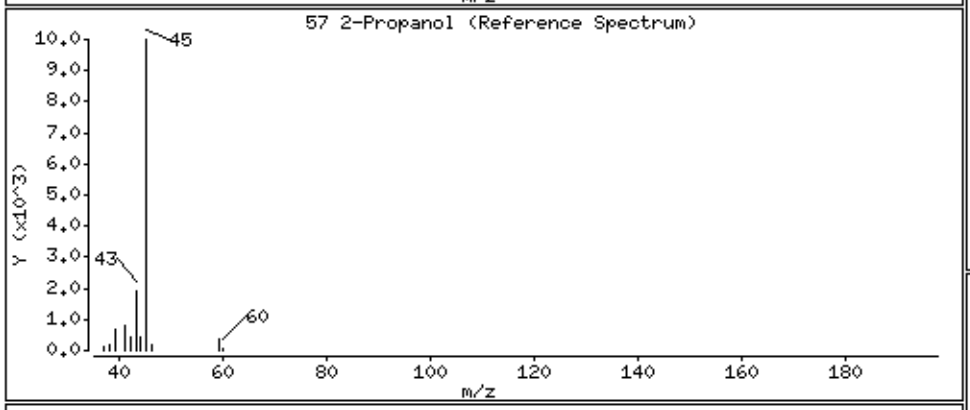
Column diameter: 0.32

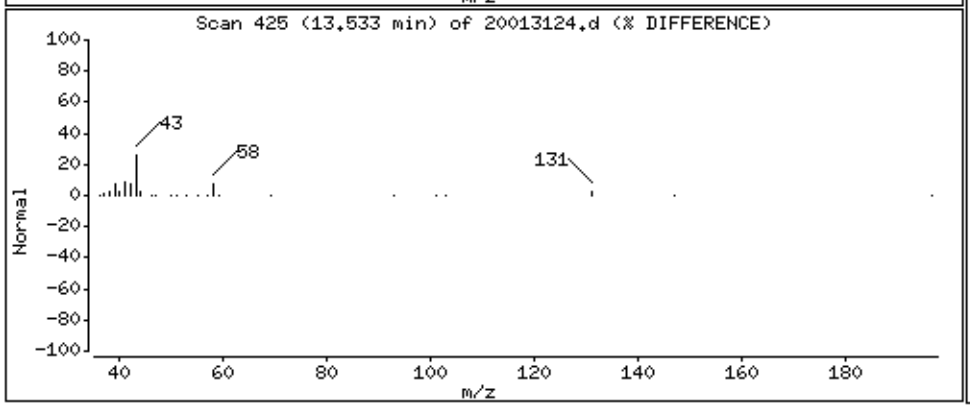
57 2-Propanol

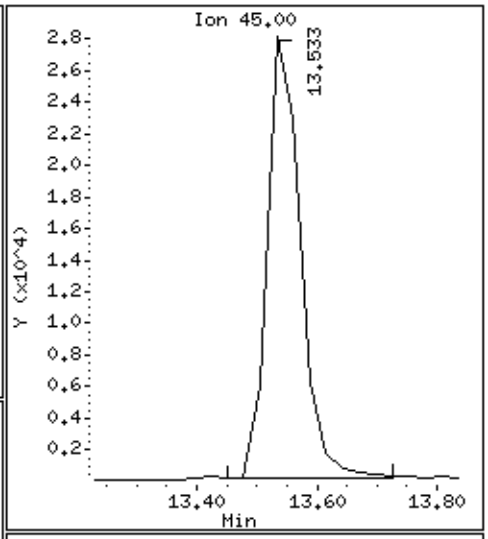
Concentration: 3.165 PPBV

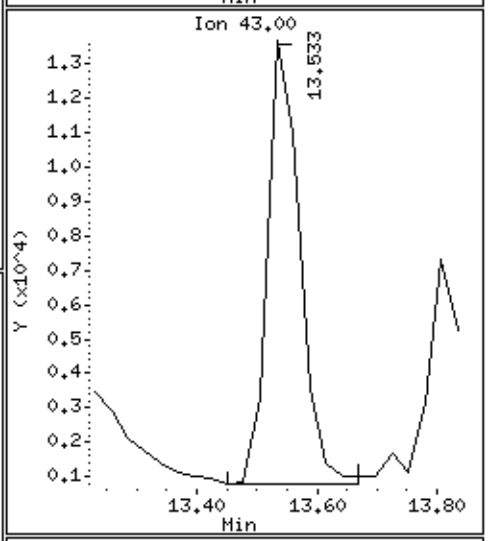


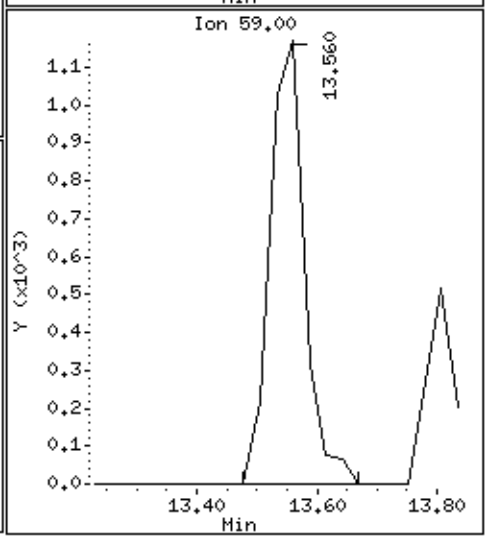












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

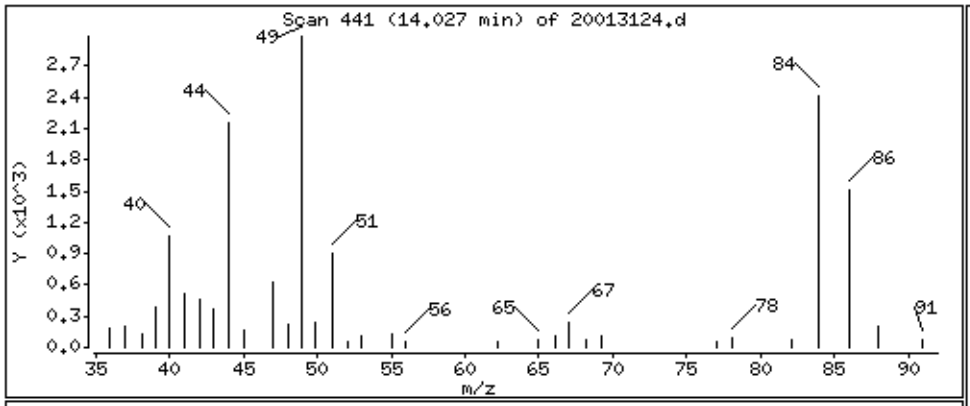
Operator: sw

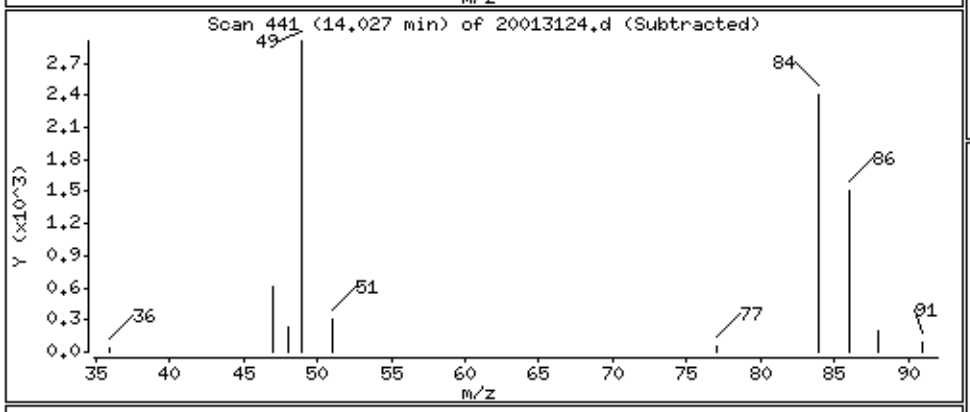
Column phase: RTX-624

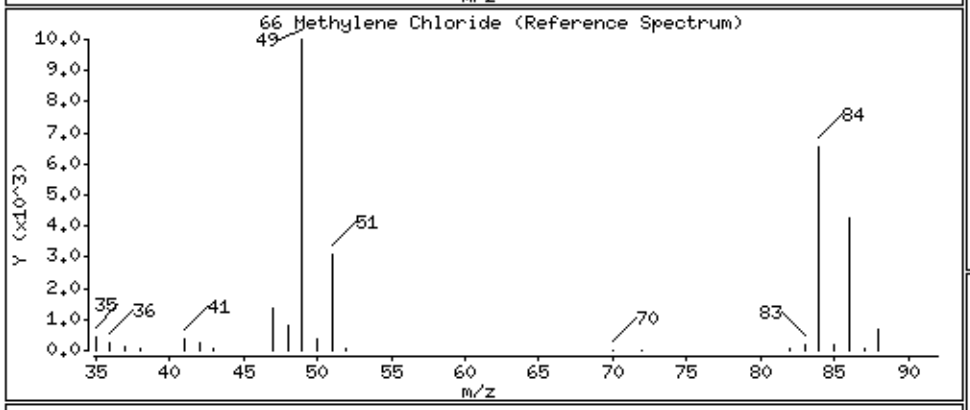
Column diameter: 0.32

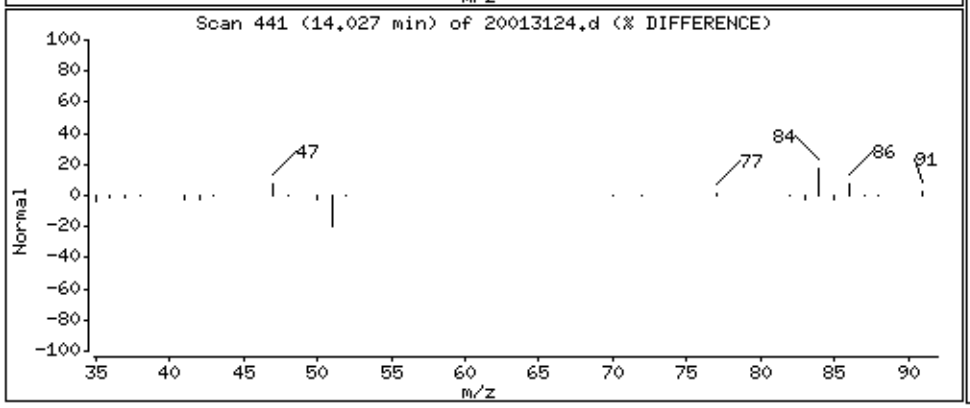
66 Methylene Chloride

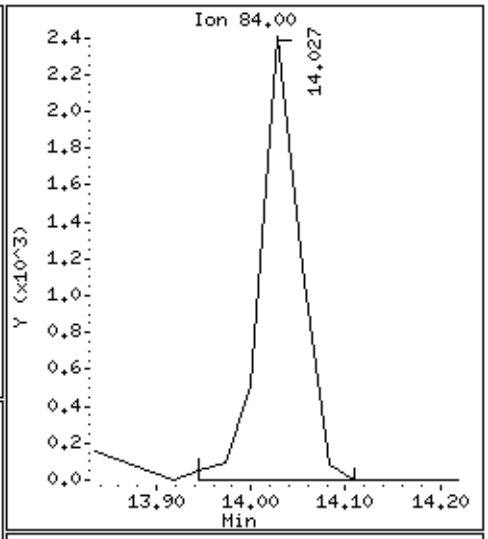
Concentration: 0.2554 PPBV

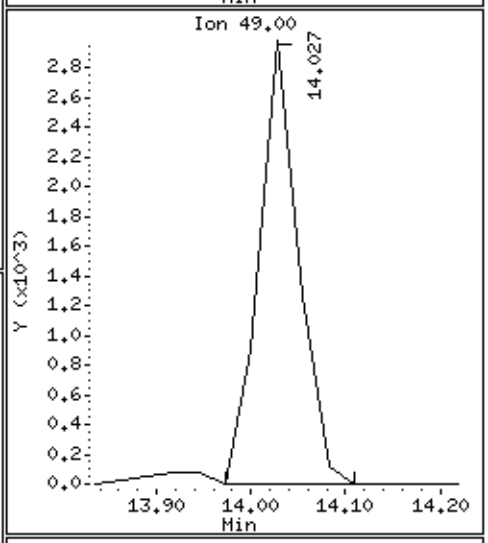


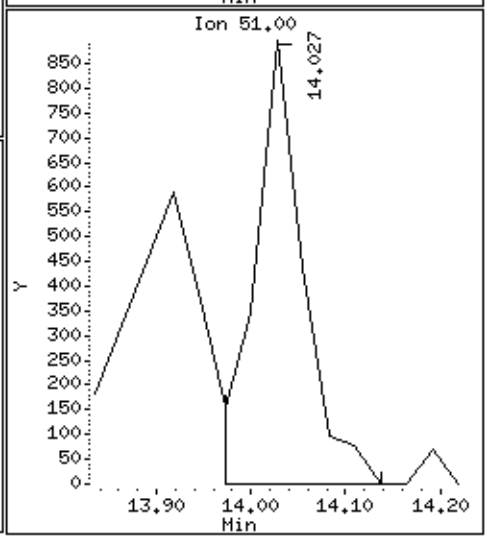












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

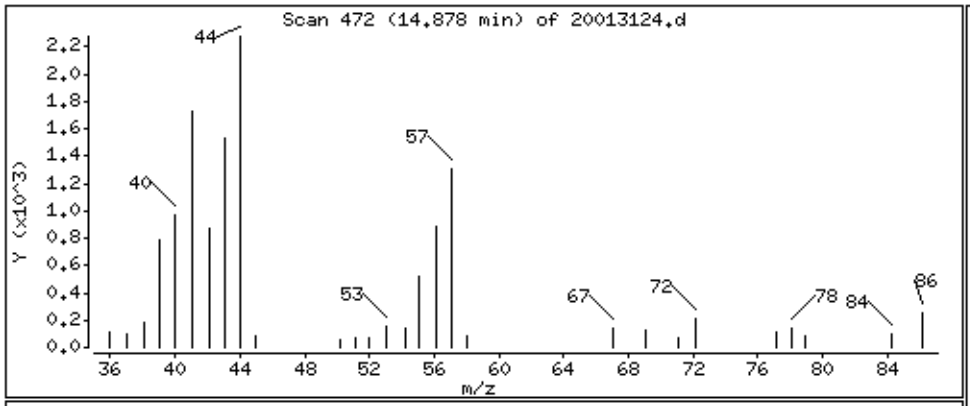
Operator: sw

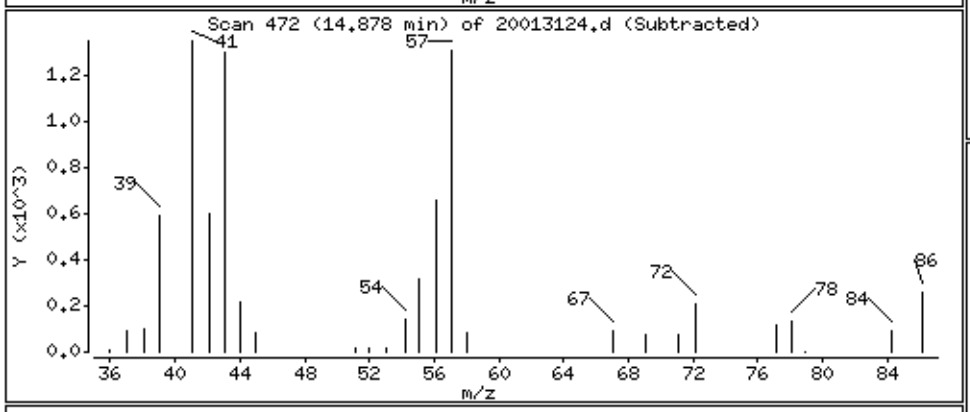
Column phase: RTX-624

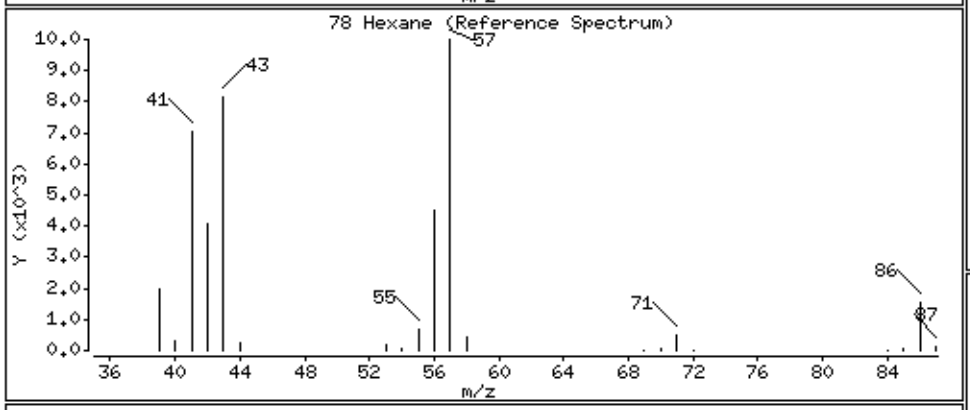
Column diameter: 0.32

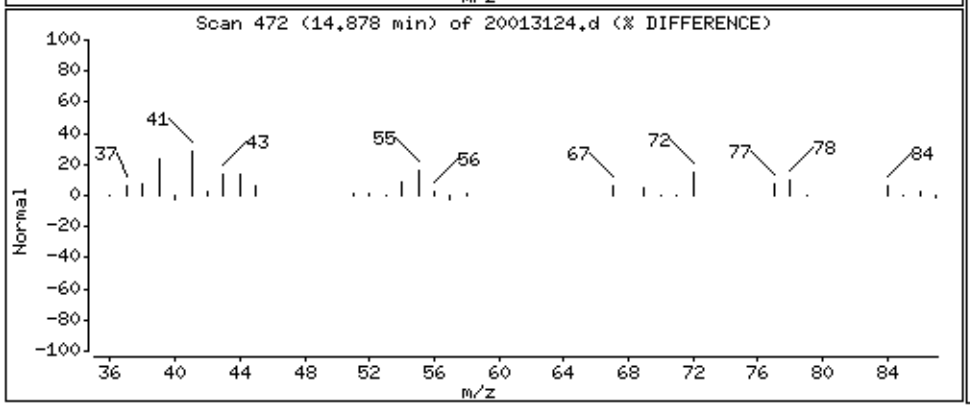
78 Hexane

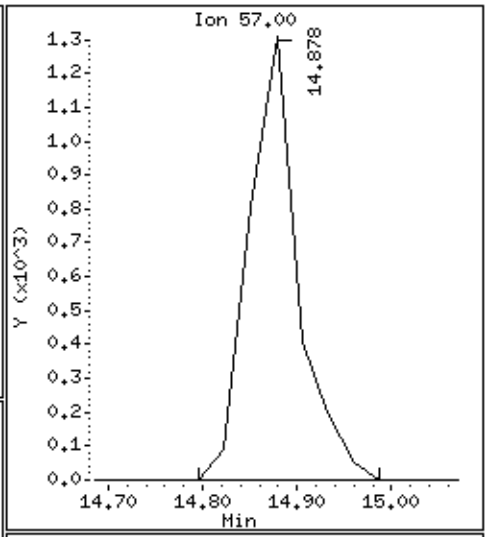
Concentration: 0.1287 PPBV

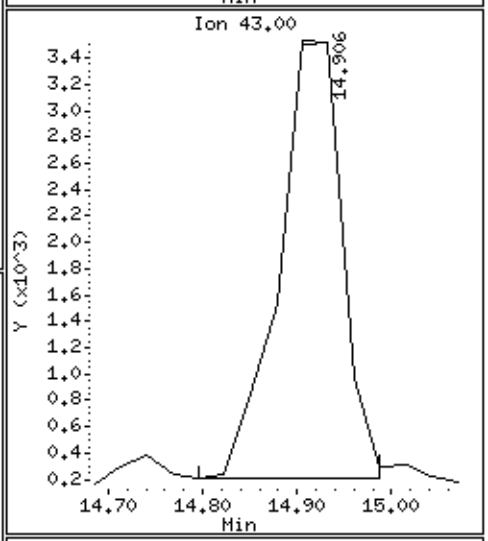


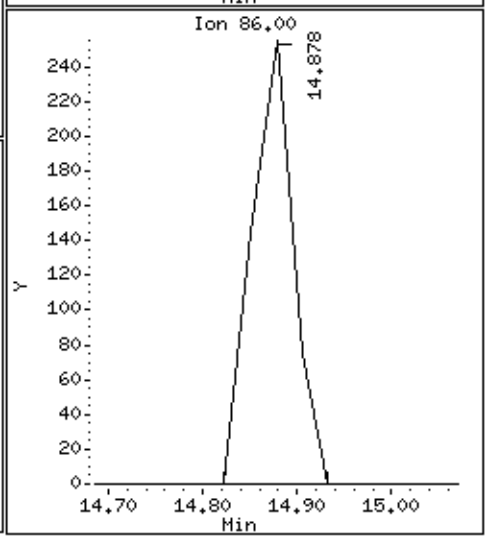












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

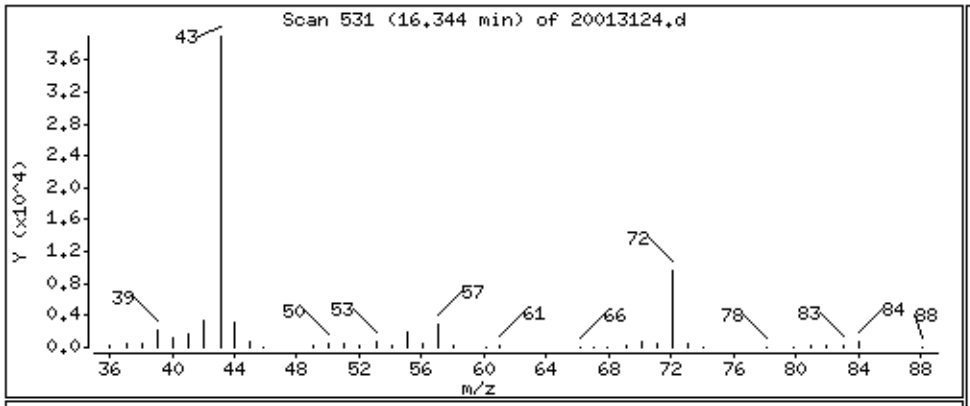
Operator: sw

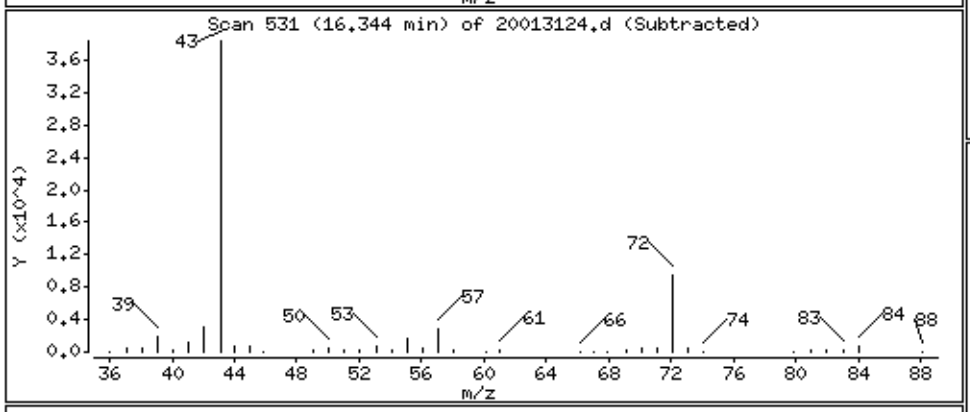
Column phase: RTX-624

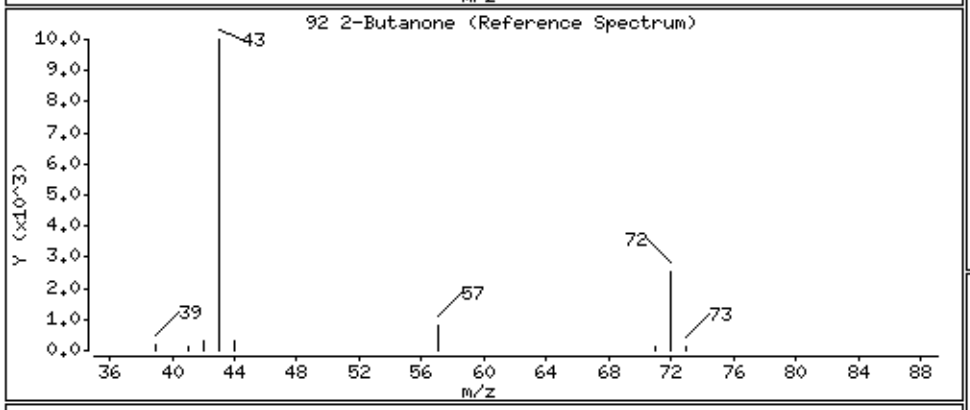
Column diameter: 0.32

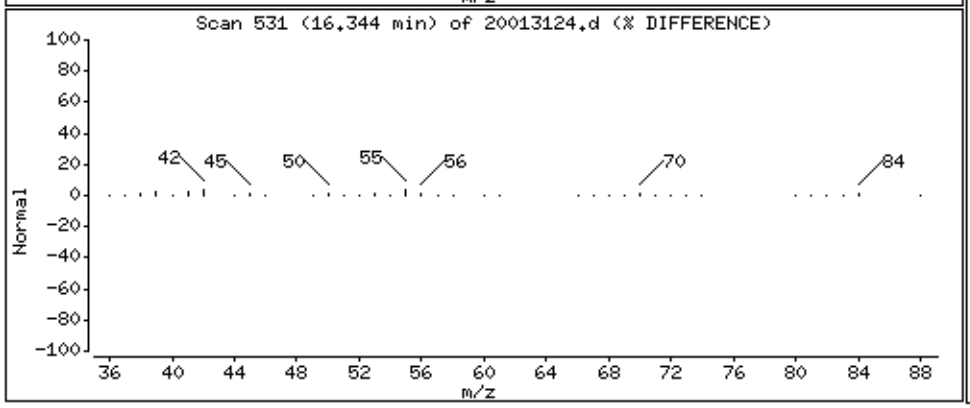
92 2-Butanone

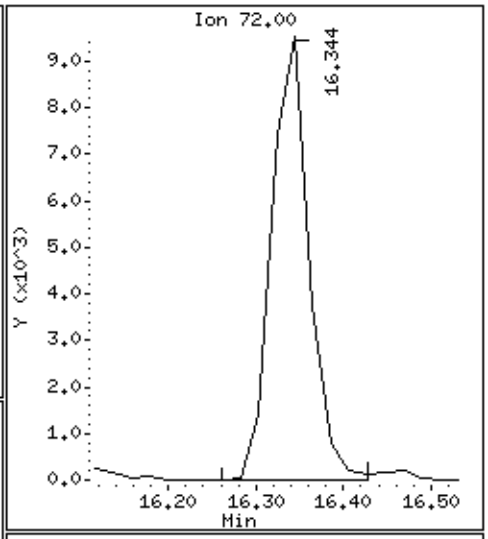
Concentration: 2.321 PPBV

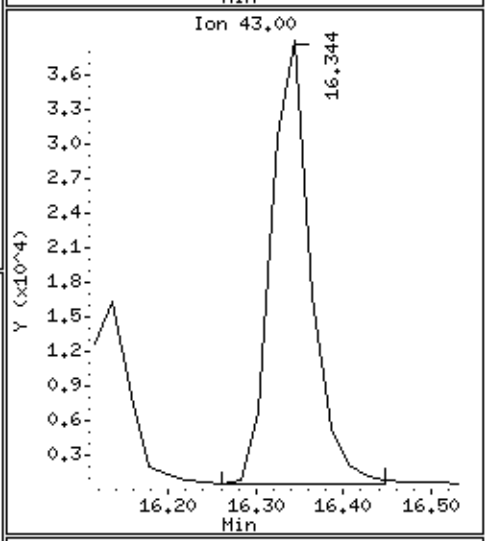


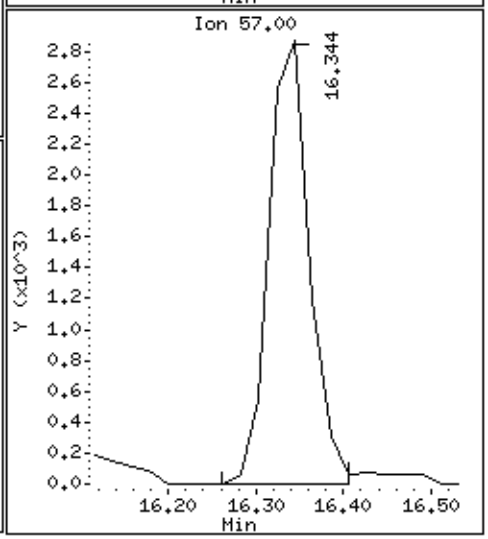












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

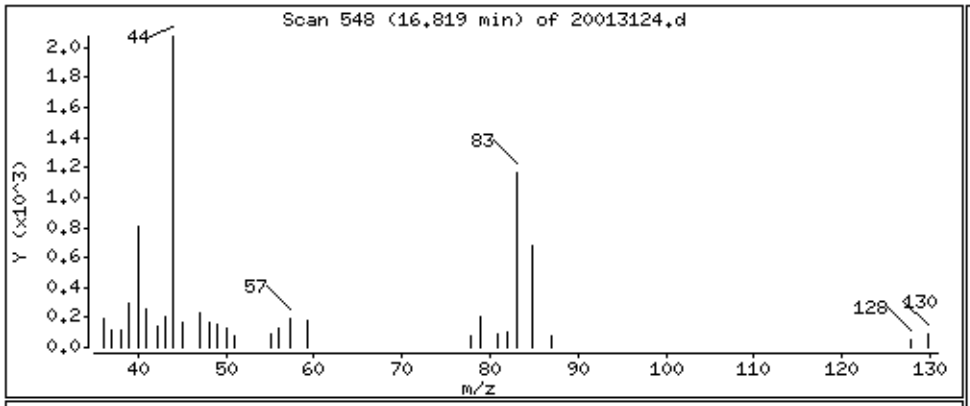
Operator: sw

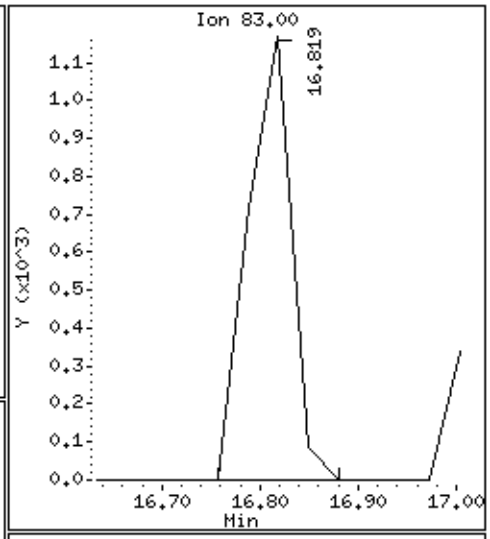
Column phase: RTX-624

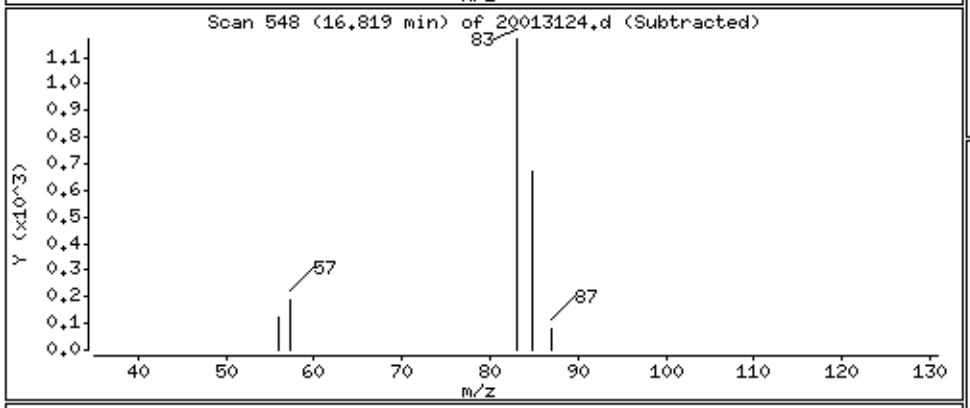
Column diameter: 0.32

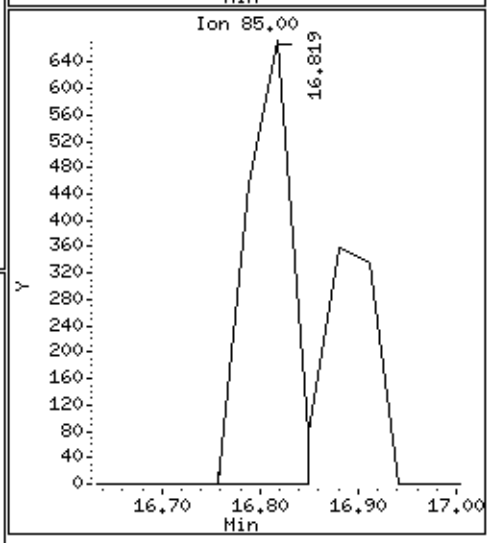
100 Chloroform

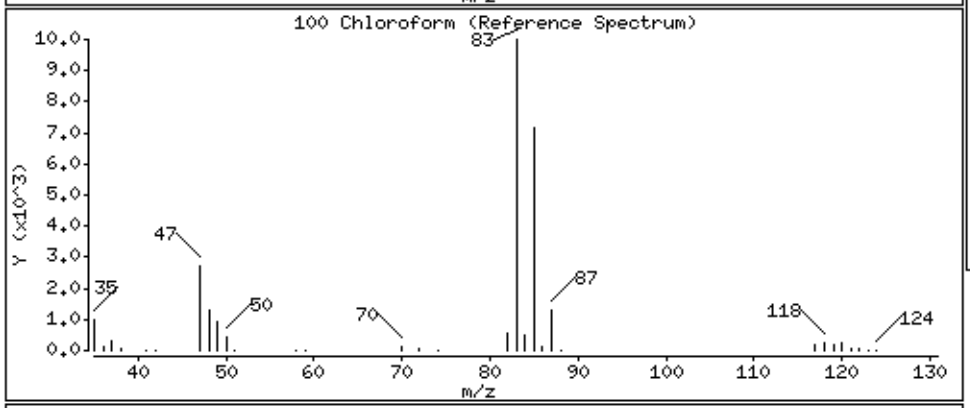
Concentration: 0.06485 PPBV

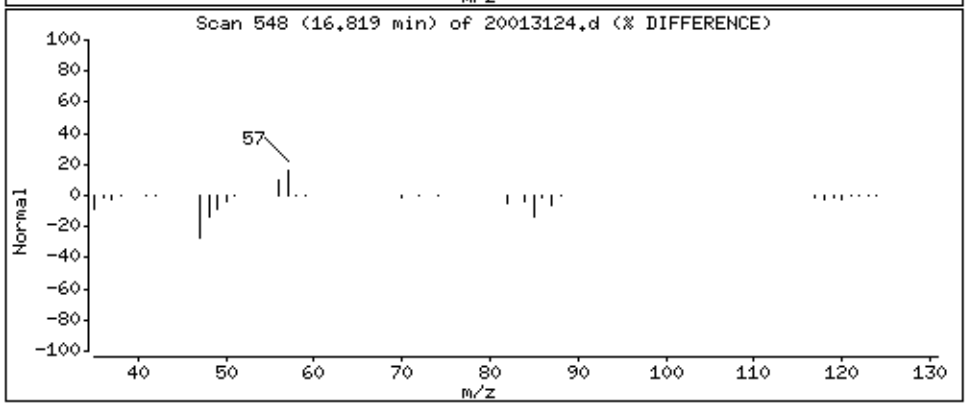












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

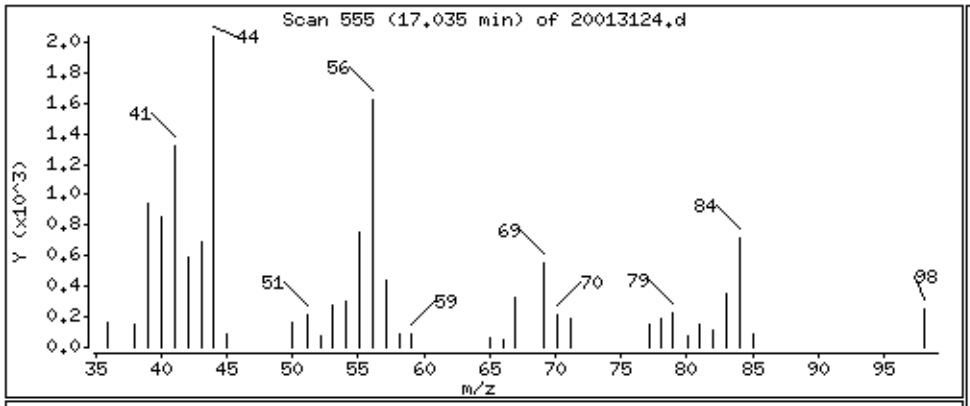
Operator: sw

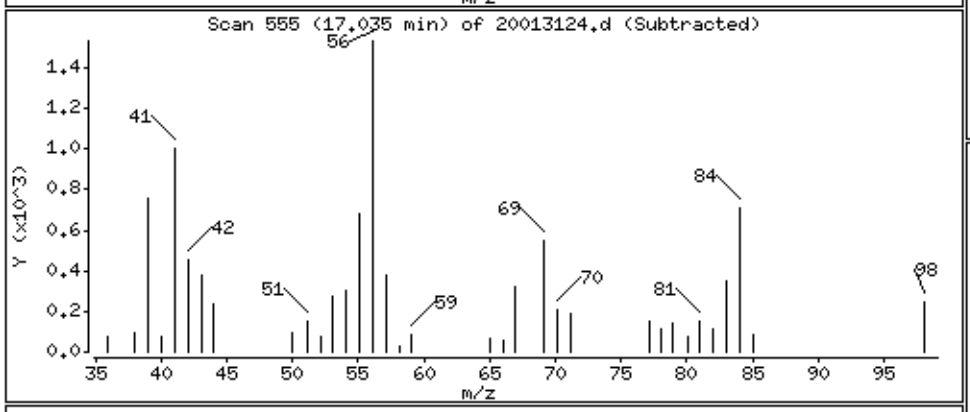
Column phase: RTX-624

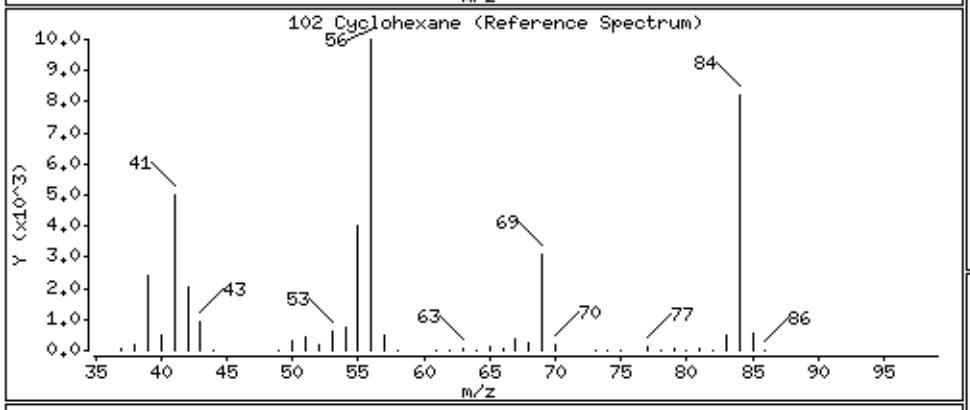
Column diameter: 0.32

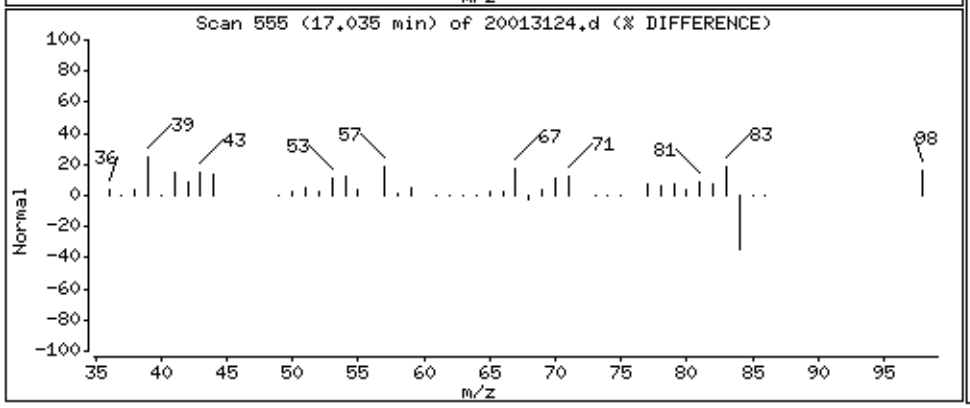
102 Cyclohexane

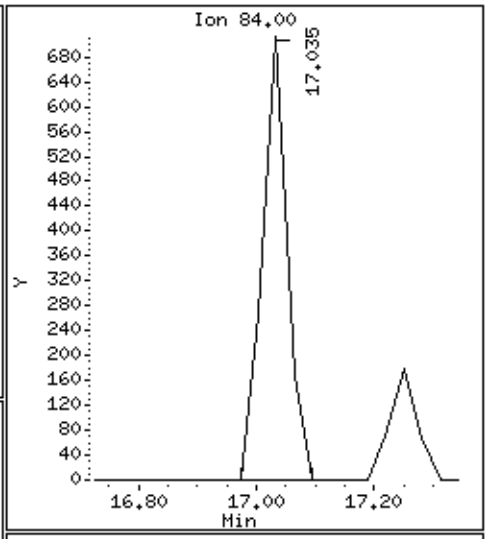
Concentration: 0.05755 PPBV

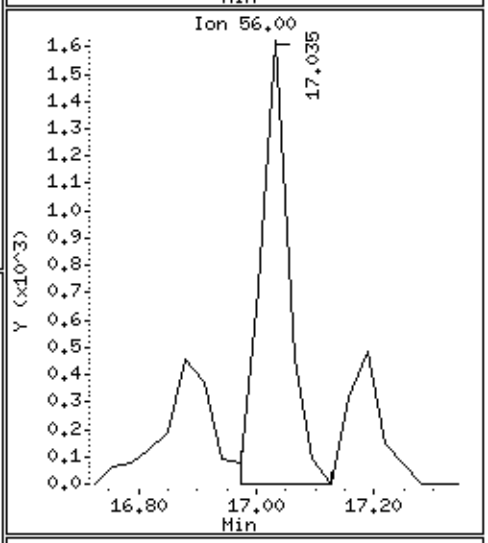


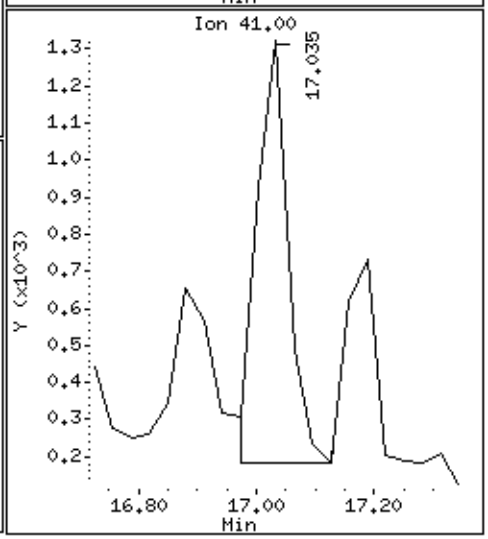












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

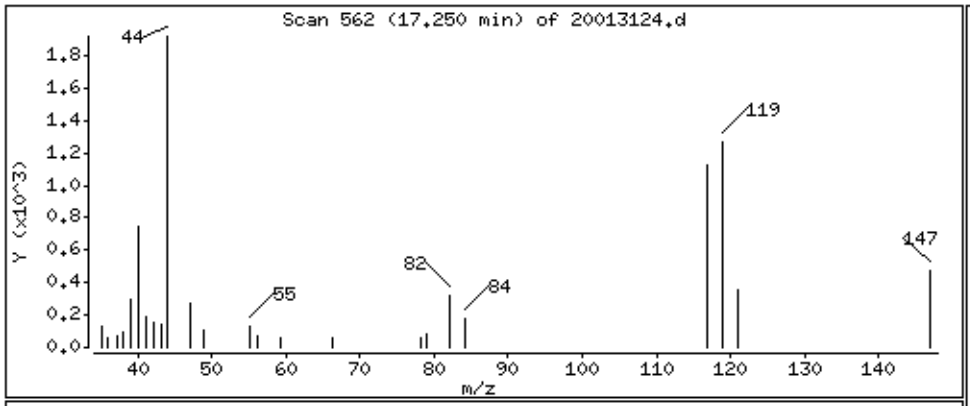
Operator: sw

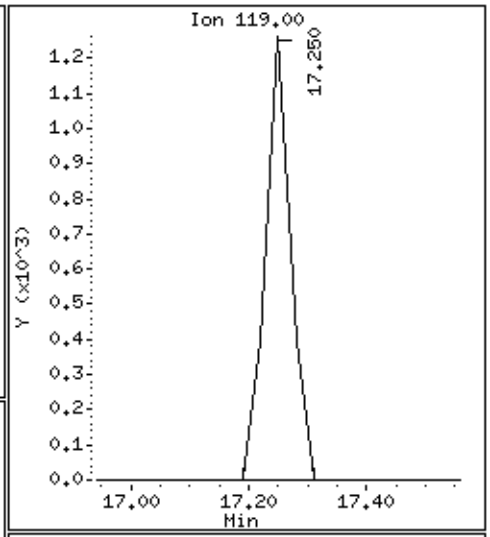
Column phase: RTX-624

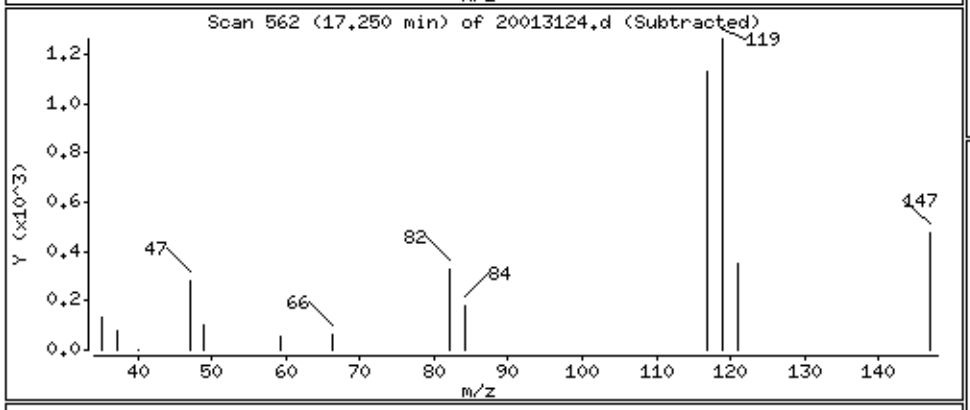
Column diameter: 0.32

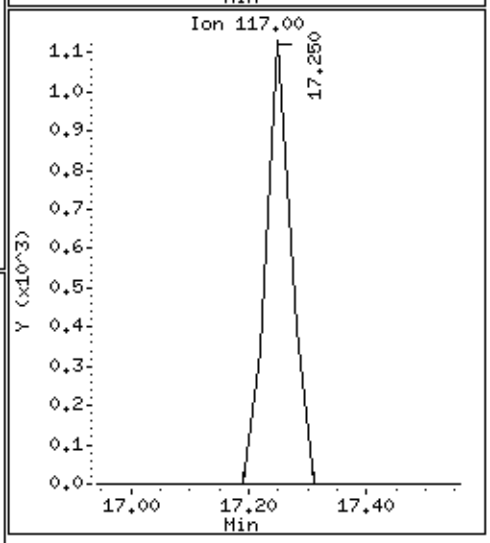
106 Carbon Tetrachloride

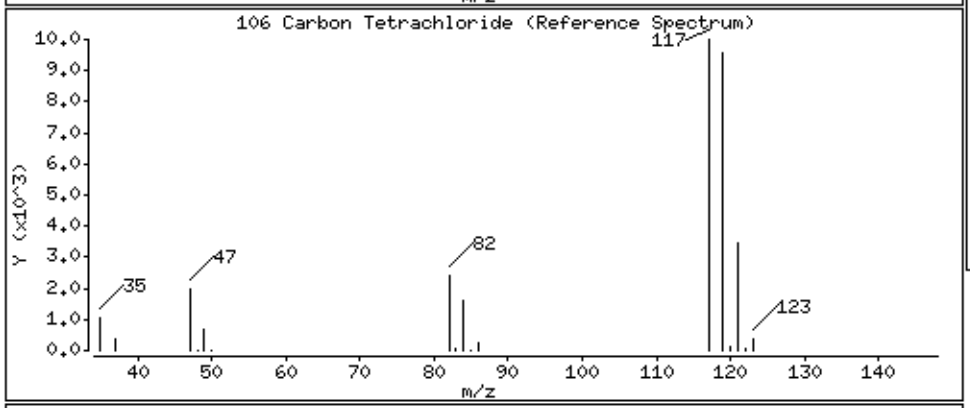
Concentration: 0.07835 PPBV

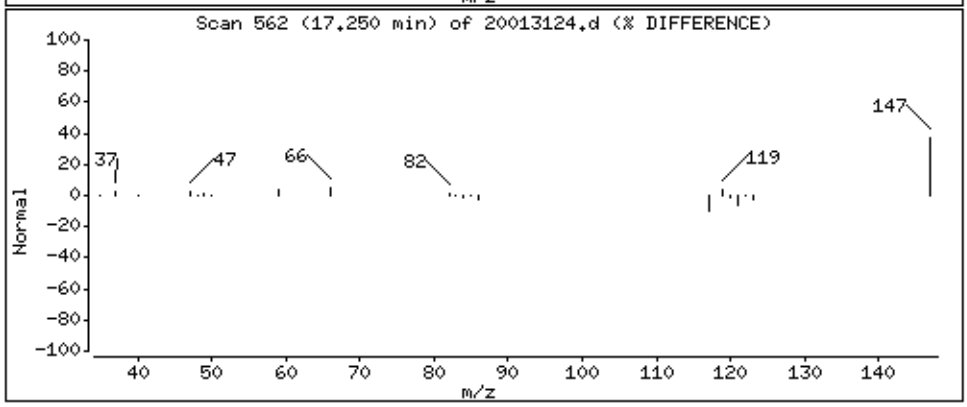












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

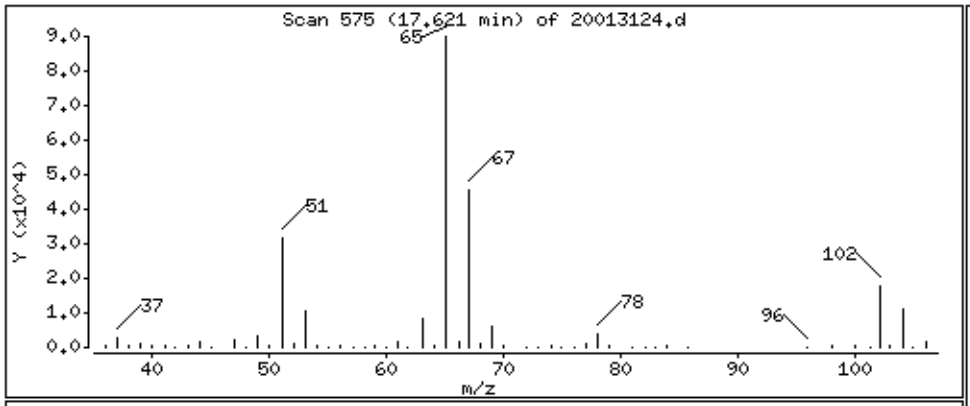
Operator: sw

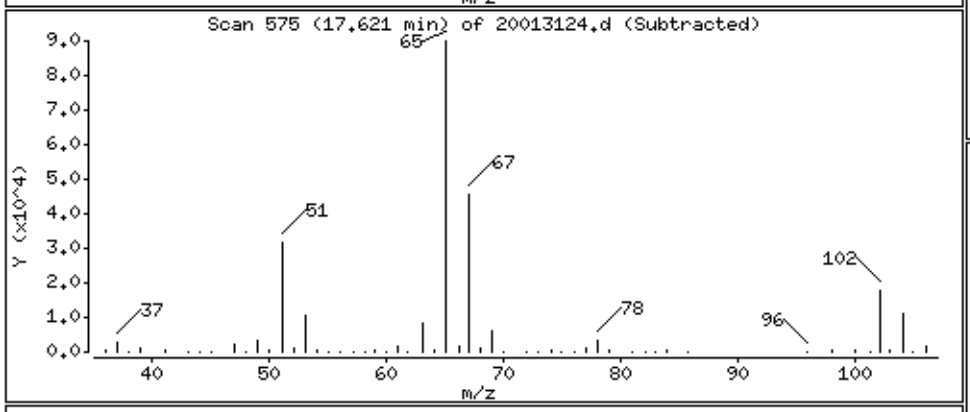
Column phase: RTX-624

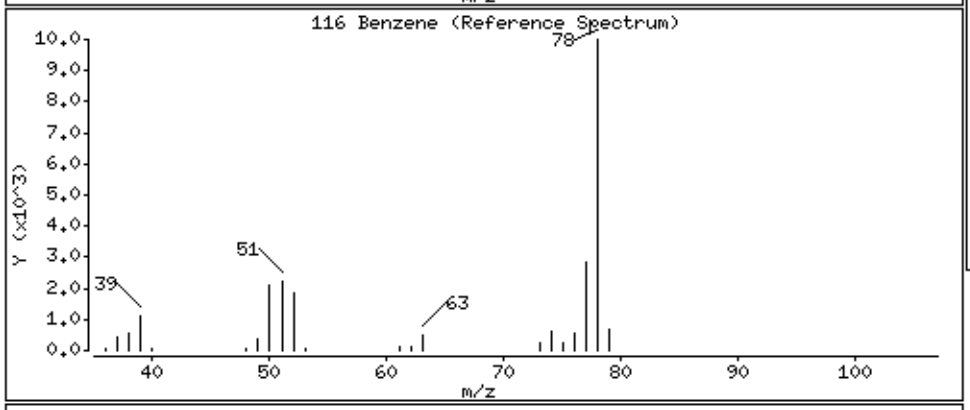
Column diameter: 0.32

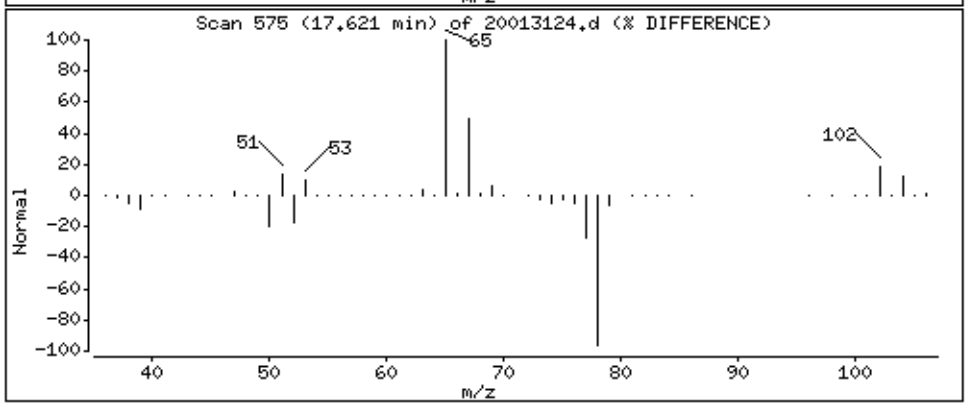
116 Benzene

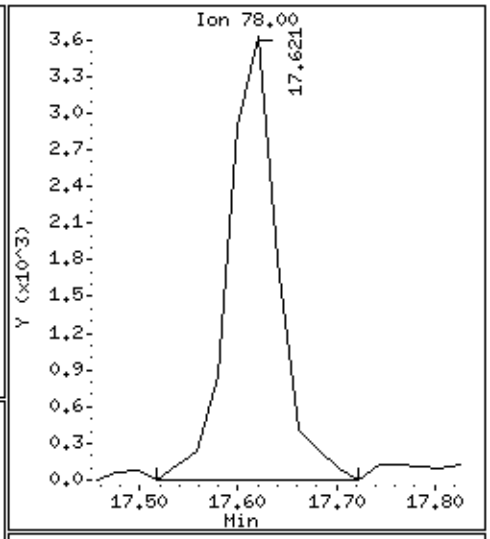
Concentration: 0.1932 PPBV

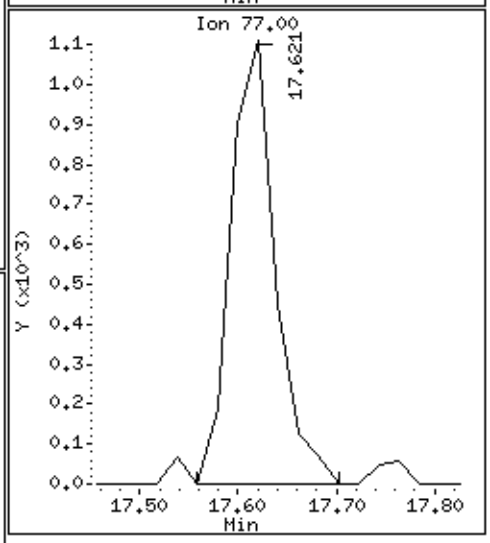












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

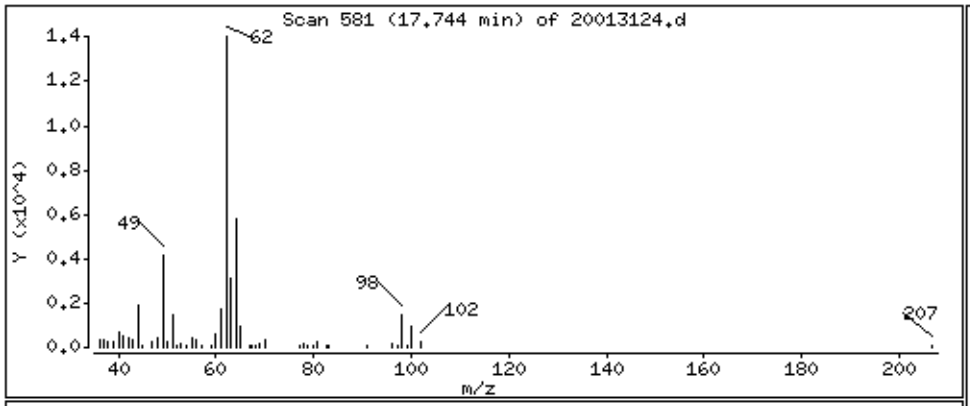
Operator: sw

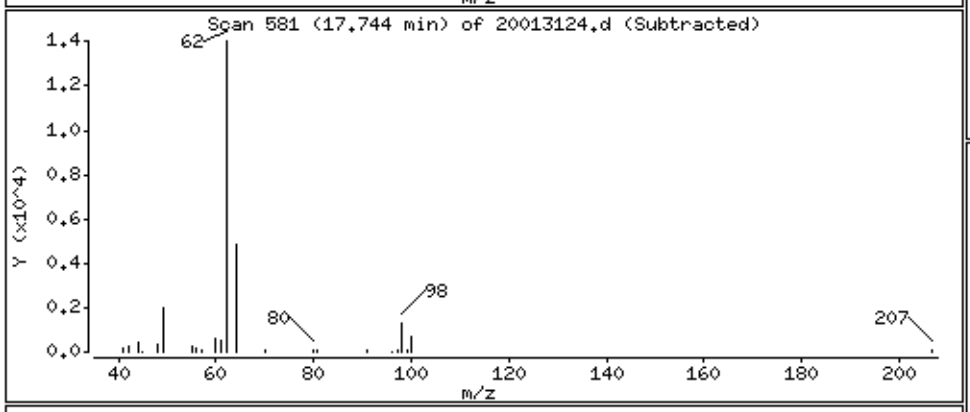
Column phase: RTX-624

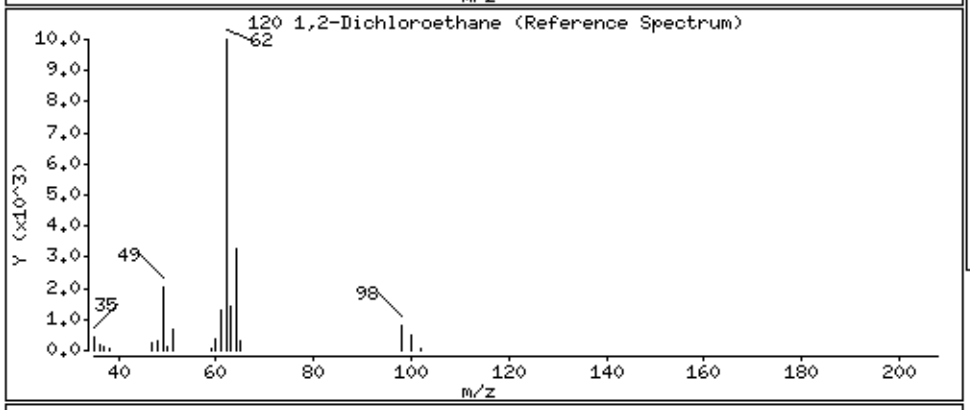
Column diameter: 0.32

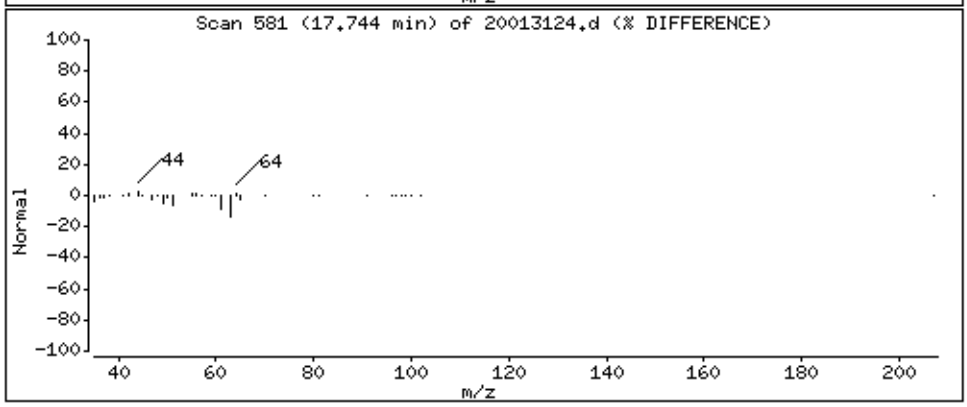
120 1,2-Dichloroethane

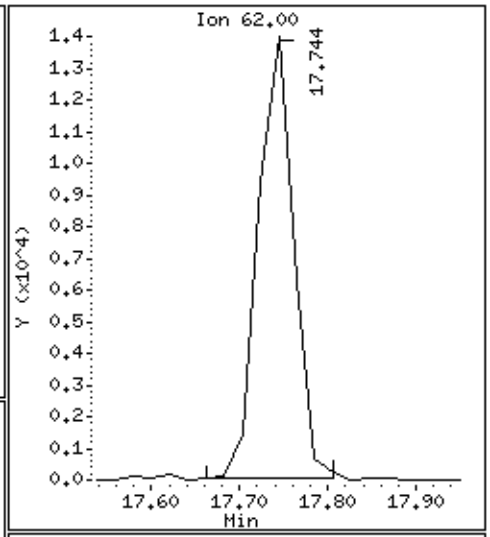
Concentration: 1.540 PPBV

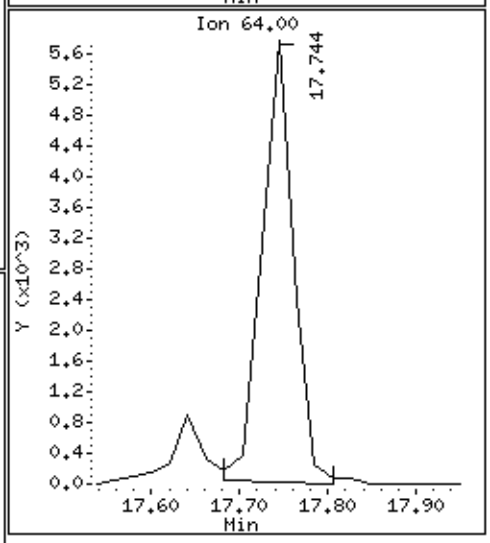












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

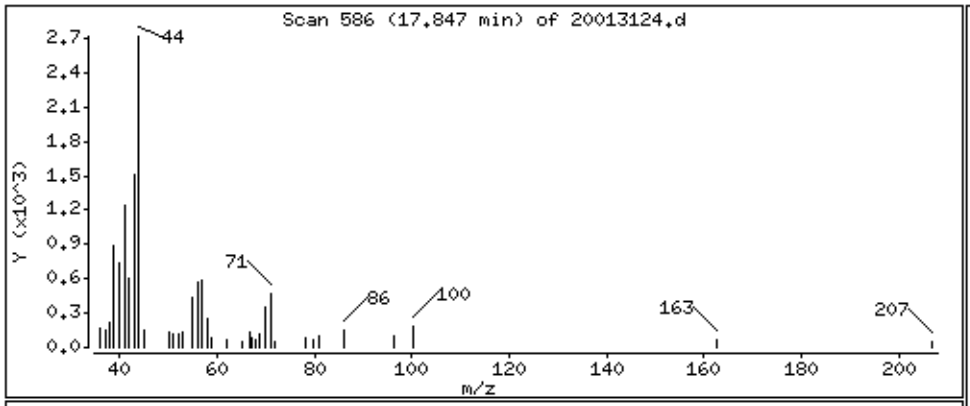
Operator: sw

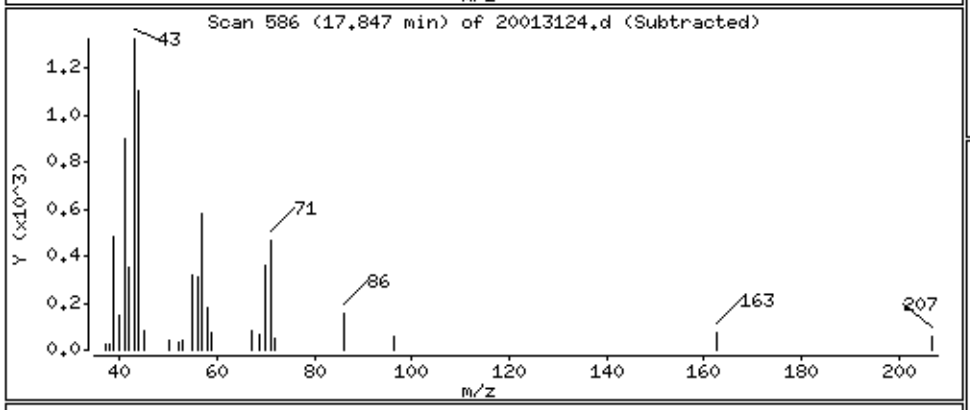
Column phase: RTX-624

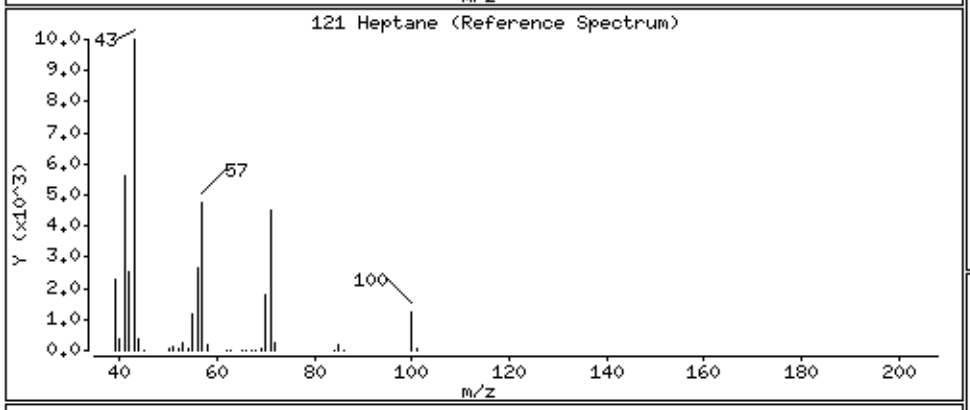
Column diameter: 0.32

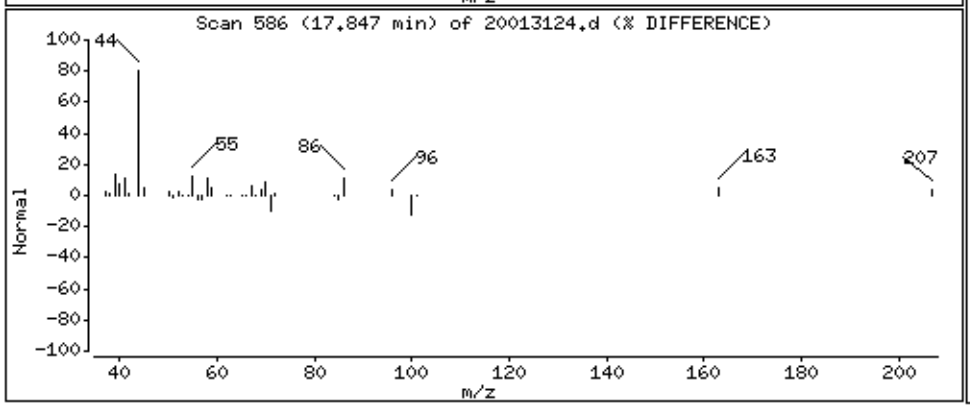
121 Heptane

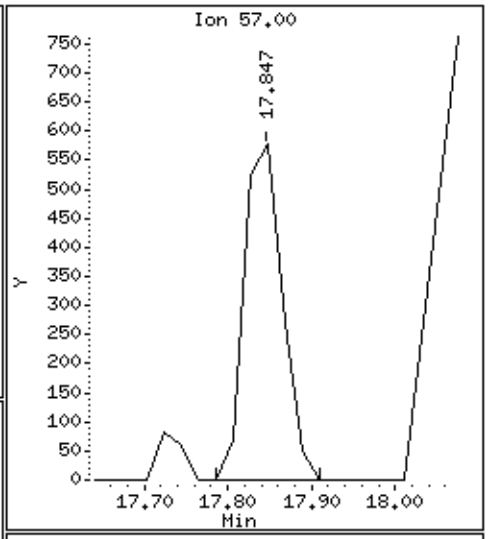
Concentration: 0.1096 PPBV

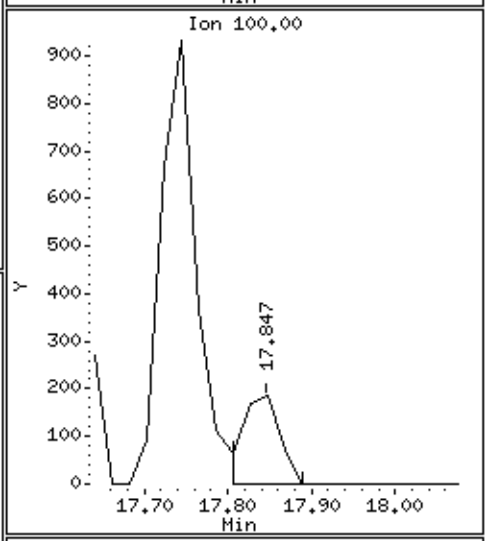


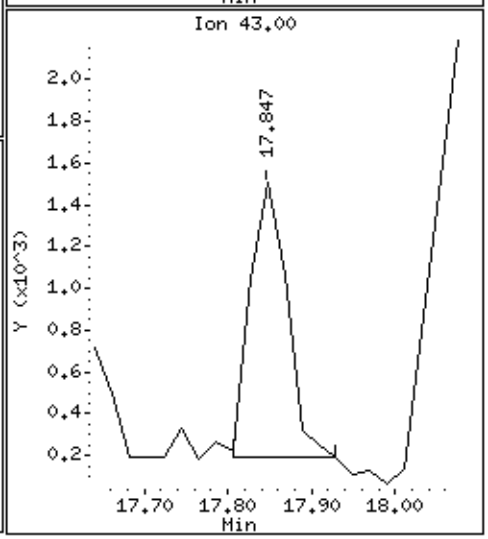












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

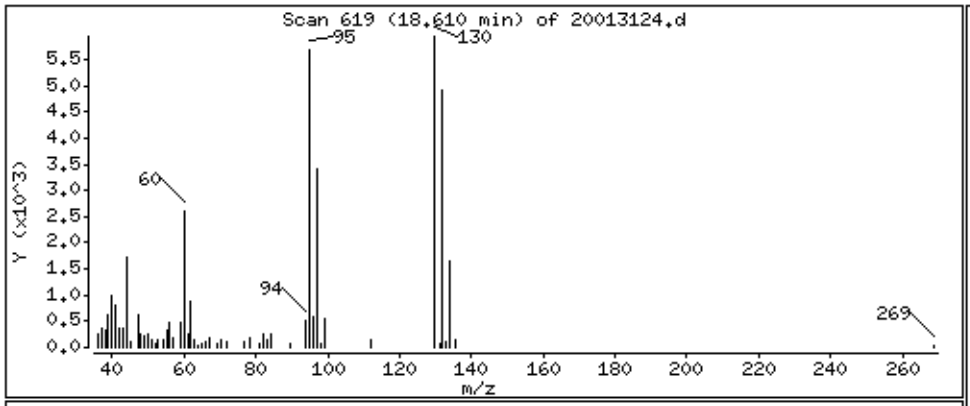
Operator: sw

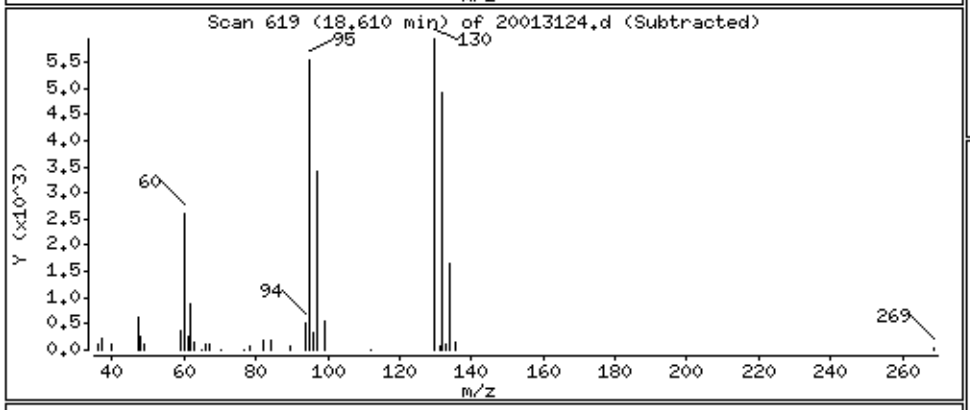
Column phase: RTX-624

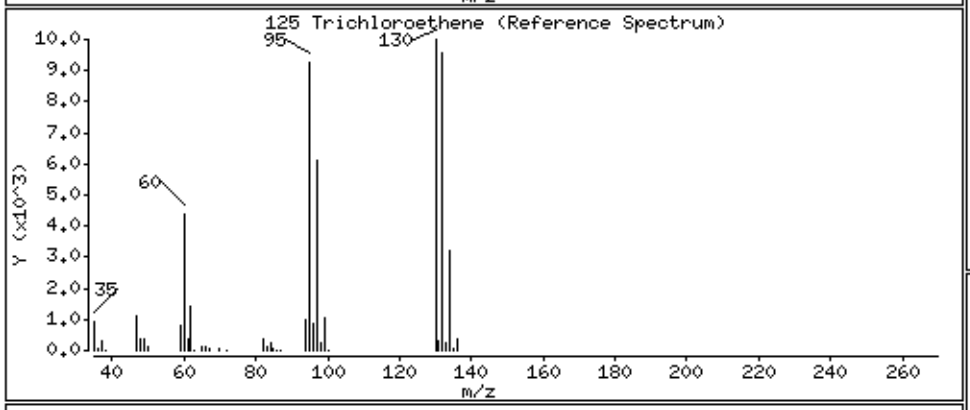
Column diameter: 0.32

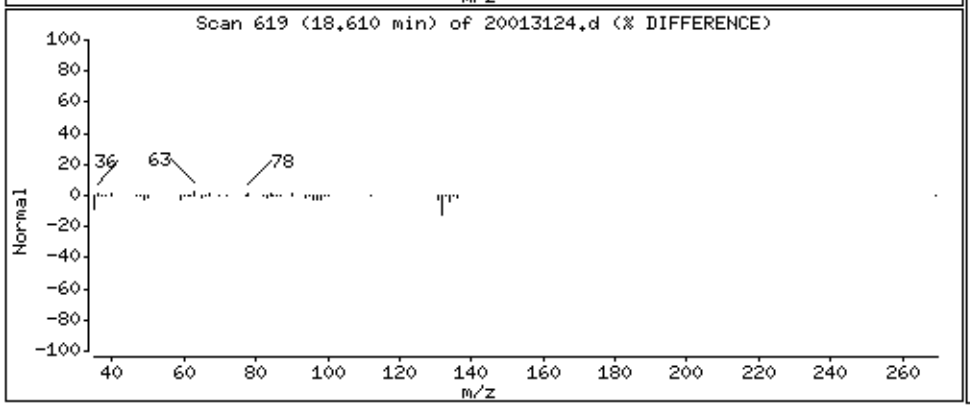
125 Trichloroethene

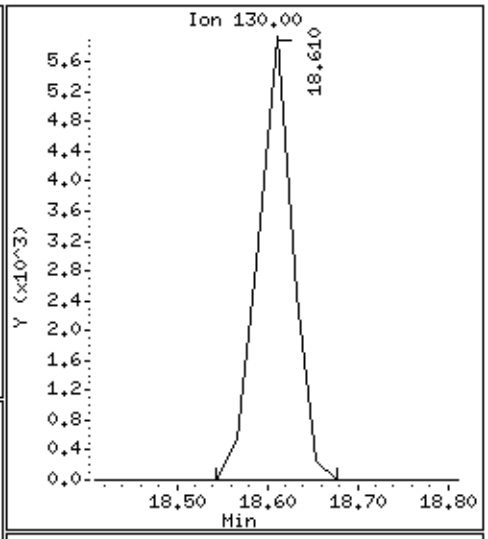
Concentration: 0.5201 PPBV

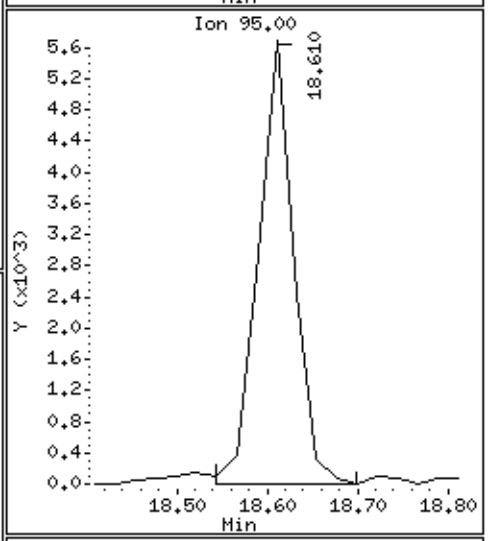


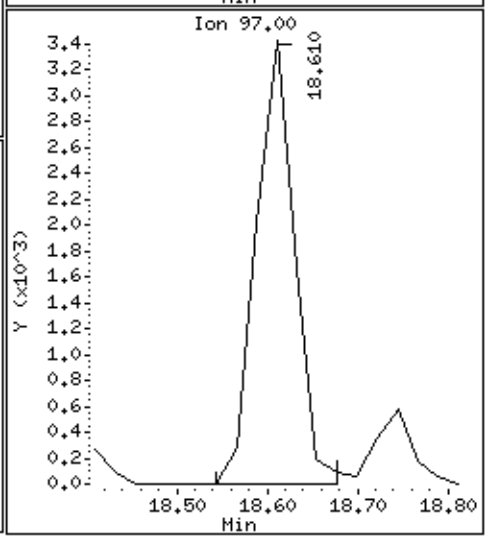












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

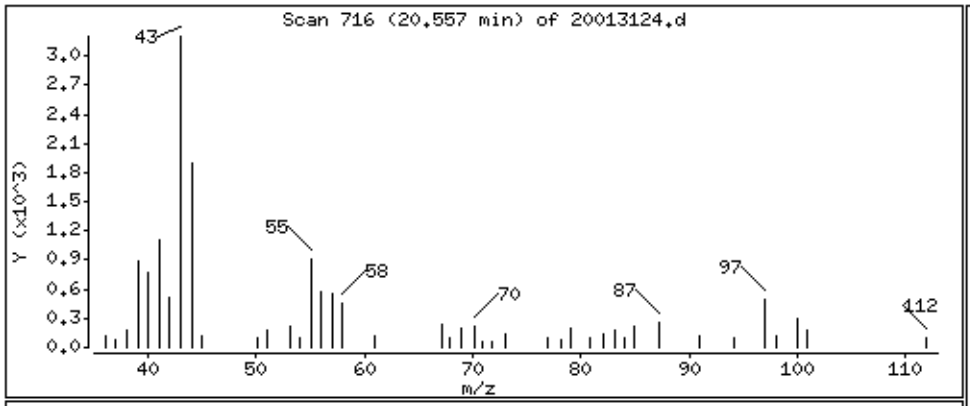
Operator: sw

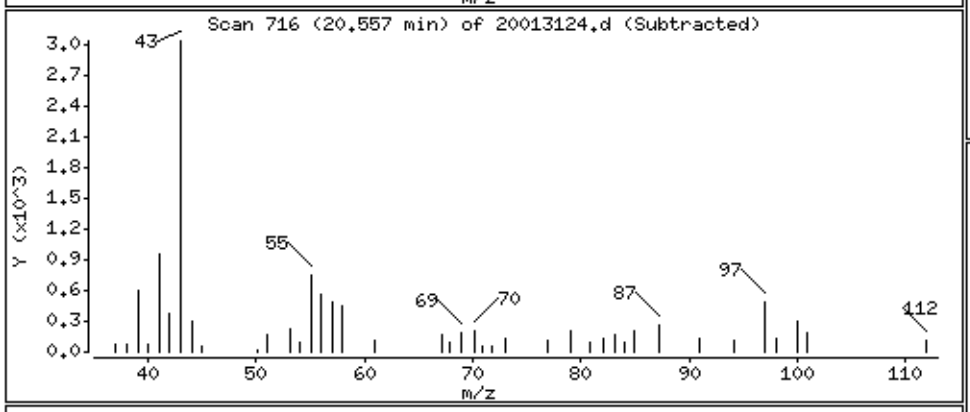
Column phase: RTX-624

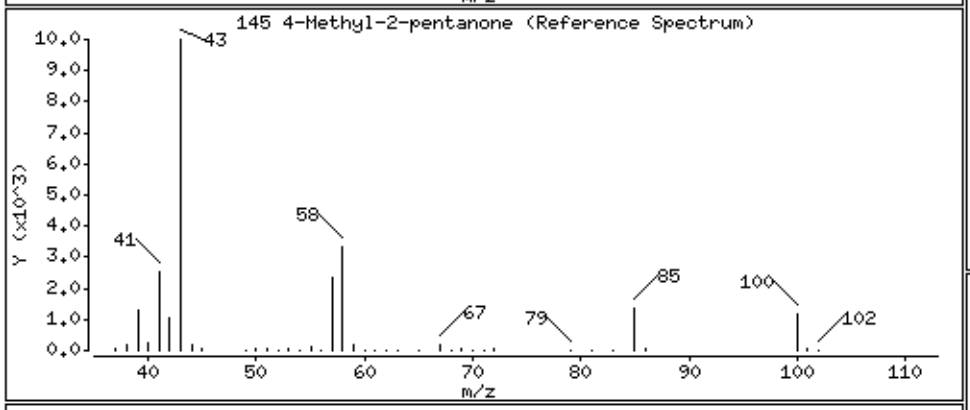
Column diameter: 0.32

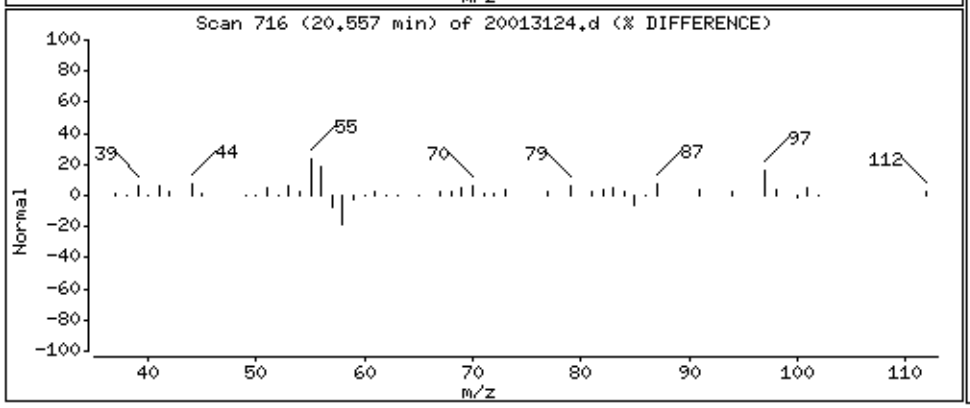
145 4-Methyl-2-pentanone

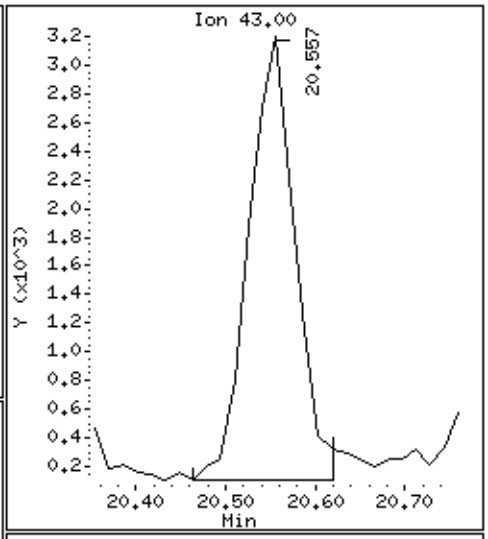
Concentration: 0.3101 PPBV

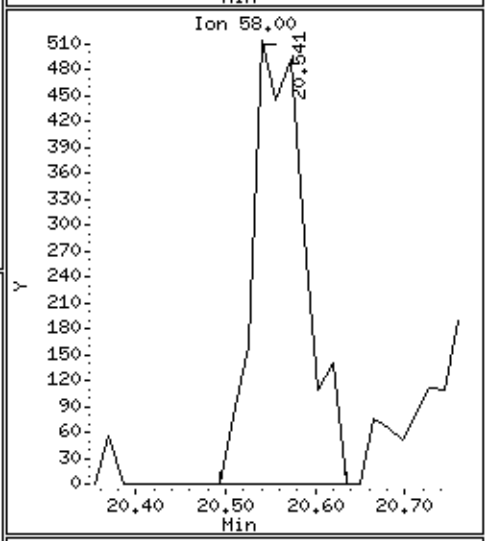


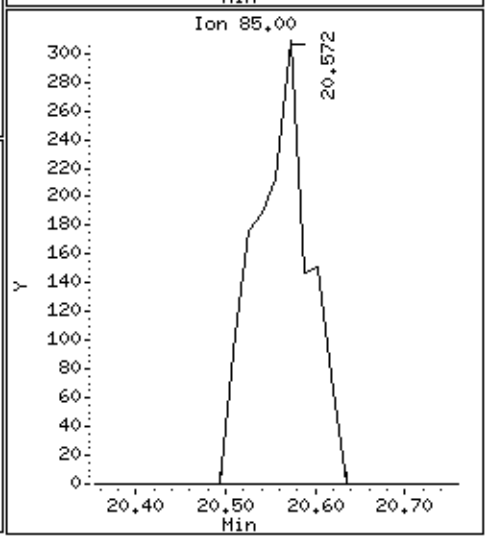












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

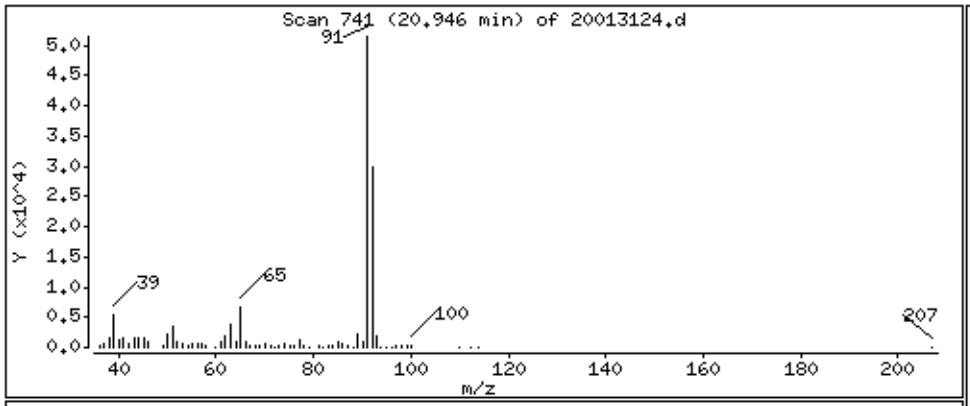
Operator: sw

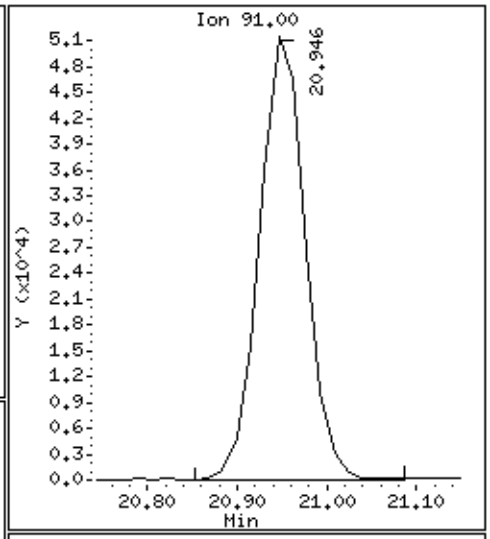
Column phase: RTX-624

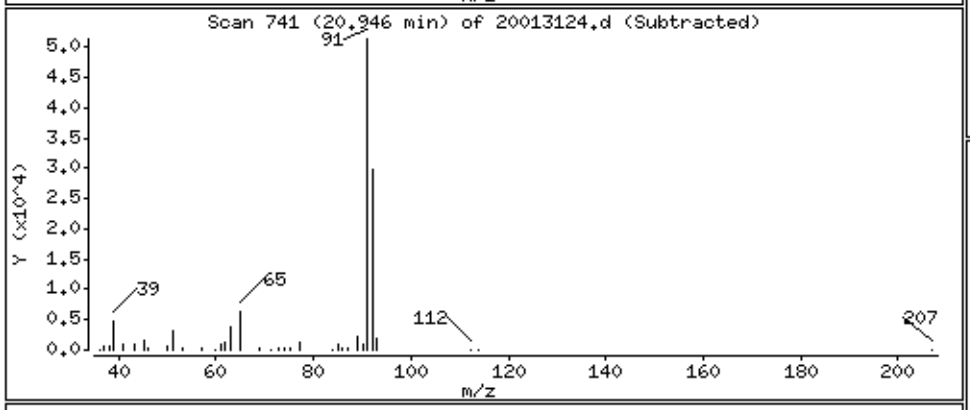
Column diameter: 0.32

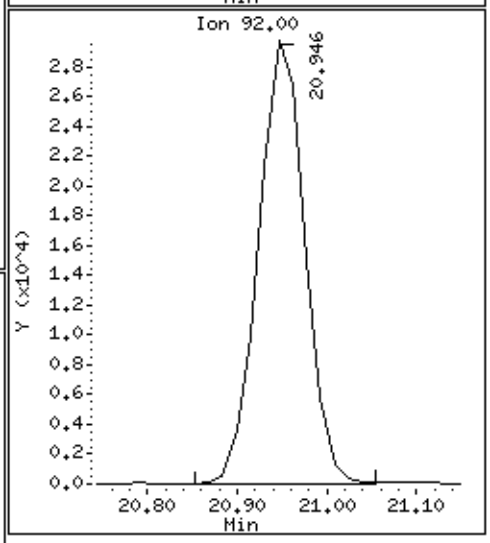
147 Toluene

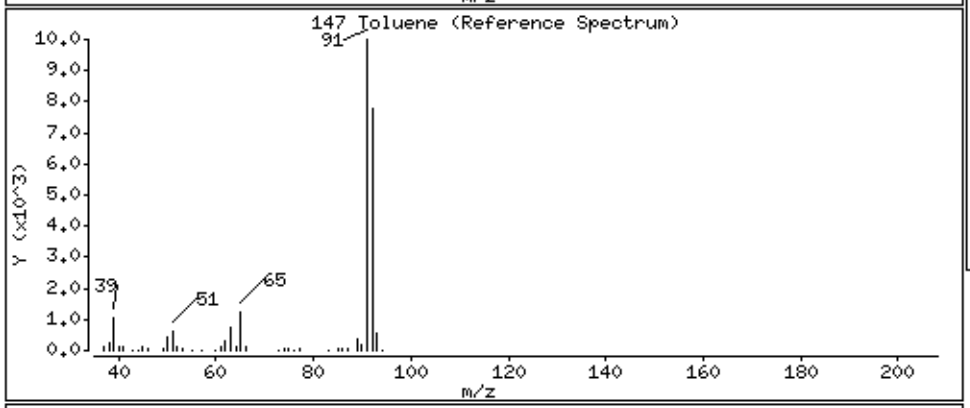
Concentration: 2.537 PPBV

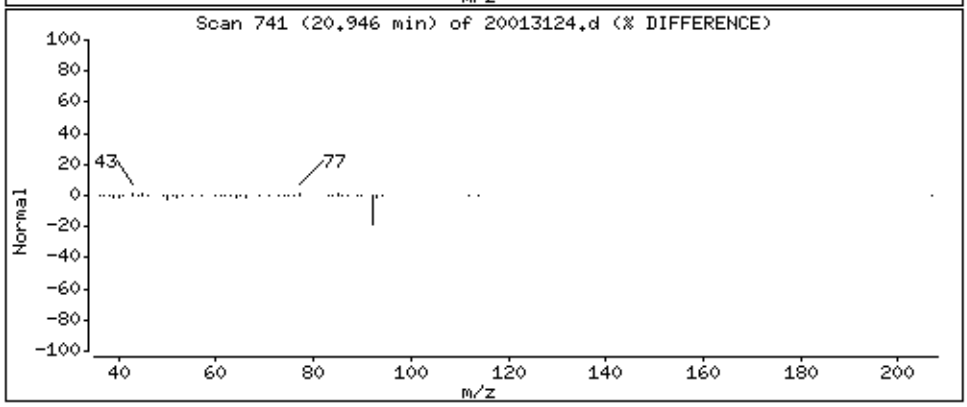












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

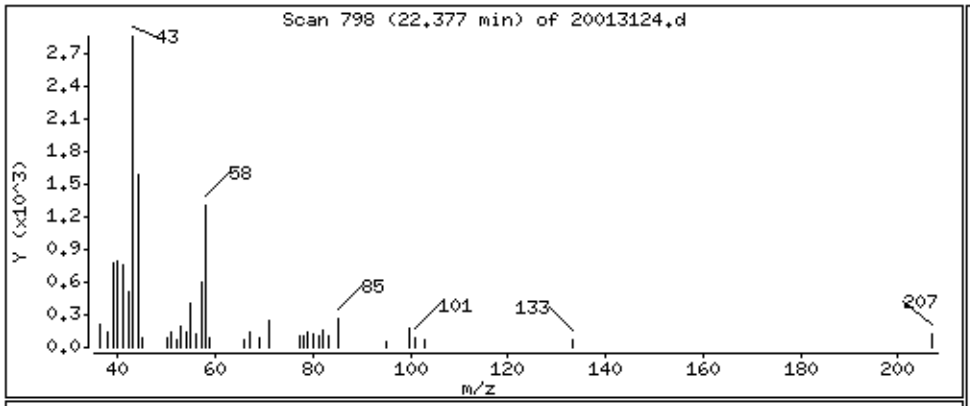
Operator: sw

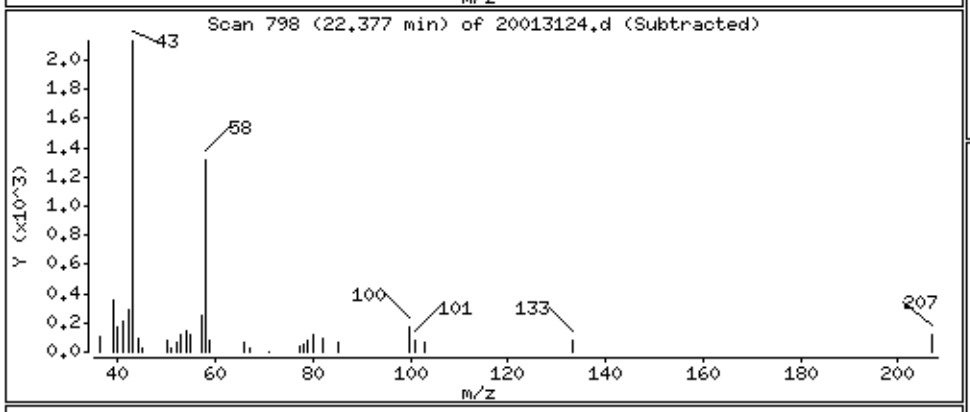
Column phase: RTX-624

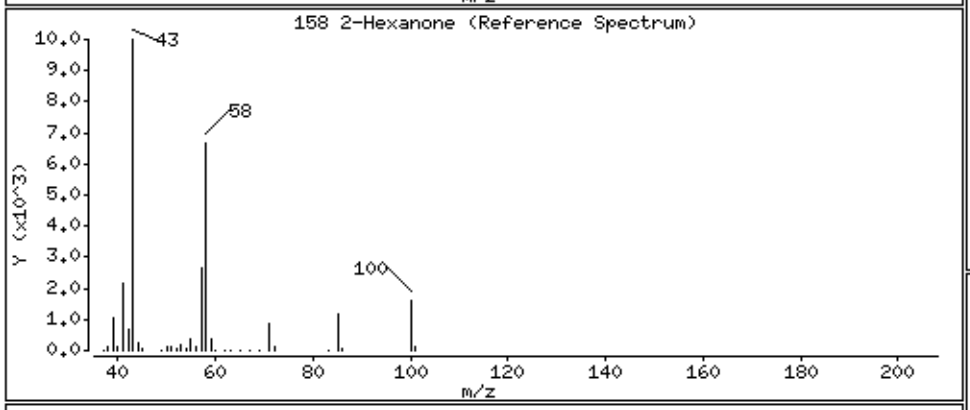
Column diameter: 0.32

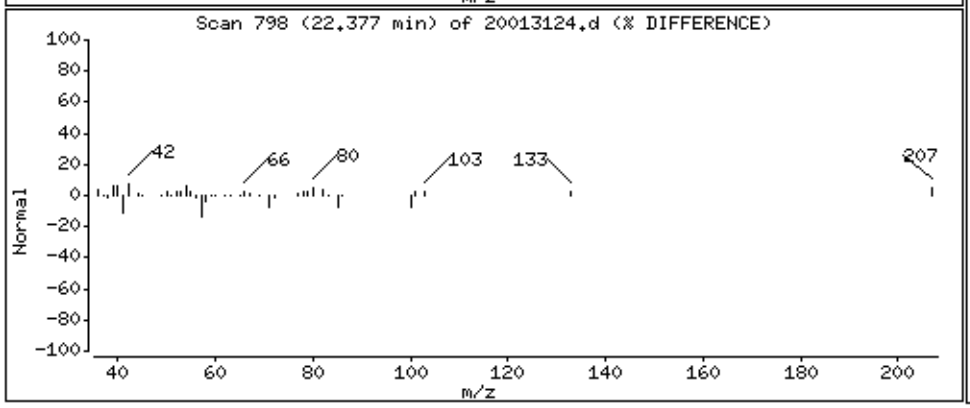
158 2-Hexanone

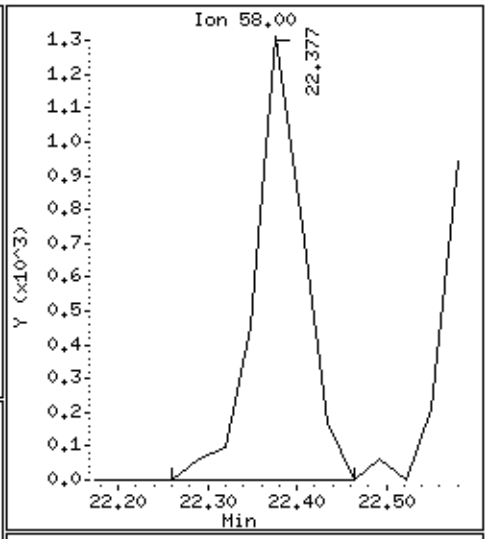
Concentration: 0.2188 PPBV

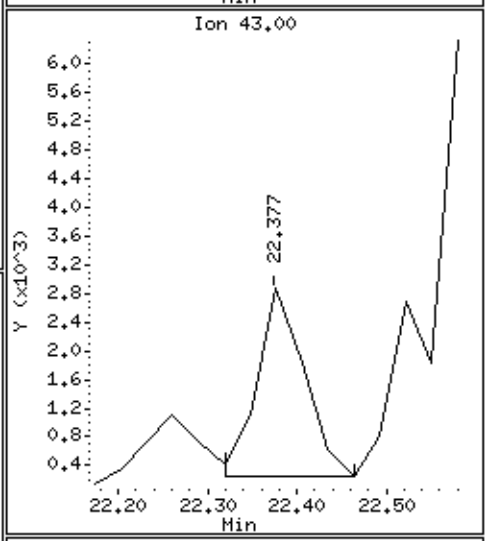


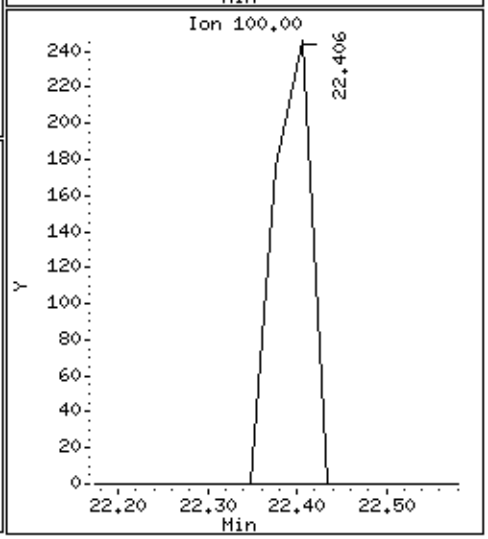












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

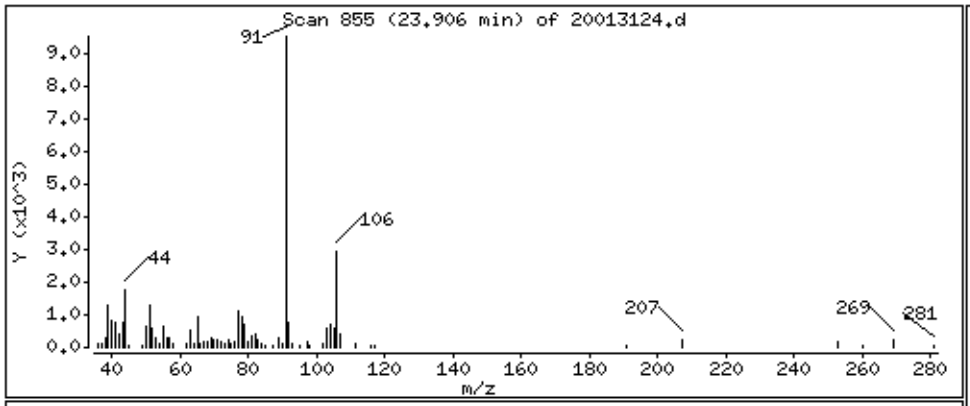
Operator: sw

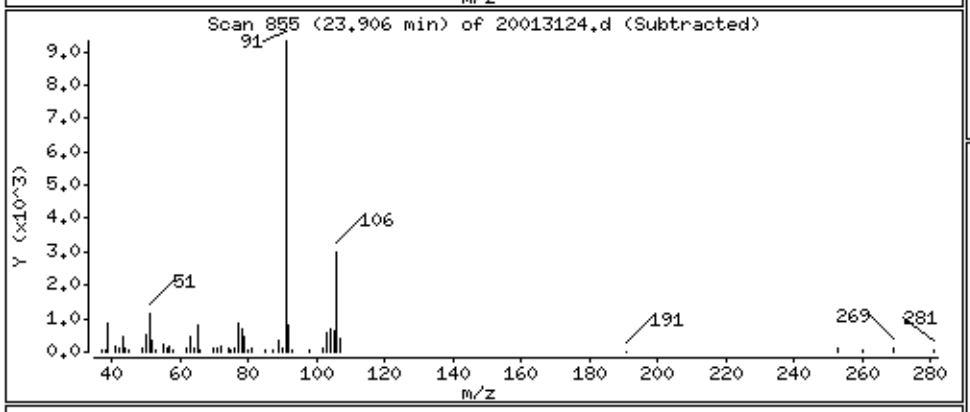
Column phase: RTX-624

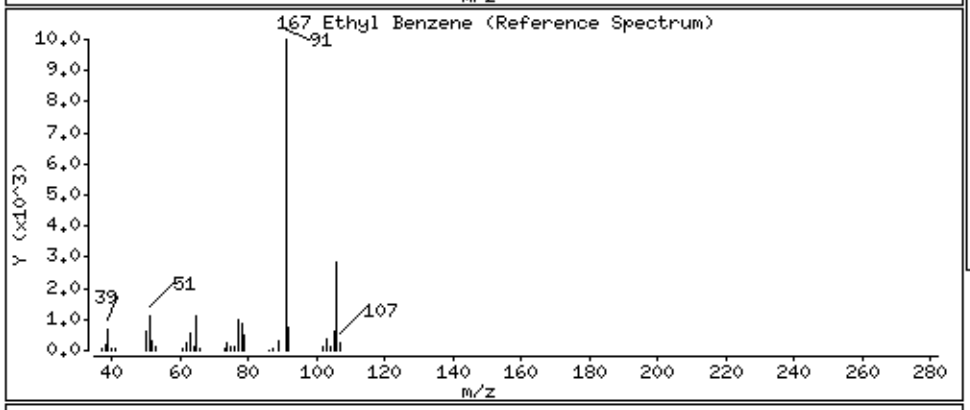
Column diameter: 0.32

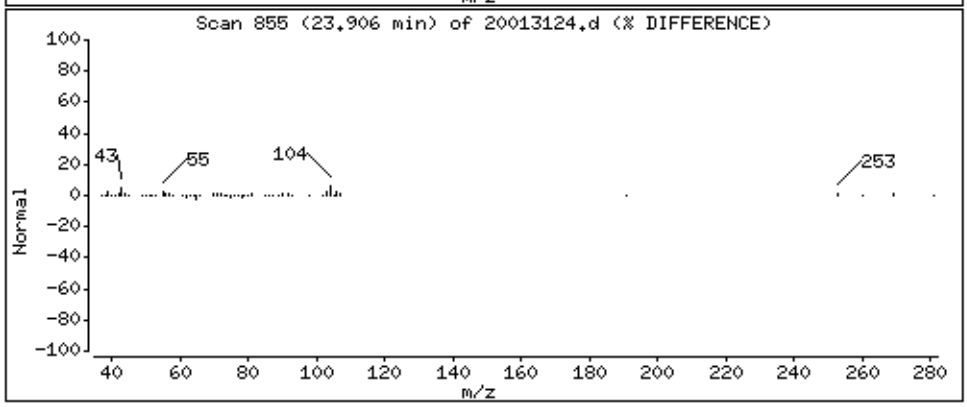
167 Ethyl Benzene

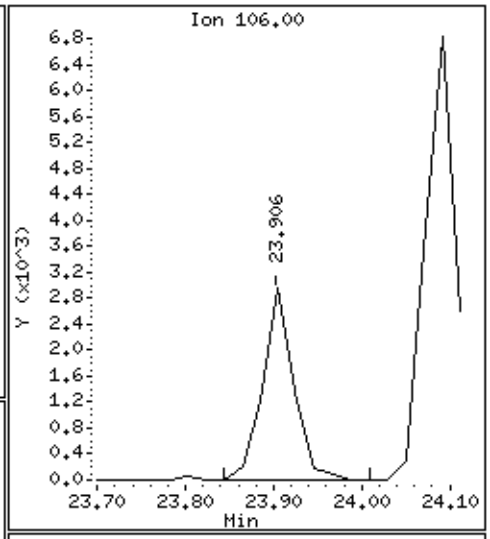
Concentration: 0.2331 PPBV

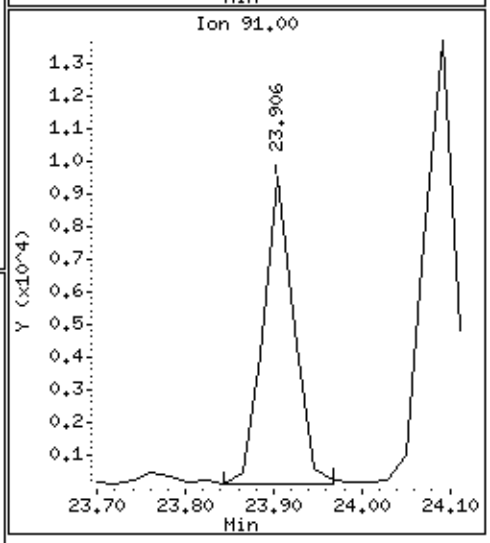












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

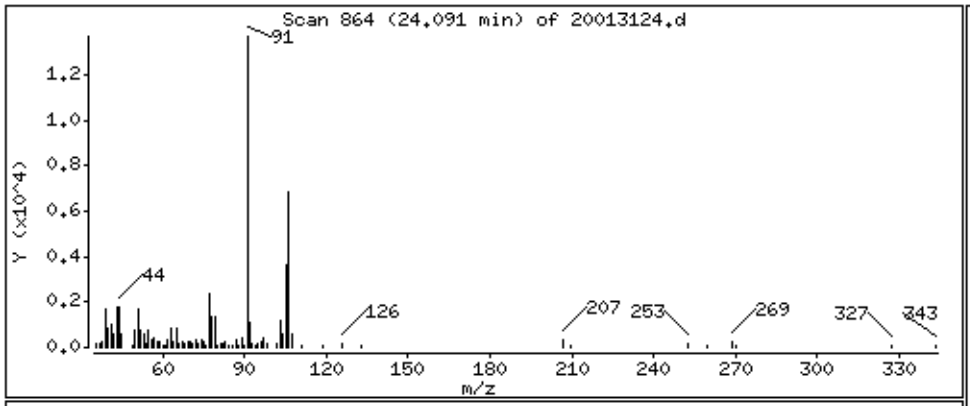
Operator: sw

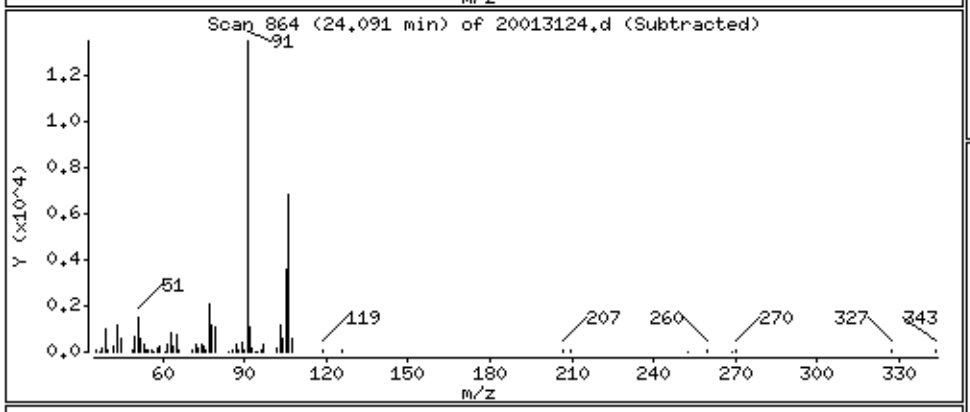
Column phase: RTX-624

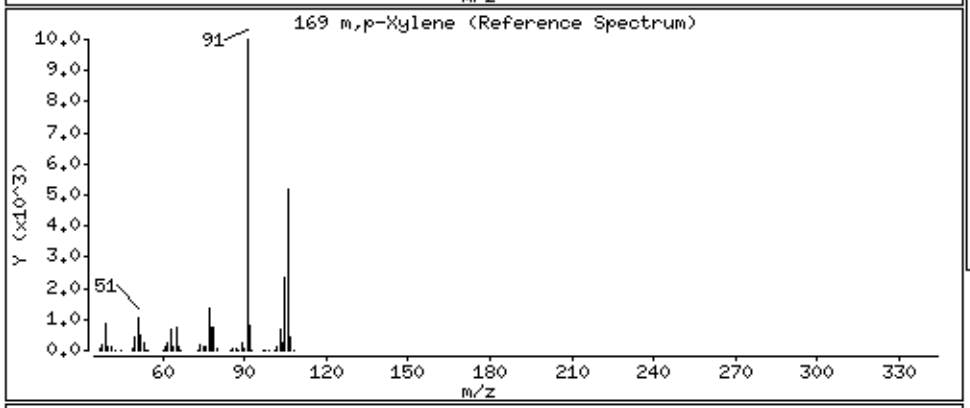
Column diameter: 0.32

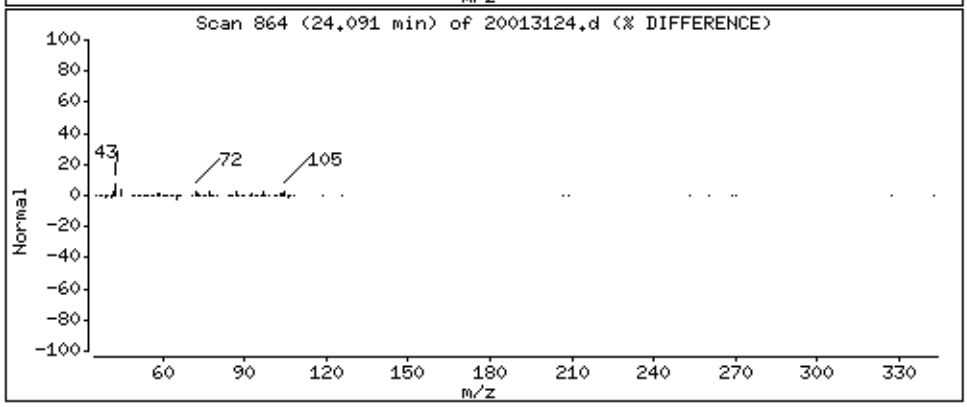
169 m,p-Xylene

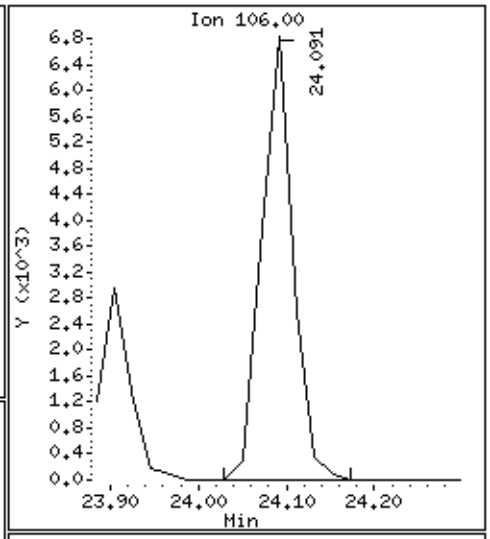
Concentration: 0.5179 PPBV

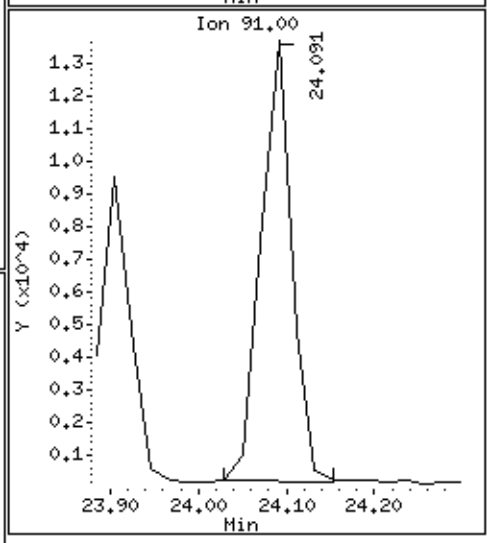












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

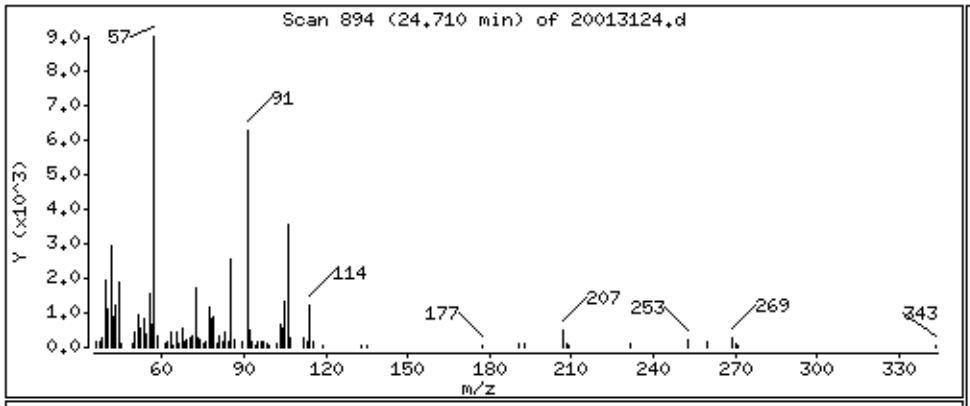
Operator: sw

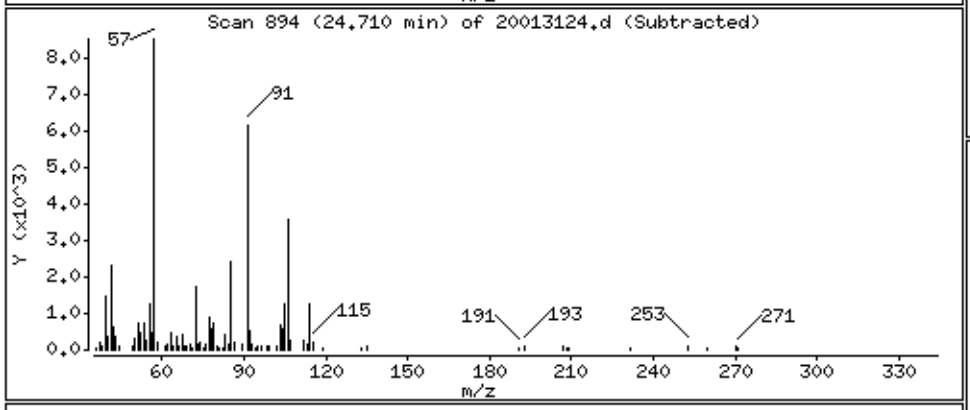
Column phase: RTX-624

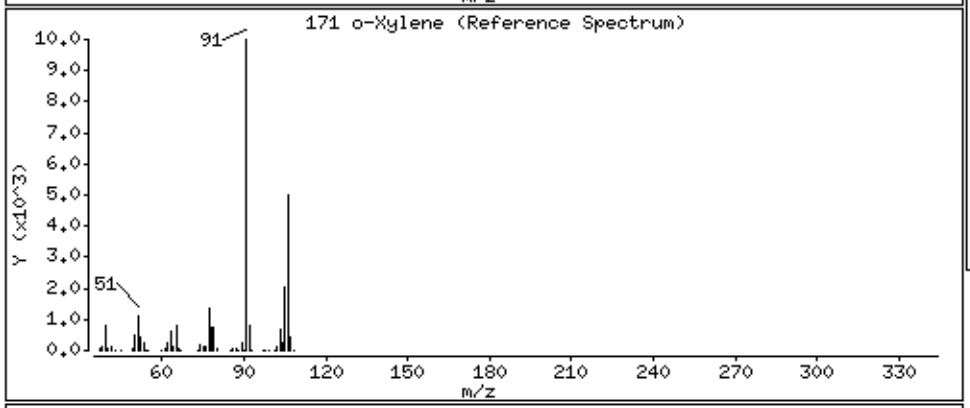
Column diameter: 0.32

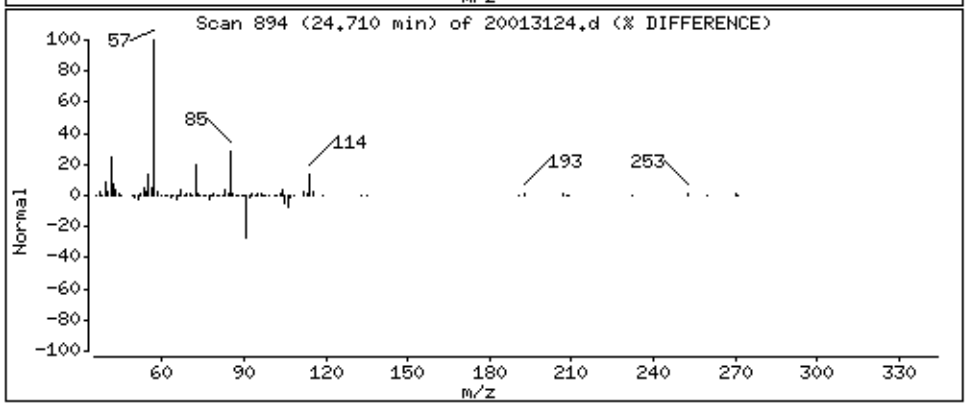
171 o-Xylene

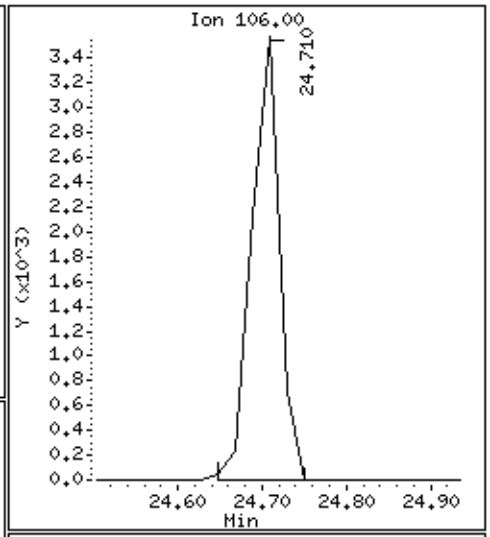
Concentration: 0.2716 PPBV

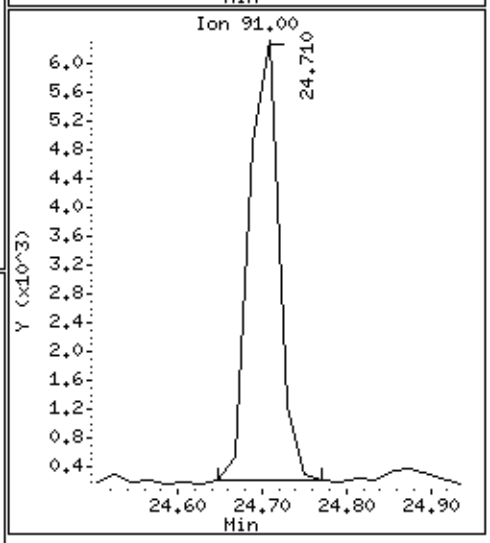












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

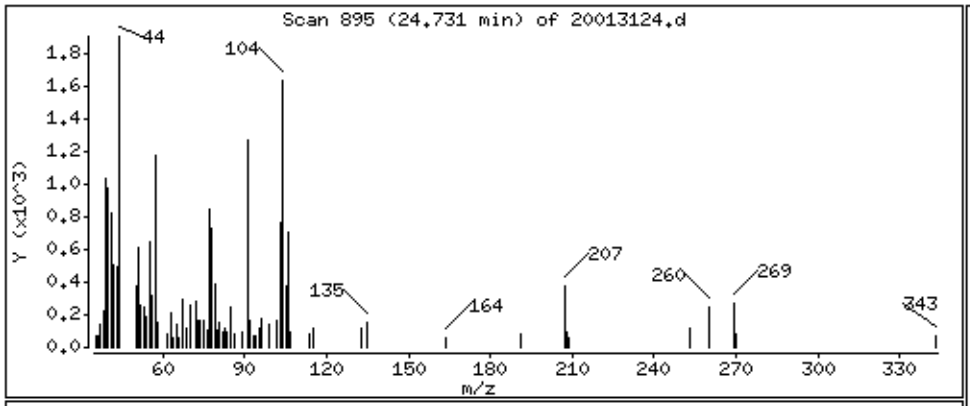
Operator: sw

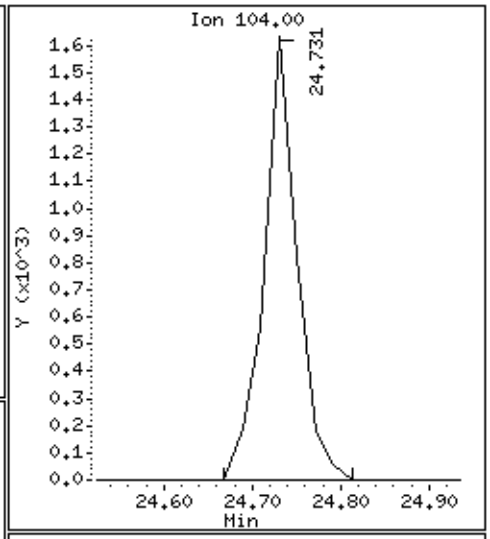
Column phase: RTX-624

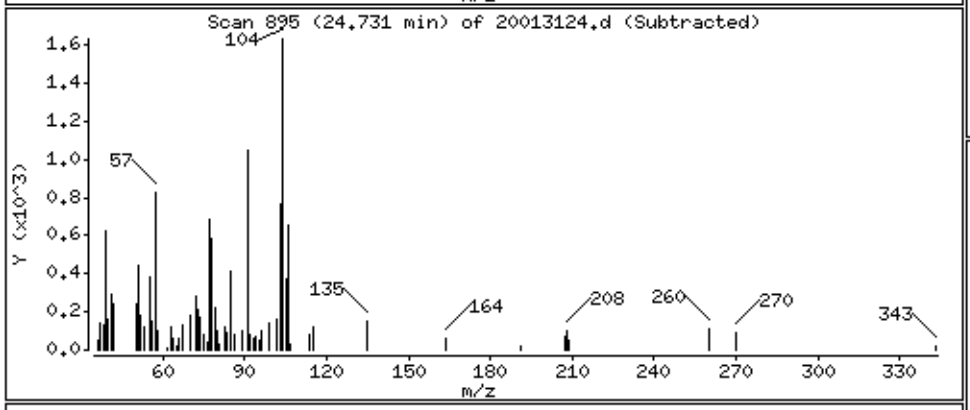
Column diameter: 0.32

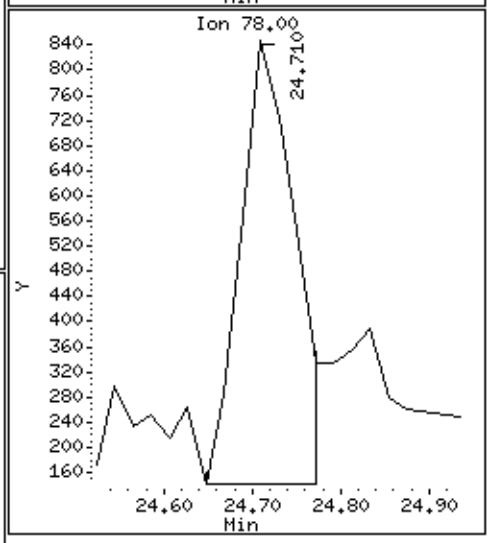
172 Styrene

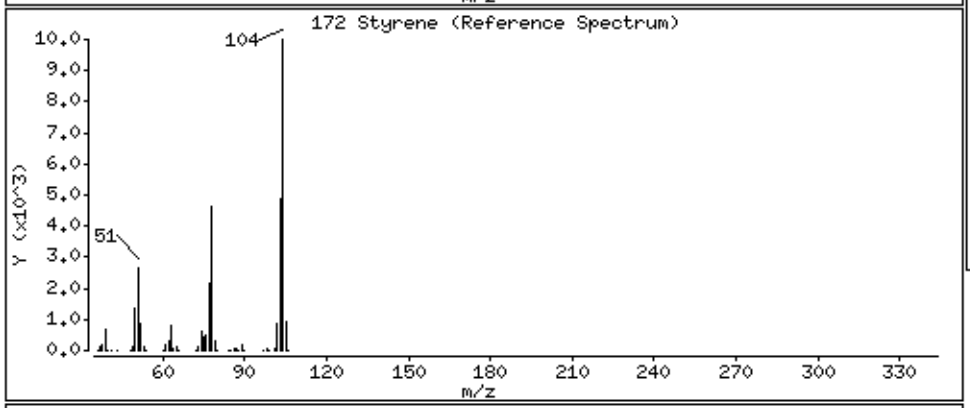
Concentration: 0.09486 PPBV

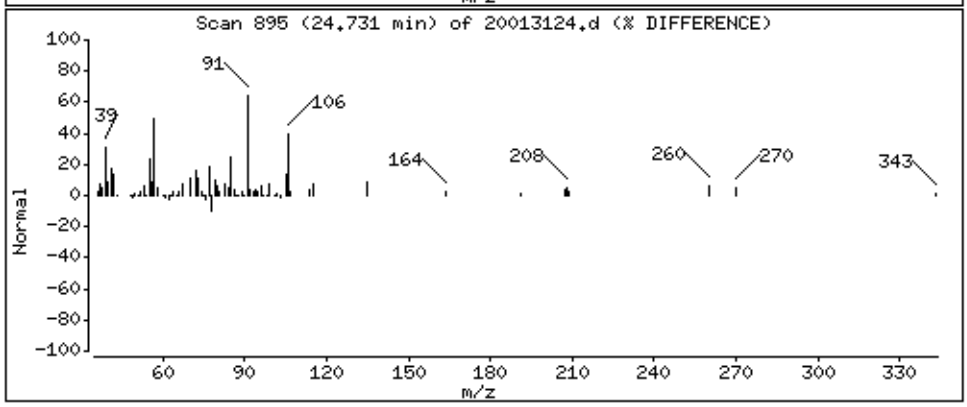












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

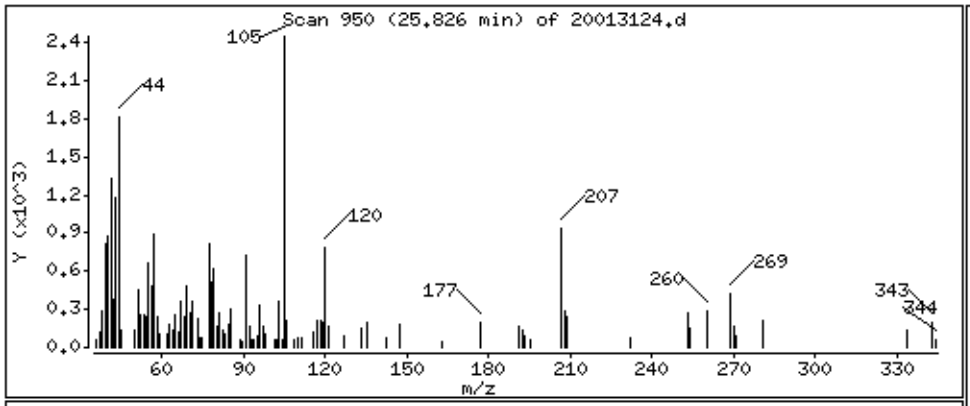
Operator: sw

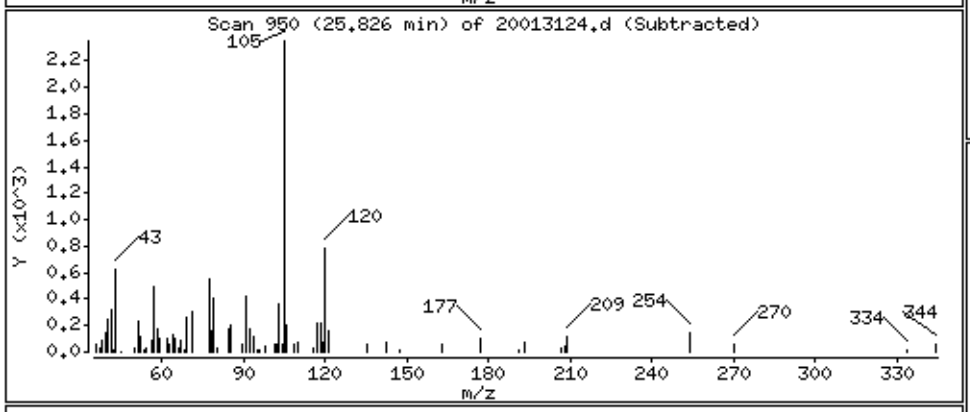
Column phase: RTX-624

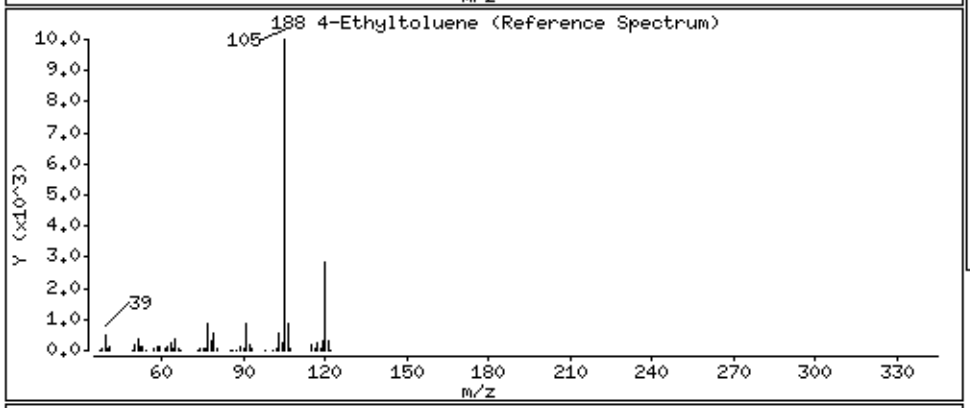
Column diameter: 0.32

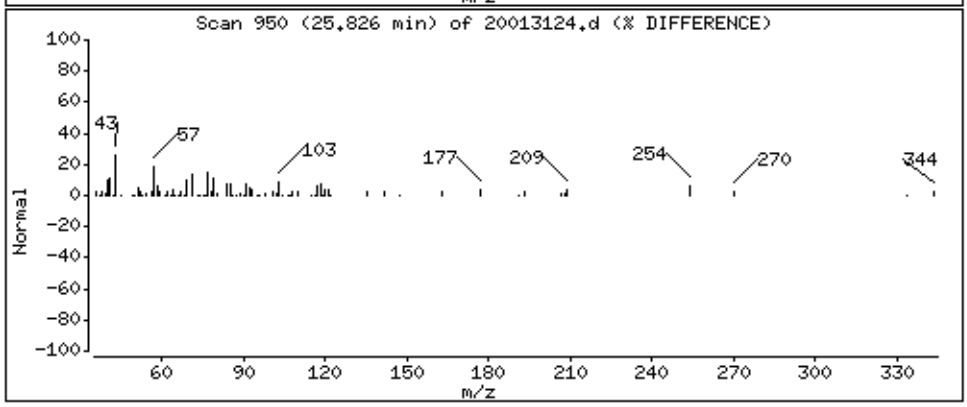
188 4-Ethyltoluene

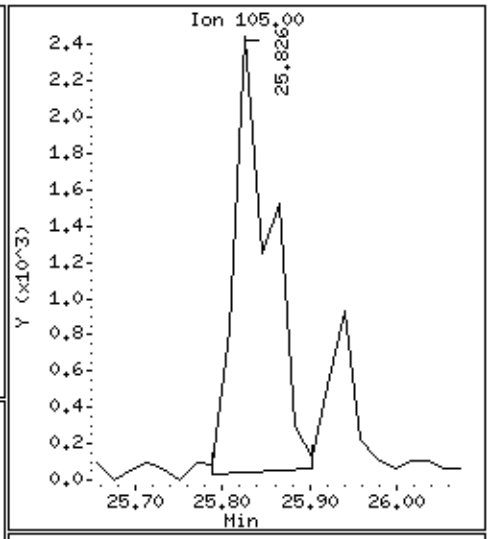
Concentration: 0.09347 PPBV

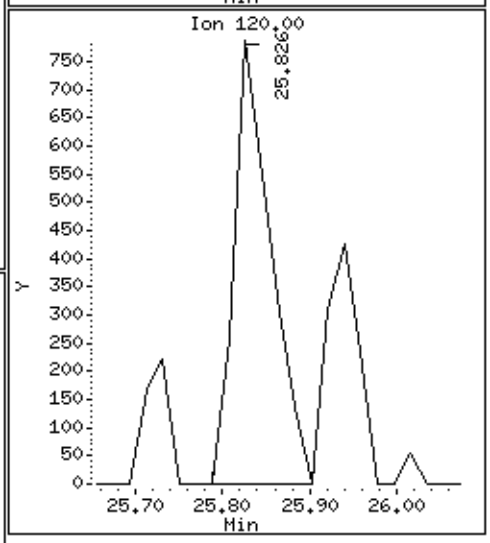












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

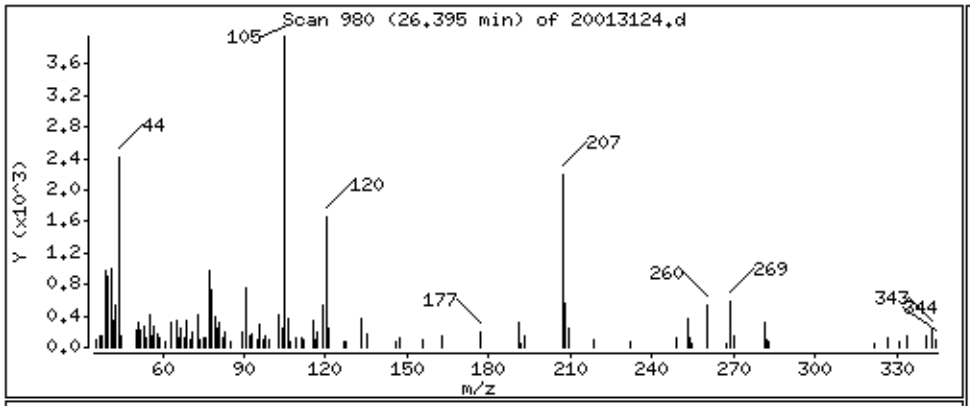
Operator: sw

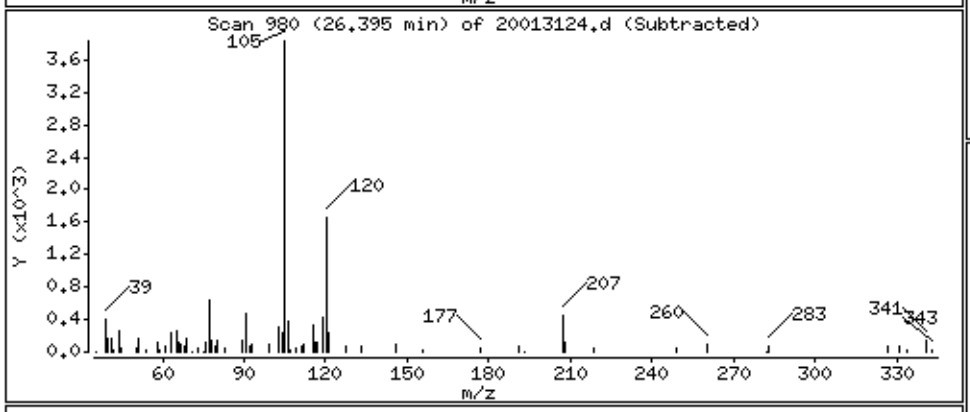
Column phase: RTX-624

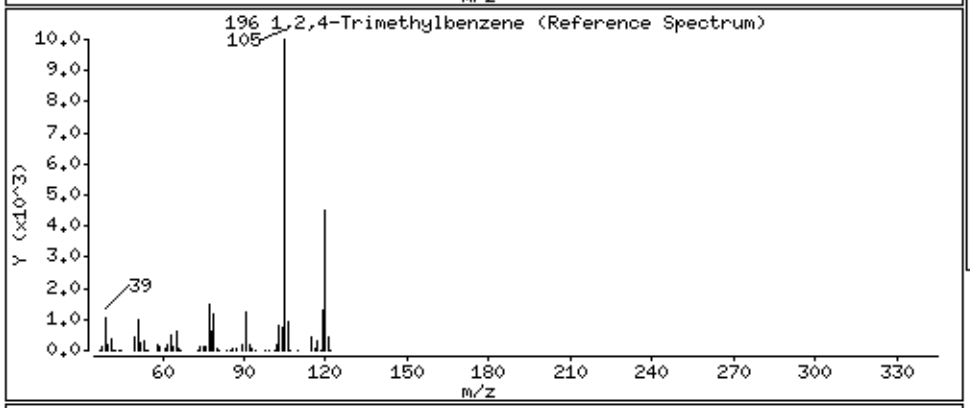
Column diameter: 0.32

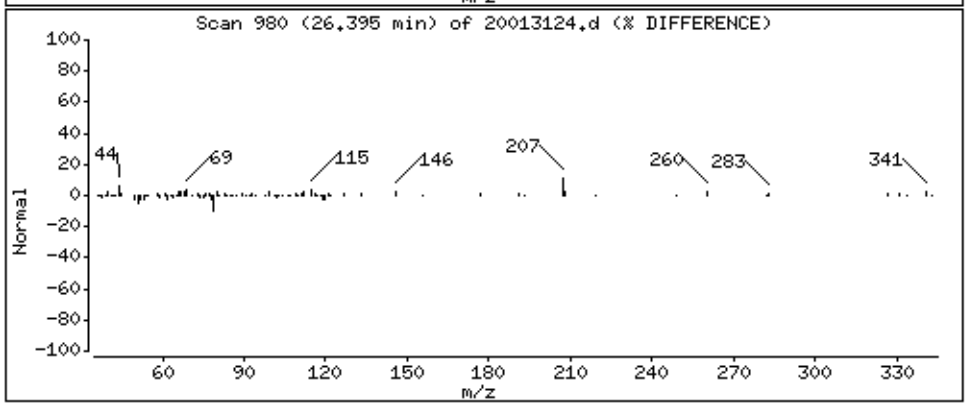
196 1,2,4-Trimethylbenzene

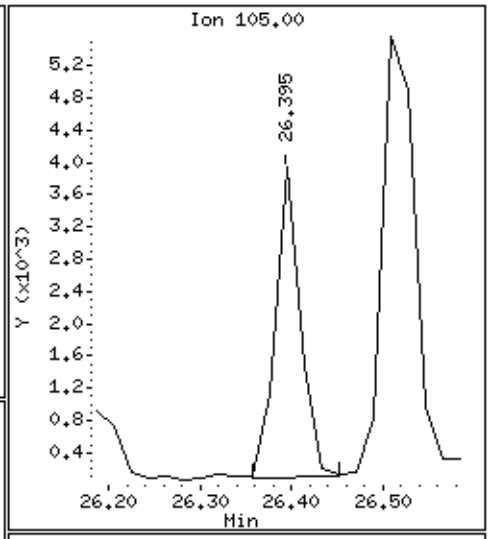
Concentration: 0.1115 PPBV

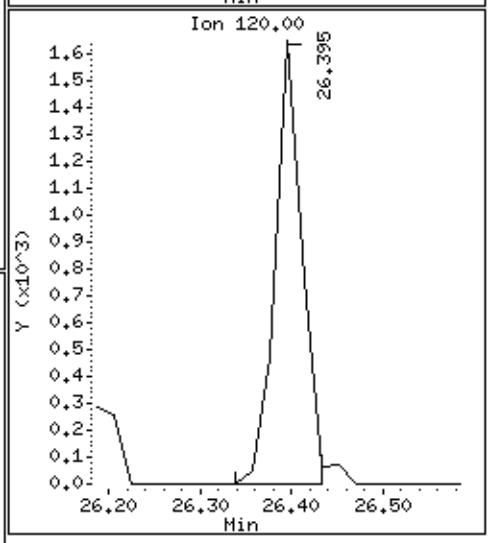












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

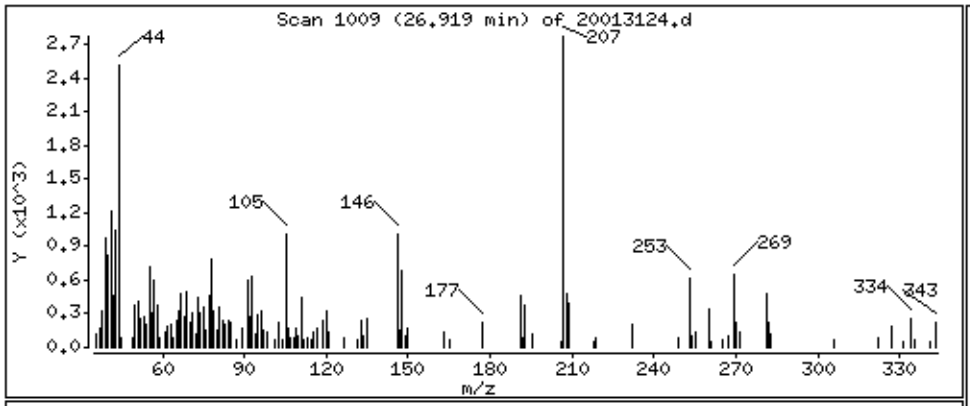
Operator: sw

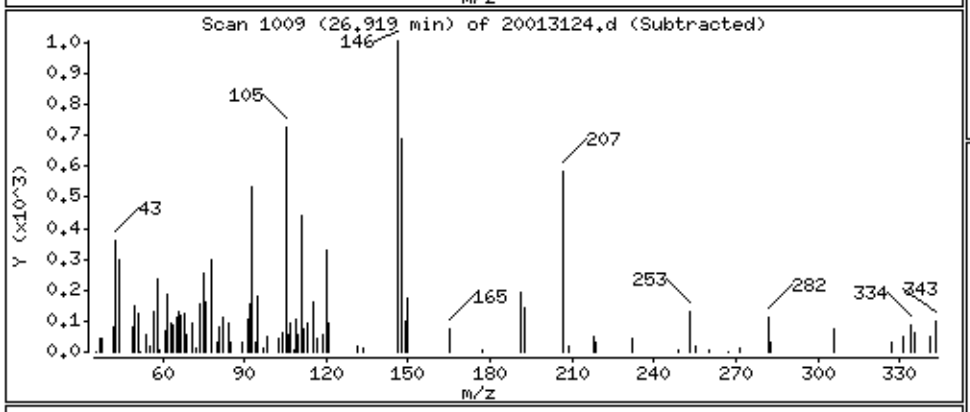
Column phase: RTX-624

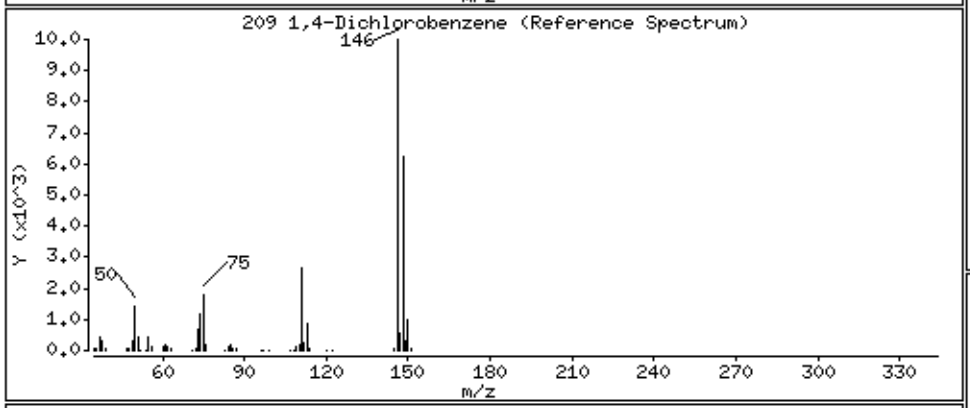
Column diameter: 0.32

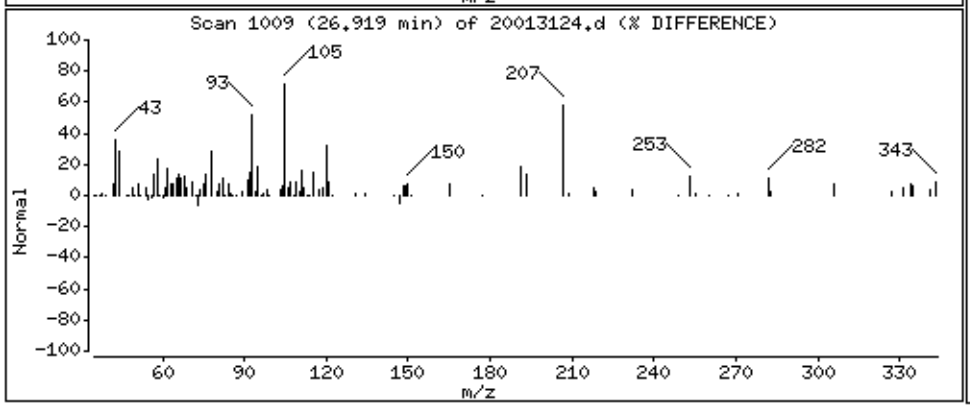
209 1,4-Dichlorobenzene

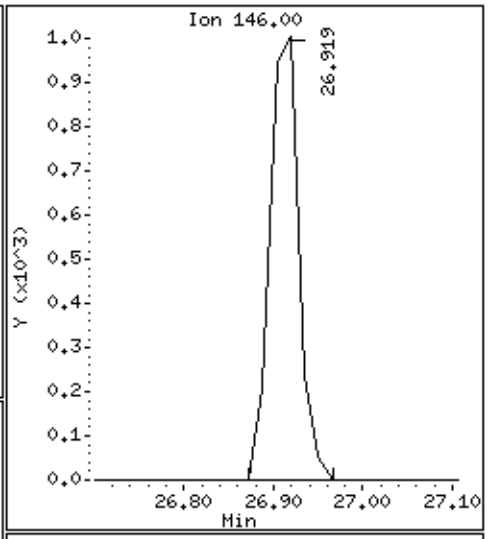
Concentration: 0.04523 PPBV

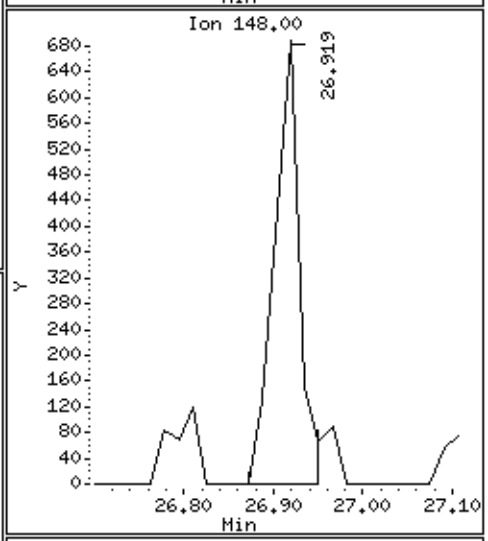


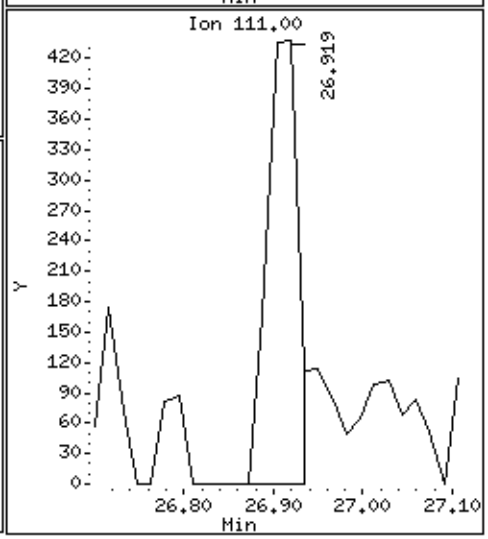












Data File: /chem/msd20.i/31Jan2017.b/20013124.d

Date : 01-FEB-2017 07:25

Client ID:

Instrument: msd20.i

Sample Info: 250mL #N1735

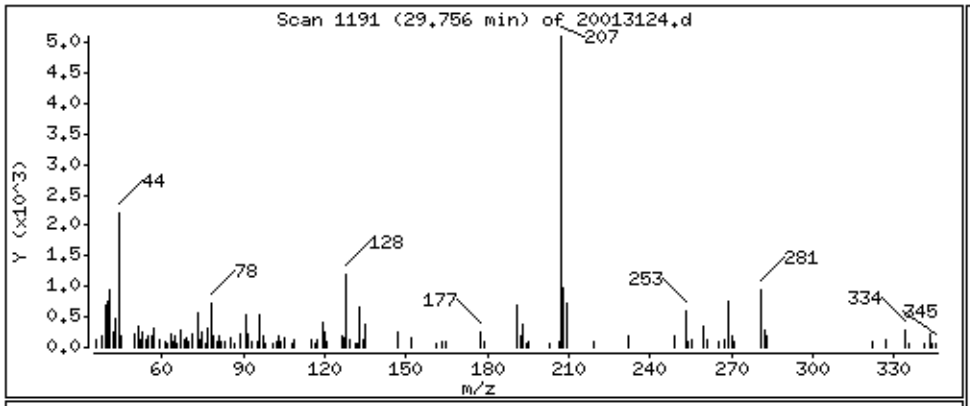
Operator: sw

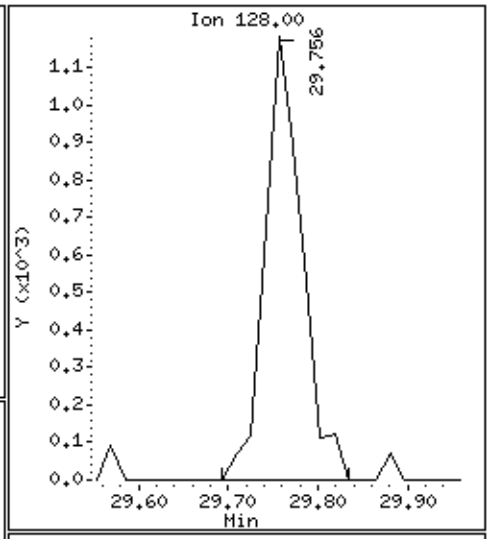
Column phase: RTX-624

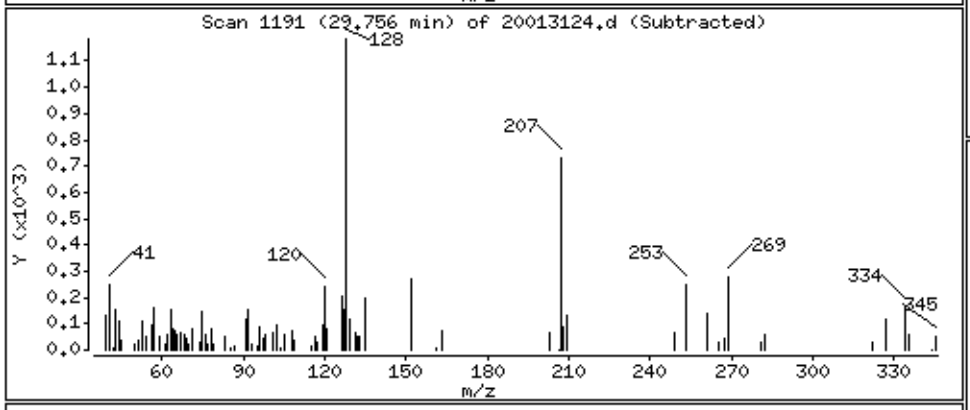
Column diameter: 0.32

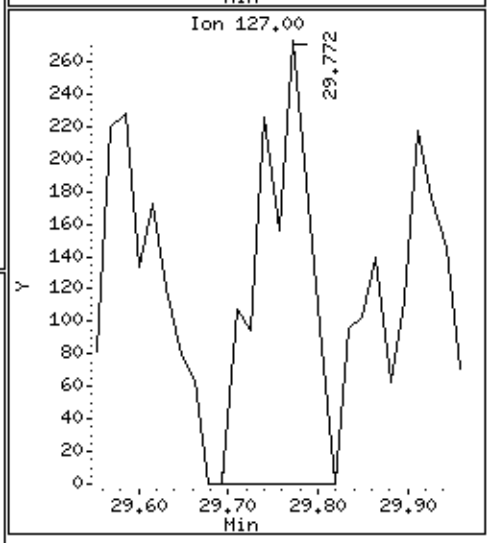
228 Naphthalene

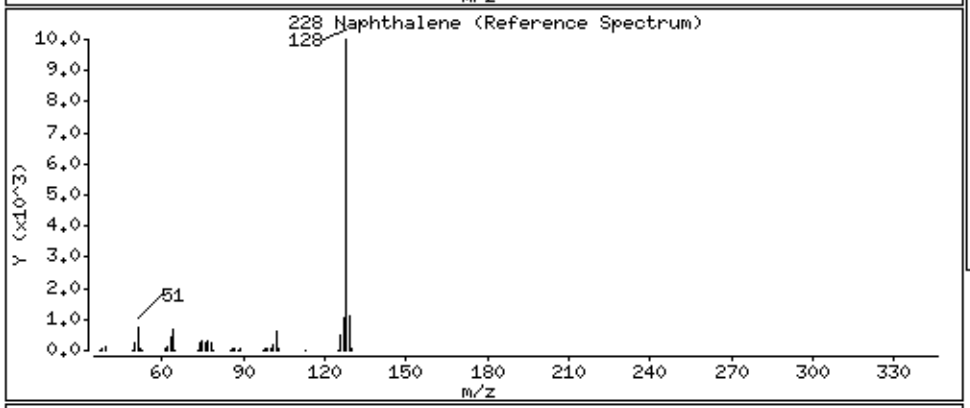
Concentration: 0.03211 PPBV

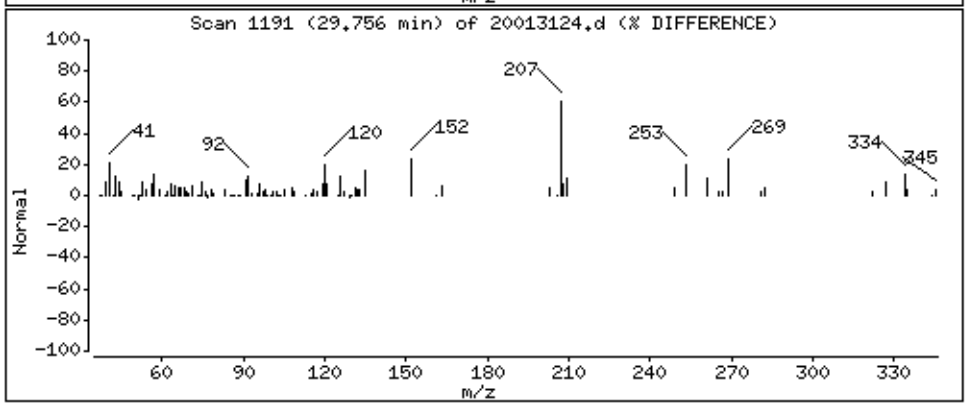












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B18IA-1D-012117

Lab ID#: 1701428A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.83	3.0
Chloromethane	0.84	1.3	1.7	2.6
Freon 11	0.17	3.0	0.94	17
Ethanol	0.84	67	1.6	130
Freon 113	0.17	0.070 J	1.3	0.53 J
Acetone	0.84	160 E	2.0	390 E
2-Propanol	0.84	4.2	2.1	10
Carbon Disulfide	0.84	0.12 J	2.6	0.38 J
Methylene Chloride	0.34	0.28 J	1.2	0.96 J
Hexane	0.17	0.16 J	0.59	0.55 J
2-Butanone (Methyl Ethyl Ketone)	0.84	1.7	2.5	5.0
Chloroform	0.17	0.069 J	0.82	0.34 J
Cyclohexane	0.17	0.088 J	0.58	0.30 J
Carbon Tetrachloride	0.17	0.079 J	1.0	0.50 J
Benzene	0.17	0.23	0.54	0.74
1,2-Dichloroethane	0.17	1.8 J0	0.68	7.4 J0
Heptane	0.17	0.13 J	0.69	0.52 J
Trichloroethene	0.17	0.53	0.90	2.8
4-Methyl-2-pentanone	0.17	0.29 J0	0.69	1.2 J0
Toluene	0.17	3.2	0.63	12
2-Hexanone	0.84	0.15 J	3.4	0.62 J
Ethyl Benzene	0.17	0.26	0.73	1.1
m,p-Xylene	0.17	0.57	0.73	2.5
o-Xylene	0.17	0.22	0.73	0.97
Styrene	0.17	0.087 J	0.72	0.37 J
4-Ethyltoluene	0.17	0.10 J	0.82	0.50 J
1,3,5-Trimethylbenzene	0.17	0.043 J	0.82	0.21 J
1,2,4-Trimethylbenzene	0.17	0.12 J	0.82	0.59 J
1,4-Dichlorobenzene	0.17	0.046 J	1.0	0.27 J
Naphthalene	0.84	0.026 J	4.4	0.13 J

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Client Sample ID: B18IA-1D-012117

Lab ID#: 1701428A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013127**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**2/1/17 10:05 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.83	3.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	1.3	1.7	2.6
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	3.0	0.94	17
Ethanol	0.84	67	1.6	130
Freon 113	0.17	0.070 J	1.3	0.53 J
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	160 E	2.0	390 E
2-Propanol	0.84	4.2	2.1	10
Carbon Disulfide	0.84	0.12 J	2.6	0.38 J
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	0.28 J	1.2	0.96 J
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	0.16 J	0.59	0.55 J
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	1.7	2.5	5.0
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	0.069 J	0.82	0.34 J
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	0.088 J	0.58	0.30 J
Carbon Tetrachloride	0.17	0.079 J	1.0	0.50 J
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.23	0.54	0.74
1,2-Dichloroethane	0.17	1.8 J0	0.68	7.4 J0
Heptane	0.17	0.13 J	0.69	0.52 J
Trichloroethene	0.17	0.53	0.90	2.8
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	0.29 J0	0.69	1.2 J0
Toluene	0.17	3.2	0.63	12
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	0.15 J	3.4	0.62 J

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Client Sample ID: B18IA-1D-012117

Lab ID#: 1701428A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013127**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**2/1/17 10:05 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	0.26	0.73	1.1
m,p-Xylene	0.17	0.57	0.73	2.5
o-Xylene	0.17	0.22	0.73	0.97
Styrene	0.17	0.087 J	0.72	0.37 J
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	0.10 J	0.82	0.50 J
1,3,5-Trimethylbenzene	0.17	0.043 J	0.82	0.21 J
1,2,4-Trimethylbenzene	0.17	0.12 J	0.82	0.59 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	0.046 J	1.0	0.27 J
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
Naphthalene	0.84	0.026 J	4.4	0.13 J

J = Estimated value.
E = Exceeds instrument calibration range.
J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013127.d
Lab Smp Id: 1701428A-09A
Inj Date : 01-FEB-2017 10:05
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# O0138
Misc Info : 6.0"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.68000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.695	16.726 (1.000)	130	152976	5.00000		80.00- 120.00	100.00
16.695	16.726 (1.000)	128	117281			46.97- 106.97	76.67
16.695	16.696 (1.000)	49	191540			76.21- 136.21	125.21
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	420338	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	66203			0.00- 45.59	15.75
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	428341	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	239966			23.26- 83.26	56.02
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.621 (1.055)	65	230272	6.10064	6.101	80.00- 120.00	100.00
17.620	17.621 (1.055)	67	113594			31.78- 91.78	49.33
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	423231	5.26605	5.266	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	55042			0.00- 40.33	13.01

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    267443                    35.56-  95.56    63.19
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    230792 5.04898    5.049  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    267774                   79.94- 139.94   116.02
 25.466  25.466 (1.072)   176    221990                   67.24- 127.24    96.19
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.648   4.648 (0.278)    85     42366 0.36535   0.6138  70.00- 130.00   100.00
  4.672   4.648 (0.280)    87     10011                    0.00-  30.00    23.63
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.553 (0.395)    50     27140 0.76141    1.279  80.00- 120.00   100.00
  6.601   6.553 (0.395)    52      9225                    3.24-  63.24    33.99
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.666)   101    208967 1.79982    3.024  80.00- 120.00   100.00
 11.114  11.114 (0.666)   103    135452                   34.37-  94.37    64.82
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.269  12.269 (0.735)    45    627783 40.1502   67.452  80.00- 120.00   100.00(A)
 12.269  12.269 (0.735)    46    249418                   10.33-  70.33    39.73
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.763  12.763 (0.764)   151      3599 0.04153  0.06978  80.00- 120.00   100.00(a)
 12.736  12.763 (0.763)   153      2333                   33.68-  93.68    64.82
 12.736  12.736 (0.763)   101      4802                   86.77- 146.77   133.43
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.065  13.093 (0.783)    58   2113405 98.0477   164.72  80.00- 120.00   100.00(A)
 13.065  13.066 (0.783)    43   6325439                  253.28- 313.28   299.30
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.093  13.121 (0.784)    76      8663 0.07267   0.1221  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.532  13.533 (0.811)    45    143412 2.47675    4.161  80.00- 120.00   100.00
 13.532  13.533 (0.811)    43     65849                    0.00-  52.74    45.92
 13.532  13.533 (0.811)    59      7072                    0.00-  34.43     4.93
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.840)    84      7707 0.16475   0.2768  80.00- 120.00   100.00(a)
 14.027  14.027 (0.840)    49     10047                   80.28- 140.28   130.36
 14.027  14.027 (0.840)    51      3365                    4.61-  64.61    43.66
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.891)	57	5749	0.09302	0.1563	80.00- 120.00	100.00(a)
14.878	14.878 (0.891)	43	8012			28.29- 88.29	139.36
14.878	14.878 (0.891)	86	1031			0.00- 48.18	17.93
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.979)	72	21084	1.00314	1.685	80.00- 120.00	100.00
16.344	16.324 (0.979)	43	139020			300.25- 360.25	659.36
16.344	16.324 (0.979)	57	7008			0.00- 58.21	33.24
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.007)	83	3922	0.04125	0.06931	80.00- 120.00	100.00(a)
16.819	16.819 (1.007)	85	2672			34.75- 94.75	68.13
102 Cyclohexane					CAS #: 110-82-7		
17.034	17.035 (1.020)	84	3275	0.05268	0.08851	80.00- 120.00	100.00(a)
17.034	17.035 (1.020)	56	6101			76.62- 136.62	186.29
17.034	17.035 (1.020)	41	5400			21.84- 81.84	164.89
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.033)	119	3865	0.04725	0.07938	80.00- 120.00	100.00(a)
17.250	17.250 (1.033)	117	3654			73.50- 133.50	94.54
116 Benzene					CAS #: 71-43-2		
17.620	17.621 (0.968)	78	13922	0.13862	0.2329	80.00- 120.00	100.00
17.620	17.621 (0.968)	77	3929			0.00- 53.26	28.22
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	42323	1.08694	1.826	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	14717			2.82- 62.82	34.77
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	1969	0.07635	0.1283	80.00- 120.00	100.00(a)
17.847	17.847 (0.980)	100	443			8.23- 68.23	22.50
17.847	17.847 (0.980)	43	5647			141.33- 201.33	286.80
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	15069	0.31505	0.5293	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	15801			61.76- 121.76	104.86
18.610	18.610 (1.022)	97	10234			29.47- 89.47	67.91
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.541	20.557 (1.128)	43	9428	0.17210	0.2891	80.00- 120.00	100.00
20.556	20.557 (1.129)	58	1304			12.96- 72.96	13.83
20.541	20.557 (1.128)	85	827			0.00- 50.79	8.77

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	210475	1.90473	3.200	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	120208			29.12- 89.12	57.11
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	3267	0.08981	0.1509	80.00- 120.00	100.00(a)
22.377	22.377 (0.942)	43	6788			137.01- 197.01	207.77
22.377	22.377 (0.942)	100	451			0.00- 53.27	13.80
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.906 (1.006)	106	7897	0.15765	0.2648	80.00- 120.00	100.00
23.905	23.906 (1.006)	91	24858			275.87- 335.87	314.78
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	17775	0.33748	0.5670	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	38248			163.30- 223.30	215.18
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	6503	0.13250	0.2226	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	14090			172.76- 232.76	216.67
172 Styrene					CAS #: 100-42-5		
24.730	24.731 (1.041)	104	3730	0.05179	0.08701	80.00- 120.00	100.00(a)
24.730	24.731 (1.041)	78	3916			18.49- 78.49	104.99
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	7428	0.06099	0.1025	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	2596			1.16- 61.16	34.95
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	2781	0.02558	0.04298	80.00- 120.00	100.00(a)
25.940	25.940 (1.092)	120	1275			20.44- 80.44	45.85
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	7488	0.07123	0.1197	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	3780			17.83- 77.83	50.48
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.904 (1.132)	146	2211	0.02710	0.04553	80.00- 120.00	100.00(a)
26.903	26.904 (1.132)	148	1441			33.90- 93.90	65.17
26.903	26.904 (1.132)	111	1183			6.77- 66.77	53.51
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	2597	0.01527	0.02566	80.00- 120.00	100.00(a)
29.756	29.756 (1.252)	127	1236			0.00- 42.38	47.59

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: msd20.i
Lab File ID: 20013127.d
Lab Smp Id: 1701428A-09A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 6.0"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	152976	-19.35
123 1,4-Difluorobenze	617206	370324	864088	420338	-31.90
163 Chlorobenzene-d5	554897	332938	776856	428341	-22.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.70	-0.19
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 12:55

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-09A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 6.0"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.101	122.01	70-130
$ 146 Toluene-d8	5.000	5.266	105.32	70-130
$ 177 4-Bromofluorobenze	5.000	5.049	100.98	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

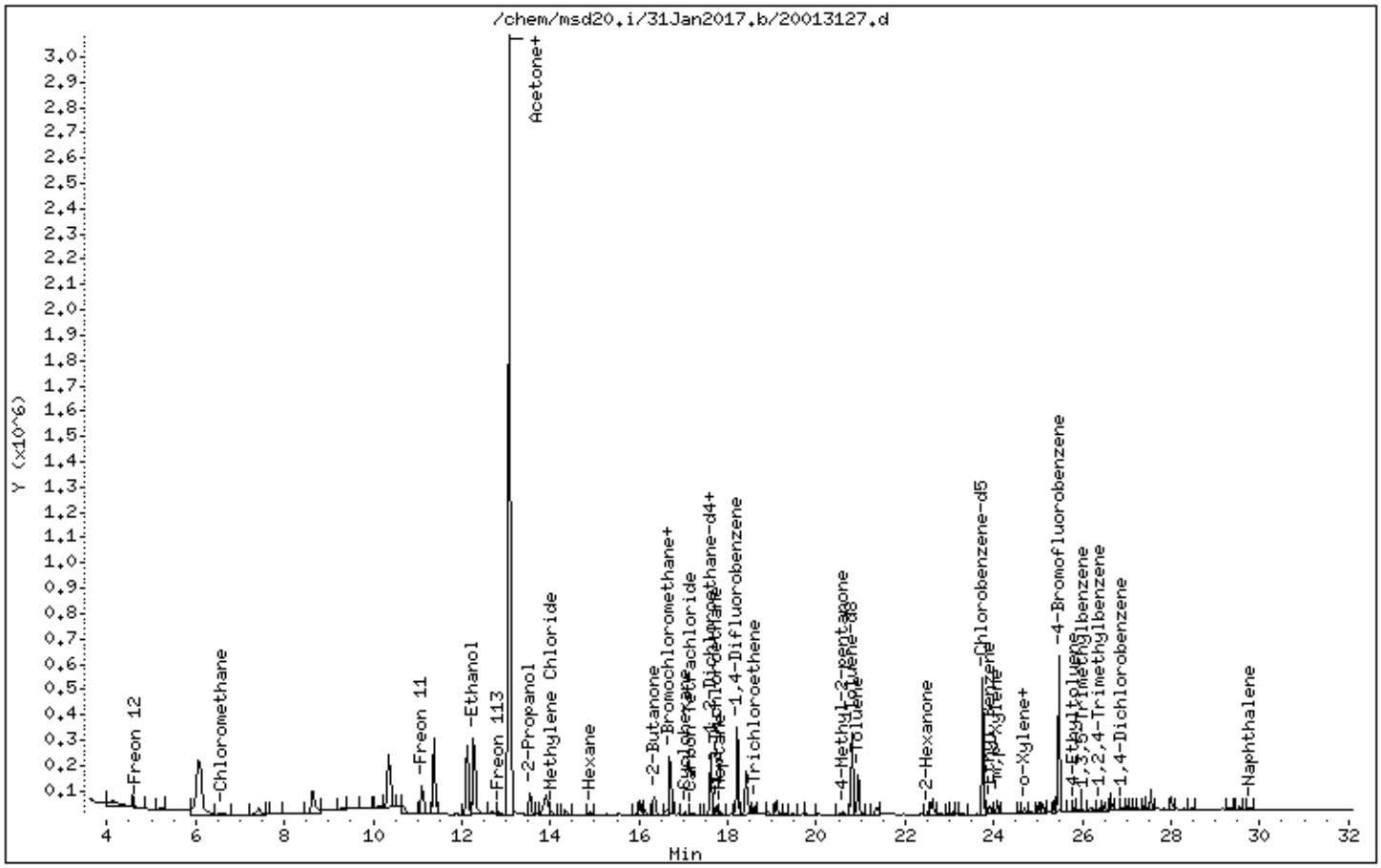
Instrument: msd20.i

Sample Info: 250mL# 00138

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

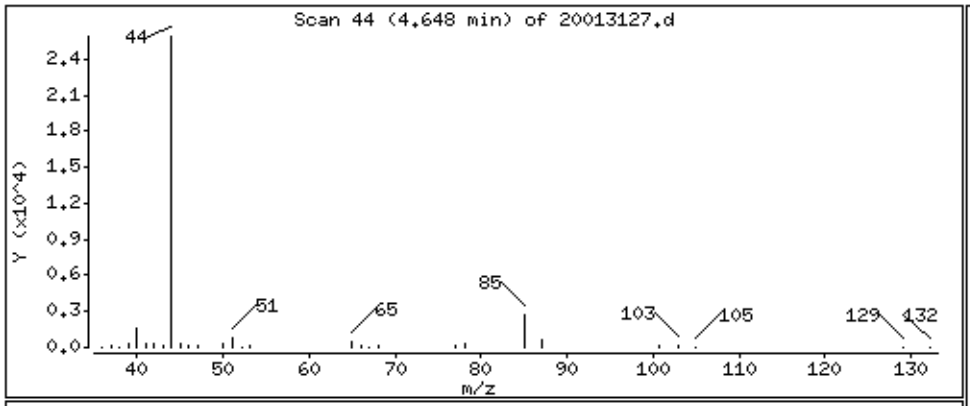
Operator: ef

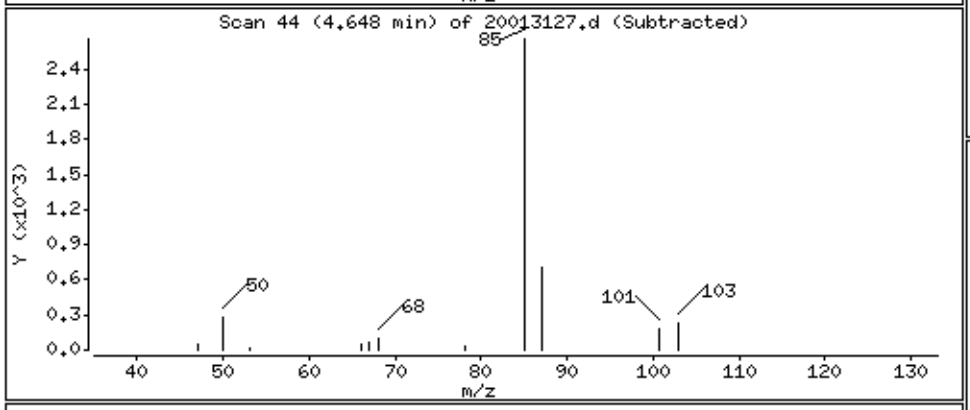
Column phase: RTX-624

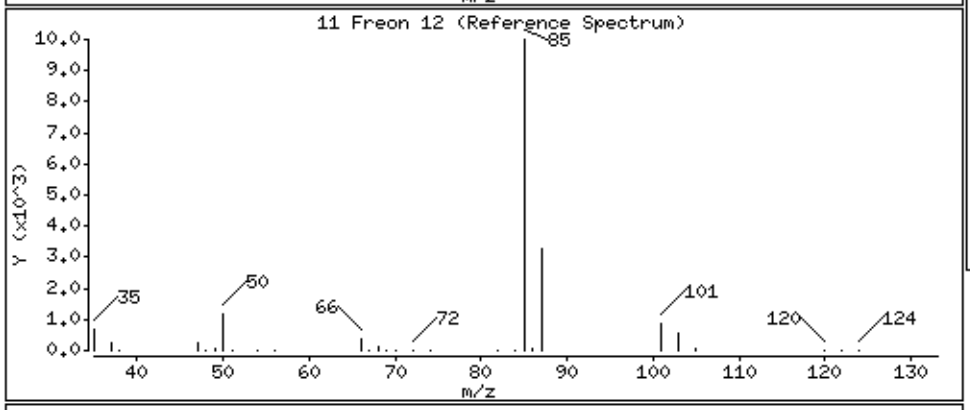
Column diameter: 0.32

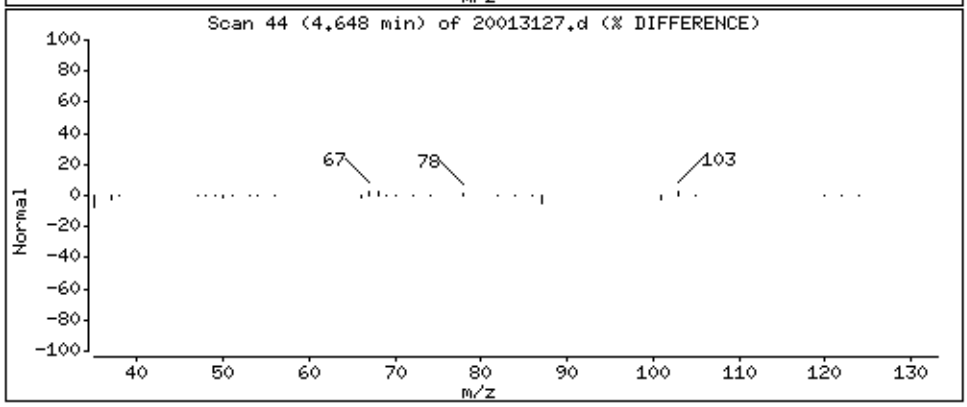
11 Freon 12

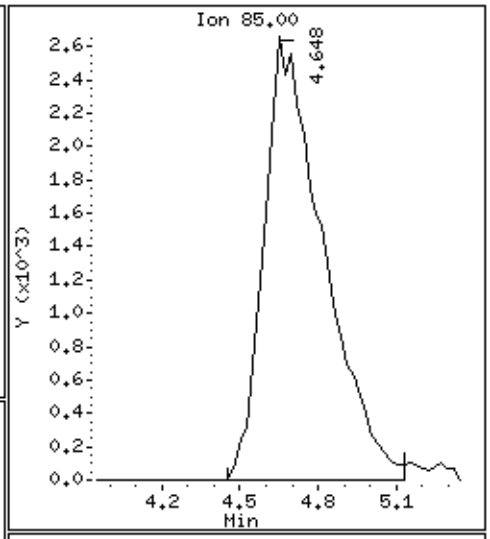
Concentration: 0.6138 PPBV

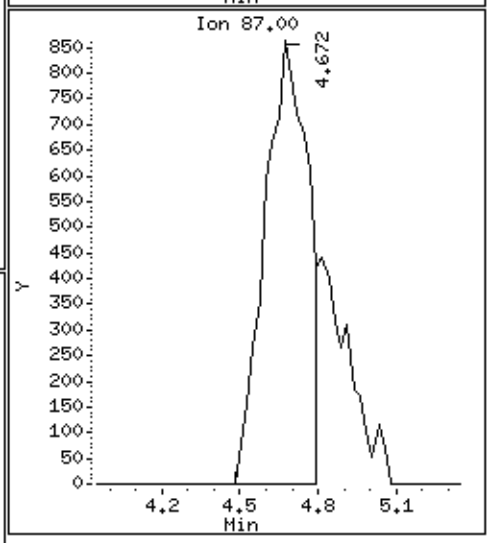












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

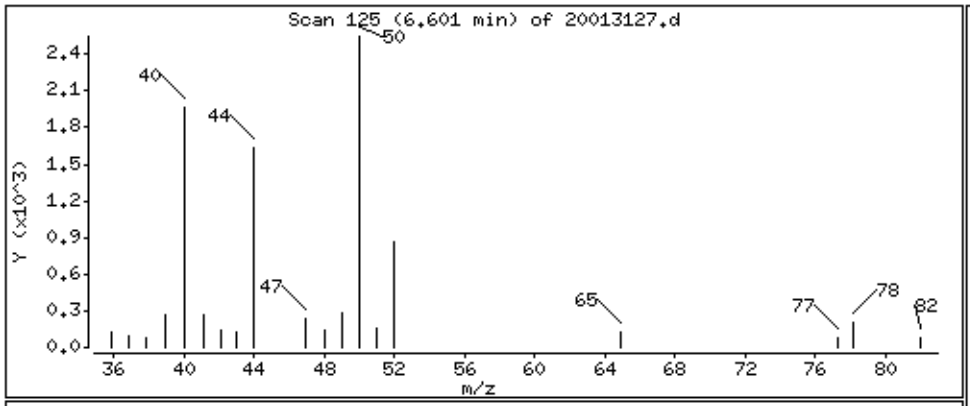
Operator: ef

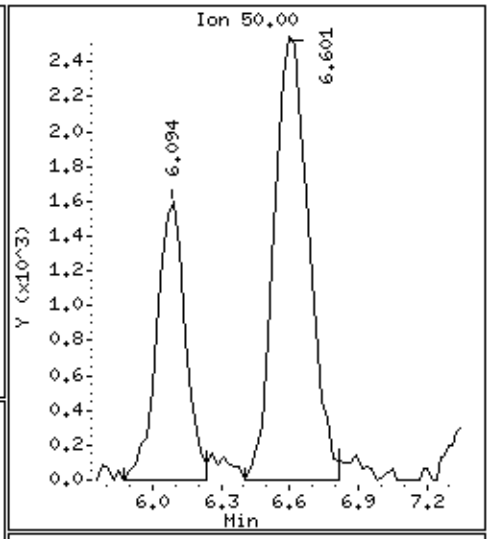
Column phase: RTX-624

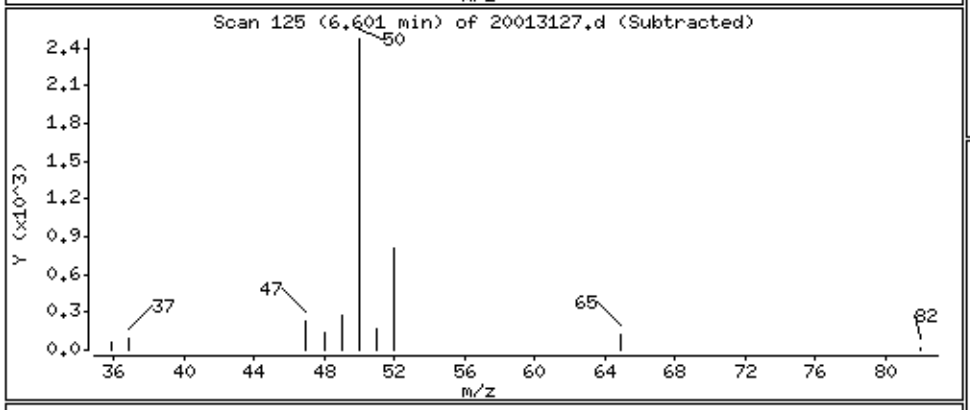
Column diameter: 0.32

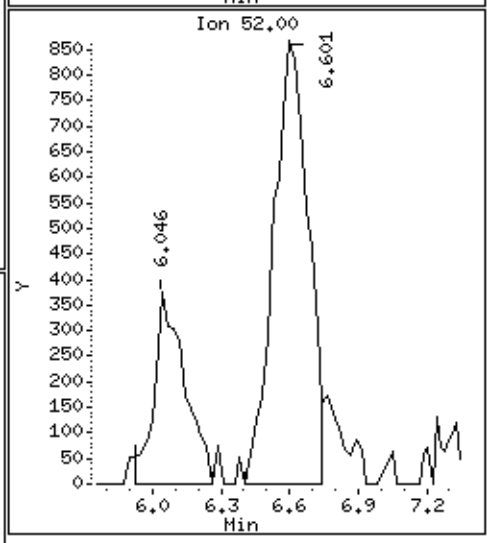
17 Chloromethane

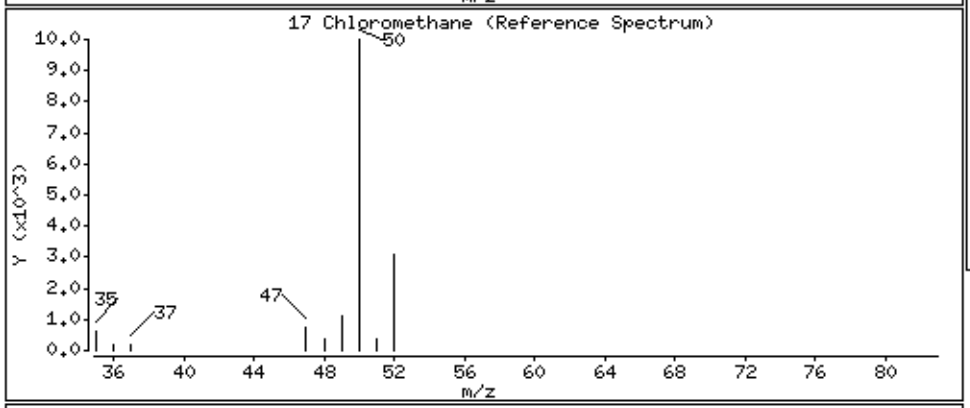
Concentration: 1.279 PPBV

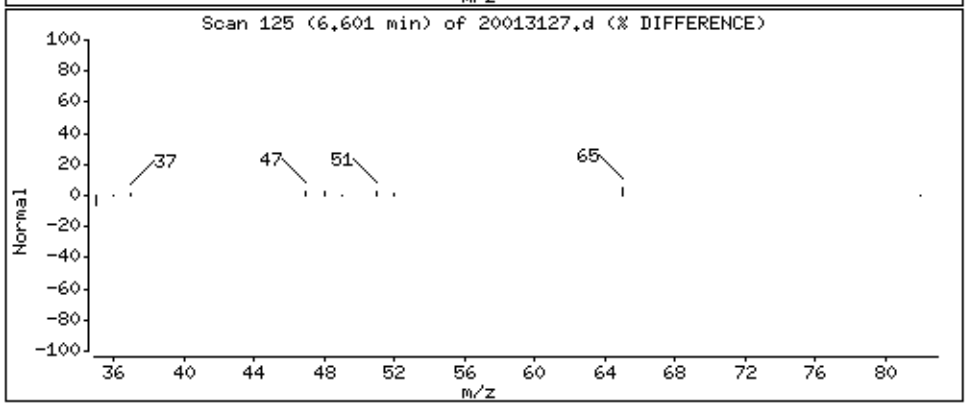












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

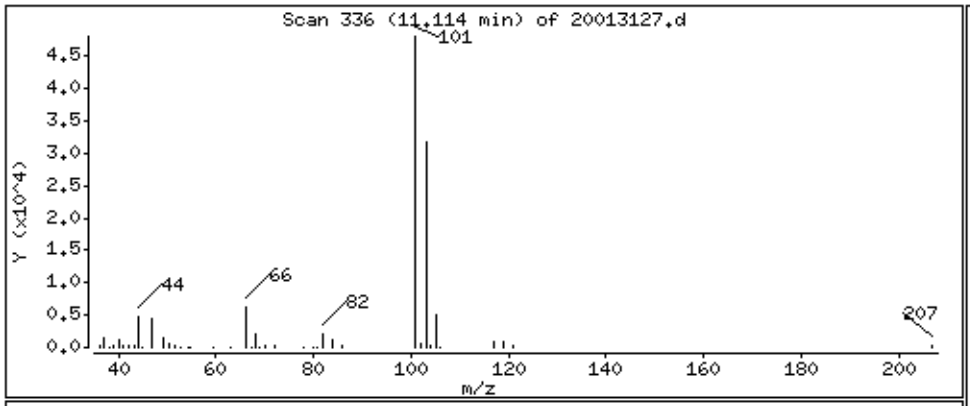
Operator: ef

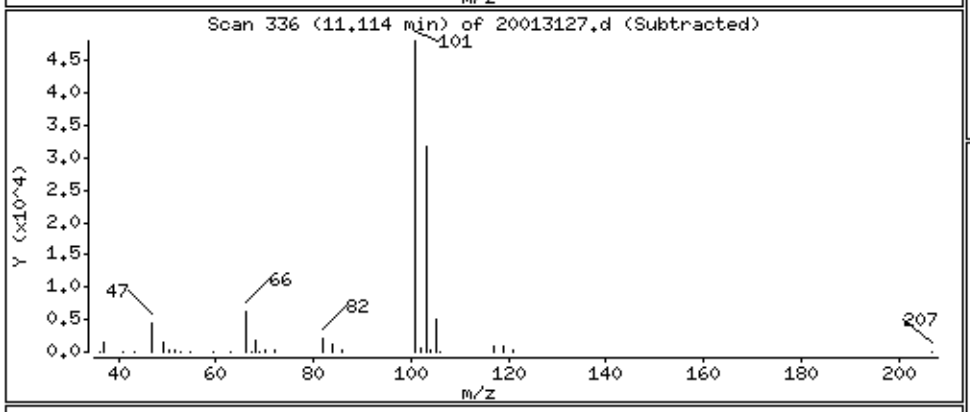
Column phase: RTX-624

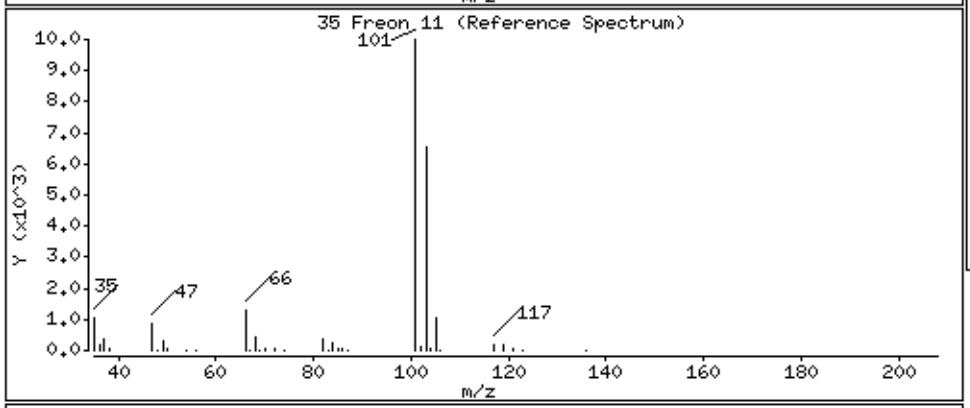
Column diameter: 0.32

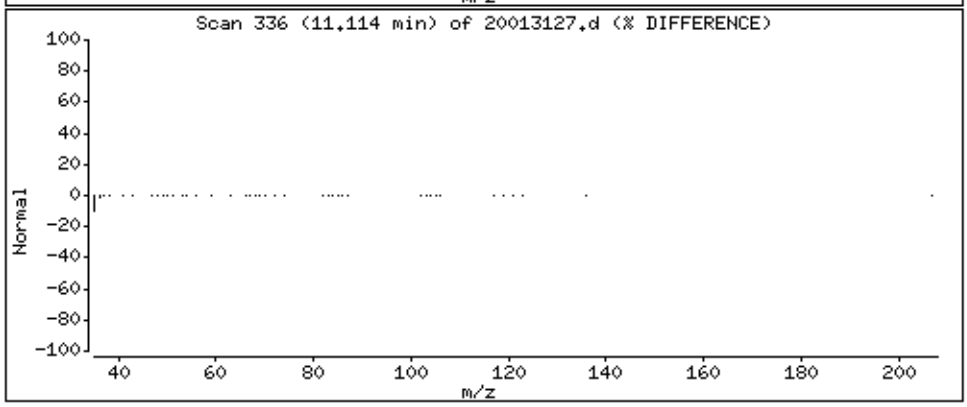
35 Freon 11

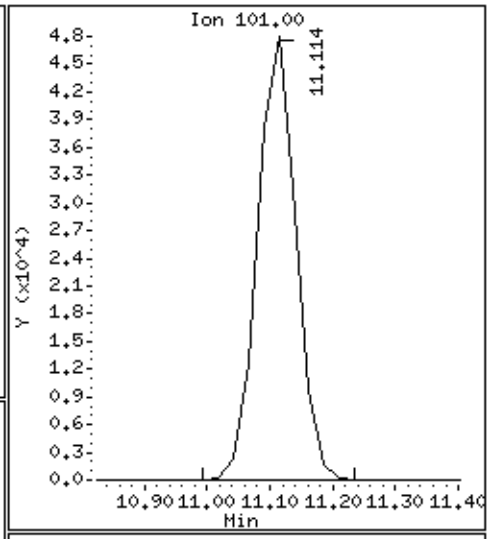
Concentration: 3.024 PPBV

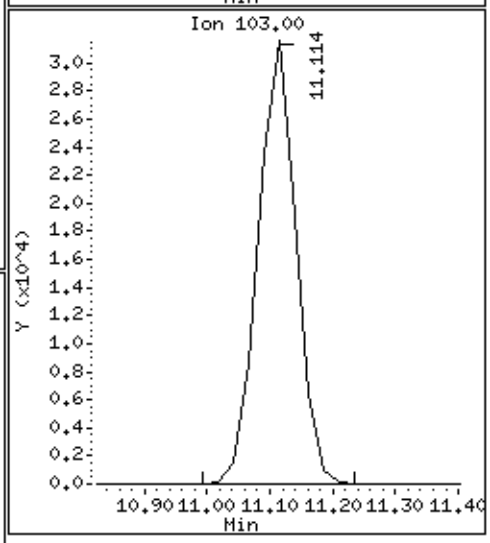












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

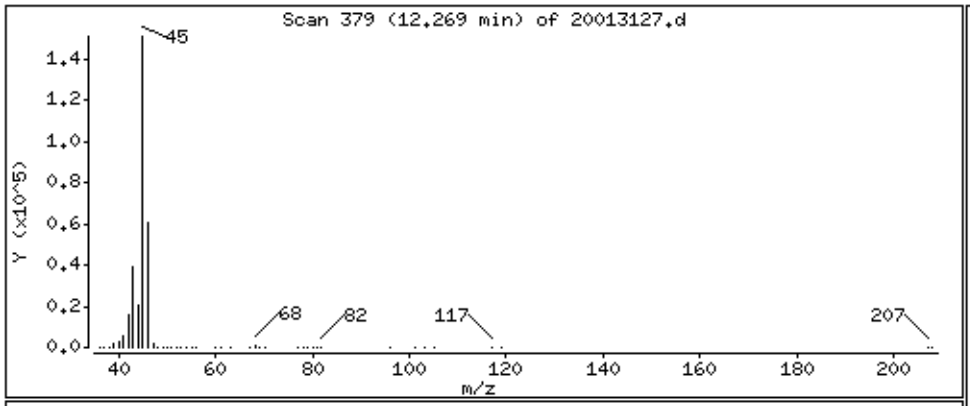
Operator: ef

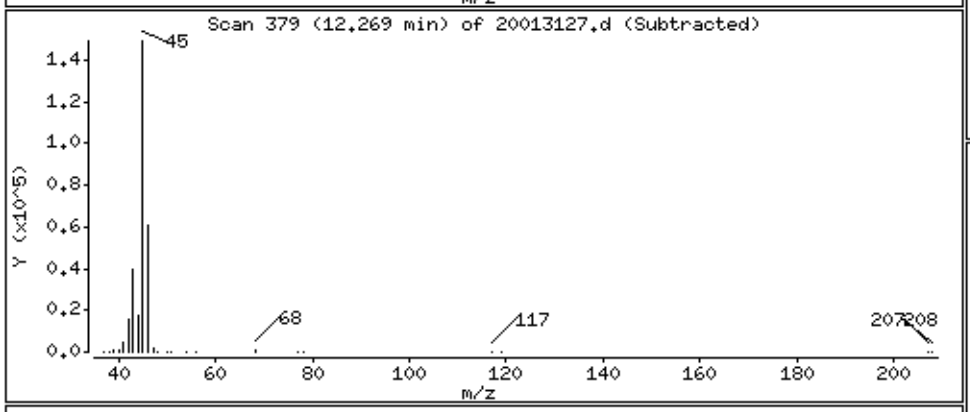
Column phase: RTX-624

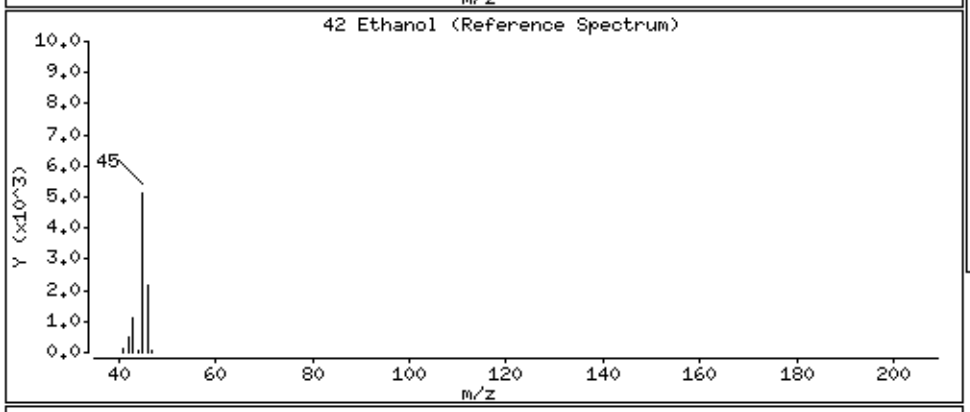
Column diameter: 0.32

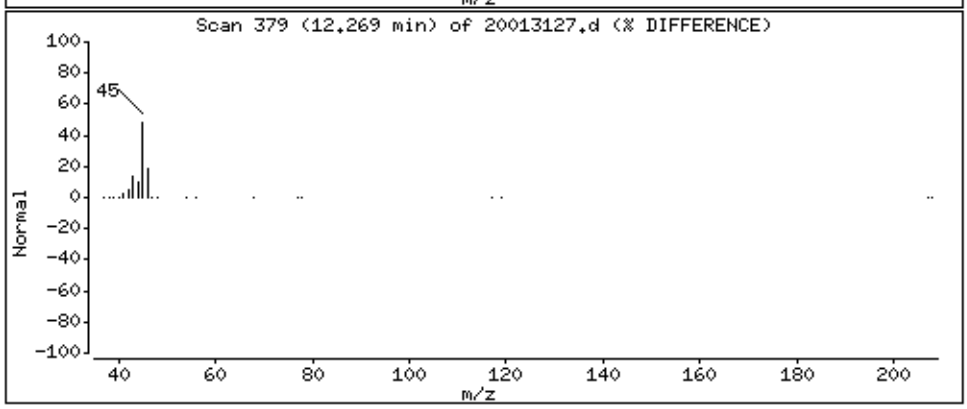
42 Ethanol

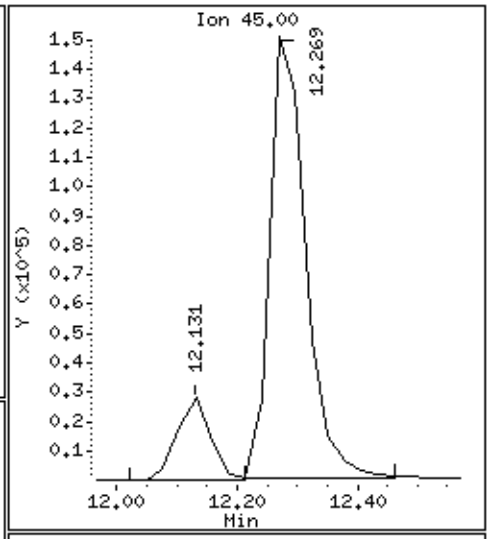
Concentration: 67.452 PPBV

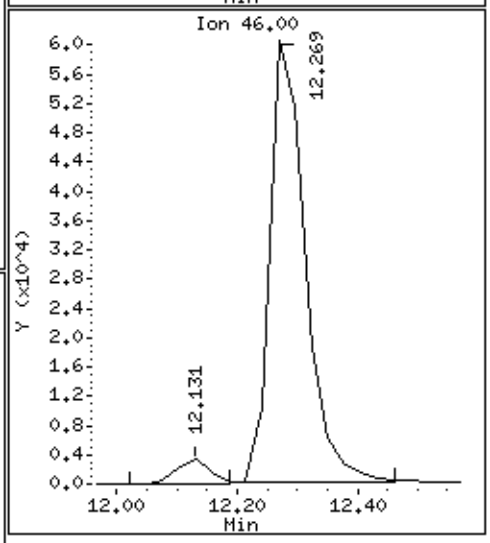












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

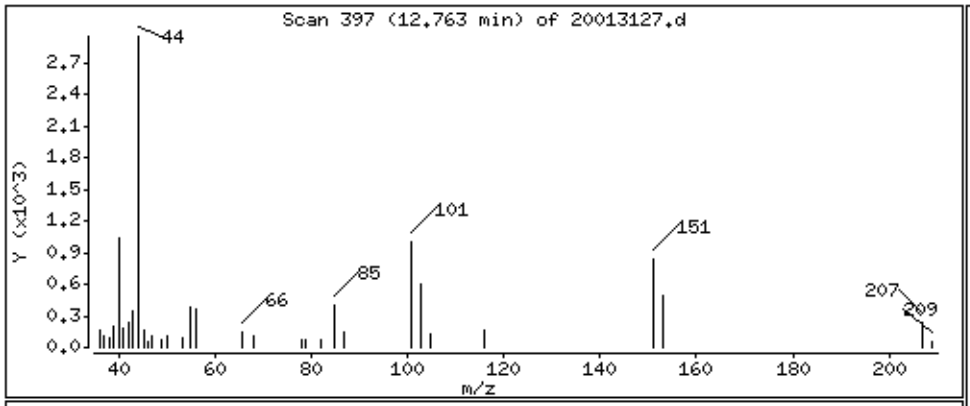
Operator: ef

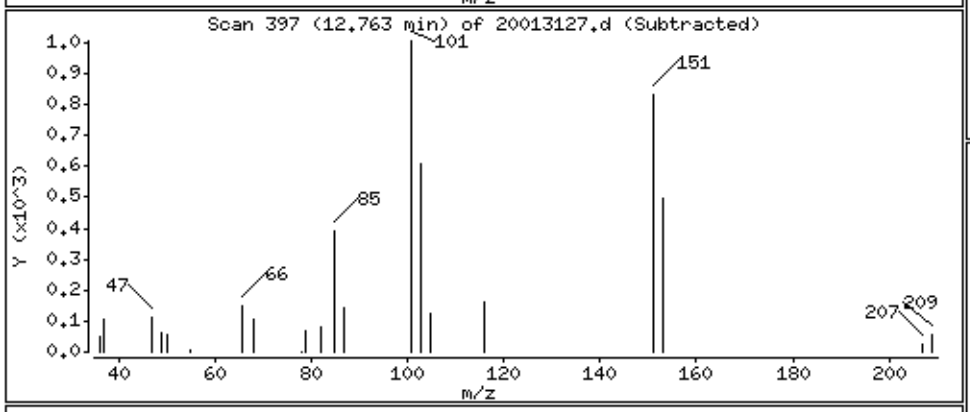
Column phase: RTX-624

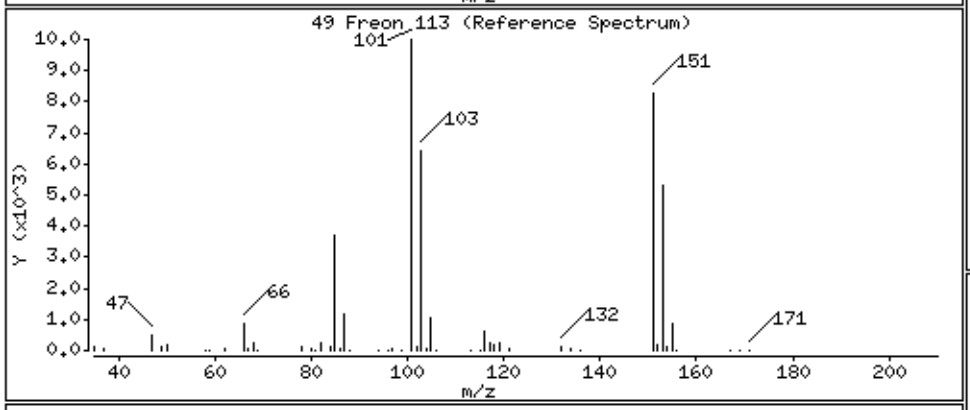
Column diameter: 0.32

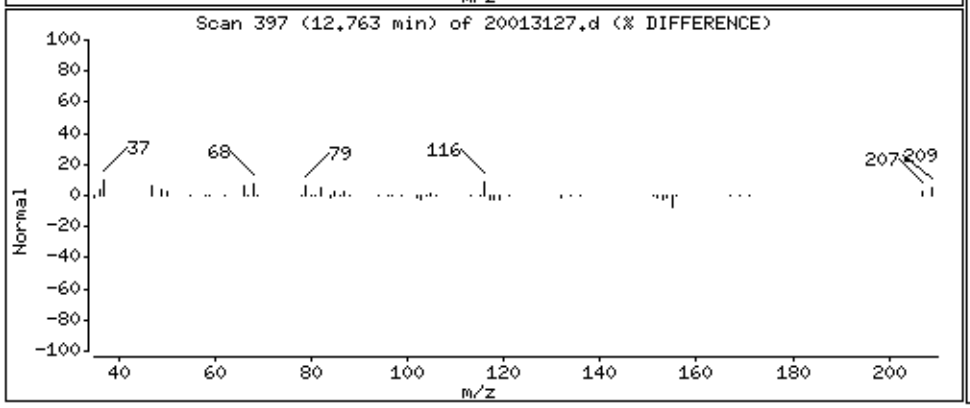
49 Freon 113

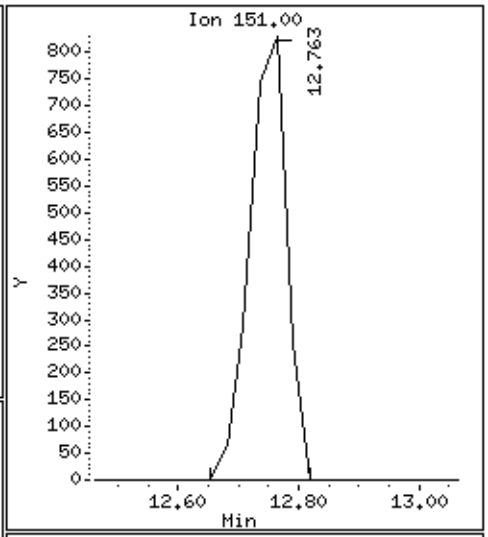
Concentration: 0.06978 PPBV

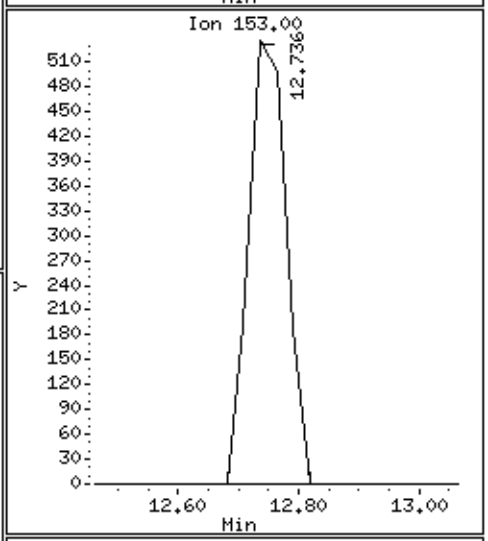


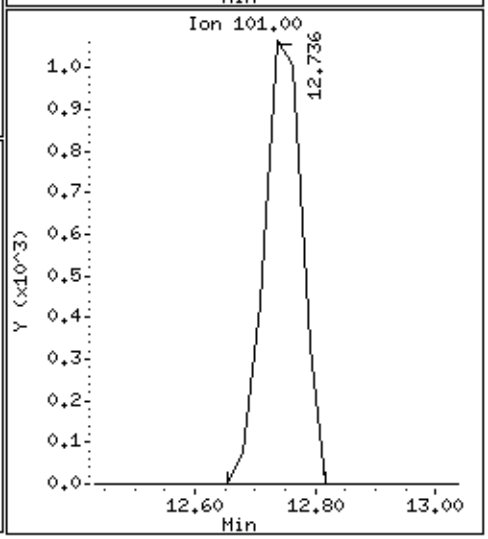












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

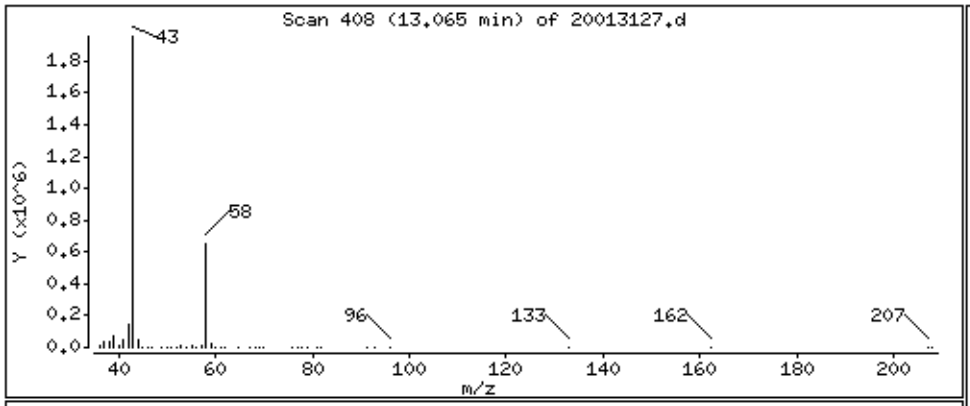
Operator: ef

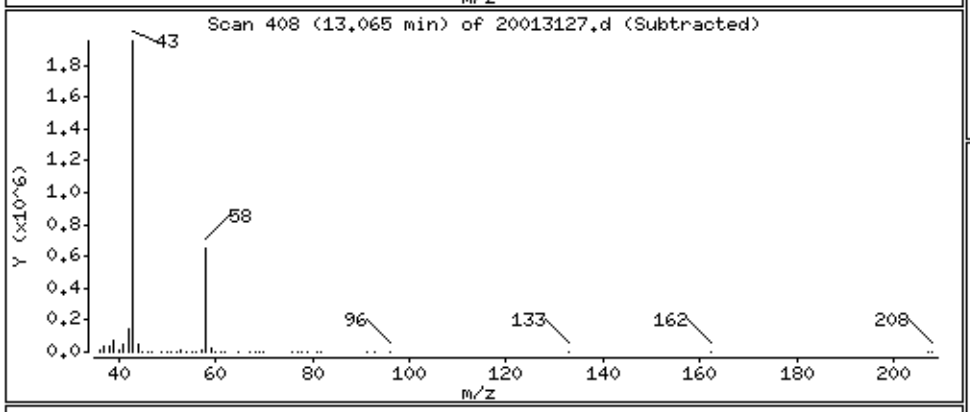
Column phase: RTX-624

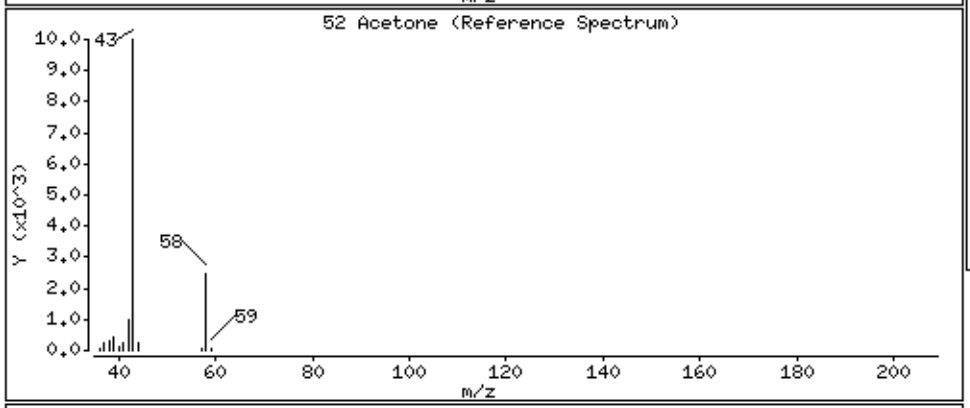
Column diameter: 0.32

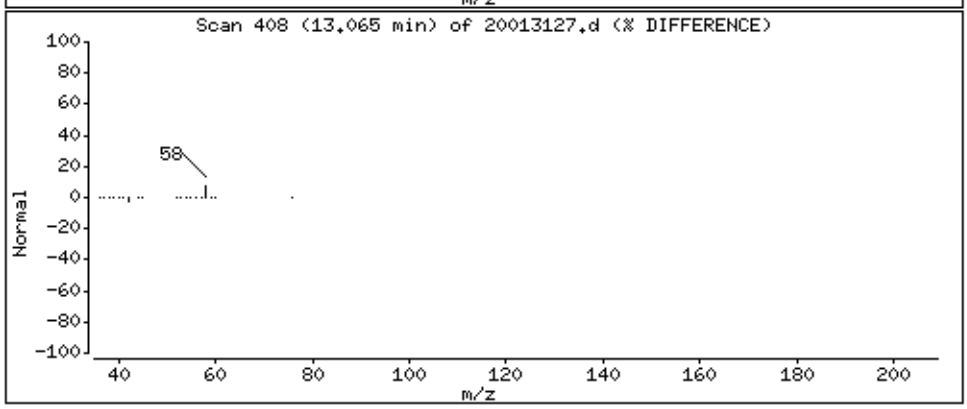
52 Acetone

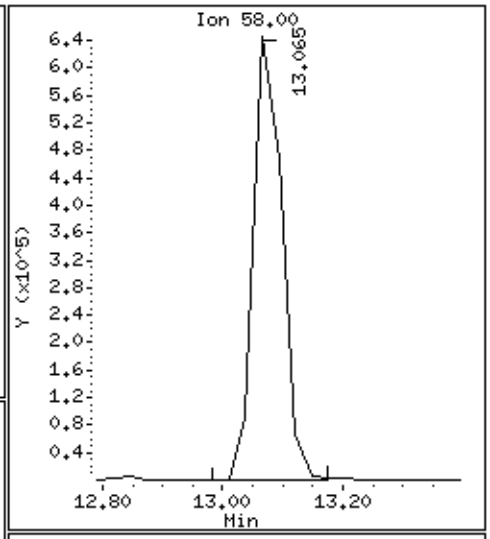
Concentration: 164.72 PPBV

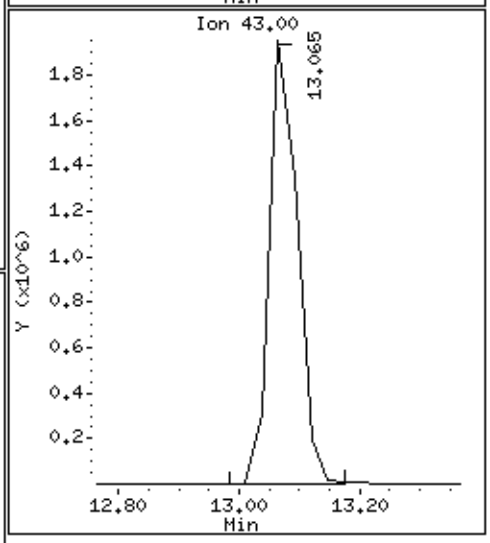












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

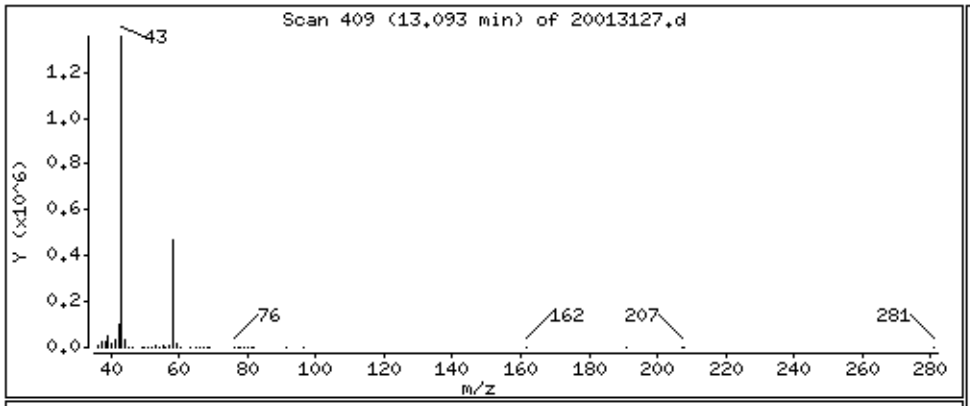
Operator: ef

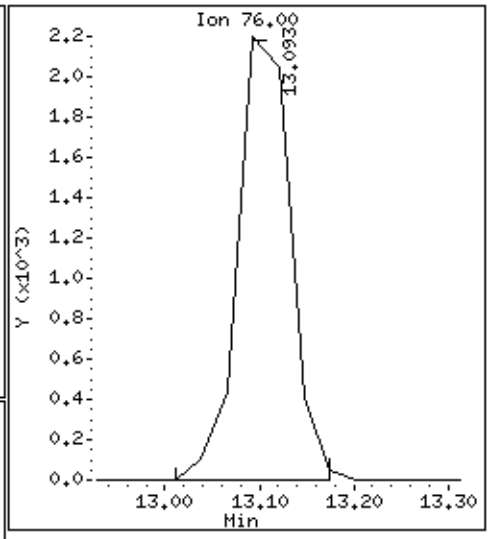
Column phase: RTX-624

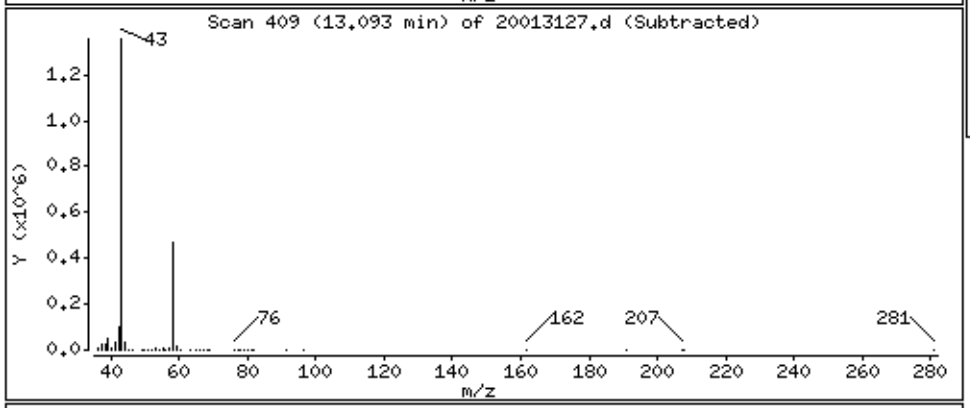
Column diameter: 0.32

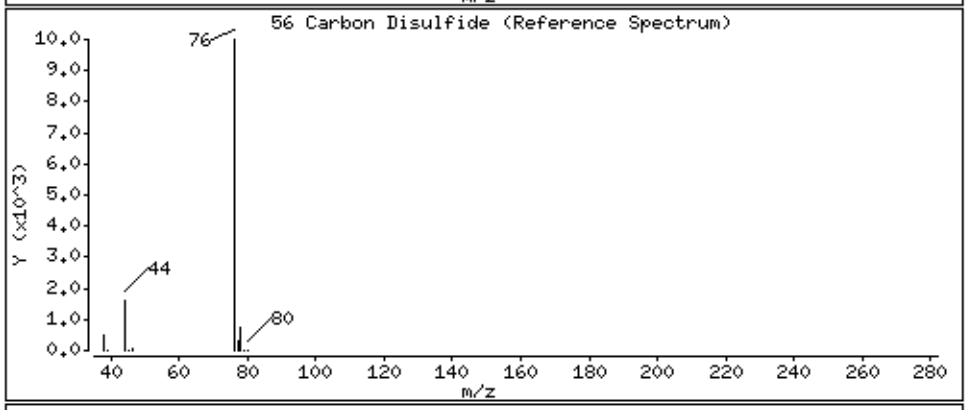
56 Carbon Disulfide

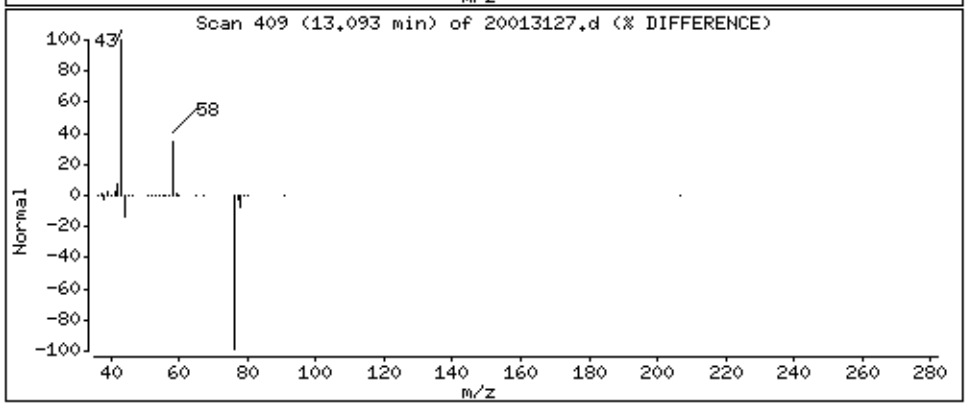
Concentration: 0.1221 PPBV











Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

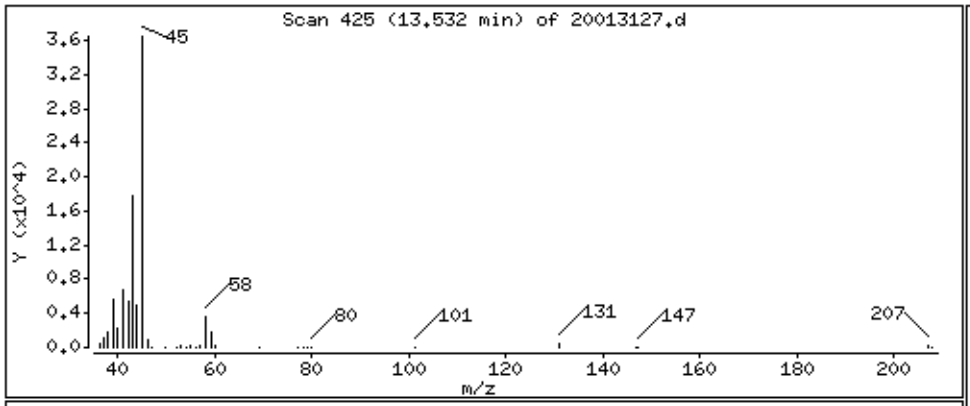
Operator: ef

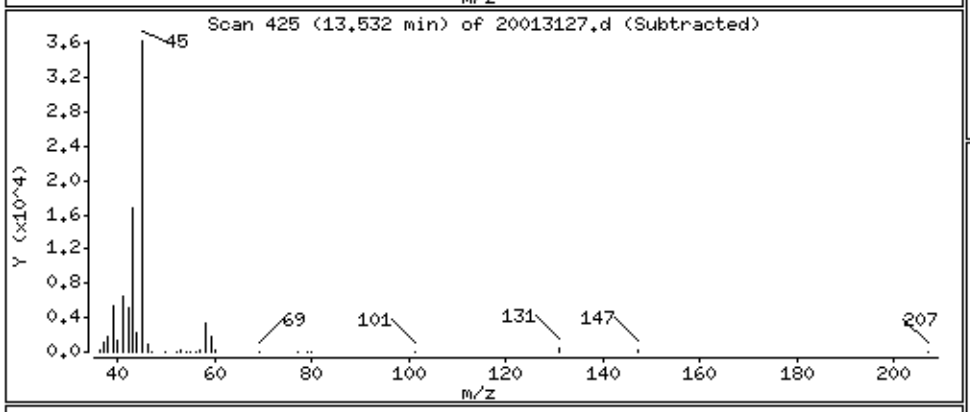
Column phase: RTX-624

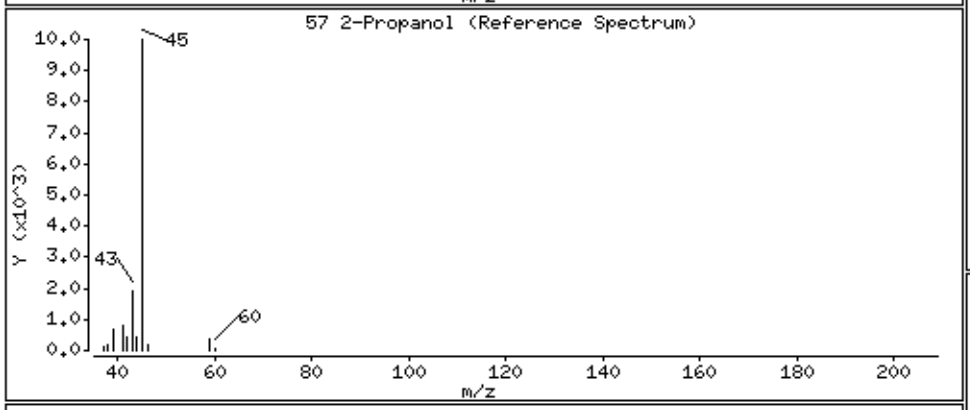
Column diameter: 0.32

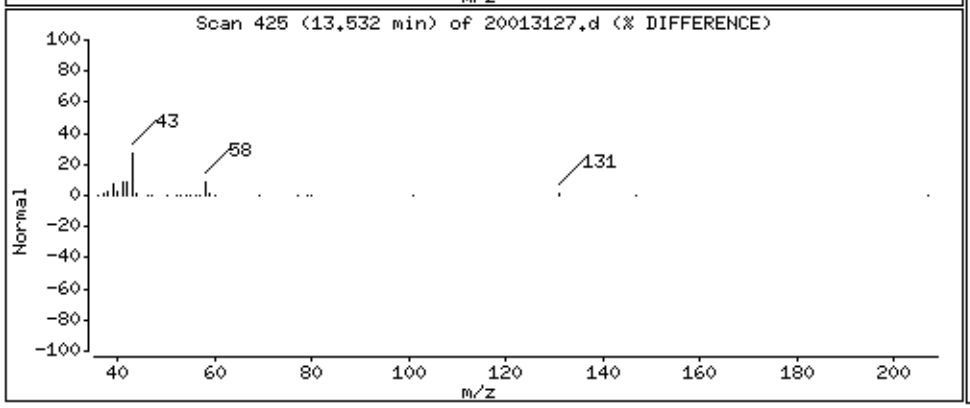
57 2-Propanol

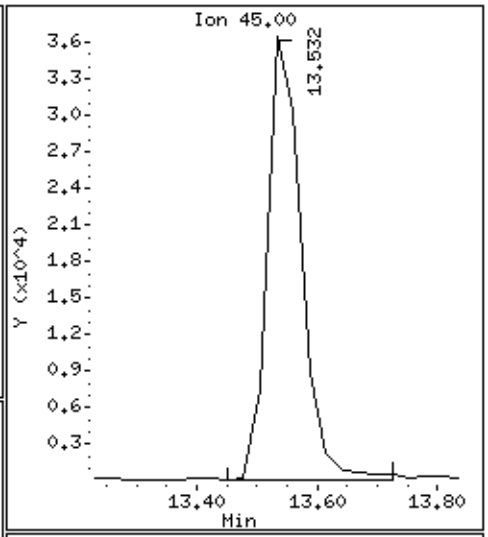
Concentration: 4.161 PPBV

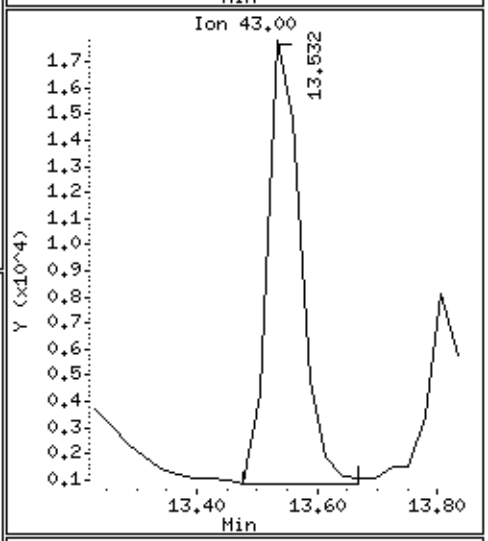


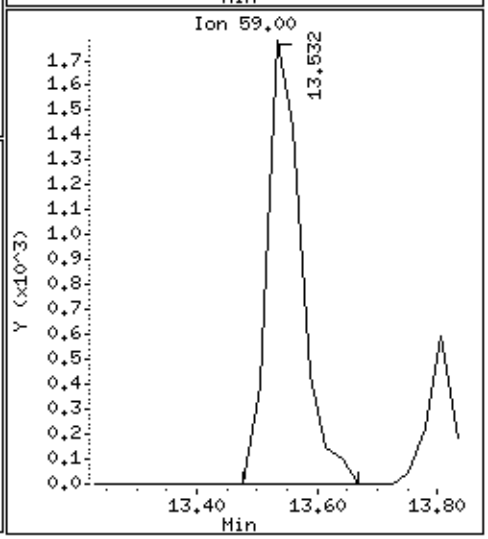












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

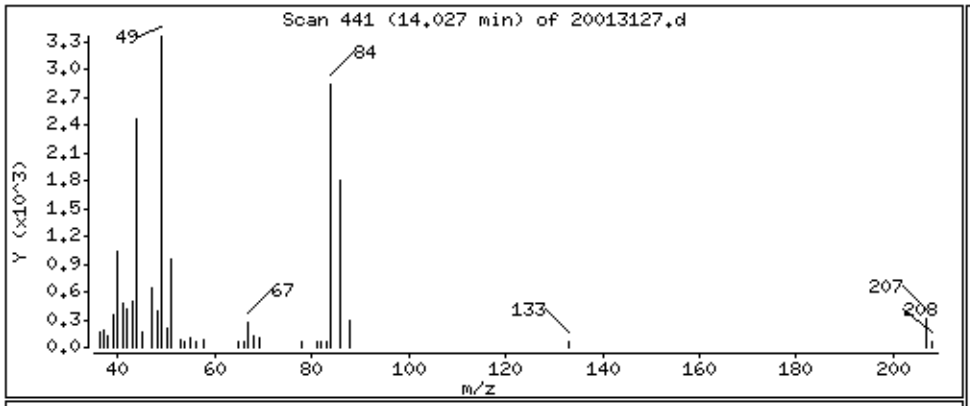
Operator: ef

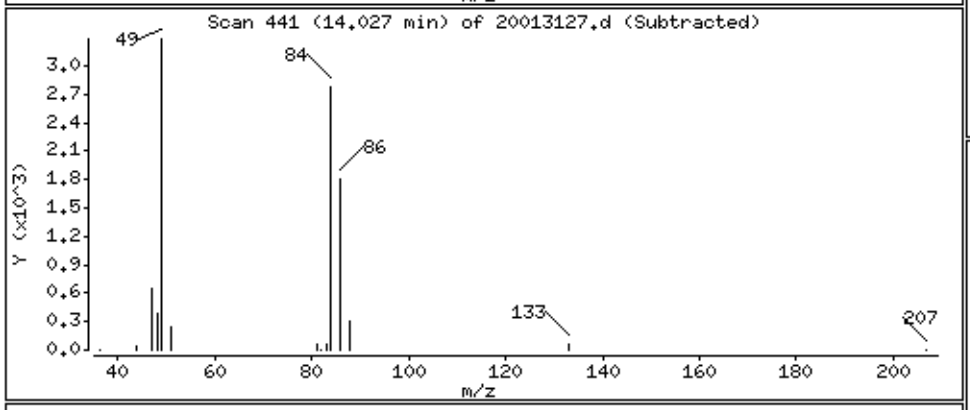
Column phase: RTX-624

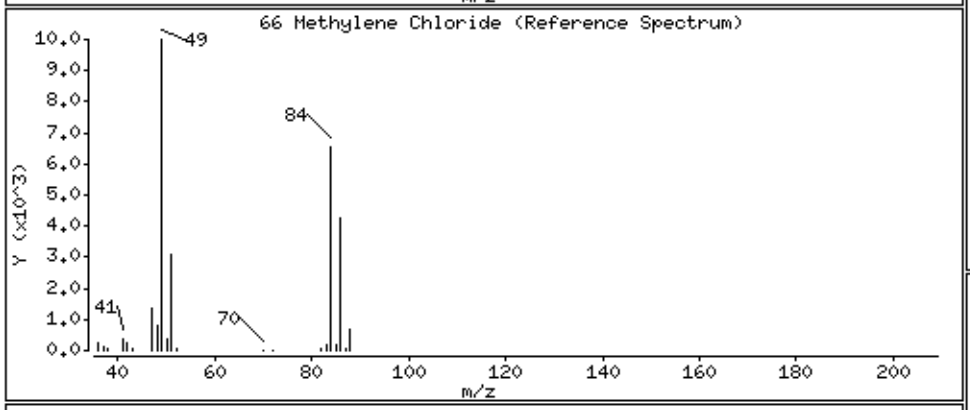
Column diameter: 0.32

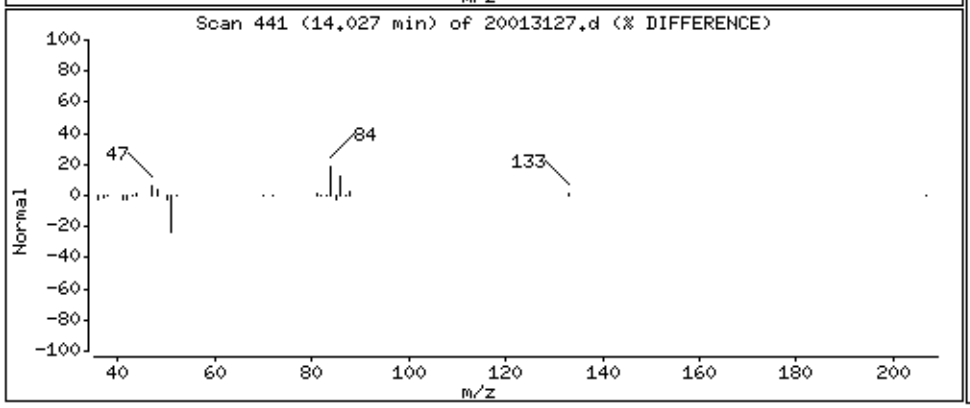
66 Methylene Chloride

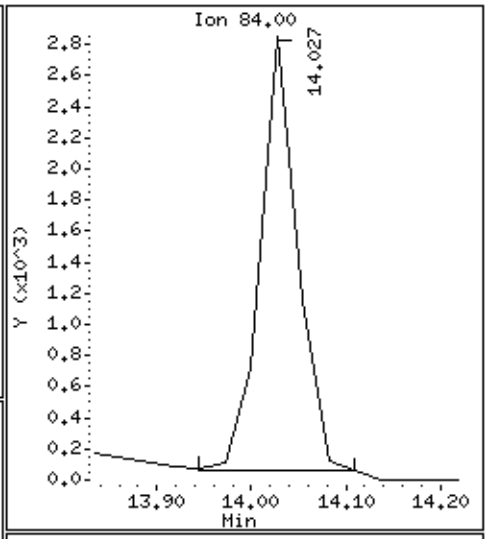
Concentration: 0.2768 PPBV

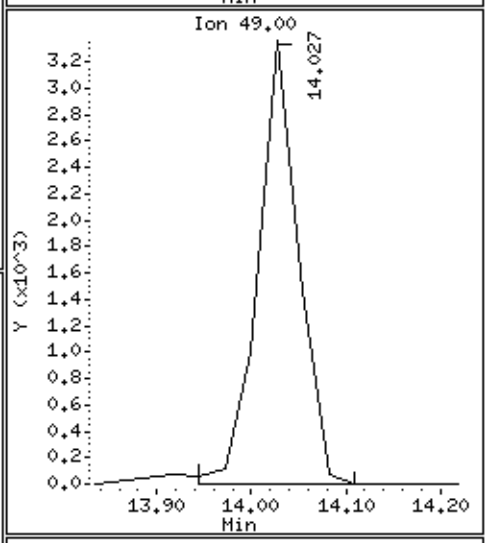


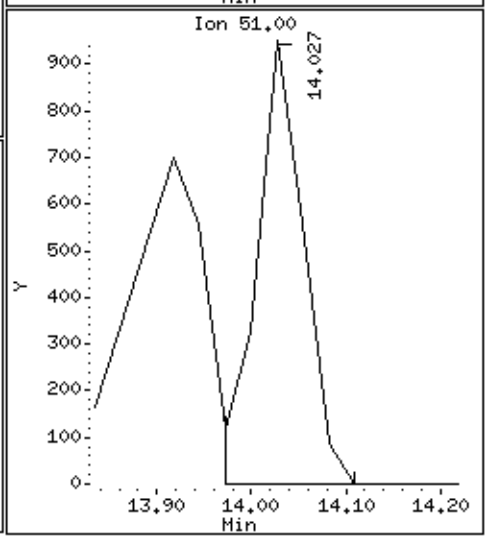












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

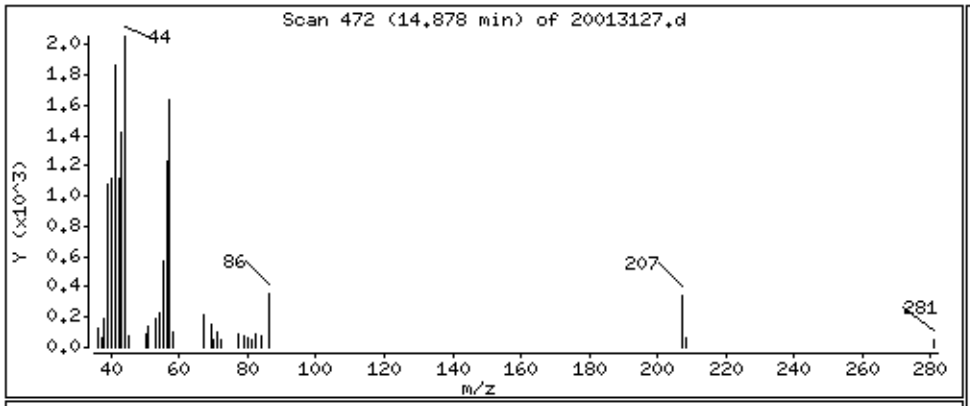
Operator: ef

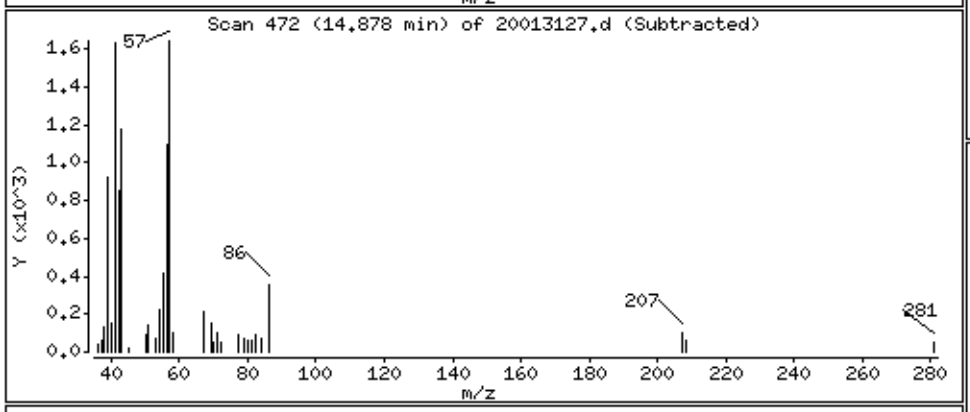
Column phase: RTX-624

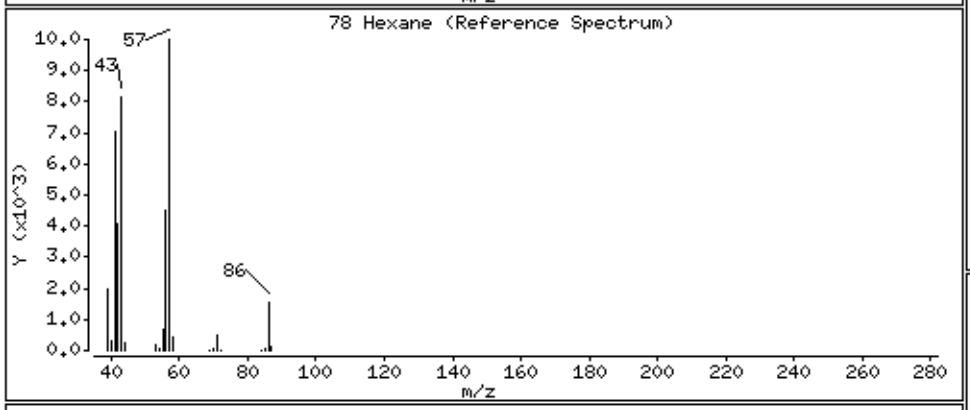
Column diameter: 0.32

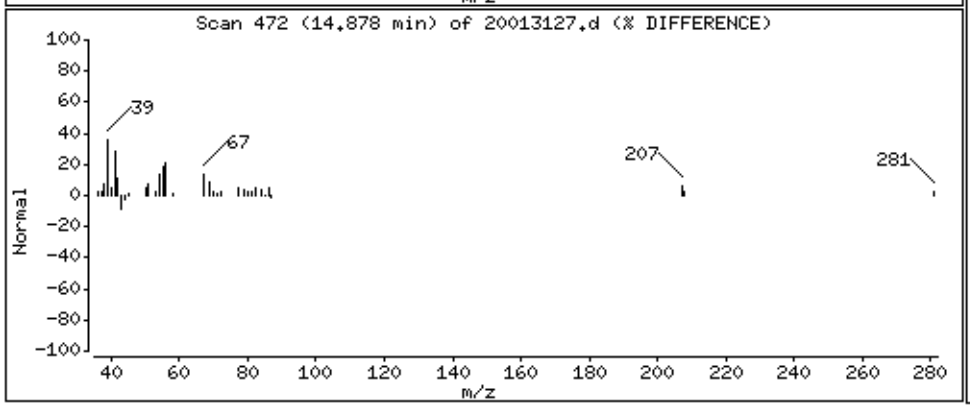
78 Hexane

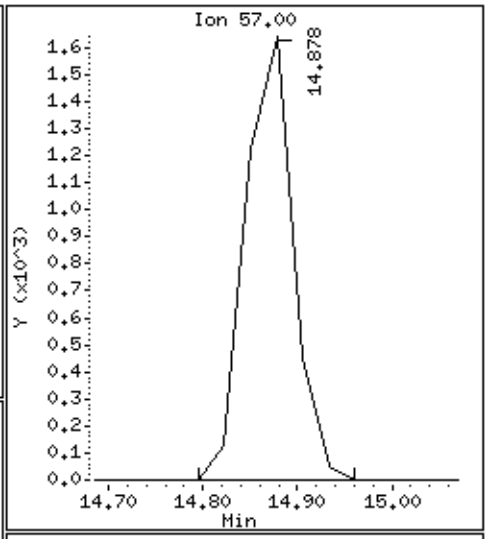
Concentration: 0.1563 PPBV

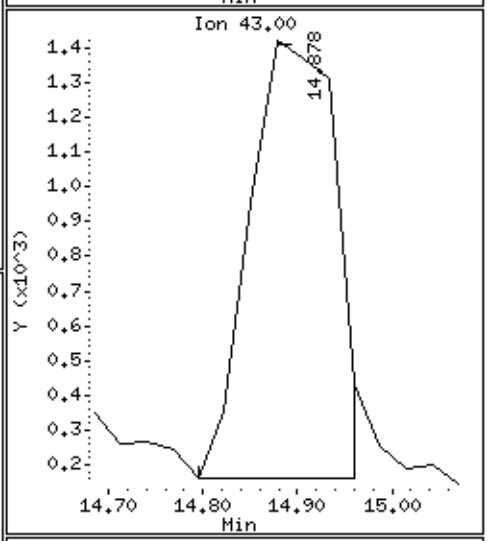


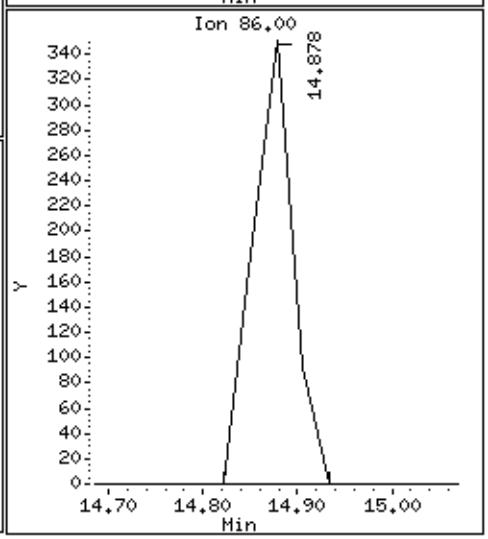












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

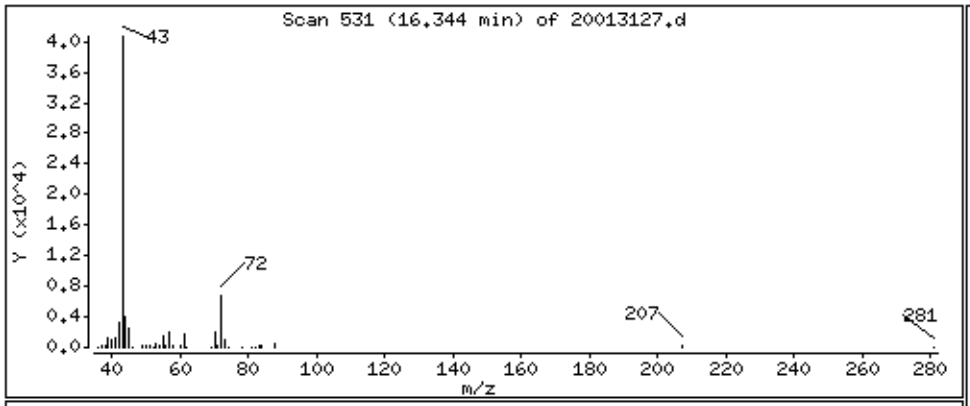
Operator: ef

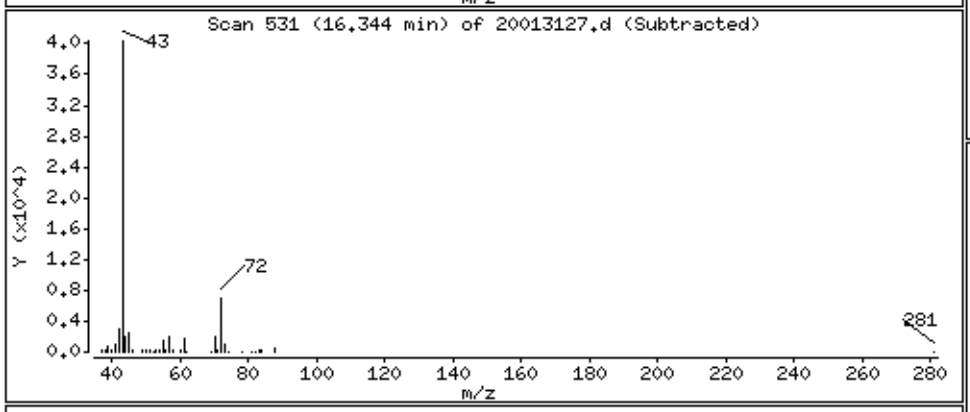
Column phase: RTX-624

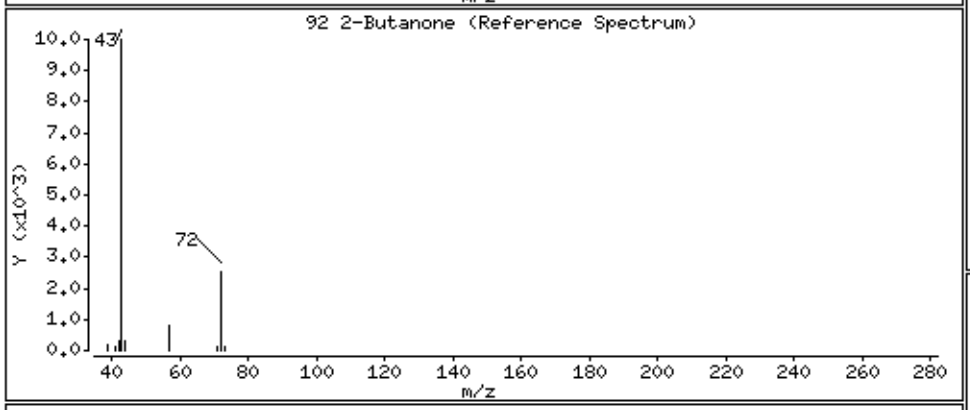
Column diameter: 0.32

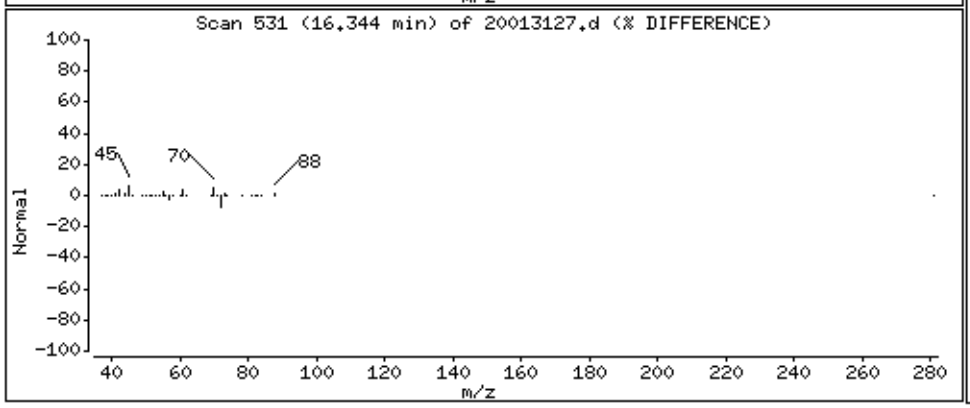
92 2-Butanone

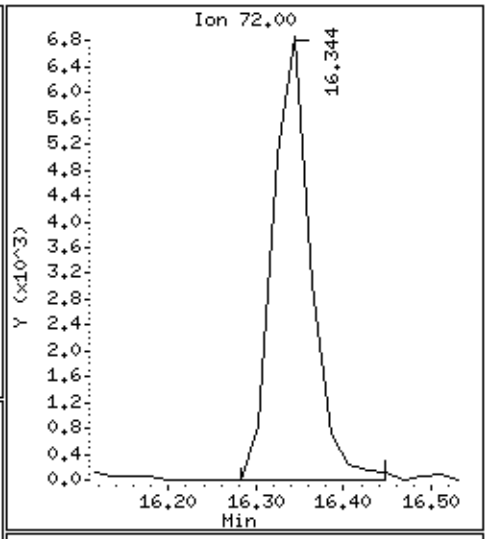
Concentration: 1.685 PPBV

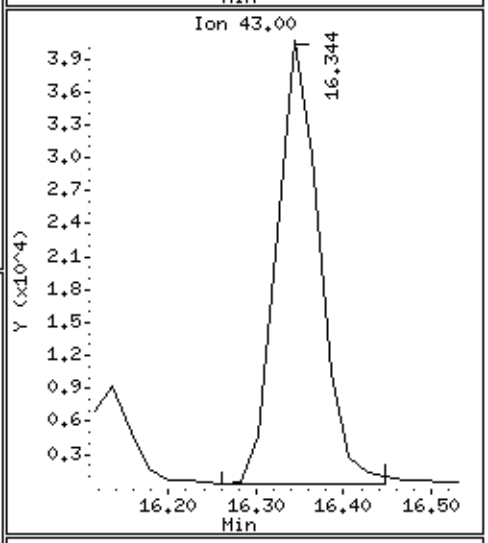


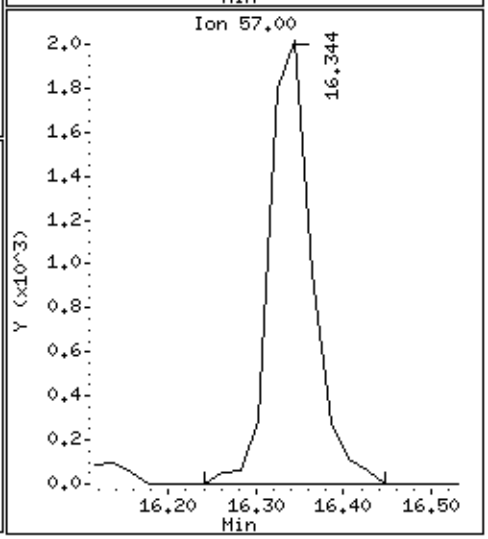












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

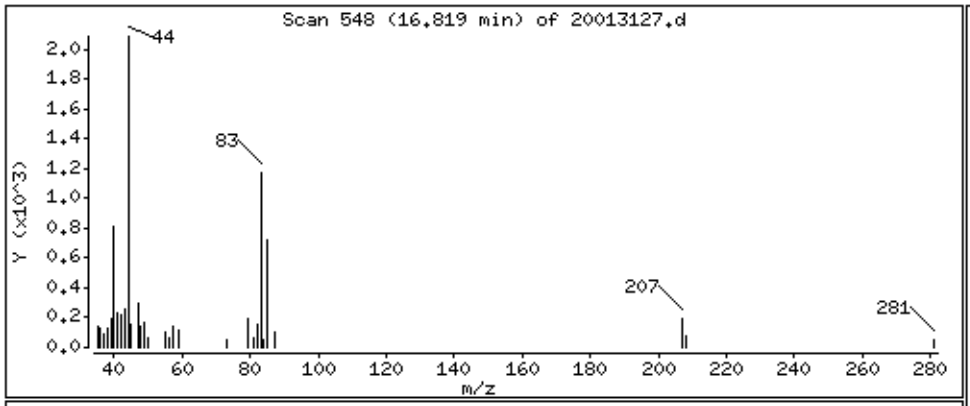
Operator: ef

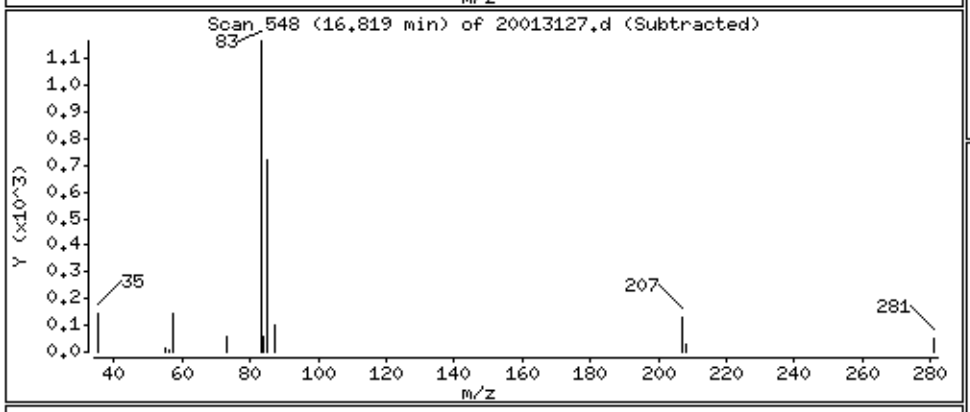
Column phase: RTX-624

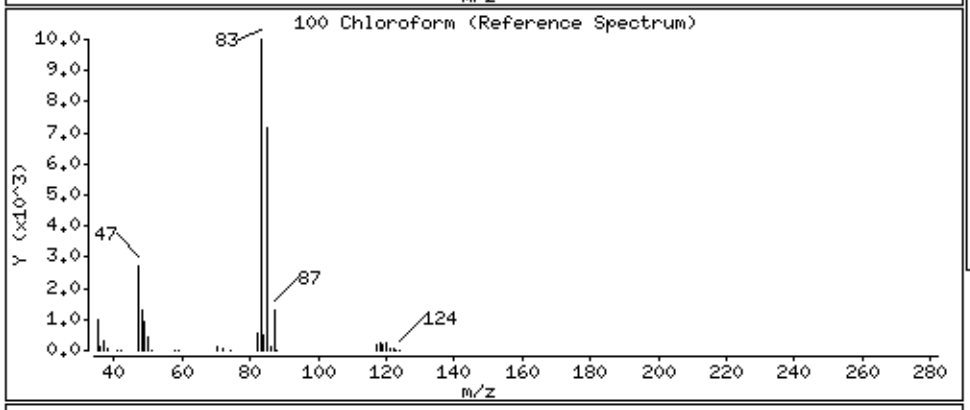
Column diameter: 0.32

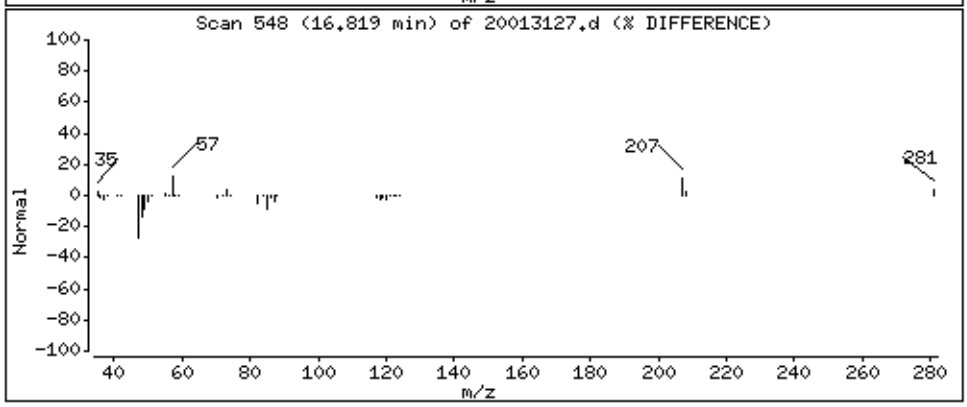
100 Chloroform

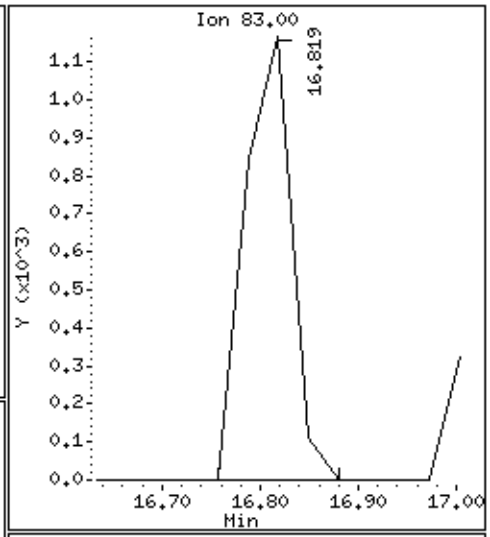
Concentration: 0.06931 PPBV

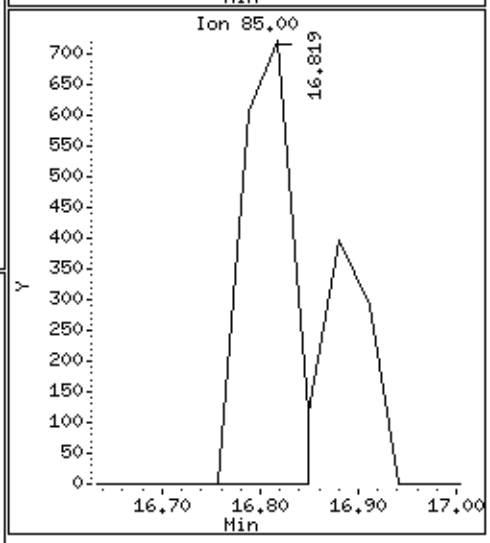












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

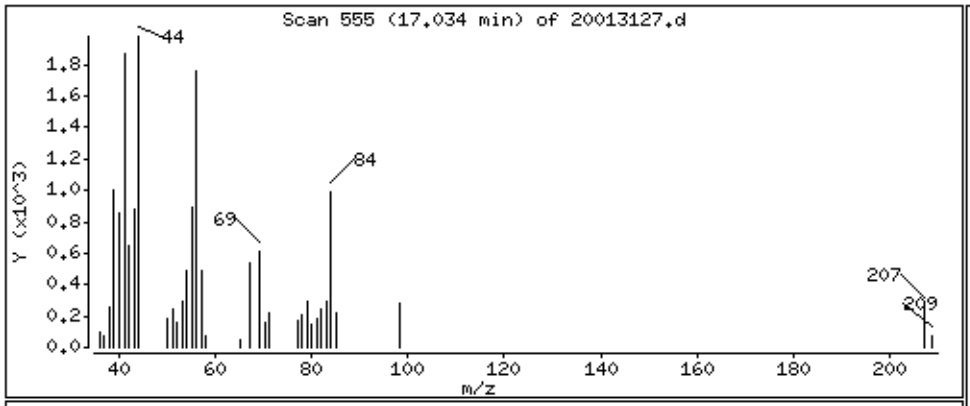
Operator: ef

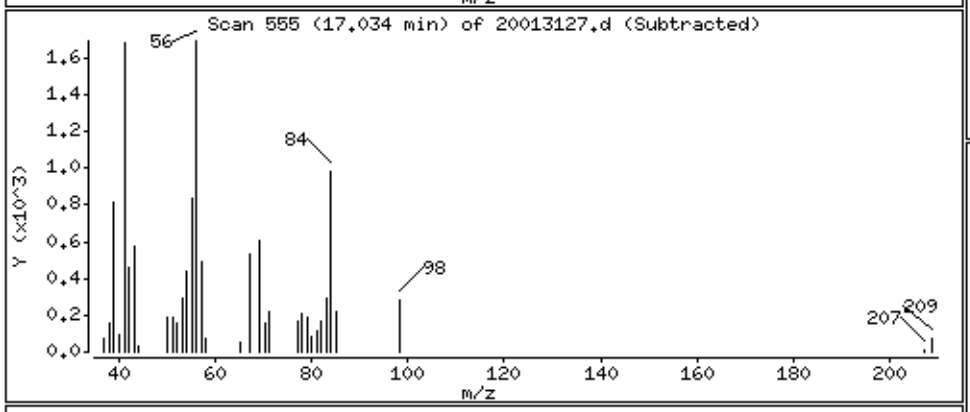
Column phase: RTX-624

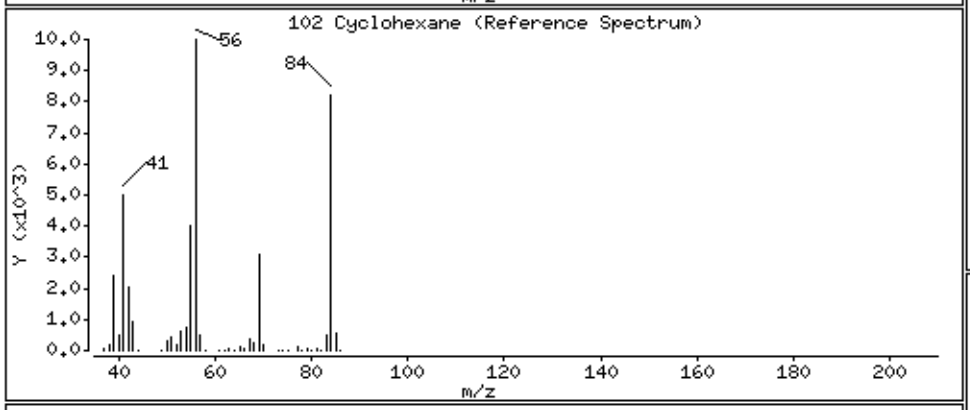
Column diameter: 0.32

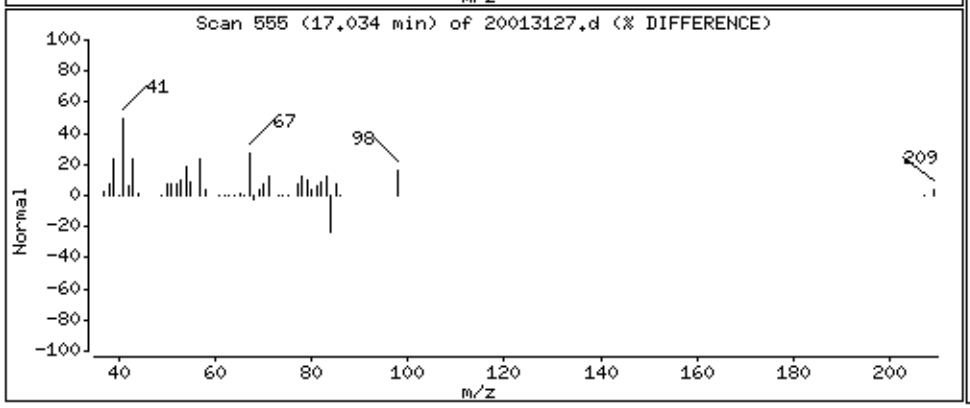
102 Cyclohexane

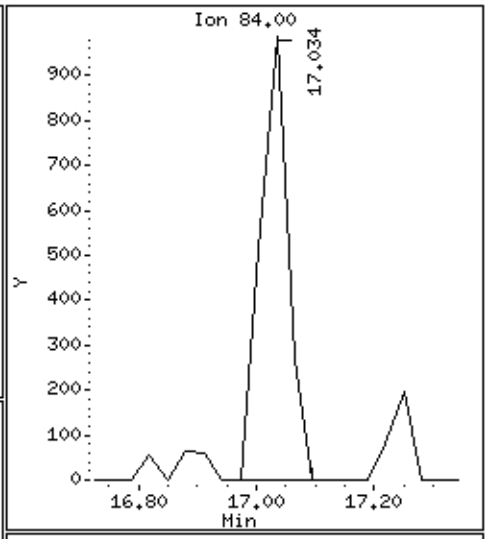
Concentration: 0.08851 PPBV

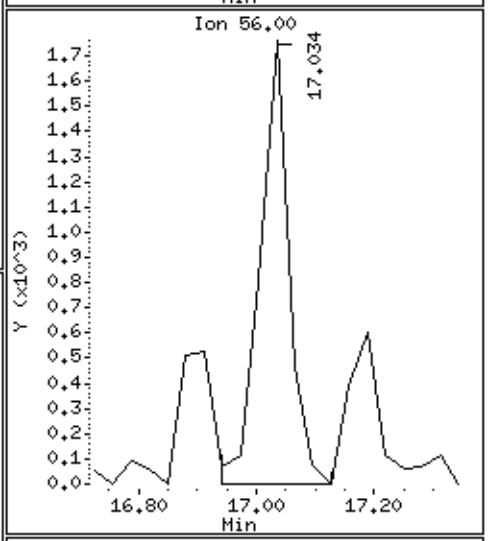


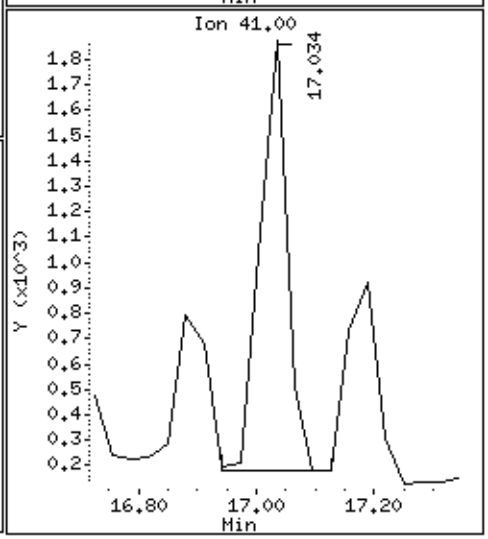












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

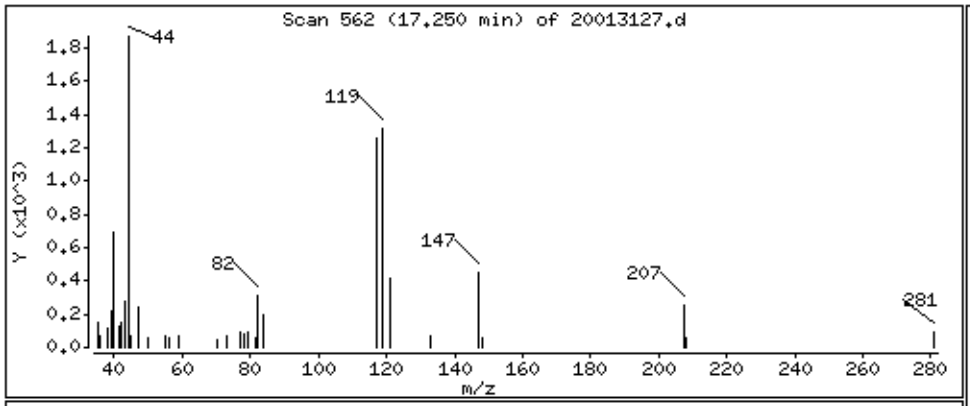
Operator: ef

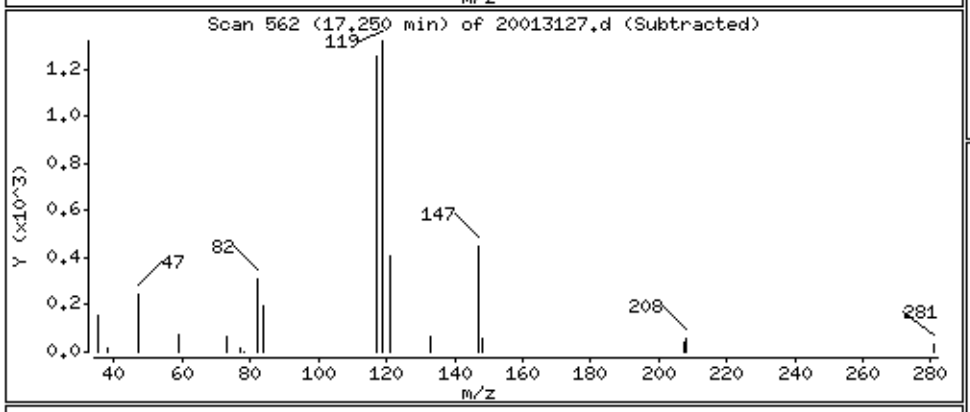
Column phase: RTX-624

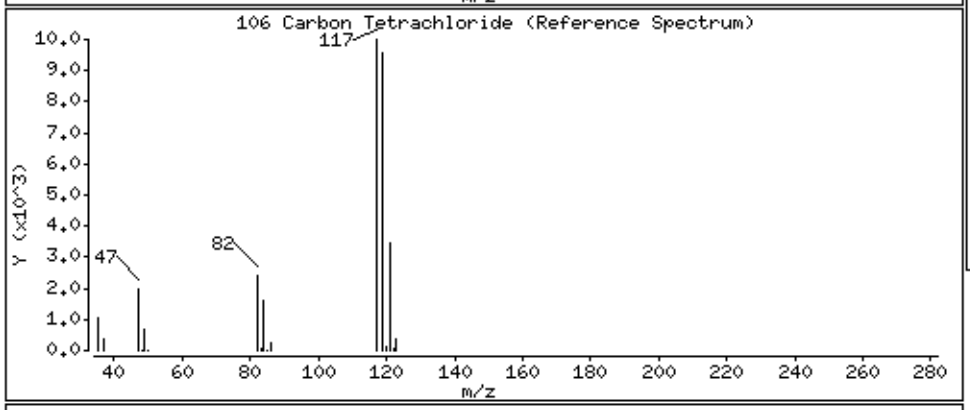
Column diameter: 0.32

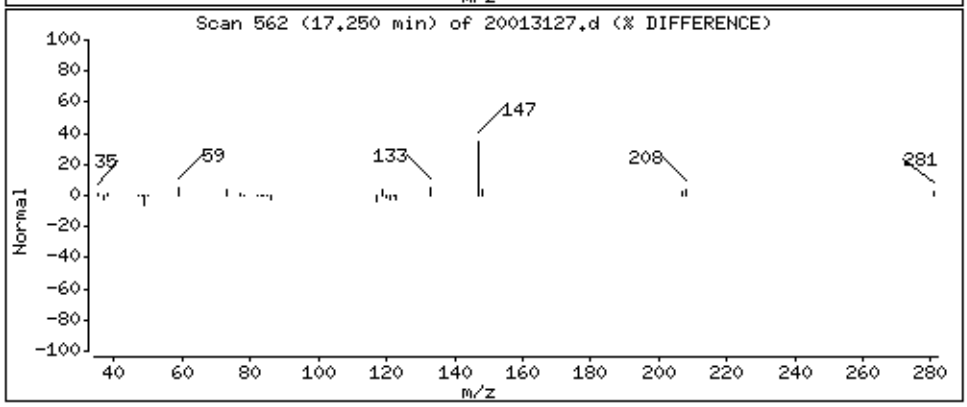
106 Carbon Tetrachloride

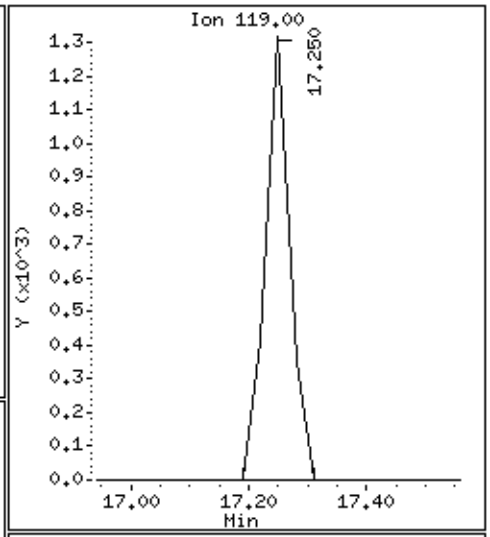
Concentration: 0.07938 PPBV

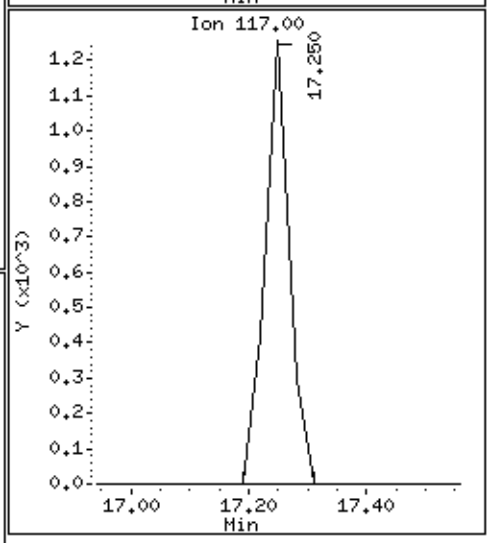












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

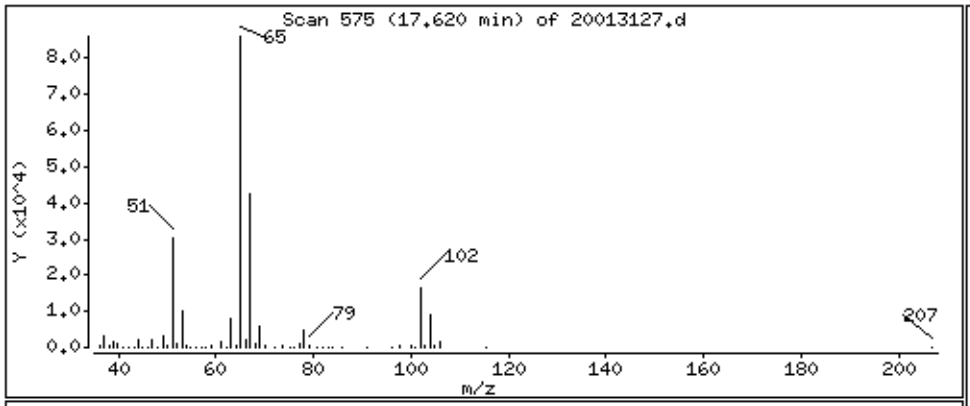
Operator: ef

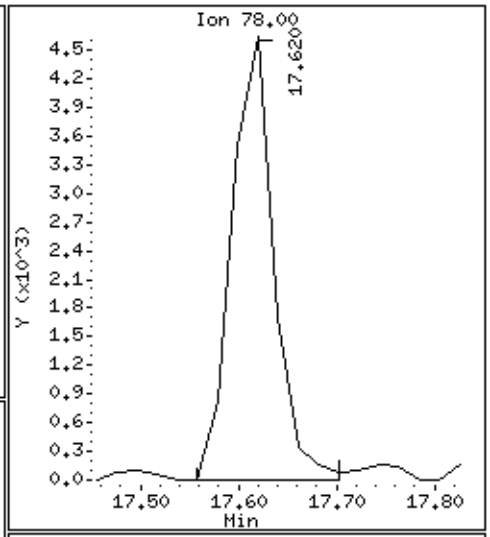
Column phase: RTX-624

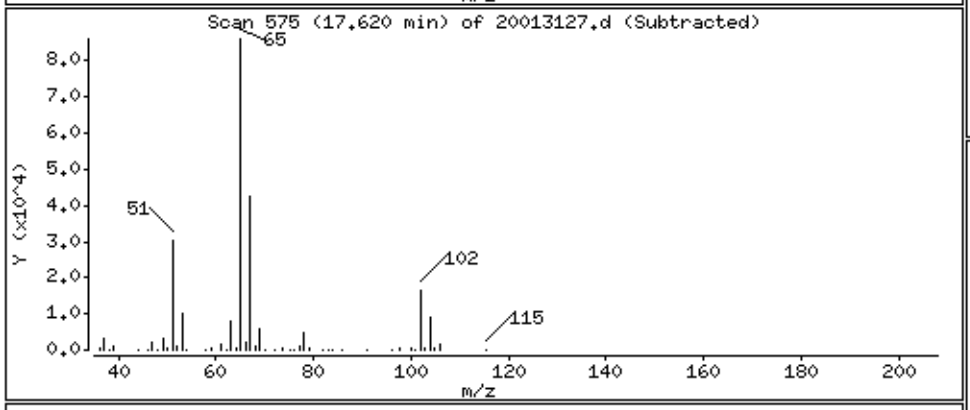
Column diameter: 0.32

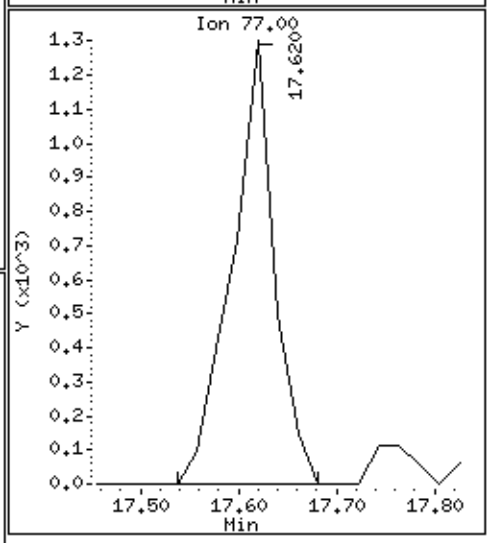
116 Benzene

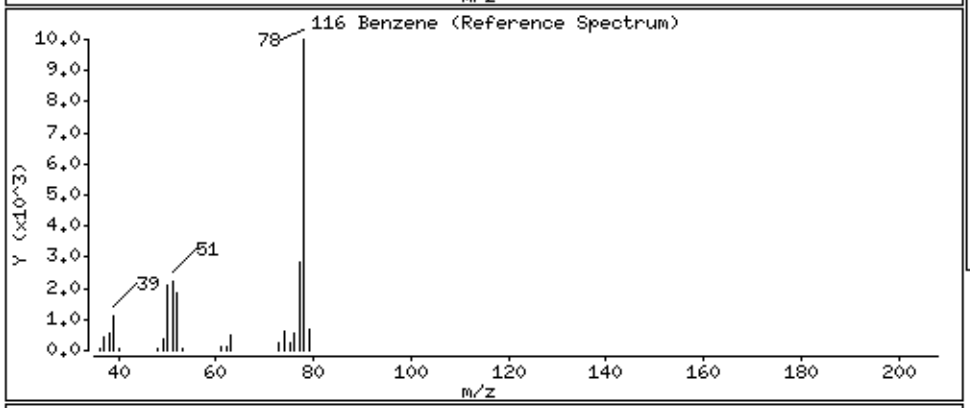
Concentration: 0.2329 PPBV

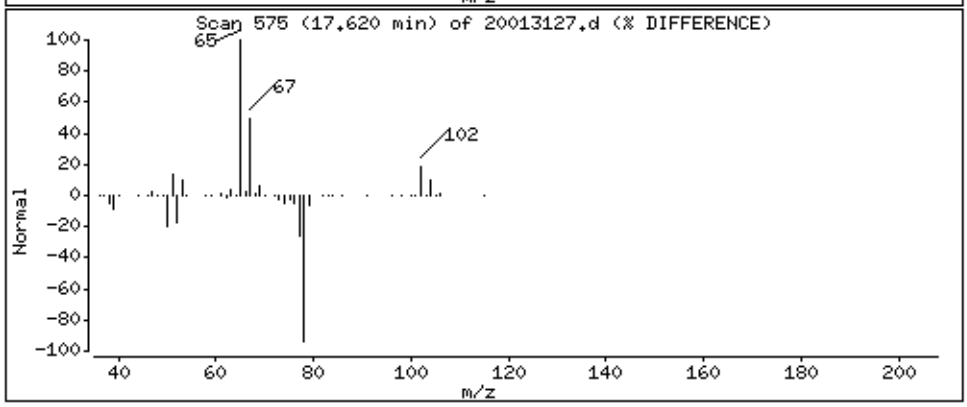












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

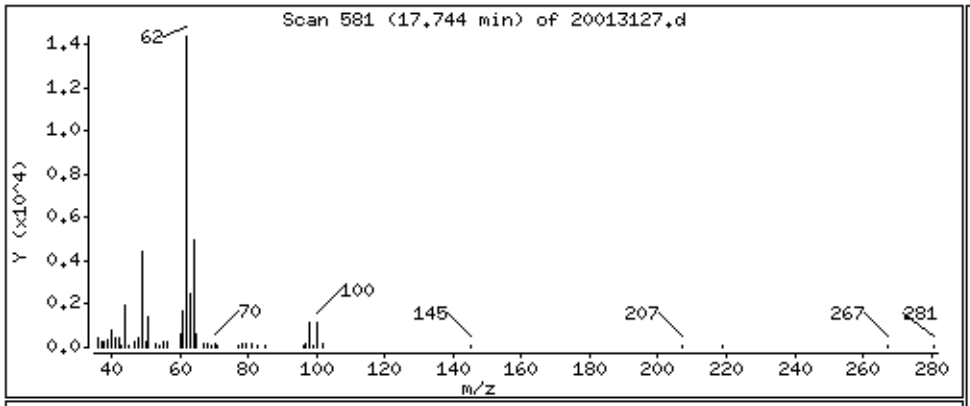
Operator: ef

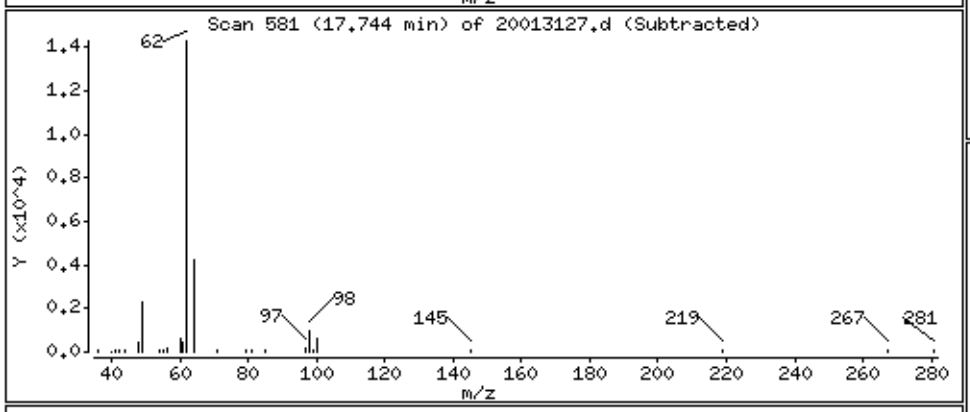
Column phase: RTX-624

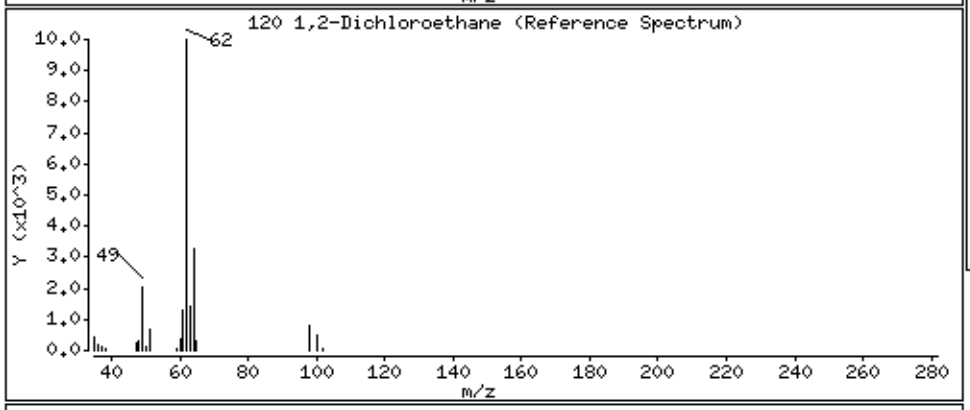
Column diameter: 0.32

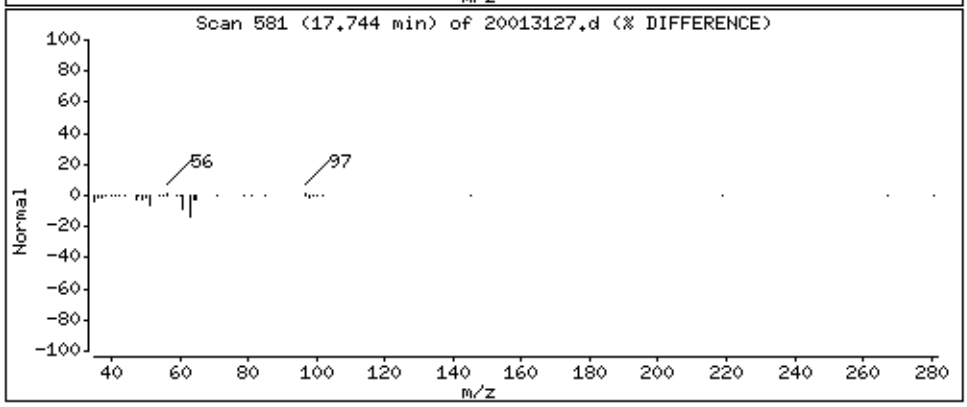
120 1,2-Dichloroethane

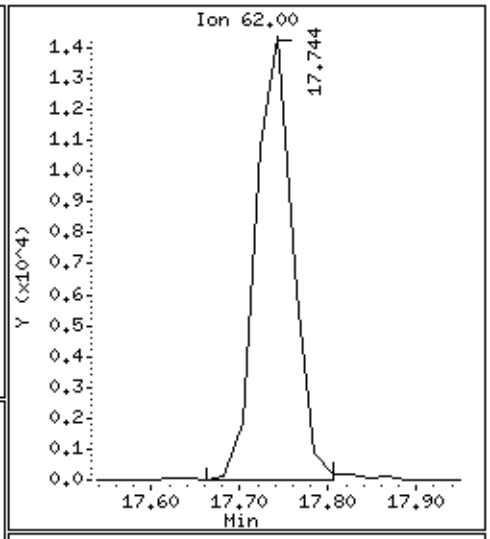
Concentration: 1.826 PPBV

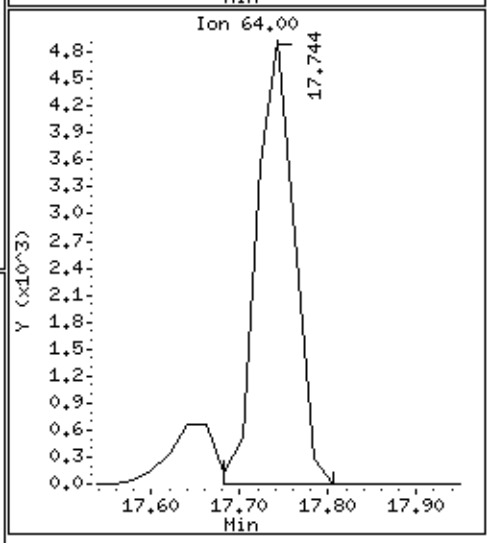












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

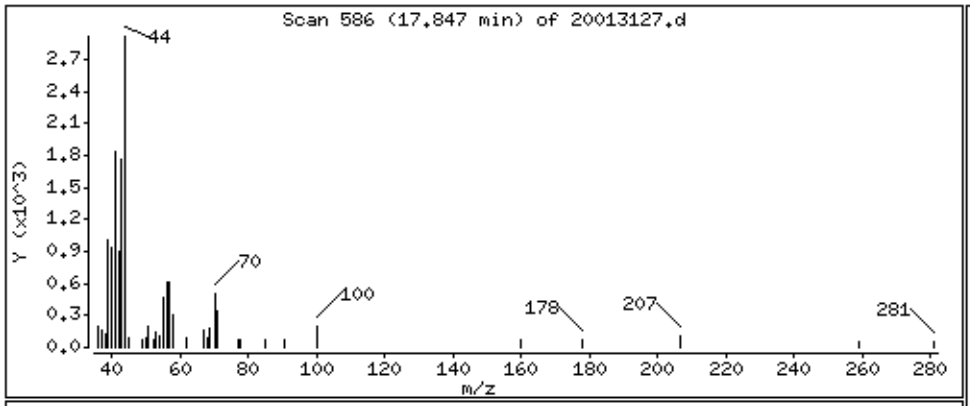
Operator: ef

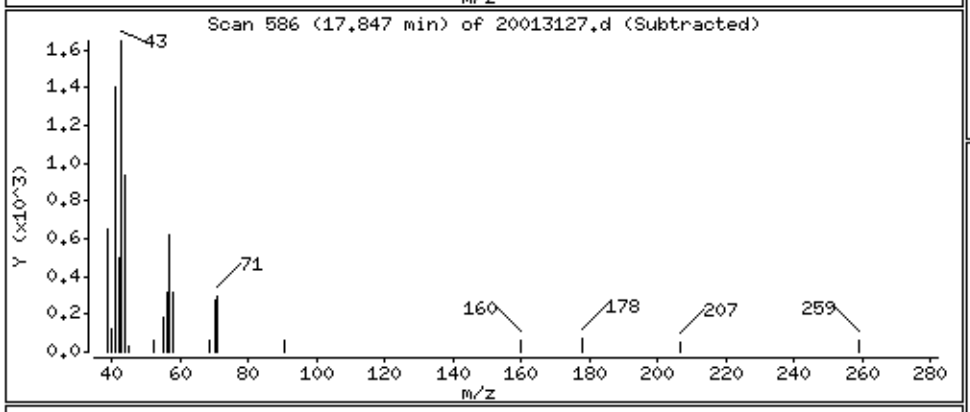
Column phase: RTX-624

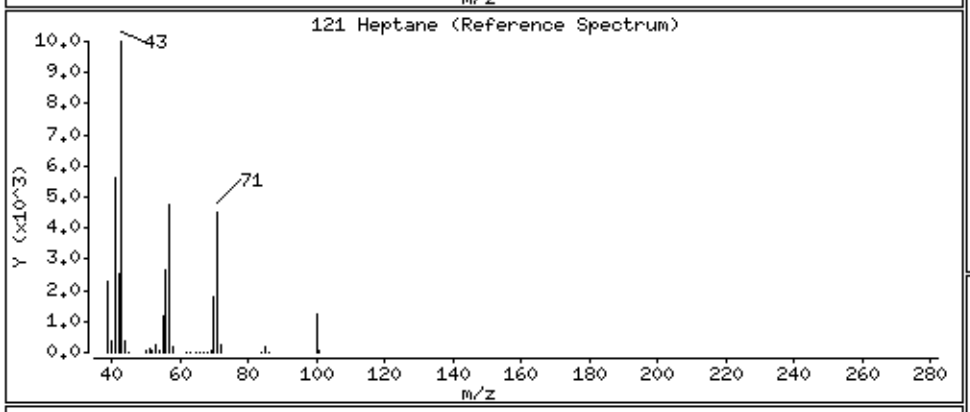
Column diameter: 0.32

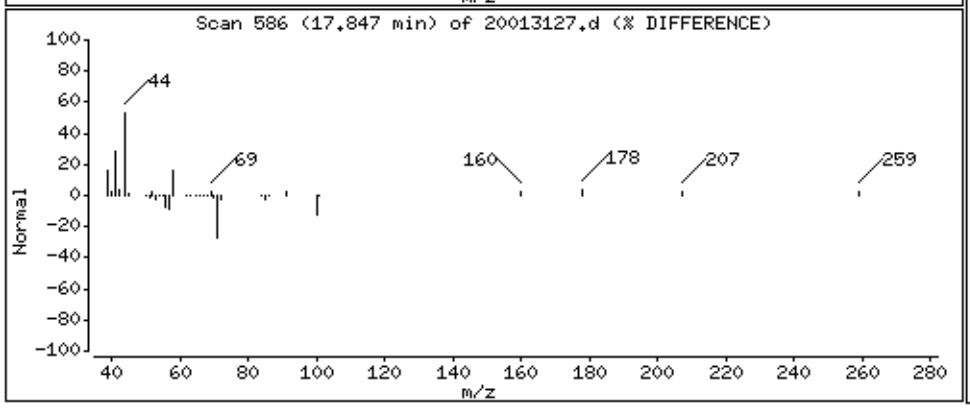
121 Heptane

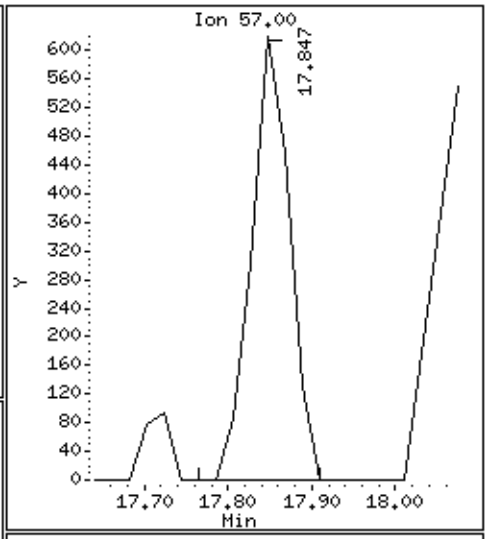
Concentration: 0.1283 PPBV

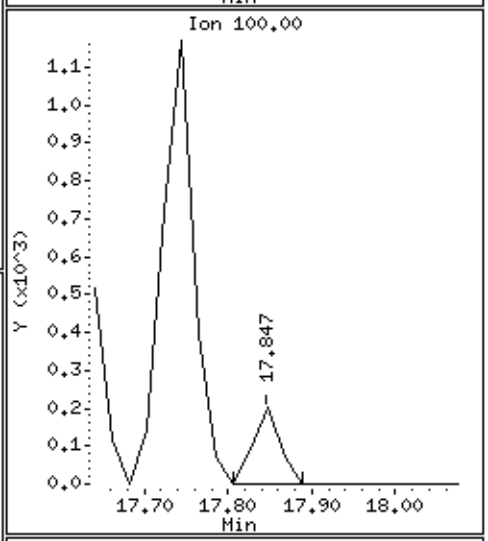


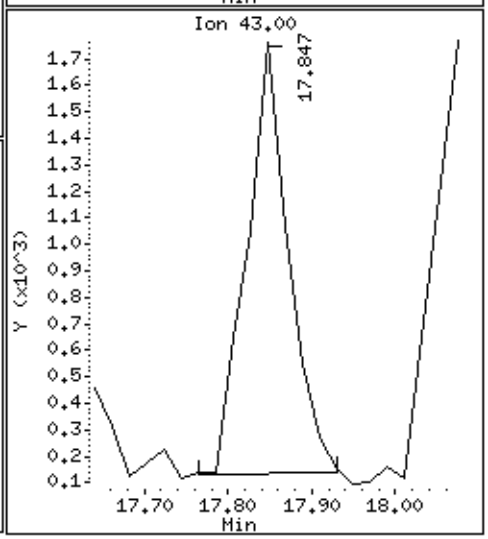












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

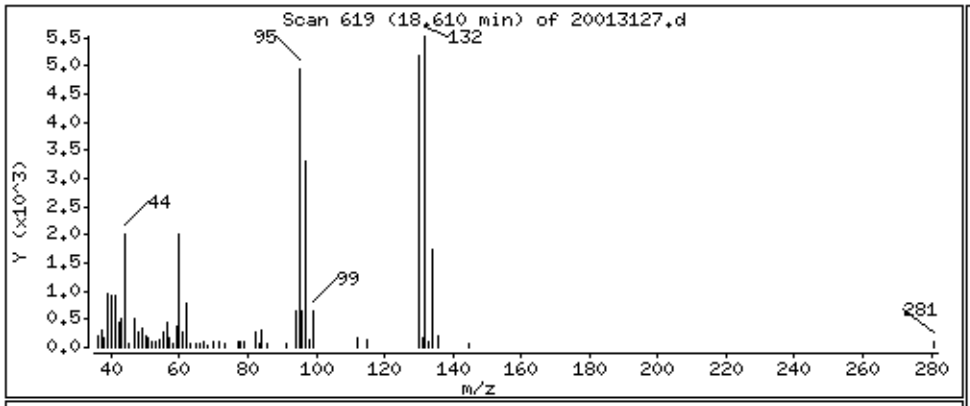
Operator: ef

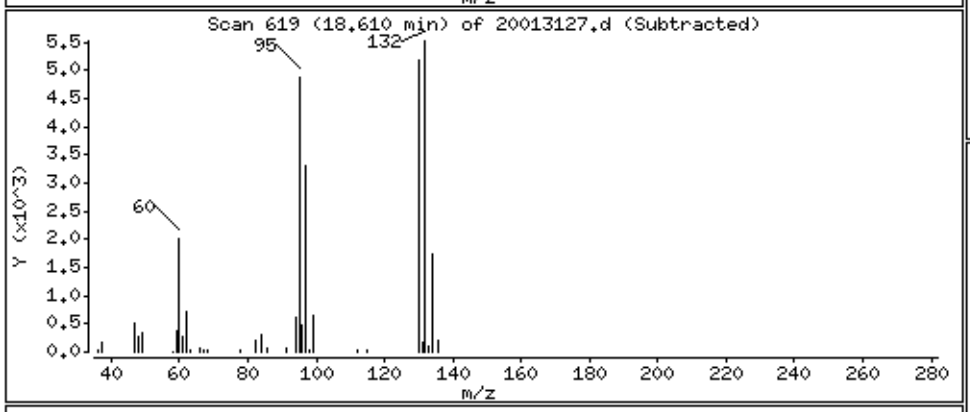
Column phase: RTX-624

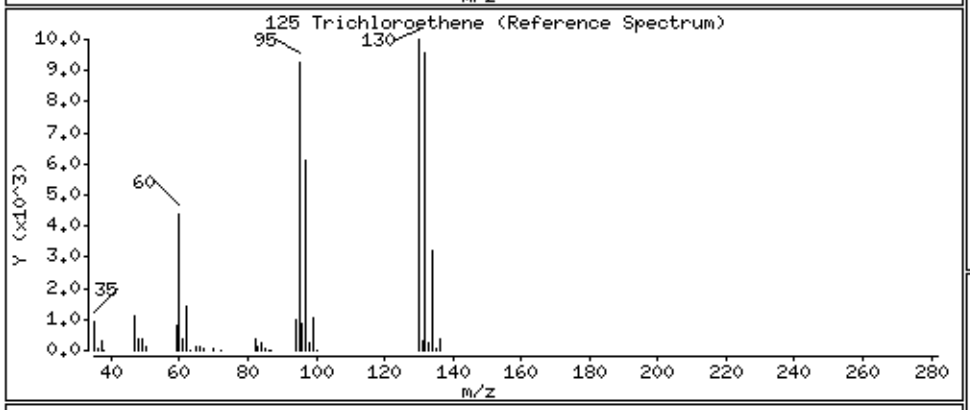
Column diameter: 0.32

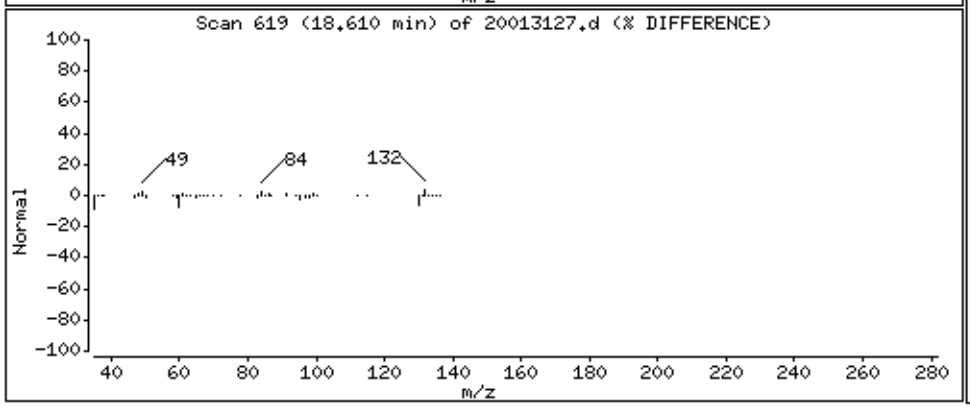
125 Trichloroethene

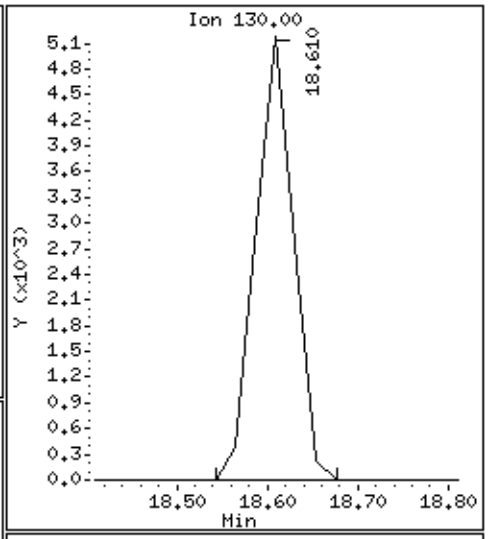
Concentration: 0.5293 PPBV

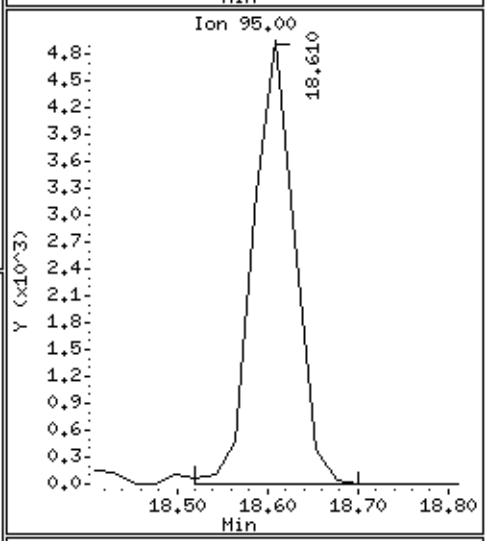


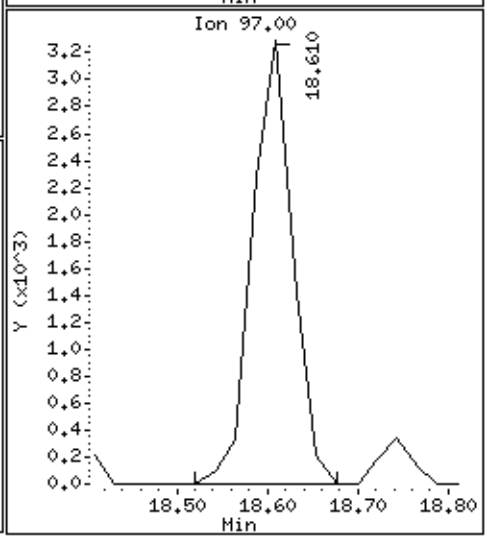












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

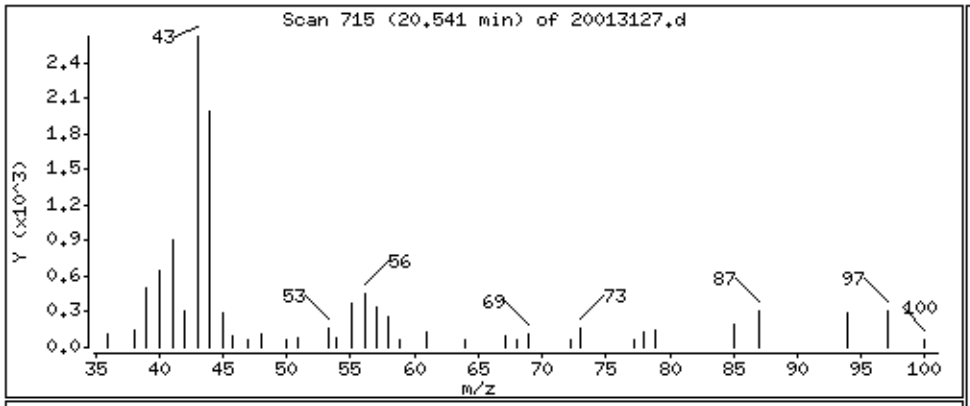
Operator: ef

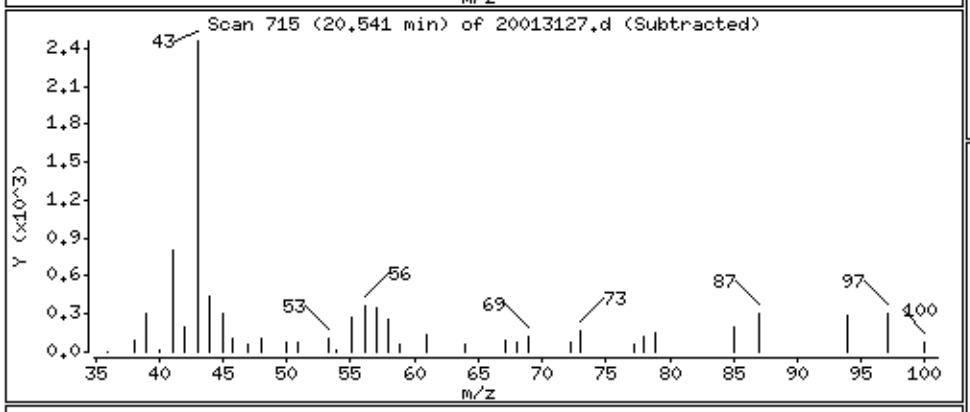
Column phase: RTX-624

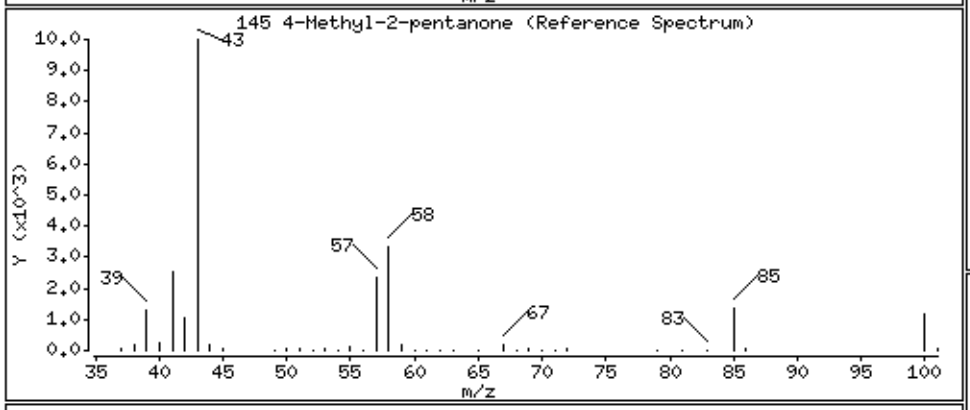
Column diameter: 0.32

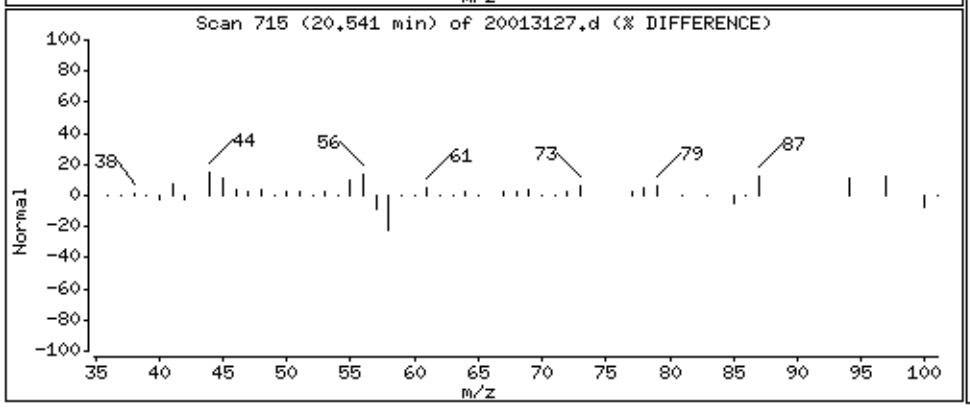
145 4-Methyl-2-pentanone

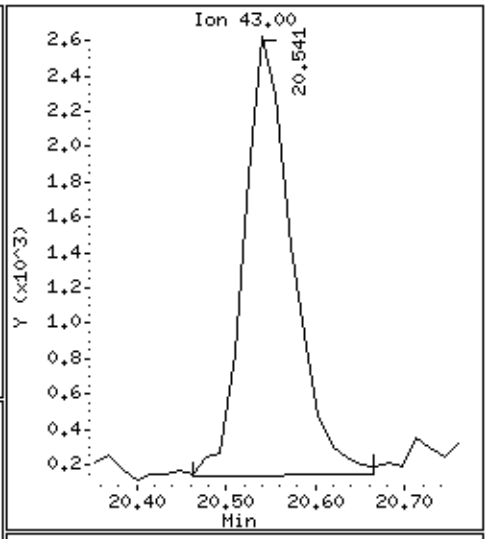
Concentration: 0.2891 PPBV

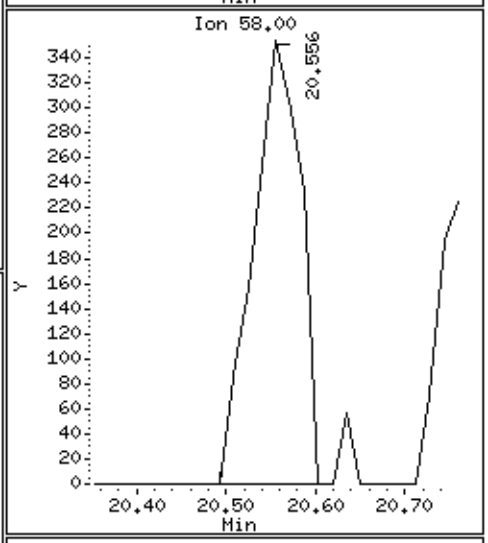


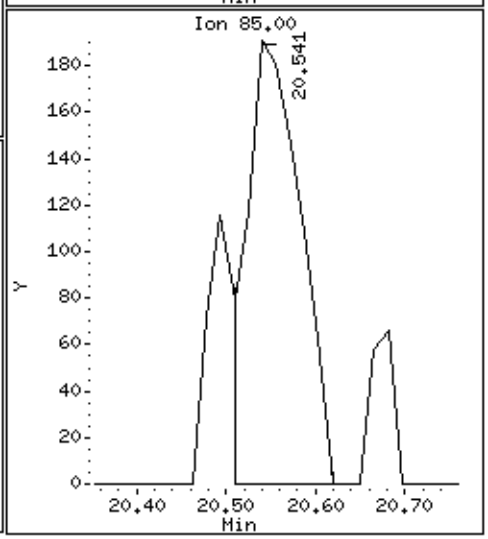












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

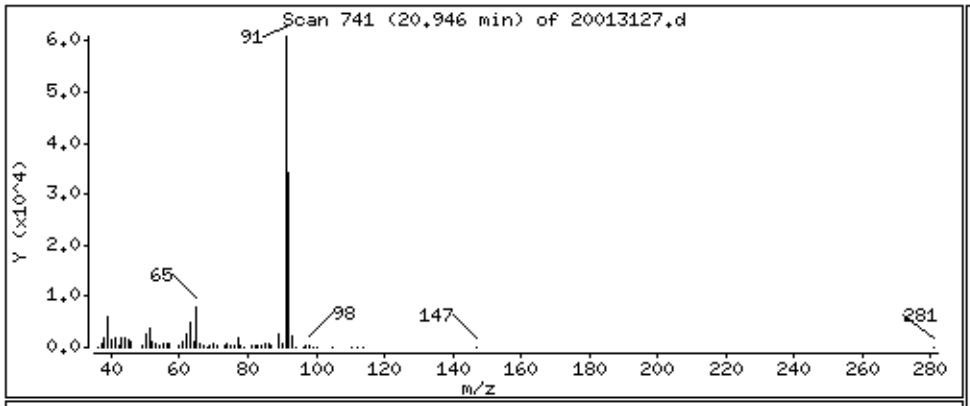
Operator: ef

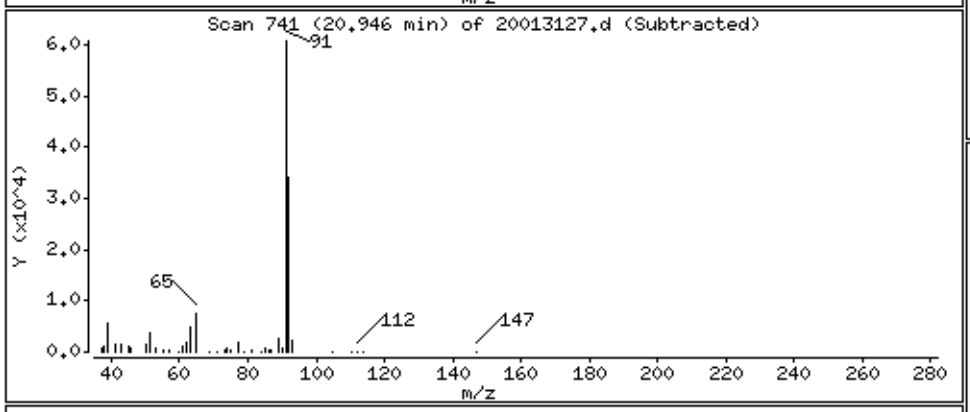
Column phase: RTX-624

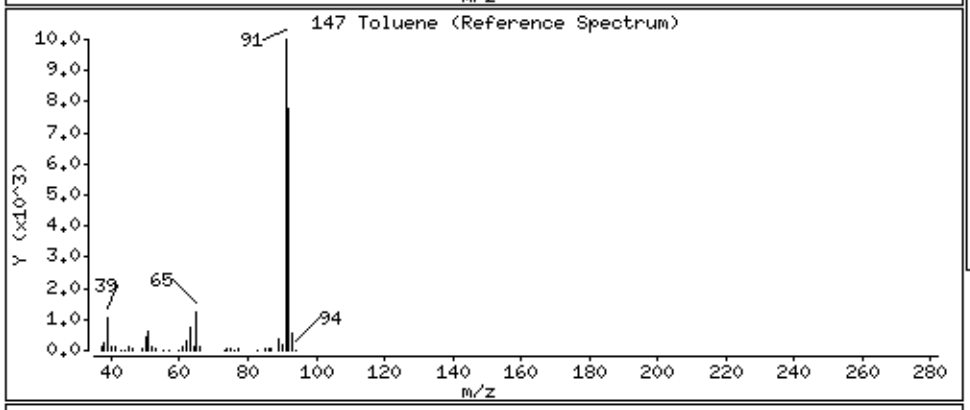
Column diameter: 0.32

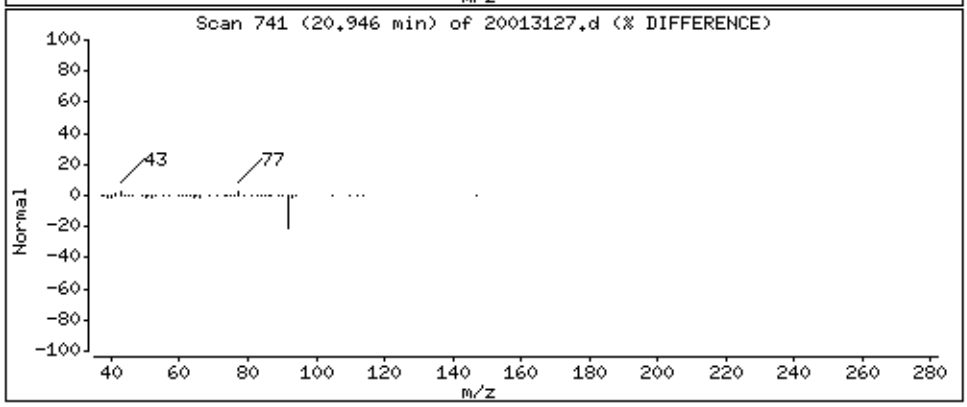
147 Toluene

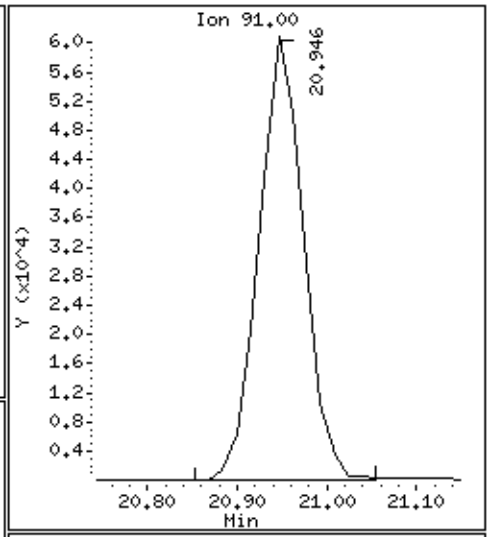
Concentration: 3.200 PPBV

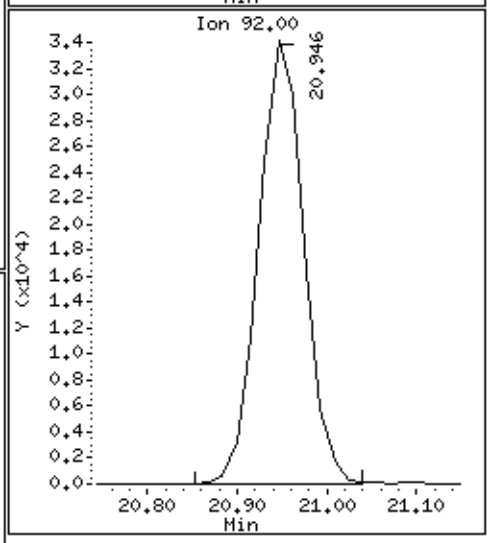












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

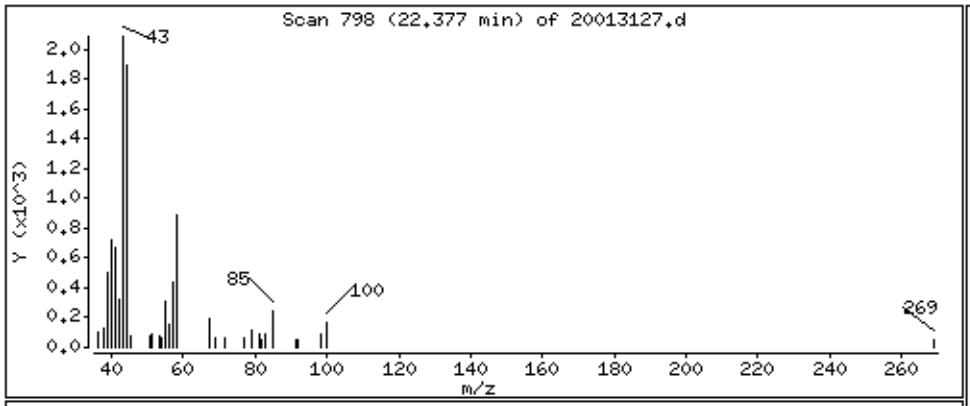
Operator: ef

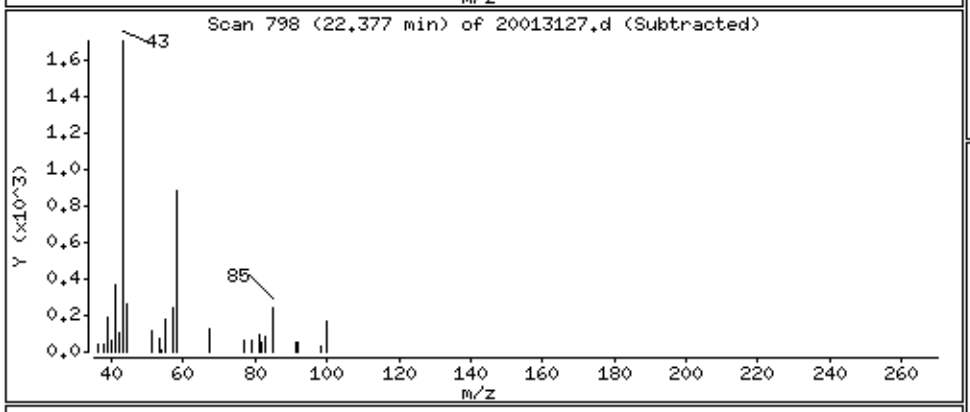
Column phase: RTX-624

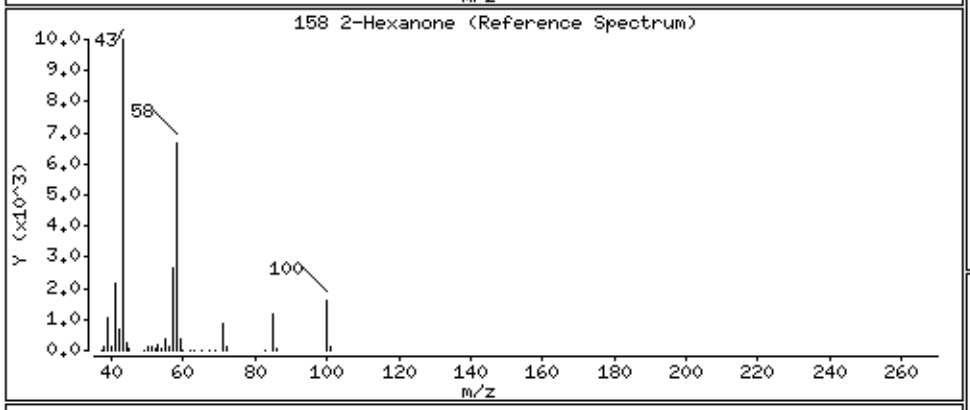
Column diameter: 0.32

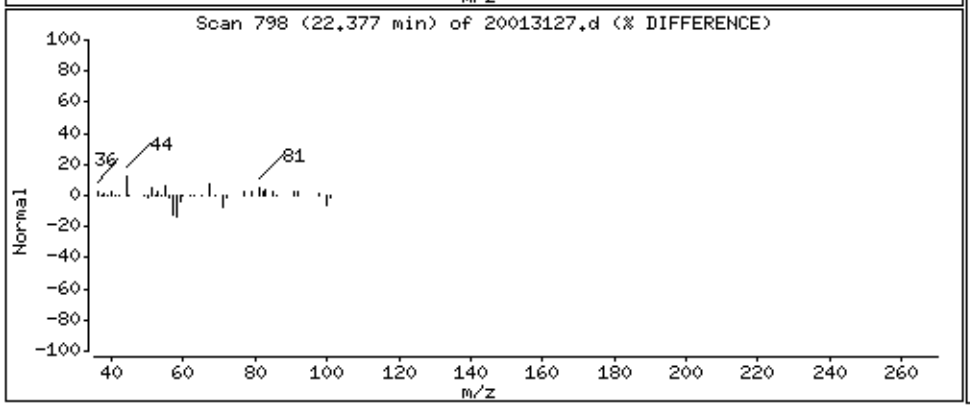
158 2-Hexanone

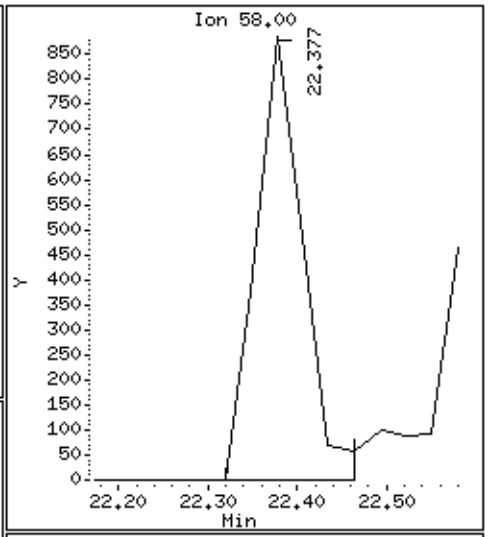
Concentration: 0.1509 PPBV

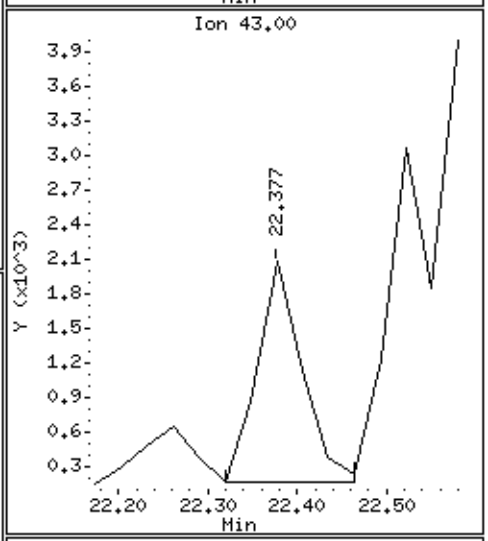


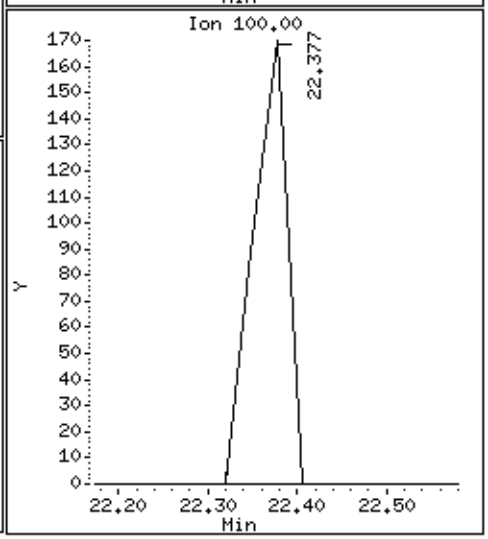












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

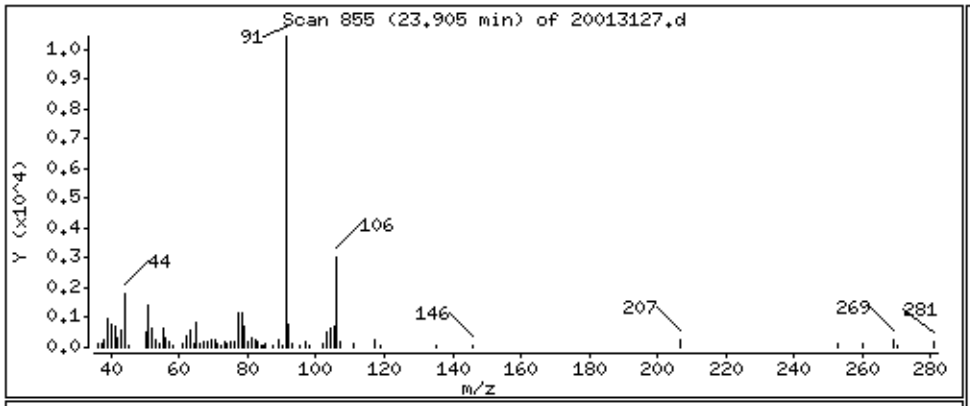
Operator: ef

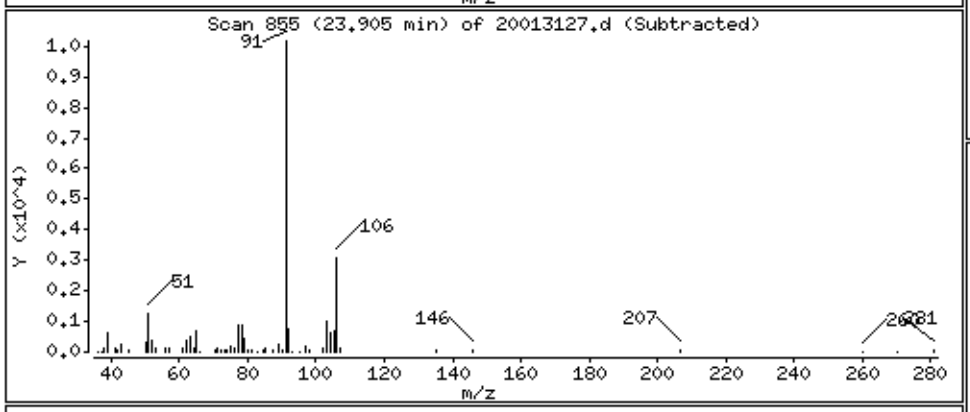
Column phase: RTX-624

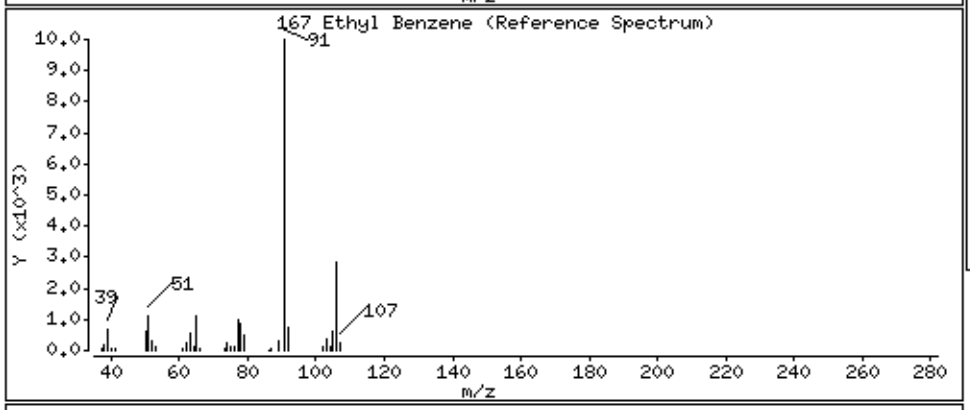
Column diameter: 0.32

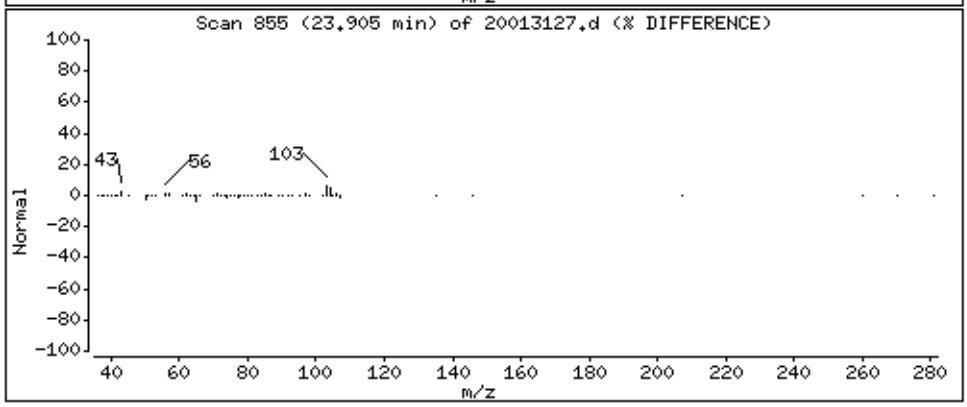
167 Ethyl Benzene

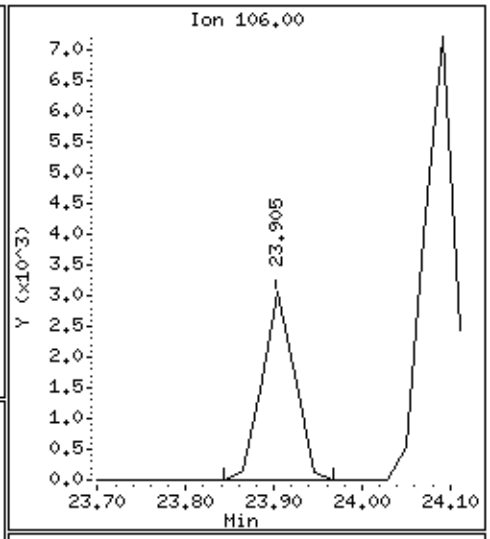
Concentration: 0.2648 PPBV

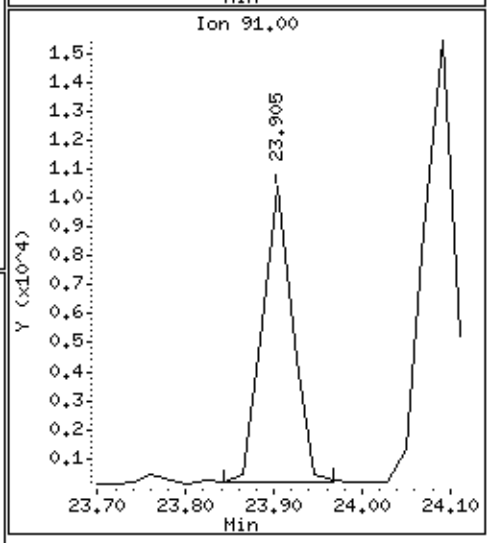












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

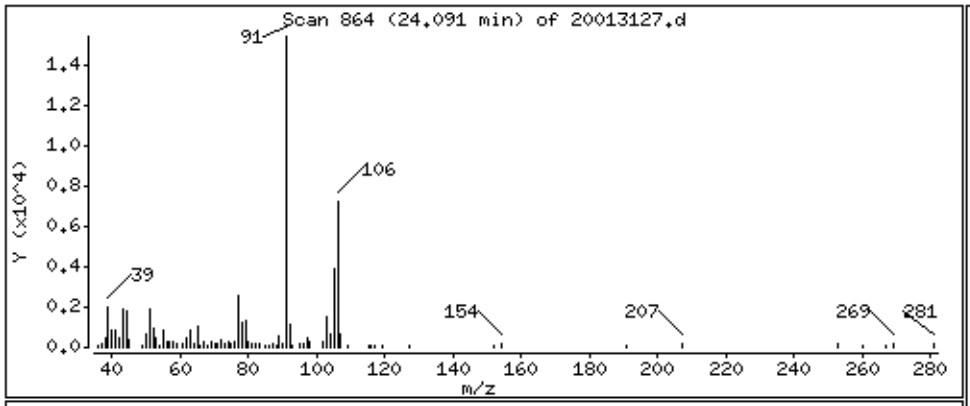
Operator: ef

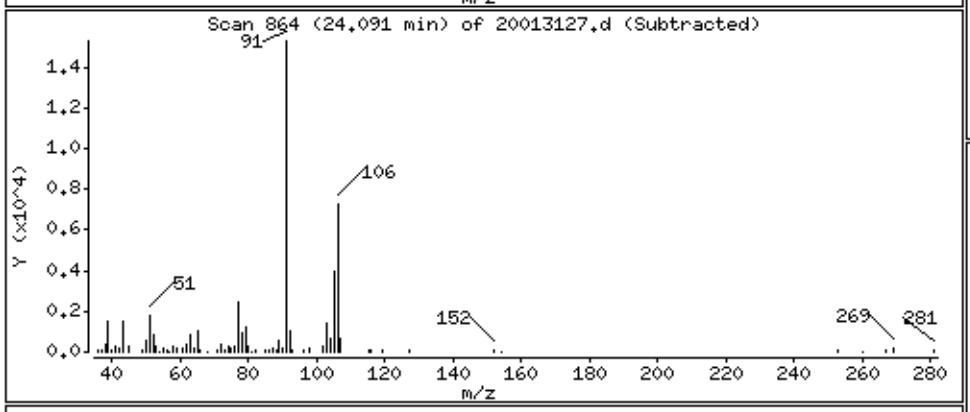
Column phase: RTX-624

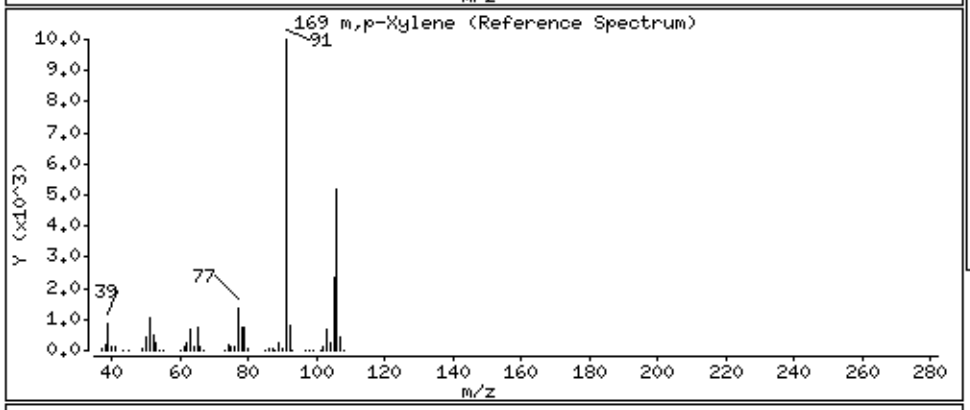
Column diameter: 0.32

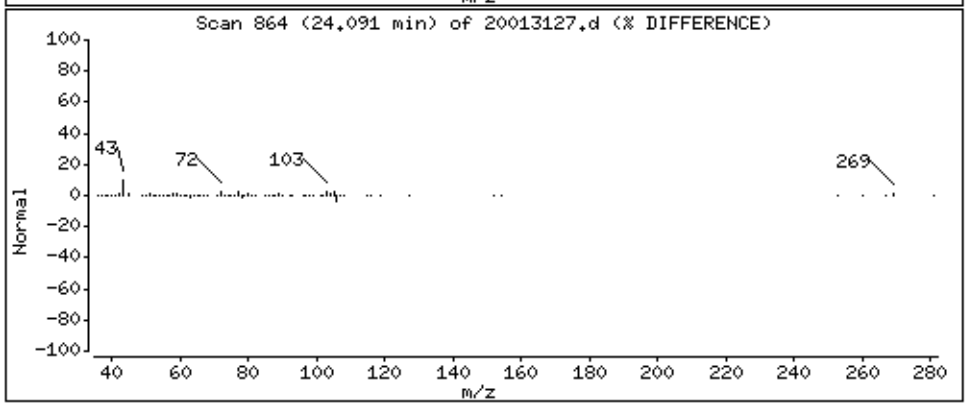
169 m,p-Xylene

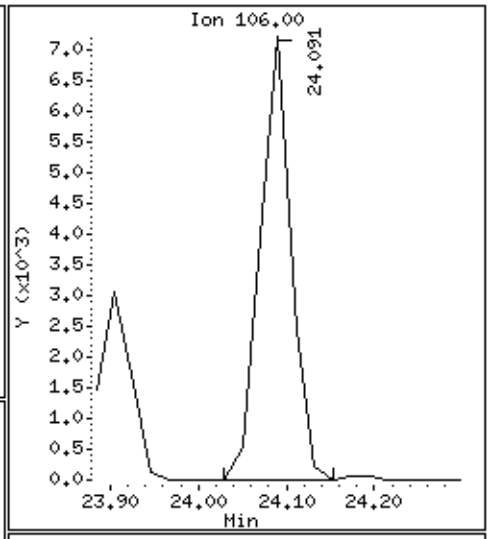
Concentration: 0.5670 PPBV

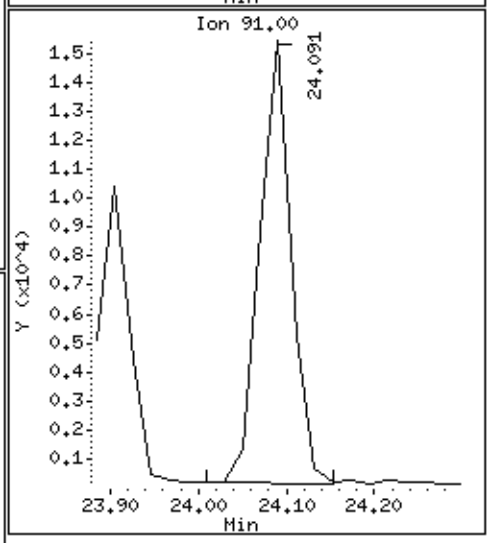












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

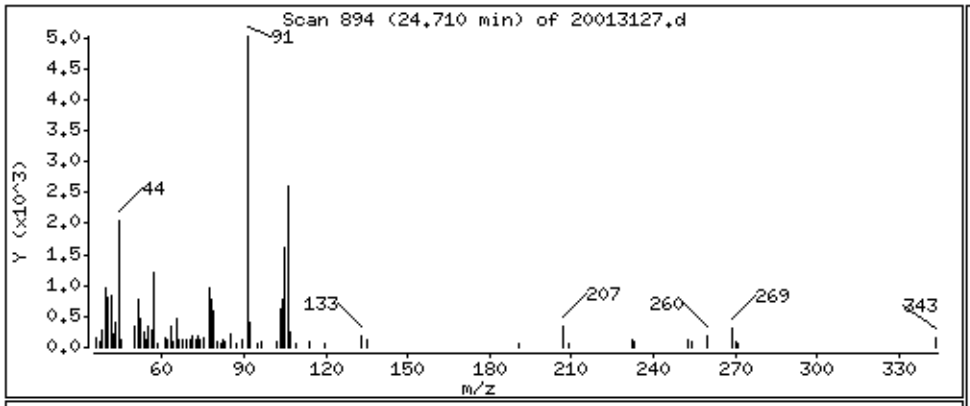
Operator: ef

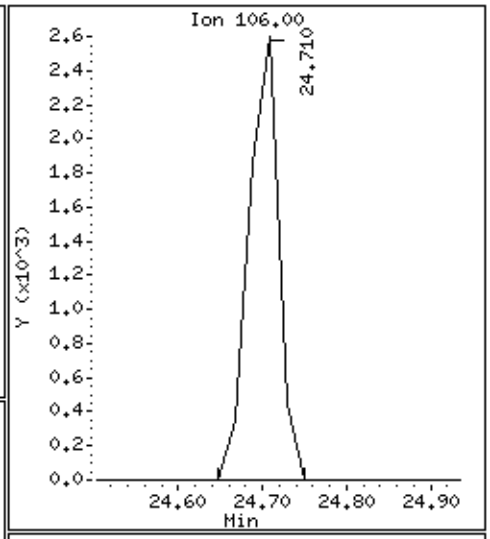
Column phase: RTX-624

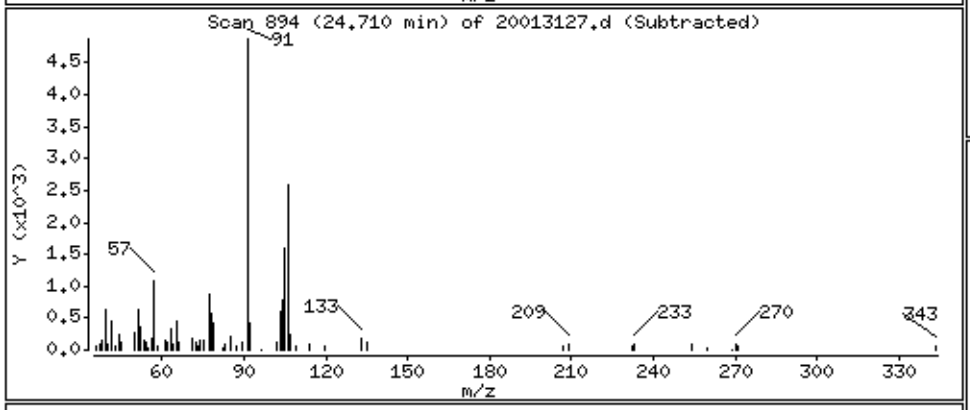
Column diameter: 0.32

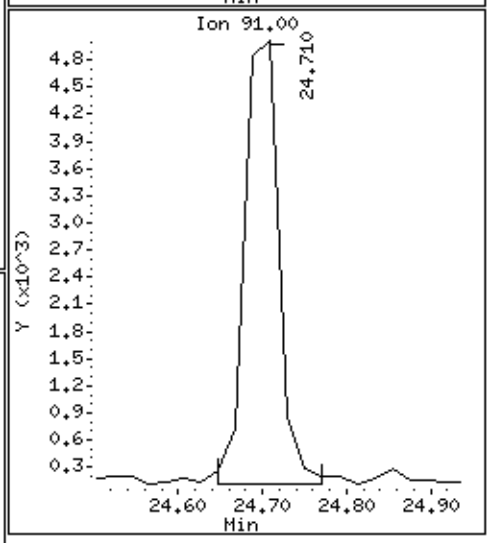
171 o-Xylene

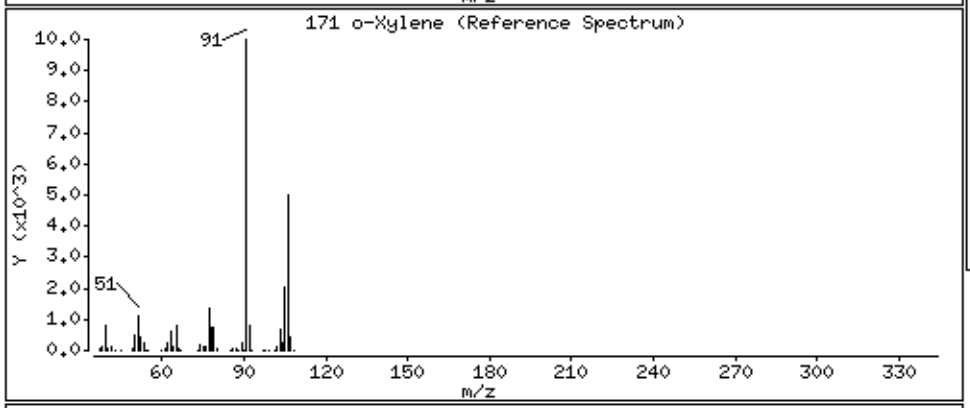
Concentration: 0.2226 PPBV

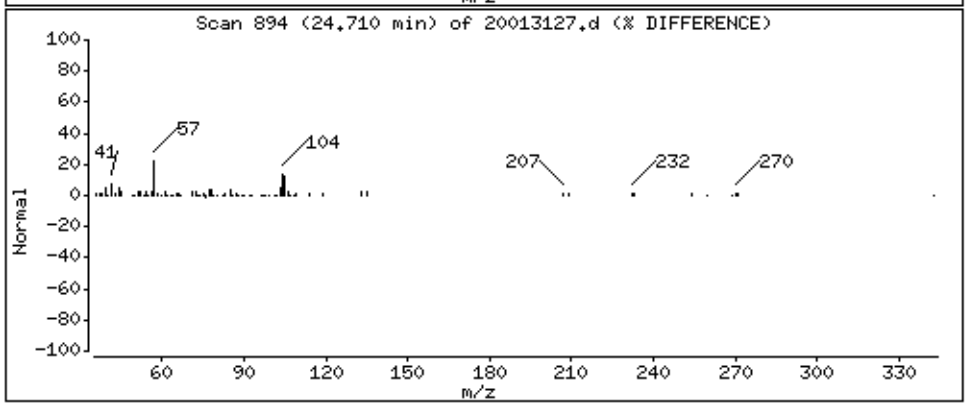












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

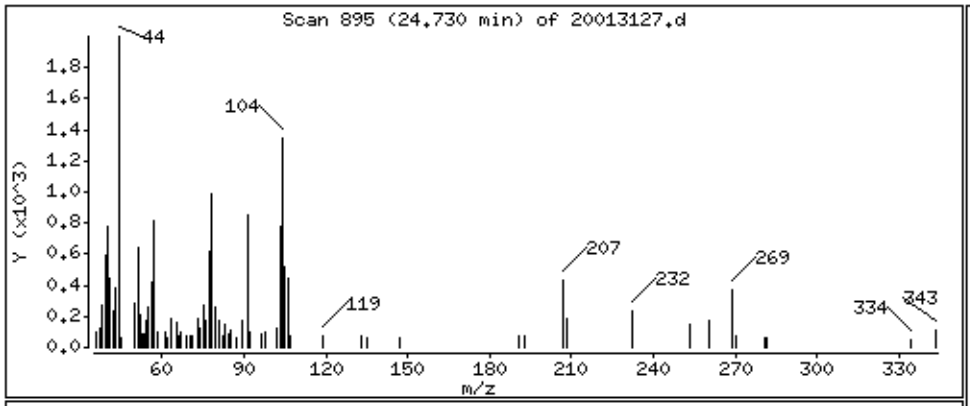
Operator: ef

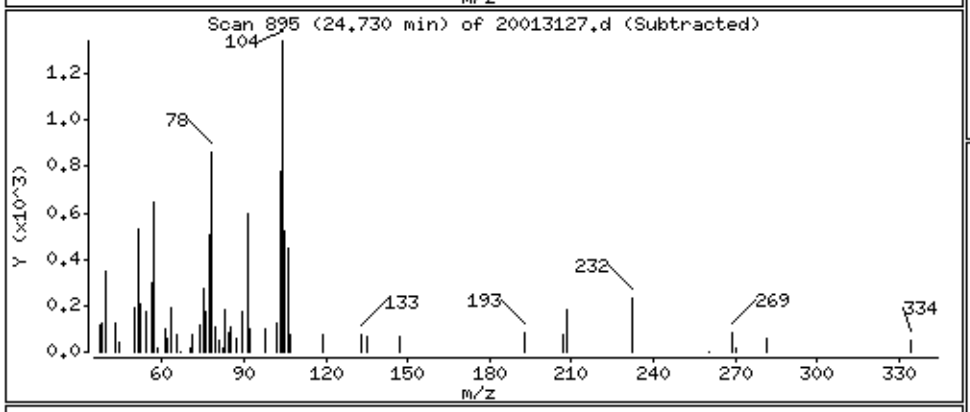
Column phase: RTX-624

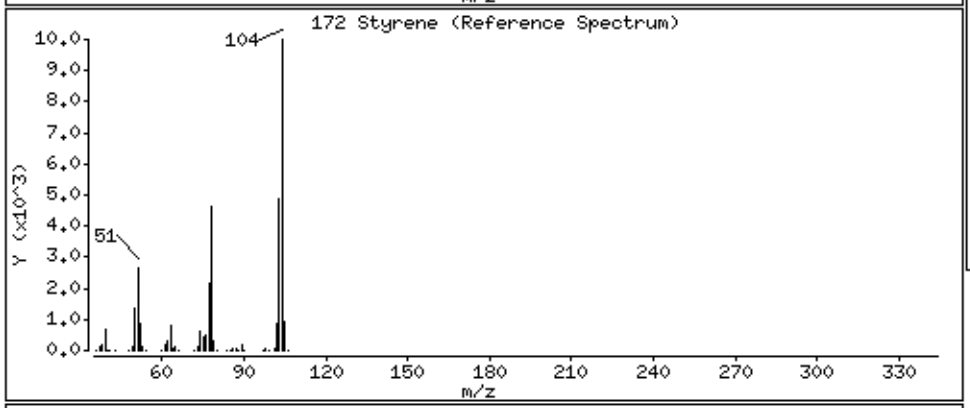
Column diameter: 0.32

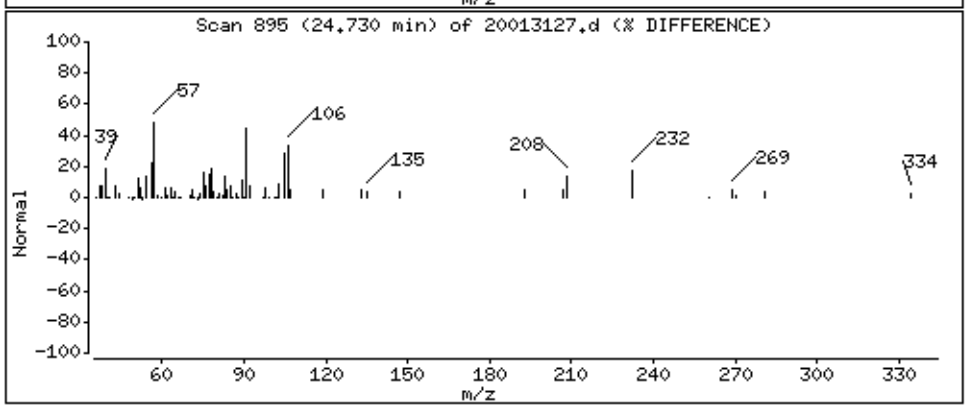
172 Styrene

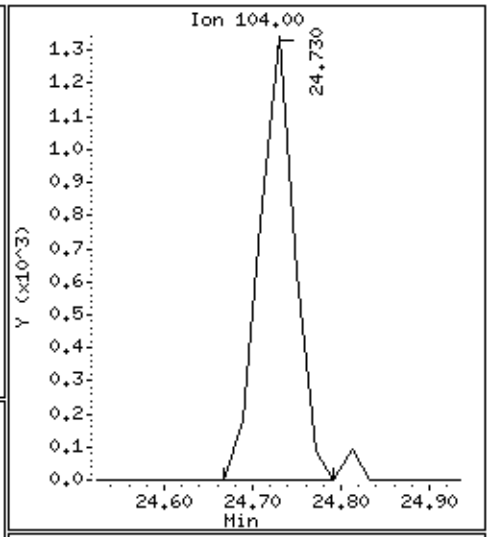
Concentration: 0.08701 PPBV

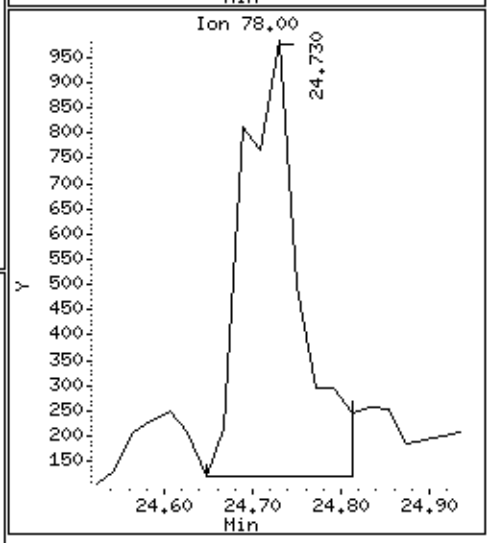












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

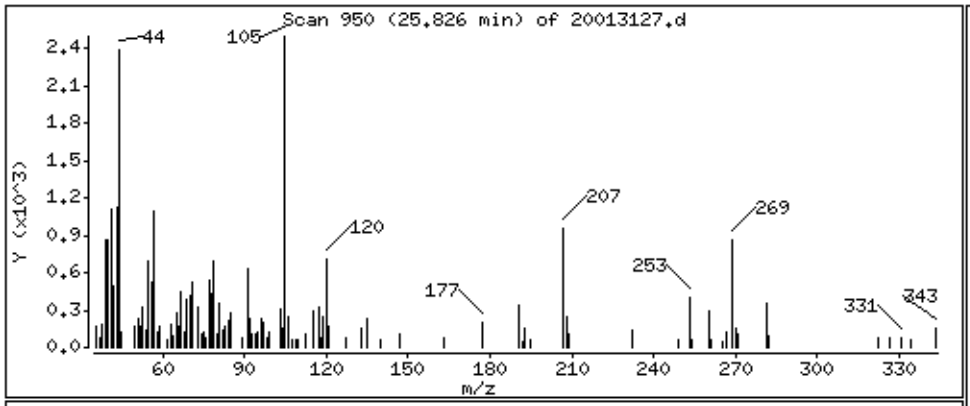
Operator: ef

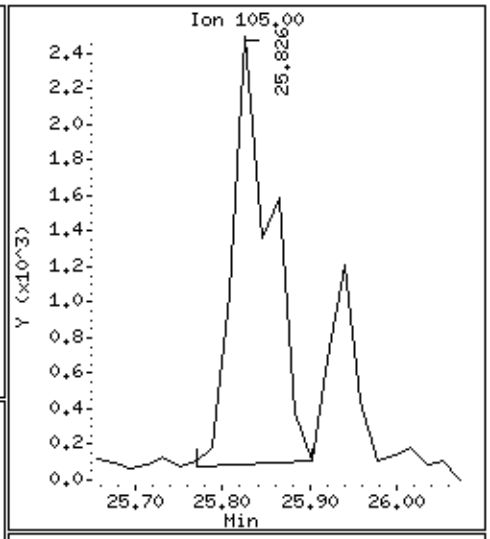
Column phase: RTX-624

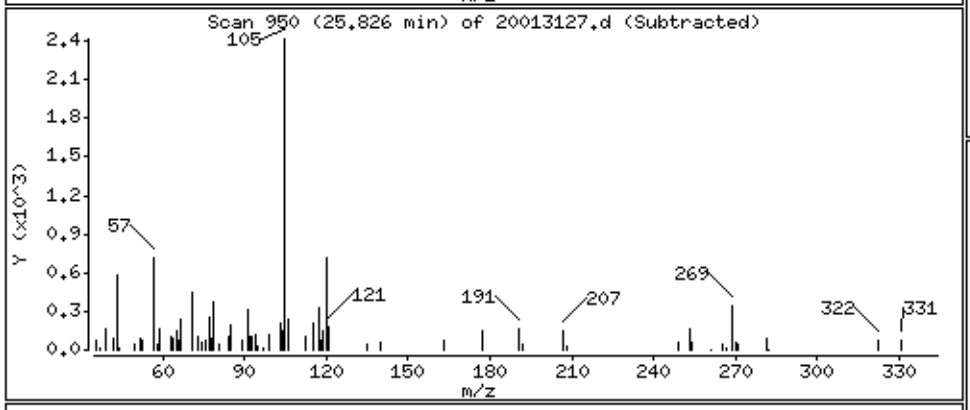
Column diameter: 0.32

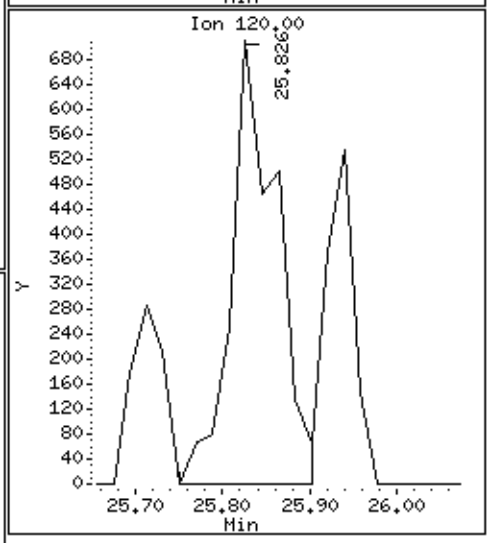
188 4-Ethyltoluene

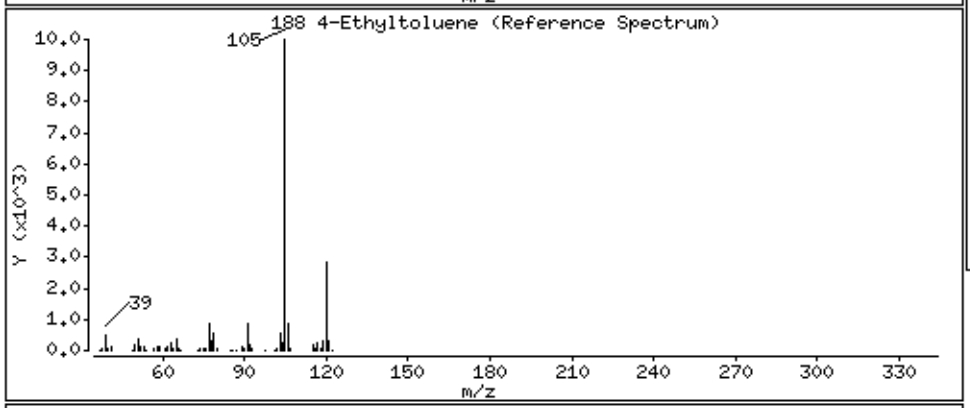
Concentration: 0.1025 PPBV

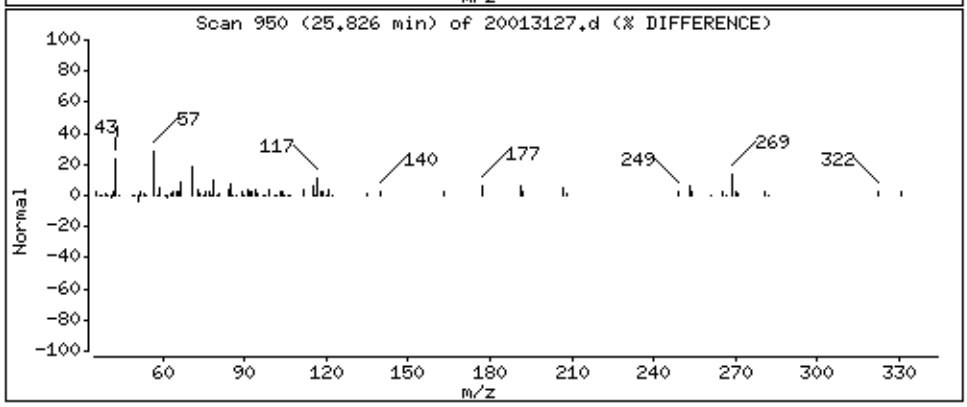












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

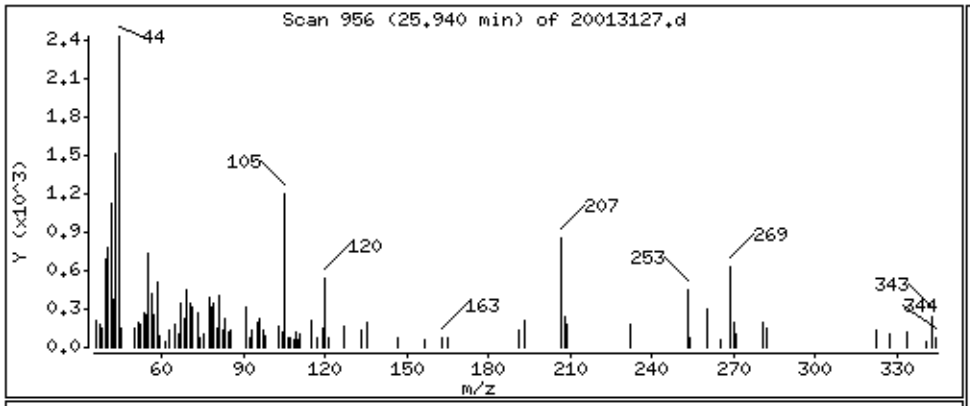
Operator: ef

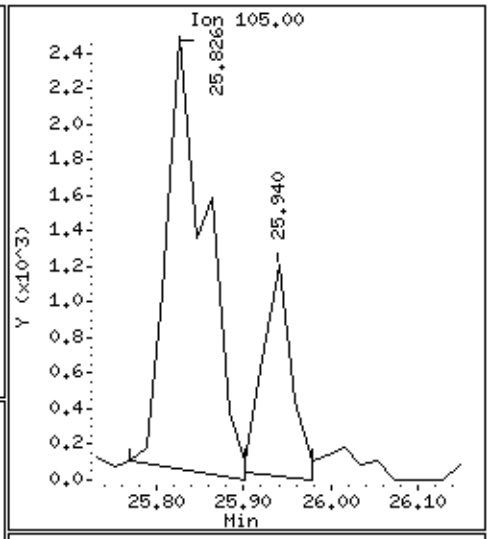
Column phase: RTX-624

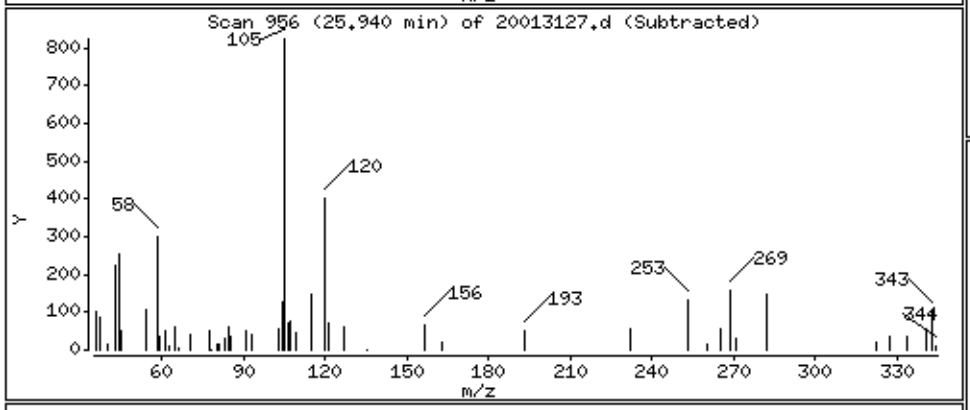
Column diameter: 0.32

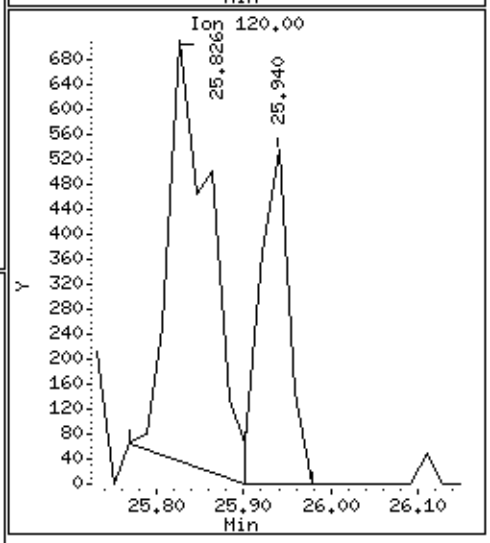
190 1,3,5-Trimethylbenzene

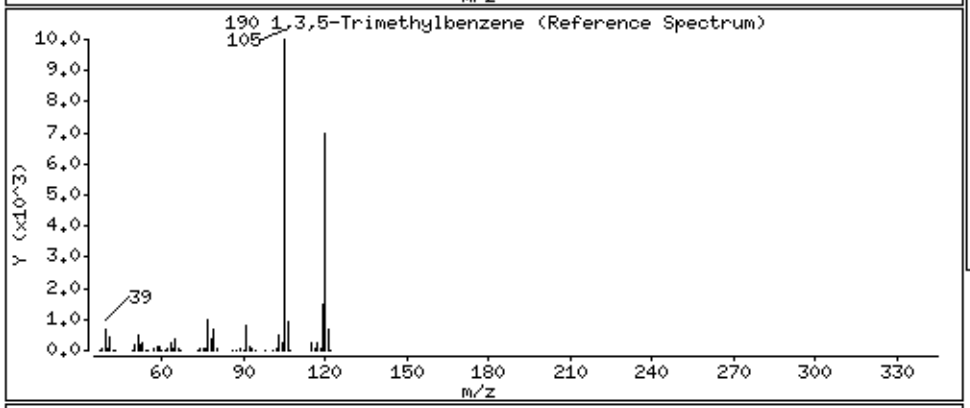
Concentration: 0.04298 PPBV

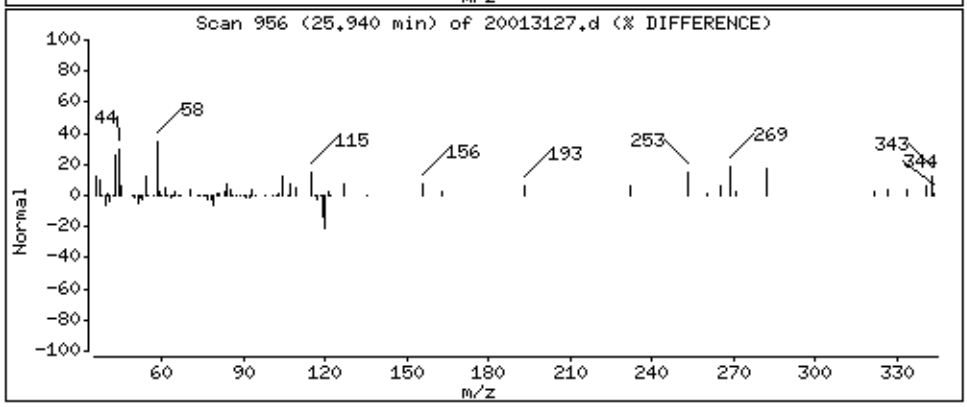












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

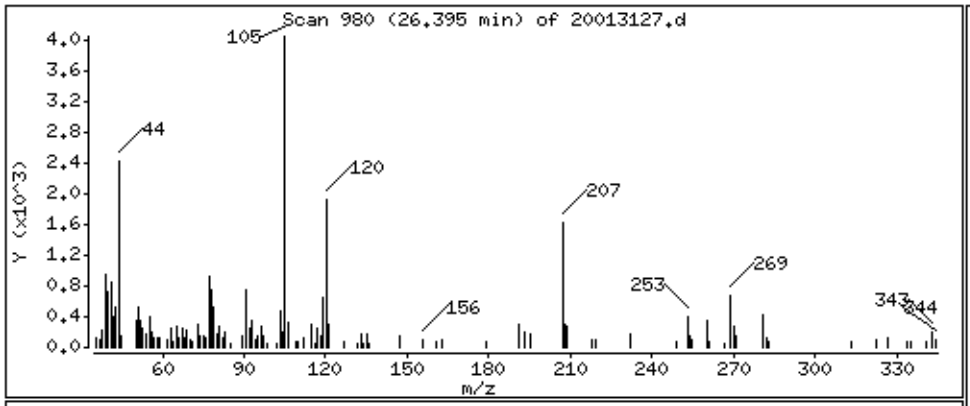
Operator: ef

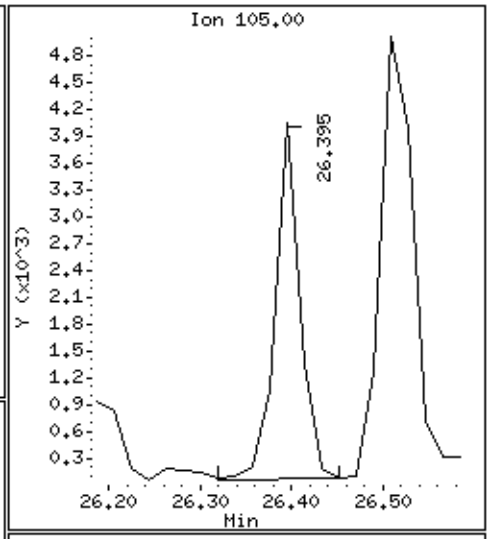
Column phase: RTX-624

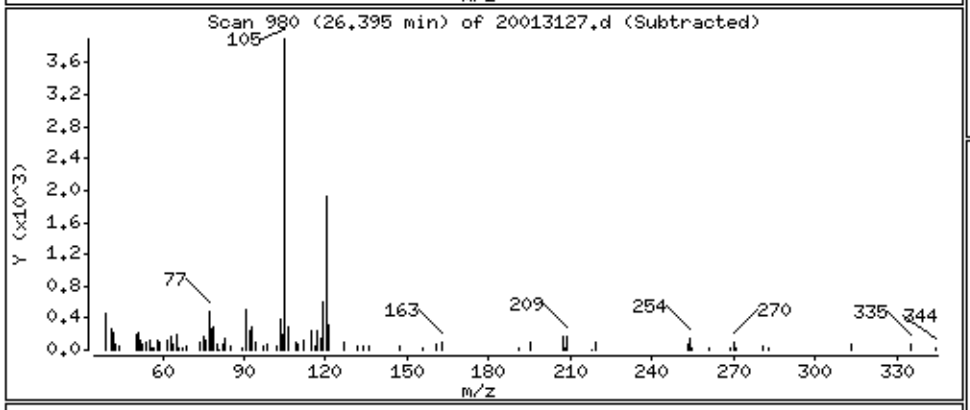
Column diameter: 0.32

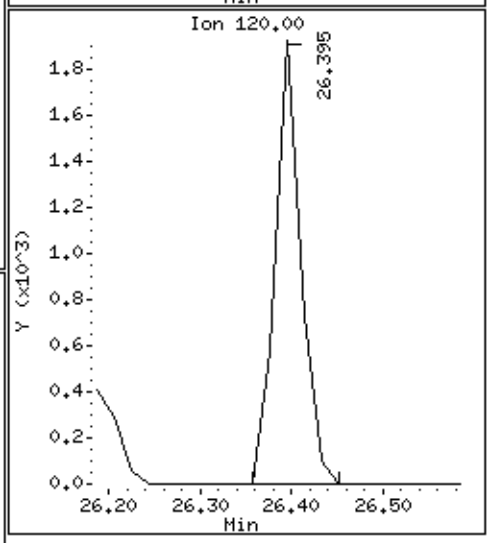
196 1,2,4-Trimethylbenzene

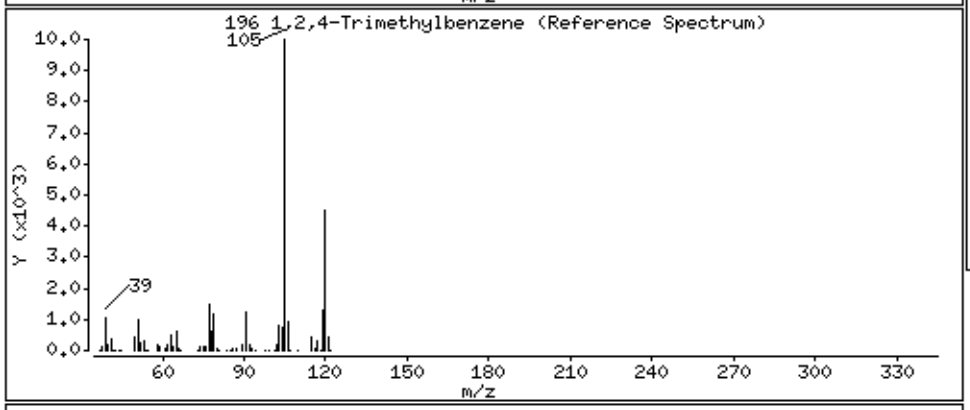
Concentration: 0.1197 PPBV

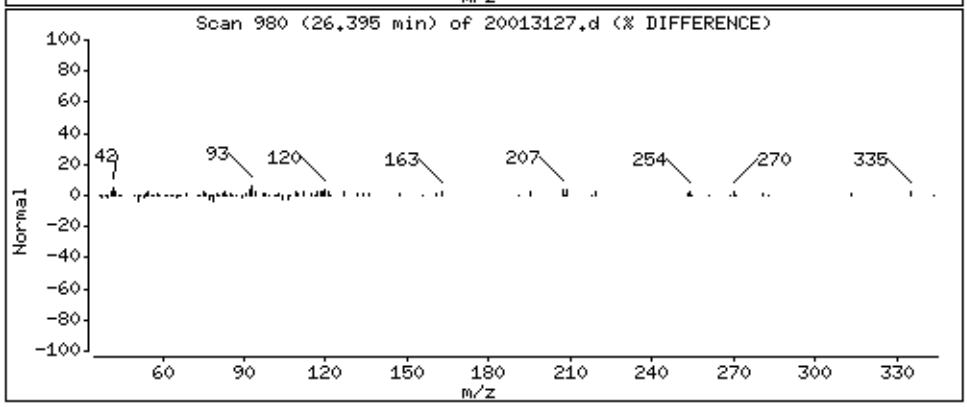












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

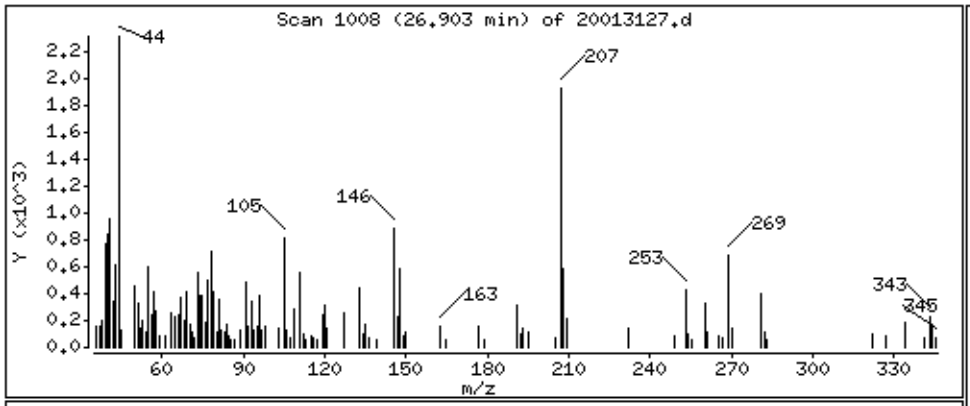
Operator: ef

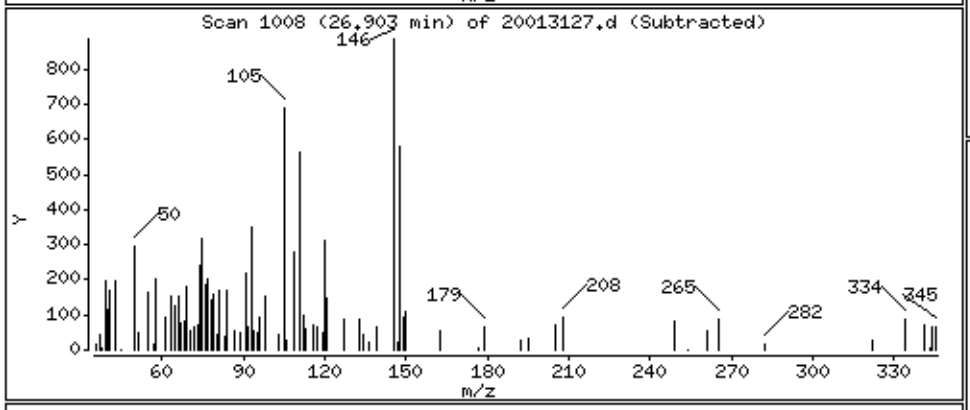
Column phase: RTX-624

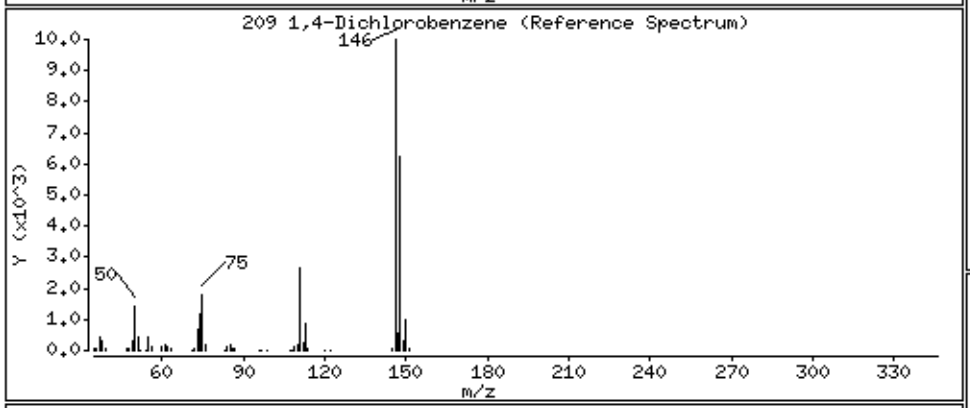
Column diameter: 0.32

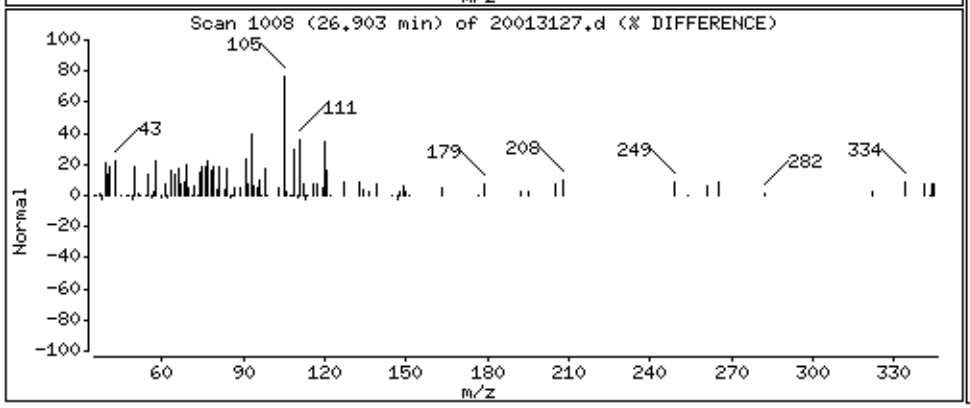
209 1,4-Dichlorobenzene

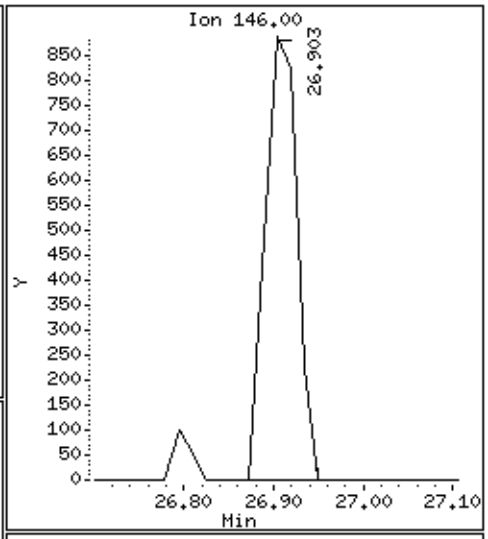
Concentration: 0.04553 PPBV

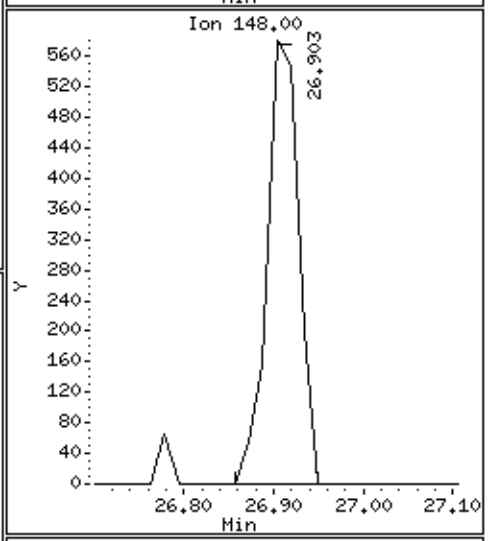


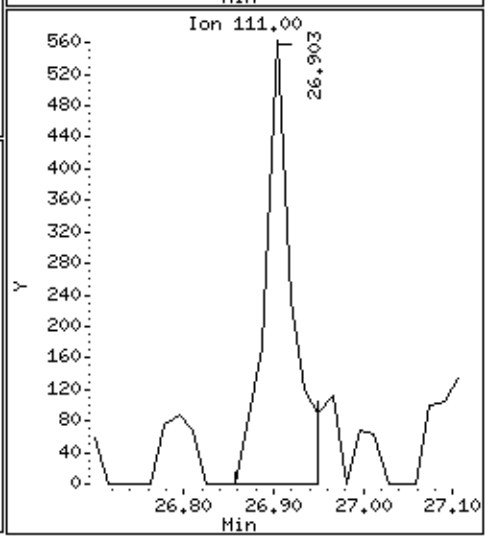












Data File: /chem/msd20.i/31Jan2017.b/20013127.d

Date : 01-FEB-2017 10:05

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 00138

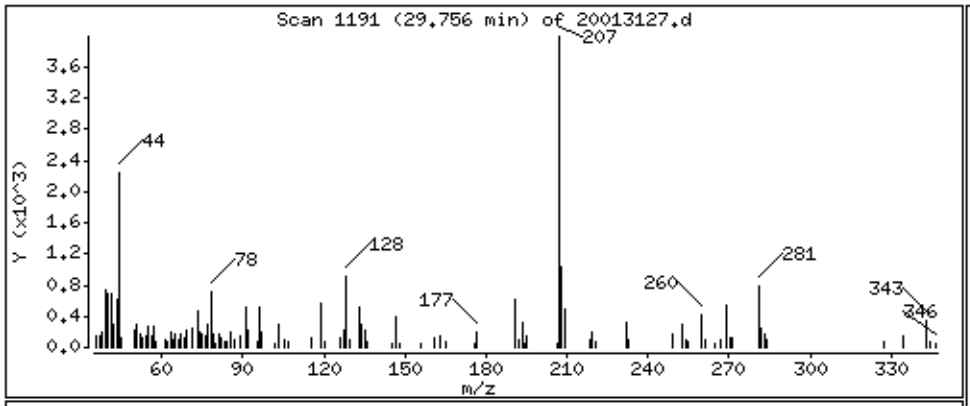
Operator: ef

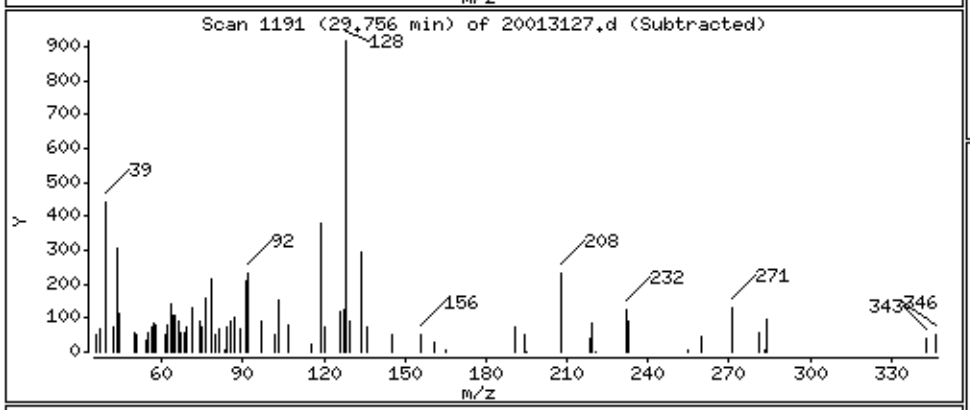
Column phase: RTX-624

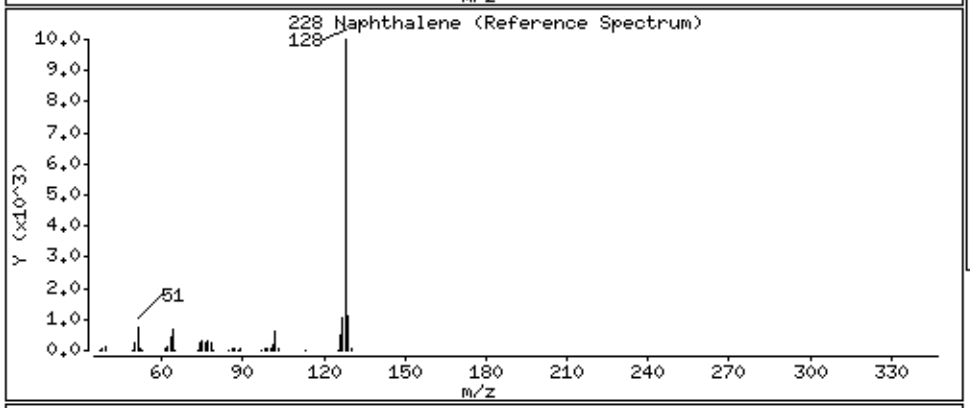
Column diameter: 0.32

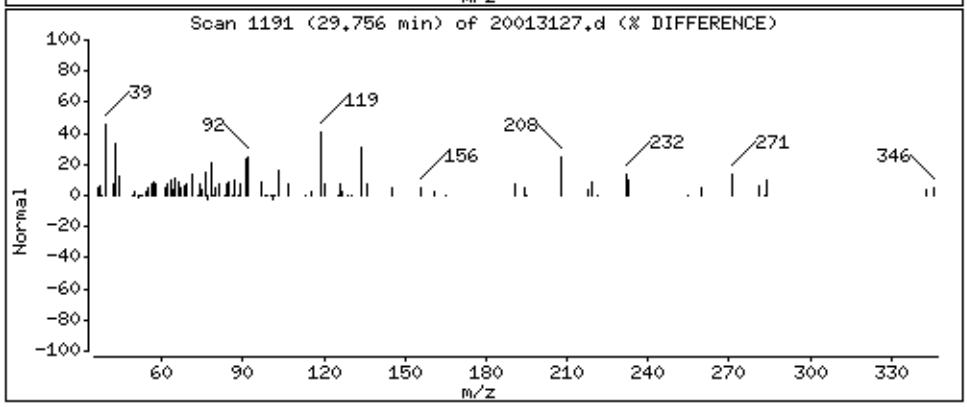
228 Naphthalene

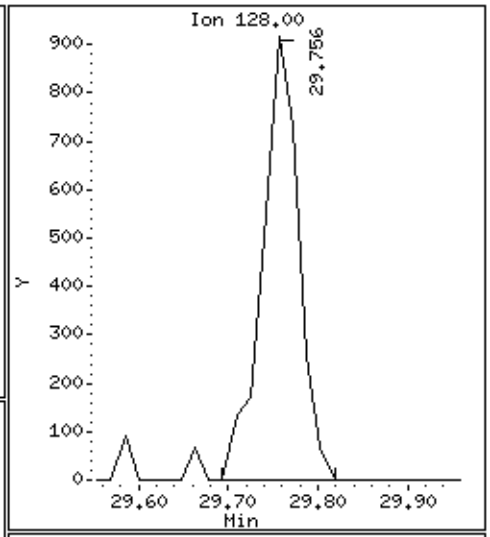
Concentration: 0.02566 PPBV

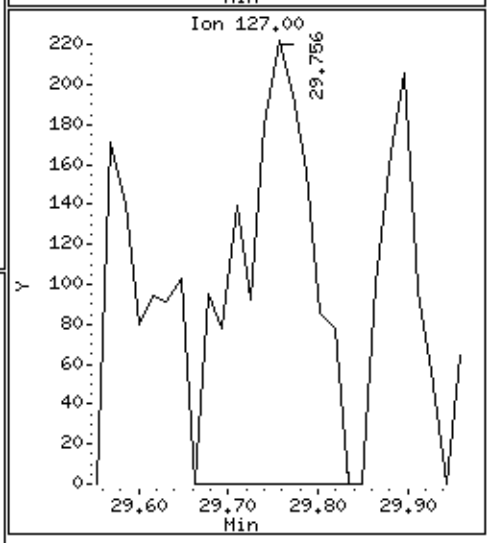












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B18IA-2-012117

Lab ID#: 1701428A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.57	0.86	2.8
Chloromethane	0.88	1.2	1.8	2.5
Freon 11	0.18	4.3	0.98	24
Ethanol	0.88	41	1.6	77
Freon 113	0.18	0.072 J	1.3	0.55 J
Acetone	0.88	280 E	2.1	660 E
2-Propanol	0.88	4.2	2.2	10
Carbon Disulfide	0.88	0.12 J	2.7	0.37 J
Methylene Chloride	0.35	0.31 J	1.2	1.1 J
Hexane	0.18	0.12 J	0.62	0.44 J
2-Butanone (Methyl Ethyl Ketone)	0.88	2.1	2.6	6.2
Chloroform	0.18	0.072 J	0.85	0.35 J
Cyclohexane	0.18	0.063 J	0.60	0.22 J
Carbon Tetrachloride	0.18	0.074 J	1.1	0.47 J
Benzene	0.18	0.17 J	0.56	0.55 J
1,2-Dichloroethane	0.18	1.1 J0	0.71	4.5 J0
Heptane	0.18	0.11 J	0.72	0.47 J
Trichloroethene	0.18	0.47	0.94	2.6
4-Methyl-2-pentanone	0.18	0.15 J	0.72	0.62 J
Toluene	0.18	2.8	0.66	10
2-Hexanone	0.88	0.42 J	3.6	1.7 J
Ethyl Benzene	0.18	0.14 J	0.76	0.60 J
m,p-Xylene	0.18	0.39	0.76	1.7
o-Xylene	0.18	0.16 J	0.76	0.68 J
Styrene	0.18	0.073 J	0.74	0.31 J
4-Ethyltoluene	0.18	0.054 J	0.86	0.26 J
1,2,4-Trimethylbenzene	0.18	0.067 J	0.86	0.33 J
1,4-Dichlorobenzene	0.18	0.044 J	1.0	0.26 J
Naphthalene	0.88	0.039 J	4.6	0.20 J

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Client Sample ID: B18IA-2-012117

Lab ID#: 1701428A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013128**	**Date of Collection:**	**1/21/17 6:00:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/1/17 11:11 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.57	0.86	2.8
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	1.2	1.8	2.5
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	Not Detected	3.4	Not Detected
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	4.3	0.98	24
Ethanol	0.88	41	1.6	77
Freon 113	0.18	0.072 J	1.3	0.55 J
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	280 E	2.1	660 E
2-Propanol	0.88	4.2	2.2	10
Carbon Disulfide	0.88	0.12 J	2.7	0.37 J
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.31 J	1.2	1.1 J
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	0.12 J	0.62	0.44 J
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	2.1	2.6	6.2
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	0.072 J	0.85	0.35 J
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	0.063 J	0.60	0.22 J
Carbon Tetrachloride	0.18	0.074 J	1.1	0.47 J
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	0.17 J	0.56	0.55 J
1,2-Dichloroethane	0.18	1.1 J0	0.71	4.5 J0
Heptane	0.18	0.11 J	0.72	0.47 J
Trichloroethene	0.18	0.47	0.94	2.6
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	0.15 J	0.72	0.62 J
Toluene	0.18	2.8	0.66	10
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	0.42 J	3.6	1.7 J

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Client Sample ID: B18IA-2-012117

Lab ID#: 1701428A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013128**	**Date of Collection:**	**1/21/17 6:00:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/1/17 11:11 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.14 J	0.76	0.60 J
m,p-Xylene	0.18	0.39	0.76	1.7
o-Xylene	0.18	0.16 J	0.76	0.68 J
Styrene	0.18	0.073 J	0.74	0.31 J
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	0.054 J	0.86	0.26 J
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.067 J	0.86	0.33 J
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	0.044 J	1.0	0.26 J
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
Naphthalene	0.88	0.039 J	4.6	0.20 J

J = Estimated value.
E = Exceeds instrument calibration range.
J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013128.d
Lab Smp Id: 1701428A-10A
Inj Date : 01-FEB-2017 11:11
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 6L1216
Misc Info : 7.0"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.75000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.695	16.726 (1.000)	130	151462	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	117951			46.97- 106.97	77.87
16.695	16.696 (1.000)	49	190656			76.21- 136.21	125.88
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	407370	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	64966			0.00- 45.59	15.95
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	422433	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	236098			23.26- 83.26	55.89
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.621 (1.055)	65	224668	6.01167	6.012	80.00- 120.00	100.00
17.620	17.621 (1.055)	67	116659			31.78- 91.78	51.93
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	409382	5.25589	5.256	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	54325			0.00- 40.33	13.27

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    255829                    35.56-  95.56    62.49
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    213706 4.74058    4.740  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    251456                   79.94- 139.94   117.66
 25.466  25.466 (1.072)   176    203507                   67.24- 127.24    95.23
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.648 (0.280)    85     37326 0.32510   0.5689  70.00- 130.00   100.00
  4.720   4.648 (0.283)    87      9970                    0.00-  30.00    26.71
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.625   6.553 (0.397)    50     24040 0.68119    1.192  80.00- 120.00   100.00
  6.576   6.553 (0.394)    52      6400                    3.24-  63.24    26.62
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.666)   101    282898 2.46094    4.307  80.00- 120.00   100.00
 11.114  11.114 (0.666)   103    182505                   34.37-  94.37    64.51
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.269  12.269 (0.735)    45    362818 23.4362   41.013  80.00- 120.00   100.00
 12.269  12.269 (0.735)    46    142205                   10.33-  70.33    39.19
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.763)   151      3544 0.04131  0.07229  80.00- 120.00   100.00(a)
 12.736  12.763 (0.763)   153      2397                   33.68-  93.68    67.64
 12.736  12.736 (0.763)   101      4124                   86.77- 146.77   116.37
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.065  13.093 (0.783)    58   3408545 159.714   279.50  80.00- 120.00   100.00(A)
 13.065  13.066 (0.783)    43  10052870                  253.28- 313.28   294.93
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.093  13.121 (0.784)    76      8122 0.06882   0.1204  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.532  13.533 (0.811)    45    139162 2.42738    4.248  80.00- 120.00   100.00
 13.532  13.533 (0.811)    43     63508                    0.00-  52.74    45.64
 13.532  13.533 (0.811)    59      6746                    0.00-  34.43     4.85
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.840)    84      8152 0.17601   0.3080  80.00- 120.00   100.00(a)
 14.027  14.027 (0.840)    49      9808                   80.28- 140.28   120.31
 14.027  14.027 (0.840)    51      2907                    4.61-  64.61    35.66
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.891)	57	4334	0.07083	0.1239	80.00- 120.00	100.00(a)
14.878	14.878 (0.891)	43	5775			28.29- 88.29	133.25
14.878	14.878 (0.891)	86	752			0.00- 48.18	17.35
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.979)	72	25140	1.20807	2.114	80.00- 120.00	100.00
16.344	16.324 (0.979)	43	105820			300.25- 360.25	420.92
16.344	16.324 (0.979)	57	8140			0.00- 58.21	32.38
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.007)	83	3891	0.04134	0.07234	80.00- 120.00	100.00(a)
16.819	16.819 (1.007)	85	2509			34.75- 94.75	64.48
102 Cyclohexane					CAS #: 110-82-7		
17.034	17.035 (1.020)	84	2215	0.03599	0.06298	80.00- 120.00	100.00(a)
17.034	17.035 (1.020)	56	4046			76.62- 136.62	182.66
17.034	17.035 (1.020)	41	3438			21.84- 81.84	155.21
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.033)	119	3436	0.04243	0.07425	80.00- 120.00	100.00(a)
17.250	17.250 (1.033)	117	3293			73.50- 133.50	95.84
116 Benzene					CAS #: 71-43-2		
17.620	17.621 (0.968)	78	9538	0.09799	0.1715	80.00- 120.00	100.00(a)
17.620	17.621 (0.968)	77	2792			0.00- 53.26	29.27
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	23929	0.63411	1.110	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	8547			2.82- 62.82	35.72
121 Heptane					CAS #: 142-82-5		
17.826	17.847 (0.979)	57	1641	0.06566	0.1149	80.00- 120.00	100.00(a)
17.826	17.847 (0.979)	100	224			8.23- 68.23	13.65
17.847	17.847 (0.980)	43	3236			141.33- 201.33	197.20
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	12580	0.27139	0.4749	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	11237			61.76- 121.76	89.32
18.610	18.610 (1.022)	97	7755			29.47- 89.47	61.65
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.556	20.557 (1.129)	43	4619	0.08700	0.1522	80.00- 120.00	100.00(a)
20.556	20.557 (1.129)	58	1229			12.96- 72.96	26.61
20.541	20.557 (1.128)	85	298			0.00- 50.79	6.45

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	169214	1.58008	2.765	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	97895			29.12- 89.12	57.85
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	8568	0.23882	0.4179	80.00- 120.00	100.00(a)
22.377	22.377 (0.942)	43	17924			137.01- 197.01	209.20
22.377	22.377 (0.942)	100	1890			0.00- 53.27	22.06
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.906 (1.006)	106	3934	0.07963	0.1394	80.00- 120.00	100.00(a)
23.905	23.906 (1.006)	91	11245			275.87- 335.87	285.84
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	11638	0.22405	0.3921	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	24414			163.30- 223.30	209.78
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	4334	0.08954	0.1567	80.00- 120.00	100.00(a)
24.710	24.710 (1.040)	91	10409			172.76- 232.76	240.17
172 Styrene					CAS #: 100-42-5		
24.730	24.731 (1.041)	104	2956	0.04162	0.07283	80.00- 120.00	100.00(a)
24.730	24.731 (1.041)	78	2234			18.49- 78.49	75.58
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	3673	0.03058	0.05351	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	1202			1.16- 61.16	32.73
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	3985	0.03844	0.06727	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1765			17.83- 77.83	44.29
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.904 (1.132)	146	2025	0.02517	0.04404	80.00- 120.00	100.00(a)
26.903	26.904 (1.132)	148	1469			33.90- 93.90	72.54
26.903	26.904 (1.132)	111	1497			6.77- 66.77	73.93
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	3725	0.02221	0.03887	80.00- 120.00	100.00(a)
29.772	29.756 (1.253)	127	794			0.00- 42.38	21.32

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: msd20.i
Lab File ID: 20013128.d
Lab Smp Id: 1701428A-10A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 7.0"Hg -> 5.0psi

Calibration Date: 31-JAN-2017
Calibration Time: 15:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	151462	-20.14
123 1,4-Difluorobenze	617206	370324	864088	407370	-34.00
163 Chlorobenzene-d5	554897	332938	776856	422433	-23.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.70	-0.19
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 09-Feb-2017 12:58

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 31Jan2017
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1701428A-10A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12EtOH.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 7.0"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.012	120.23	70-130
$ 146 Toluene-d8	5.000	5.256	105.12	70-130
$ 177 4-Bromofluorobenze	5.000	4.740	94.81	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

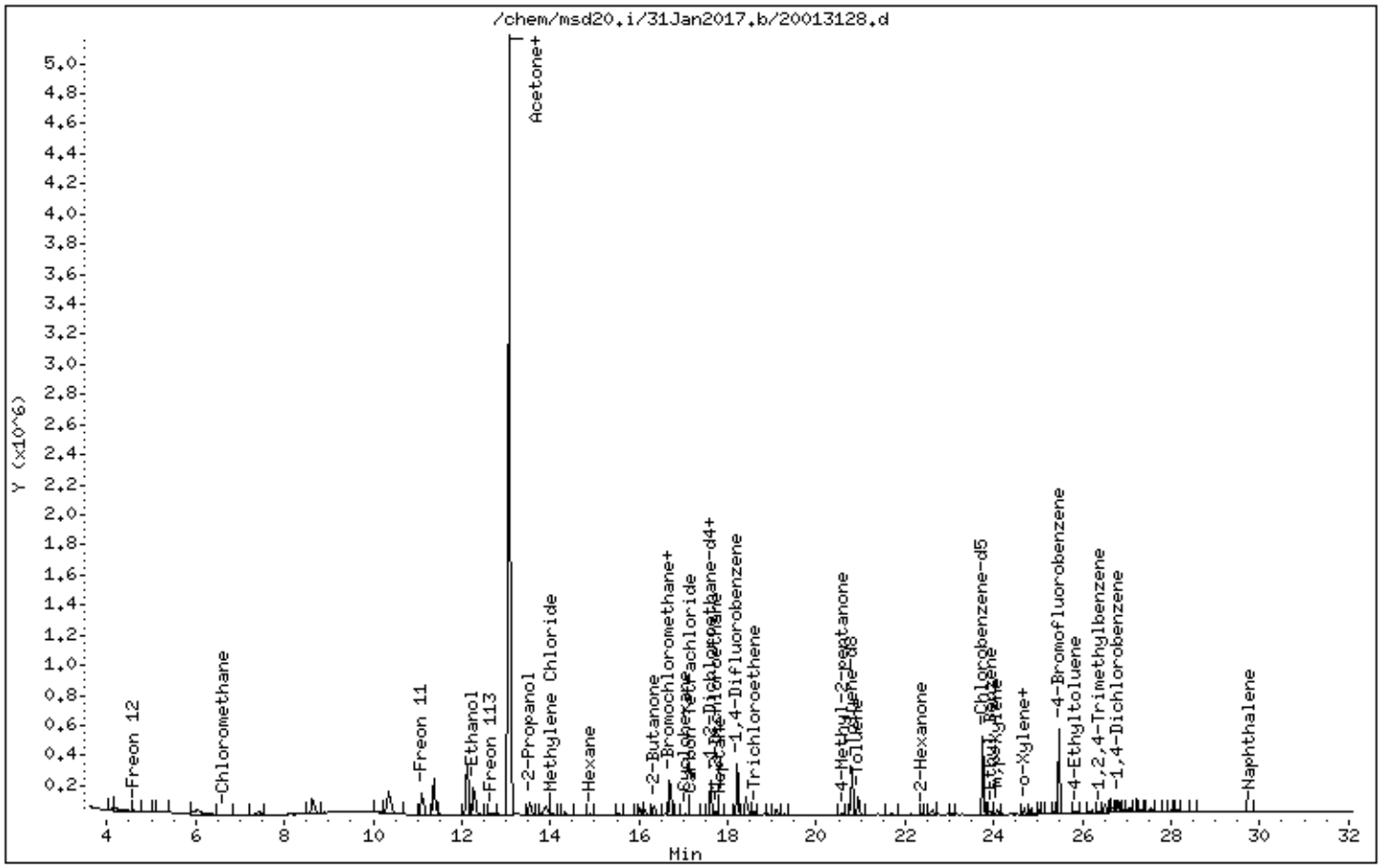
Instrument: msd20.i

Sample Info: 250mL# 6L1216

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

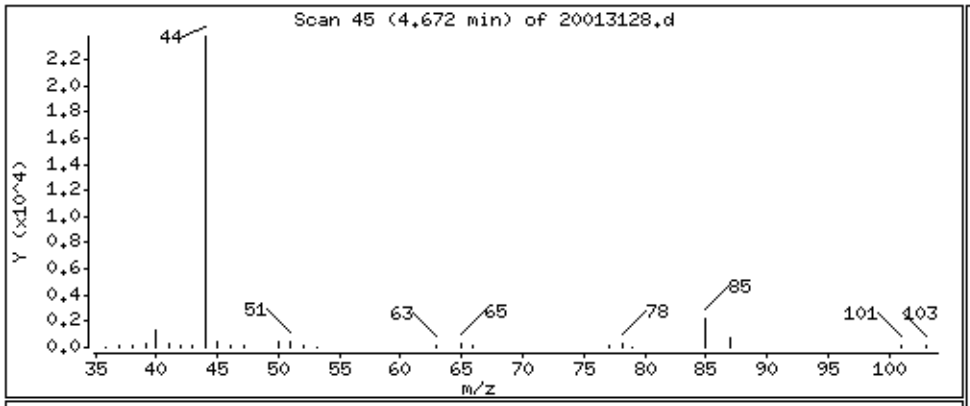
Operator: ef

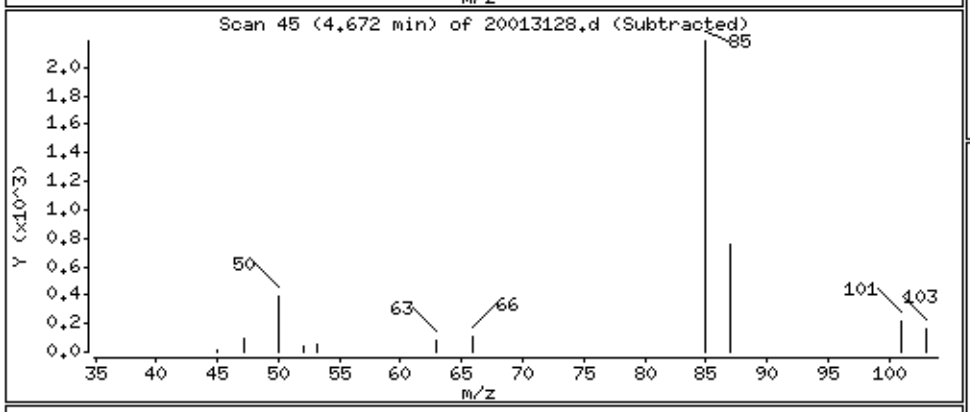
Column phase: RTX-624

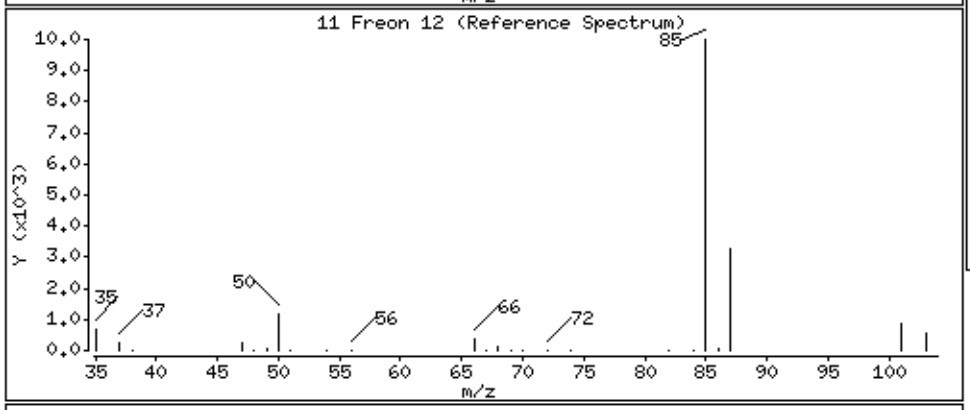
Column diameter: 0.32

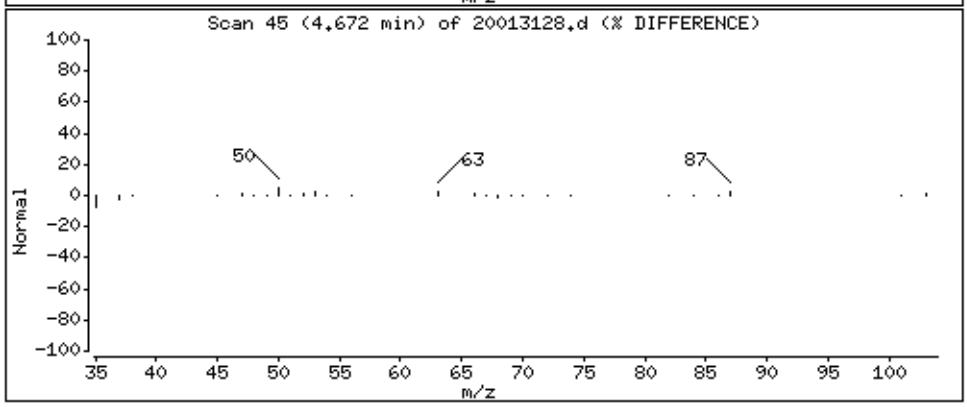
11 Freon 12

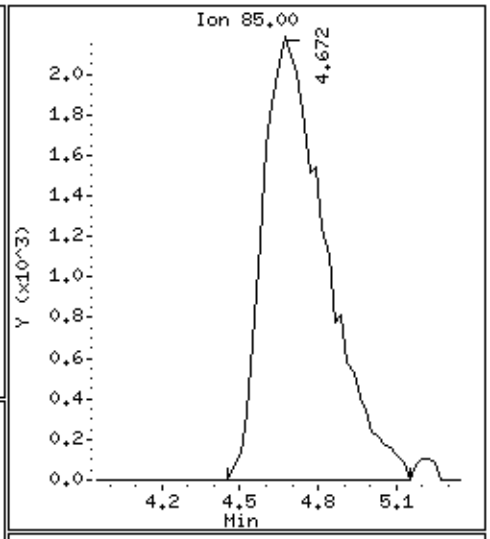
Concentration: 0.5689 PPBV

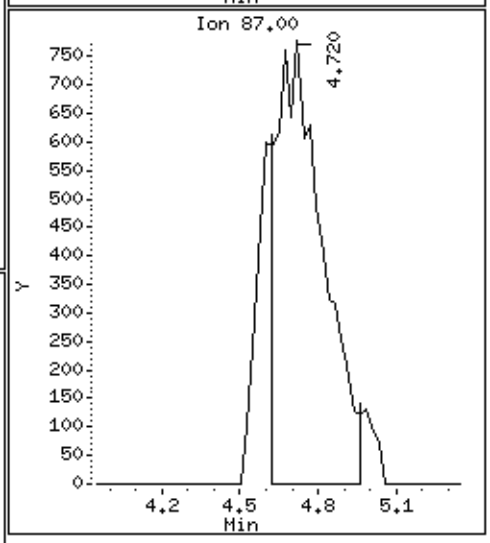












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

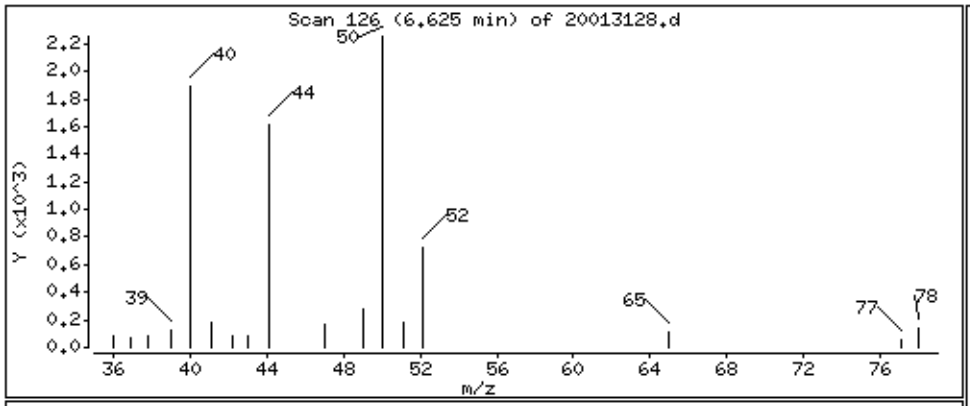
Operator: ef

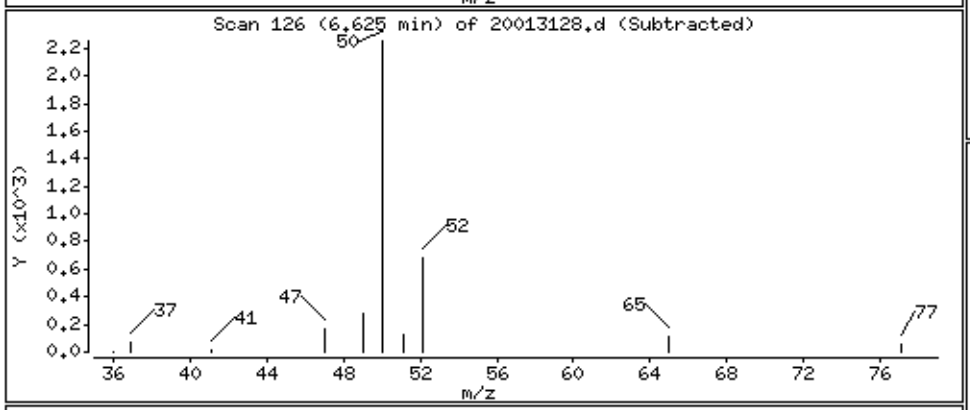
Column phase: RTX-624

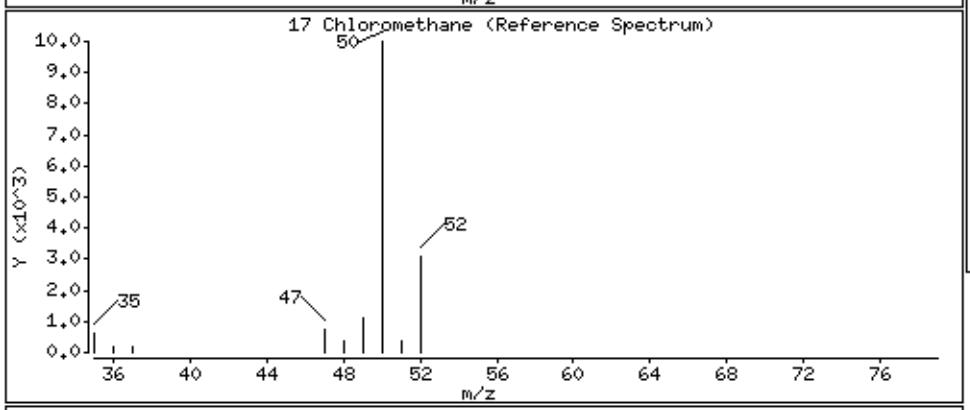
Column diameter: 0.32

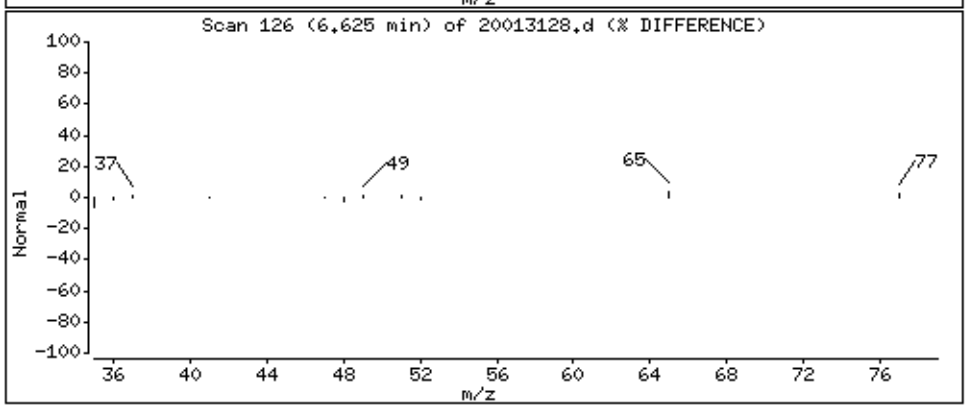
17 Chloromethane

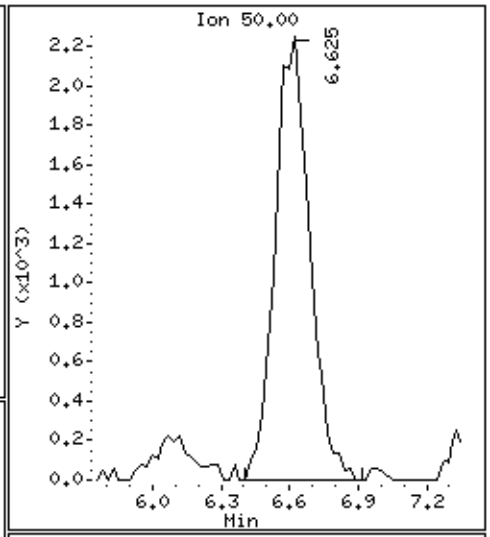
Concentration: 1.192 PPBV

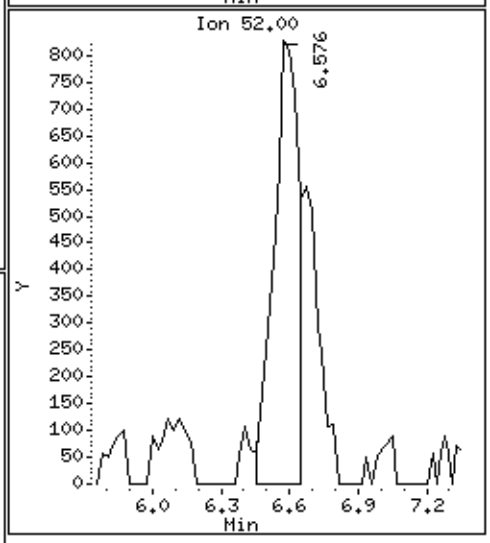












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

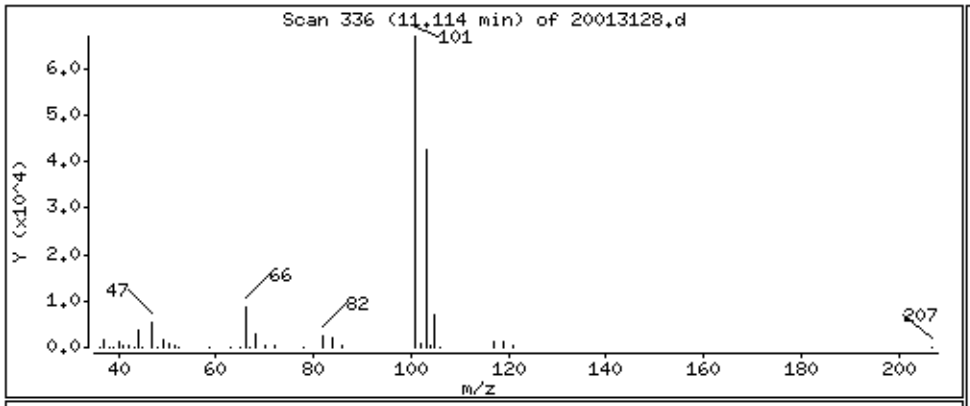
Operator: ef

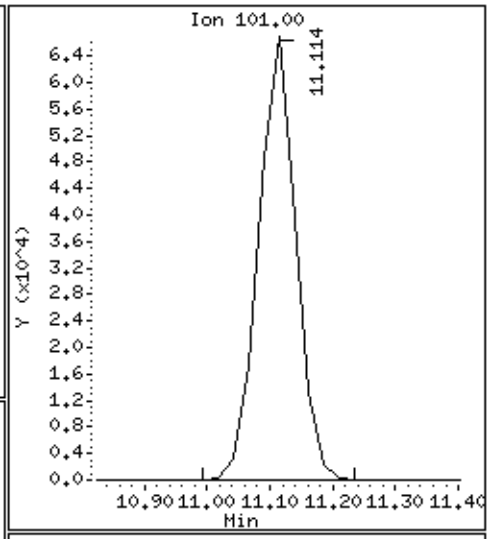
Column phase: RTX-624

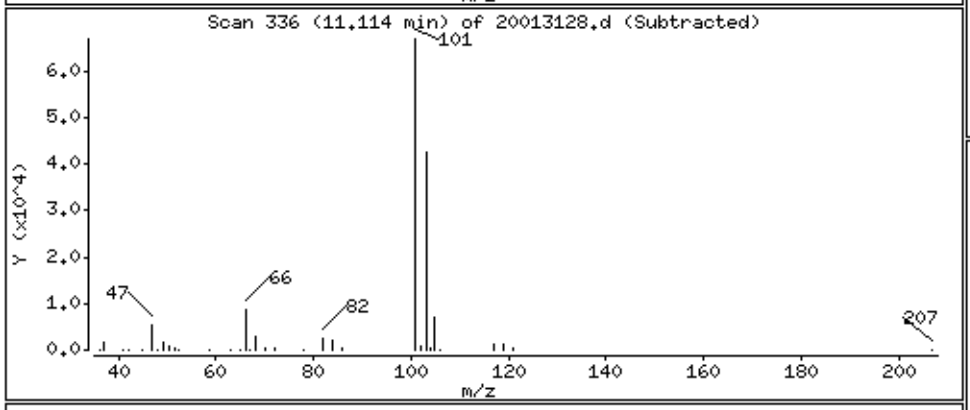
Column diameter: 0.32

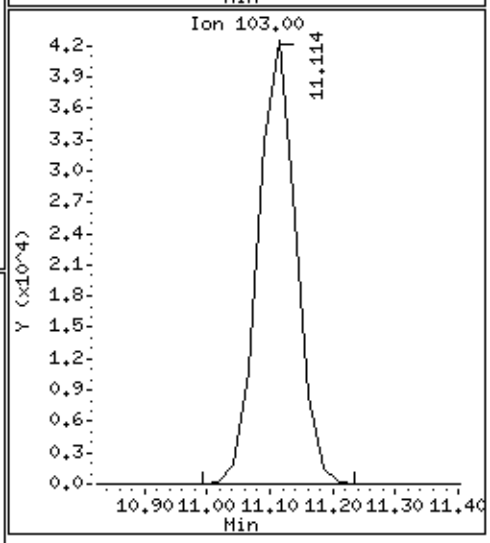
35 Freon 11

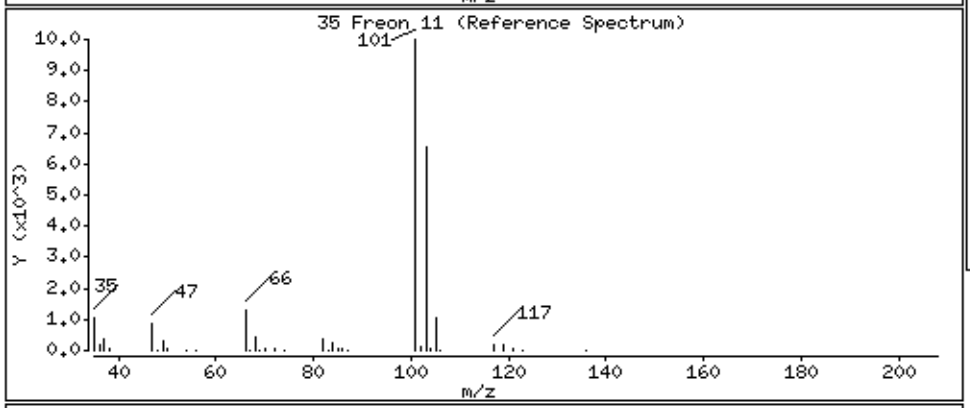
Concentration: 4.307 PPBV

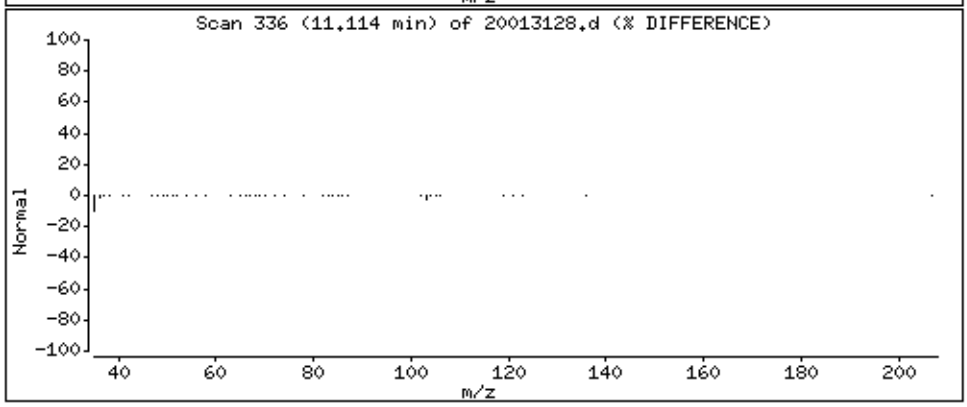












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

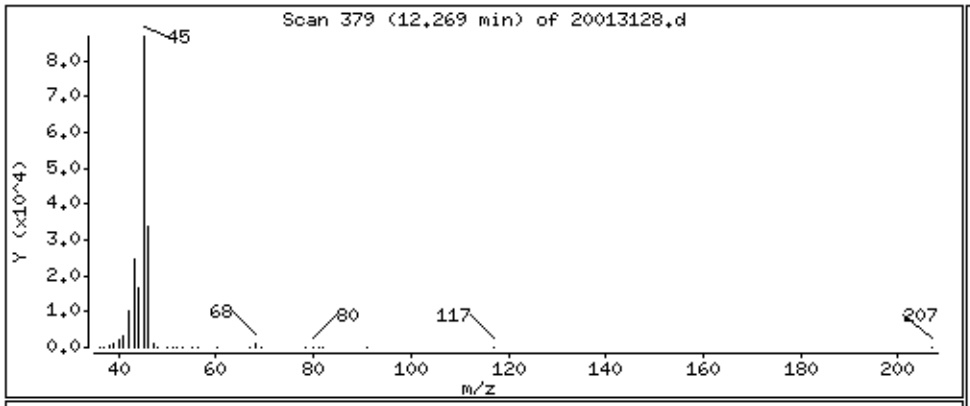
Operator: ef

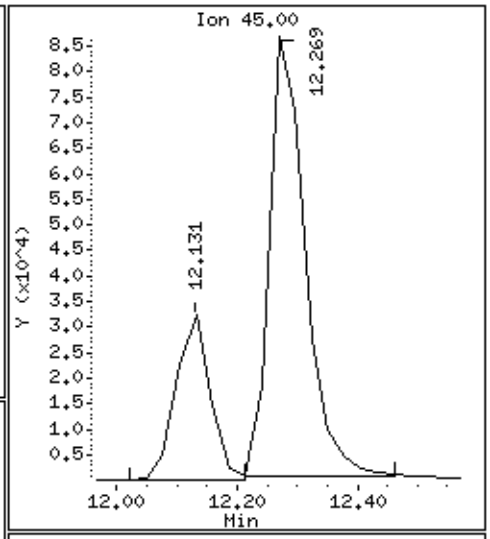
Column phase: RTX-624

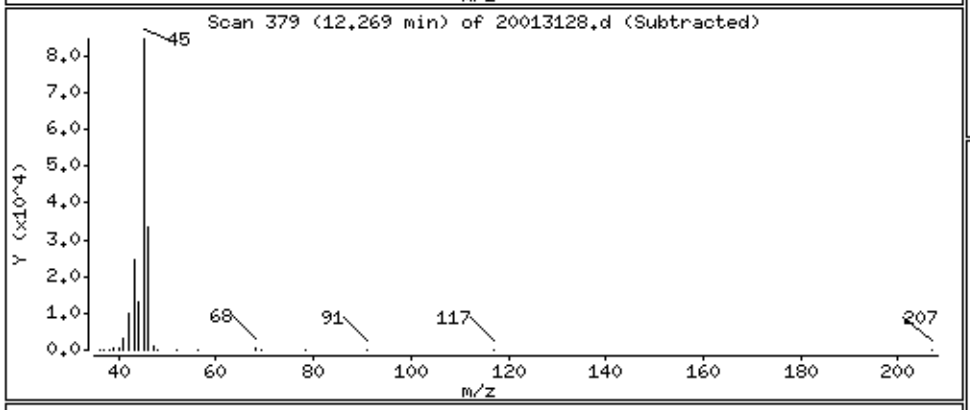
Column diameter: 0.32

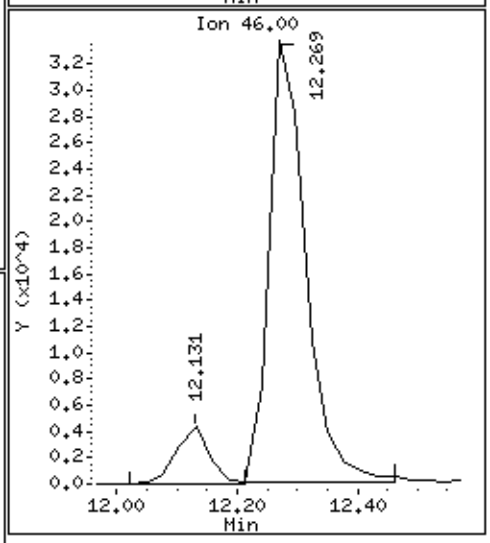
42 Ethanol

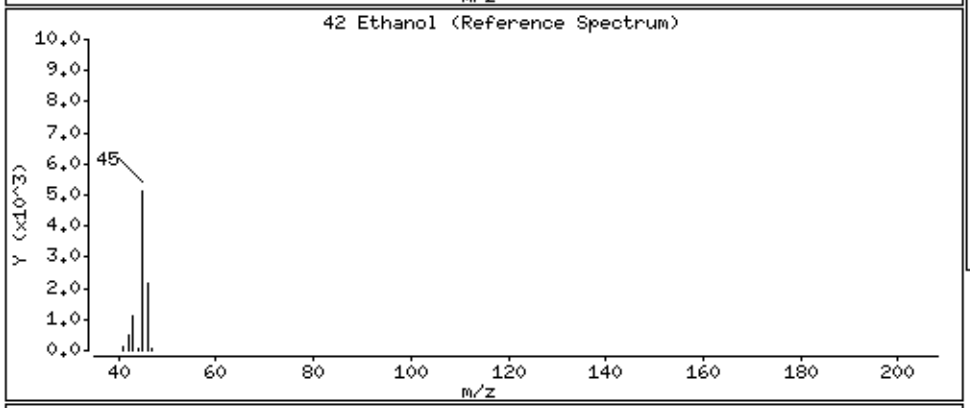
Concentration: 41.013 PPBV

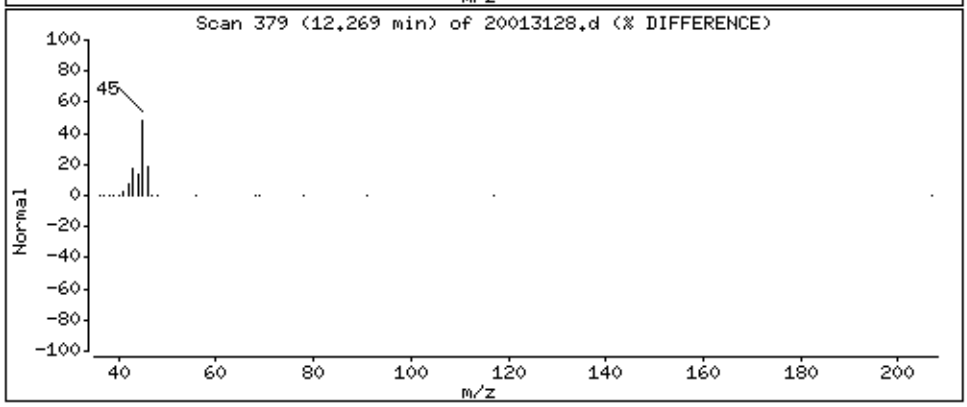












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

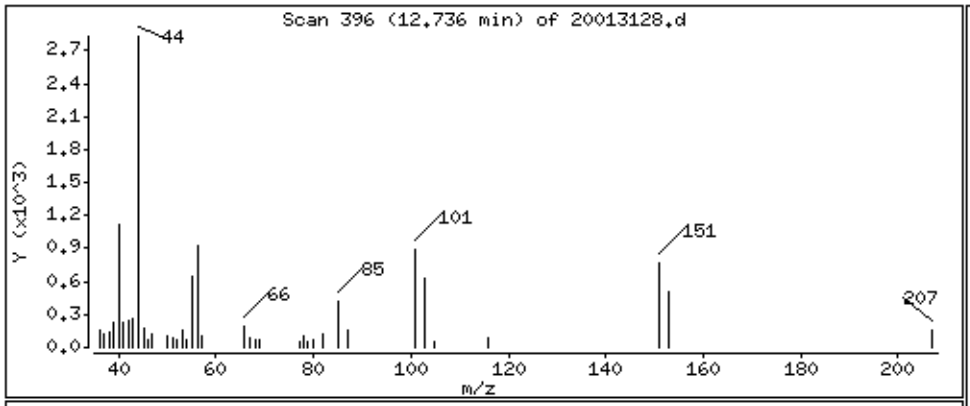
Operator: ef

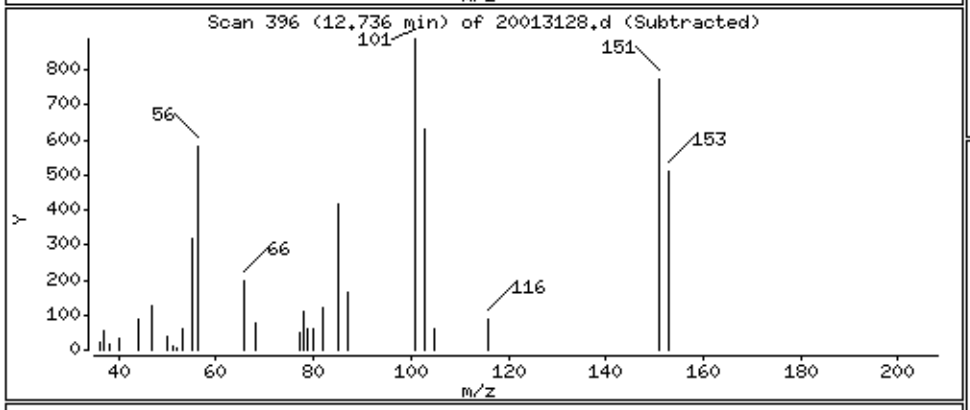
Column phase: RTX-624

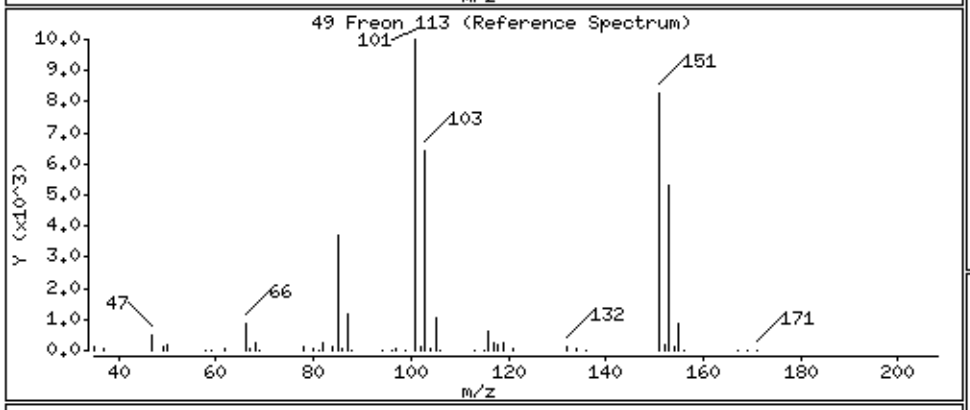
Column diameter: 0.32

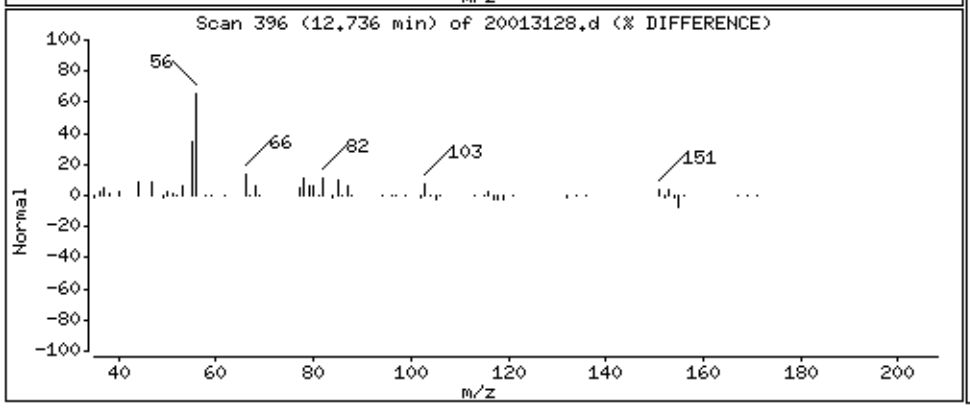
49 Freon 113

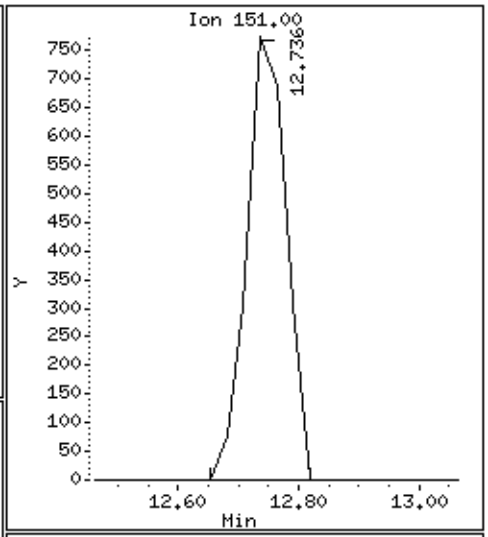
Concentration: 0.07229 PPBV

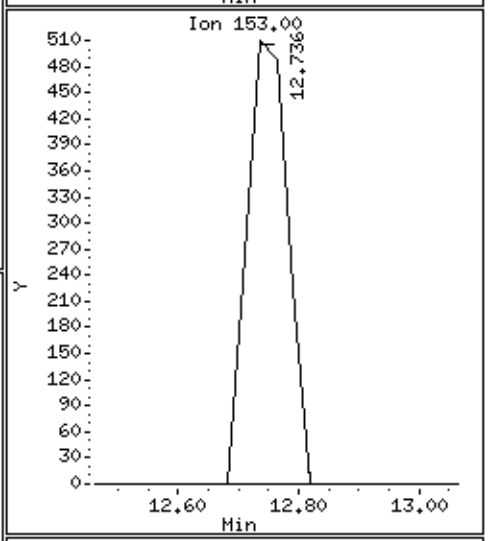


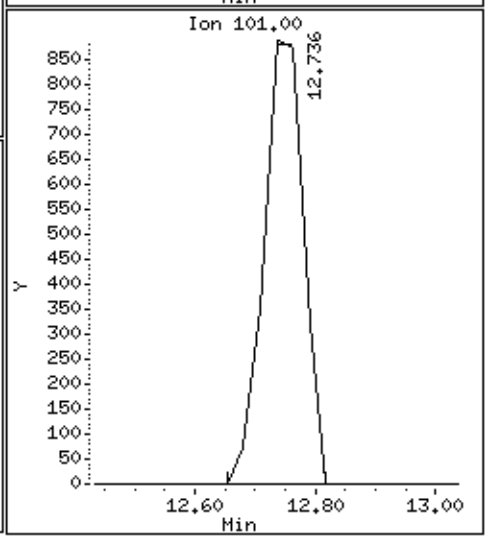












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

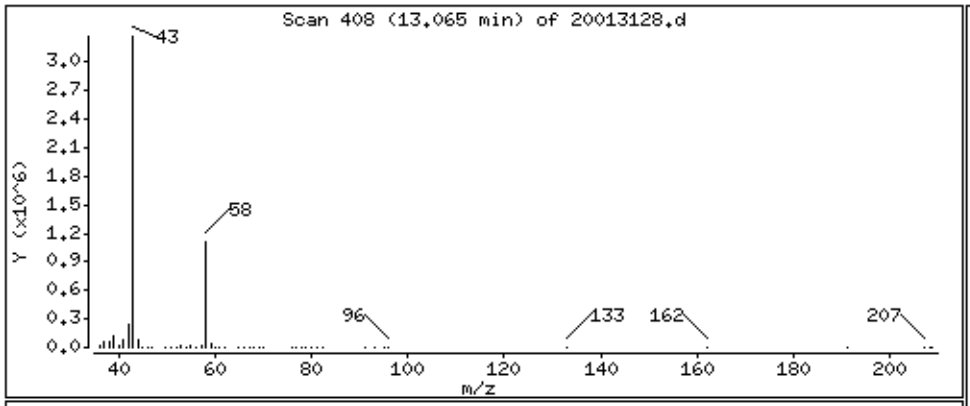
Operator: ef

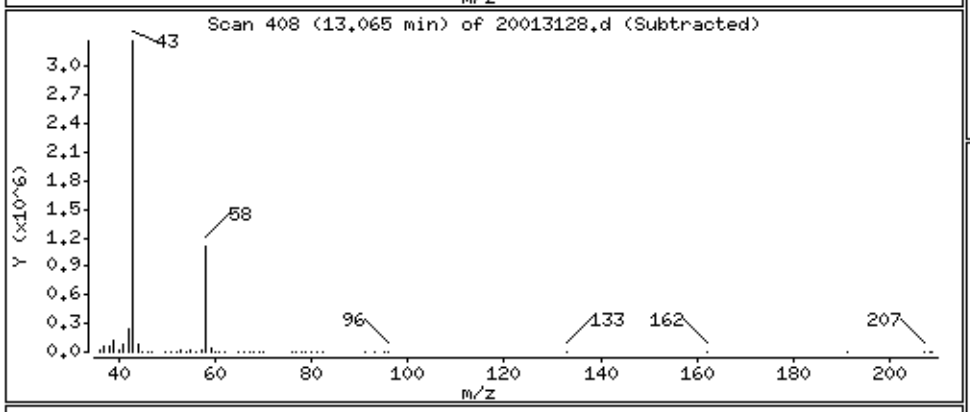
Column phase: RTX-624

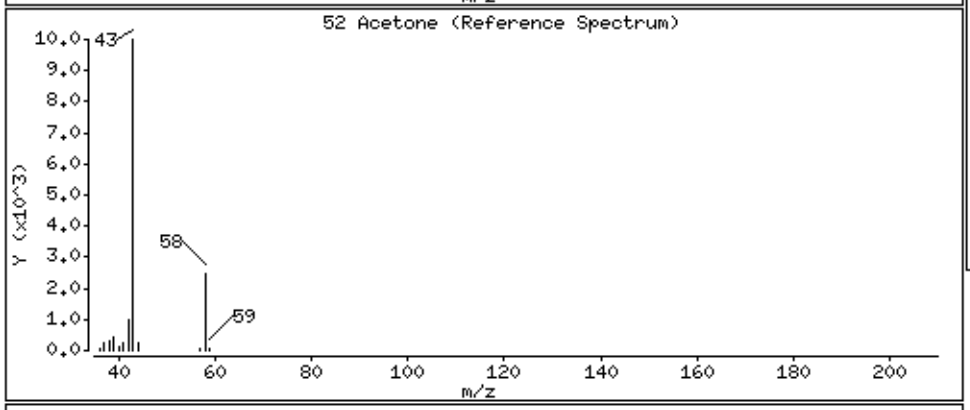
Column diameter: 0.32

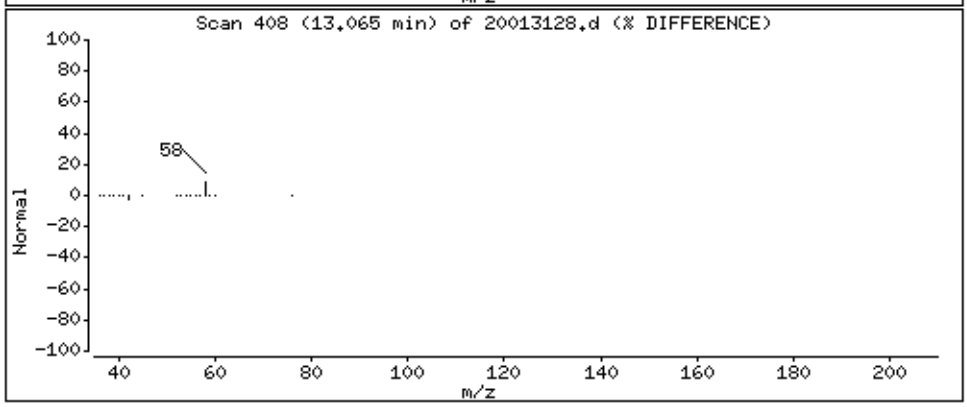
52 Acetone

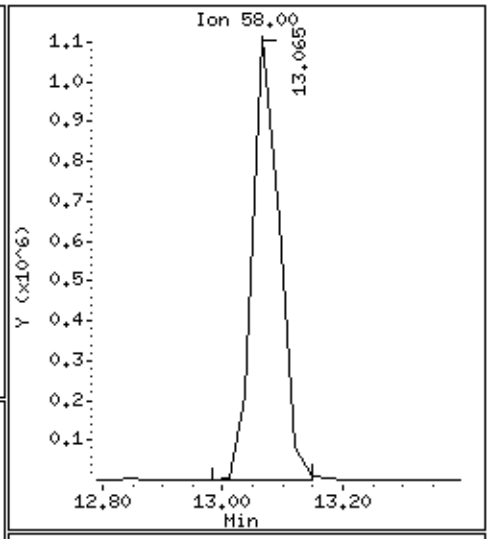
Concentration: 279.50 PPBV

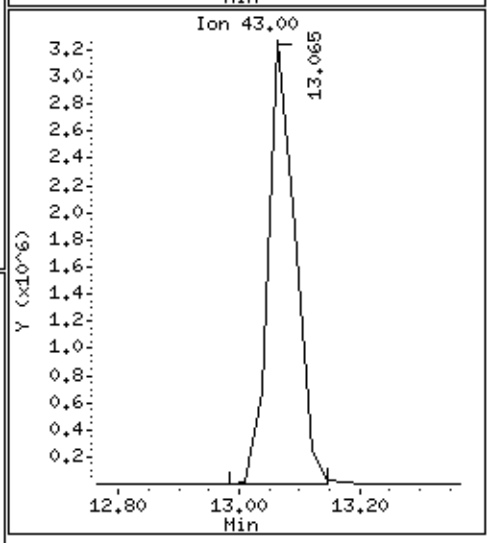












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

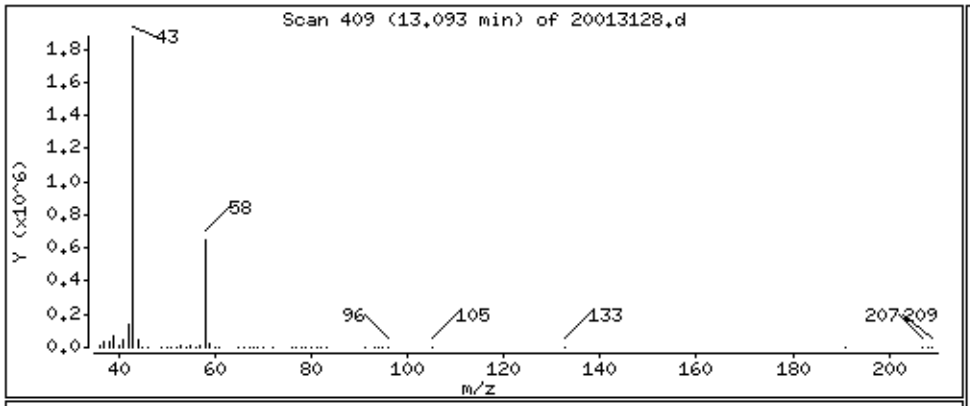
Operator: ef

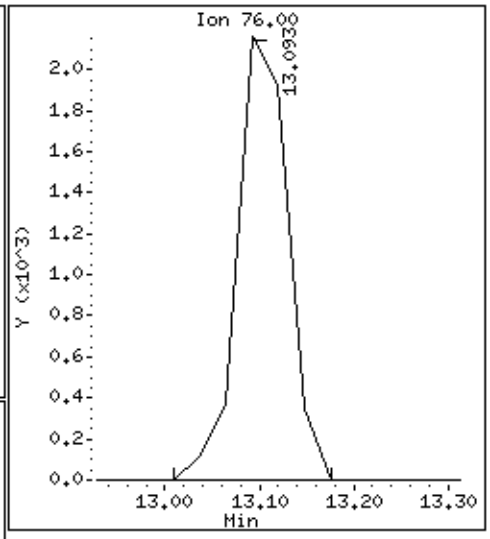
Column phase: RTX-624

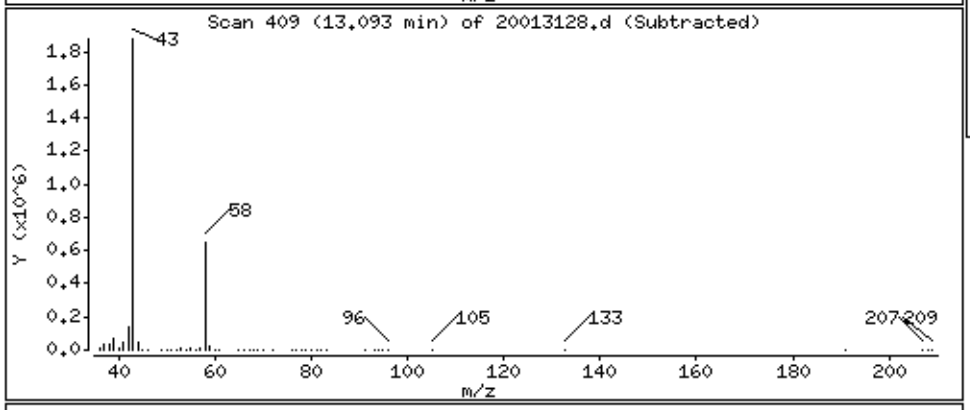
Column diameter: 0.32

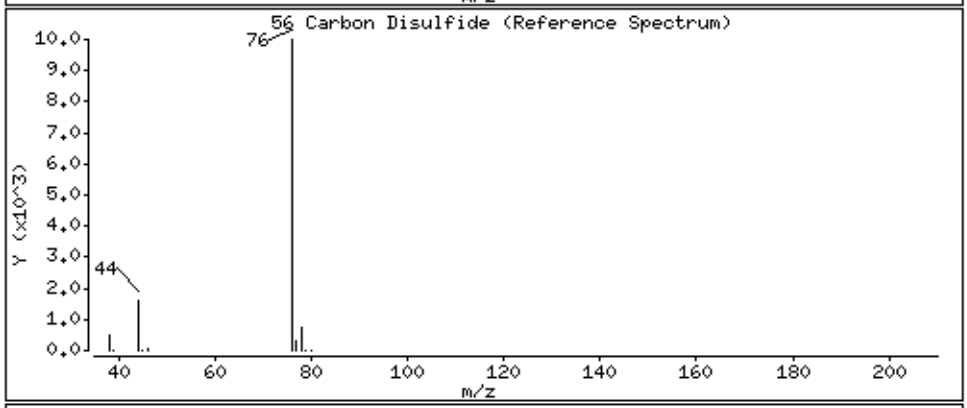
56 Carbon Disulfide

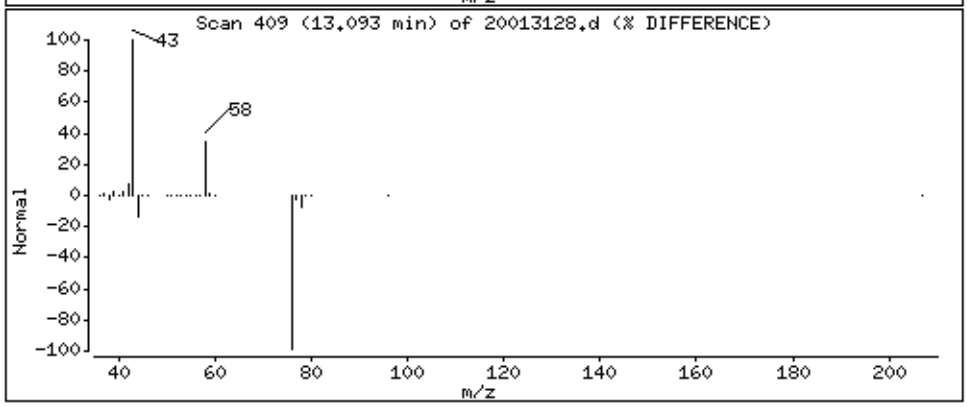
Concentration: 0.1204 PPBV











Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

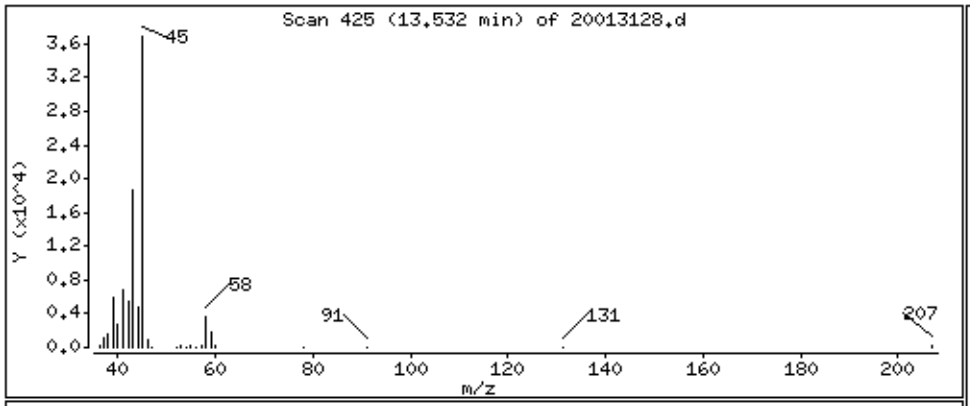
Operator: ef

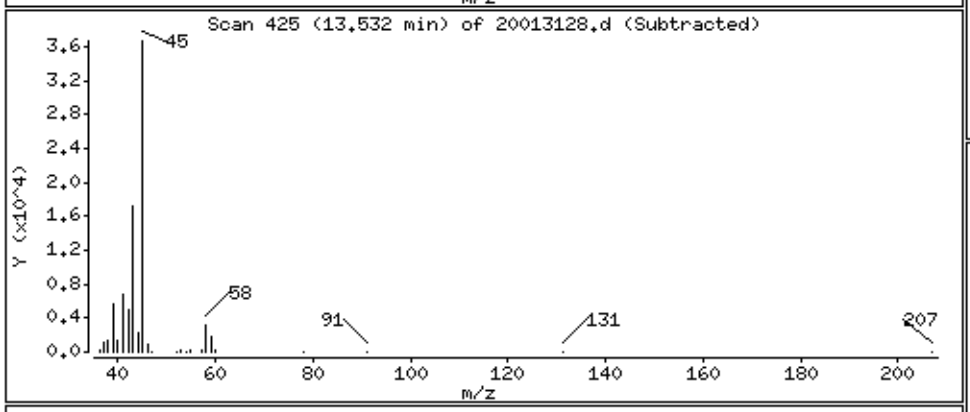
Column phase: RTX-624

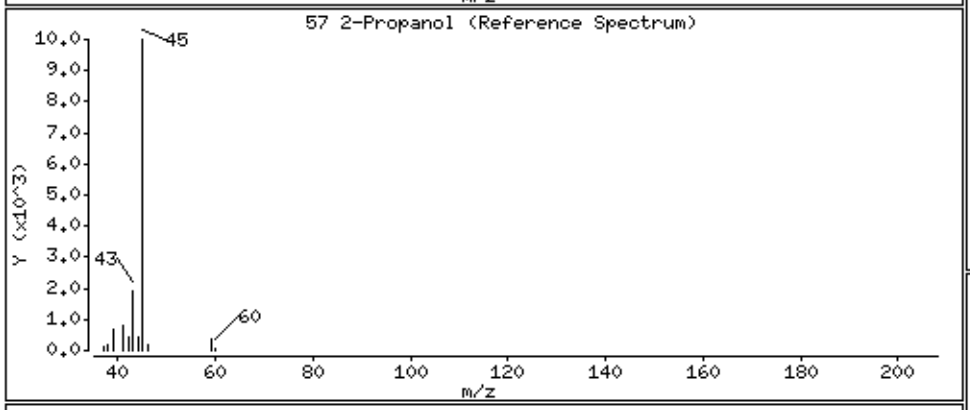
Column diameter: 0.32

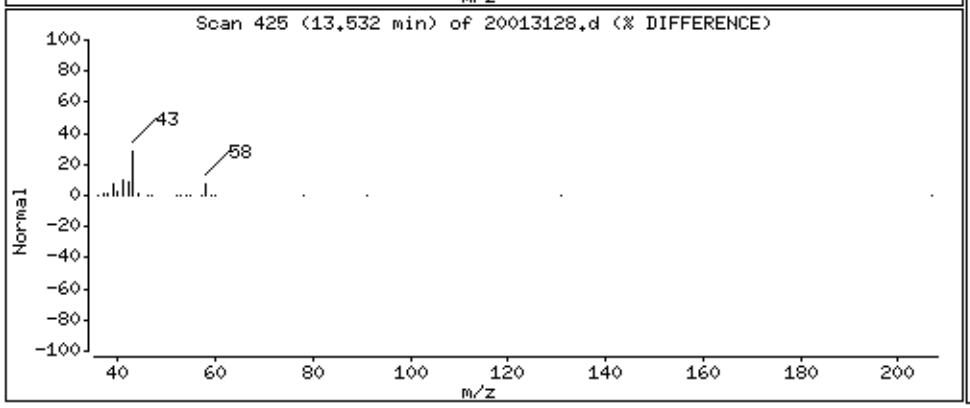
57 2-Propanol

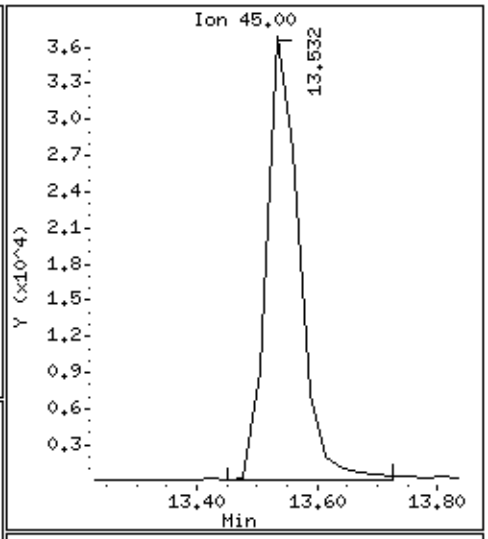
Concentration: 4.248 PPBV

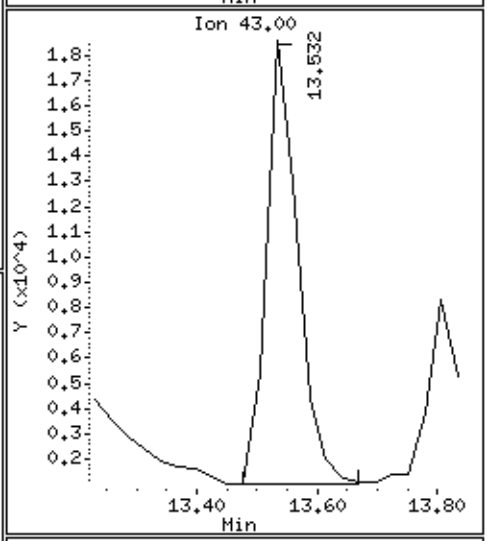


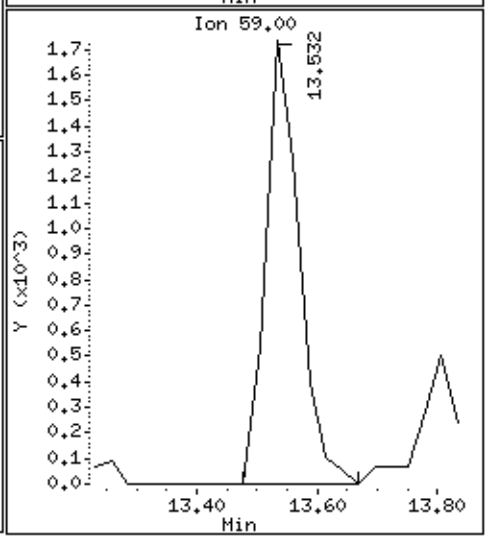












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

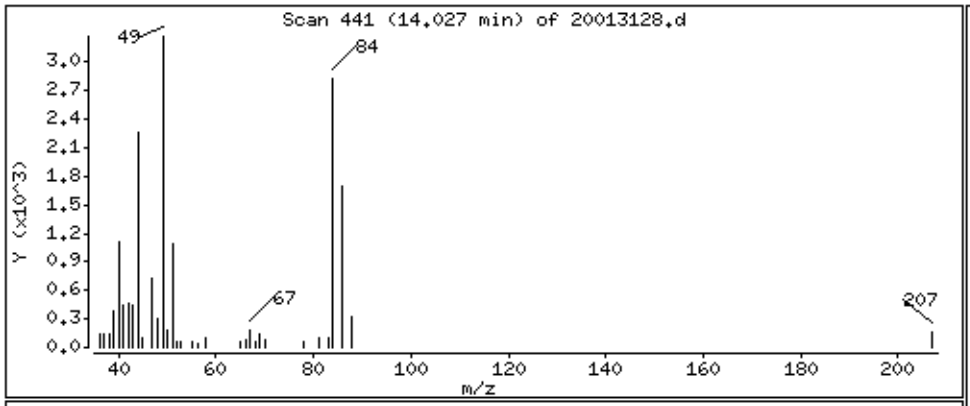
Operator: ef

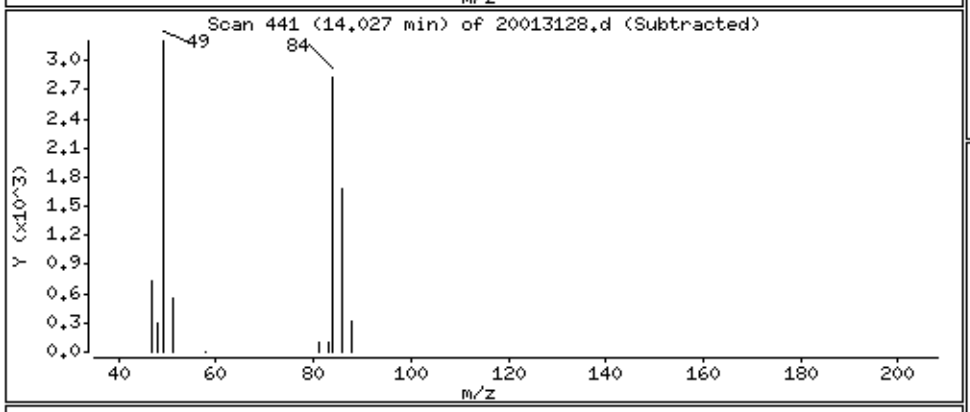
Column phase: RTX-624

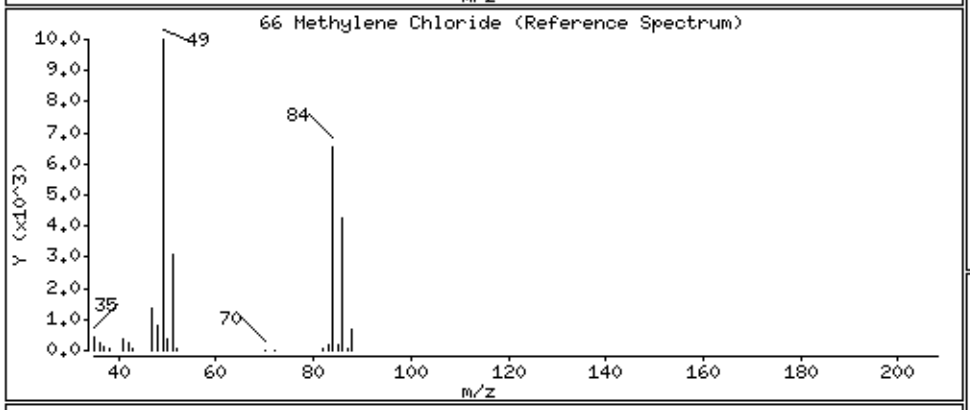
Column diameter: 0.32

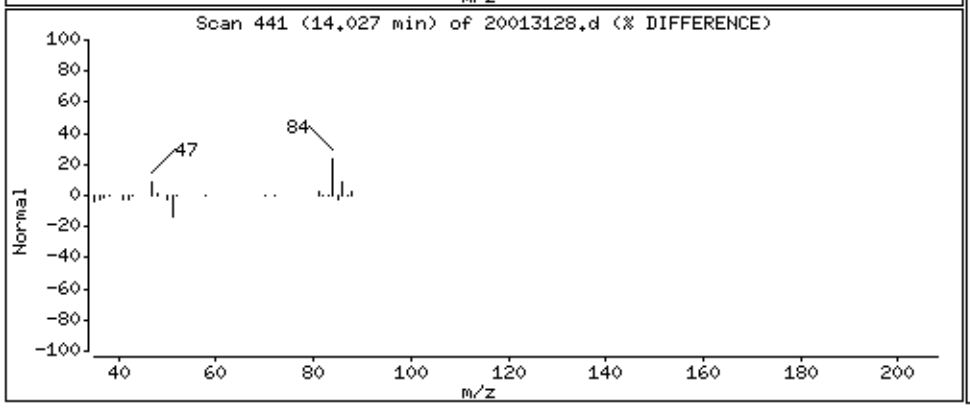
66 Methylene Chloride

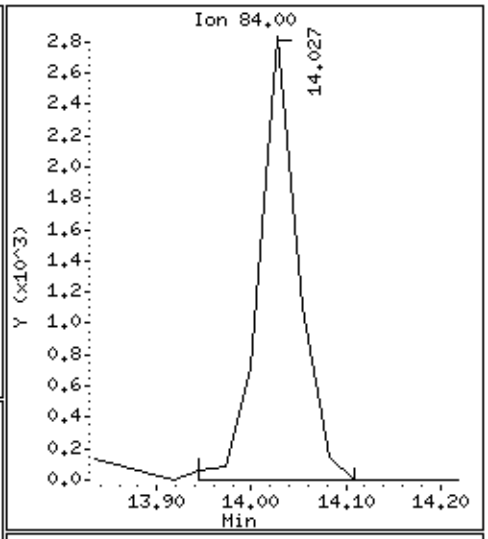
Concentration: 0.3080 PPBV

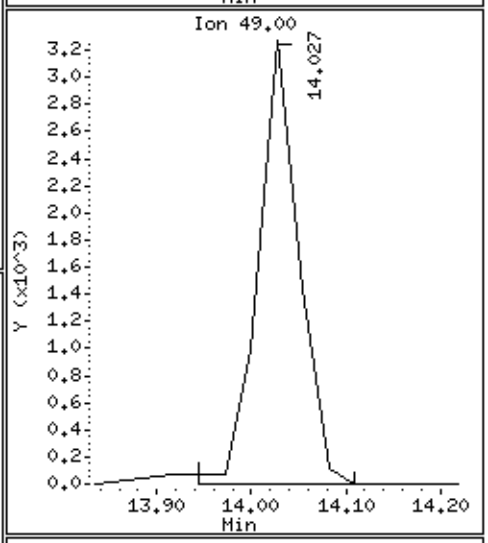


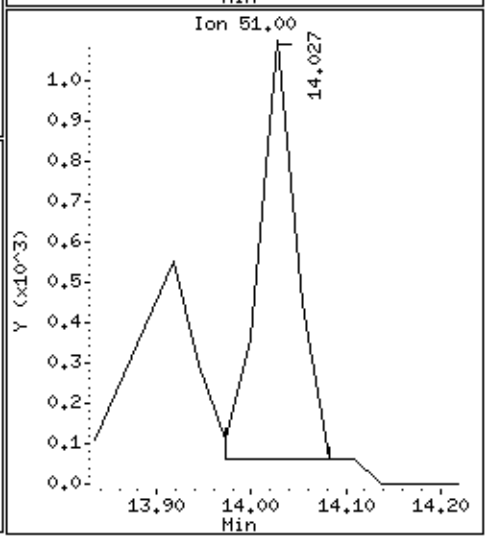












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

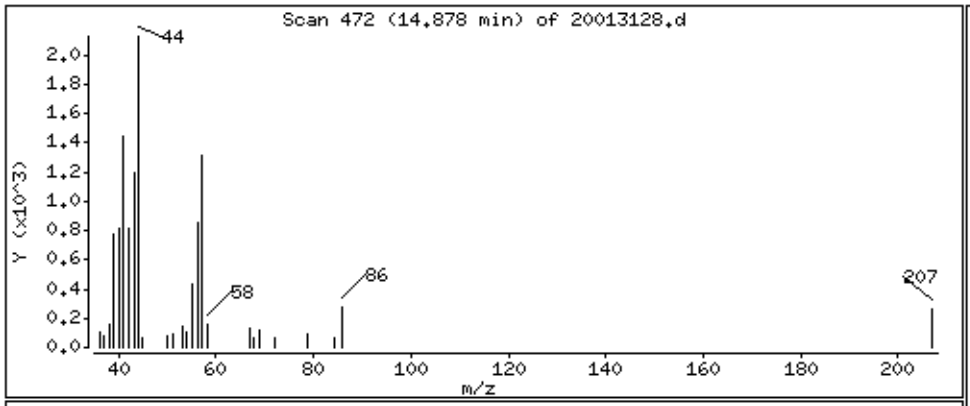
Operator: ef

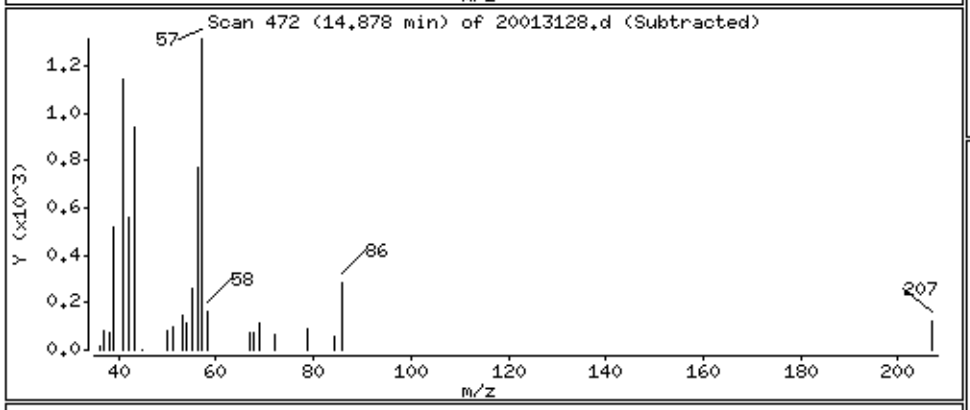
Column phase: RTX-624

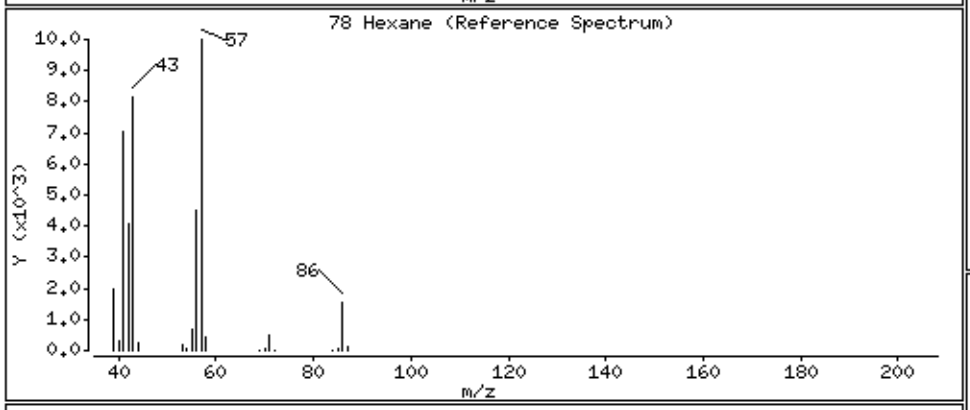
Column diameter: 0.32

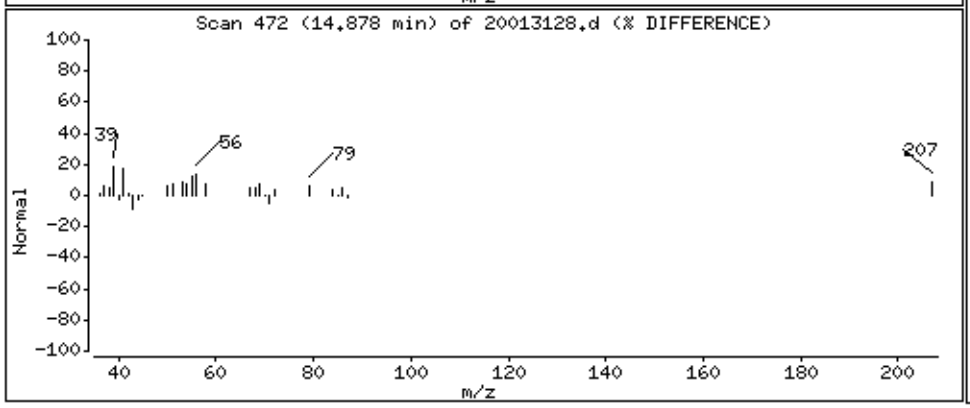
78 Hexane

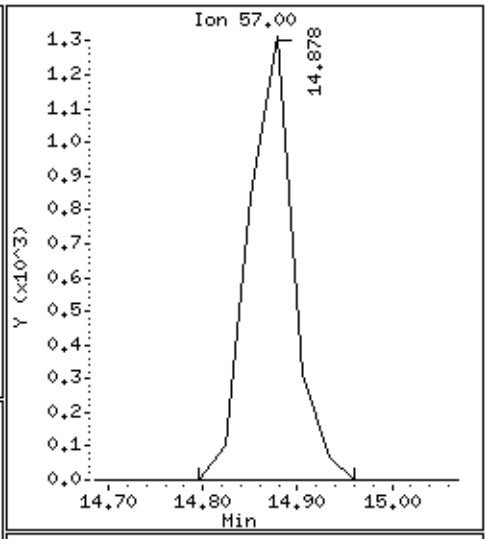
Concentration: 0.1239 PPBV

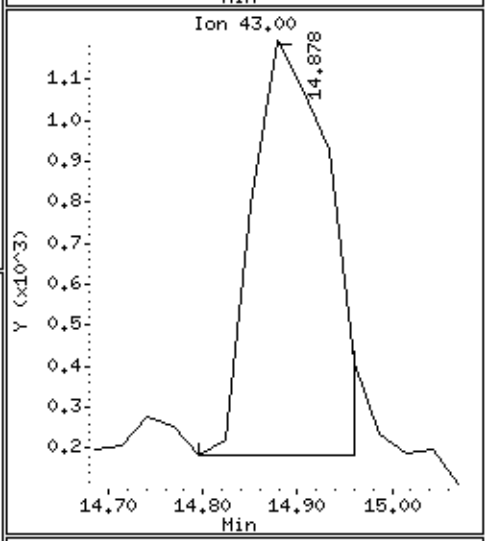


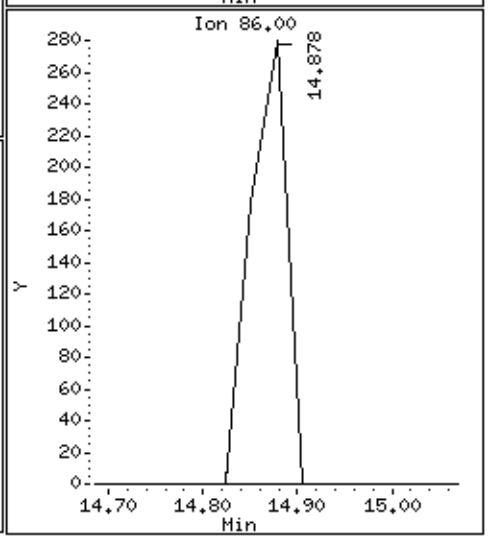












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

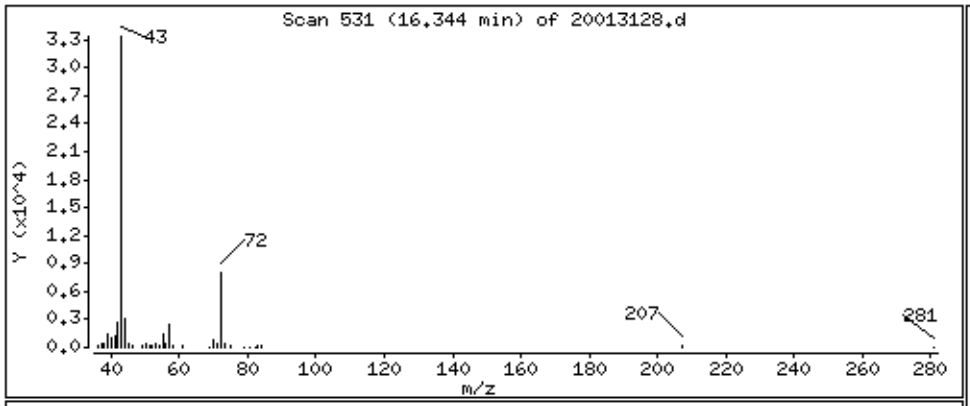
Operator: ef

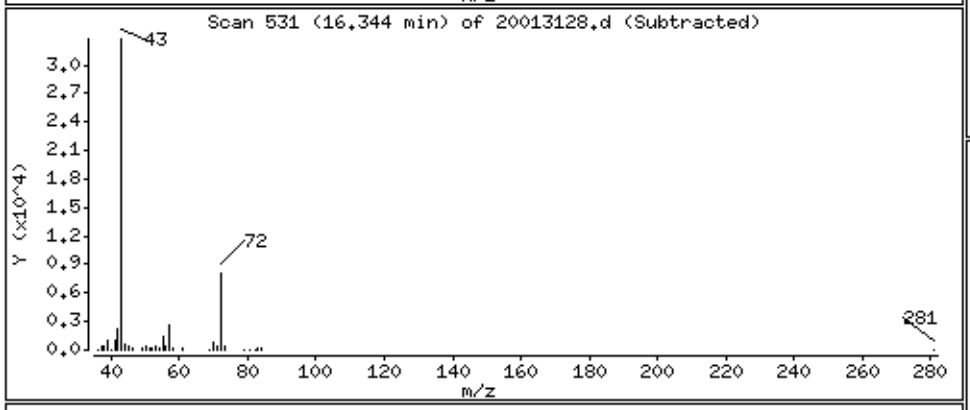
Column phase: RTX-624

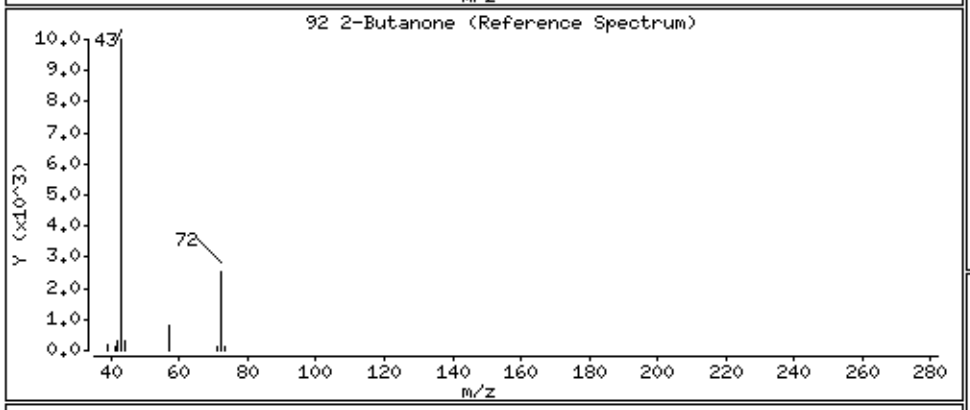
Column diameter: 0.32

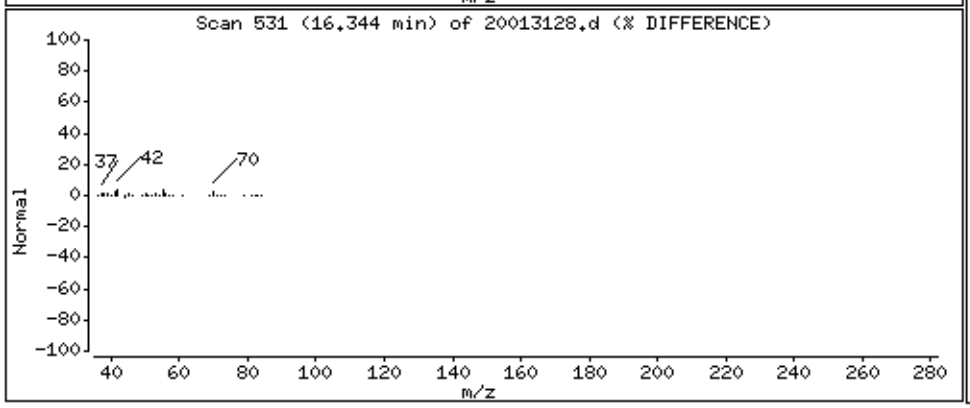
92 2-Butanone

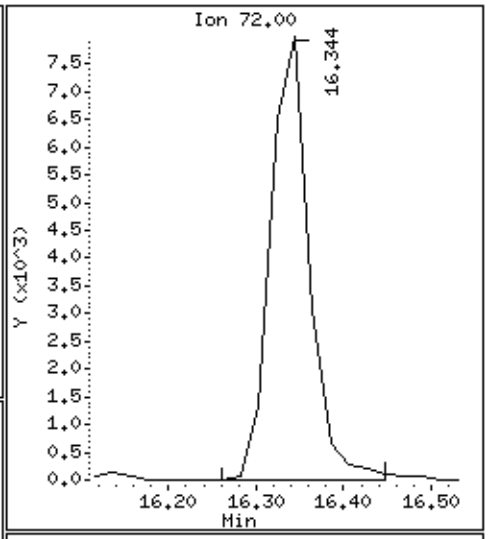
Concentration: 2.114 PPBV

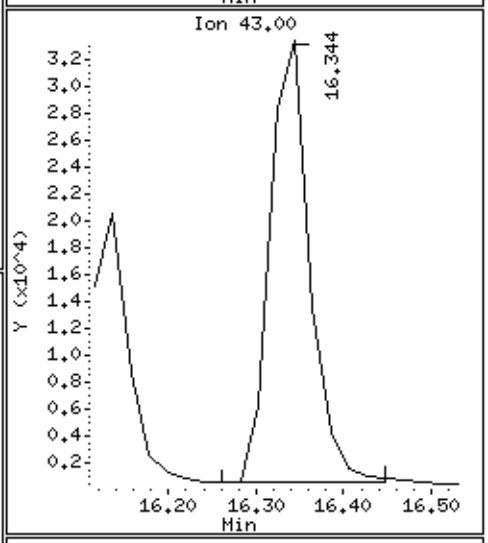


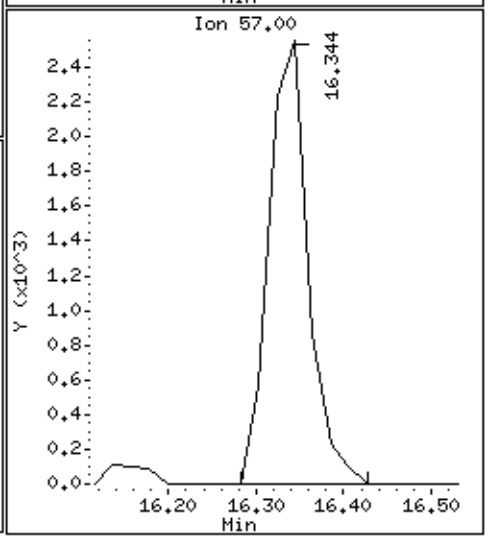












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

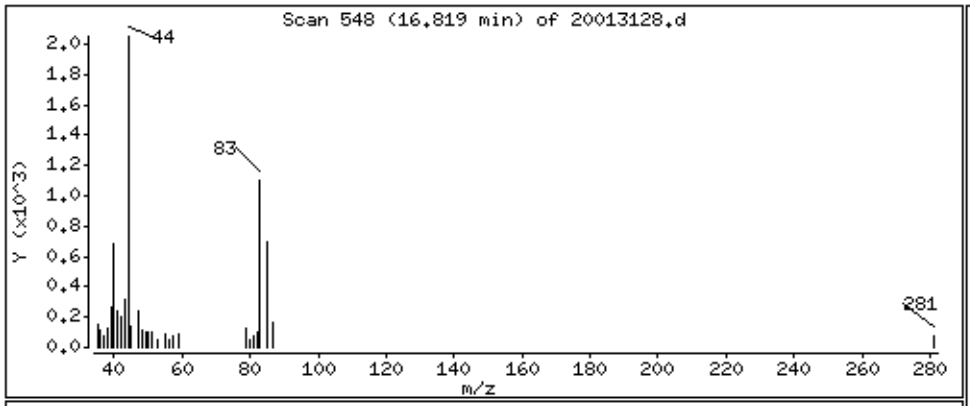
Operator: ef

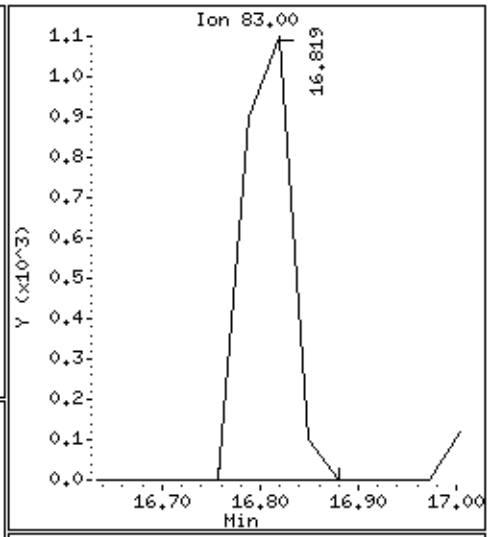
Column phase: RTX-624

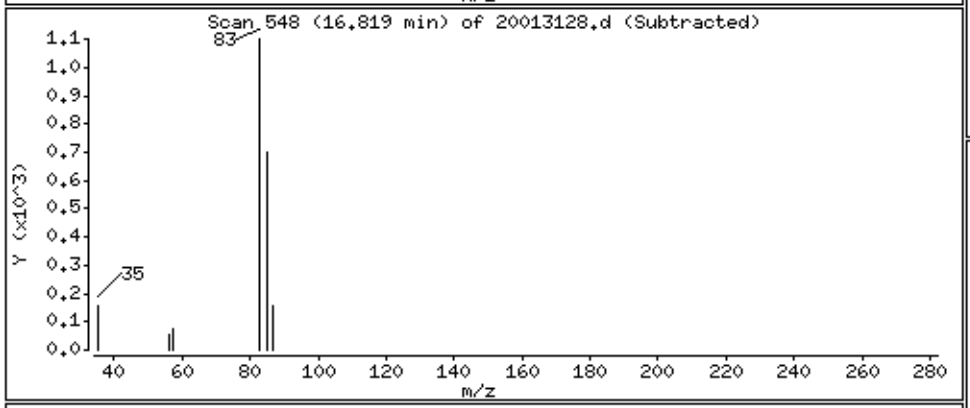
Column diameter: 0.32

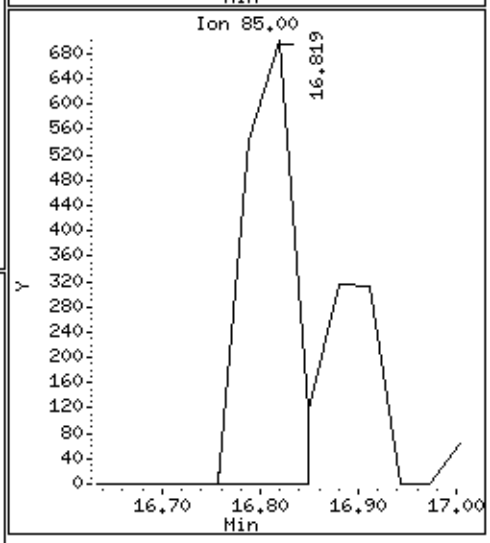
100 Chloroform

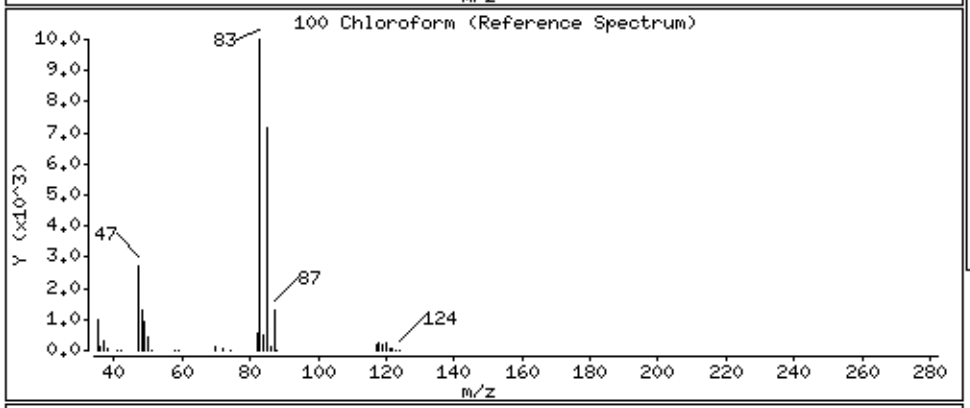
Concentration: 0.07234 PPBV

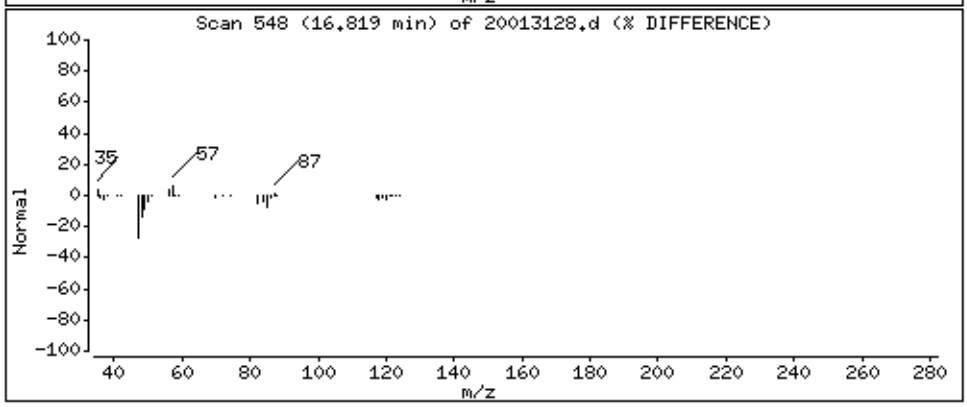












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

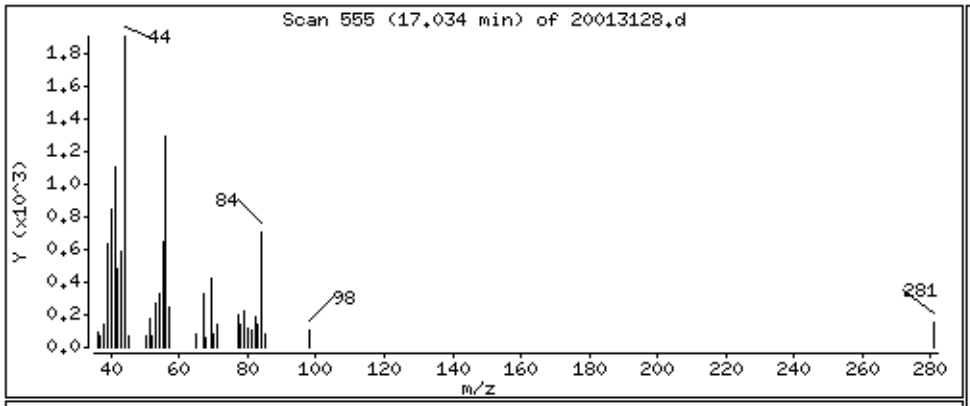
Operator: ef

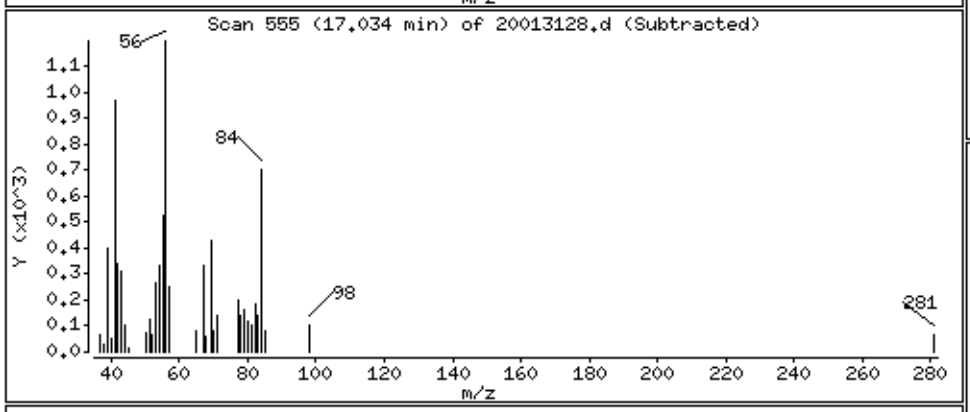
Column phase: RTX-624

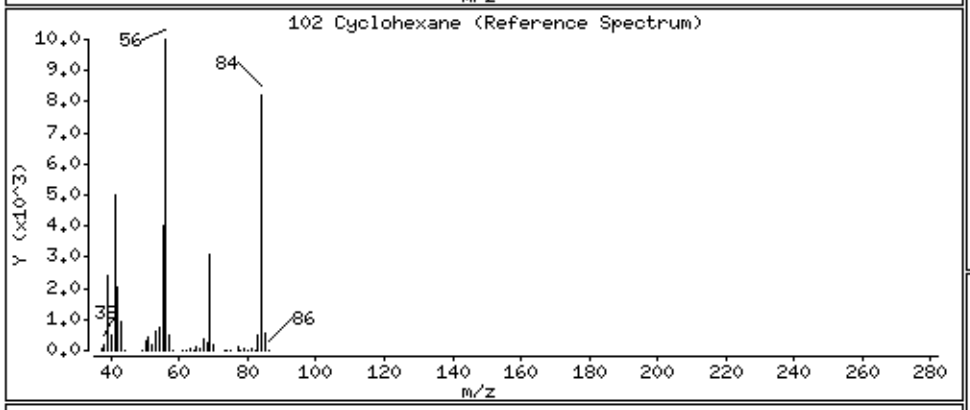
Column diameter: 0.32

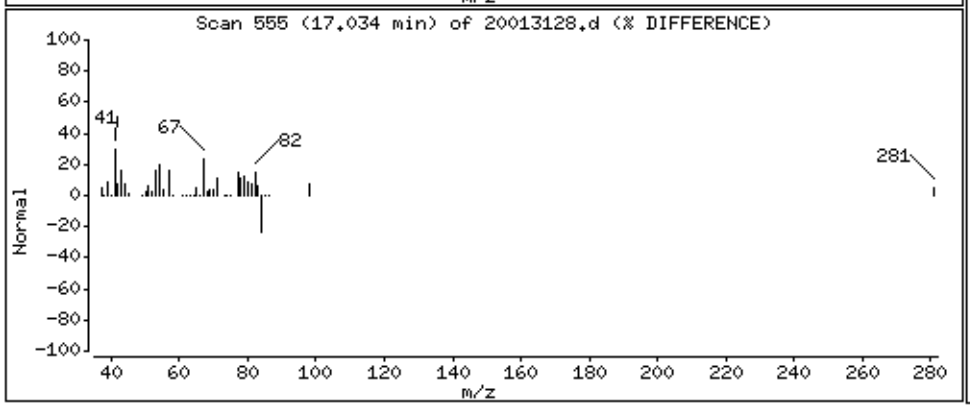
102 Cyclohexane

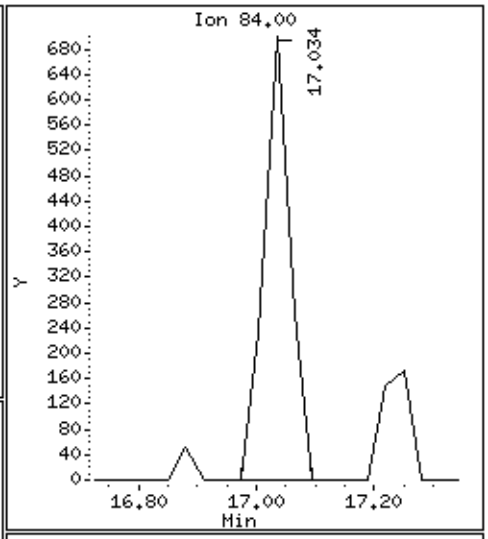
Concentration: 0.06298 PPBV

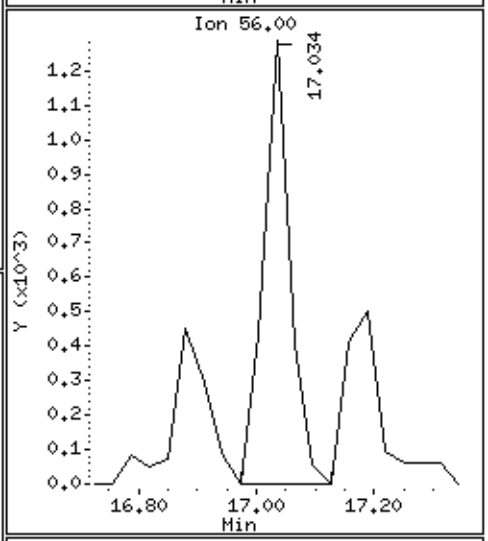


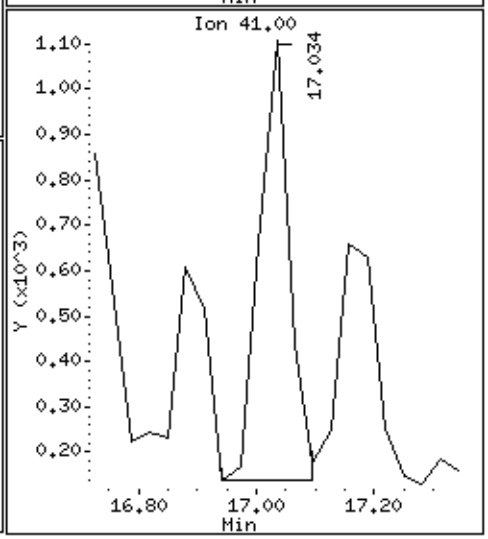












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

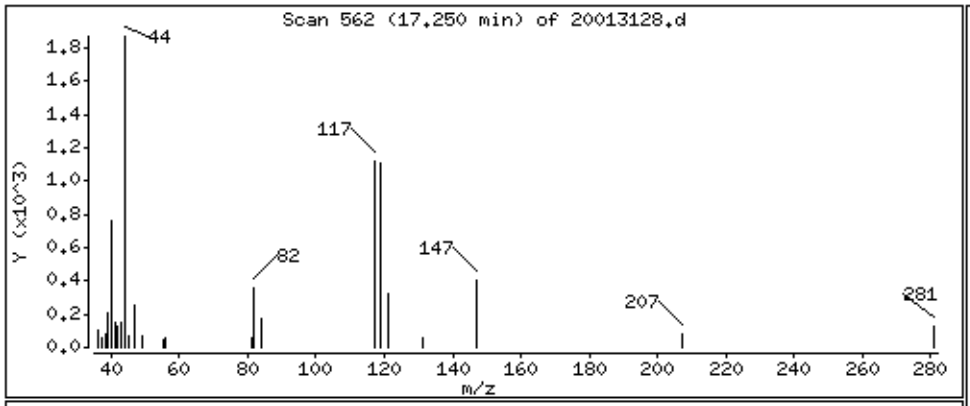
Operator: ef

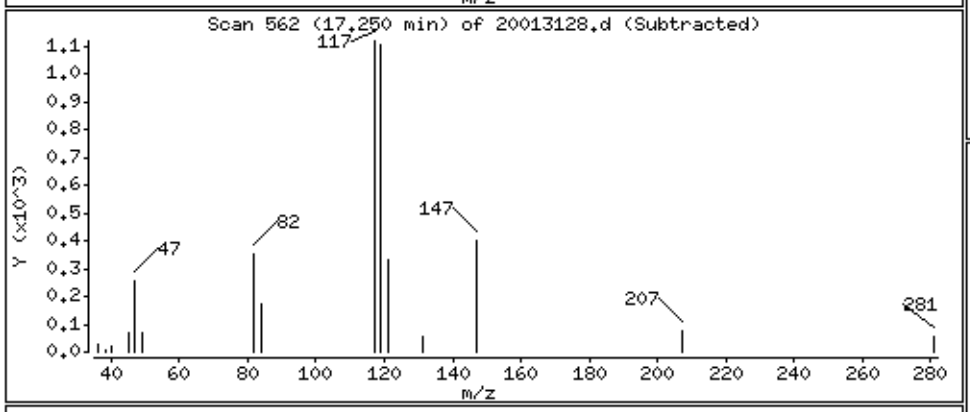
Column phase: RTX-624

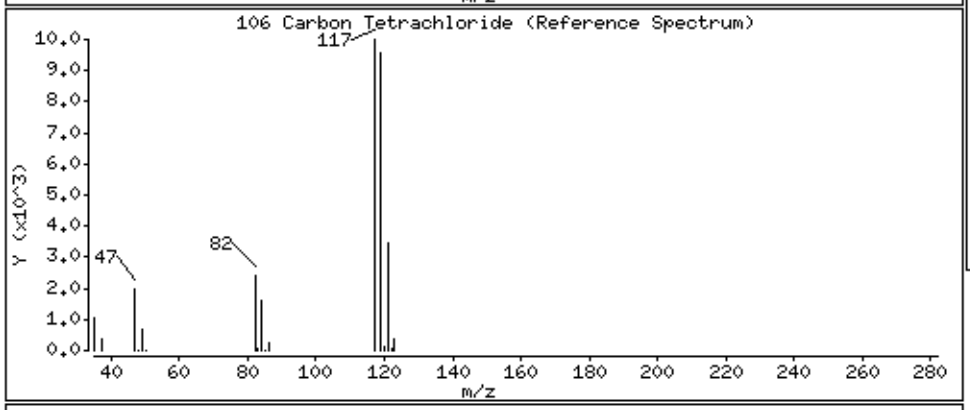
Column diameter: 0.32

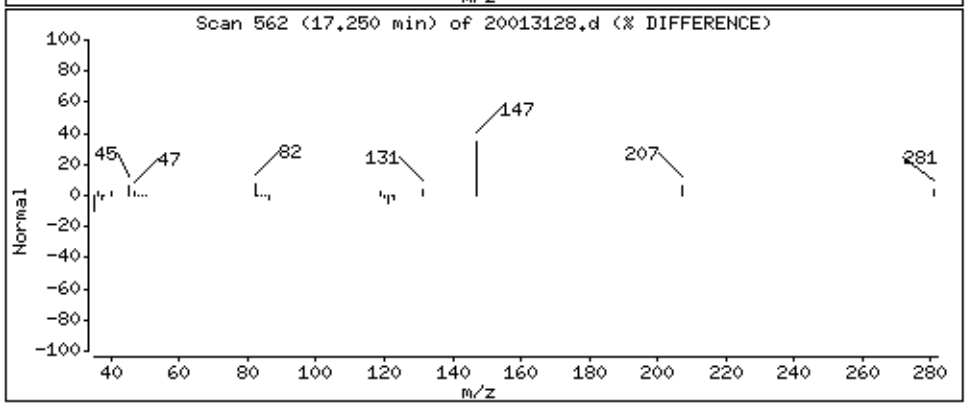
106 Carbon Tetrachloride

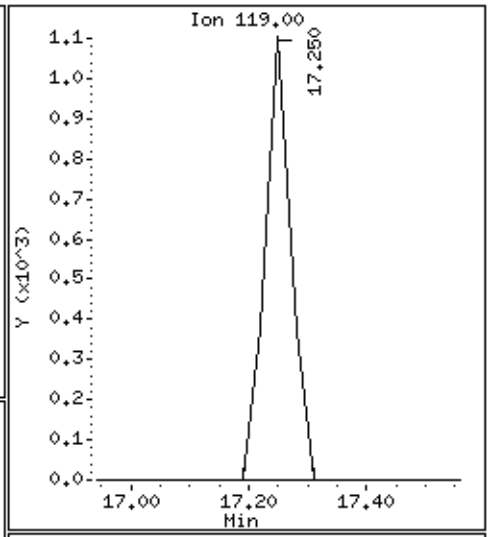
Concentration: 0.07425 PPBV

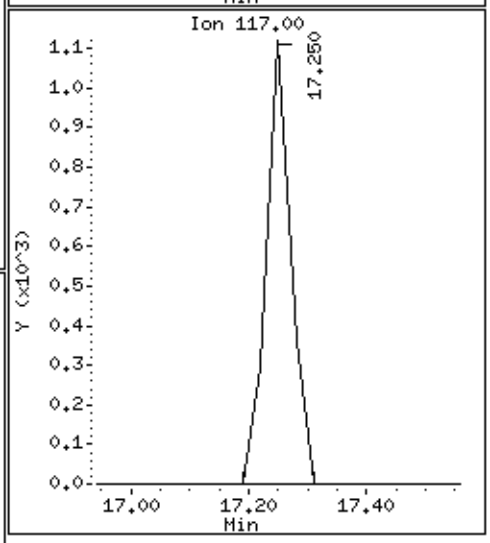












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

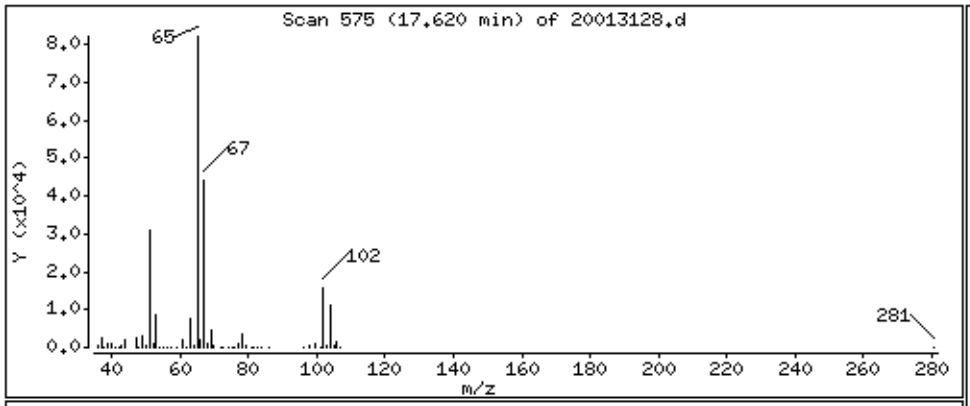
Operator: ef

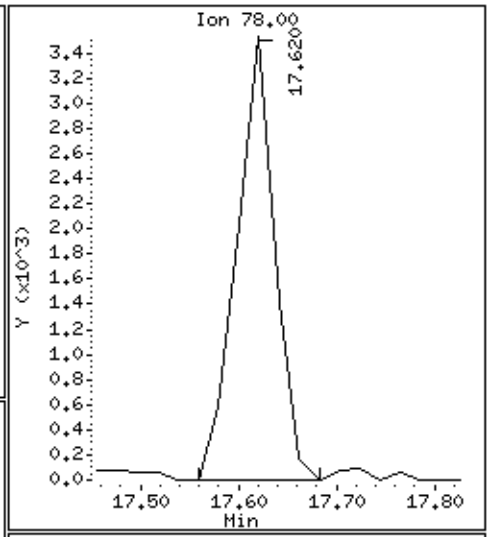
Column phase: RTX-624

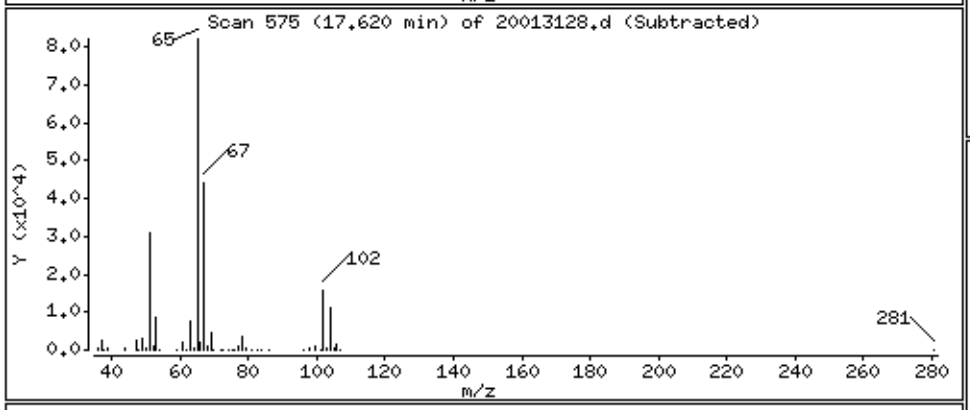
Column diameter: 0.32

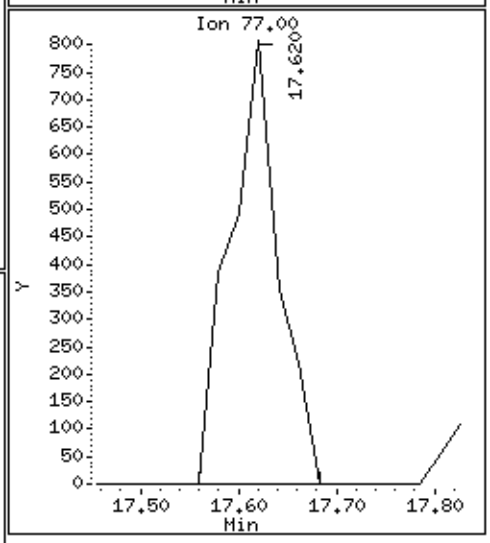
116 Benzene

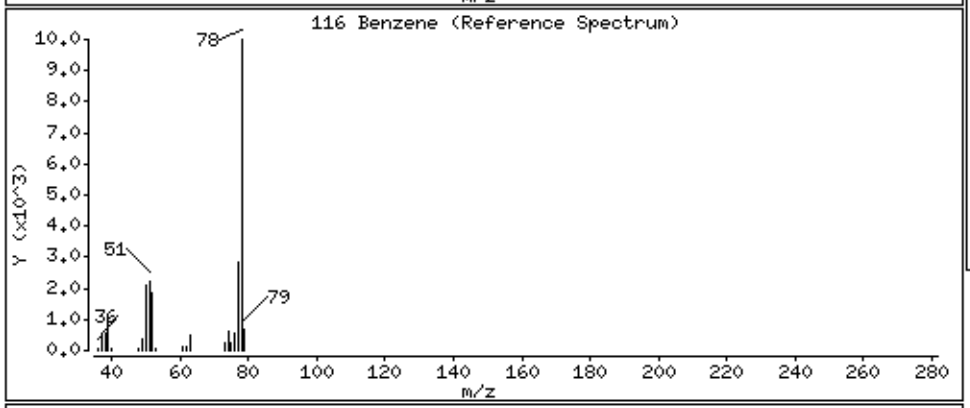
Concentration: 0.1715 PPBV

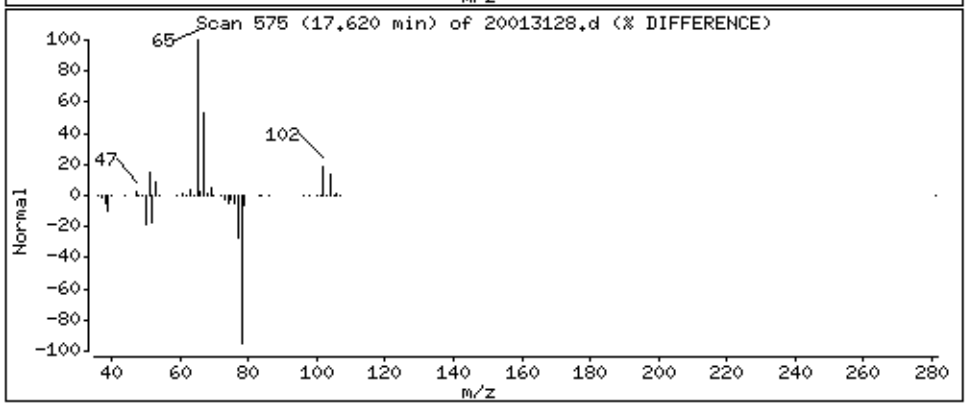












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

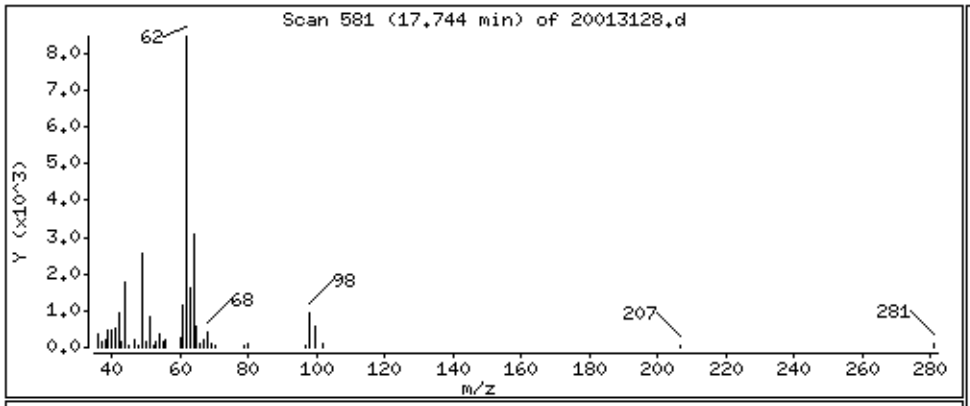
Operator: ef

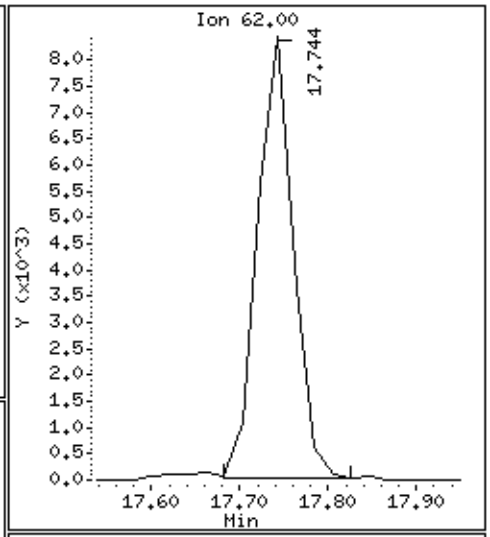
Column phase: RTX-624

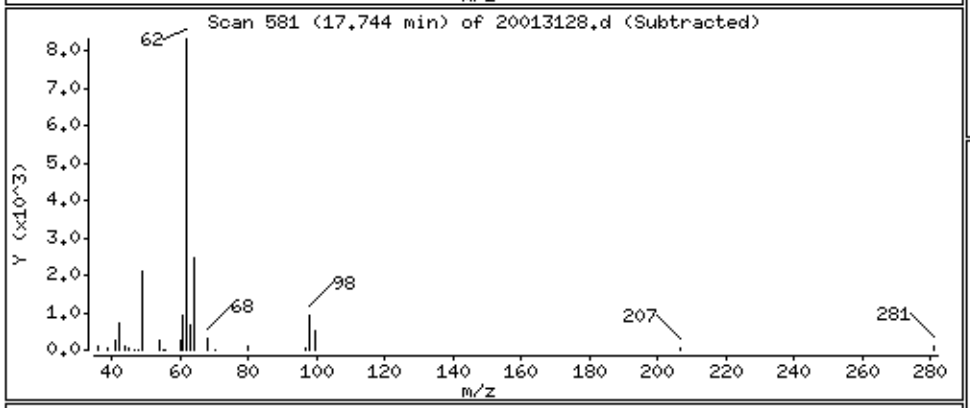
Column diameter: 0.32

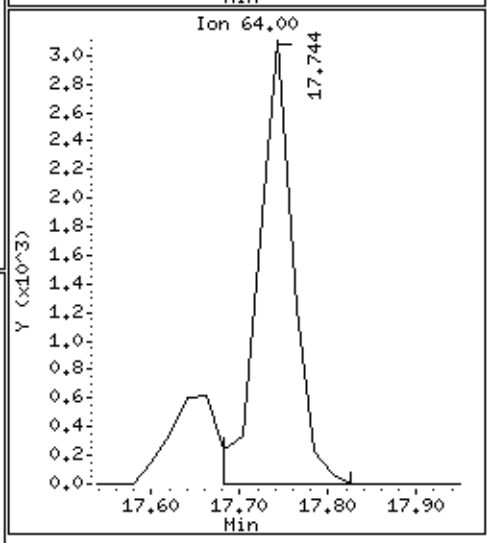
120 1,2-Dichloroethane

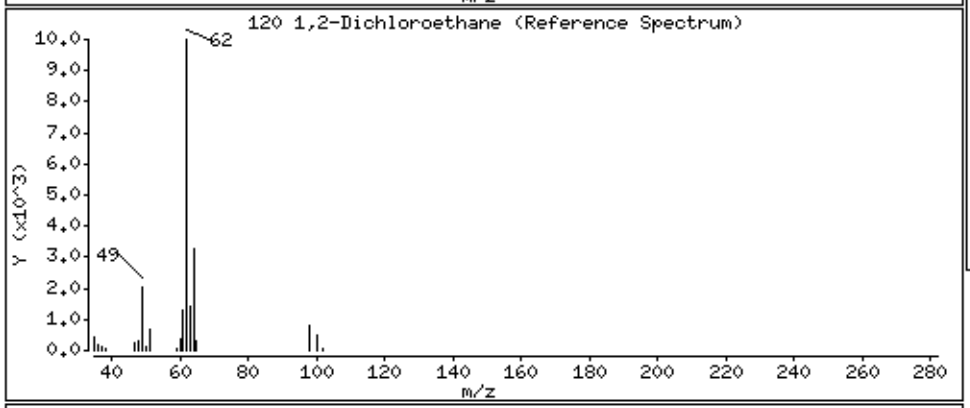
Concentration: 1.110 PPBV

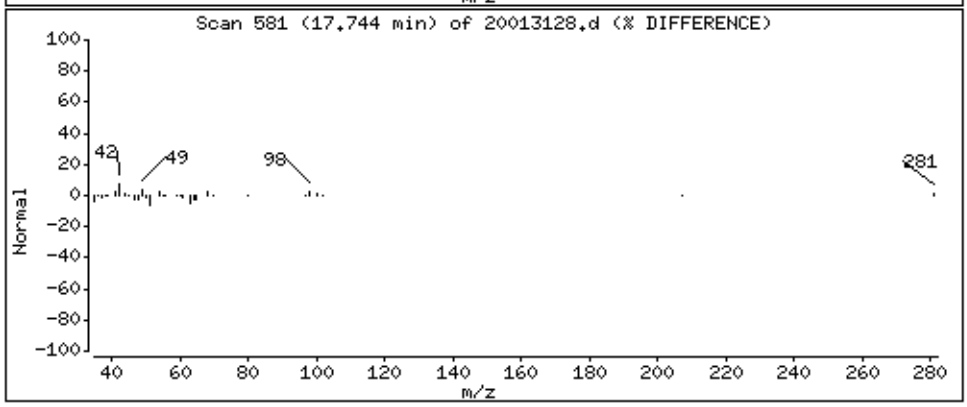












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

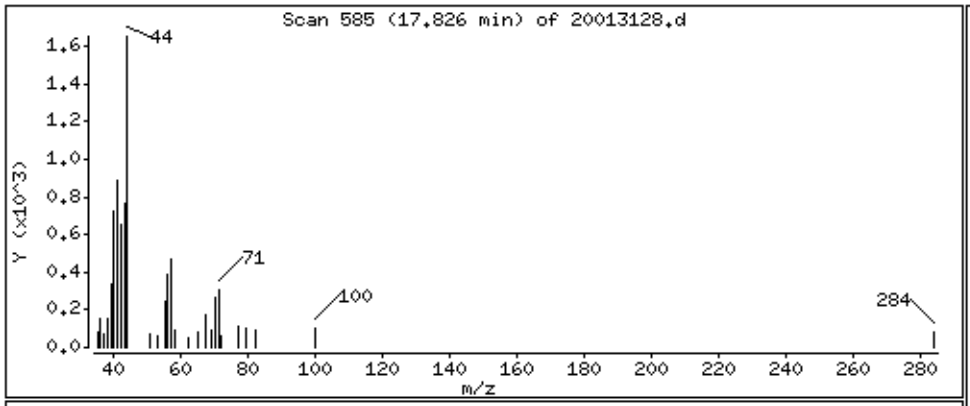
Operator: ef

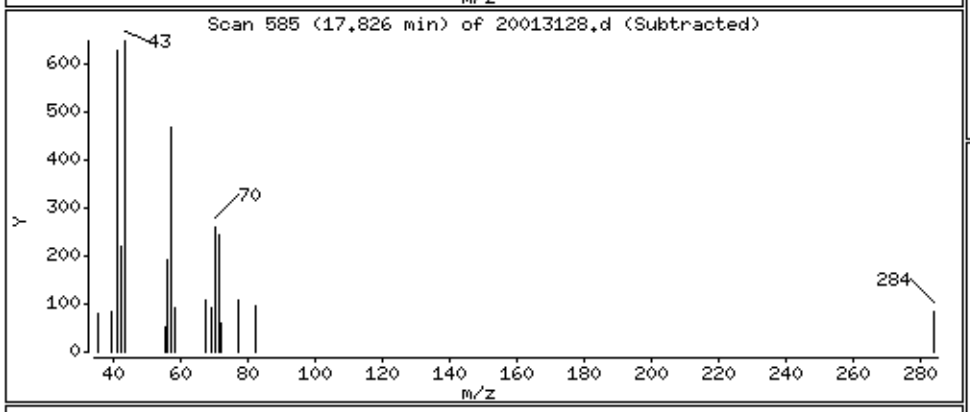
Column phase: RTX-624

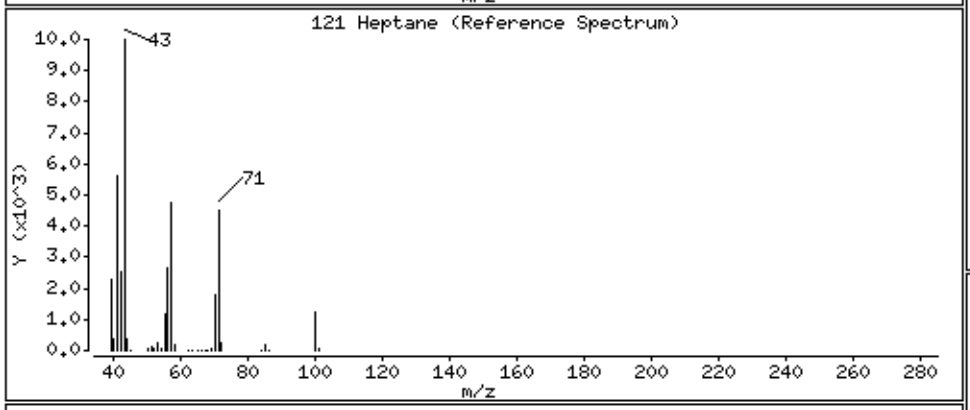
Column diameter: 0.32

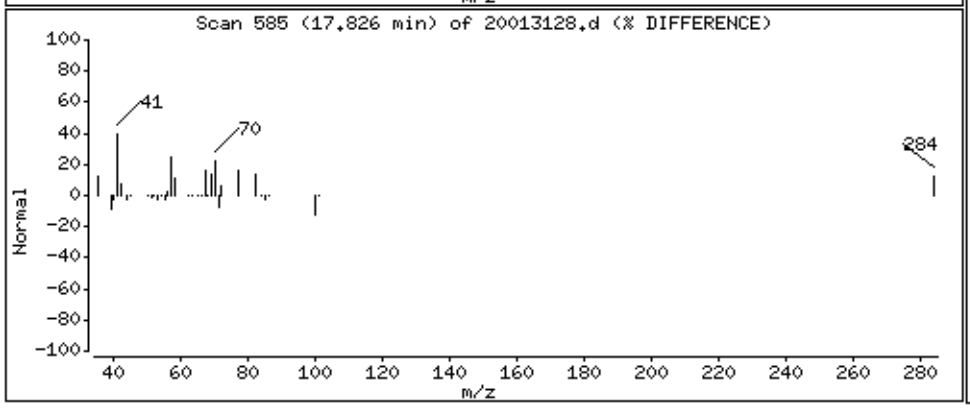
121 Heptane

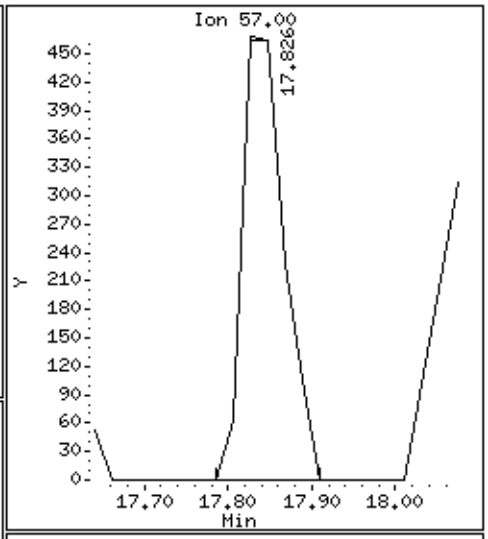
Concentration: 0.1149 PPBV

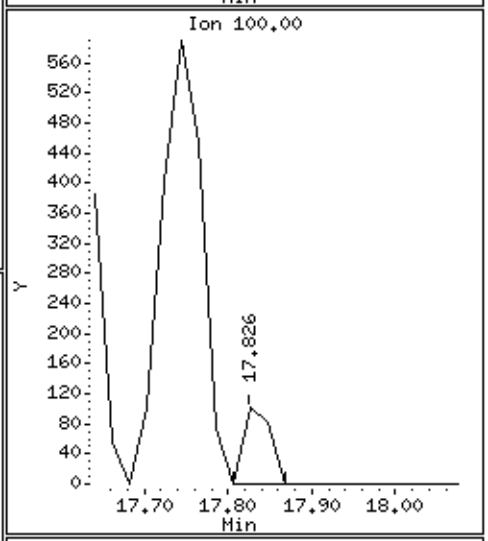


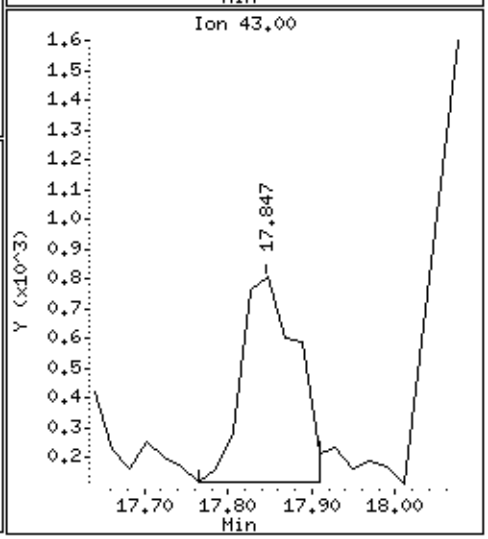












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

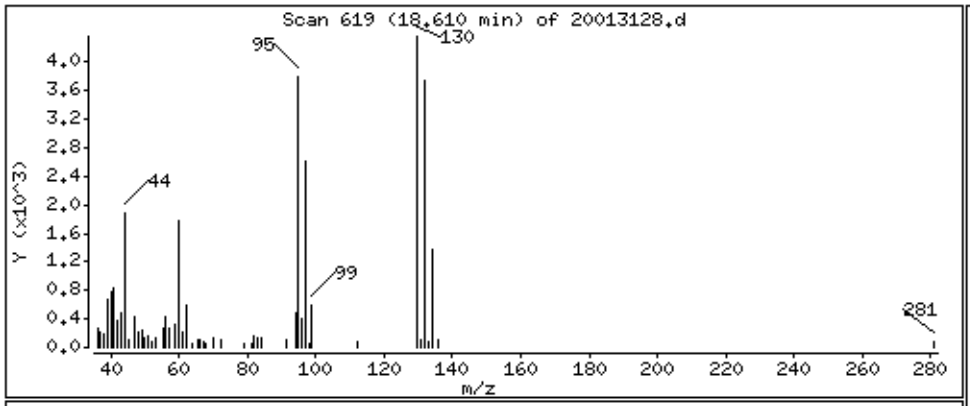
Operator: ef

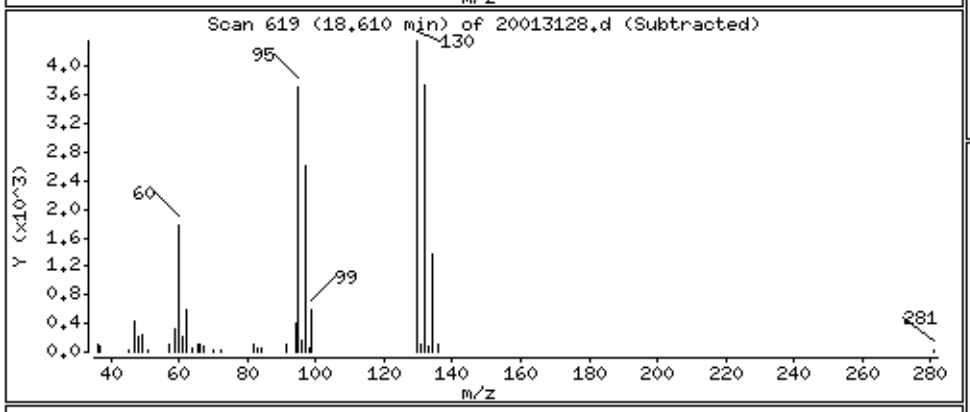
Column phase: RTX-624

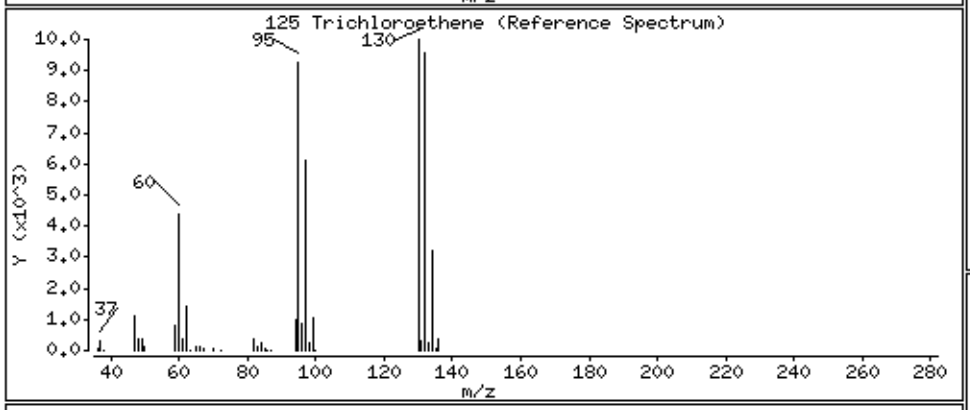
Column diameter: 0.32

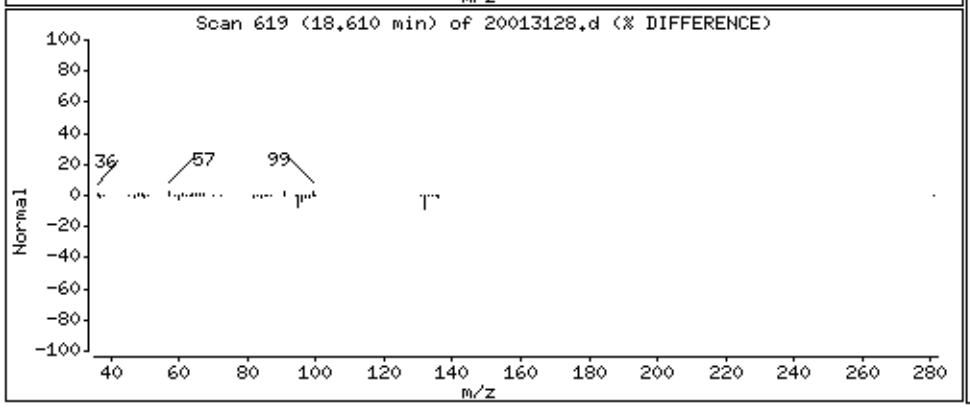
125 Trichloroethene

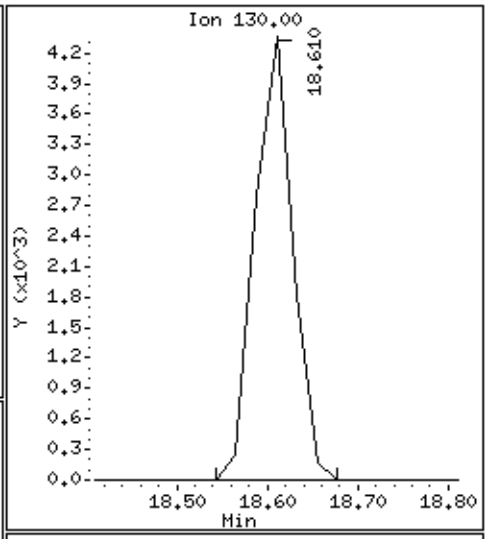
Concentration: 0.4749 PPBV

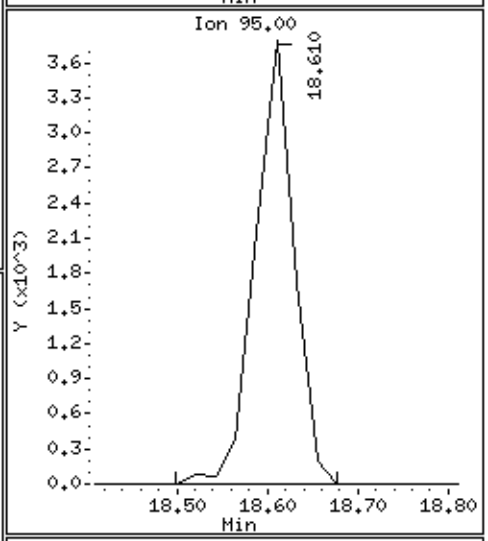


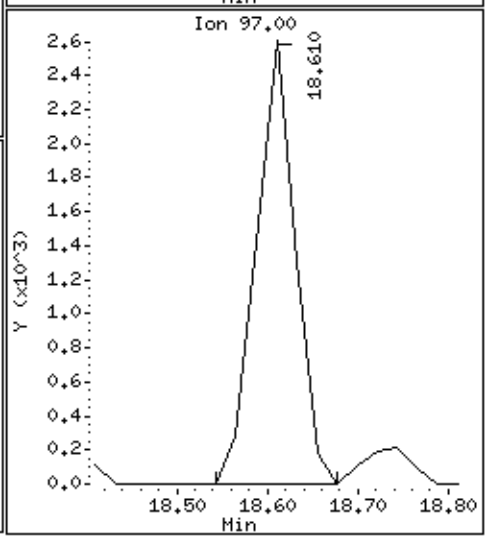












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

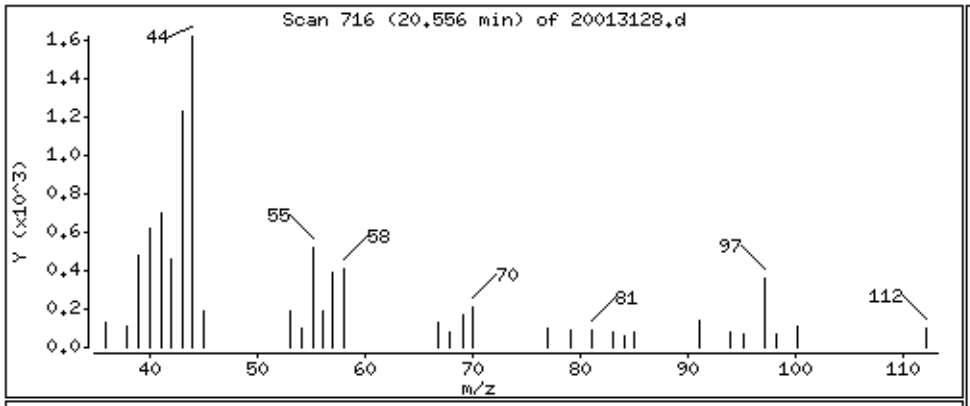
Operator: ef

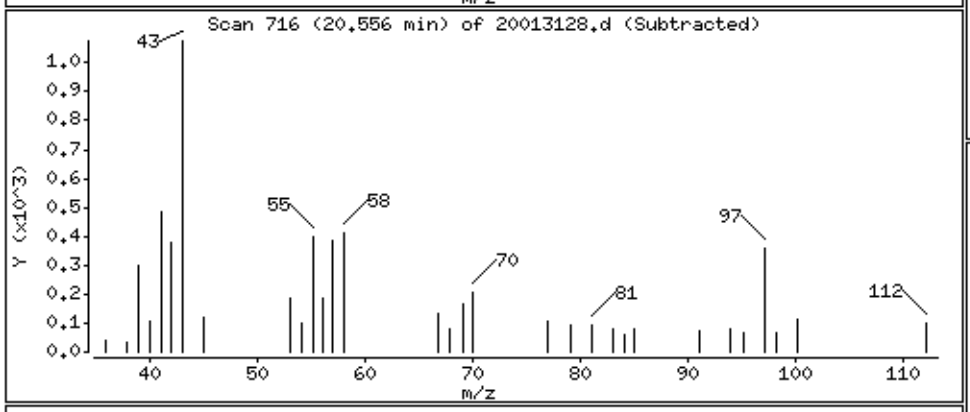
Column phase: RTX-624

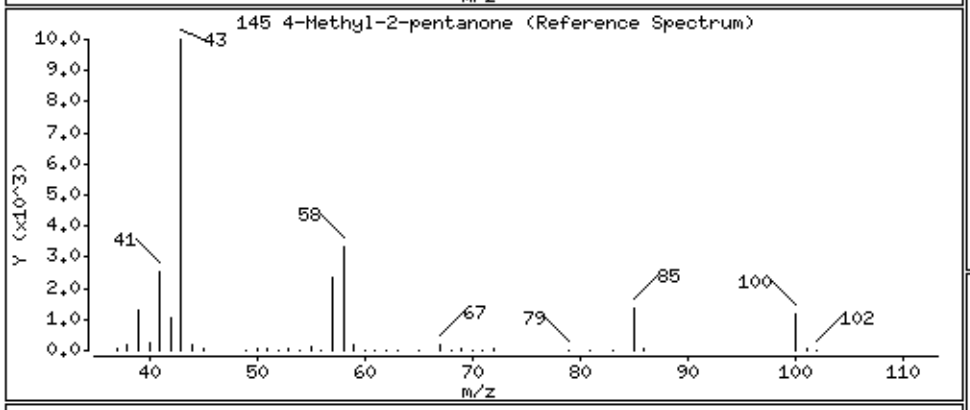
Column diameter: 0.32

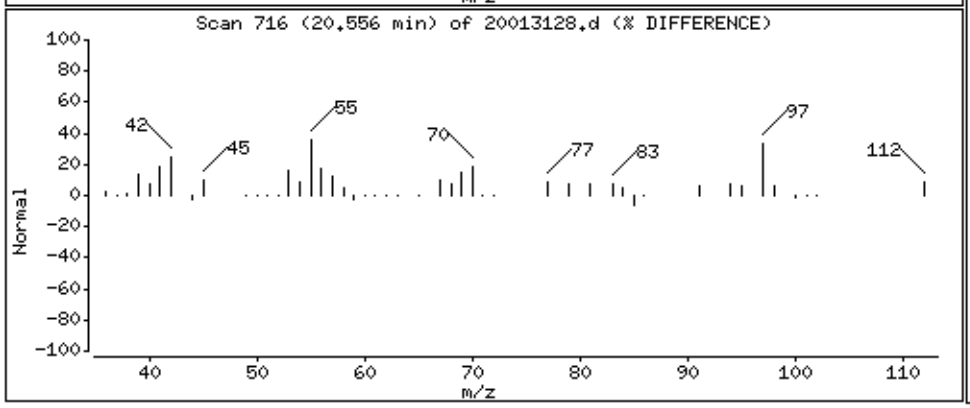
145 4-Methyl-2-pentanone

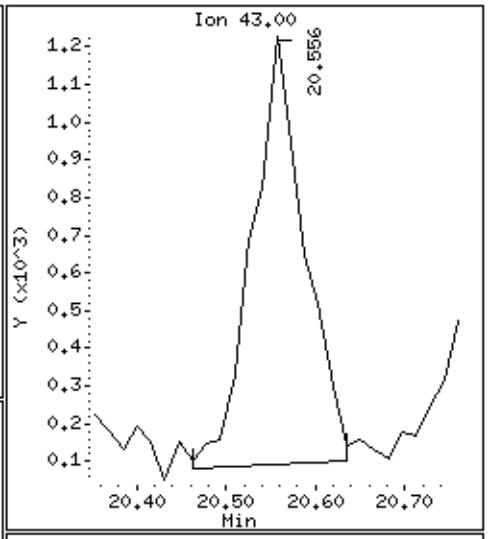
Concentration: 0.1522 PPBV

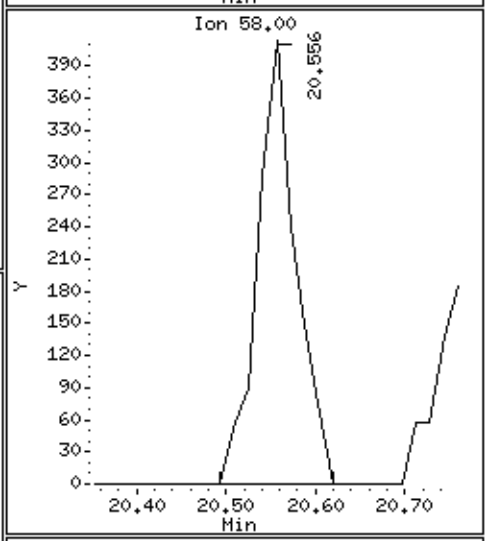


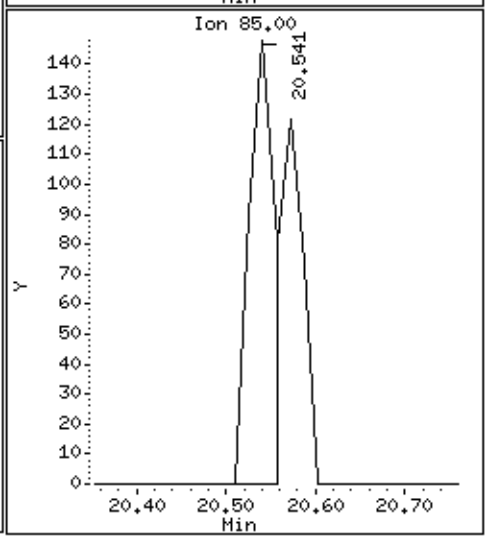












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

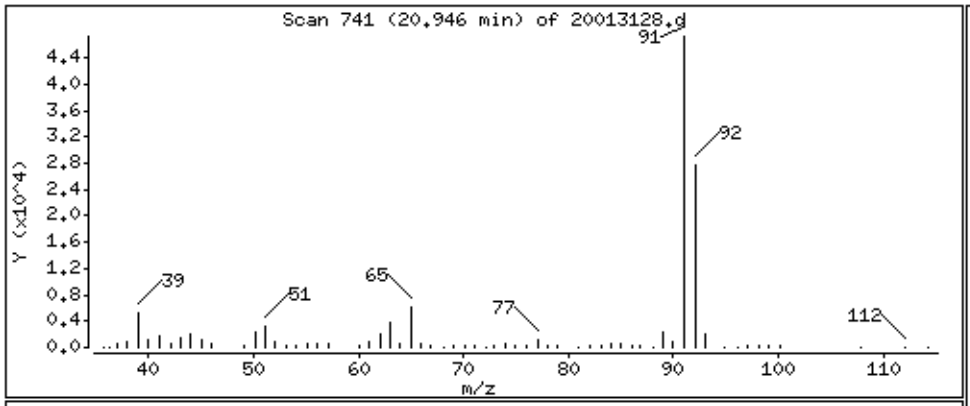
Operator: ef

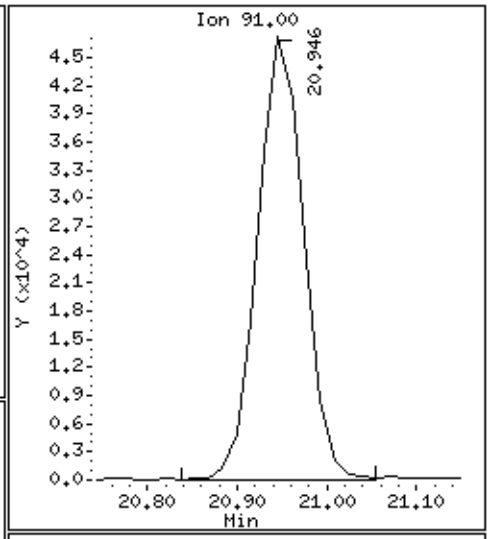
Column phase: RTX-624

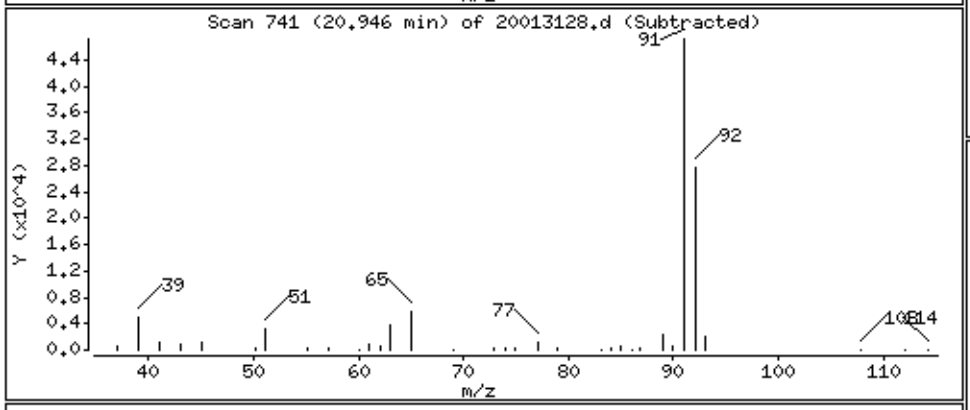
Column diameter: 0.32

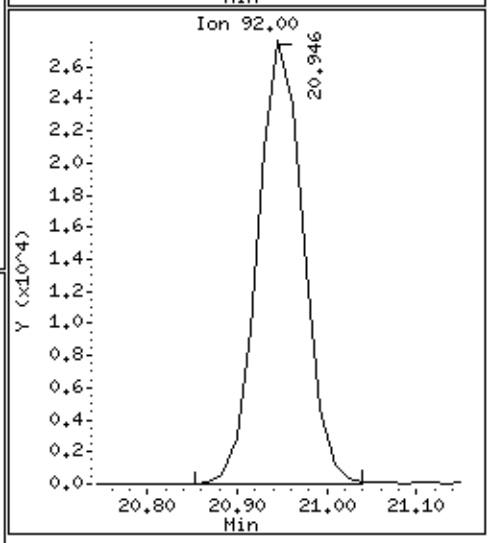
147 Toluene

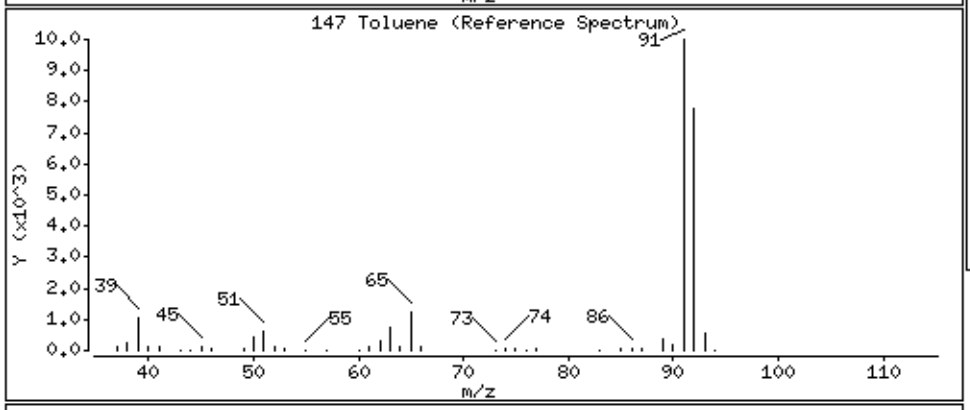
Concentration: 2.765 PPBV

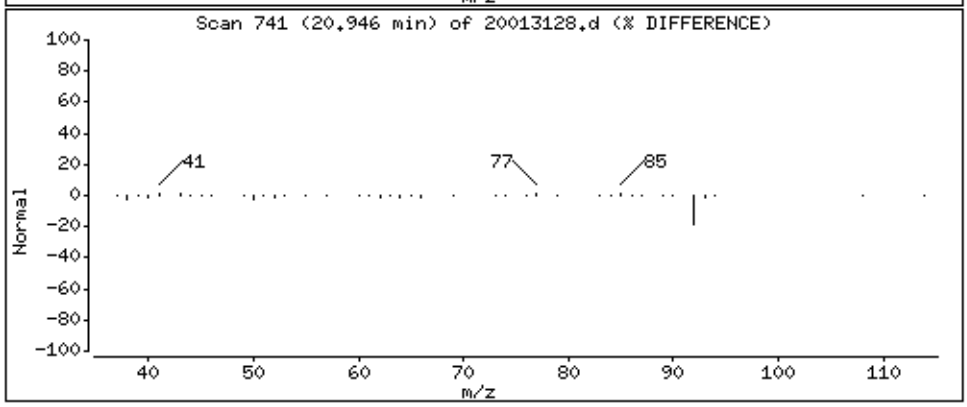












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

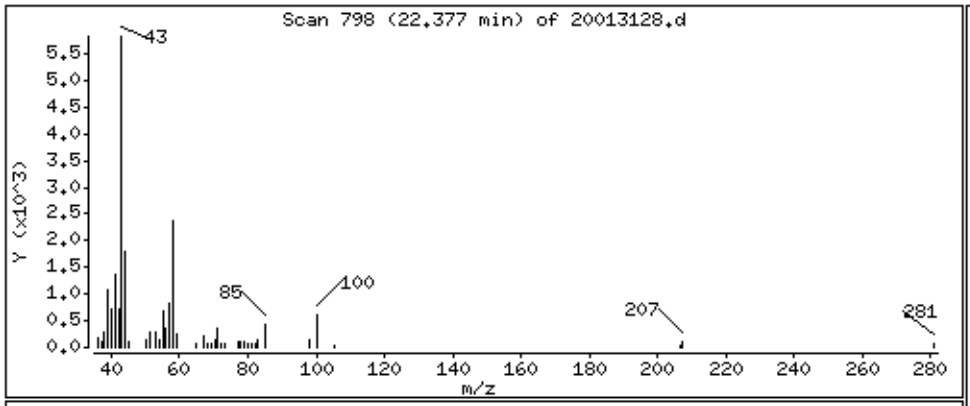
Operator: ef

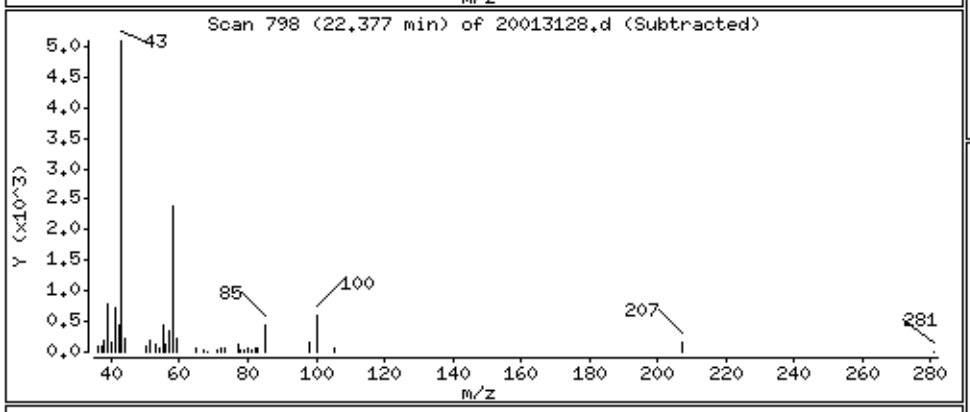
Column phase: RTX-624

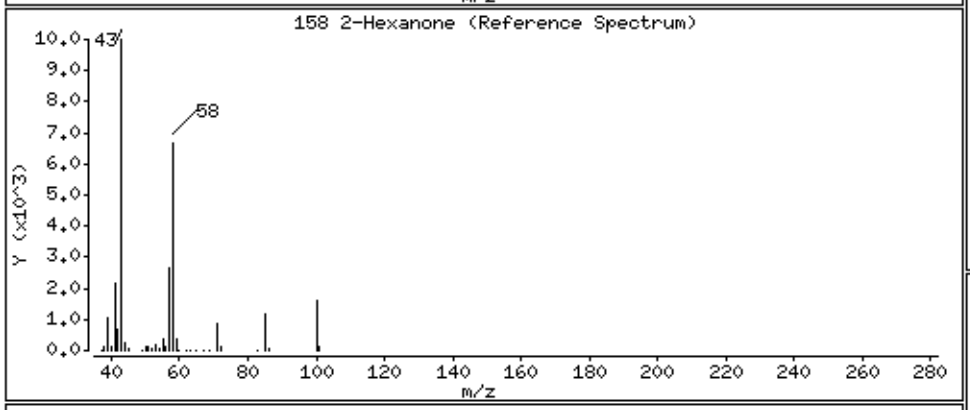
Column diameter: 0.32

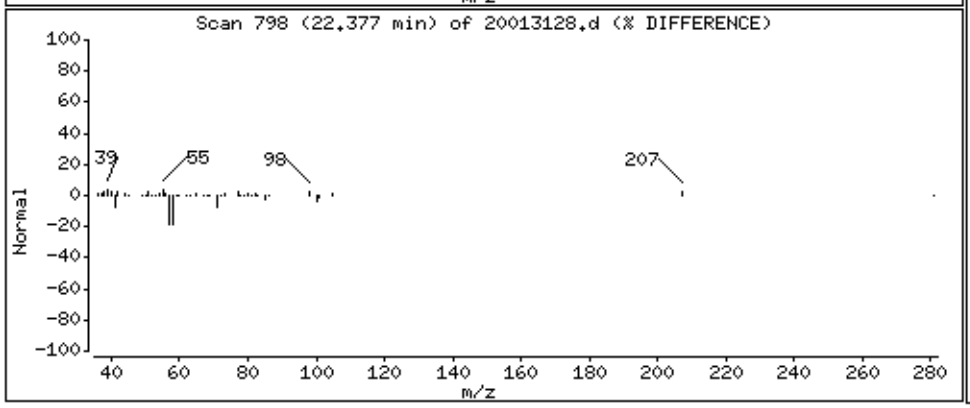
158 2-Hexanone

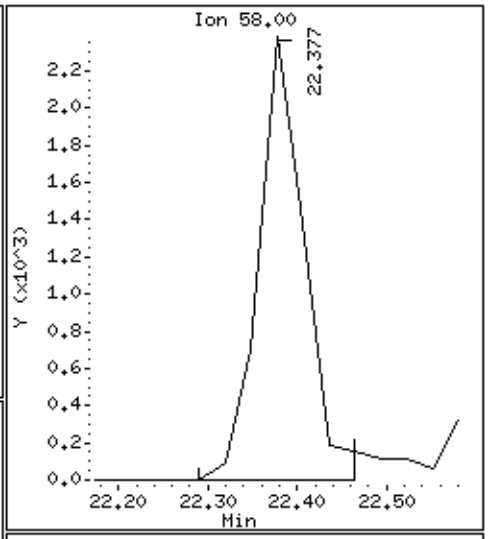
Concentration: 0.4179 PPBV

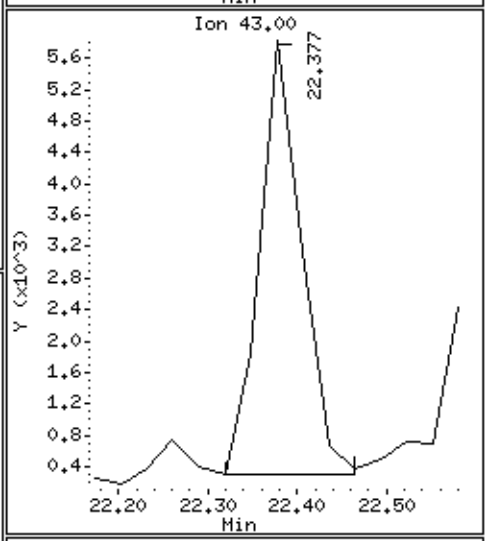


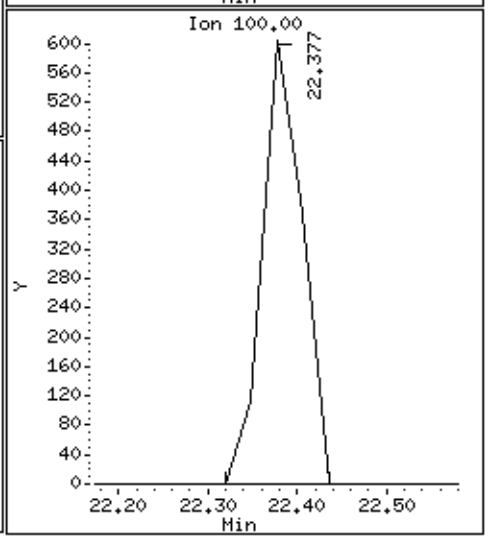












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

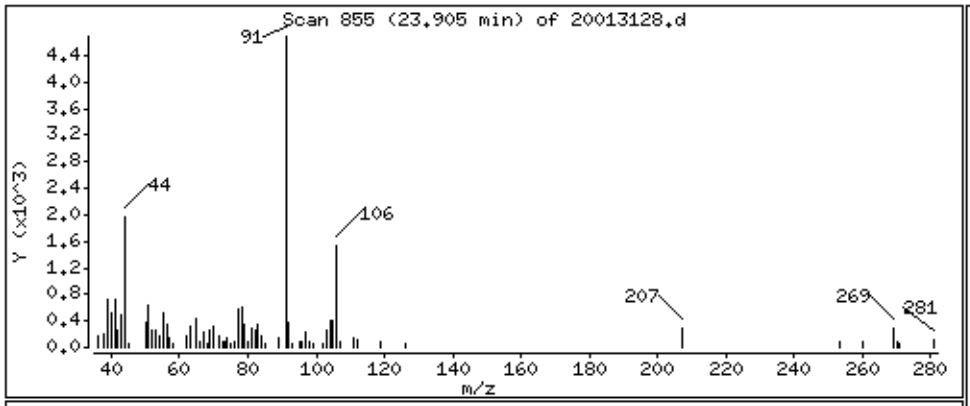
Operator: ef

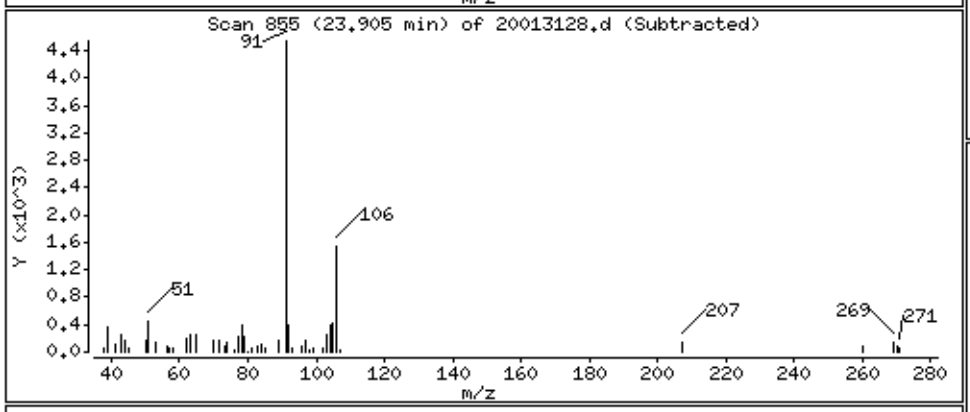
Column phase: RTX-624

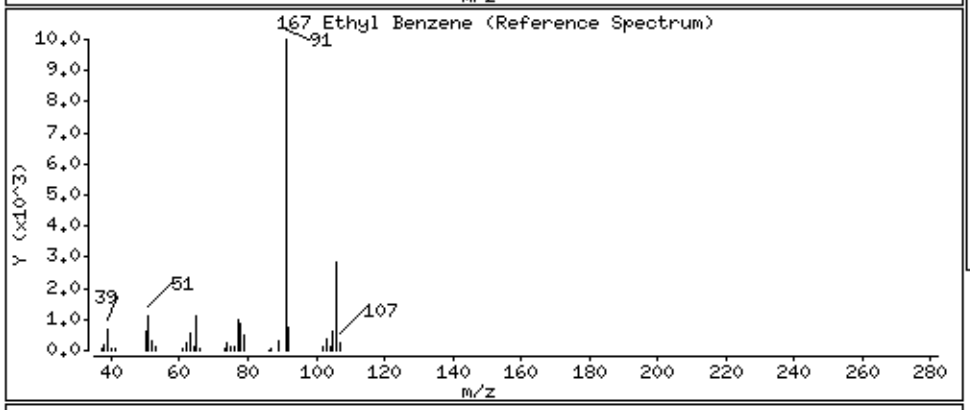
Column diameter: 0.32

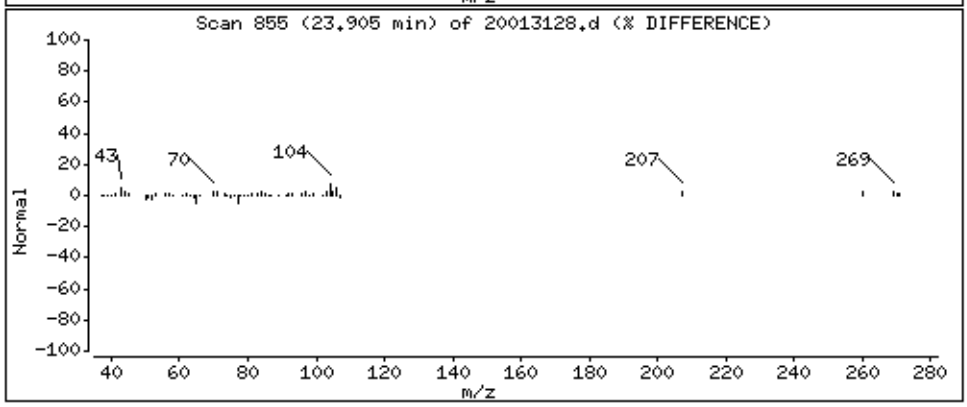
167 Ethyl Benzene

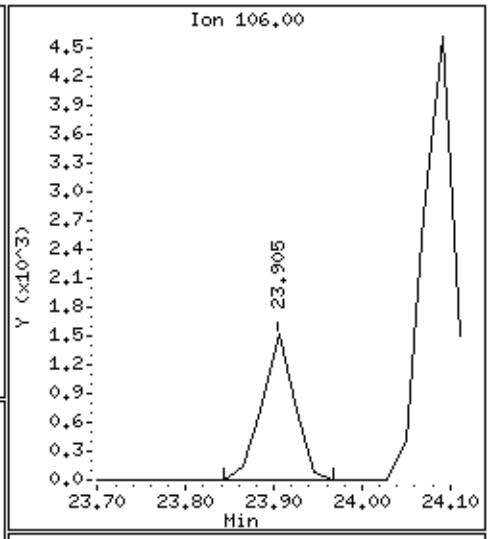
Concentration: 0.1394 PPBV

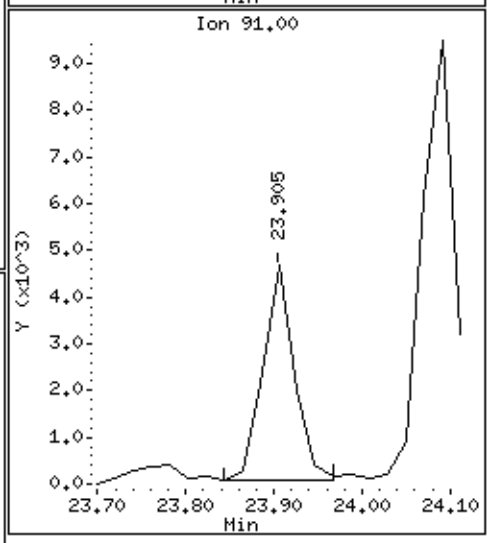












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

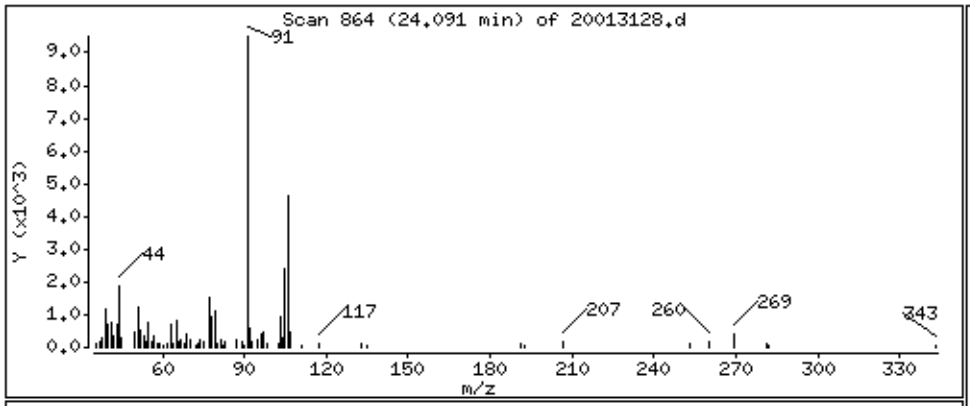
Operator: ef

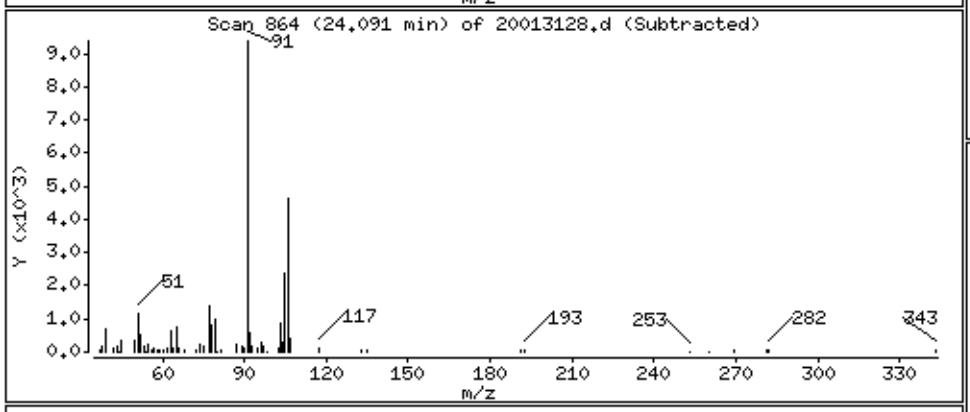
Column phase: RTX-624

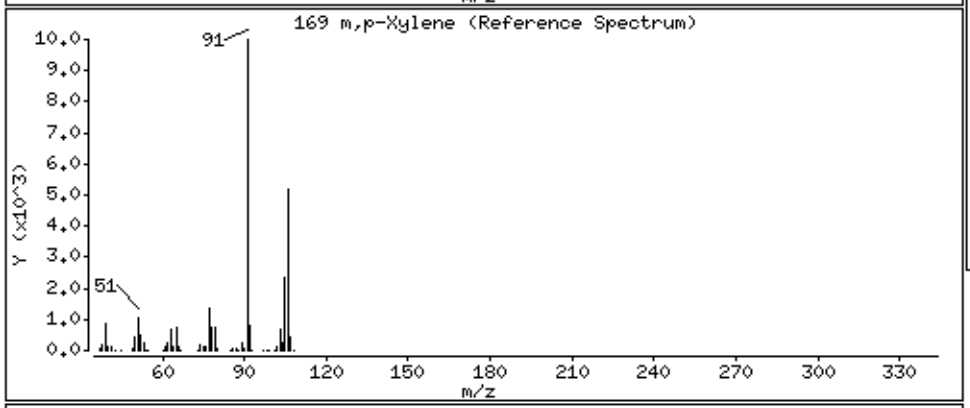
Column diameter: 0.32

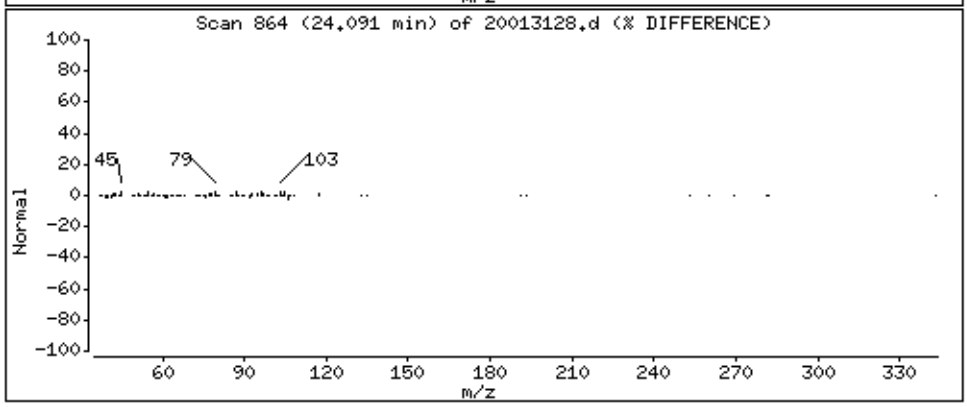
169 m,p-Xylene

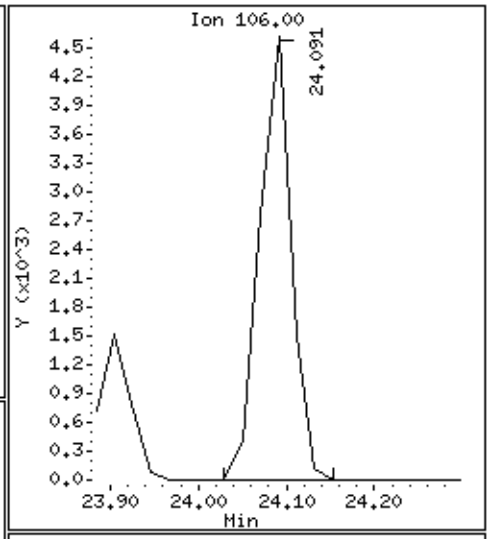
Concentration: 0.3921 PPBV

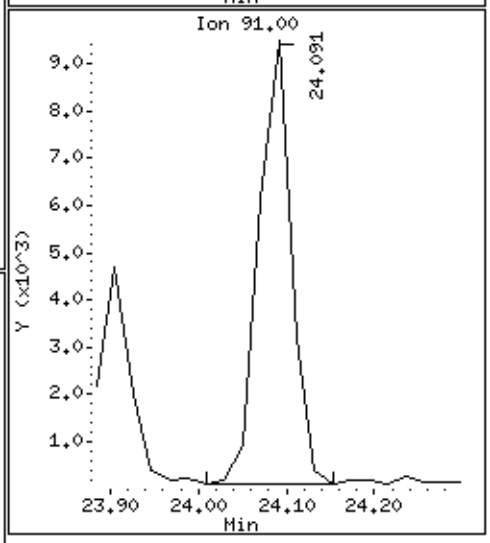












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

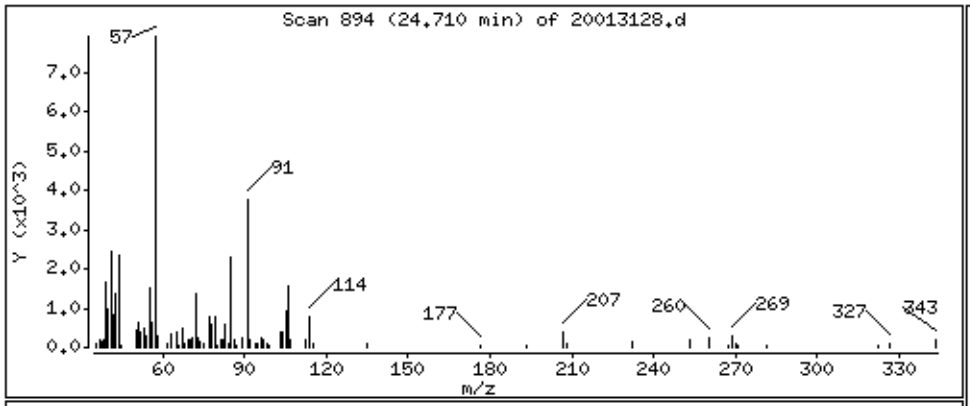
Operator: ef

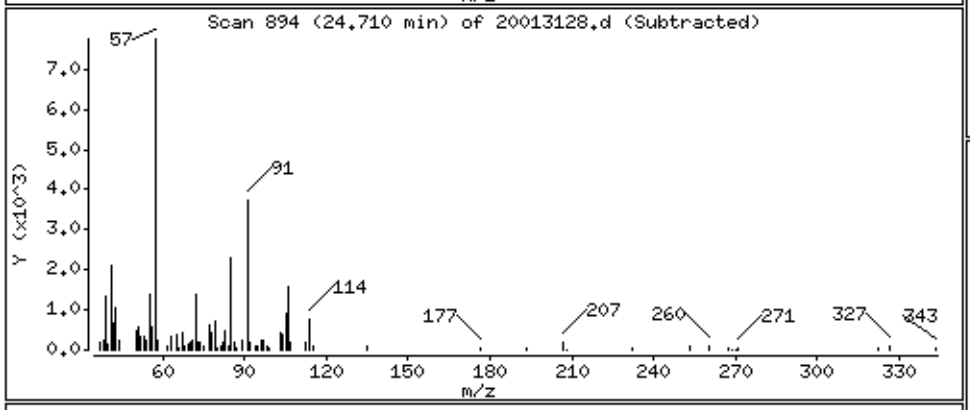
Column phase: RTX-624

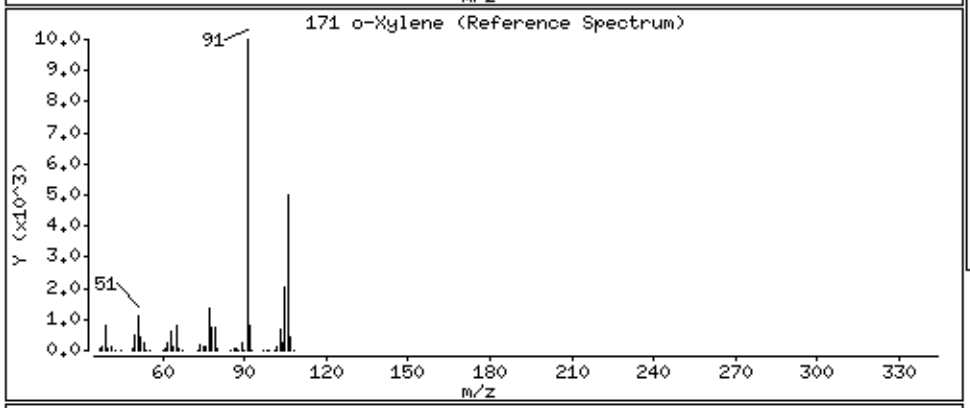
Column diameter: 0.32

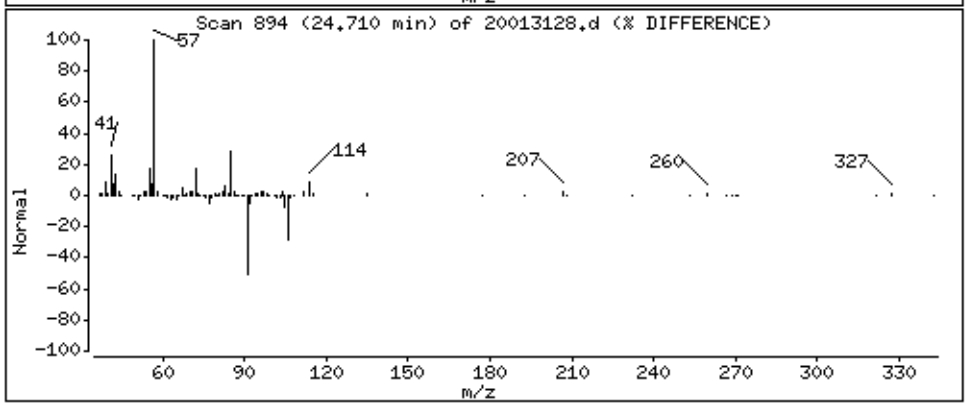
171 o-Xylene

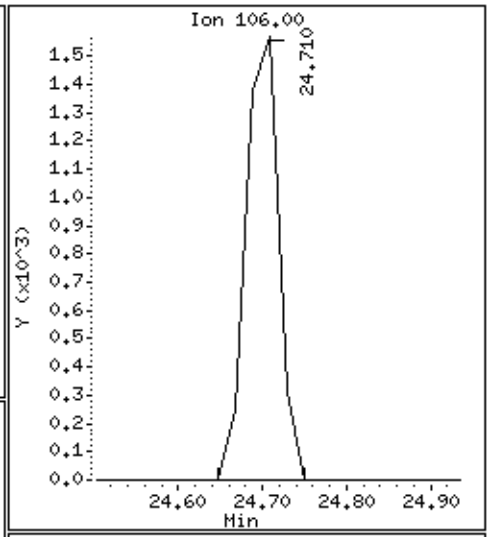
Concentration: 0.1567 PPBV

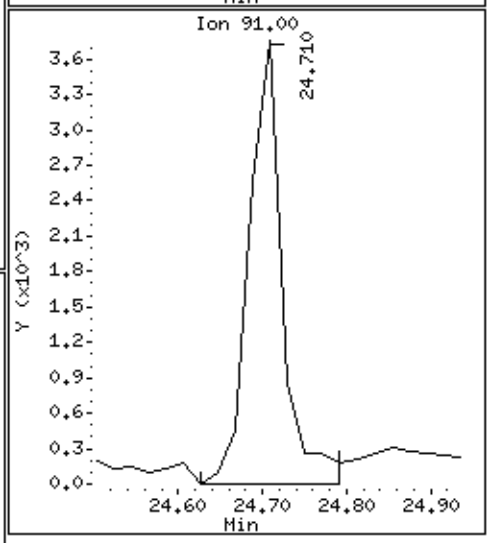












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

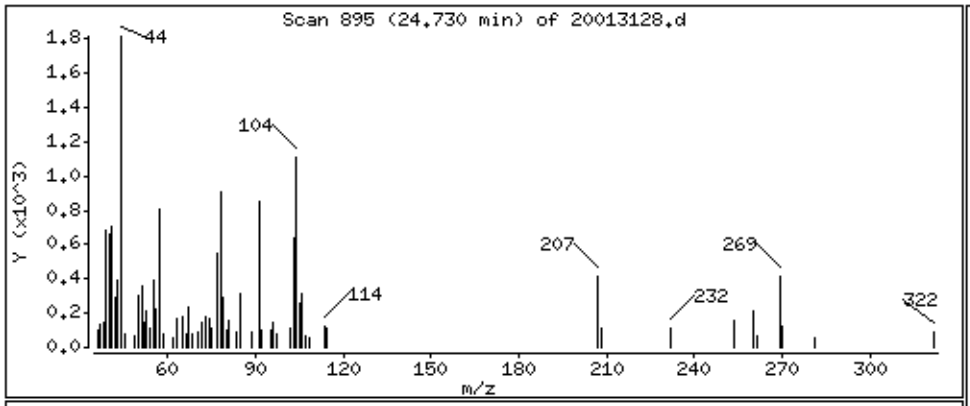
Operator: ef

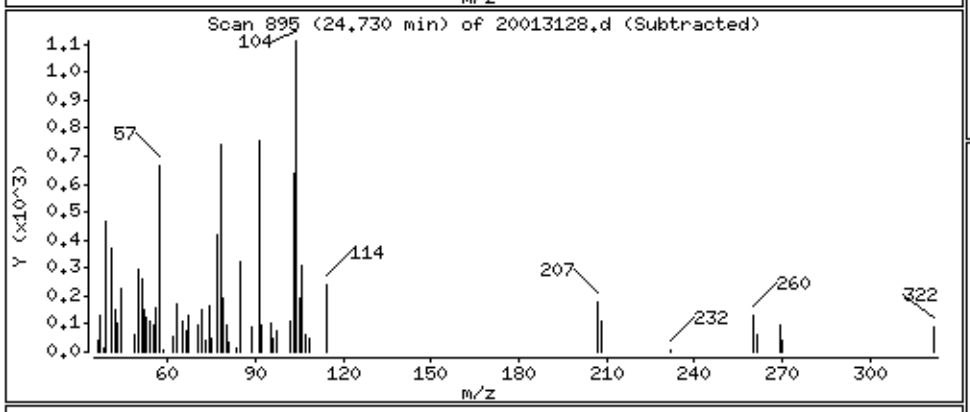
Column phase: RTX-624

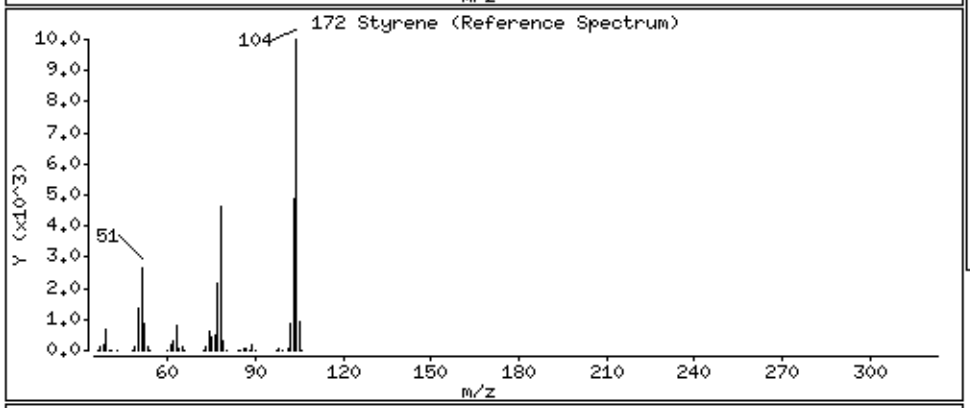
Column diameter: 0.32

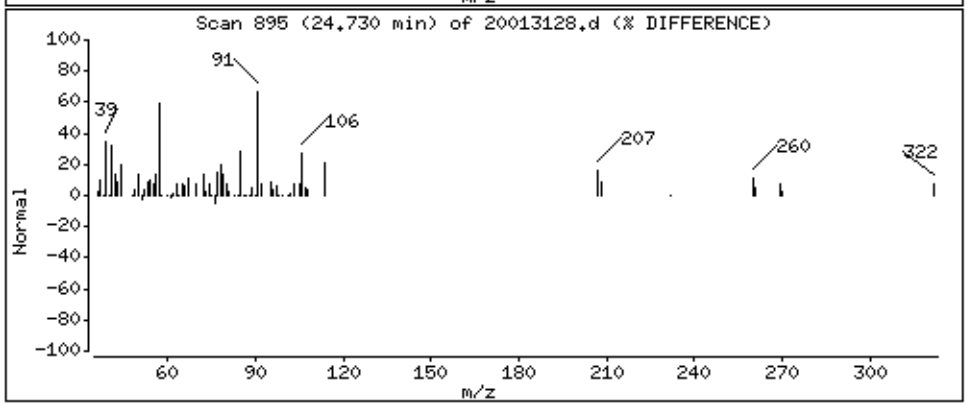
172 Styrene

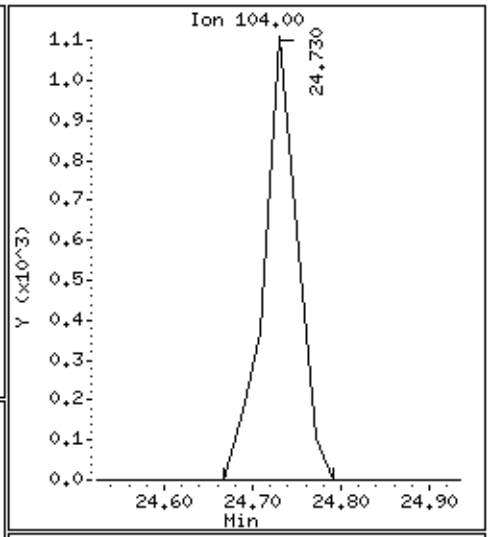
Concentration: 0.07283 PPBV

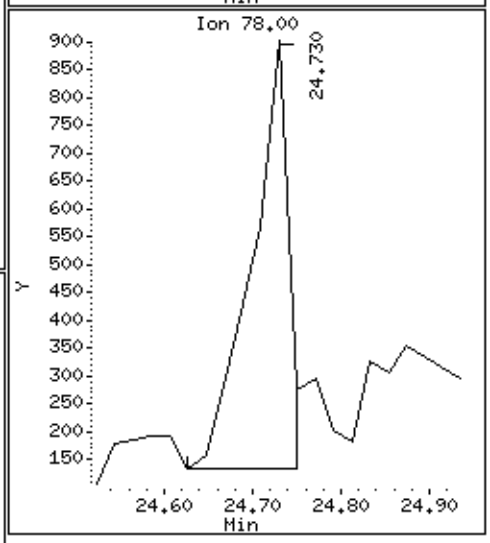












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

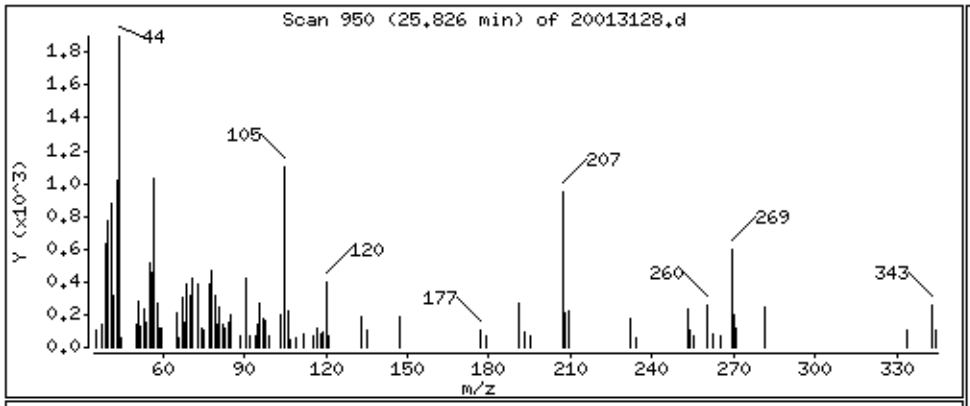
Operator: ef

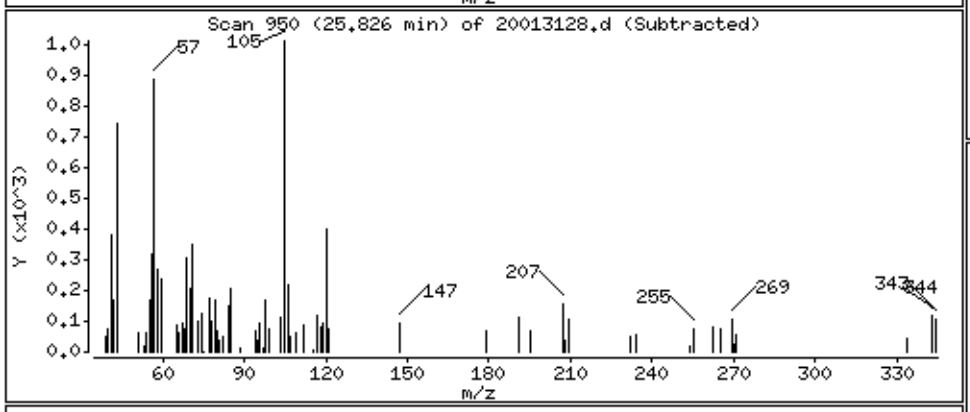
Column phase: RTX-624

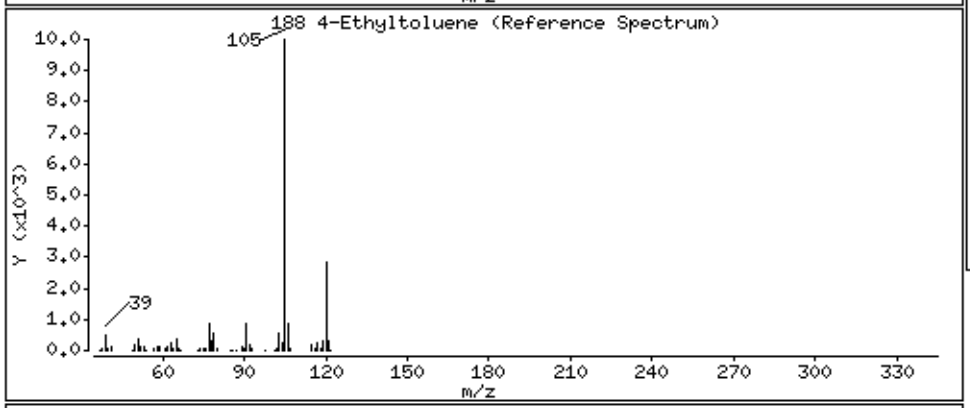
Column diameter: 0.32

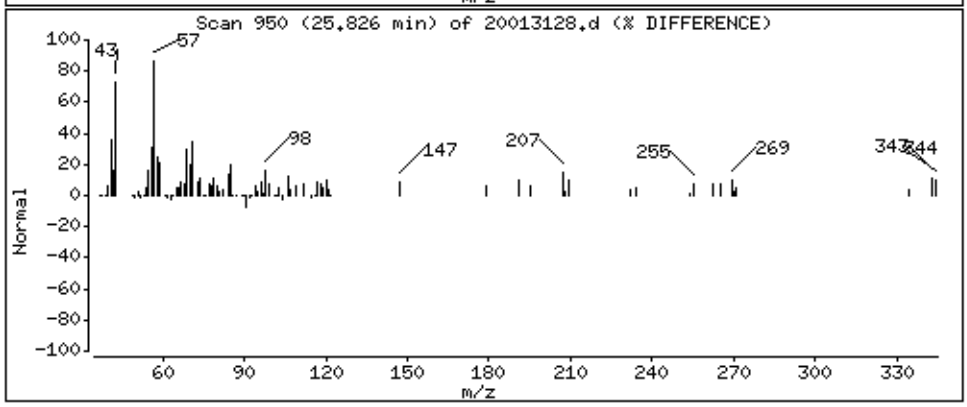
188 4-Ethyltoluene

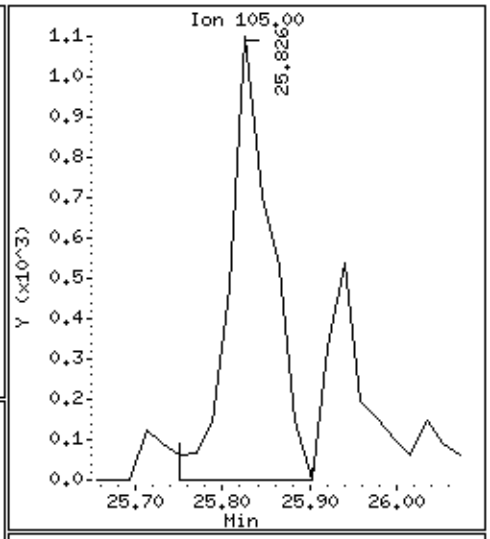
Concentration: 0.05351 PPBV

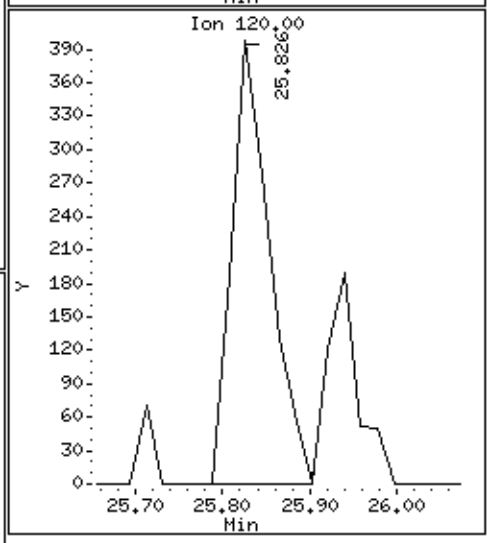












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

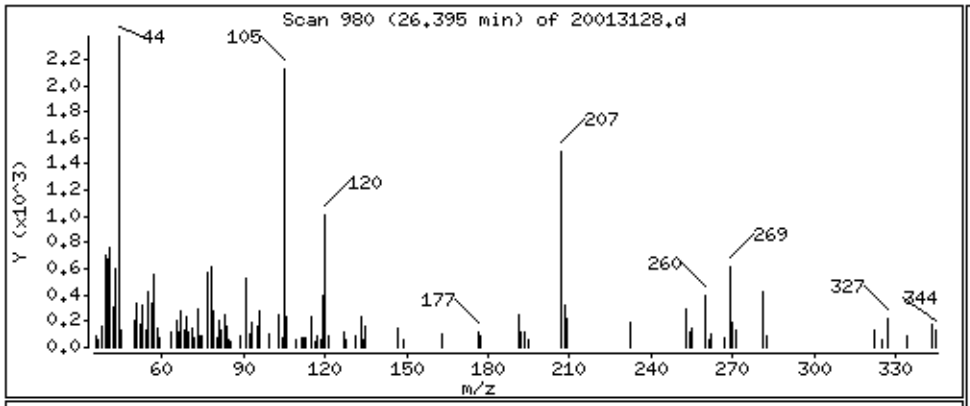
Operator: ef

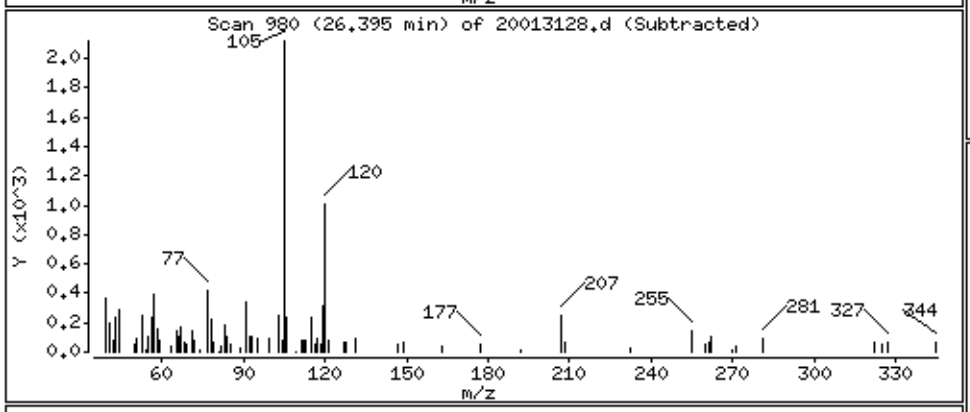
Column phase: RTX-624

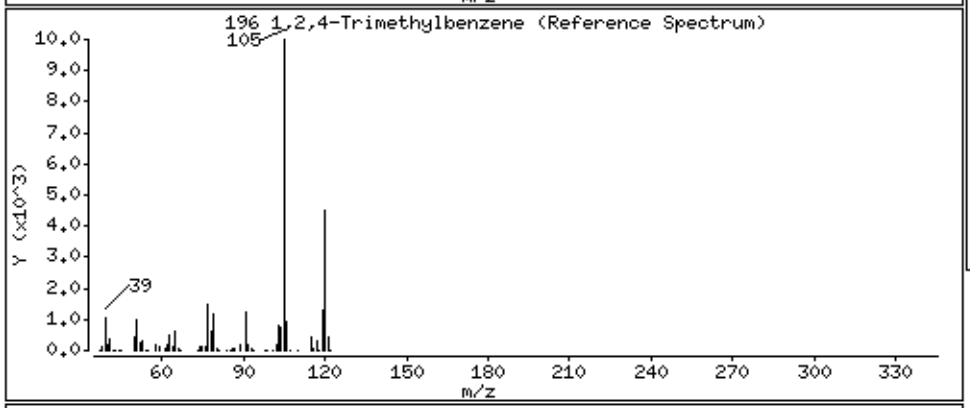
Column diameter: 0.32

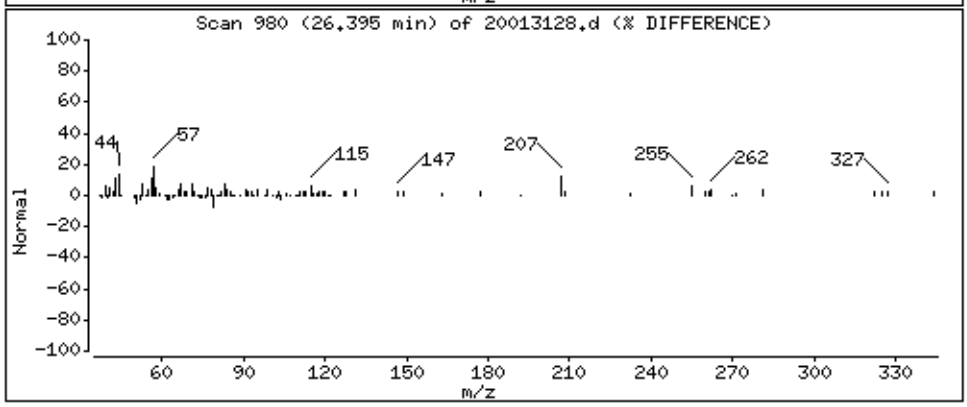
196 1,2,4-Trimethylbenzene

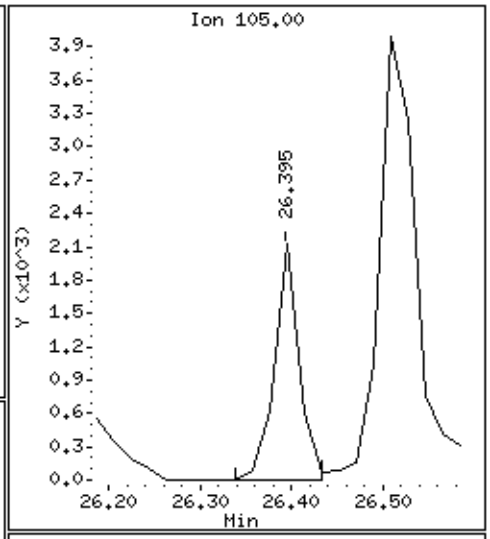
Concentration: 0.06727 PPBV

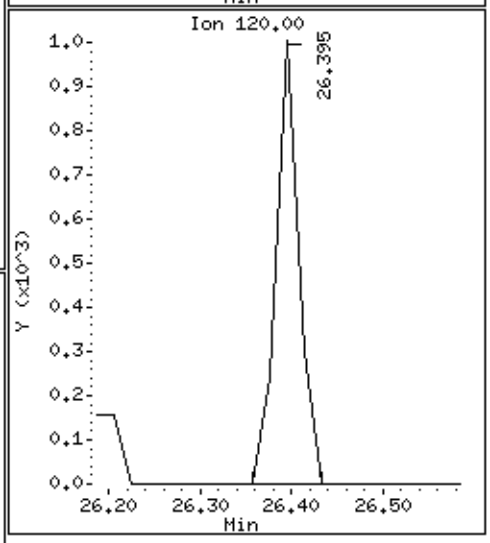












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

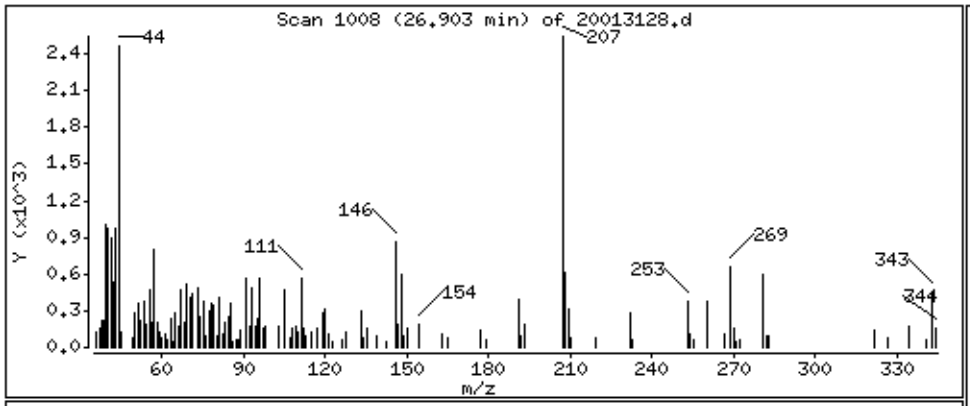
Operator: ef

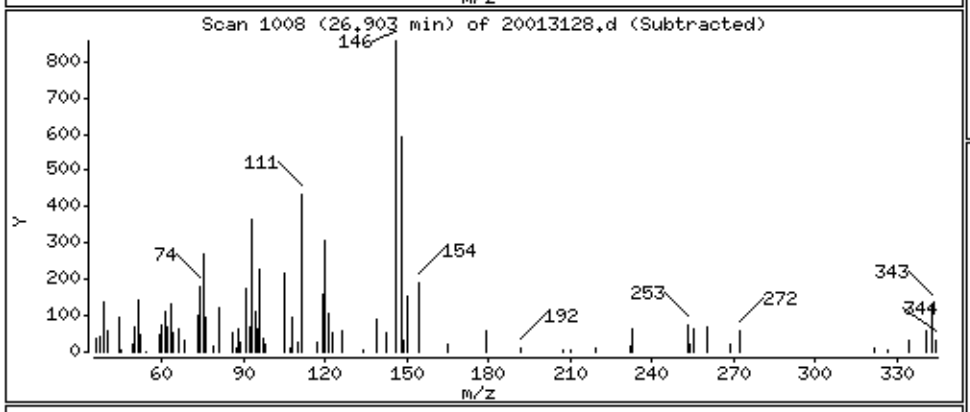
Column phase: RTX-624

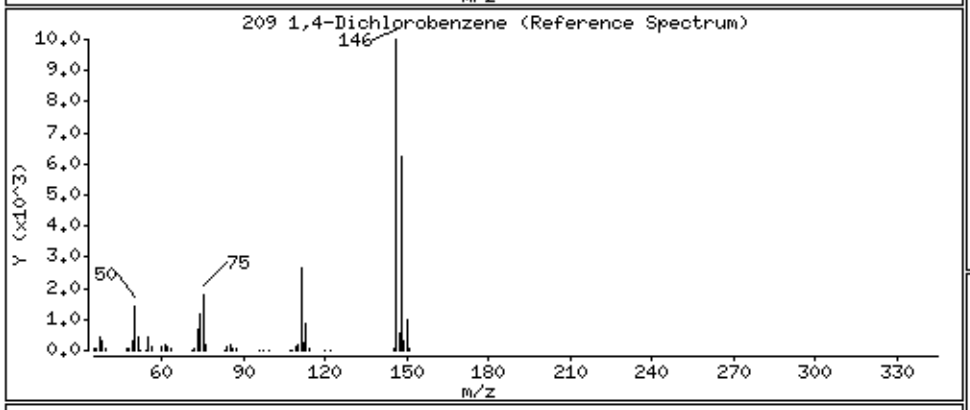
Column diameter: 0.32

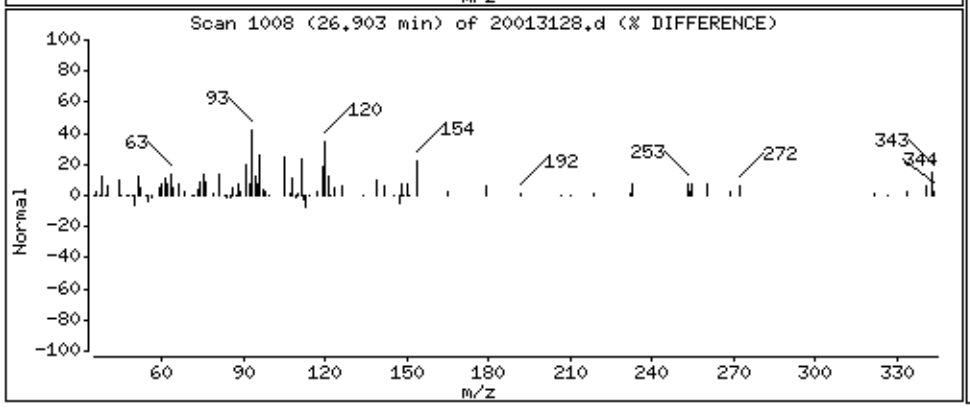
209 1,4-Dichlorobenzene

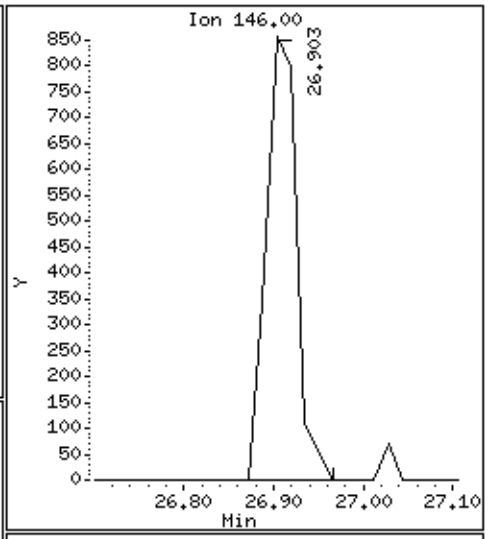
Concentration: 0.04404 PPBV

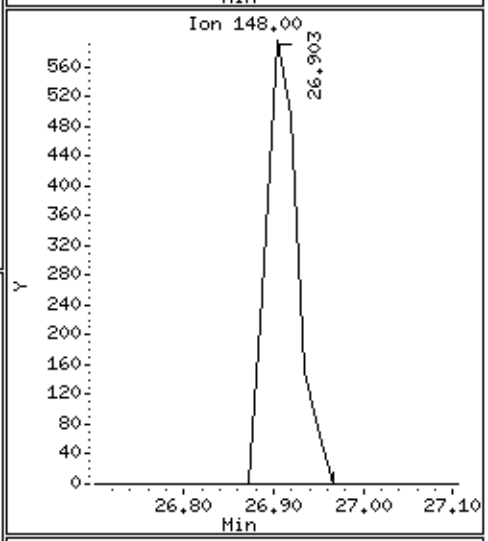


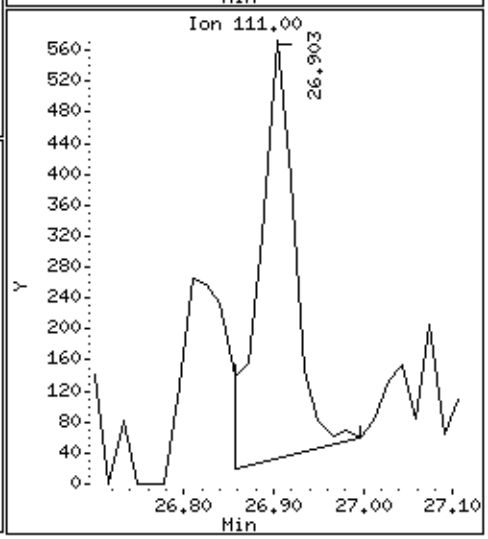












Data File: /chem/msd20.i/31Jan2017.b/20013128.d

Date : 01-FEB-2017 11:11

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1216

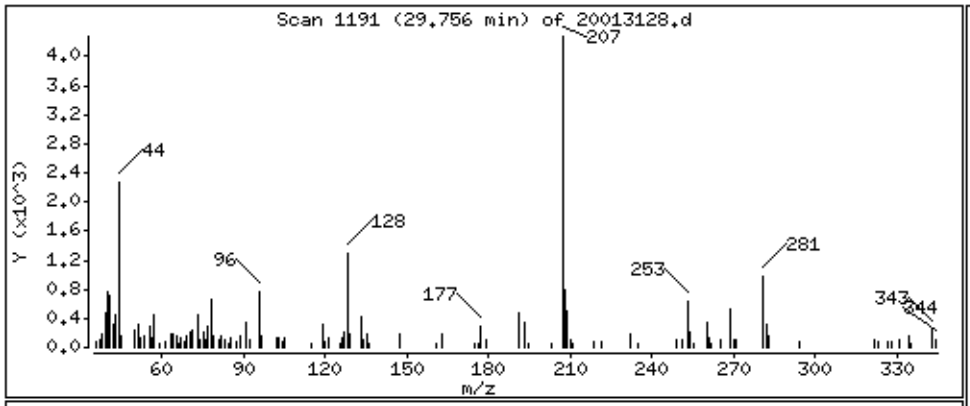
Operator: ef

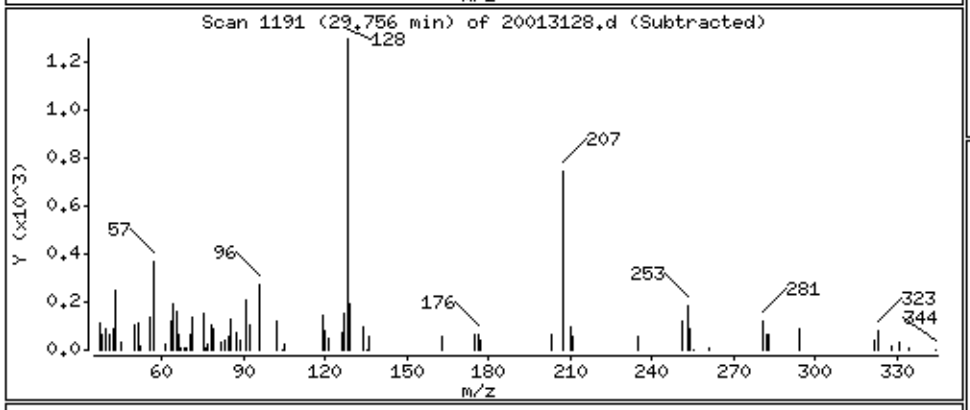
Column phase: RTX-624

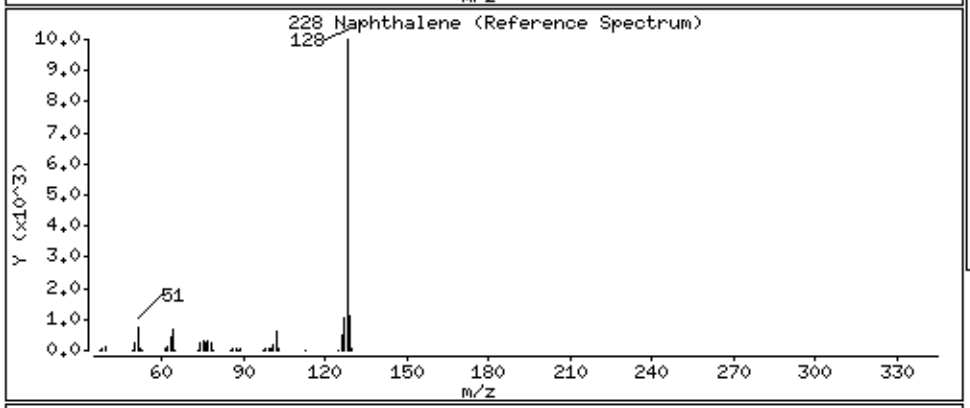
Column diameter: 0.32

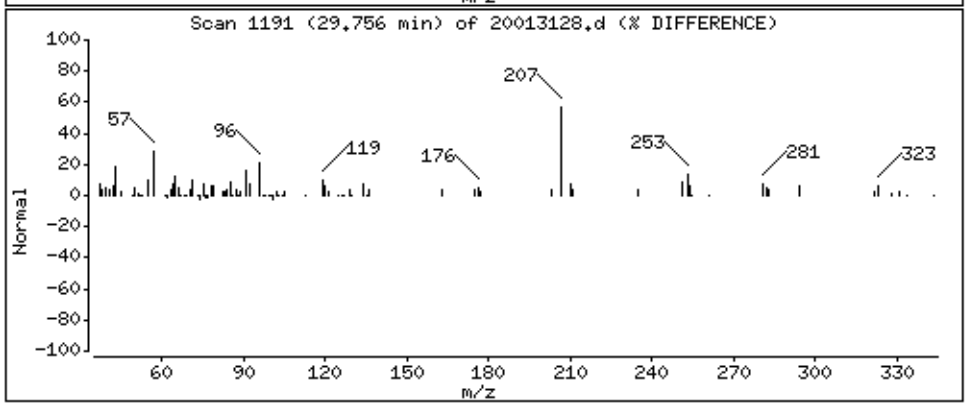
228 Naphthalene

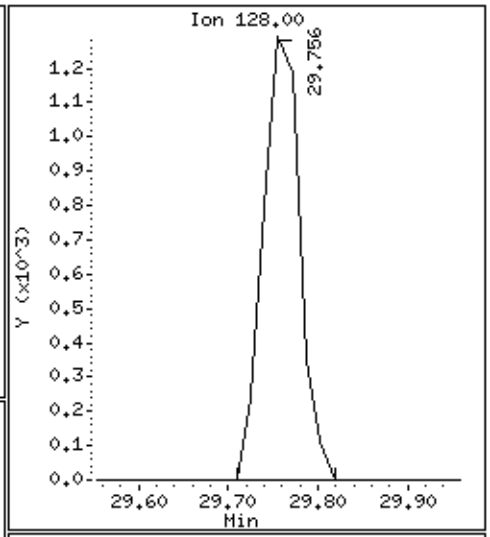
Concentration: 0.03887 PPBV

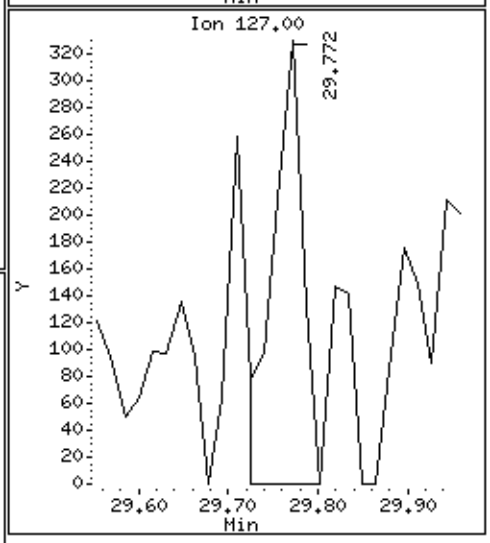












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B18IA-3-012117

Lab ID#: 1701428A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.78	2.4
Chloromethane	0.79	0.92	1.6	1.9
Bromomethane	0.79	0.12 J	3.1	0.45 J
Freon 11	0.16	0.58	0.89	3.2
Ethanol	0.79	12	1.5	22
Freon 113	0.16	0.075 J	1.2	0.58 J
Acetone	0.79	9.4	1.9	22
2-Propanol	0.79	1.9	1.9	4.7
Carbon Disulfide	0.79	0.33 J	2.5	1.0 J
Methylene Chloride	0.32	0.078 J	1.1	0.27 J
Hexane	0.16	0.19	0.56	0.67
2-Butanone (Methyl Ethyl Ketone)	0.79	1.2	2.3	3.4
Chloroform	0.16	0.034 J	0.77	0.17 J
Cyclohexane	0.16	0.063 J	0.54	0.22 J
Carbon Tetrachloride	0.16	0.073 J	0.99	0.46 J
Benzene	0.16	0.16	0.50	0.51
1,2-Dichloroethane	0.16	0.086 J	0.64	0.35 J
Trichloroethene	0.16	0.089 J	0.85	0.48 J
4-Methyl-2-pentanone	0.16	0.088 J	0.65	0.36 J
Toluene	0.16	0.79	0.60	3.0
Ethyl Benzene	0.16	0.098 J	0.69	0.43 J
m,p-Xylene	0.16	0.26	0.69	1.1
o-Xylene	0.16	0.12 J	0.69	0.53 J
Styrene	0.16	0.049 J	0.67	0.21 J
4-Ethyltoluene	0.16	0.049 J	0.78	0.24 J
1,2,4-Trimethylbenzene	0.16	0.043 J	0.78	0.21 J
1,4-Dichlorobenzene	0.16	0.039 J	0.95	0.23 J
Naphthalene	0.79	0.040 J	4.1	0.21 J

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Client Sample ID: B18IA-3-012117

Lab ID#: 1701428A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020611**	**Date of Collection:**	**1/21/17 6:10:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**2/6/17 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.78	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.79	0.92	1.6	1.9
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.79	0.12 J	3.1	0.45 J
Chloroethane	0.79	Not Detected	2.1	Not Detected
Freon 11	0.16	0.58	0.89	3.2
Ethanol	0.79	12	1.5	22
Freon 113	0.16	0.075 J	1.2	0.58 J
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	9.4	1.9	22
2-Propanol	0.79	1.9	1.9	4.7
Carbon Disulfide	0.79	0.33 J	2.5	1.0 J
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.078 J	1.1	0.27 J
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.19	0.56	0.67
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	1.2	2.3	3.4
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
Chloroform	0.16	0.034 J	0.77	0.17 J
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	0.063 J	0.54	0.22 J
Carbon Tetrachloride	0.16	0.073 J	0.99	0.46 J
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
Benzene	0.16	0.16	0.50	0.51
1,2-Dichloroethane	0.16	0.086 J	0.64	0.35 J
Heptane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	0.089 J	0.85	0.48 J
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	0.088 J	0.65	0.36 J
Toluene	0.16	0.79	0.60	3.0
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.79	Not Detected	3.2	Not Detected

eurofins | Air Toxics

Client Sample ID: B18IA-3-012117

Lab ID#: 1701428A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020611**	**Date of Collection:**	**1/21/17 6:10:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**2/6/17 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	0.098 J	0.69	0.43 J
m,p-Xylene	0.16	0.26	0.69	1.1
o-Xylene	0.16	0.12 J	0.69	0.53 J
Styrene	0.16	0.049 J	0.67	0.21 J
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	0.049 J	0.78	0.24 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	0.043 J	0.78	0.21 J
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	0.039 J	0.95	0.23 J
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected
Naphthalene	0.79	0.040 J	4.1	0.21 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020611.d
Lab Smp Id: 1701428A-11A
Inj Date : 06-FEB-2017 15:43
Operator : EA Inst ID: msde.i
Smp Info : 250mL#34320
Misc Info : 4.5"Hg-5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 07-Feb-2017 06:37 atoyama Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1
Dil Factor: 1.58000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
11 Freon 12					CAS #: 75-71-8		
5.244	5.220 (0.341)	85	37285	0.31409	0.4963	80.00- 120.00	100.00
5.244	5.220 (0.341)	87	7127			1.91- 61.91	19.12
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	12877	0.58164	0.9190	80.00- 120.00	100.00
6.932	6.932 (0.450)	52	4333			3.31- 63.31	33.65
29 Bromomethane					CAS #: 74-83-9		
9.586	9.510 (0.623)	94	2382	0.07320	0.1156	80.00- 120.00	100.00(a)
9.567	9.510 (0.622)	96	1283			64.26- 124.26	53.90
35 Freon 11					CAS #: 75-69-4		
10.747	10.766 (0.698)	101	50748	0.36646	0.5790	80.00- 120.00	100.00
10.766	10.766 (0.700)	103	31438			33.74- 93.74	61.95
42 Ethanol					CAS #: 64-17-5		
11.661	11.661 (0.758)	45	88233	7.30976	11.549	80.00- 120.00	100.00
11.680	11.661 (0.759)	46	32714			9.60- 69.60	37.08
11.680	11.661 (0.759)	43	21893			0.00- 59.21	24.81

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
49 Freon 113					CAS #: 76-13-1		
12.080	12.081 (0.785)	151	4406	0.04765	0.07529	80.00- 120.00	100.00(a)
12.080	12.081 (0.785)	153	2298			34.83- 94.83	52.17
12.080	12.081 (0.785)	101	5129			77.16- 137.16	116.42
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	89898	5.92354	9.359	80.00- 120.00	100.00
12.366	12.366 (0.803)	43	338742			344.13- 404.13	376.80
56 Carbon Disulfide					CAS #: 75-15-0		
12.461	12.462 (0.810)	76	21889	0.20850	0.3294	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
12.728	12.728 (0.827)	45	59168	1.21100	1.913	80.00- 120.00	100.00
12.728	12.728 (0.827)	43	17884			0.00- 55.65	30.23
12.728	12.728 (0.827)	59	3319			0.00- 34.42	5.61
66 Methylene Chloride					CAS #: 75-09-2		
13.149	13.176 (0.854)	84	1826	0.04917	0.07768	80.00- 120.00	100.00(a)
13.176	13.176 (0.856)	49	1581			83.76- 143.76	86.56
13.176	13.176 (0.856)	51	1479			2.61- 62.61	80.97
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	5304	0.11991	0.1895	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	3297			27.83- 87.83	62.17
13.835	13.835 (0.899)	86	543			0.00- 50.45	10.25
92 2-Butanone					CAS #: 78-93-3		
15.066	15.047 (0.979)	72	12140	0.73768	1.166	80.00- 120.00	100.00
15.046	15.047 (0.978)	43	45768			325.72- 385.72	376.97
15.046	15.047 (0.978)	57	4853			1.13- 61.13	39.97
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	133704	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	102358			46.73- 106.73	76.56
15.391	15.391 (1.000)	49	118380			55.35- 115.35	88.54
100 Chloroform					CAS #: 67-66-3		
15.453	15.453 (1.004)	83	2101	0.02168	0.03426	80.00- 120.00	100.00(a)
15.484	15.453 (1.006)	85	3145			36.62- 96.62	149.73
102 Cyclohexane					CAS #: 110-82-7		
15.668	15.699 (1.018)	84	1847	0.03976	0.06282	80.00- 120.00	100.00(a)
15.668	15.699 (1.018)	56	2822			68.83- 128.83	152.74
15.699	15.699 (1.020)	41	2119			29.98- 89.98	114.71

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.884  15.884 (1.032)   119      5124 0.04618  0.07296  80.00- 120.00   100.00(a)
 15.884  15.884 (1.032)   117      5402                   74.11- 134.11   105.41
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78     12502 0.10193   0.1610  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77      4460                    0.00-  53.00    35.68
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    226768 5.90607    5.906  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    100976                   22.67-  82.67    44.53
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.327  16.303 (0.976)    62      4090 0.05413  0.08552  80.00- 120.00   100.00(a)
 16.327  16.303 (0.976)    64      2874                    1.95-  61.95    70.26
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    496785 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     72303                    0.00-  45.16    14.55
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130      3840 0.05611  0.08866  80.00- 120.00   100.00(a)
 17.147  17.147 (1.024)    95      3803                   61.87- 121.87    99.06
 17.147  17.147 (1.024)    97      3508                   29.29-  89.29    91.38
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.029  19.006 (1.137)    43      4087 0.05601  0.08850  80.00- 120.00   100.00(a)
 19.006  19.006 (1.136)    58      1642                   10.02-  70.02    40.20
 19.029  19.006 (1.137)    85       843                    0.00-  52.01    20.63
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    465431 4.82990    4.830  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     57470                    0.00-  40.89    12.35
 19.298  19.298 (1.153)   100    305870                   40.09- 100.09    65.72
-------------------------------------------------------------------------------
  147 Toluene                                       CAS #: 108-88-3
 19.454  19.432 (1.162)    91     74537 0.50235   0.7937  80.00- 120.00   100.00
 19.454  19.432 (1.162)    92     45108                   27.79-  87.79    60.52
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    459917 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    224798                   17.27-  77.27    48.88
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 22.301  22.301 (1.006)   106      3753 0.06230  0.09843  80.00- 120.00   100.00(a)
 22.301  22.301 (1.006)    91     11882                  278.11- 338.11   316.53
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
169 m,p-Xylene					CAS #: 108-38-3		
22.488	22.488 (1.014)	106	11727	0.16447	0.2598	80.00- 120.00	100.00
22.488	22.488 (1.014)	91	24909			170.01- 230.01	212.39
171 o-Xylene					CAS #: 95-47-6		
23.089	23.089 (1.041)	106	5100	0.07719	0.1220	80.00- 120.00	100.00(a)
23.089	23.089 (1.041)	91	11360			175.84- 235.84	222.73
172 Styrene					CAS #: 100-42-5		
23.131	23.110 (1.043)	104	3422	0.03105	0.04905	80.00- 120.00	100.00(a)
23.089	23.110 (1.041)	78	2980			20.21- 80.21	87.10
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.855	23.856 (1.076)	174	313442	4.87896	4.879	80.00- 120.00	100.00
23.855	23.856 (1.076)	95	309738			66.74- 126.74	98.82
23.855	23.856 (1.076)	176	305885			67.47- 127.47	97.59
188 4-Ethyltoluene					CAS #: 622-96-8		
24.214	24.237 (1.092)	105	5301	0.03099	0.04897	80.00- 120.00	100.00(a)
24.214	24.237 (1.092)	120	3116			1.00- 61.00	58.79
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	2918	0.02742	0.04332	80.00- 120.00	100.00(a)
24.775	24.775 (1.117)	120	2174			16.84- 76.84	74.50
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.268	25.269 (1.139)	146	2903	0.02469	0.03901	80.00- 120.00	100.00(a)
25.268	25.269 (1.139)	148	1580			35.10- 95.10	54.43
25.268	25.269 (1.139)	111	1444			4.80- 64.80	49.75
228 Naphthalene					CAS #: 91-20-3		
27.712	27.712 (1.250)	128	2788	0.02526	0.03991	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	1276			0.00- 42.30	45.78

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: msde.i
Lab File ID: e020611.d
Lab Smp Id: 1701428A-11A
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 4.5"Hg-5.0psi

Calibration Date: 06-FEB-2017
Calibration Time: 07:43

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	133704	-8.02
123 1,4-Difluorobenze	497113	298268	695958	496785	-0.07
163 Chlorobenzene-d5	465931	279559	652303	459917	-1.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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: 09-Feb-2017 13:07

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428A-11A
Level: LOW
Operator: EA
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 4.5"Hg-5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.906	118.12	70-130
$ 146 Toluene-d8	5.000	4.830	96.60	70-130
$ 177 4-Bromofluorobenze	5.000	4.879	97.58	70-130

Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

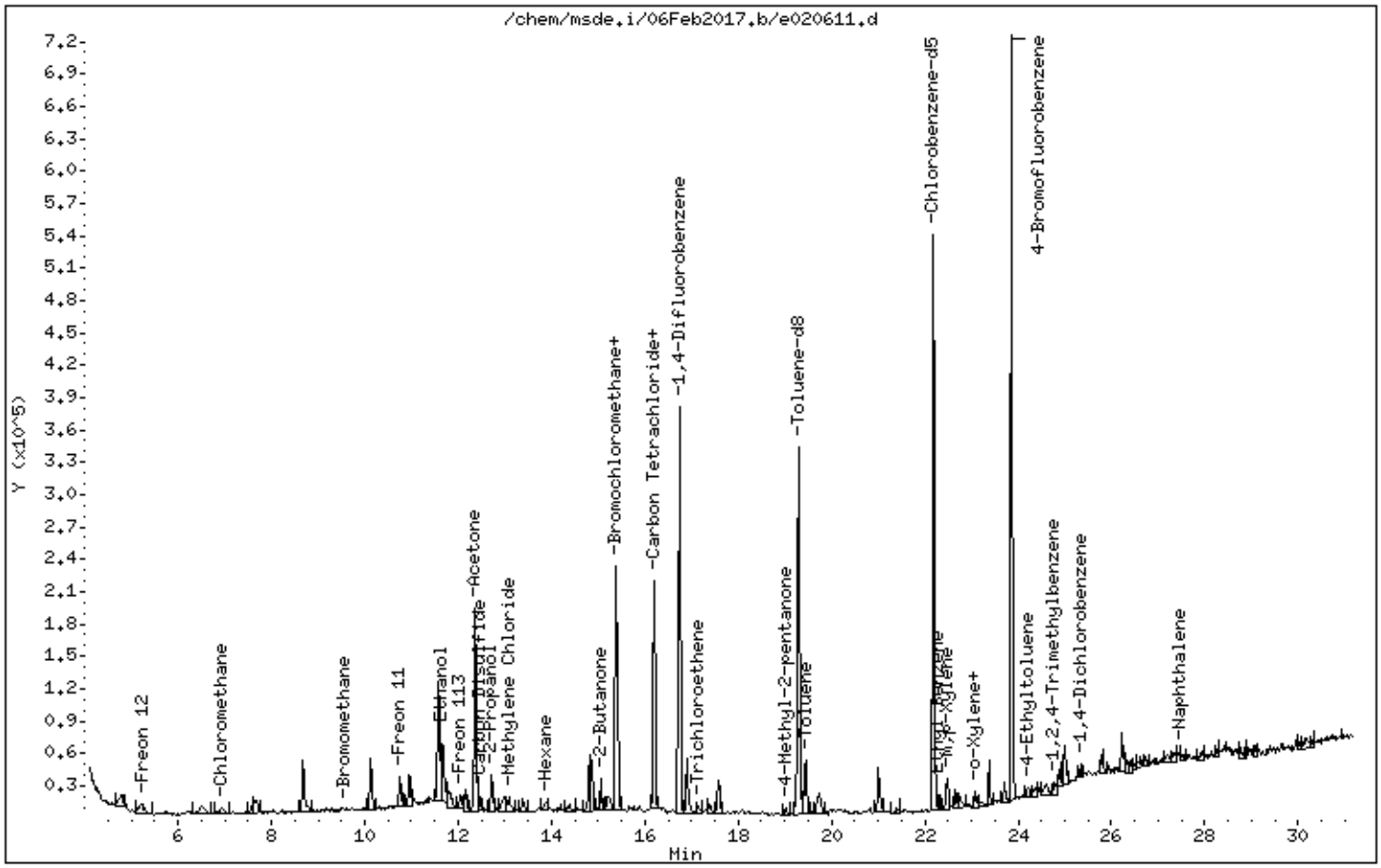
Instrument: msde.i

Sample Info: 250mL#34320

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

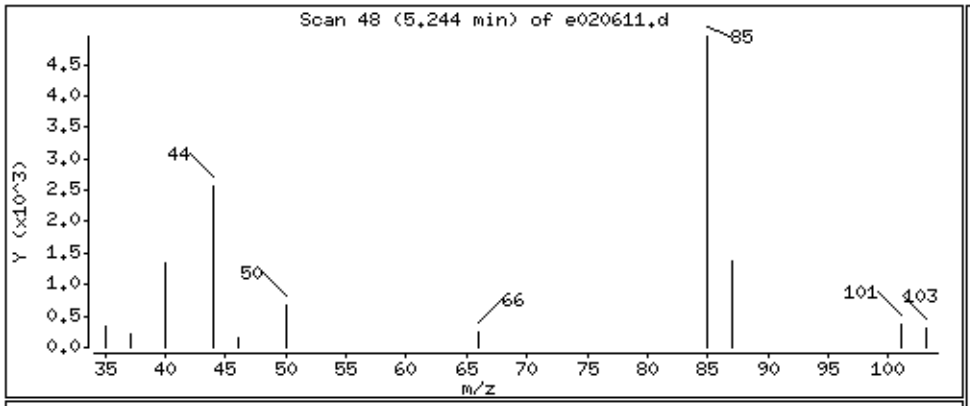
Operator: EA

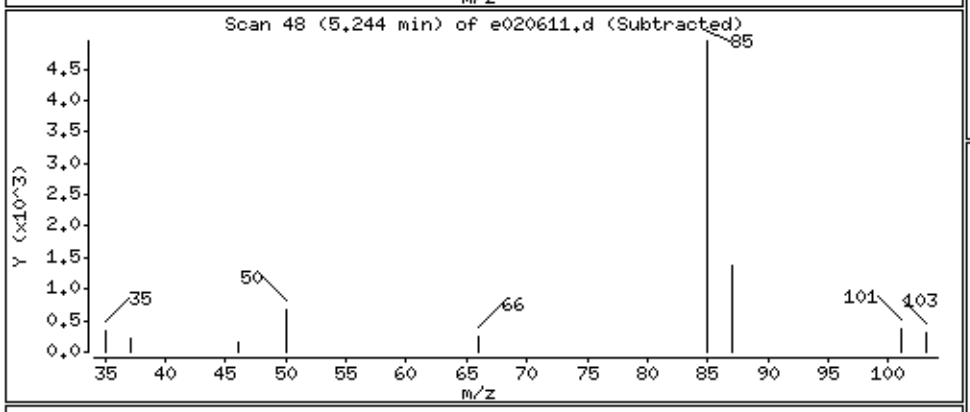
Column phase: RTX-624

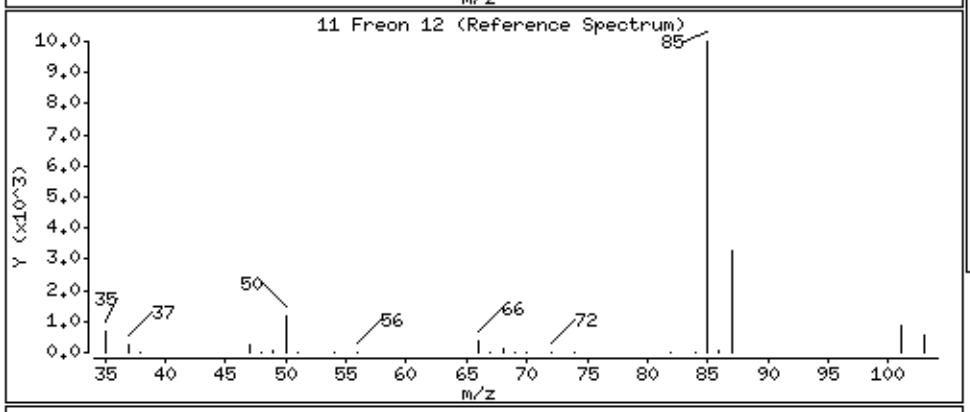
Column diameter: 0.32

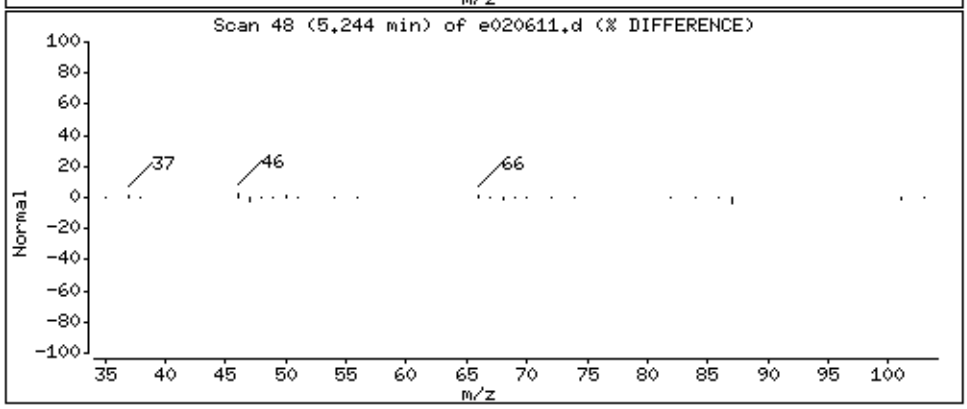
11 Freon 12

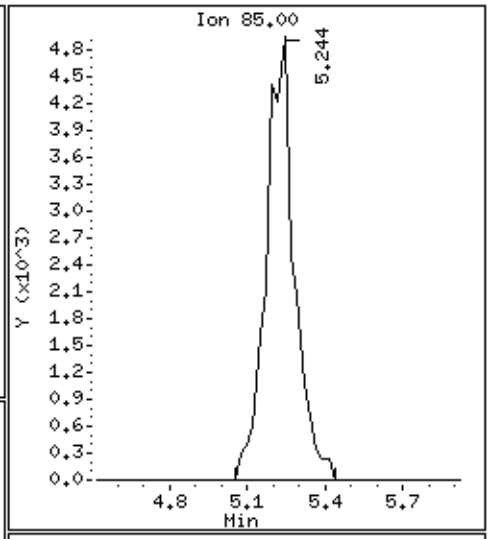
Concentration: 0.4963 PPBV

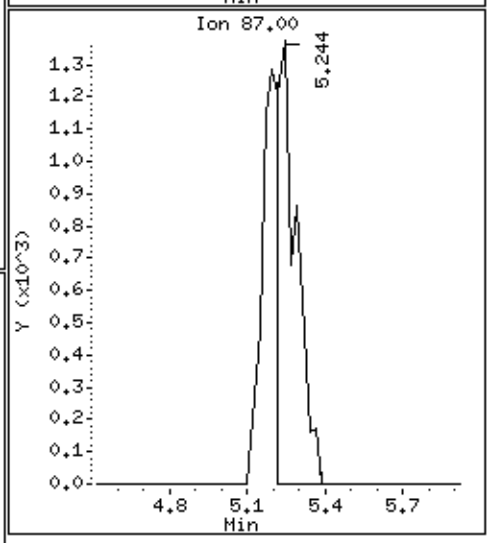












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

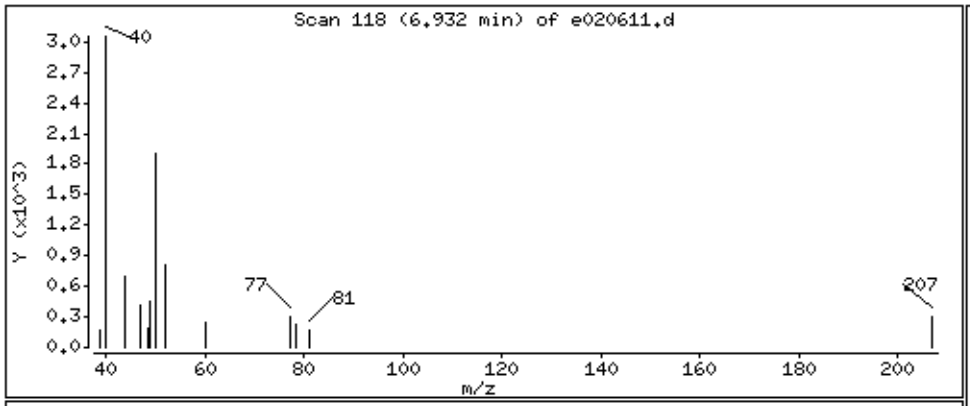
Operator: EA

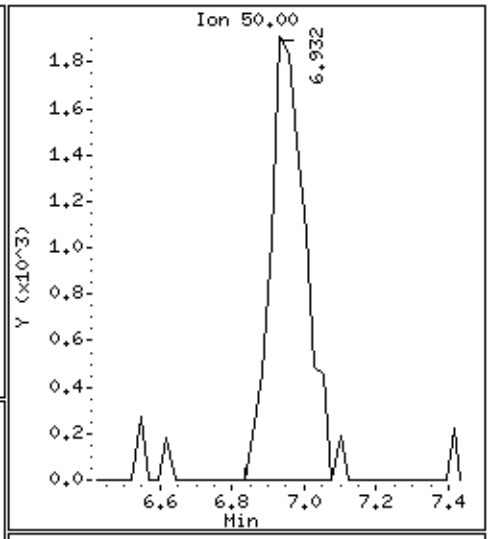
Column phase: RTX-624

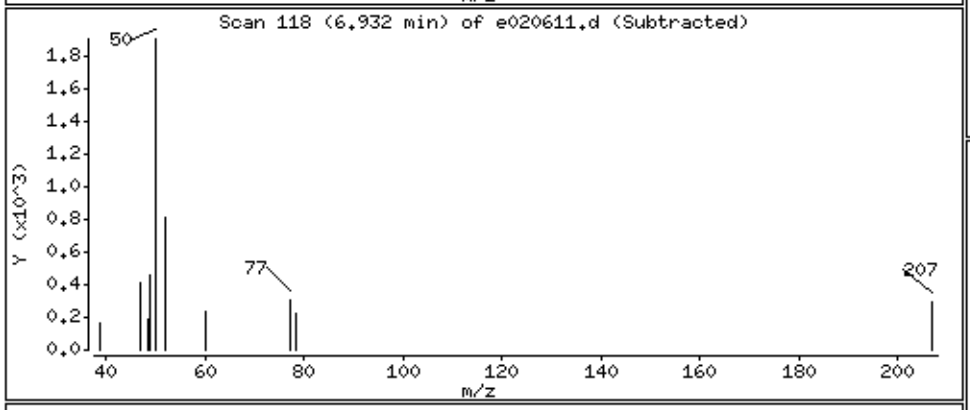
Column diameter: 0.32

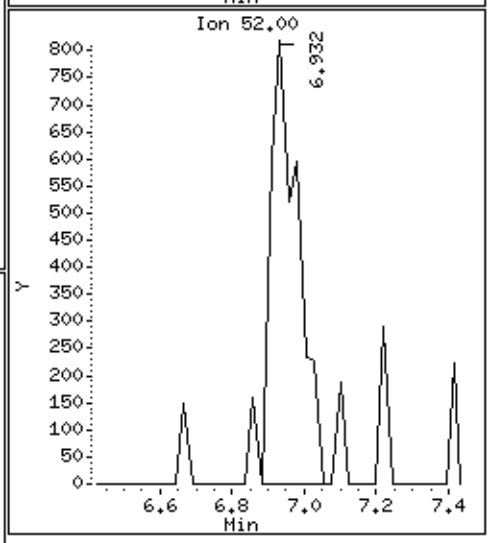
17 Chloromethane

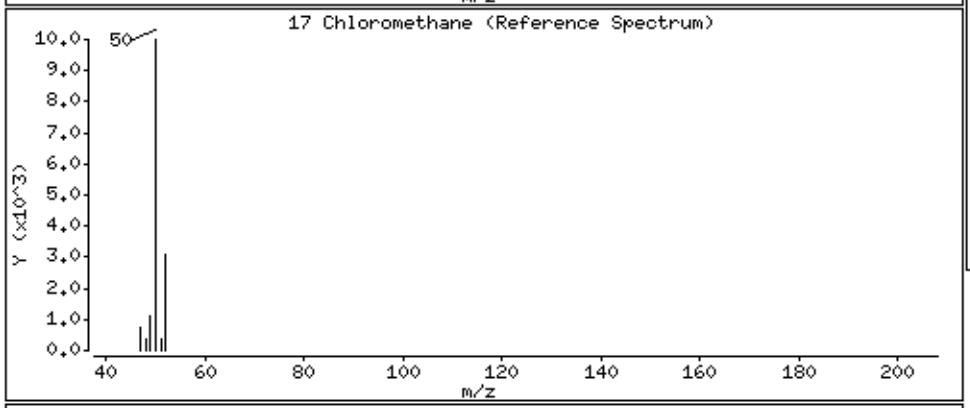
Concentration: 0.9190 PPBV

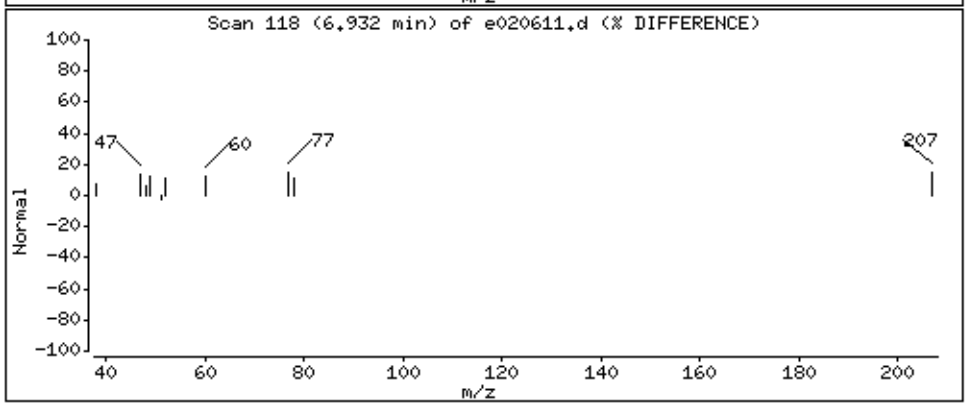












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

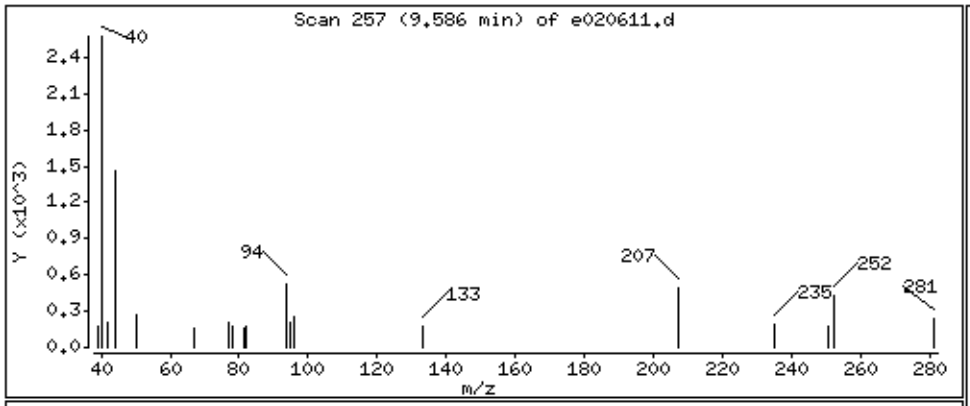
Operator: EA

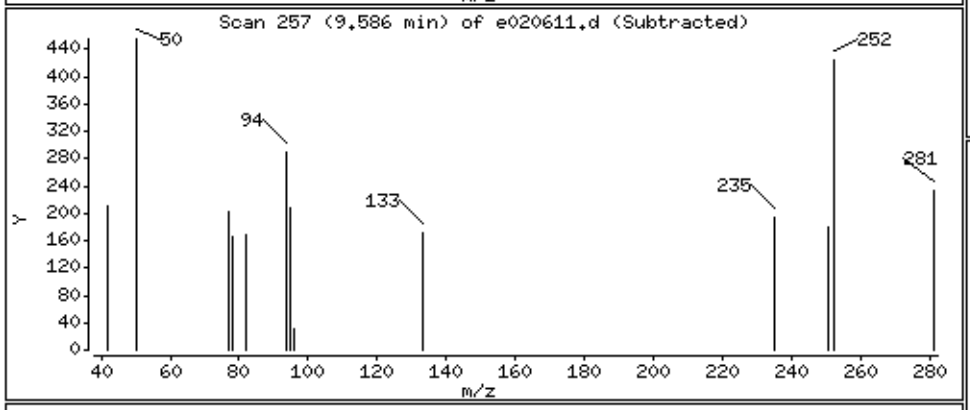
Column phase: RTX-624

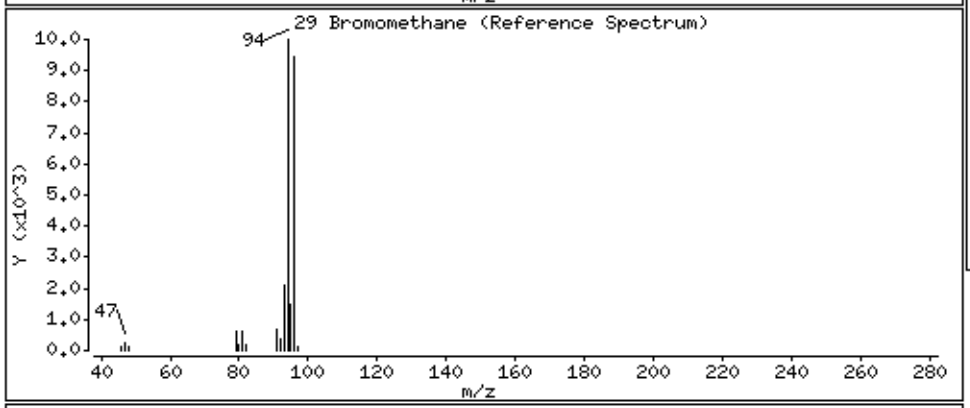
Column diameter: 0.32

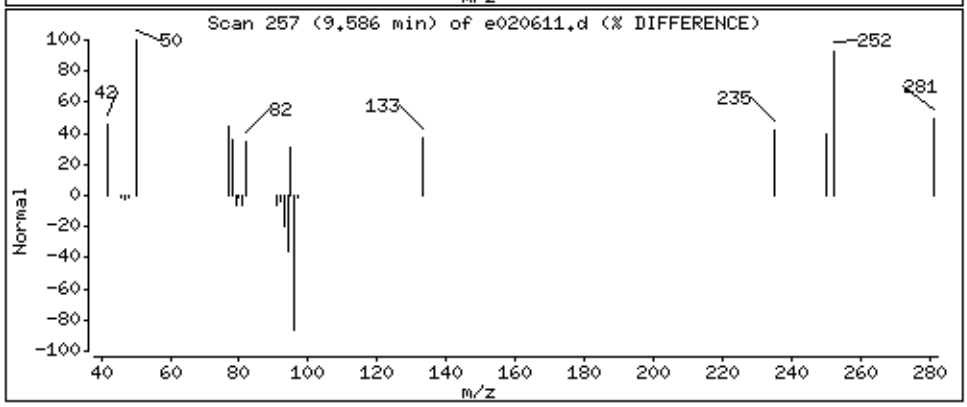
29 Bromomethane

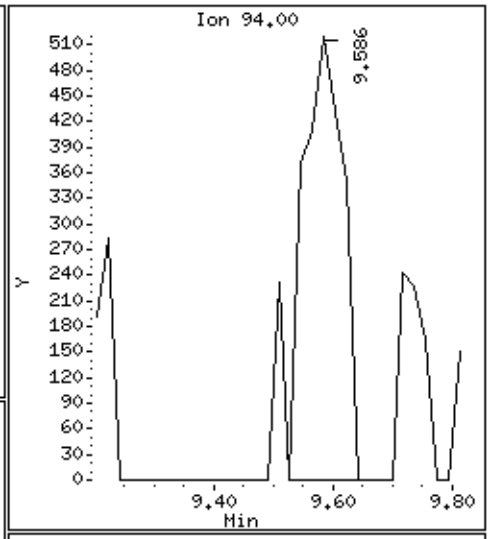
Concentration: 0.1156 PPBV

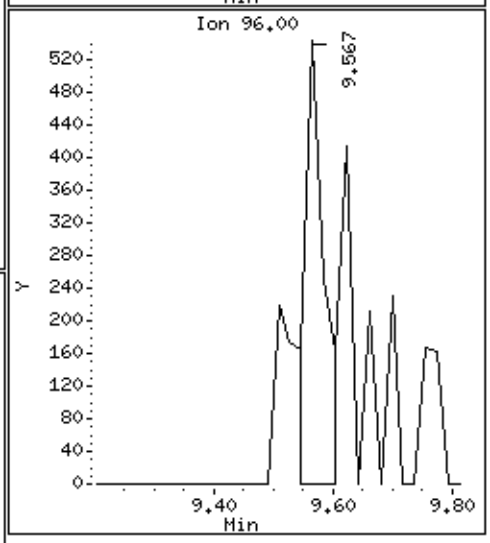












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

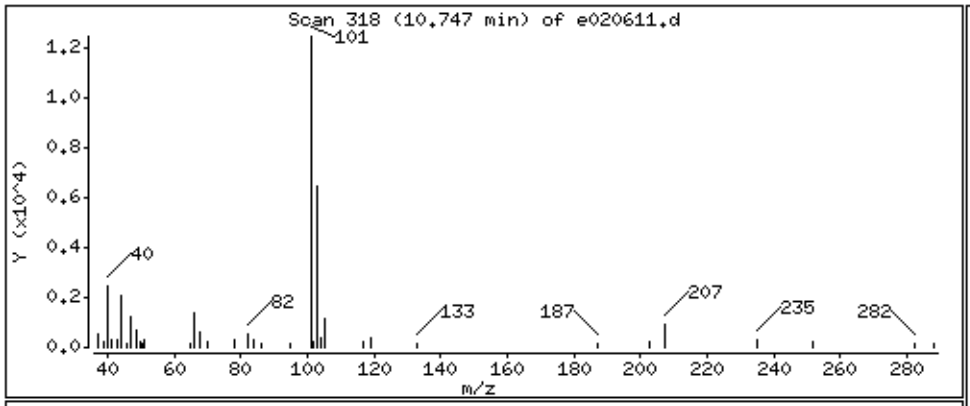
Operator: EA

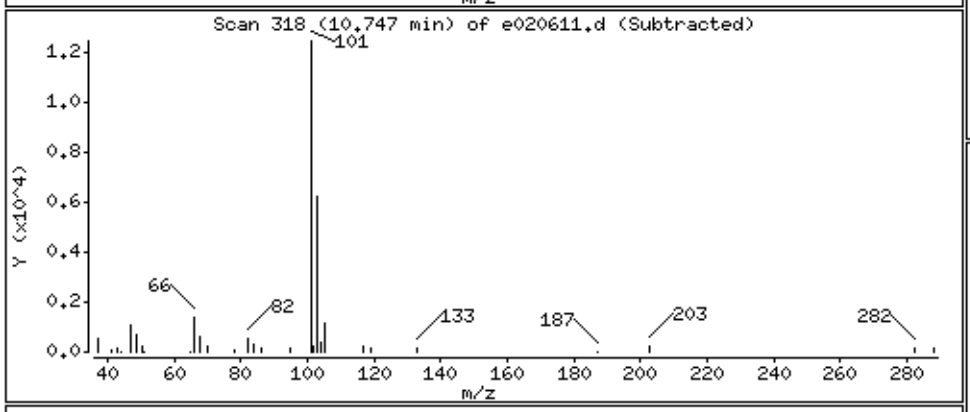
Column phase: RTX-624

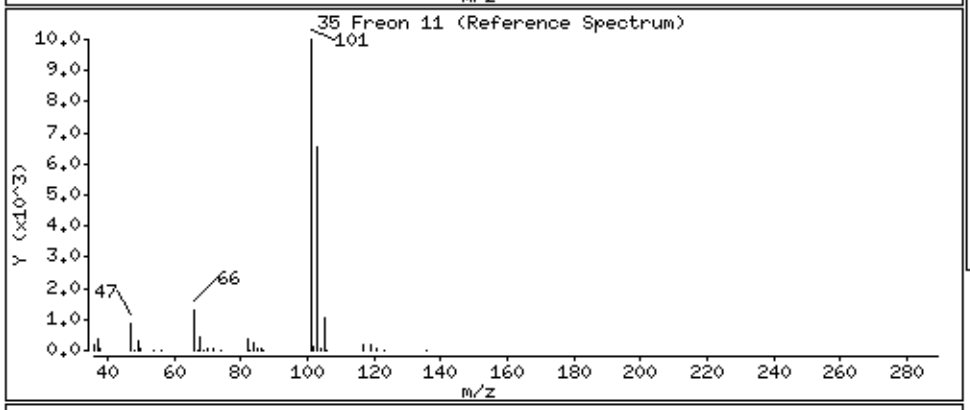
Column diameter: 0.32

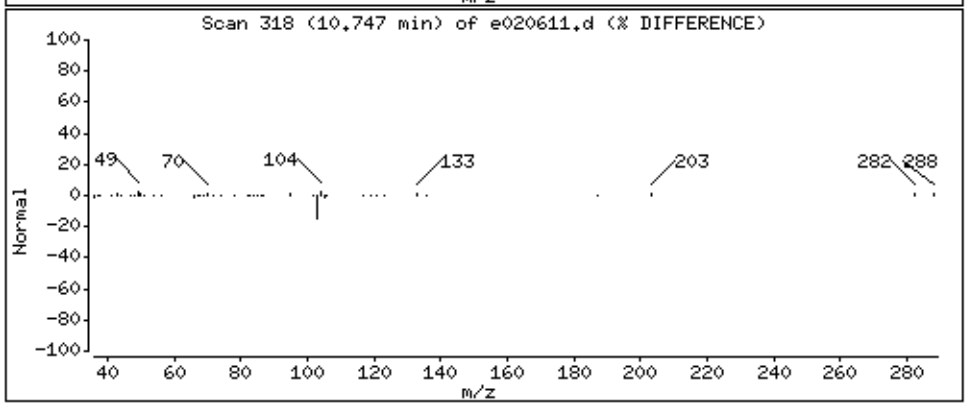
35 Freon 11

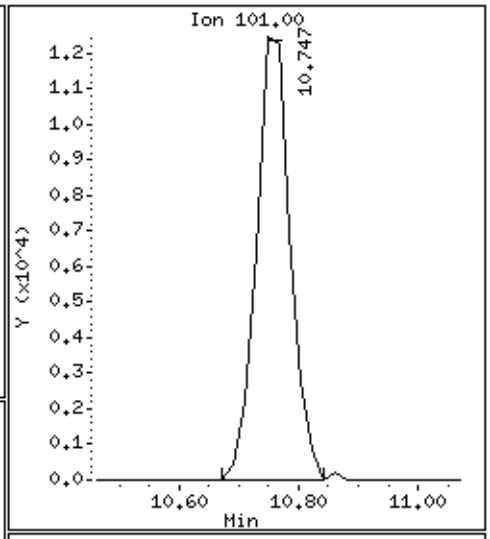
Concentration: 0.5790 PPBV

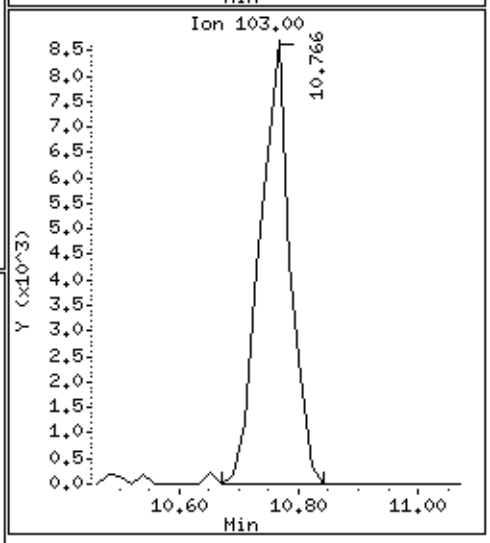












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

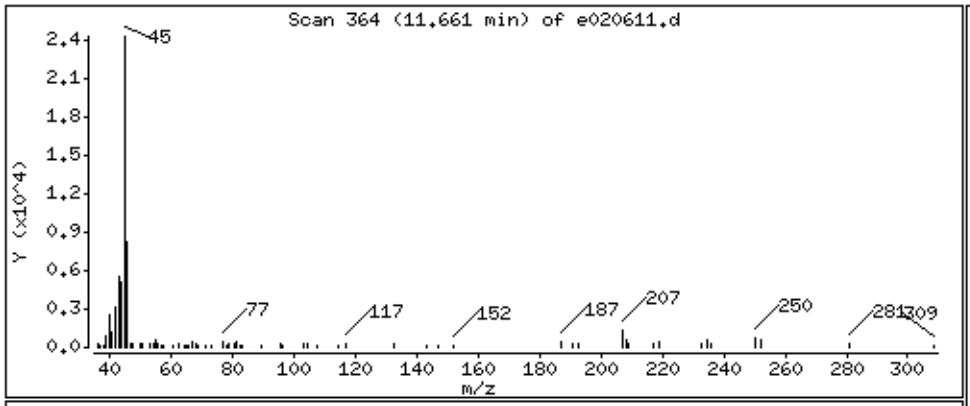
Operator: EA

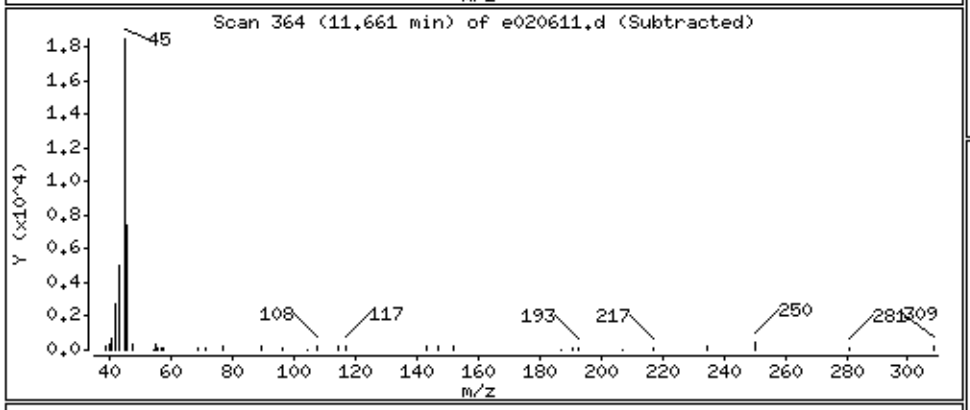
Column phase: RTX-624

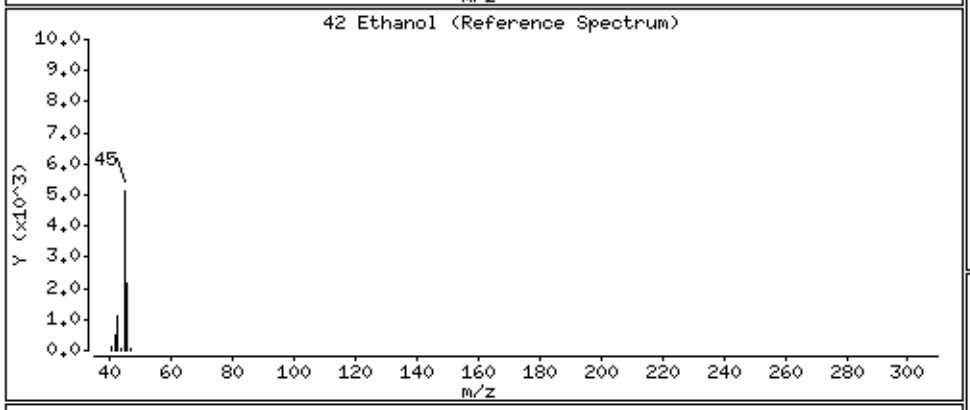
Column diameter: 0.32

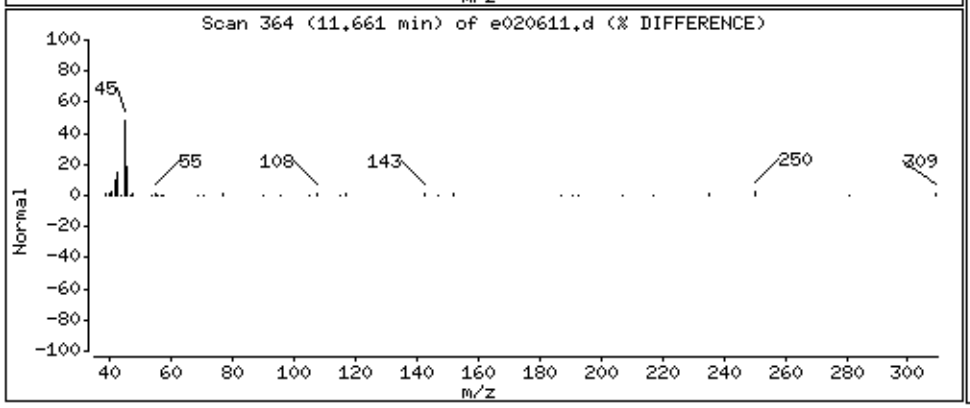
42 Ethanol

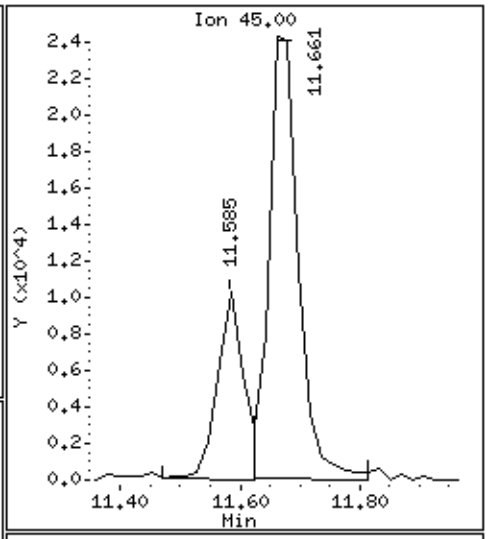
Concentration: 11.549 PPBV

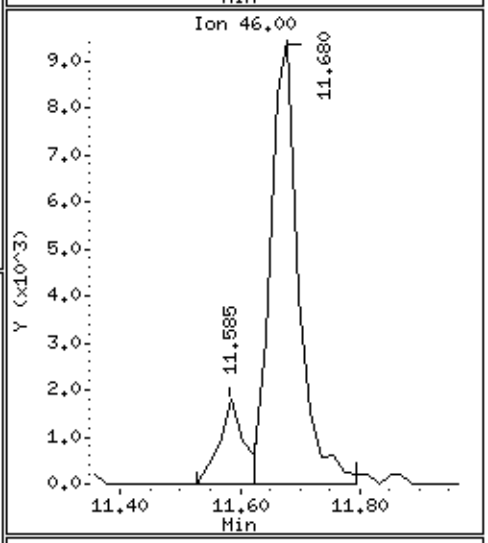


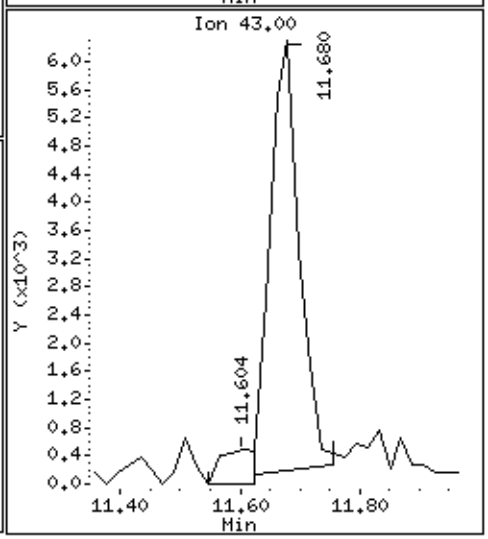












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

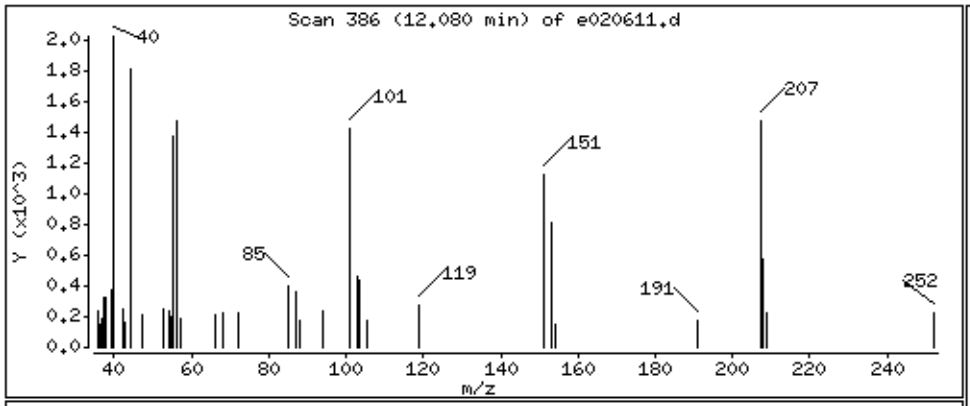
Operator: EA

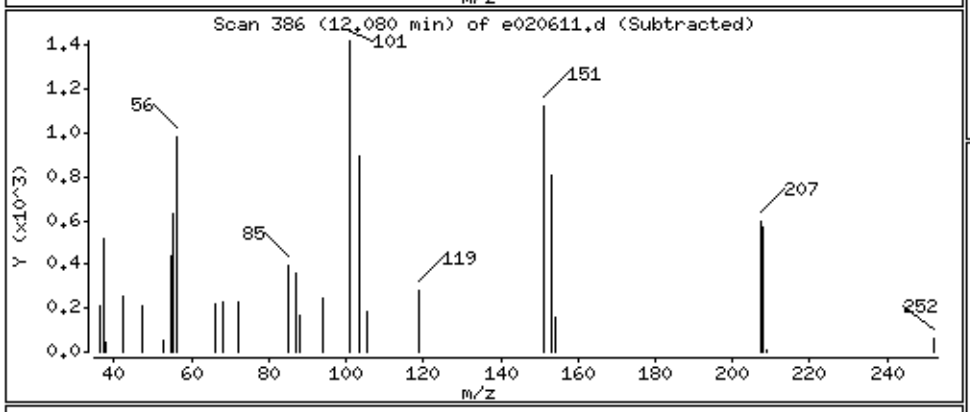
Column phase: RTX-624

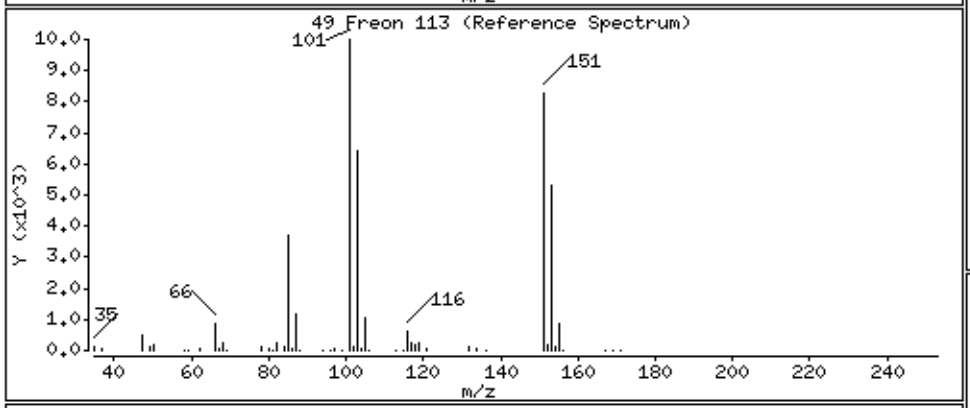
Column diameter: 0.32

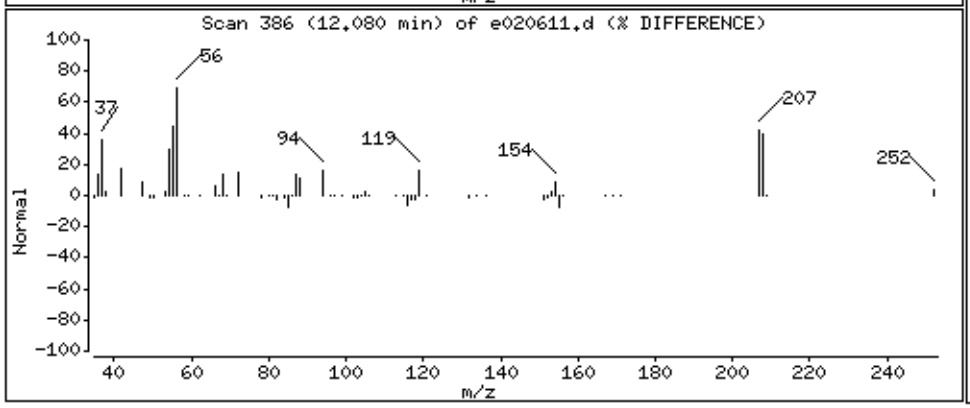
49 Freon 113

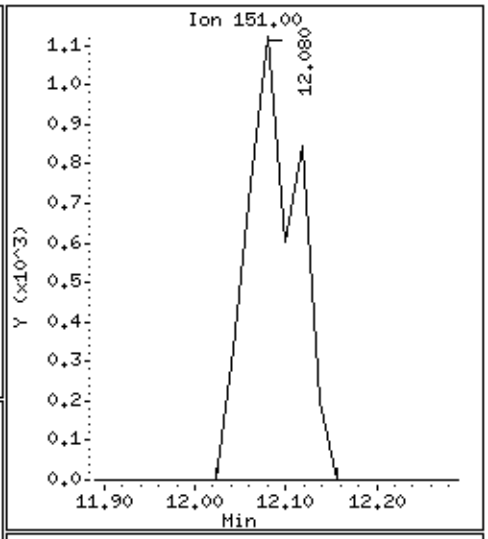
Concentration: 0.07529 PPBV

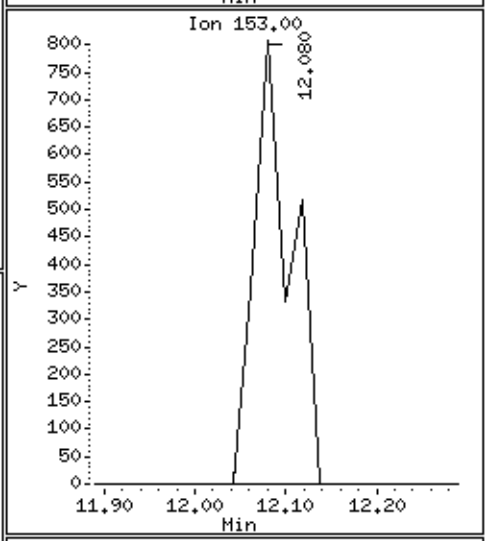


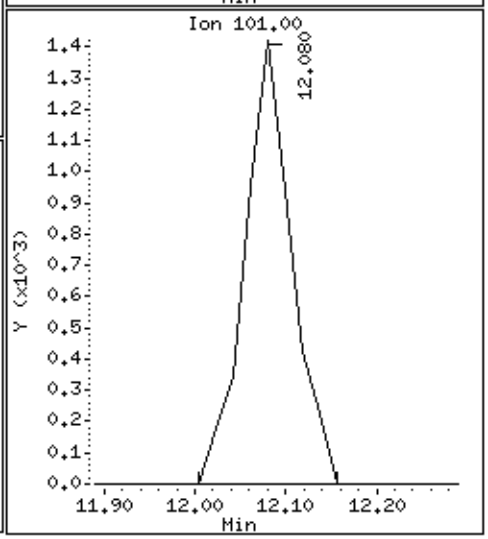












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

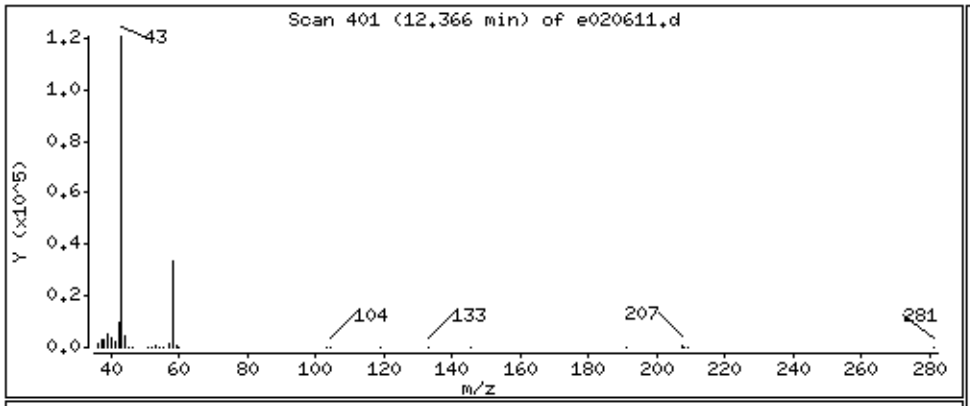
Operator: EA

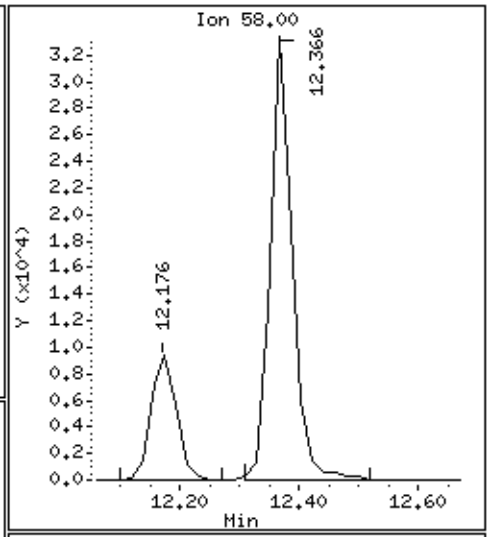
Column phase: RTX-624

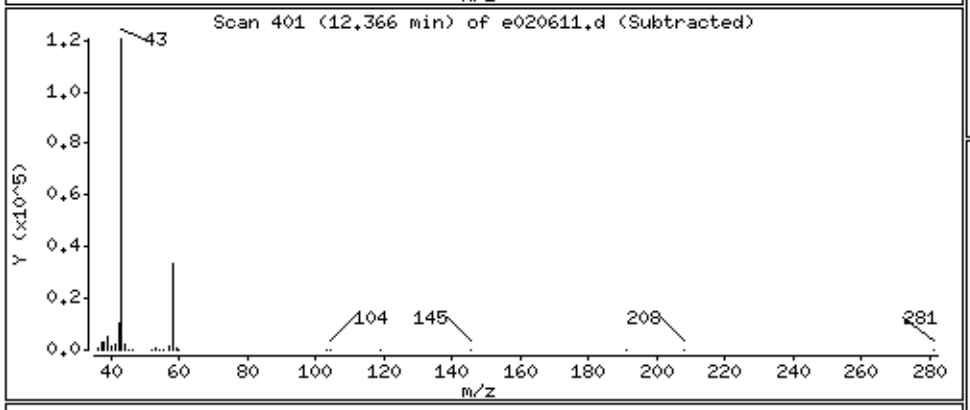
Column diameter: 0.32

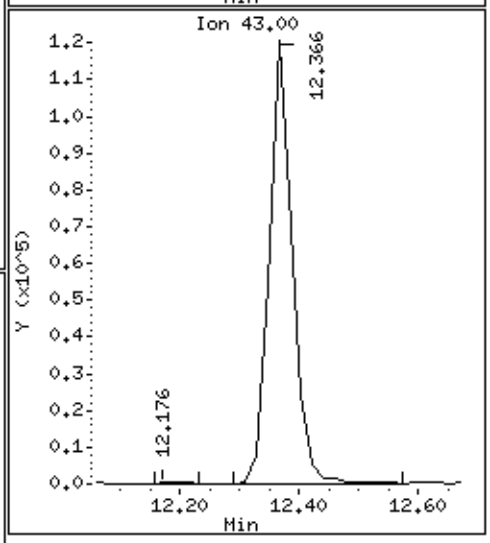
52 Acetone

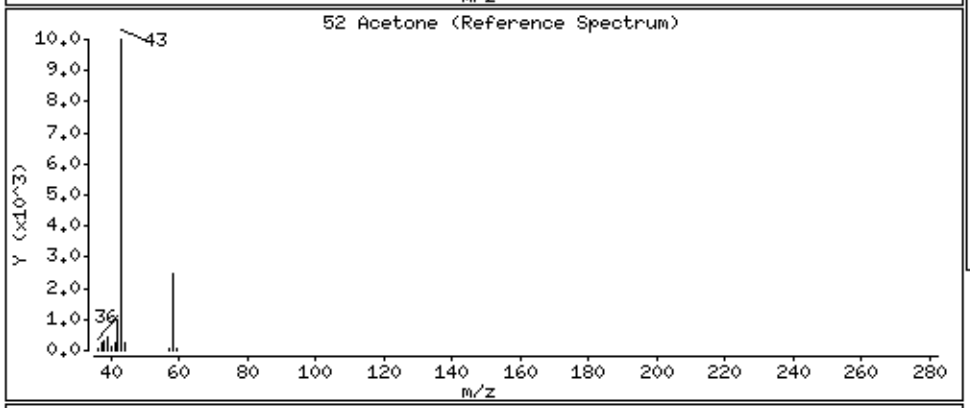
Concentration: 9.359 PPBV

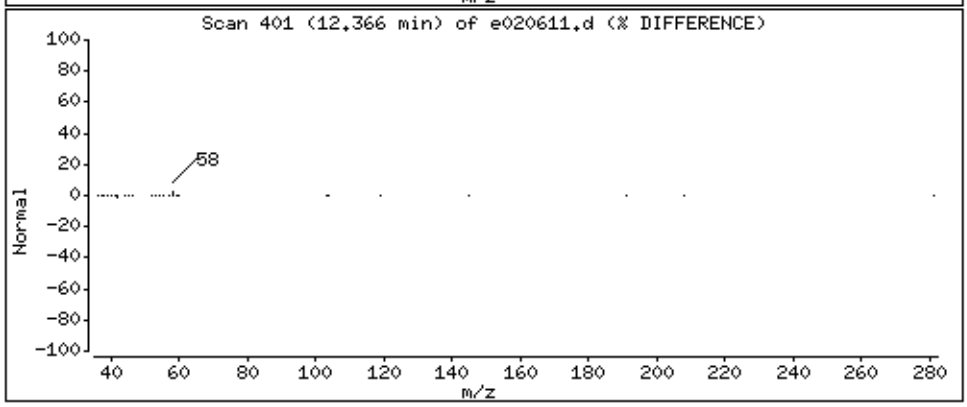












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

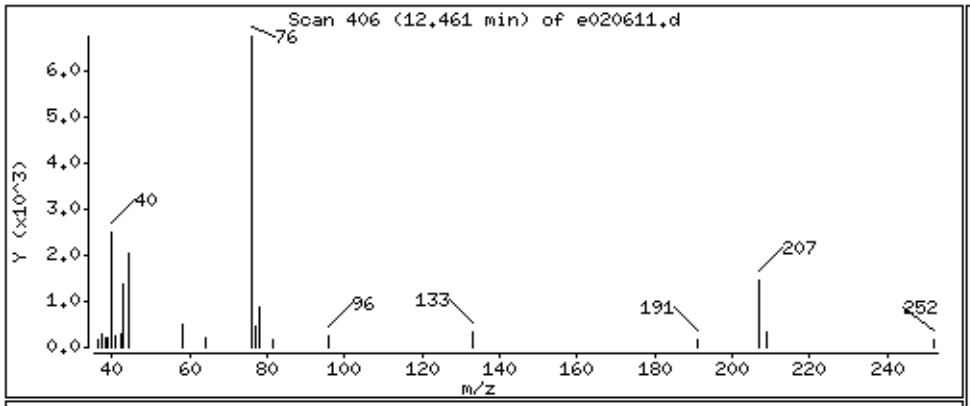
Operator: EA

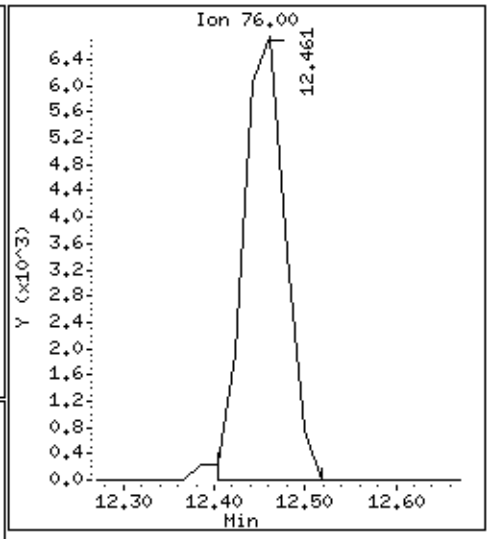
Column phase: RTX-624

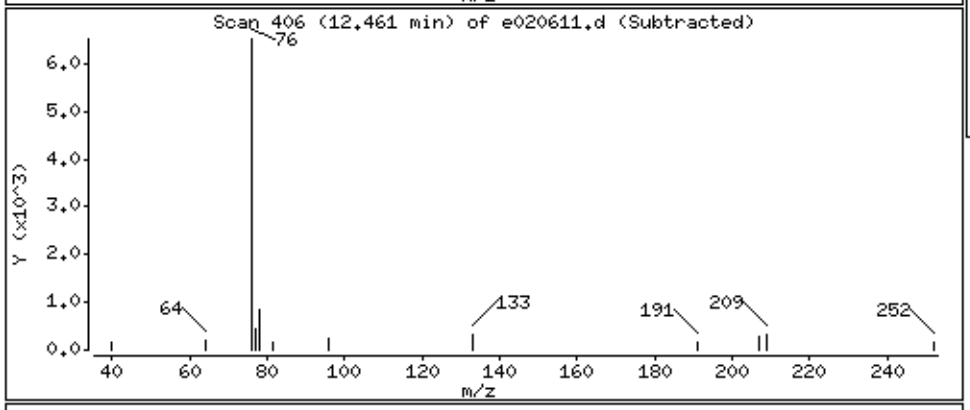
Column diameter: 0.32

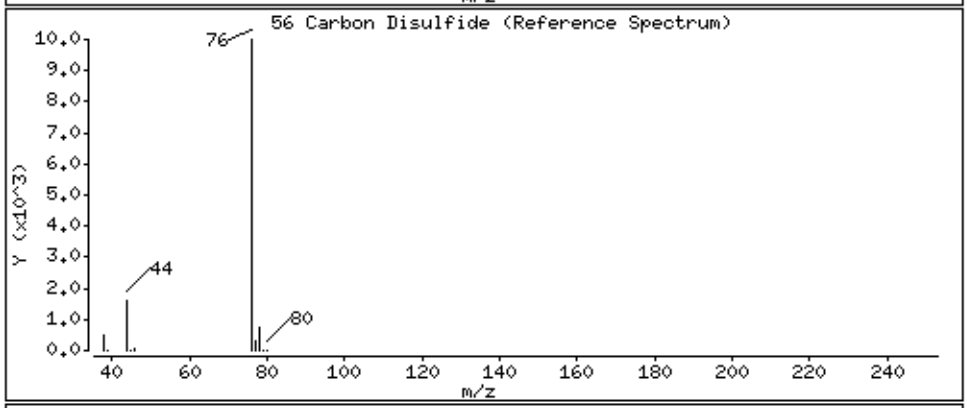
56 Carbon Disulfide

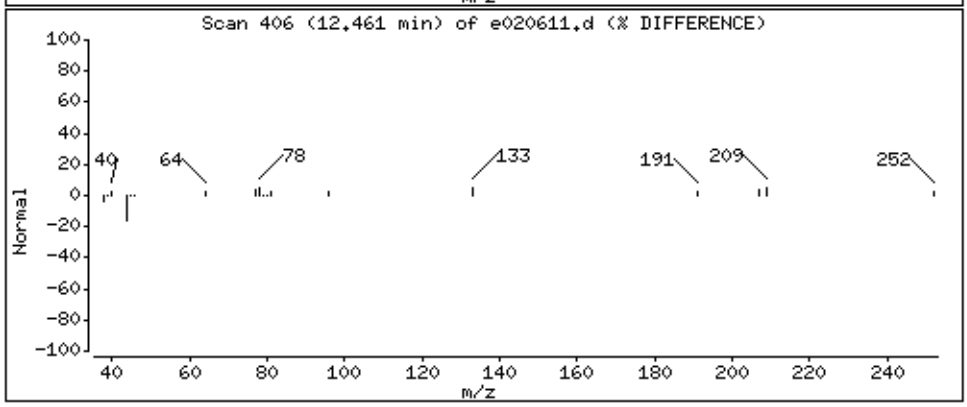
Concentration: 0.3294 PPBV











Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

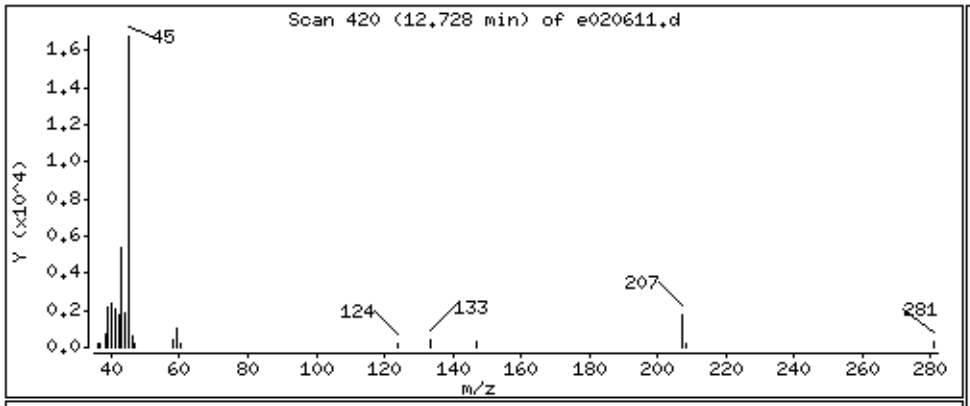
Operator: EA

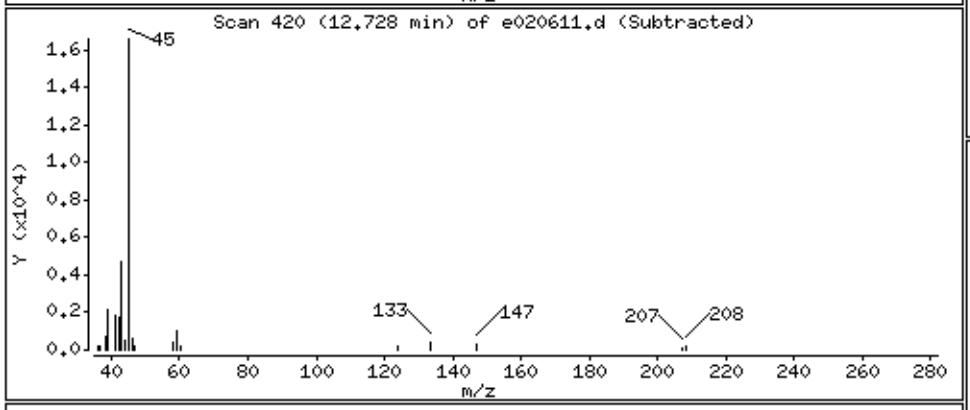
Column phase: RTX-624

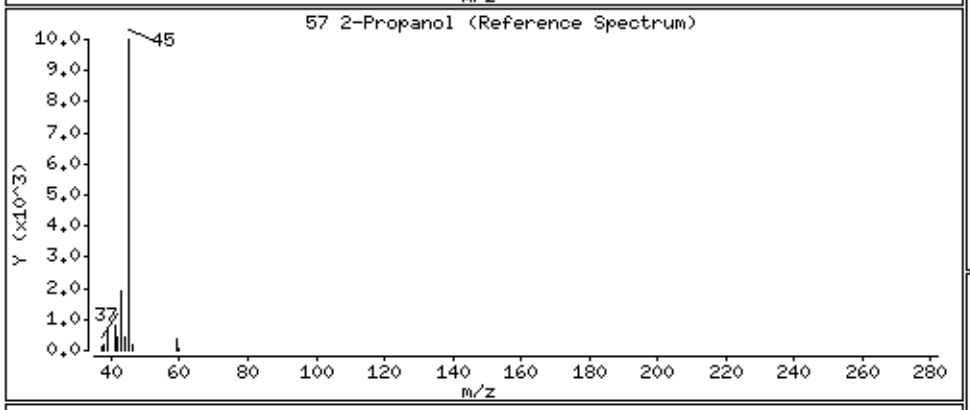
Column diameter: 0.32

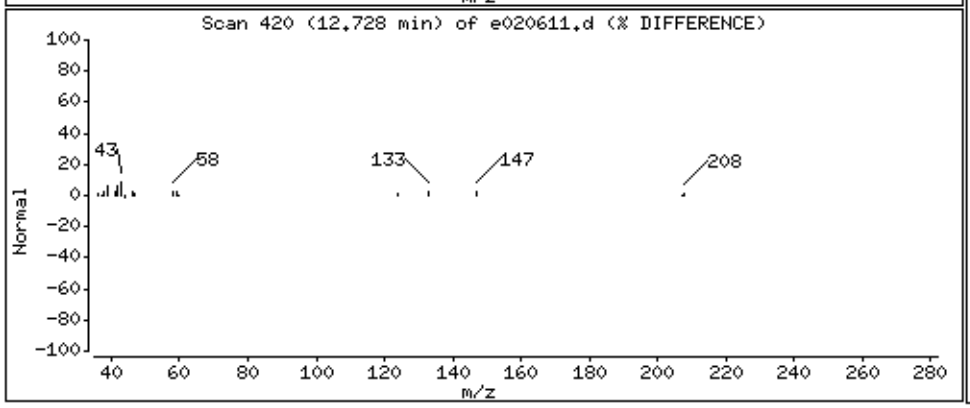
57 2-Propanol

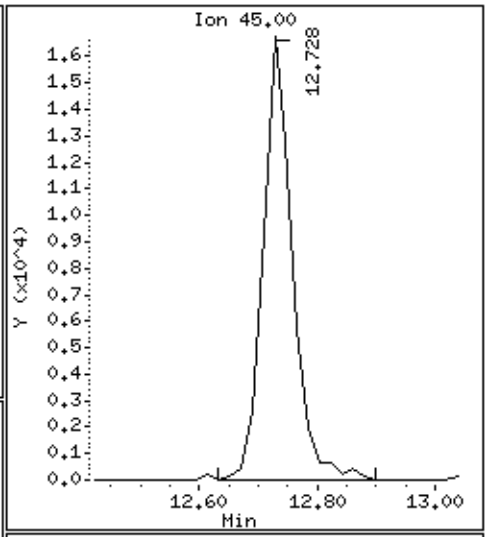
Concentration: 1.913 PPBV

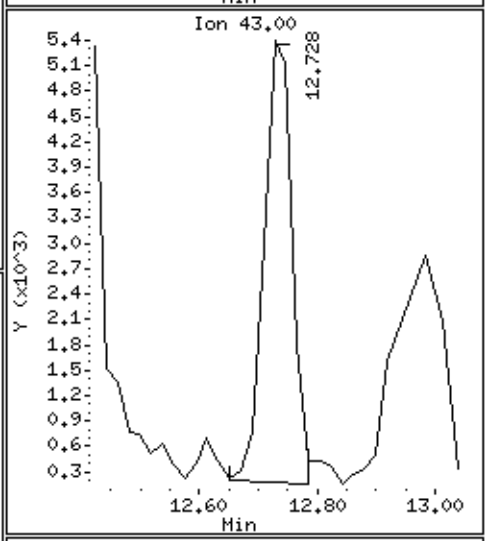


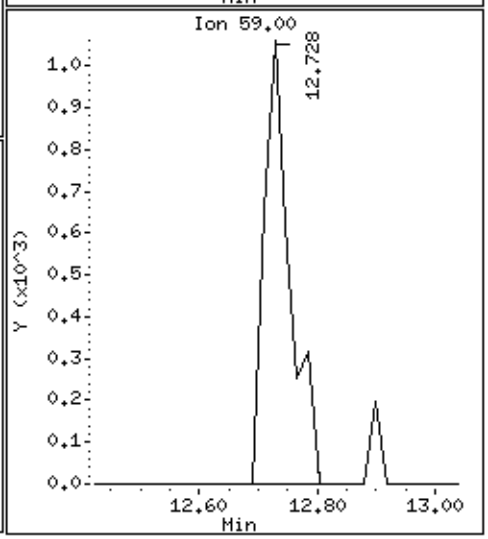












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

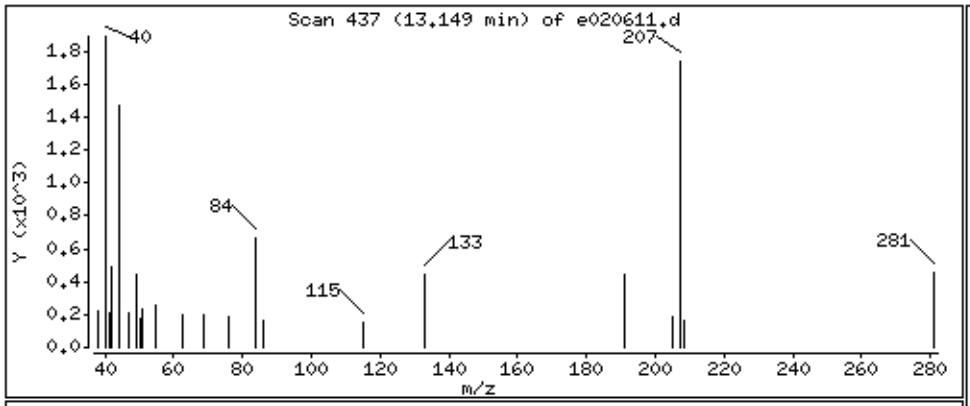
Operator: EA

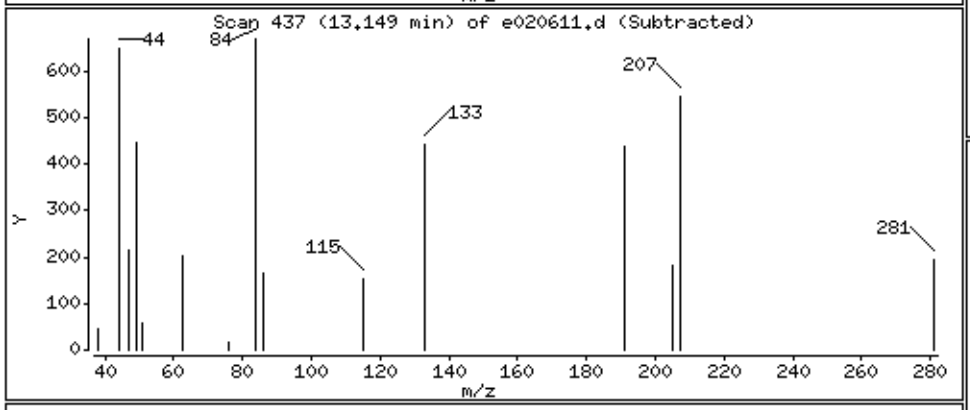
Column phase: RTX-624

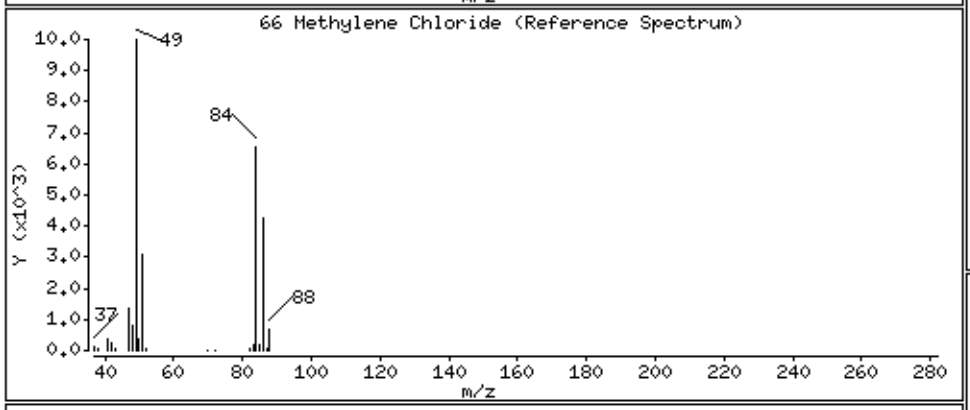
Column diameter: 0.32

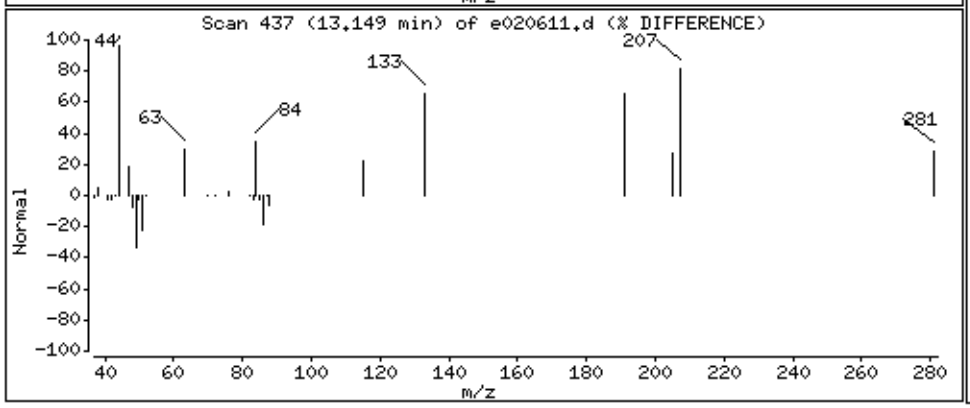
66 Methylene Chloride

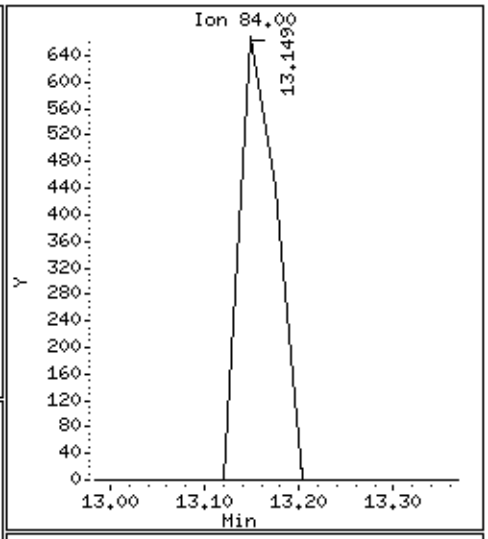
Concentration: 0.07768 PPBV

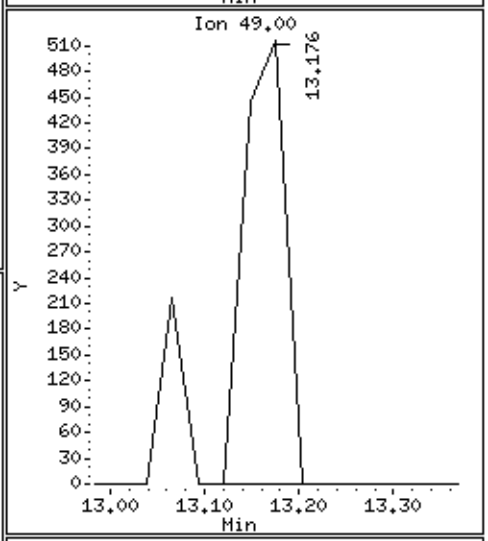


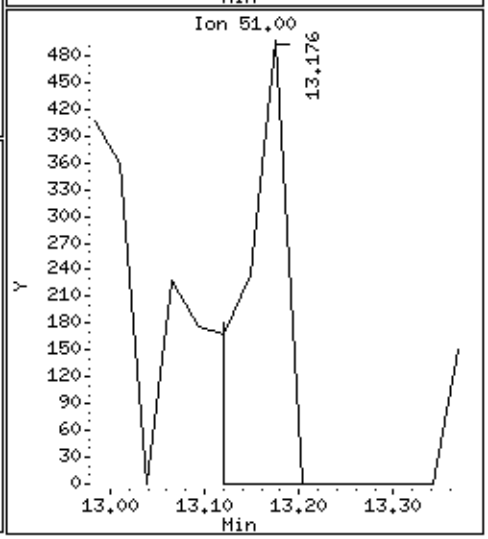












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

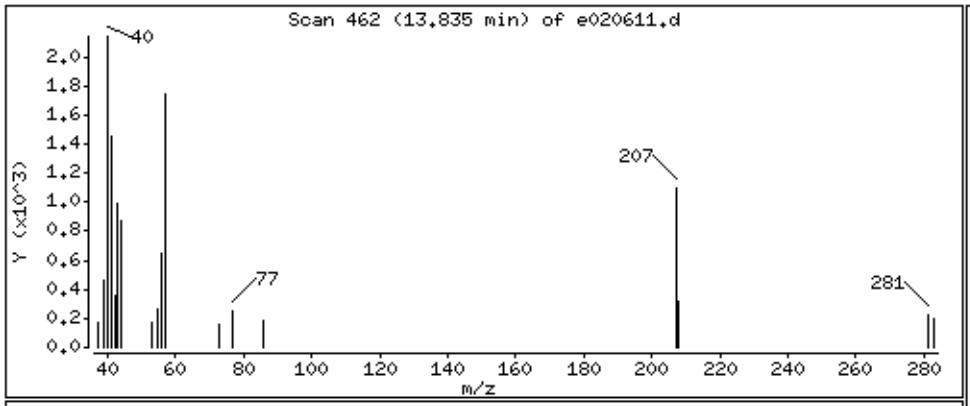
Operator: EA

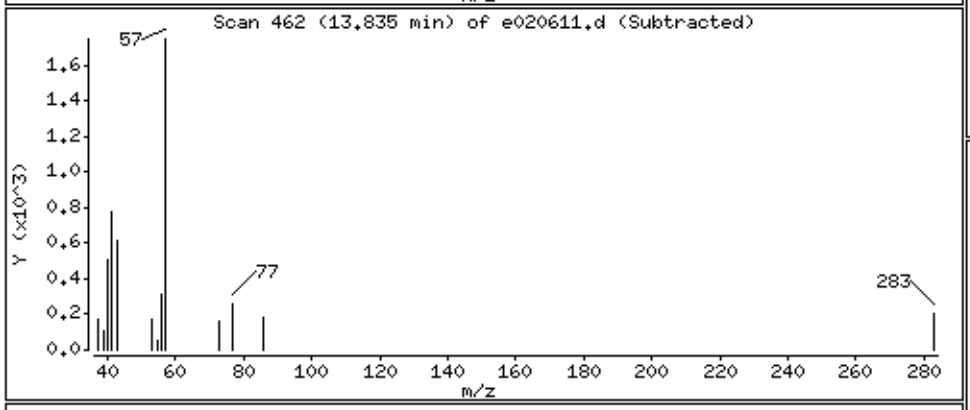
Column phase: RTX-624

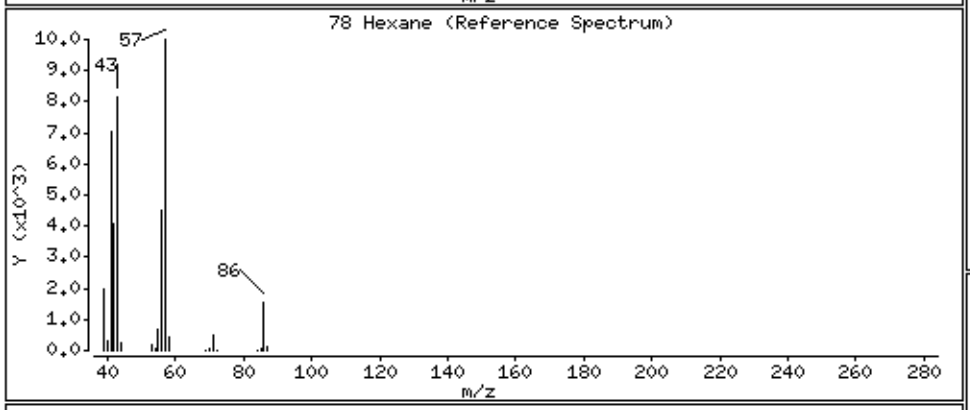
Column diameter: 0.32

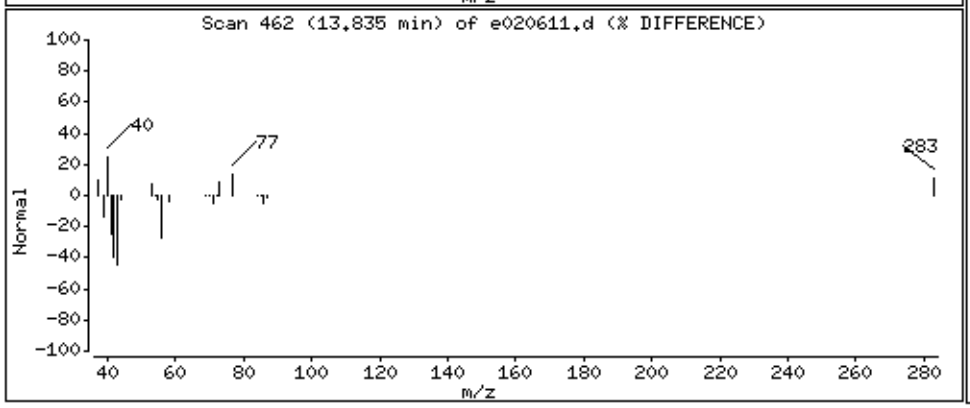
78 Hexane

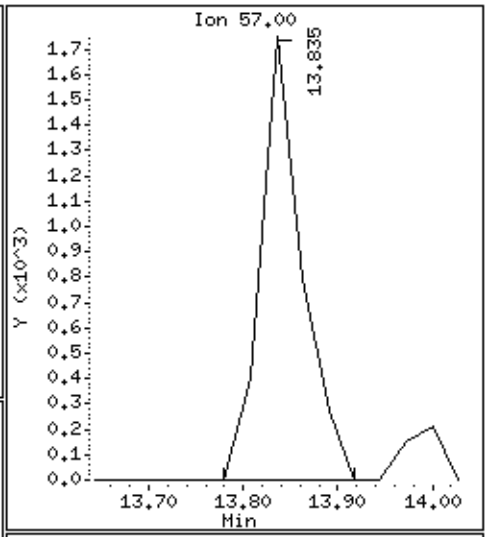
Concentration: 0.1895 PPBV

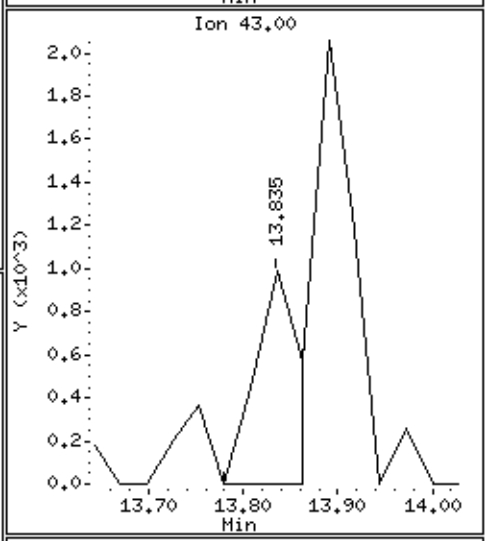


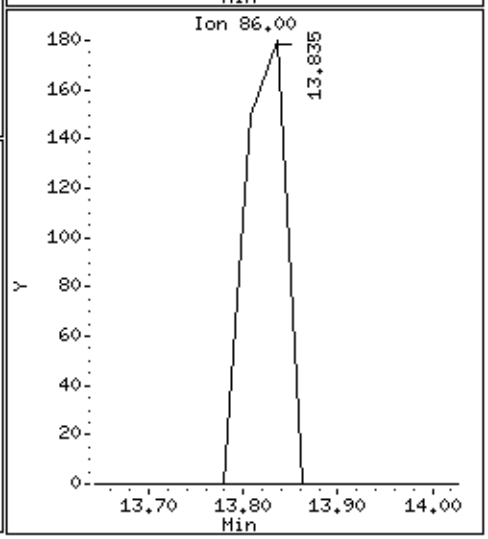












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

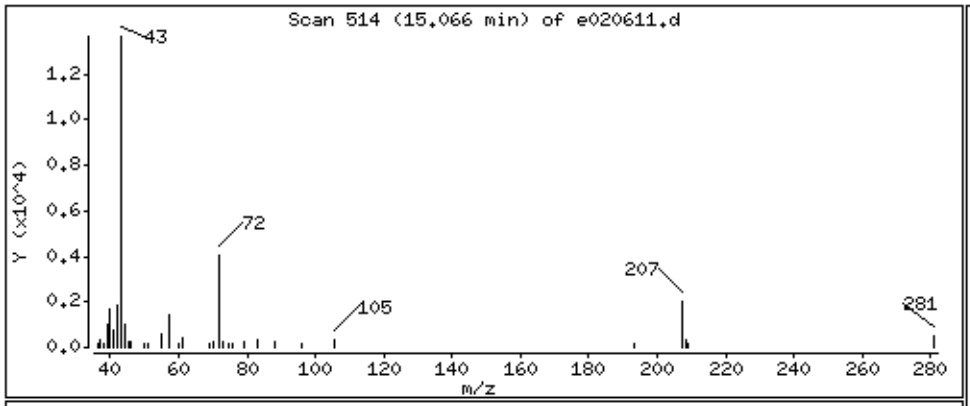
Operator: EA

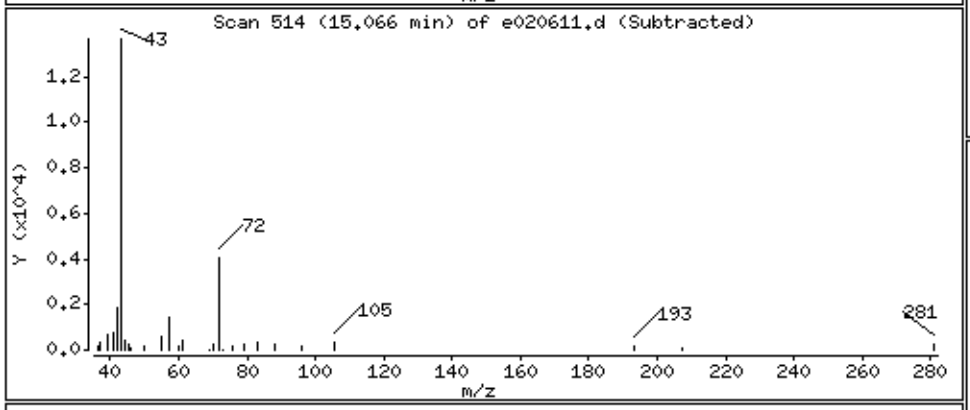
Column phase: RTX-624

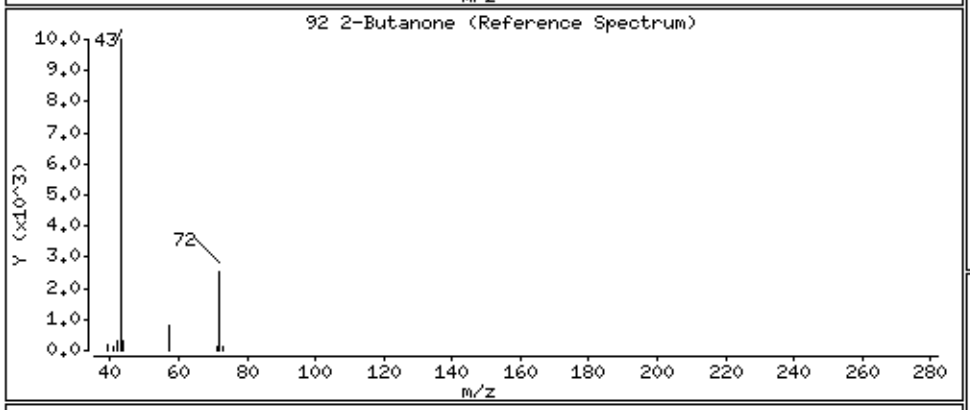
Column diameter: 0.32

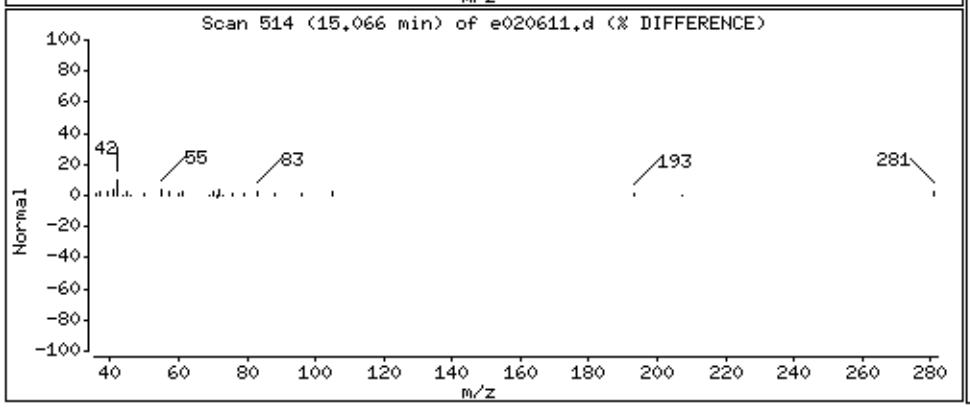
92 2-Butanone

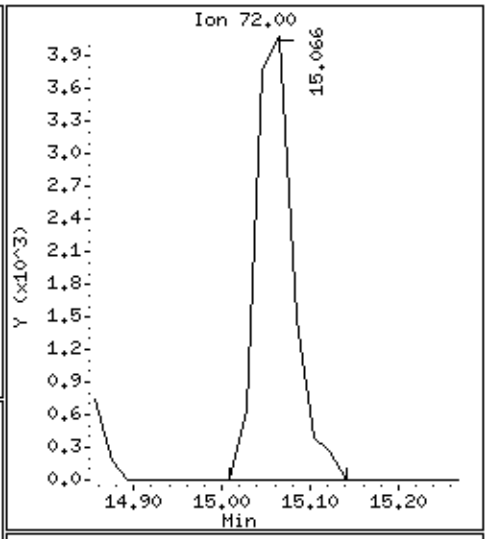
Concentration: 1.166 PPBV

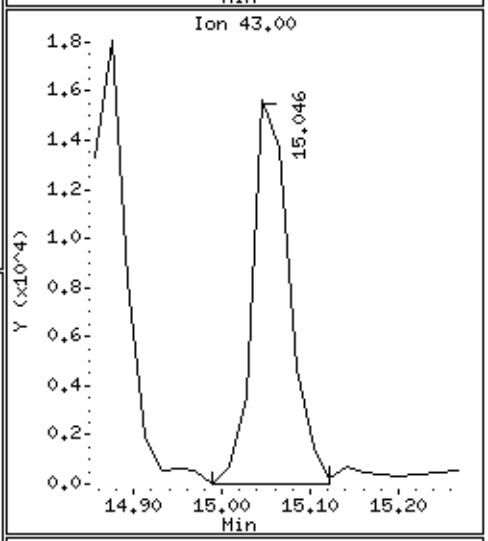


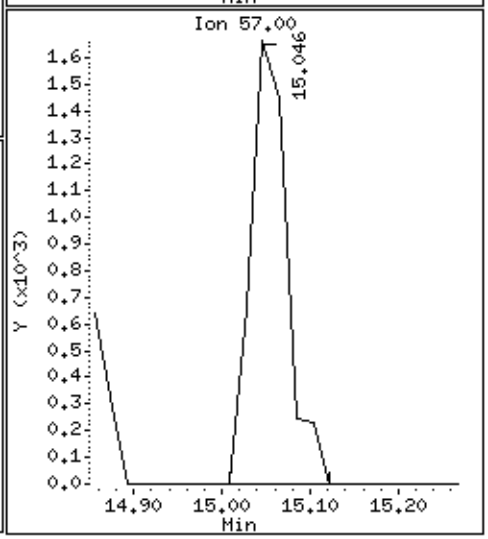












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

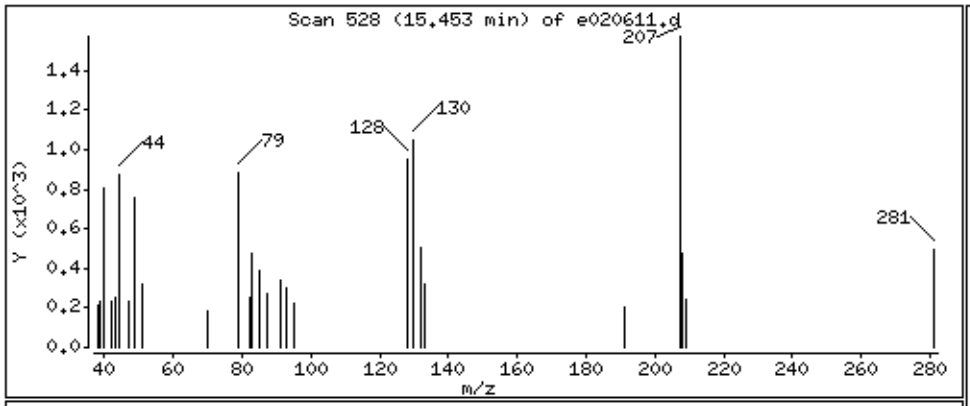
Operator: EA

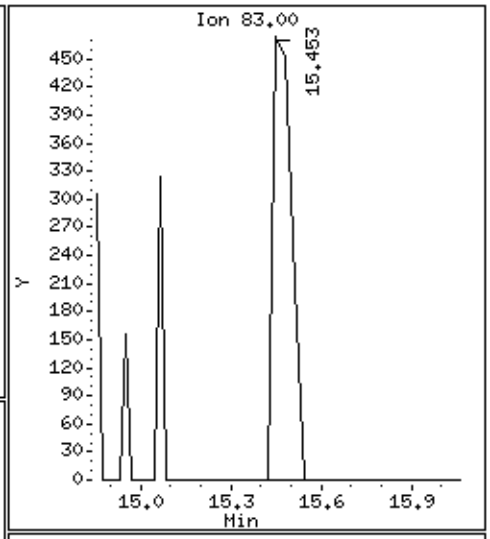
Column phase: RTX-624

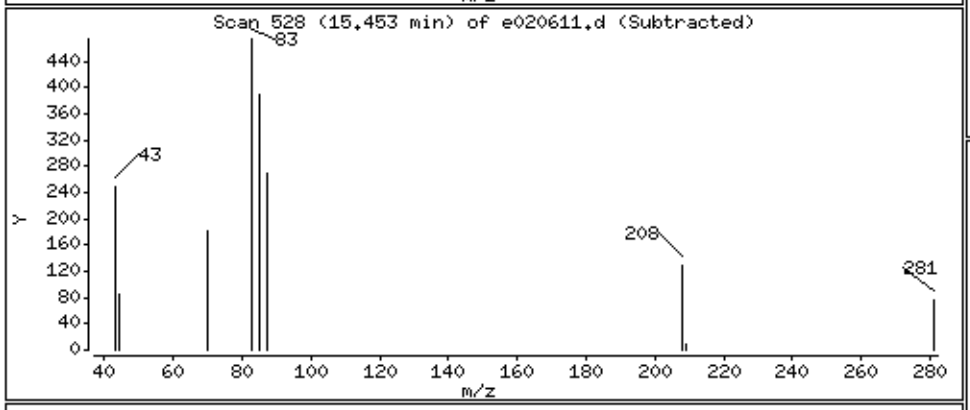
Column diameter: 0.32

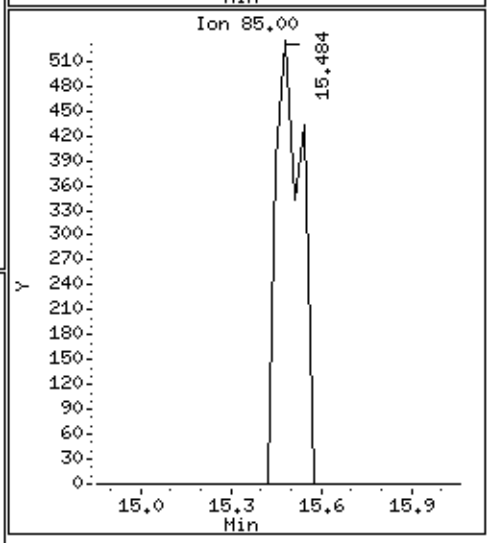
100 Chloroform

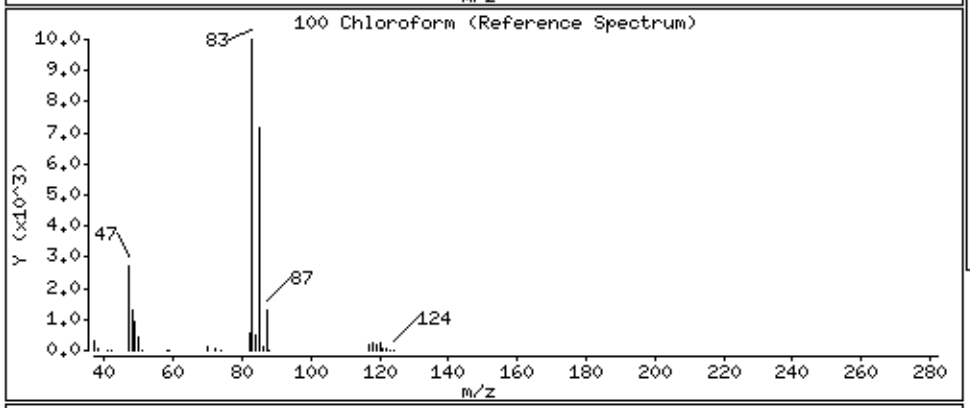
Concentration: 0.03426 PPBV

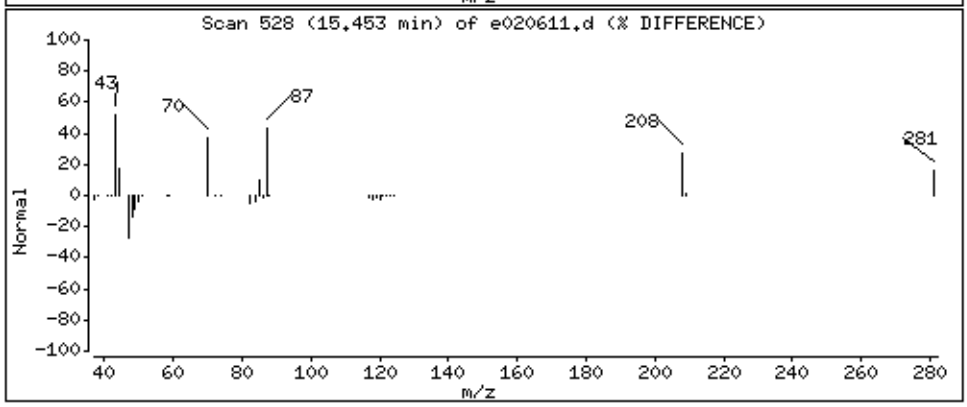












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

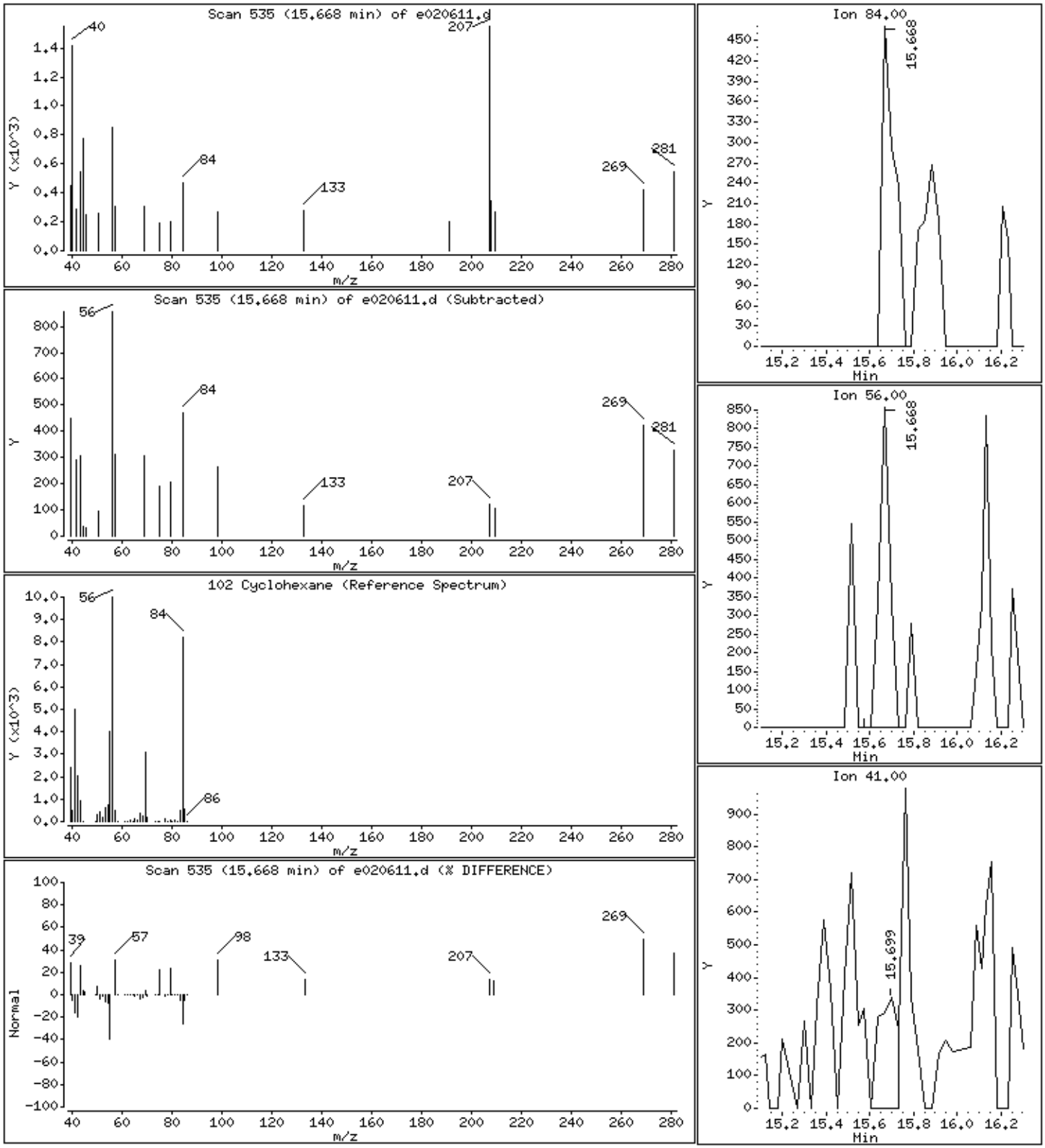
Operator: EA

Column phase: RTX-624

Column diameter: 0.32

102 Cyclohexane

Concentration: 0.06282 PPBV



Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

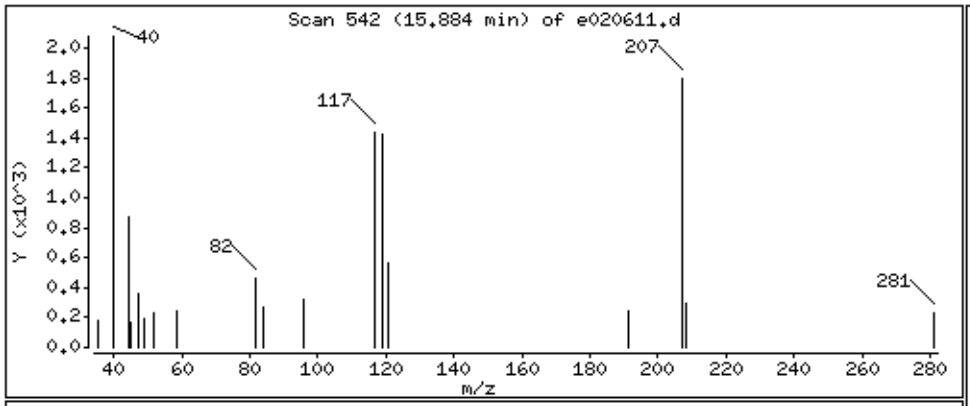
Operator: EA

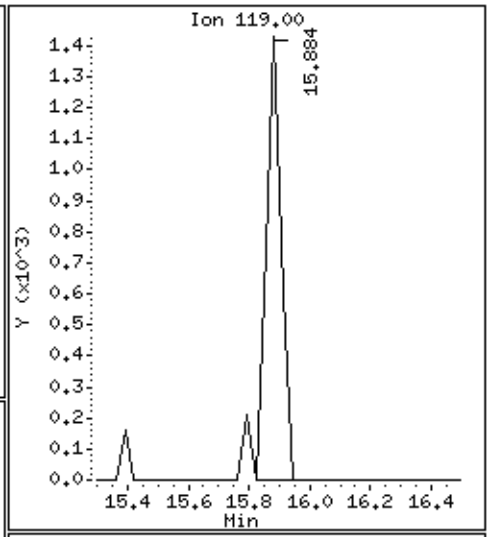
Column phase: RTX-624

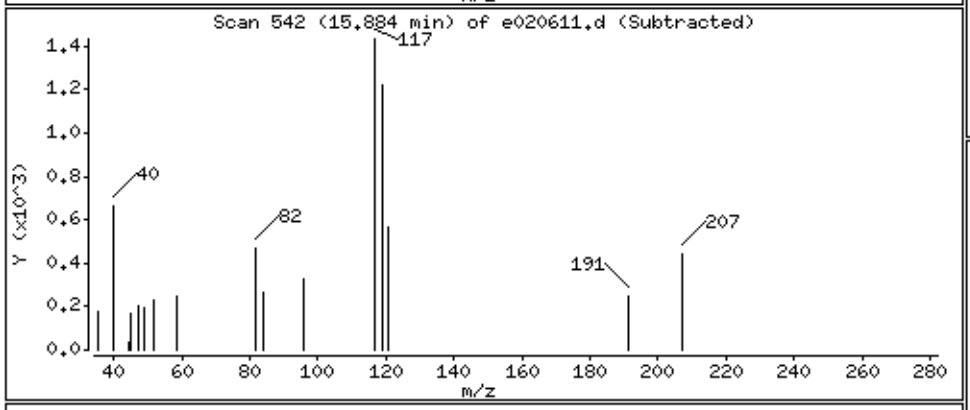
Column diameter: 0.32

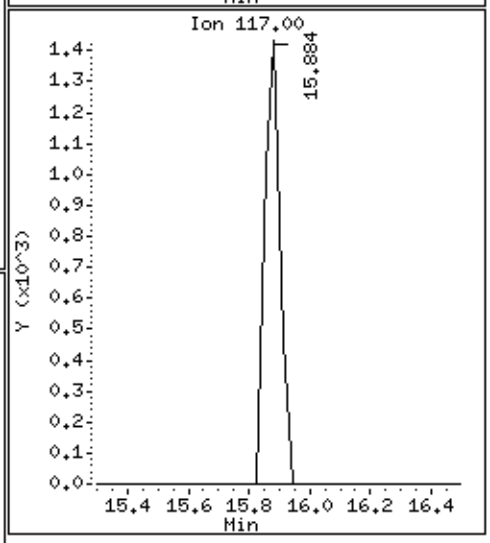
106 Carbon Tetrachloride

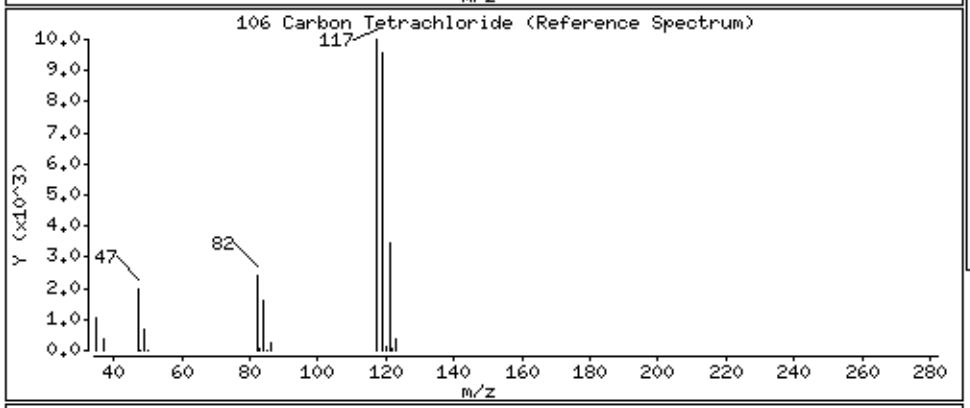
Concentration: 0.07296 PPBV

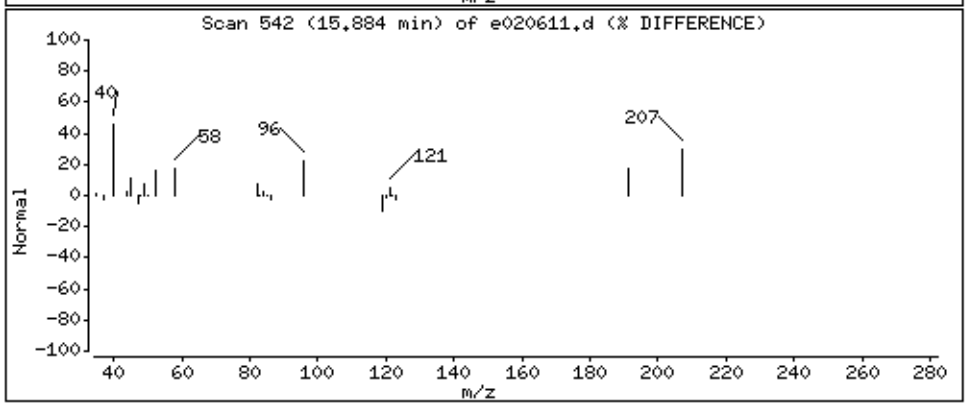












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

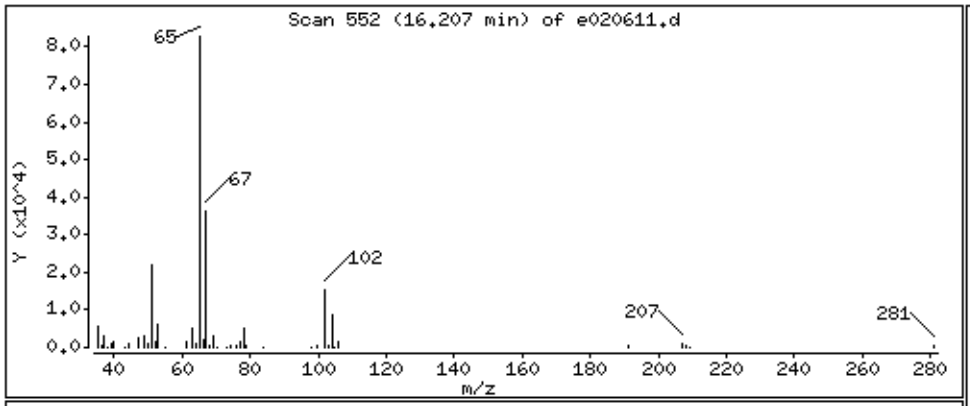
Operator: EA

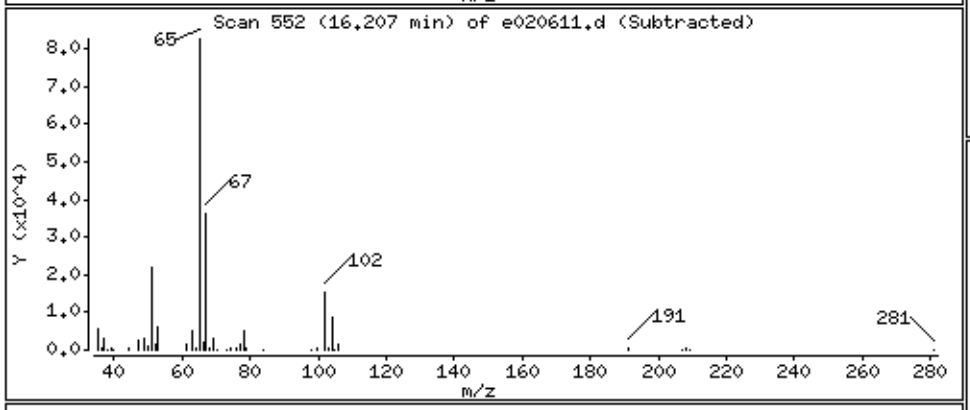
Column phase: RTX-624

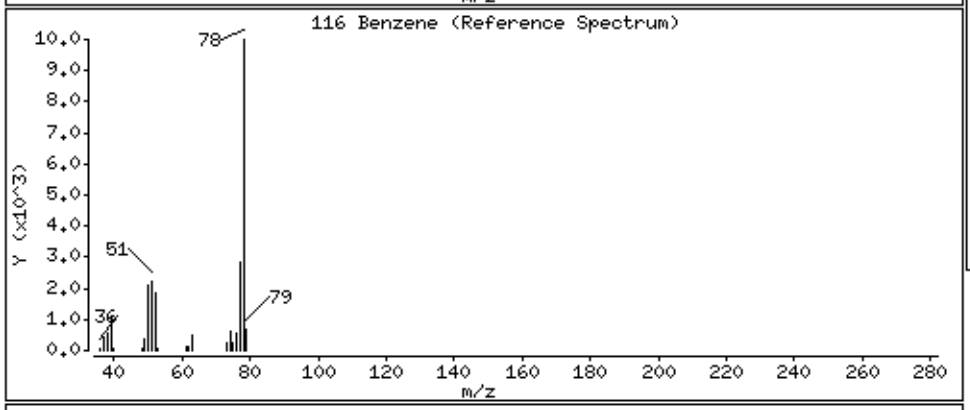
Column diameter: 0.32

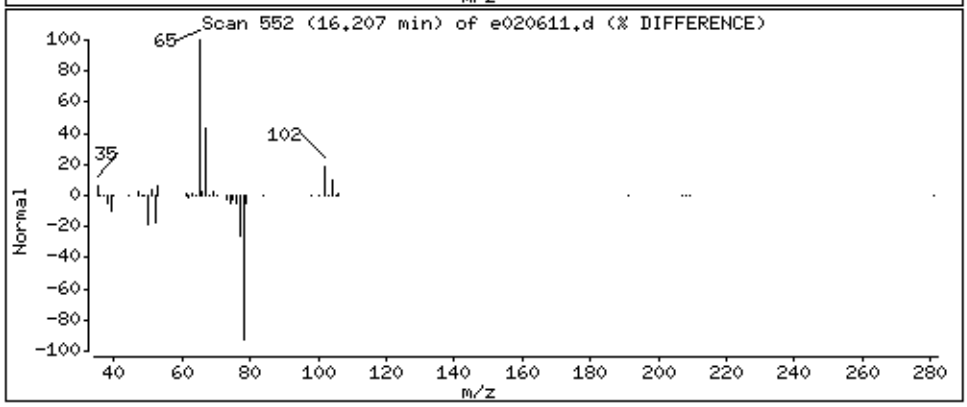
116 Benzene

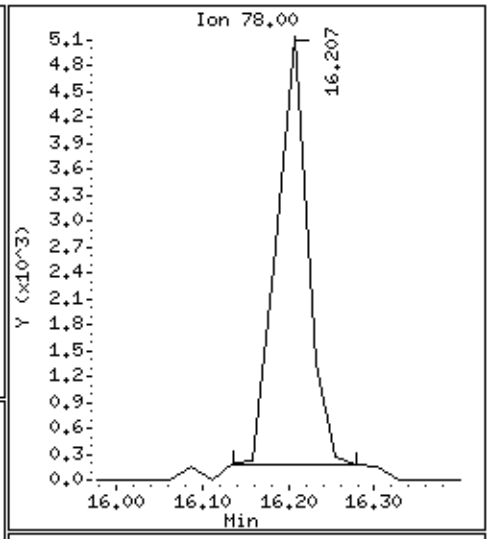
Concentration: 0.1610 PPBV

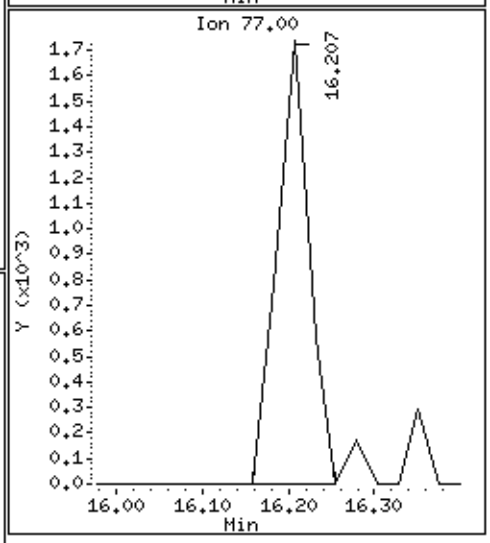












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

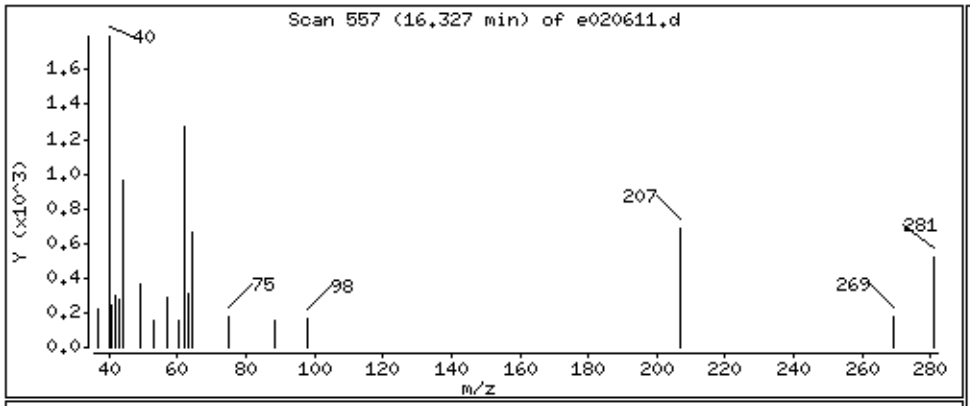
Operator: EA

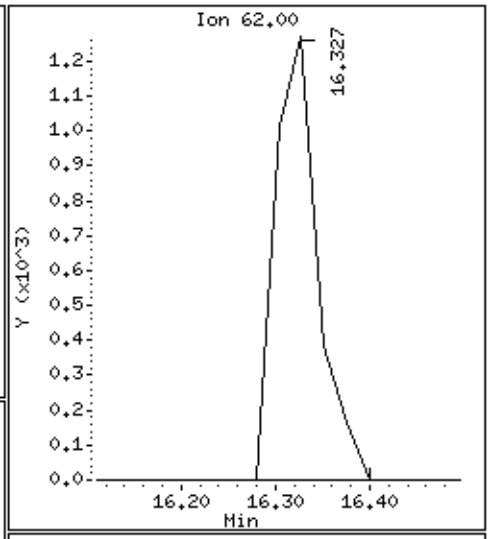
Column phase: RTX-624

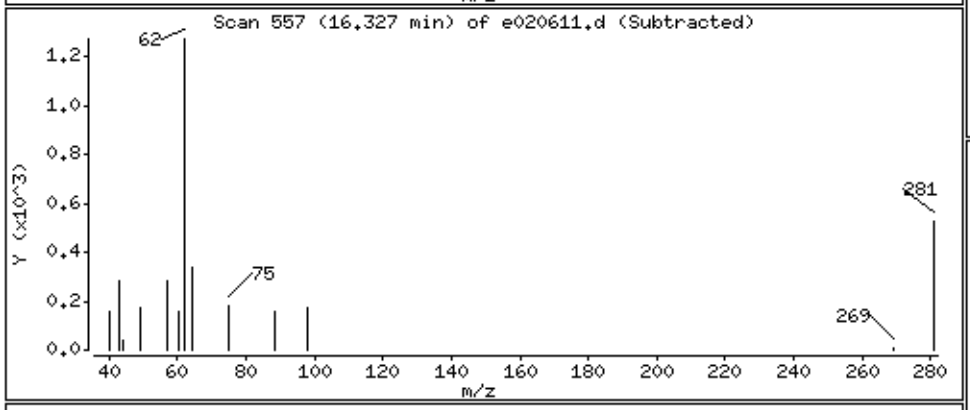
Column diameter: 0.32

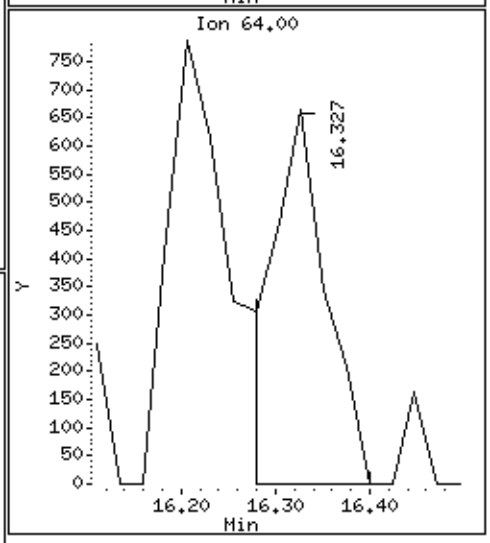
120 1,2-Dichloroethane

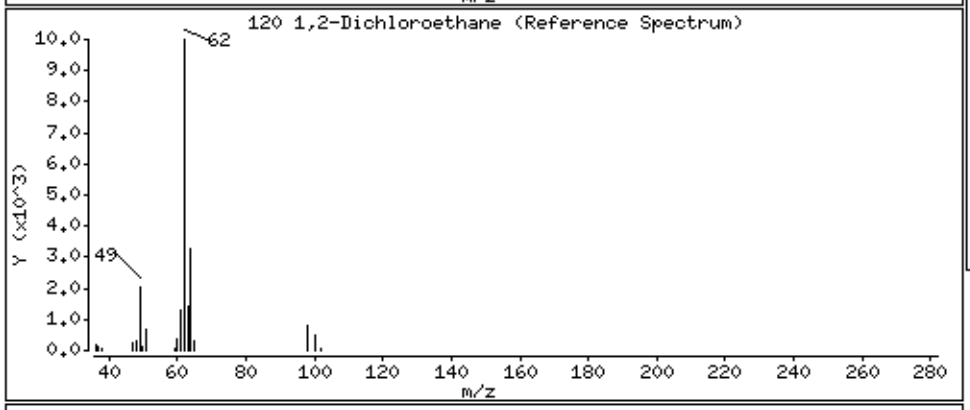
Concentration: 0.08552 PPBV

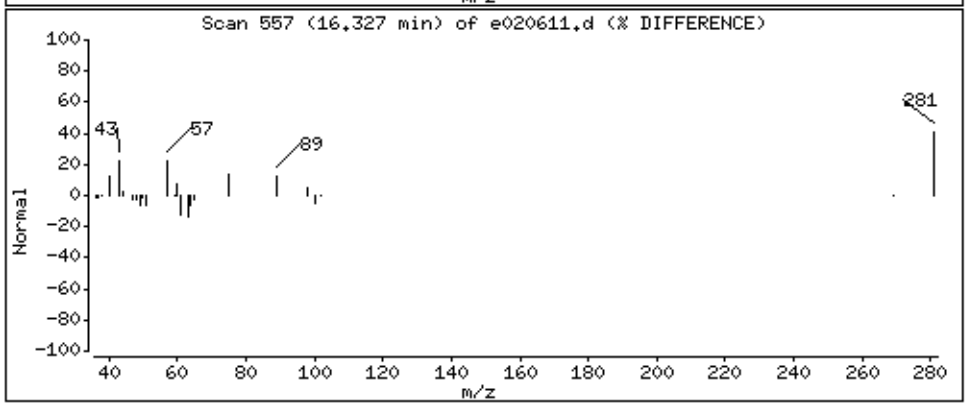












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

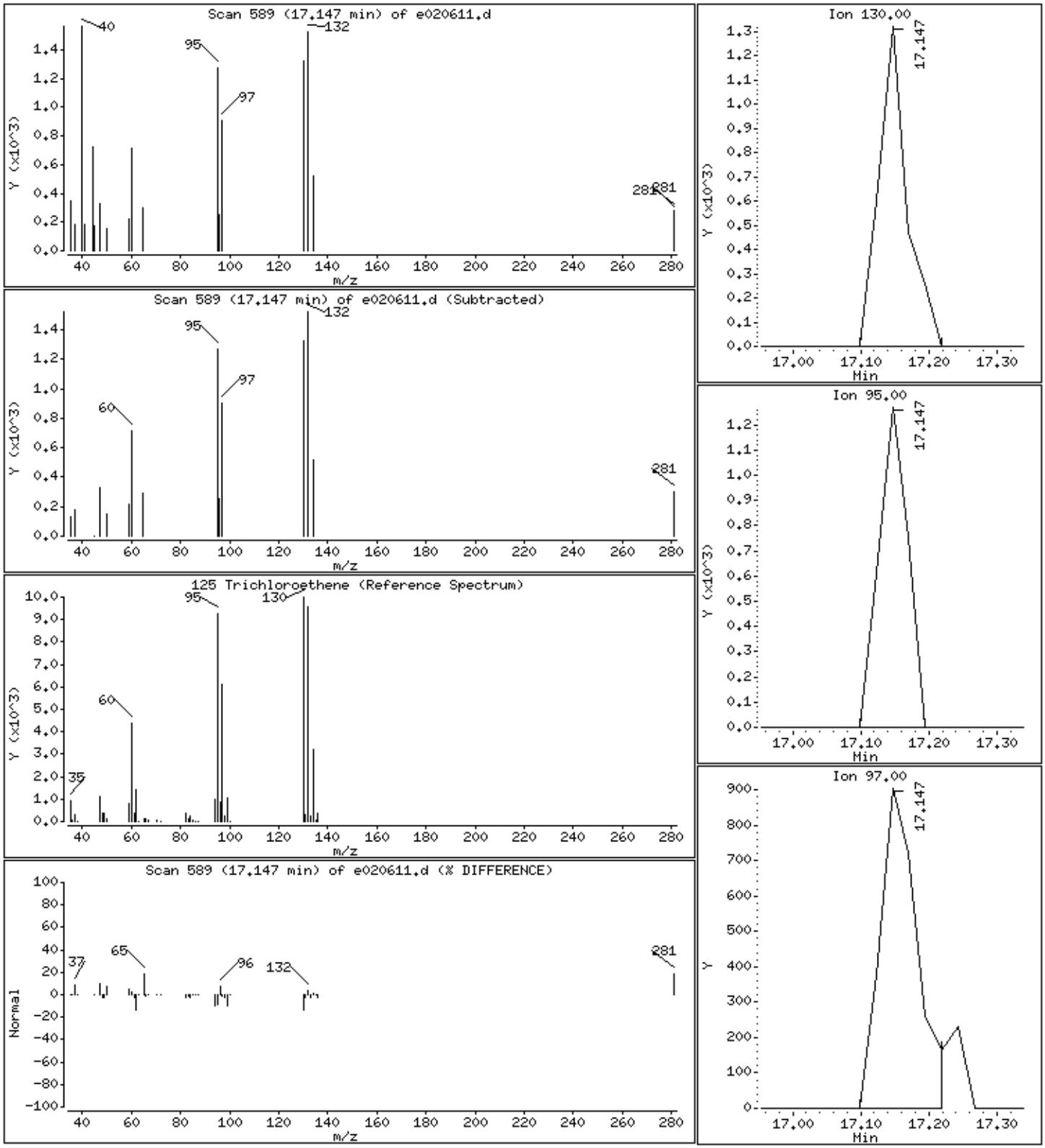
Operator: EA

Column phase: RTX-624

Column diameter: 0.32

125 Trichloroethene

Concentration: 0.08866 PPBV



Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

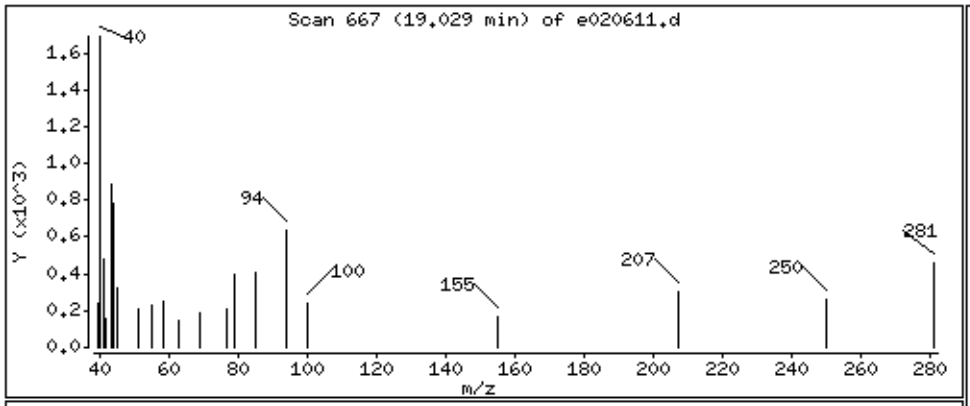
Operator: EA

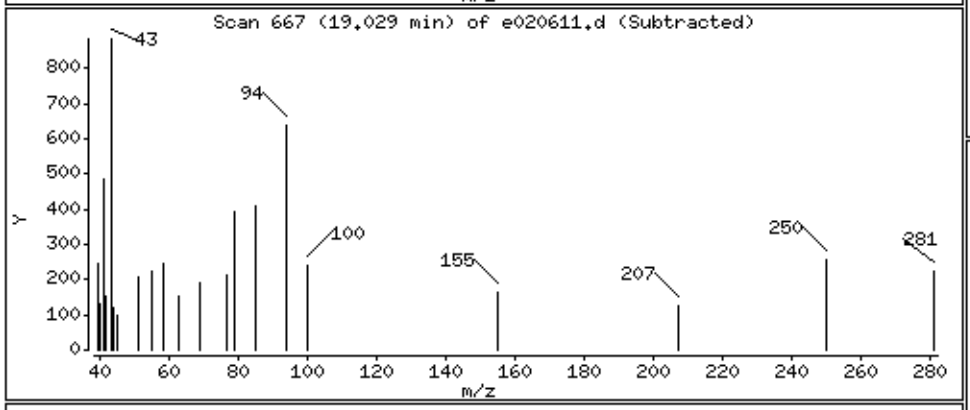
Column phase: RTX-624

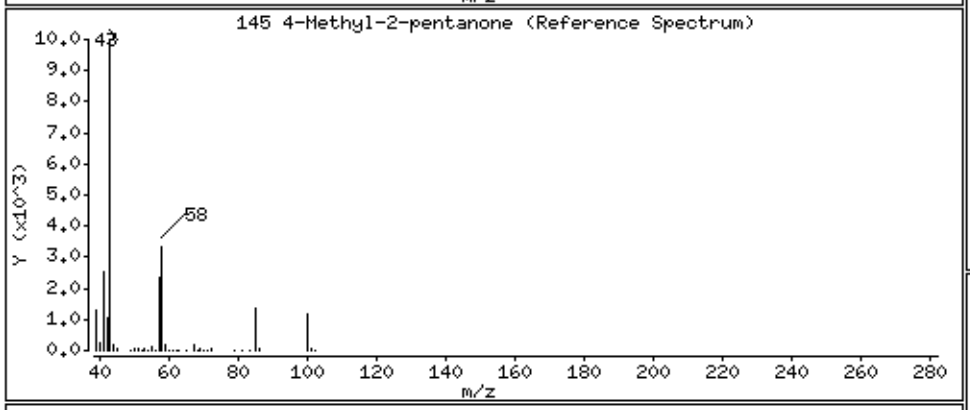
Column diameter: 0.32

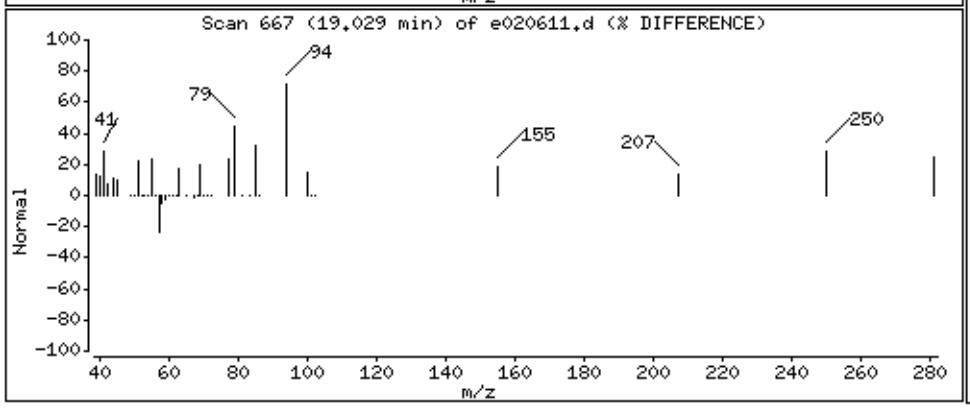
145 4-Methyl-2-pentanone

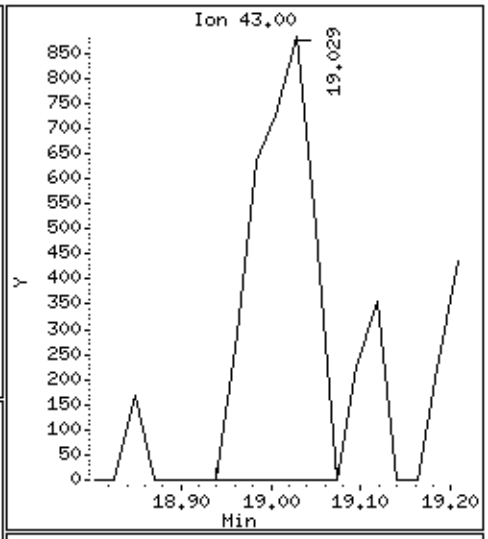
Concentration: 0.08850 PPBV

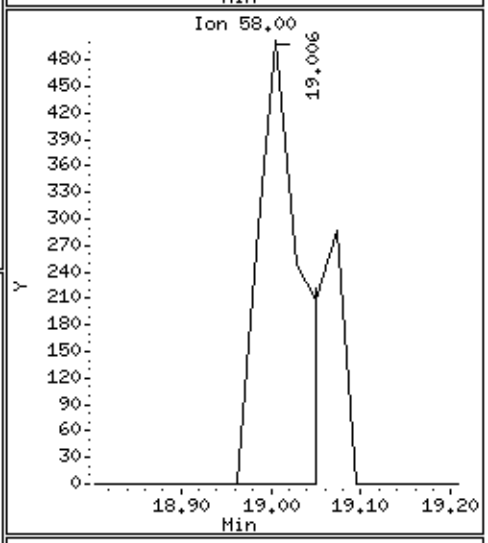


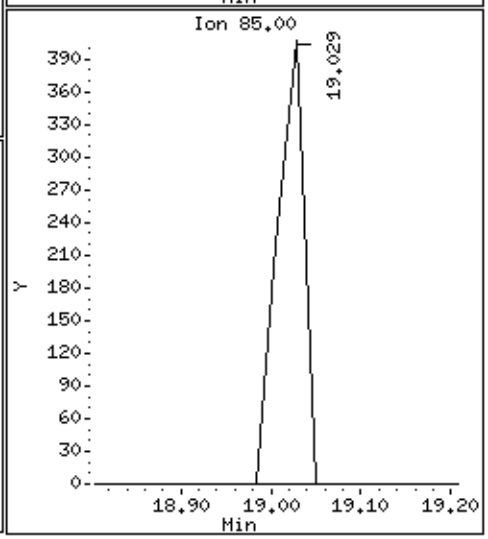












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

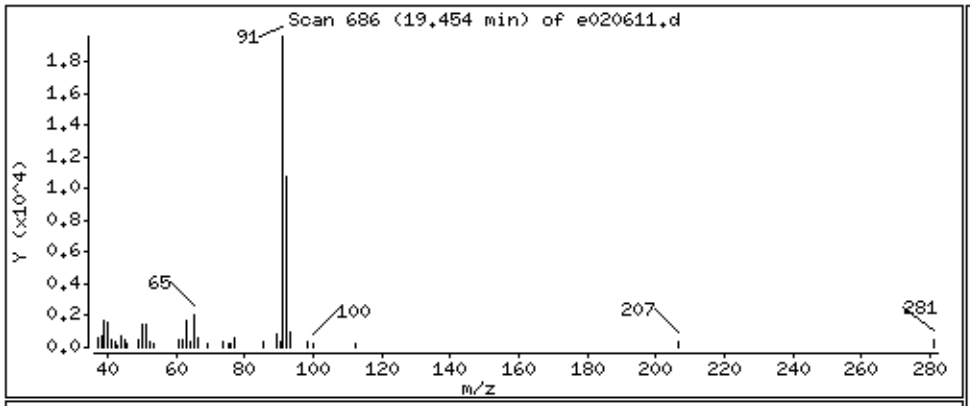
Operator: EA

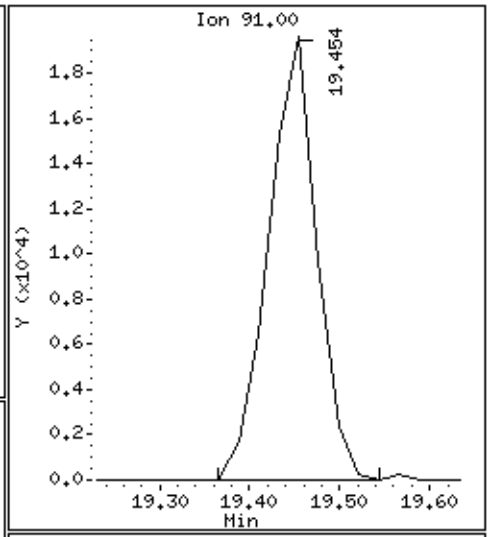
Column phase: RTX-624

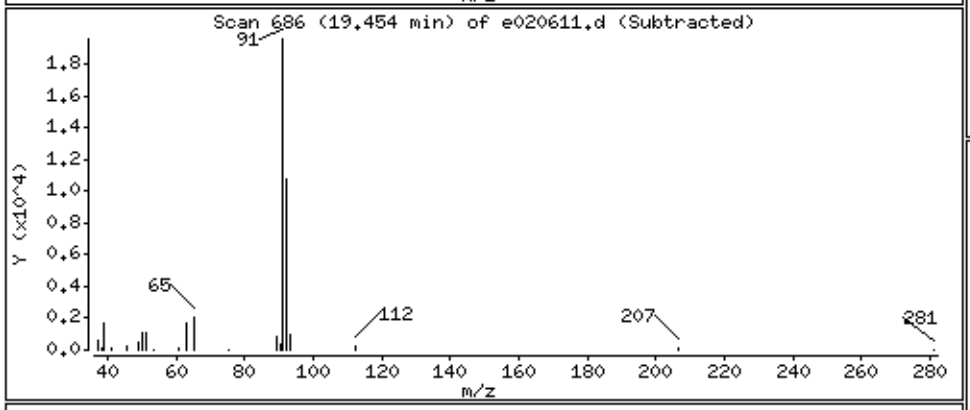
Column diameter: 0.32

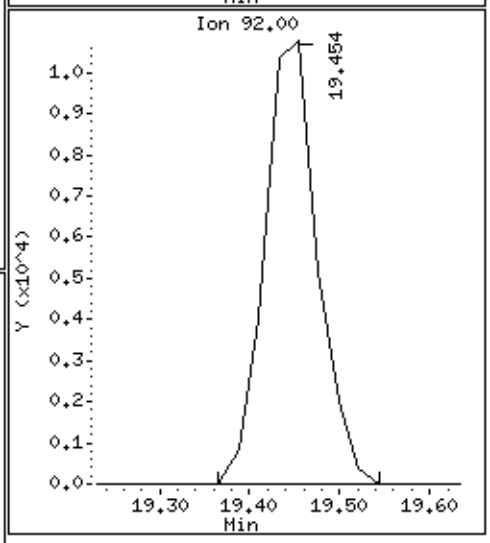
147 Toluene

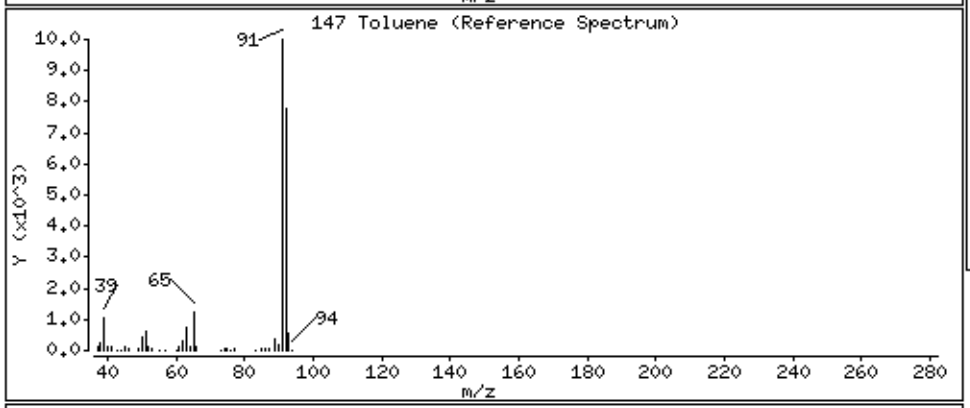
Concentration: 0.7937 PPBV

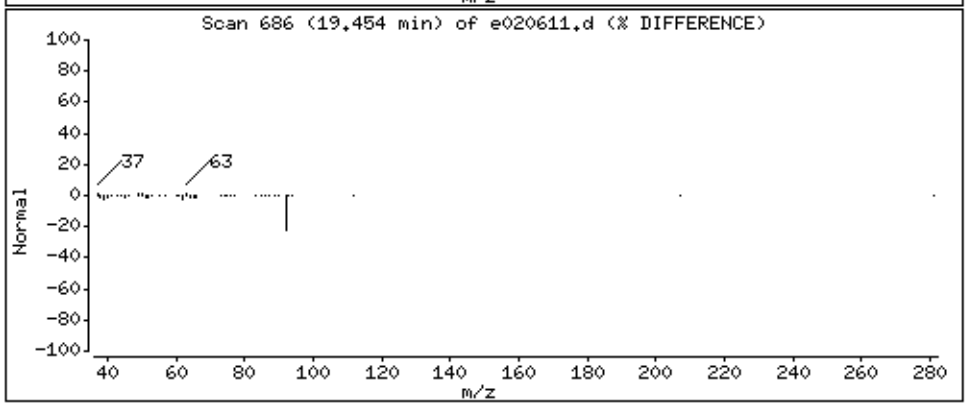












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

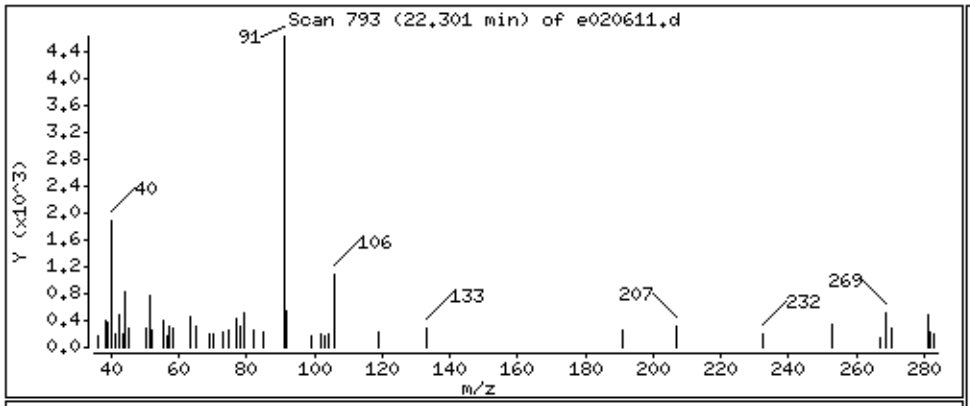
Operator: EA

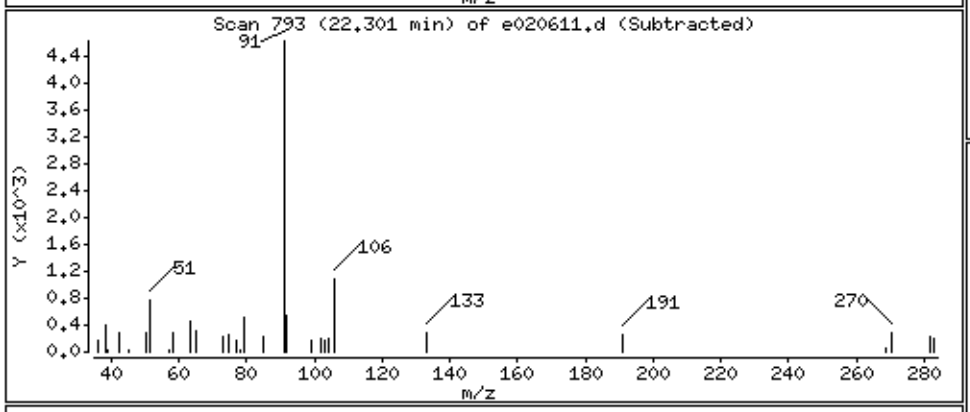
Column phase: RTX-624

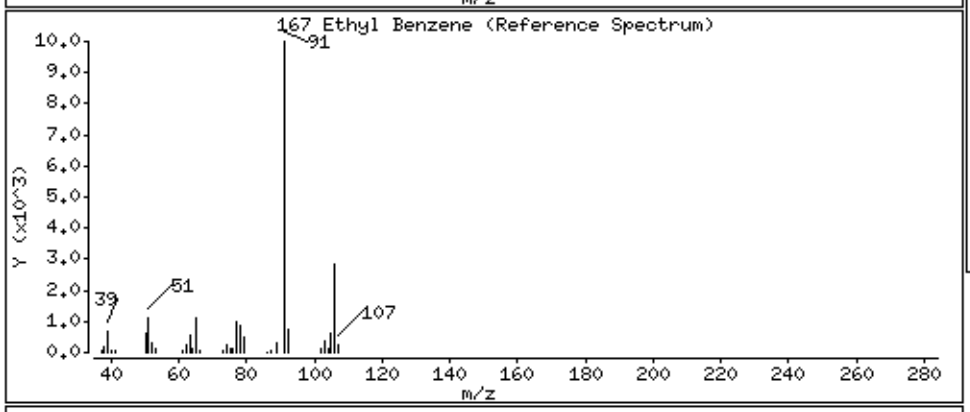
Column diameter: 0.32

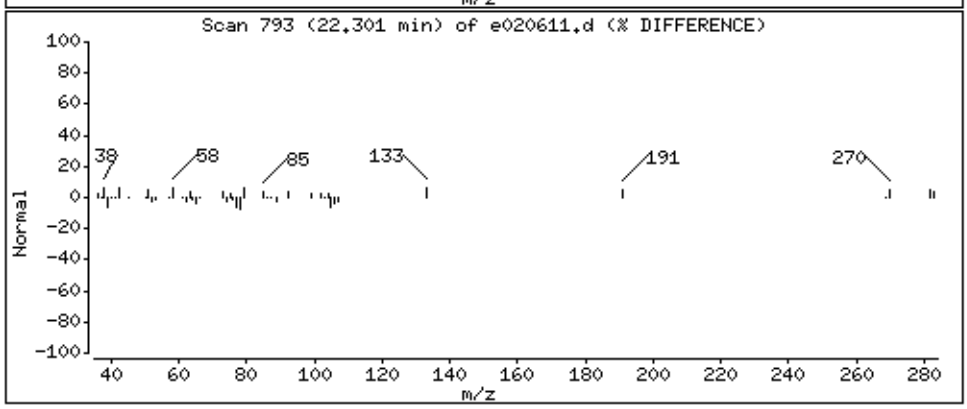
167 Ethyl Benzene

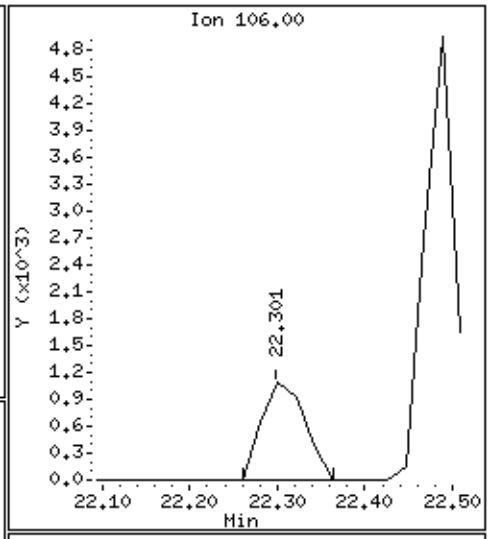
Concentration: 0.09843 PPBV

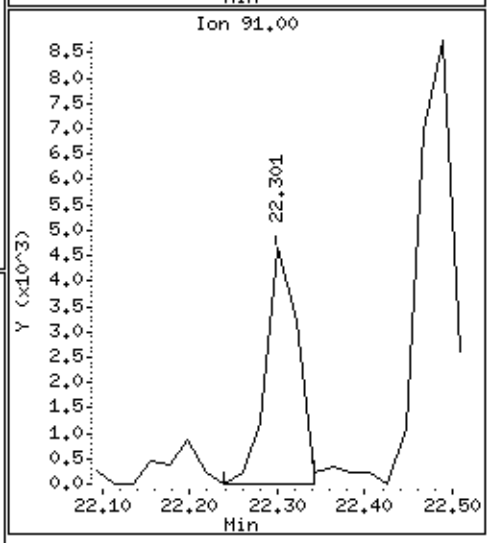












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

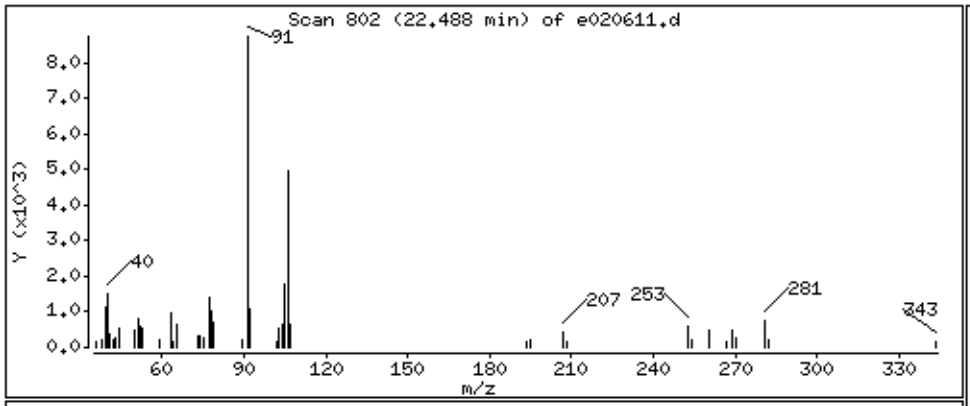
Operator: EA

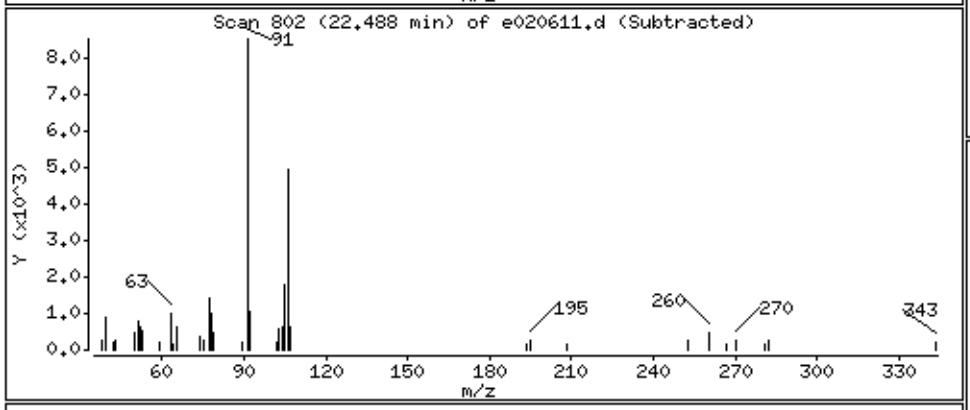
Column phase: RTX-624

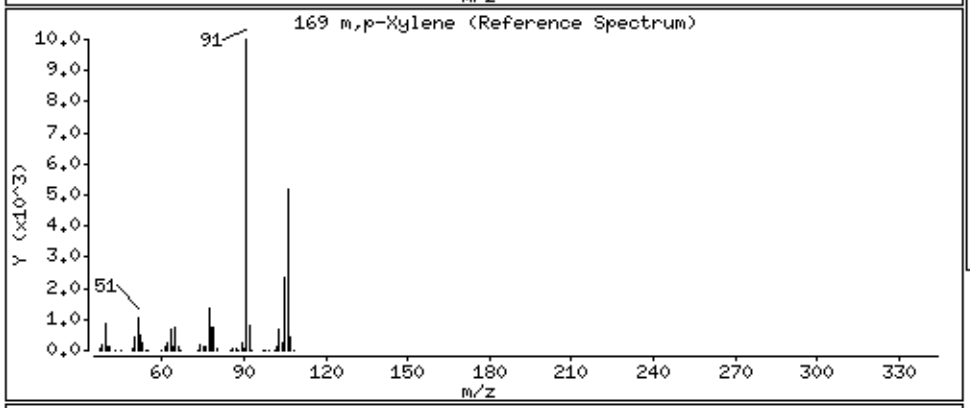
Column diameter: 0.32

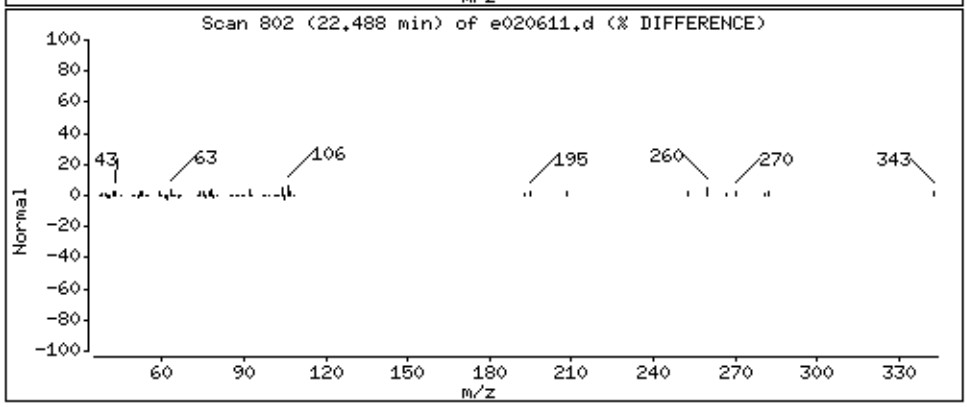
169 m,p-Xylene

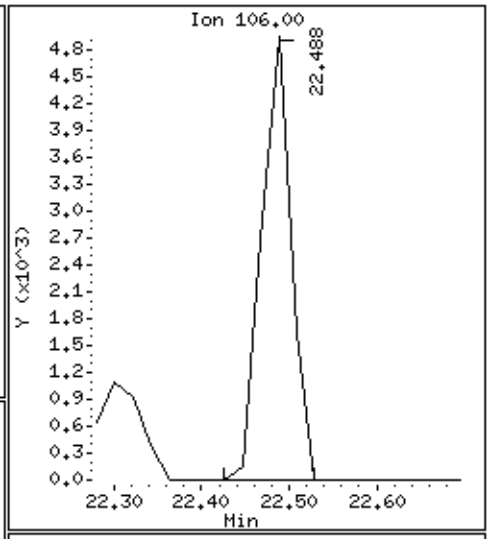
Concentration: 0.2598 PPBV

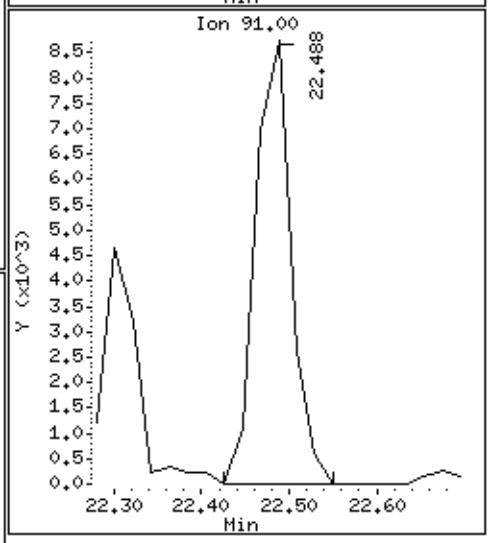












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

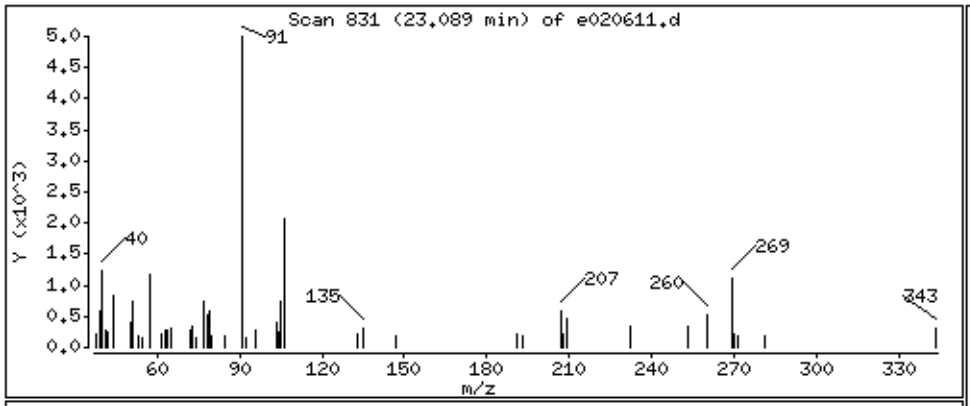
Operator: EA

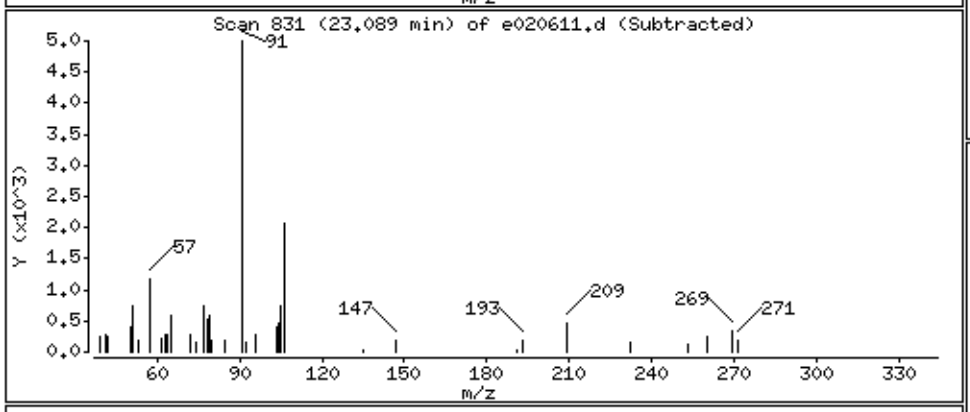
Column phase: RTX-624

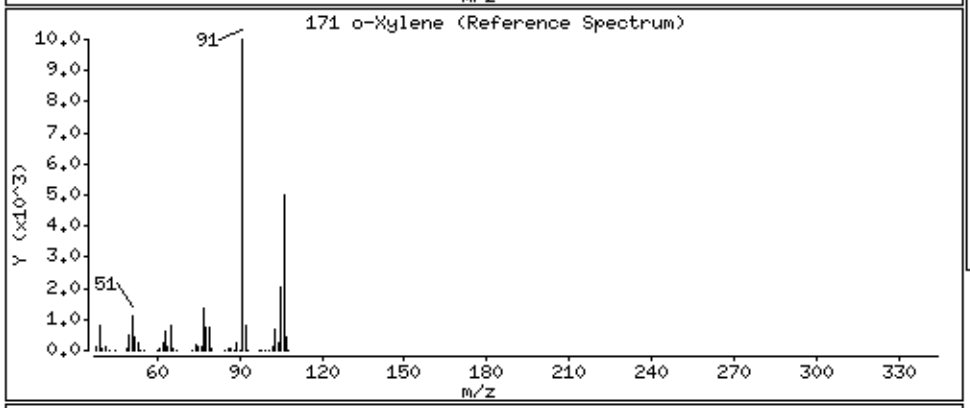
Column diameter: 0.32

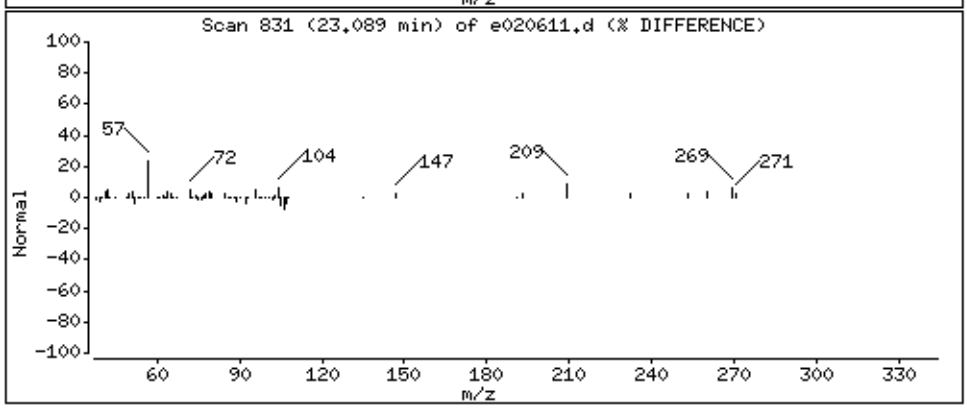
171 o-Xylene

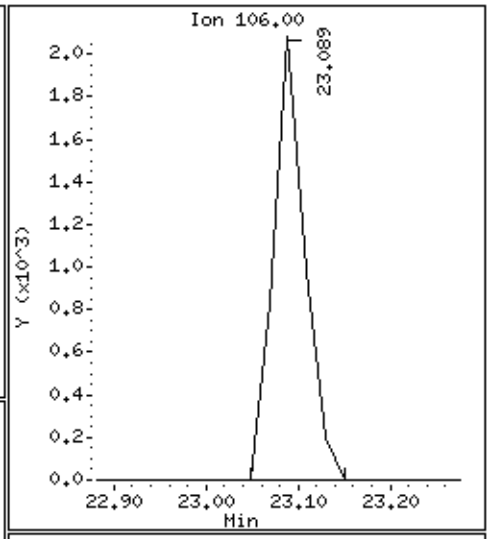
Concentration: 0.1220 PPBV

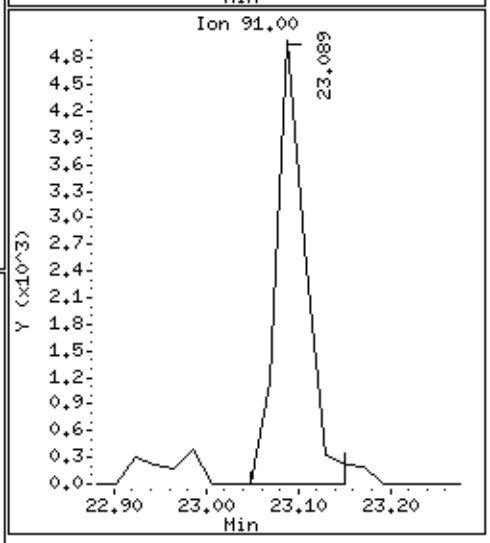












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

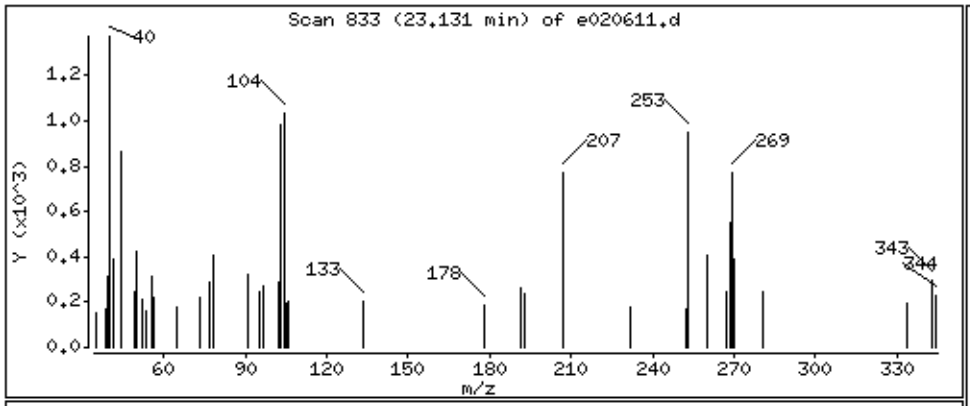
Operator: EA

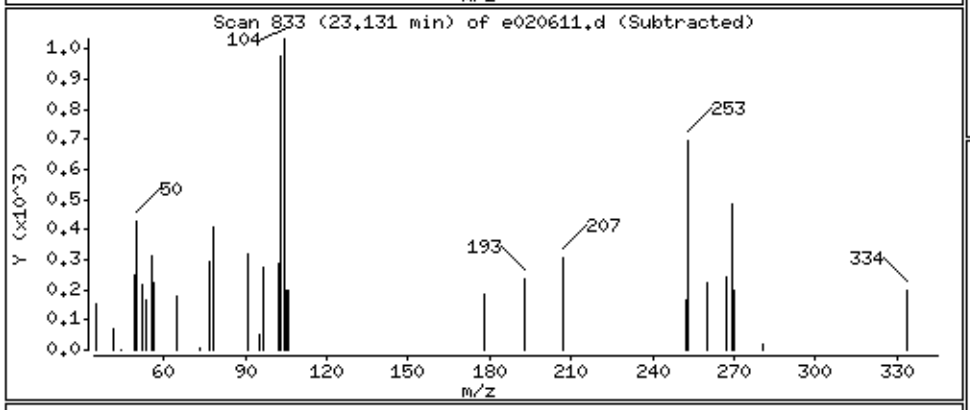
Column phase: RTX-624

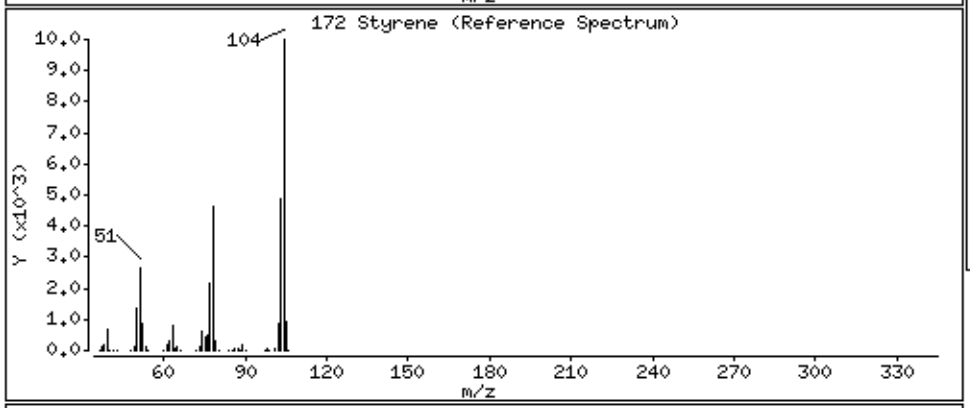
Column diameter: 0.32

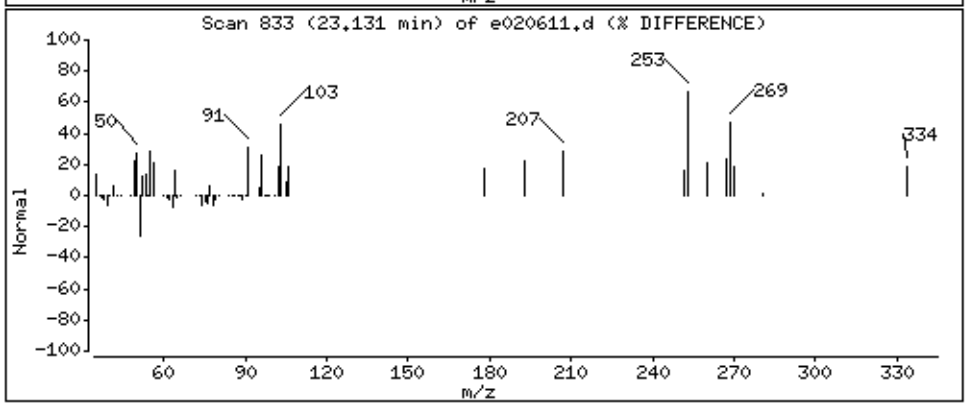
172 Styrene

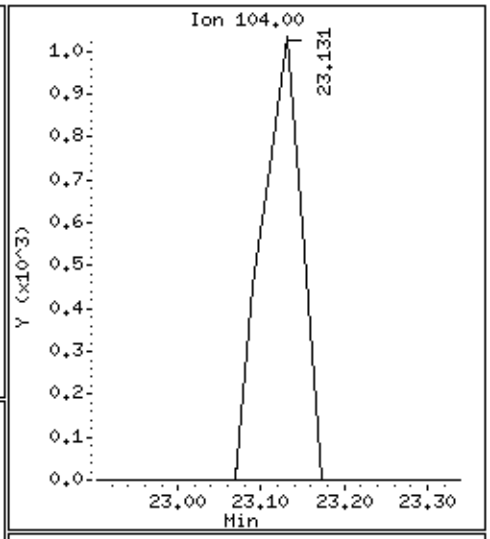
Concentration: 0.04905 PPBV

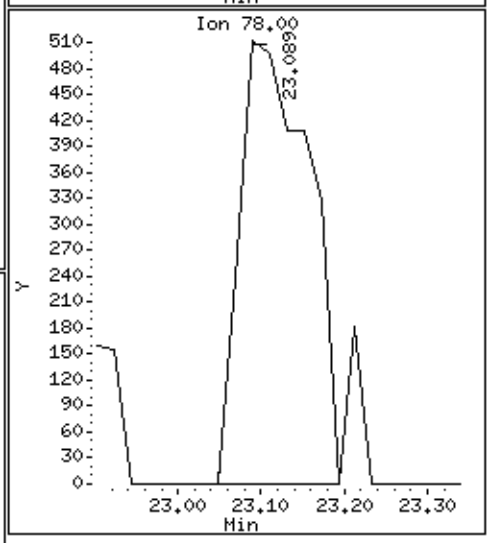












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

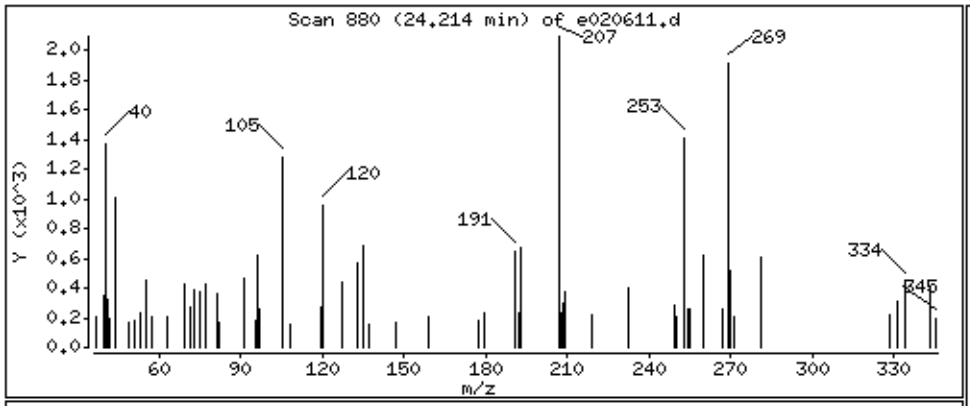
Operator: EA

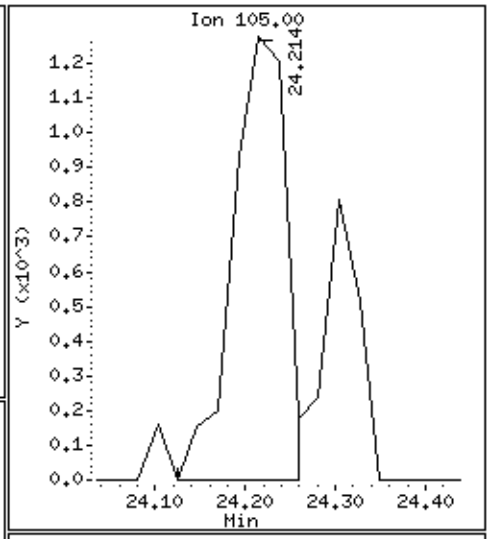
Column phase: RTX-624

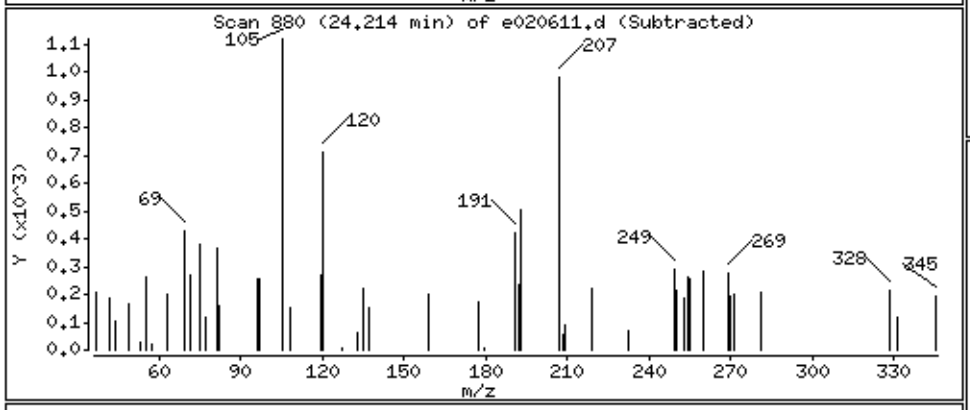
Column diameter: 0.32

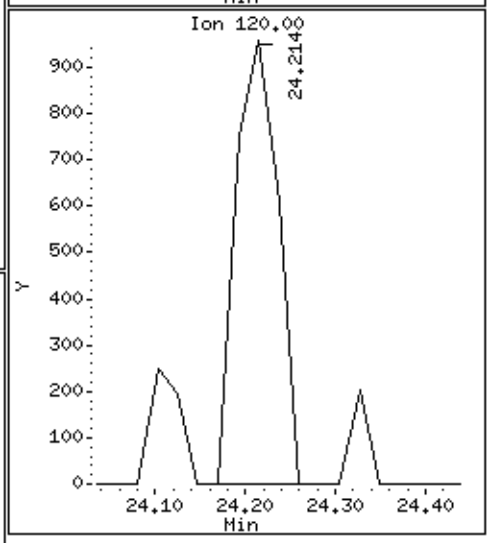
188 4-Ethyltoluene

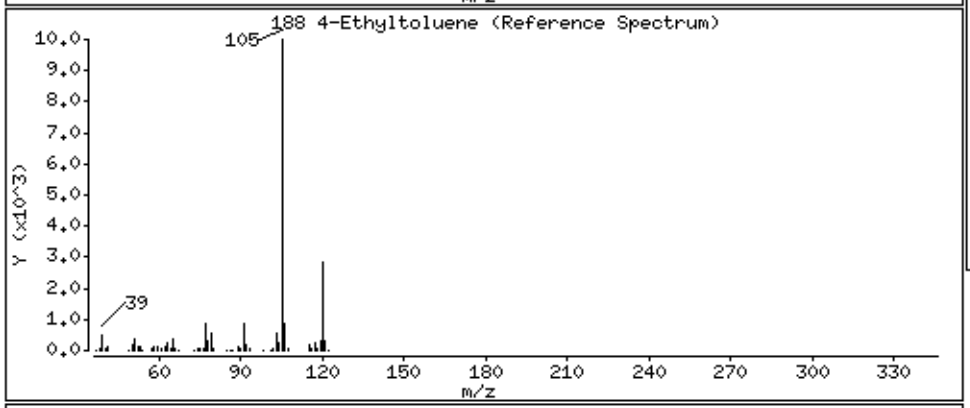
Concentration: 0.04897 PPBV

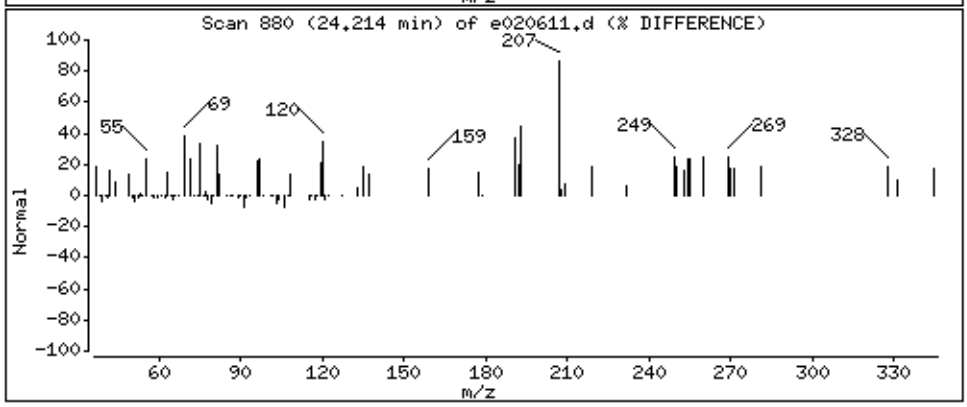












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

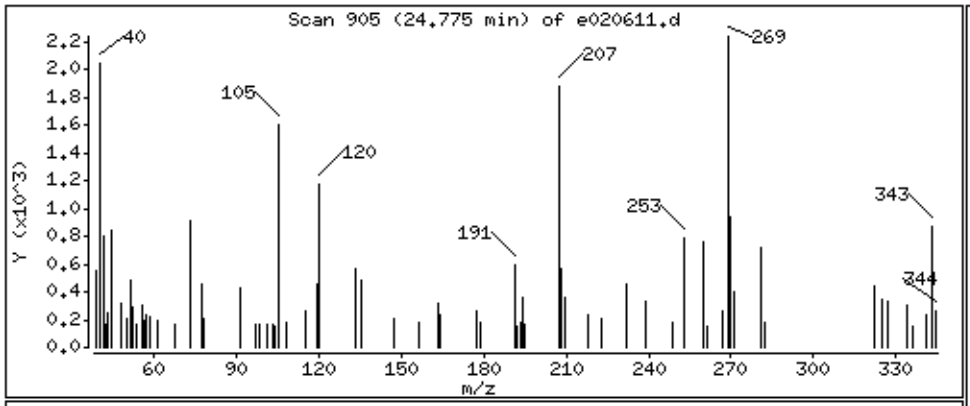
Operator: EA

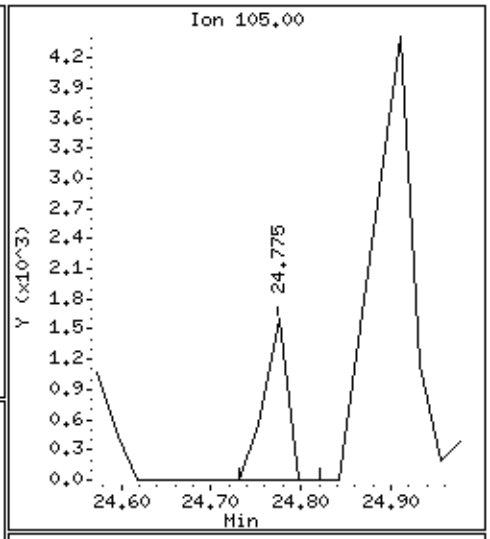
Column phase: RTX-624

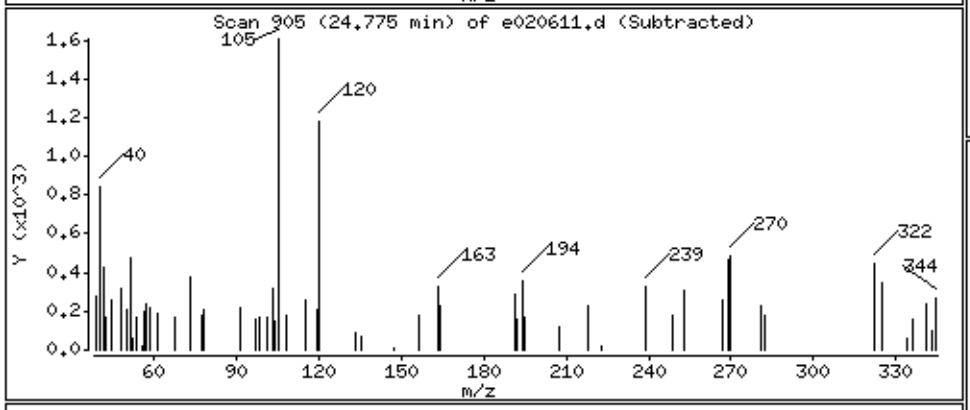
Column diameter: 0.32

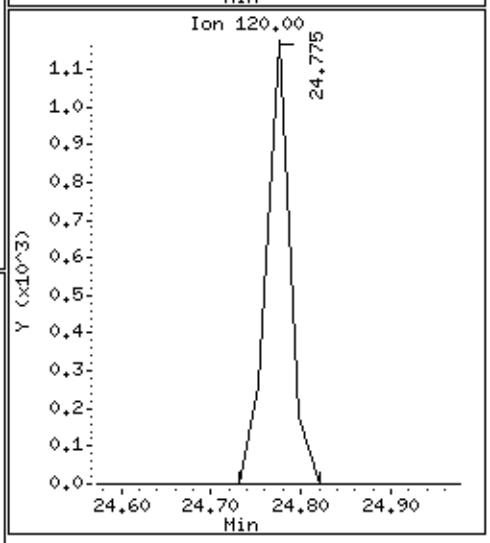
196 1,2,4-Trimethylbenzene

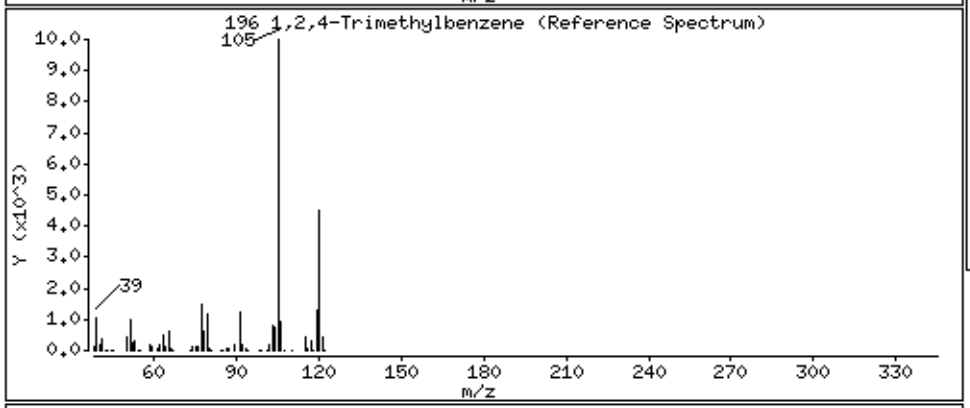
Concentration: 0.04332 PPBV

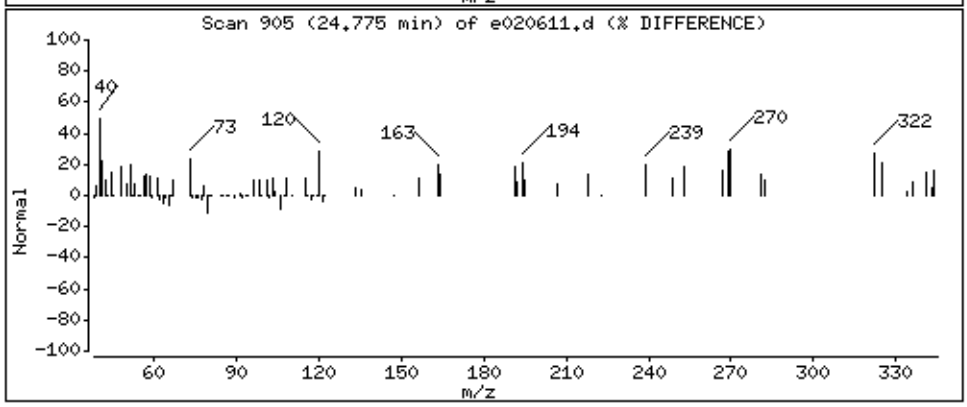












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

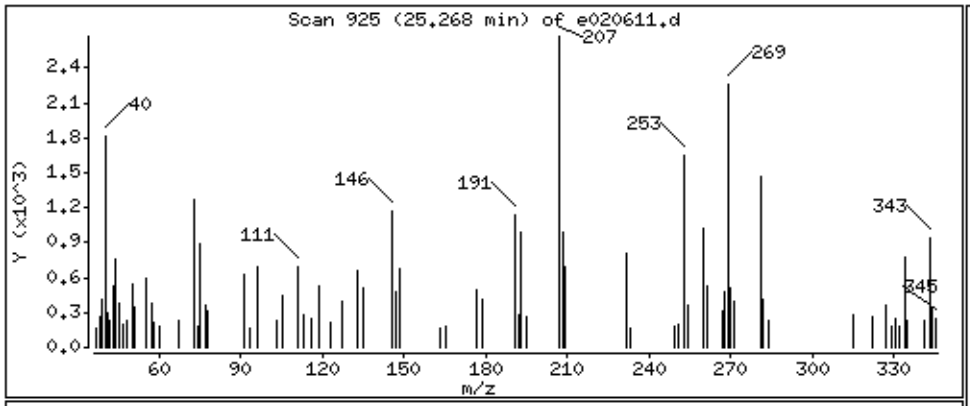
Operator: EA

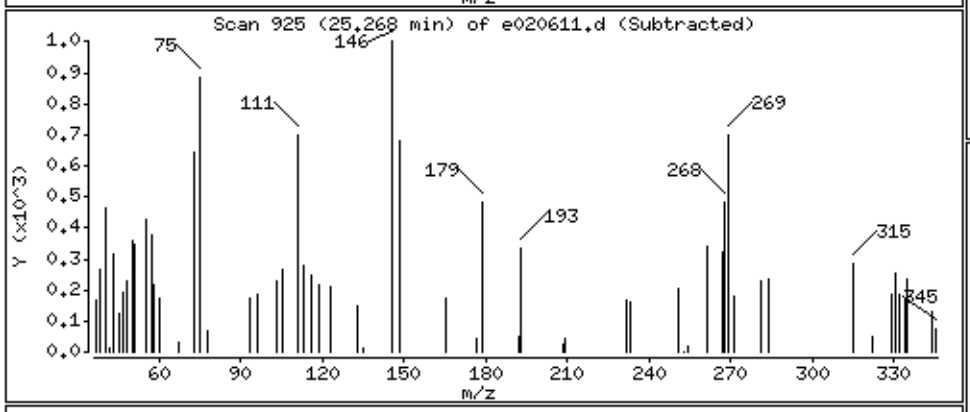
Column phase: RTX-624

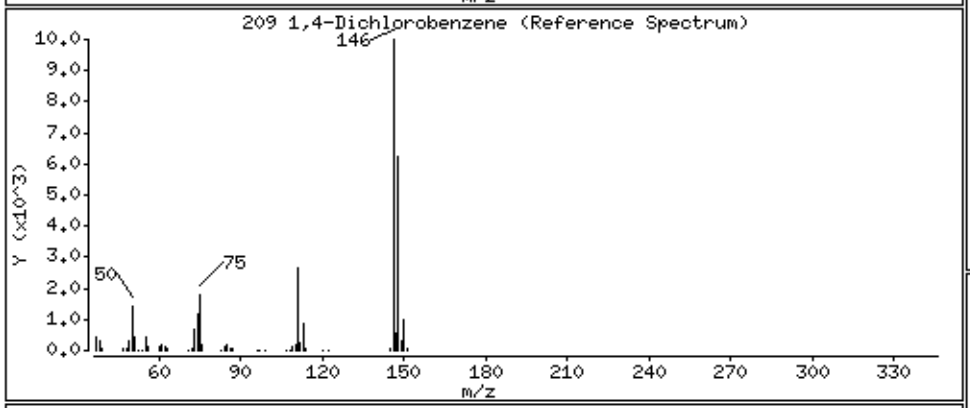
Column diameter: 0.32

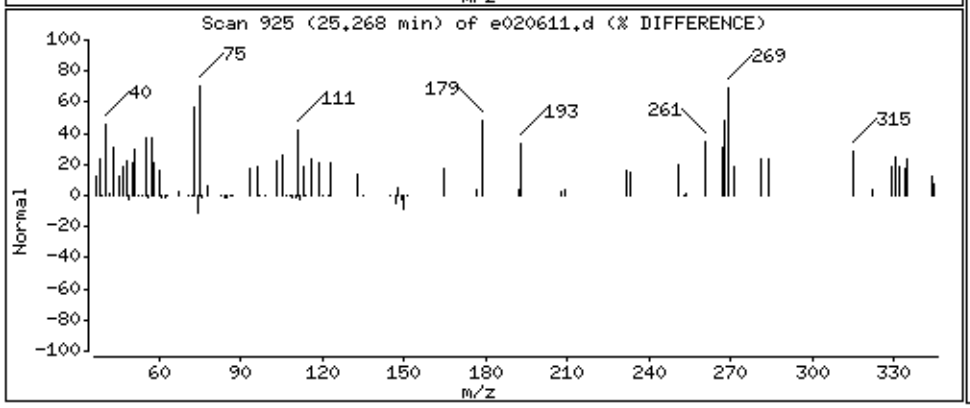
209 1,4-Dichlorobenzene

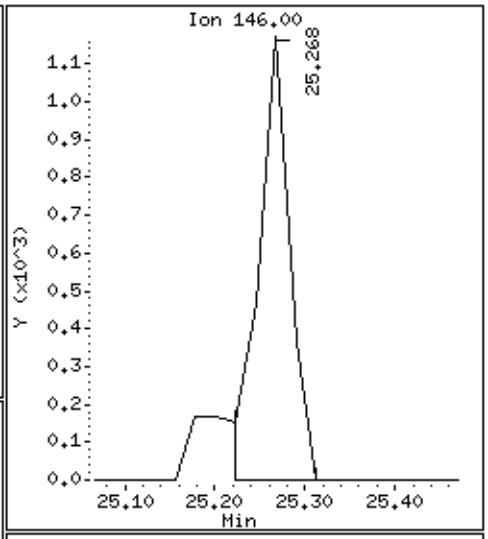
Concentration: 0.03901 PPBV

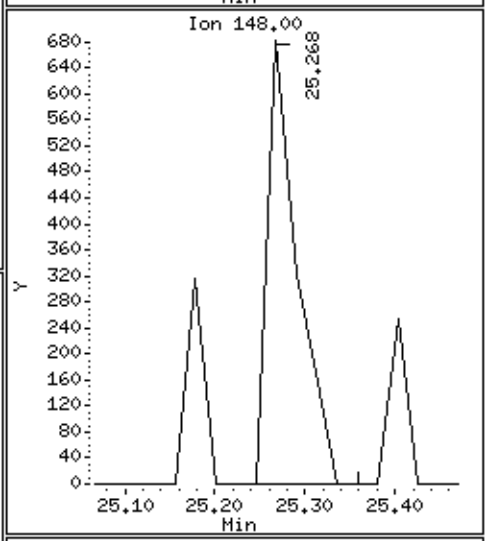


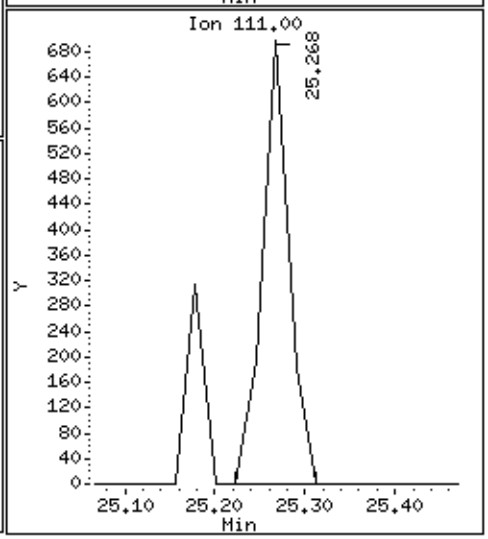












Data File: /chem/msde.i/06Feb2017.b/e020611.d

Date : 06-FEB-2017 15:43

Client ID:

Instrument: msde.i

Sample Info: 250mL#34320

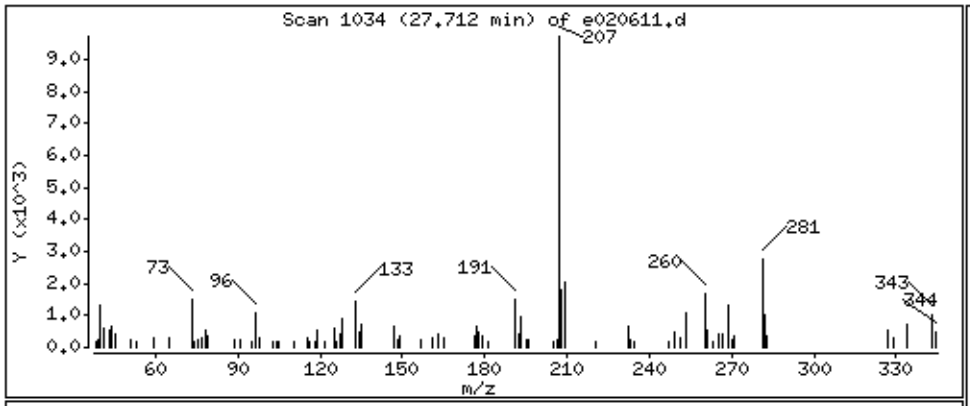
Operator: EA

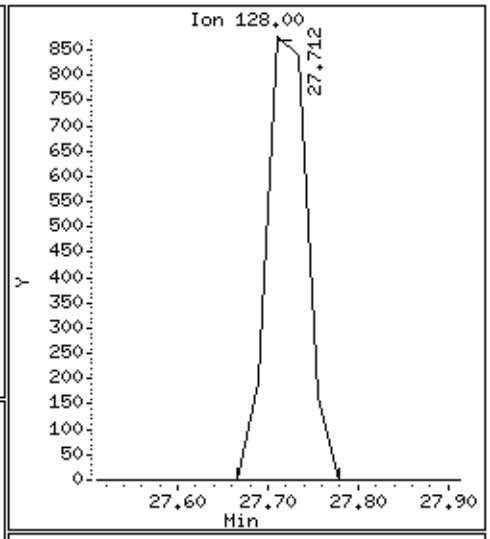
Column phase: RTX-624

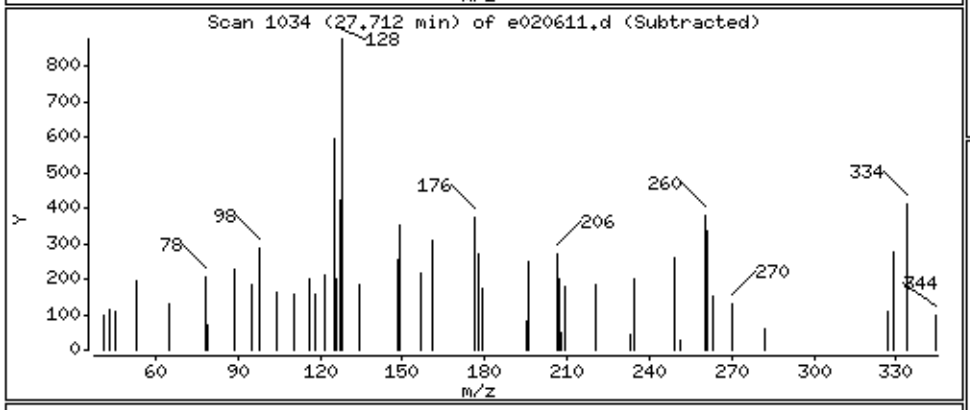
Column diameter: 0.32

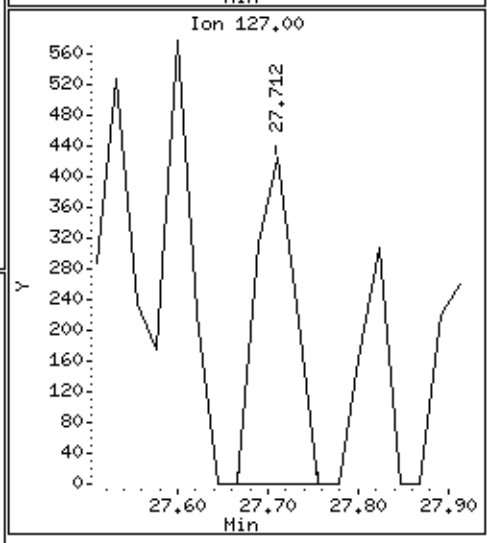
228 Naphthalene

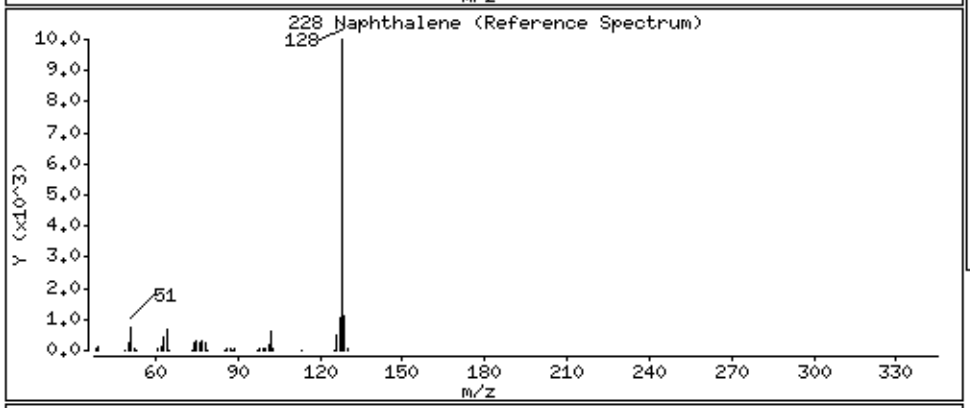
Concentration: 0.03991 PPBV

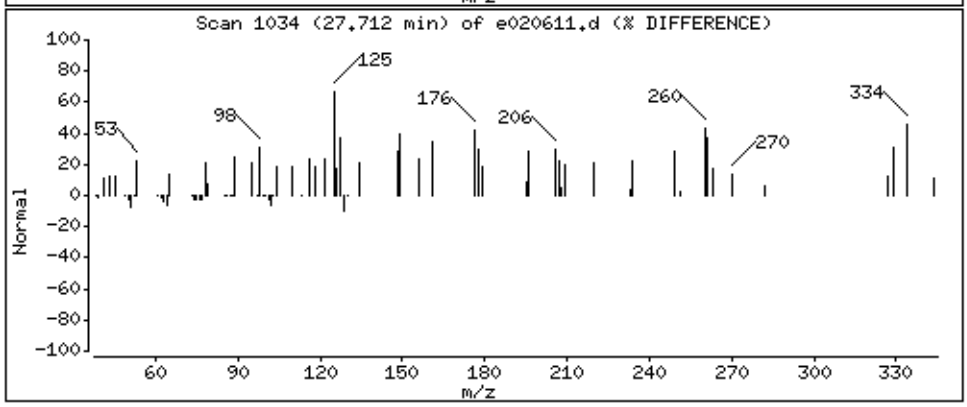












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B18IA-4-012117

Lab ID#: 1701428A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.40	0.70	2.0
Chloromethane	0.70	1.0	1.4	2.1
Vinyl Chloride	0.14	0.11 J	0.36	0.28 J
Freon 11	0.14	1.9	0.79	11
Ethanol	0.70	75 E	1.3	140 E
Freon 113	0.14	0.052 J	1.1	0.40 J
Acetone	0.70	25	1.7	59
2-Propanol	0.70	7.4	1.7	18
Carbon Disulfide	0.70	0.48 J	2.2	1.5 J
Methylene Chloride	0.28	0.15 J	0.98	0.51 J
Hexane	0.14	0.30	0.50	1.1
2-Butanone (Methyl Ethyl Ketone)	0.70	2.7	2.1	8.1
Chloroform	0.14	0.073 J	0.69	0.36 J
Cyclohexane	0.14	0.17	0.48	0.58
Carbon Tetrachloride	0.14	0.091 J	0.89	0.58 J
2,2,4-Trimethylpentane	0.70	0.11 J	3.3	0.51 J
Benzene	0.14	0.18	0.45	0.56
1,2-Dichloroethane	0.14	0.67	0.57	2.7
Heptane	0.14	0.19	0.58	0.77
Trichloroethene	0.14	0.45	0.76	2.4
1,4-Dioxane	0.14	0.060 J	0.51	0.22 J
4-Methyl-2-pentanone	0.14	0.26	0.58	1.0
Toluene	0.14	5.3	0.53	20
2-Hexanone	0.70	0.28 J	2.9	1.1 J
Ethyl Benzene	0.14	0.30	0.61	1.3
m,p-Xylene	0.14	1.1	0.61	4.8
o-Xylene	0.14	0.53	0.61	2.3
Styrene	0.14	0.14	0.60	0.61
Propylbenzene	0.14	0.042 J	0.69	0.20 J
4-Ethyltoluene	0.14	0.11 J	0.69	0.52 J
1,3,5-Trimethylbenzene	0.14	0.042 J	0.69	0.21 J
1,2,4-Trimethylbenzene	0.14	0.11 J	0.69	0.53 J
1,4-Dichlorobenzene	0.14	0.038 J	0.85	0.23 J

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

Client Sample ID: B18IA-4-012117

Lab ID#: 1701428A-12A

Naphthalene	0.70	0.030 J	3.7	0.16 J

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Client Sample ID: B18IA-4-012117

Lab ID#: 1701428A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020612**	**Date of Collection:**	**1/21/17 6:12:00 PM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**2/6/17 04:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.40	0.70	2.0
Freon 114	0.14	Not Detected	0.98	Not Detected
Chloromethane	0.70	1.0	1.4	2.1
Vinyl Chloride	0.14	0.11 J	0.36	0.28 J
1,3-Butadiene	0.14	Not Detected	0.31	Not Detected
Bromomethane	0.70	Not Detected	2.7	Not Detected
Chloroethane	0.70	Not Detected	1.9	Not Detected
Freon 11	0.14	1.9	0.79	11
Ethanol	0.70	75 E	1.3	140 E
Freon 113	0.14	0.052 J	1.1	0.40 J
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	25	1.7	59
2-Propanol	0.70	7.4	1.7	18
Carbon Disulfide	0.70	0.48 J	2.2	1.5 J
3-Chloropropene	0.70	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	0.15 J	0.98	0.51 J
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Hexane	0.14	0.30	0.50	1.1
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.70	2.7	2.1	8.1
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Tetrahydrofuran	0.70	Not Detected	2.1	Not Detected
Chloroform	0.14	0.073 J	0.69	0.36 J
1,1,1-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Cyclohexane	0.14	0.17	0.48	0.58
Carbon Tetrachloride	0.14	0.091 J	0.89	0.58 J
2,2,4-Trimethylpentane	0.70	0.11 J	3.3	0.51 J
Benzene	0.14	0.18	0.45	0.56
1,2-Dichloroethane	0.14	0.67	0.57	2.7
Heptane	0.14	0.19	0.58	0.77
Trichloroethene	0.14	0.45	0.76	2.4
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
1,4-Dioxane	0.14	0.060 J	0.51	0.22 J
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	0.26	0.58	1.0
Toluene	0.14	5.3	0.53	20
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	Not Detected	0.96	Not Detected
2-Hexanone	0.70	0.28 J	2.9	1.1 J

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Client Sample ID: B18IA-4-012117

Lab ID#: 1701428A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020612**	**Date of Collection:**	**1/21/17 6:12:00 PM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**2/6/17 04:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	0.30	0.61	1.3
m,p-Xylene	0.14	1.1	0.61	4.8
o-Xylene	0.14	0.53	0.61	2.3
Styrene	0.14	0.14	0.60	0.61
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.69	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
Propylbenzene	0.14	0.042 J	0.69	0.20 J
4-Ethyltoluene	0.14	0.11 J	0.69	0.52 J
1,3,5-Trimethylbenzene	0.14	0.042 J	0.69	0.21 J
1,2,4-Trimethylbenzene	0.14	0.11 J	0.69	0.53 J
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,4-Dichlorobenzene	0.14	0.038 J	0.85	0.23 J
alpha-Chlorotoluene	0.14	Not Detected	0.73	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected
Hexachlorobutadiene	0.70	Not Detected	7.5	Not Detected
Naphthalene	0.70	0.030 J	3.7	0.16 J

J = Estimated value.
E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020612.d
Lab Smp Id: 1701428A-12A
Inj Date : 06-FEB-2017 16:28
Operator : EA Inst ID: msde.i
Smp Info : 250mL#N1591
Misc Info : 1.5"Hg-5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 07-Feb-2017 06:37 atoyama Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1
Dil Factor: 1.41000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	36309	0.28068	0.3958	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	10862			1.91- 61.91	29.92
17 Chloromethane					CAS #: 74-87-3		
6.956	6.932 (0.452)	50	17131	0.71007	1.001	80.00- 120.00	100.00
6.956	6.932 (0.452)	52	5079			3.31- 63.31	29.65
25 Vinyl Chloride					CAS #: 75-01-4		
7.797	7.779 (0.507)	62	2618	0.07722	0.1089	80.00- 120.00	100.00(a)
7.814	7.779 (0.508)	64	889			1.95- 61.95	33.98
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	203663	1.34957	1.903	80.00- 120.00	100.00
10.766	10.766 (0.700)	103	130455			33.74- 93.74	64.05
42 Ethanol					CAS #: 64-17-5		
11.681	11.661 (0.759)	45	698221	53.0816	74.845	80.00- 120.00	100.00(A)
11.681	11.661 (0.759)	46	262492			9.60- 69.60	37.59
11.681	11.661 (0.759)	43	178291			0.00- 59.21	25.54

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
49 Freon 113					CAS #: 76-13-1		
12.100	12.081 (0.786)	151	3707	0.03679	0.05187	80.00- 120.00	100.00(a)
12.100	12.081 (0.786)	153	3351			34.83- 94.83	90.38
12.100	12.081 (0.786)	101	5196			77.16- 137.16	140.14
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	290001	17.5351	24.724	80.00- 120.00	100.00
12.366	12.366 (0.803)	43	1085291			344.13- 404.13	374.24
56 Carbon Disulfide					CAS #: 75-15-0		
12.462	12.462 (0.810)	76	39142	0.34214	0.4824	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
12.728	12.728 (0.827)	45	281126	5.28003	7.445	80.00- 120.00	100.00
12.728	12.728 (0.827)	43	80171			0.00- 55.65	28.52
12.728	12.728 (0.827)	59	13479			0.00- 34.42	4.79
66 Methylene Chloride					CAS #: 75-09-2		
13.176	13.176 (0.856)	84	4218	0.10422	0.1469	80.00- 120.00	100.00(a)
13.176	13.176 (0.856)	49	4617			83.76- 143.76	109.44
13.176	13.176 (0.856)	51	2592			2.61- 62.61	61.46
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	10365	0.21504	0.3032	80.00- 120.00	100.00
13.890	13.835 (0.902)	43	16971			27.83- 87.83	163.73
13.835	13.835 (0.899)	86	2508			0.00- 50.45	24.20
92 2-Butanone					CAS #: 78-93-3		
15.066	15.047 (0.979)	72	34774	1.93902	2.734	80.00- 120.00	100.00
15.066	15.047 (0.979)	43	241675			325.72- 385.72	694.98
15.047	15.047 (0.978)	57	11250			1.13- 61.13	32.35
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	145702	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	111873			46.73- 106.73	76.78
15.391	15.391 (1.000)	49	129296			55.35- 115.35	88.74
100 Chloroform					CAS #: 67-66-3		
15.484	15.453 (1.006)	83	5464	0.05175	0.07296	80.00- 120.00	100.00(a)
15.453	15.453 (1.004)	85	7920			36.62- 96.62	144.95
102 Cyclohexane					CAS #: 110-82-7		
15.700	15.699 (1.020)	84	6084	0.12018	0.1694	80.00- 120.00	100.00
15.669	15.699 (1.018)	56	8304			68.83- 128.83	136.47
15.669	15.699 (1.018)	41	9548			29.98- 89.98	156.92

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.884  15.884 (1.032)   119      7844 0.06487  0.09146  80.00- 120.00   100.00(a)
 15.884  15.884 (1.032)   117      7462                   74.11- 134.11    95.13
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.135  16.111 (1.048)    56      5234 0.07719   0.1088  80.00- 120.00   100.00(a)
 16.111  16.111 (1.047)    57      7300                  277.67- 337.67   139.47
 16.111  16.111 (1.047)    41      4491                   73.43- 133.43    85.81
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78     15844 0.12537   0.1768  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77      3705                    0.00-  53.00    23.39
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    232407 5.55450    5.554  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    111141                   22.67-  82.67    47.82
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.328  16.303 (0.976)    62     37136 0.47697   0.6725  80.00- 120.00   100.00
 16.328  16.303 (0.976)    64     11848                    1.95-  61.95    31.91
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.376  16.352 (0.978)    57      4280 0.13375   0.1886  80.00- 120.00   100.00
 16.328  16.352 (0.976)   100      3772                   23.08-  83.08    88.15
 16.400  16.352 (0.980)    43     11208                  136.91- 196.91   261.88
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    511863 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     77817                    0.00-  45.16    15.20
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130     22311 0.31641   0.4461  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95     19637                   61.87- 121.87    88.02
 17.147  17.147 (1.024)    97     13586                   29.29-  89.29    60.89
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 17.725  17.701 (1.059)    88      1295 0.04239  0.05977  80.00- 120.00   100.00(a)
 17.701  17.701 (1.058)    58      1814                   30.17-  90.17   140.07
 17.701  17.701 (1.058)    57       708                    0.00-  51.30    54.69
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.007  19.006 (1.136)    43     13734 0.18269   0.2576  80.00- 120.00   100.00
 19.029  19.006 (1.137)    58      4334                   10.02-  70.02    31.56
 18.984  19.006 (1.134)    85      1617                    0.00-  52.01    11.78
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    481531 4.84978    4.850  80.00- 120.00   100.00
```

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

$ 146 Toluene-d8 (continued)
 19.298  19.298 (1.153)    70     63551                     0.00-  40.89    13.20
 19.298  19.298 (1.153)   100    320764                    40.09- 100.09    66.61
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.455  19.432 (1.162)    91    576112 3.76838    5.313  80.00- 120.00   100.00
 19.455  19.432 (1.162)    92    321528                    27.79-  87.79    55.81
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.822  20.795 (0.939)    58      7351 0.19807   0.2793  80.00- 120.00   100.00(a)
 20.795  20.795 (0.938)    43     13338                   162.96- 222.96   181.44
 20.822  20.795 (0.939)   100      2261                     0.00-  59.39    30.76
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    484310 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    237024                   17.27-  77.27    48.94
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.301 (1.006)   106     13723 0.21633   0.3050  80.00- 120.00   100.00
 22.302  22.301 (1.006)    91     48931                   278.11- 338.11   356.56
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.488  22.488 (1.014)   106     59432 0.79152    1.116  80.00- 120.00   100.00
 22.488  22.488 (1.014)    91    124598                   170.01- 230.01   209.65
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106     25967 0.37320   0.5262  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91     54859                   175.84- 235.84   211.26
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.131  23.110 (1.043)   104     11752 0.10125   0.1428  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78      8372                   20.21-  80.21    71.24
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    341424 5.04684    5.047  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    334626                   66.74- 126.74    98.01
 23.856  23.856 (1.076)   176    325457                   67.47- 127.47    95.32
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.102  24.102 (1.087)    91      6423 0.02956  0.04168  80.00- 120.00   100.00(a)
 24.102  24.102 (1.087)   120      1663                    0.00-  55.73    25.89
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.215  24.237 (1.092)   105     13651 0.07579   0.1069  80.00- 120.00   100.00(a)
 24.192  24.237 (1.091)   120      3931                    1.00-  61.00    28.80
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	4002	0.02997	0.04226	80.00- 120.00	100.00(a)
24.304	24.304 (1.096)	120	1480			19.17- 79.17	36.99
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	8540	0.07621	0.1074	80.00- 120.00	100.00(a)
24.775	24.775 (1.117)	120	3274			16.84- 76.84	38.34
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	3330	0.02690	0.03792	80.00- 120.00	100.00(a)
25.269	25.269 (1.139)	148	2815			35.10- 95.10	84.53
25.269	25.269 (1.139)	111	2134			4.80- 64.80	64.10
228 Naphthalene					CAS #: 91-20-3		
27.735	27.712 (1.251)	128	2478	0.02132	0.03006	80.00- 120.00	100.00(a)
27.757	27.712 (1.252)	127	2813			0.00- 42.30	113.51

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.

Report Date: 09-Feb-2017 13:09

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e020612.d
Lab Smp Id: 1701428A-12A
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 1.5"Hg-5.0psi

Calibration Date: 06-FEB-2017
Calibration Time: 07:43

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	145702	0.24
123 1,4-Difluorobenze	497113	298268	695958	511863	2.97
163 Chlorobenzene-d5	465931	279559	652303	484310	3.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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: 09-Feb-2017 13:09

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428A-12A
Level: LOW
Operator: EA
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 1.5"Hg-5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.554	111.09	70-130
$ 146 Toluene-d8	5.000	4.850	97.00	70-130
$ 177 4-Bromofluorobenze	5.000	5.047	100.94	70-130

Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

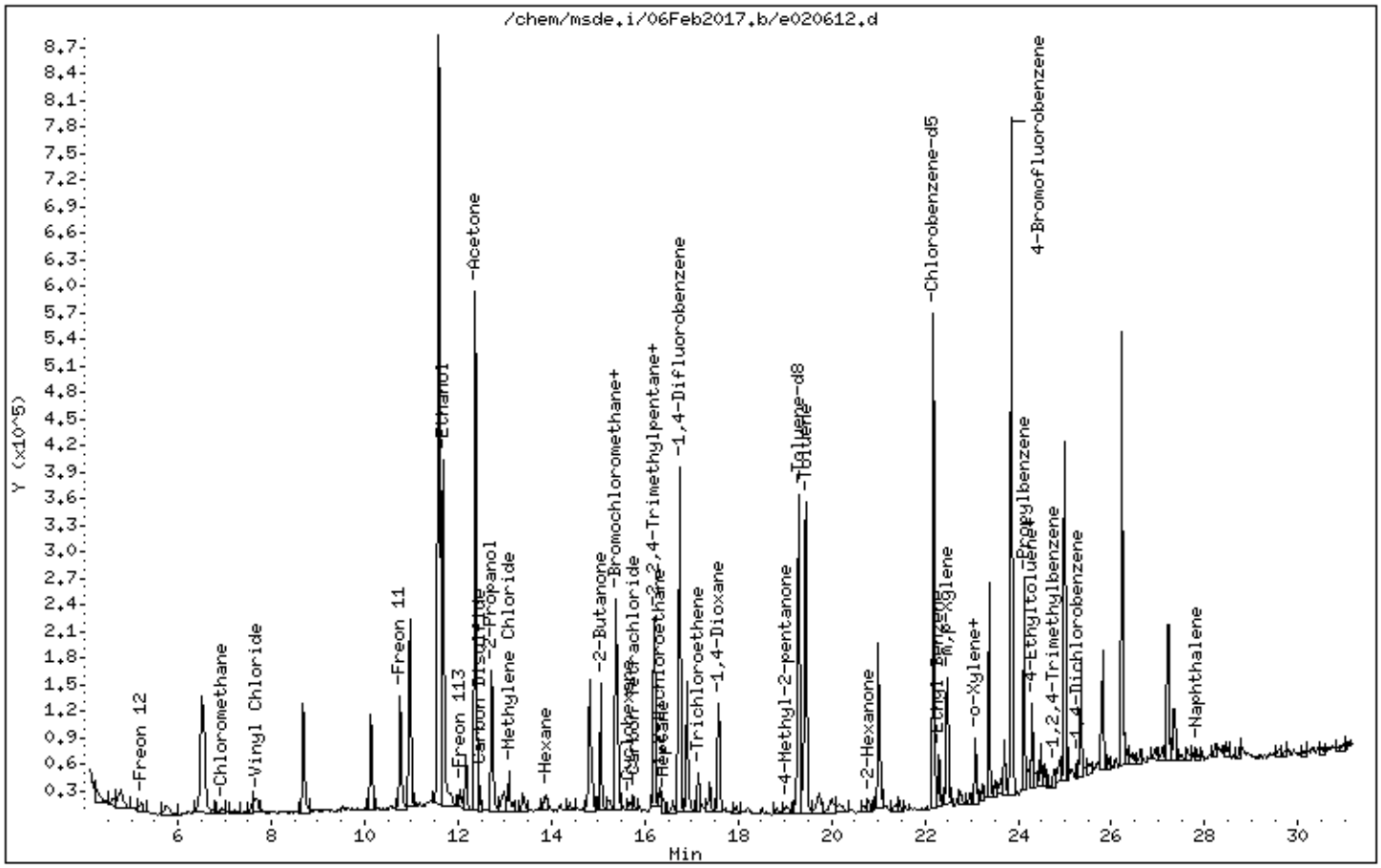
Instrument: msde.i

Sample Info: 250mL#N1591

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

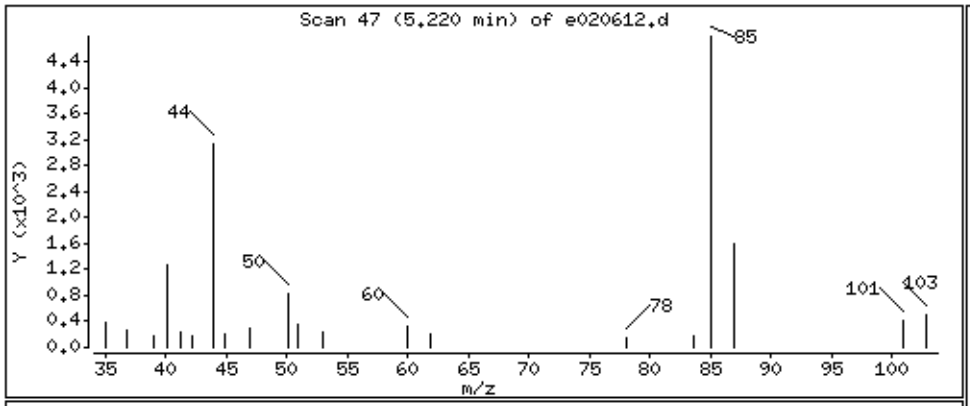
Operator: EA

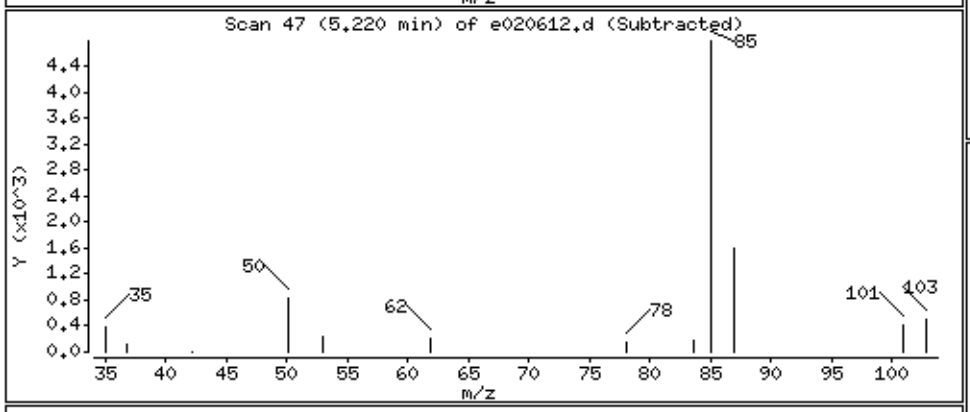
Column phase: RTX-624

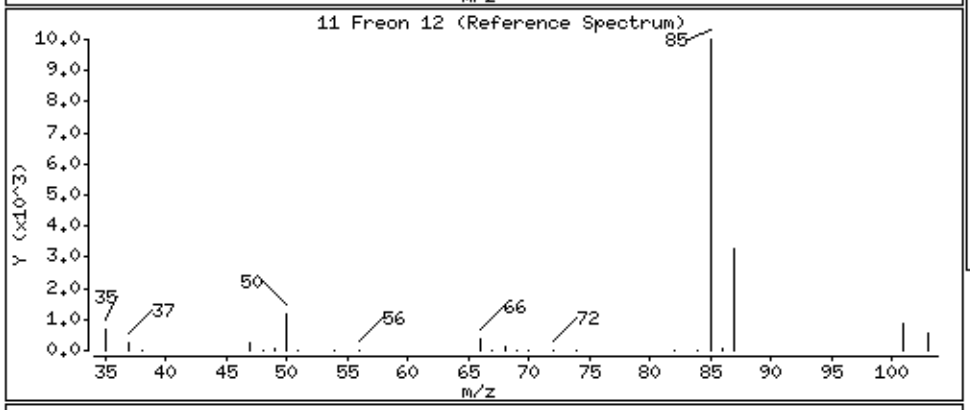
Column diameter: 0.32

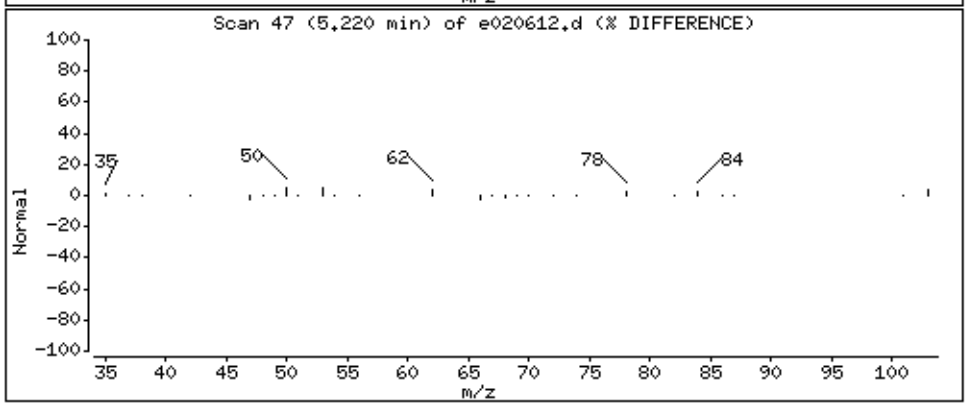
11 Freon 12

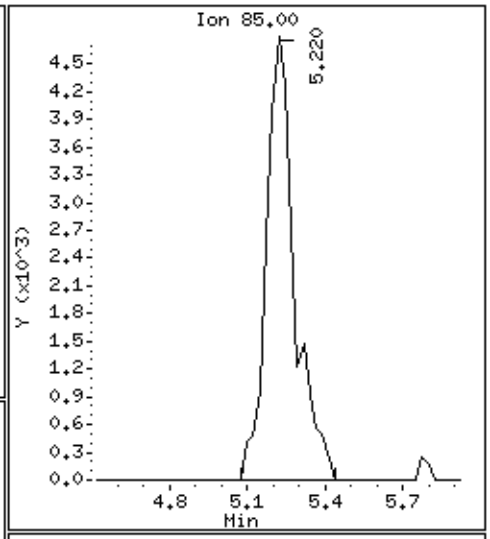
Concentration: 0.3958 PPBV

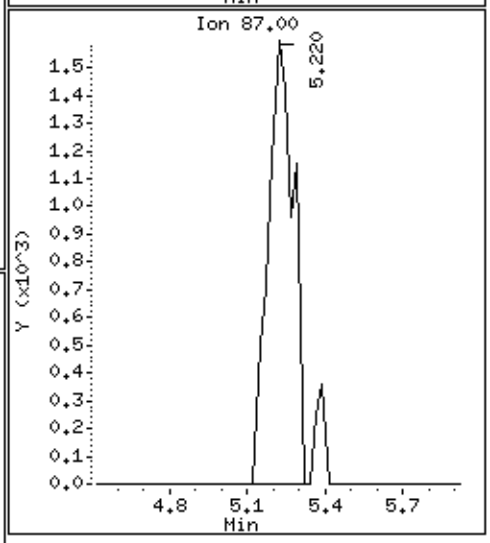












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

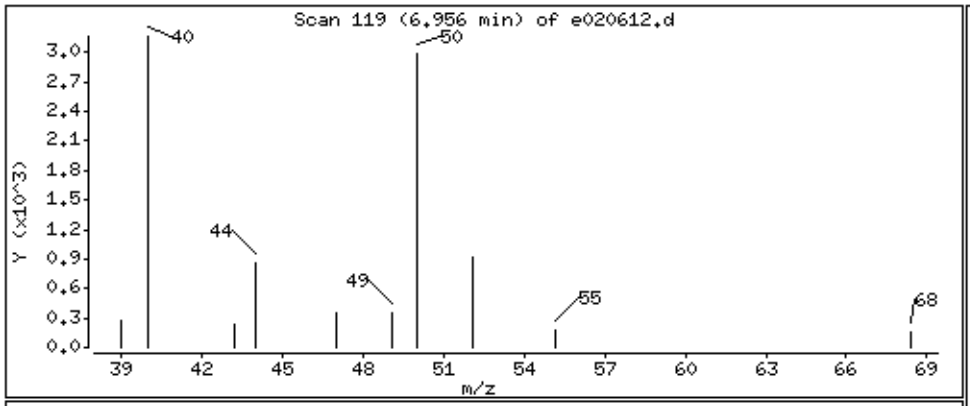
Operator: EA

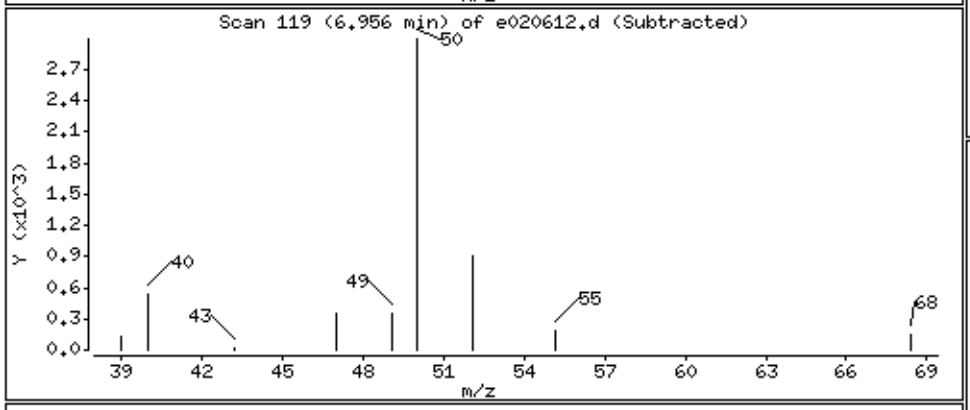
Column phase: RTX-624

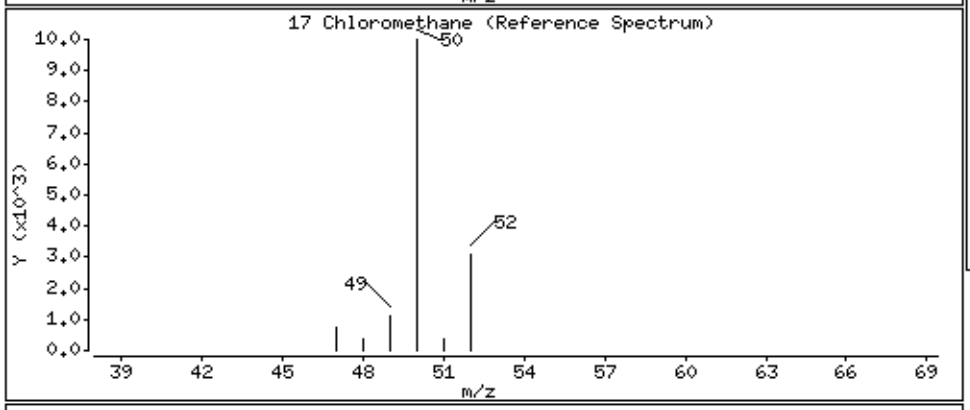
Column diameter: 0.32

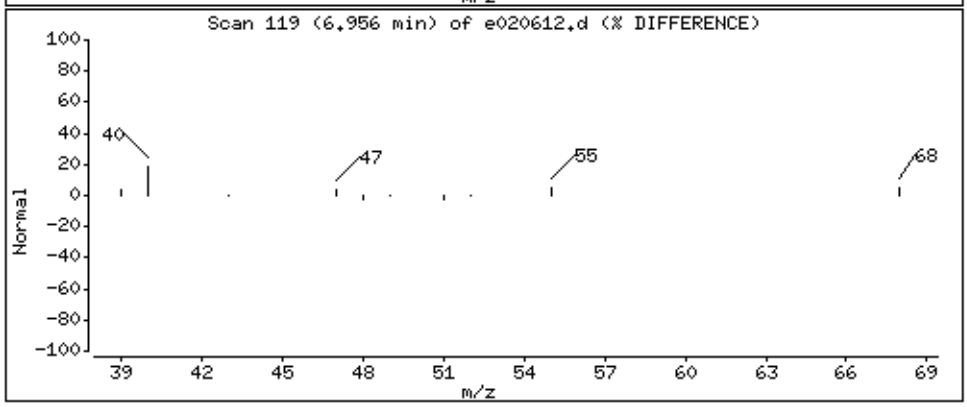
17 Chloromethane

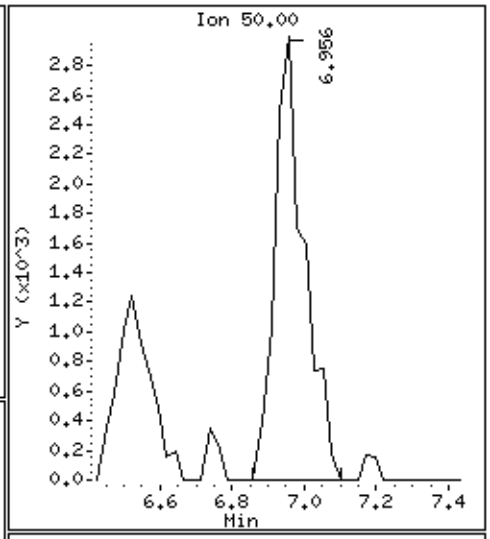
Concentration: 1.001 PPBV

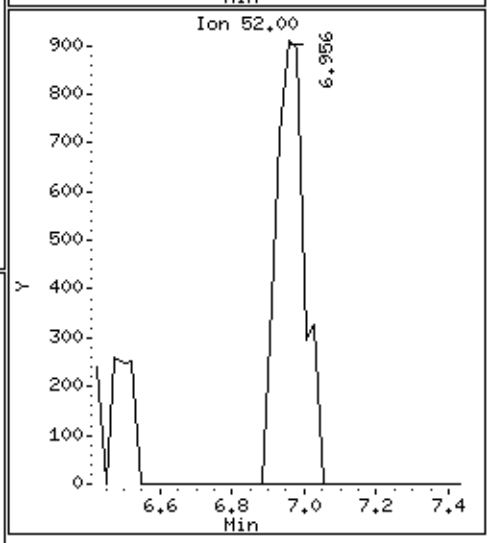












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

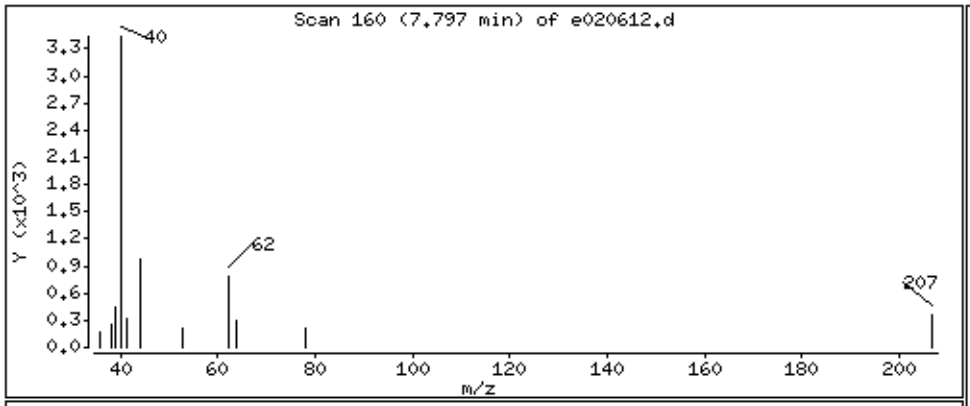
Operator: EA

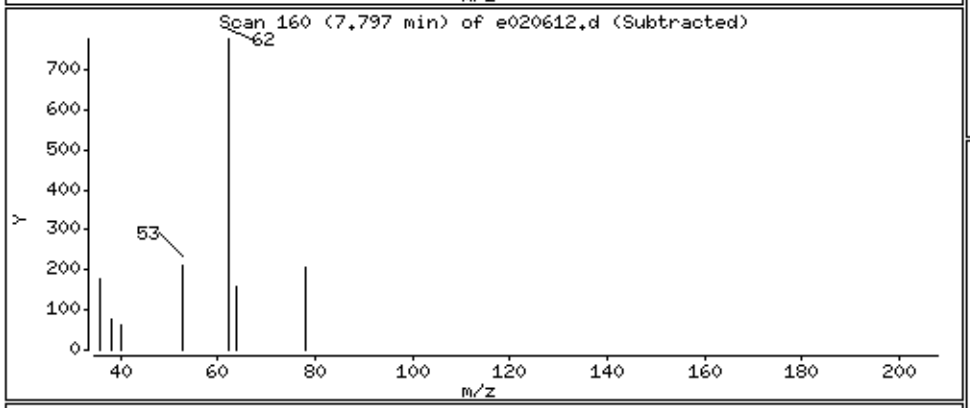
Column phase: RTX-624

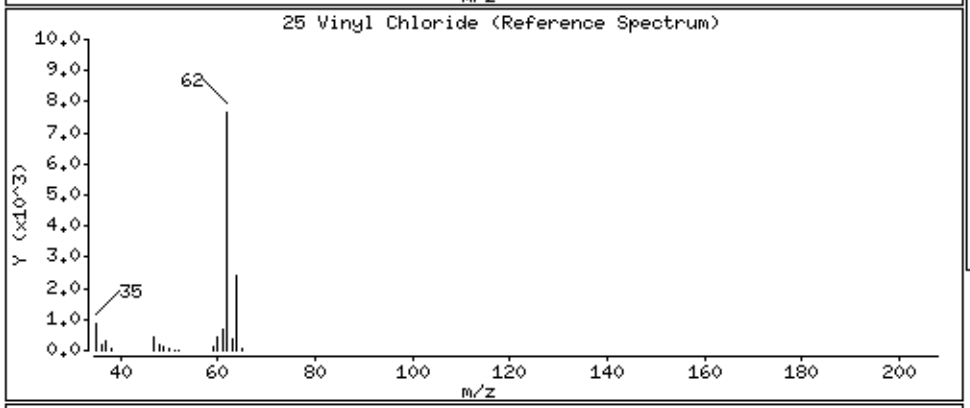
Column diameter: 0.32

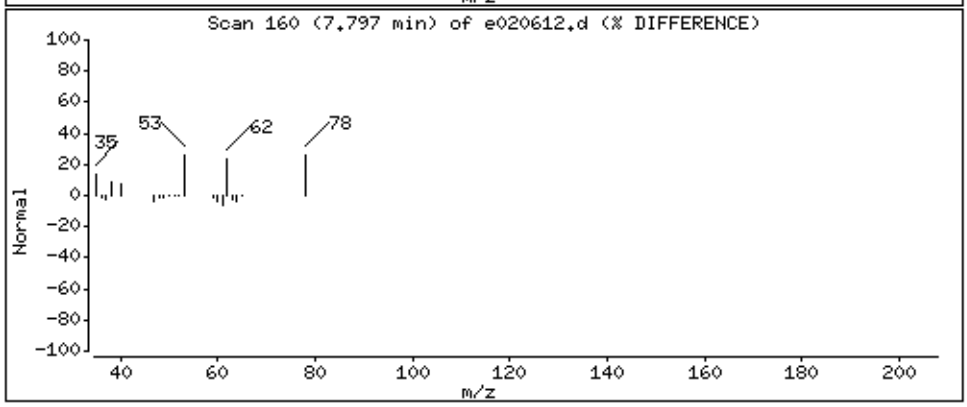
25 Vinyl Chloride

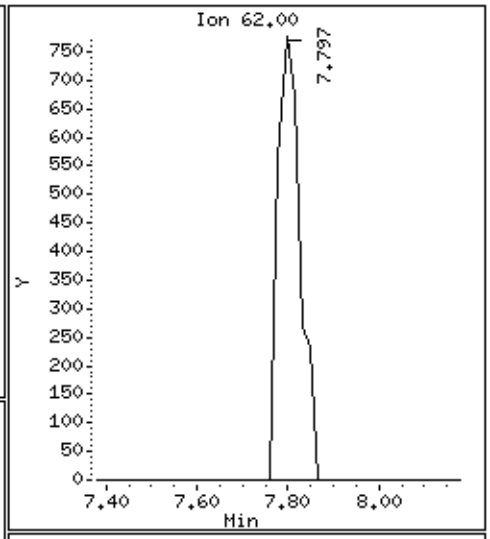
Concentration: 0.1089 PPBV

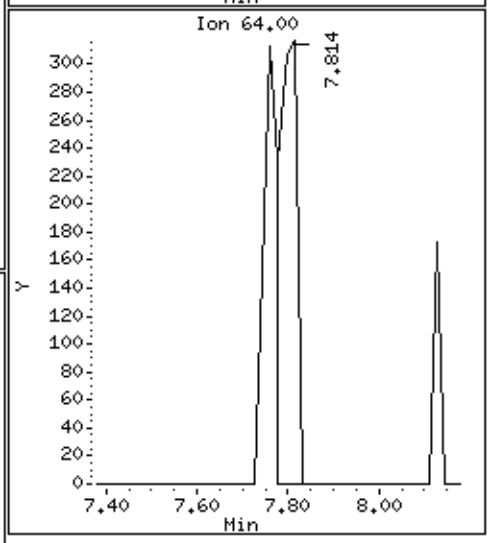












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

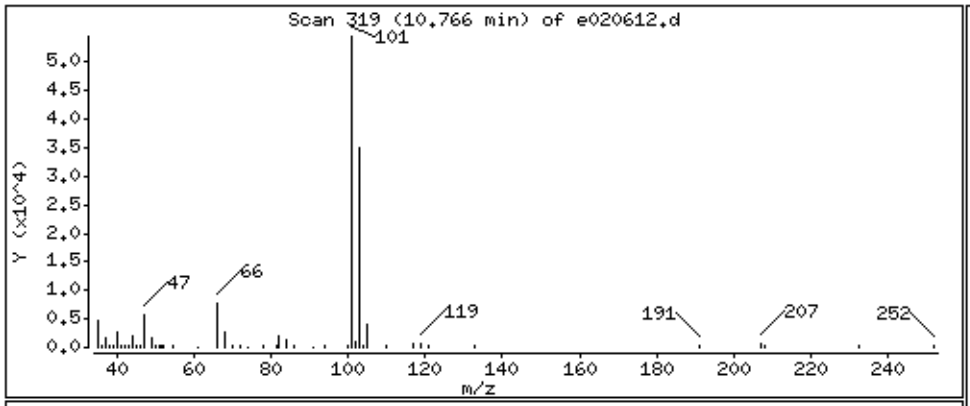
Operator: EA

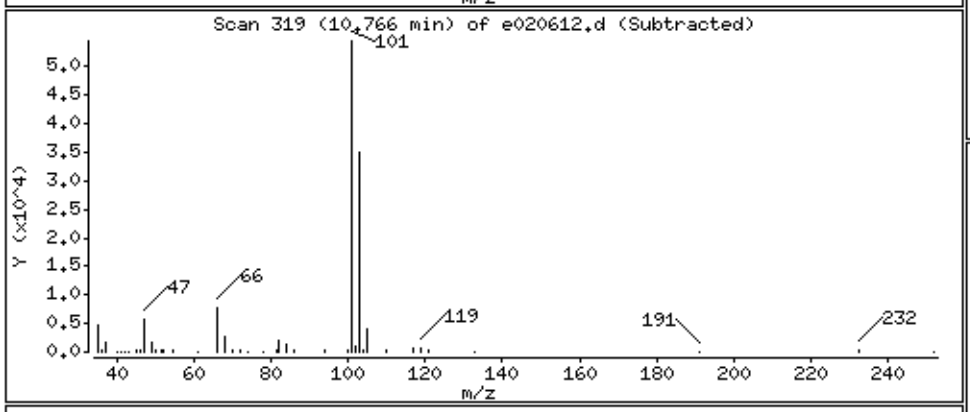
Column phase: RTX-624

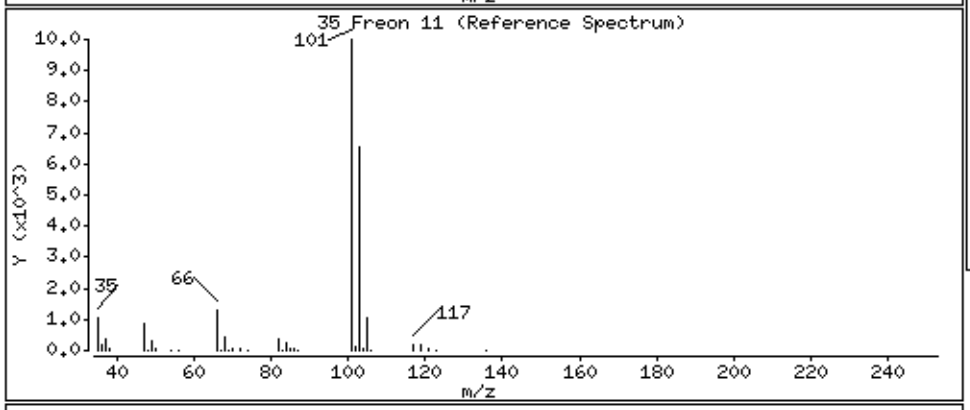
Column diameter: 0.32

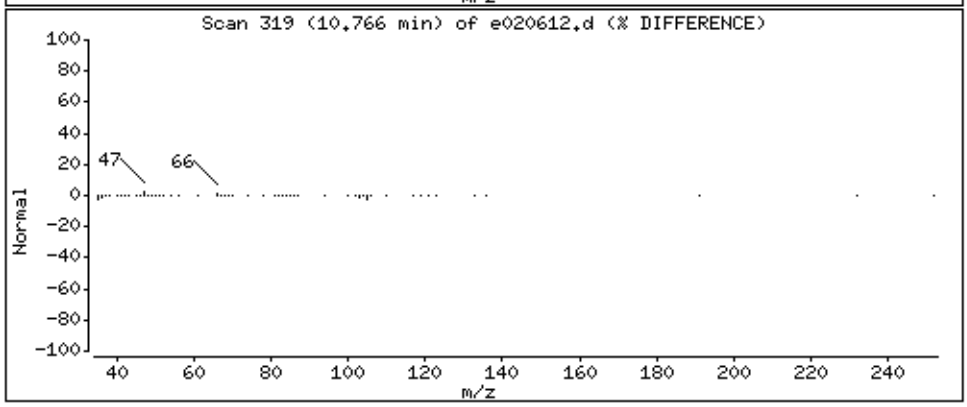
35 Freon 11

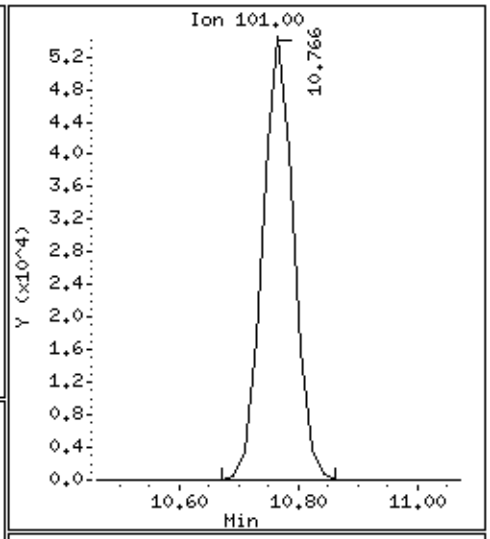
Concentration: 1.903 PPBV

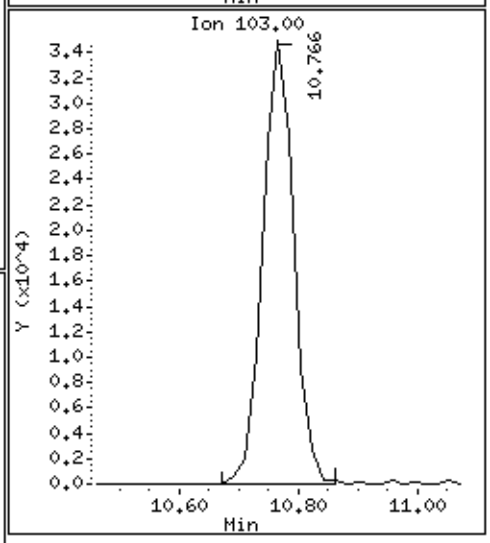












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

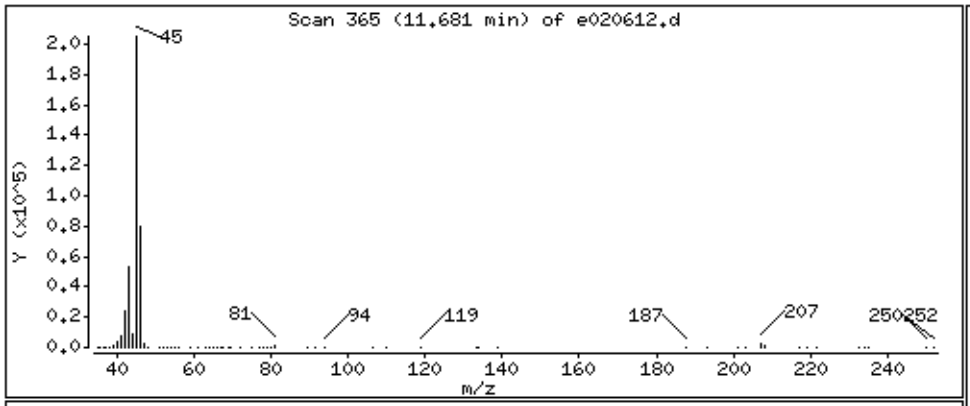
Operator: EA

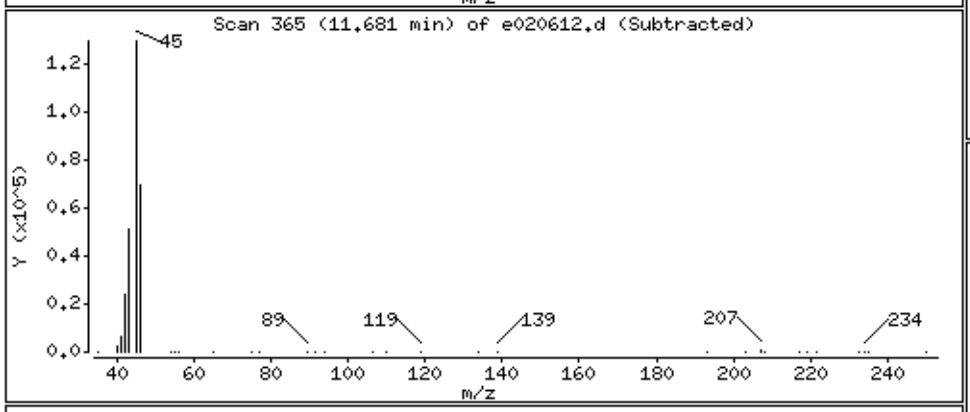
Column phase: RTX-624

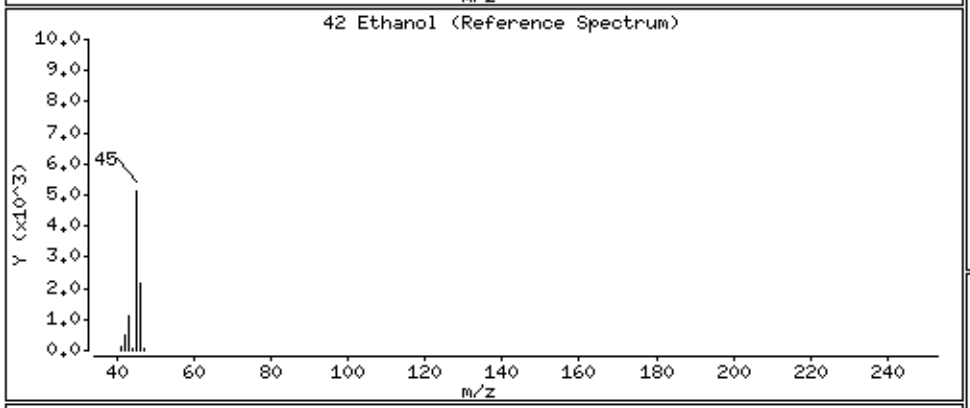
Column diameter: 0.32

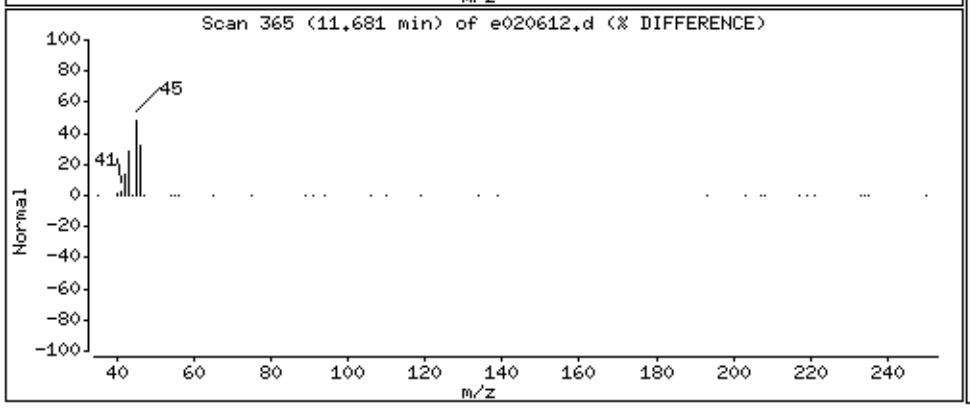
42 Ethanol

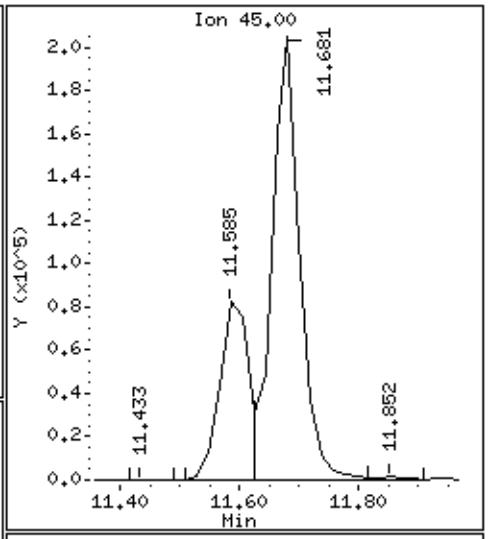
Concentration: 74.845 PPBV

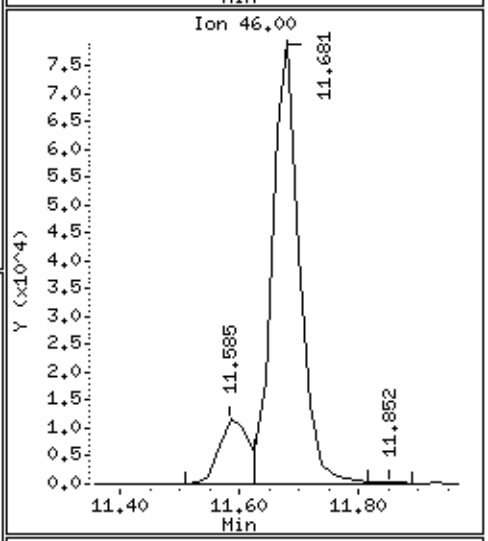


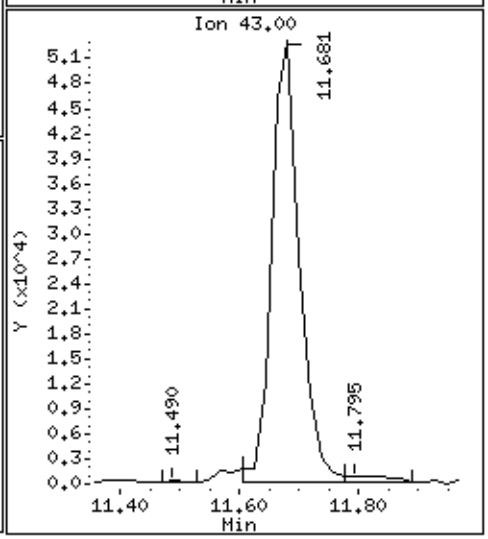












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

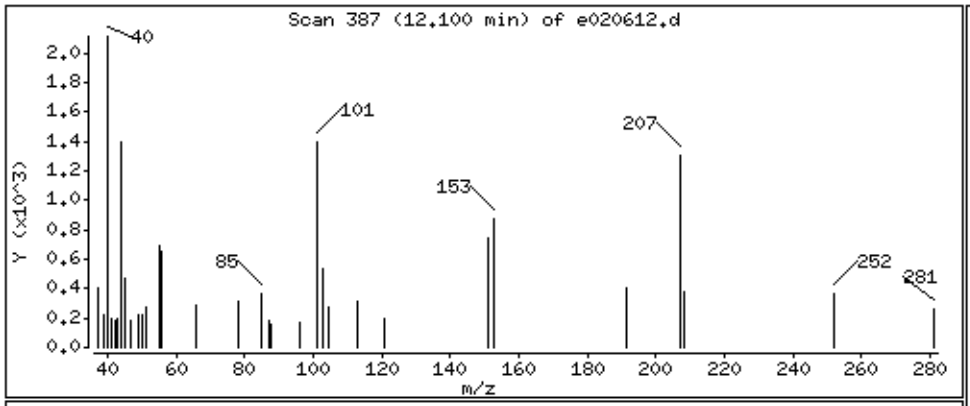
Operator: EA

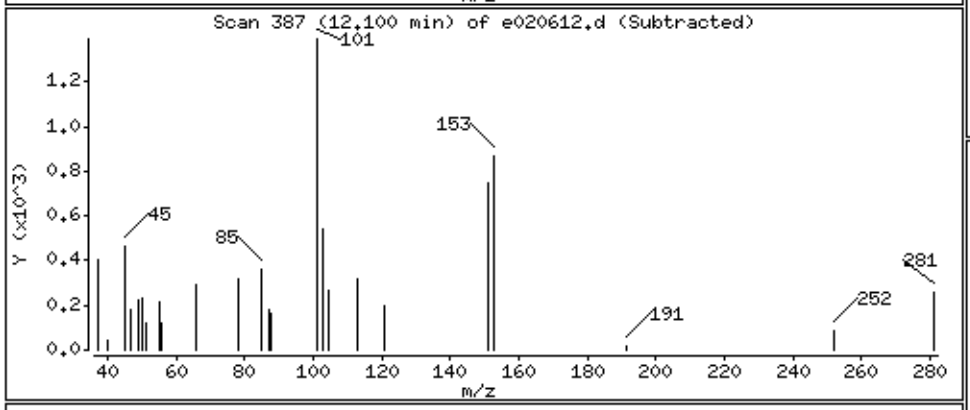
Column phase: RTX-624

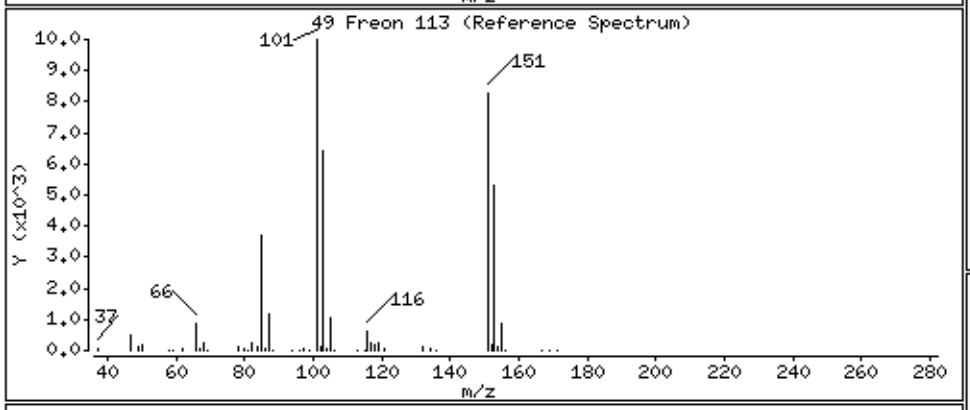
Column diameter: 0.32

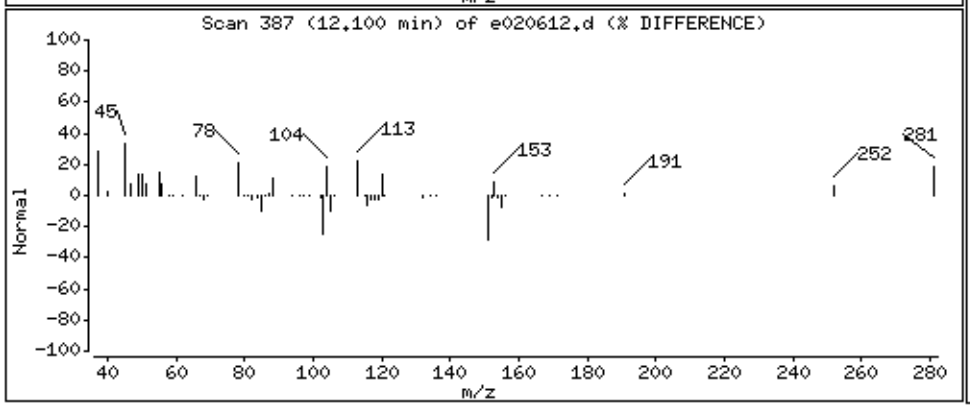
49 Freon 113

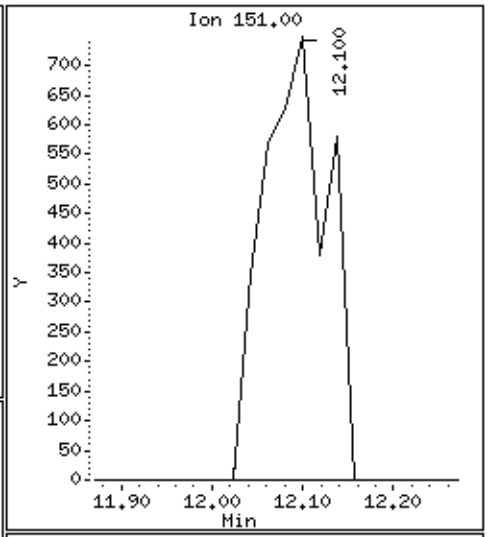
Concentration: 0.05187 PPBV

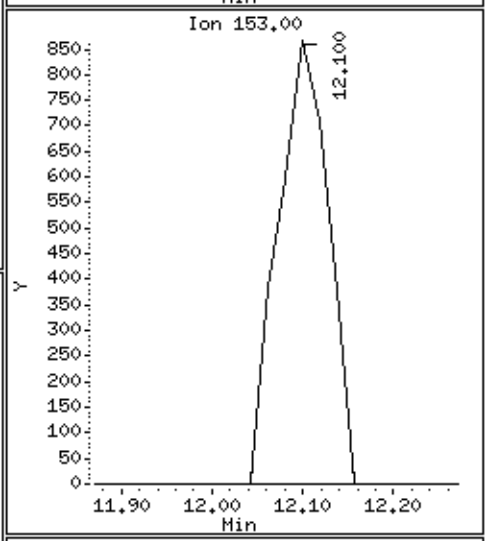


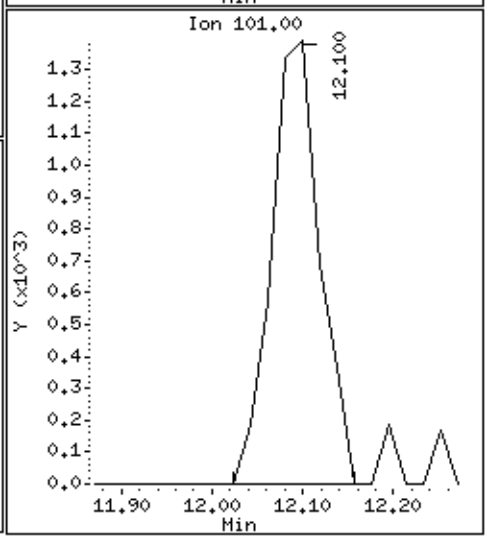












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

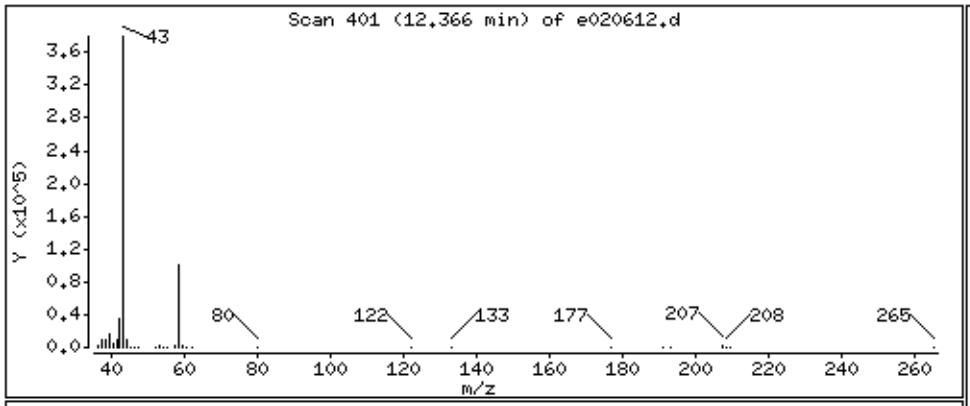
Operator: EA

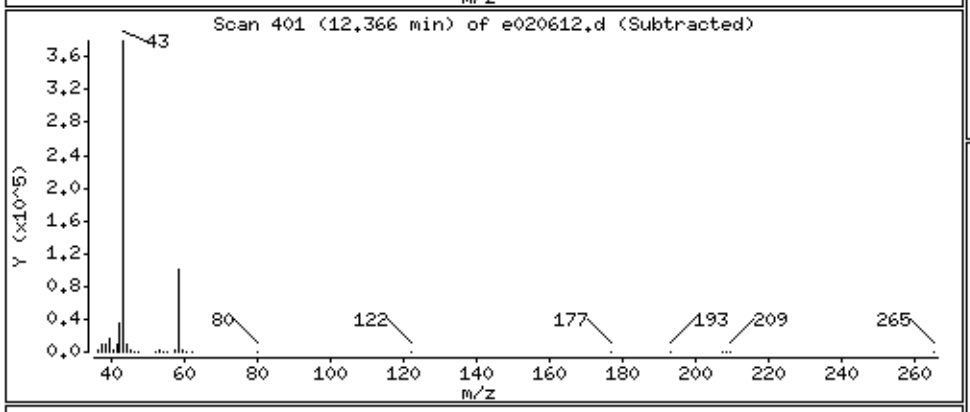
Column phase: RTX-624

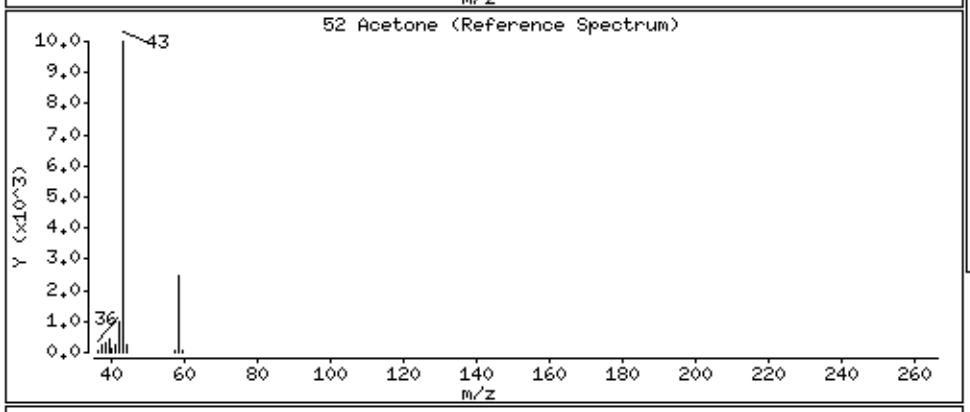
Column diameter: 0.32

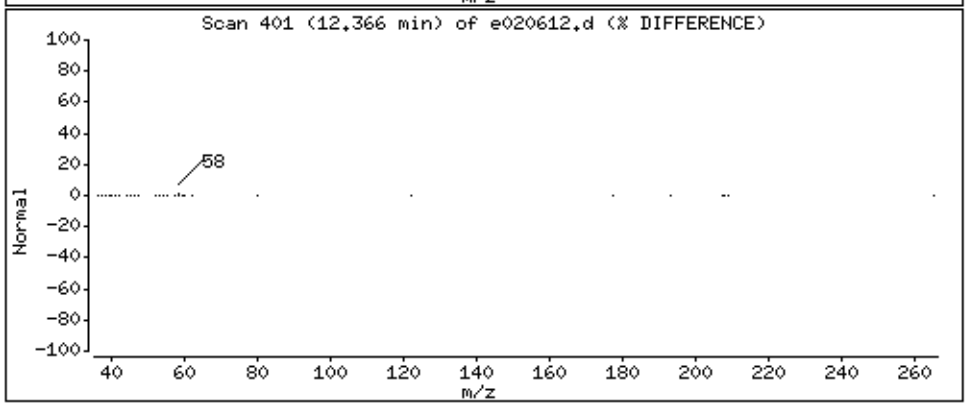
52 Acetone

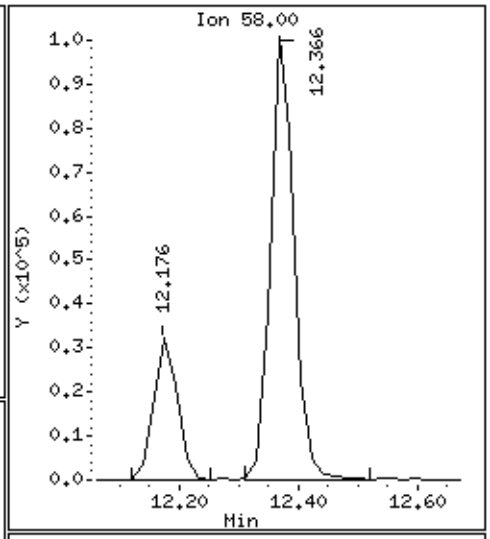
Concentration: 24.724 PPBV

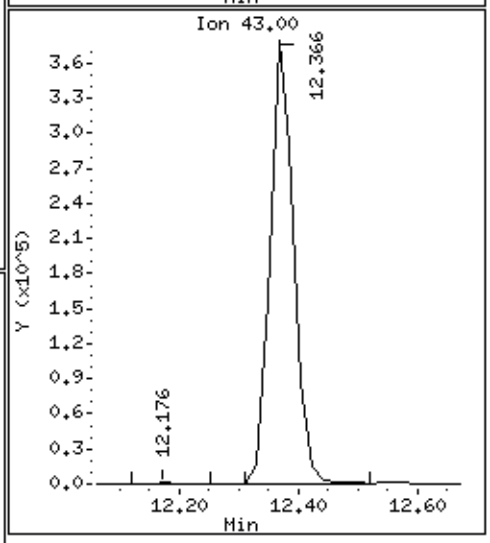












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

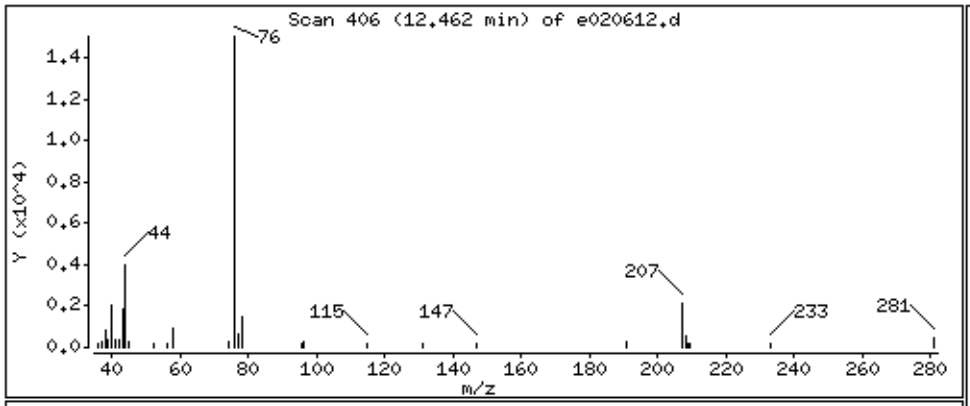
Operator: EA

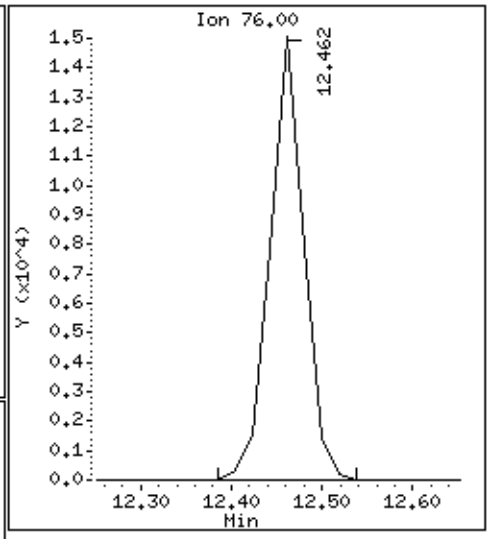
Column phase: RTX-624

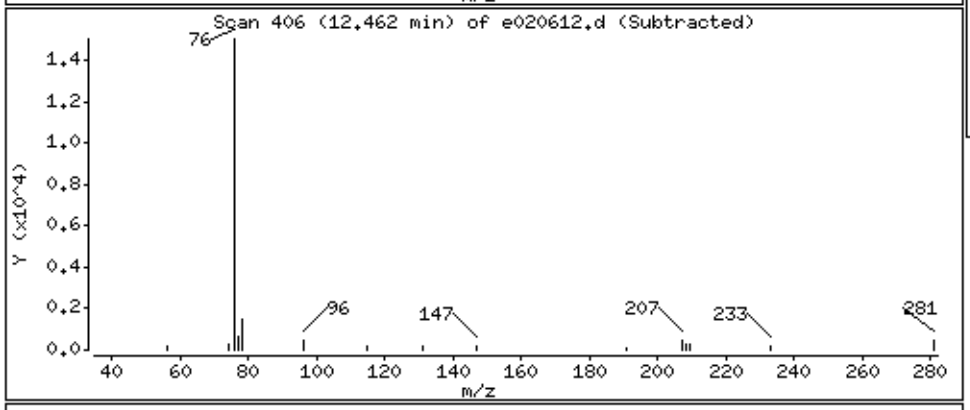
Column diameter: 0.32

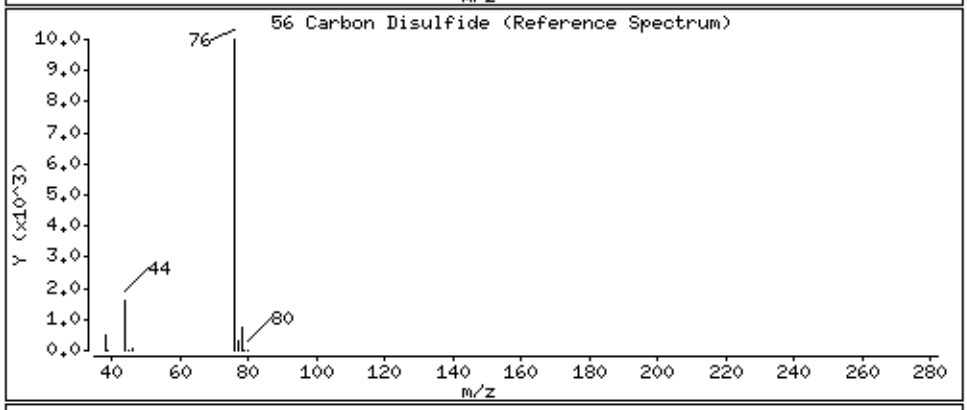
56 Carbon Disulfide

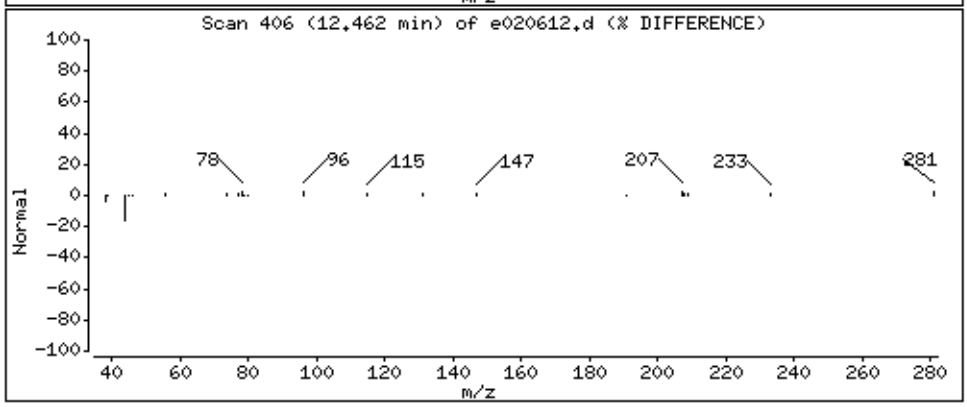
Concentration: 0.4824 PPBV











Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

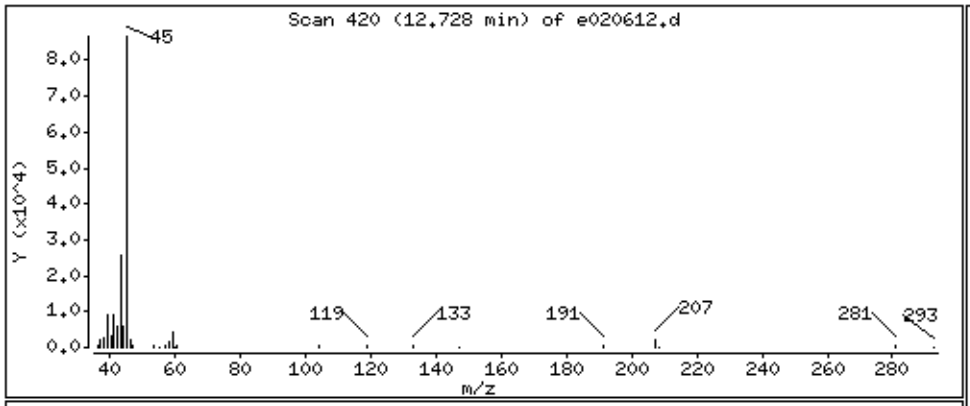
Operator: EA

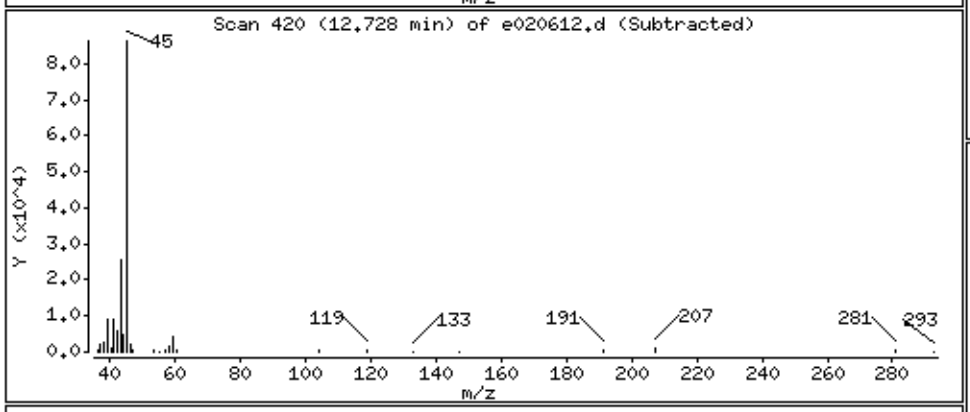
Column phase: RTX-624

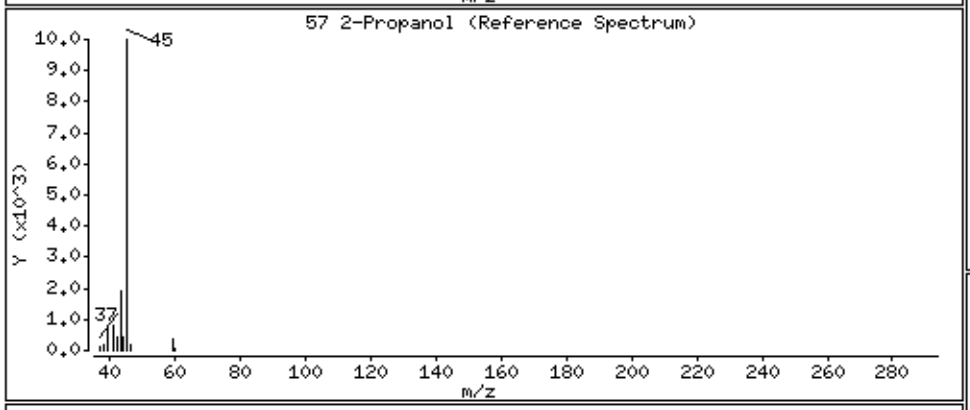
Column diameter: 0.32

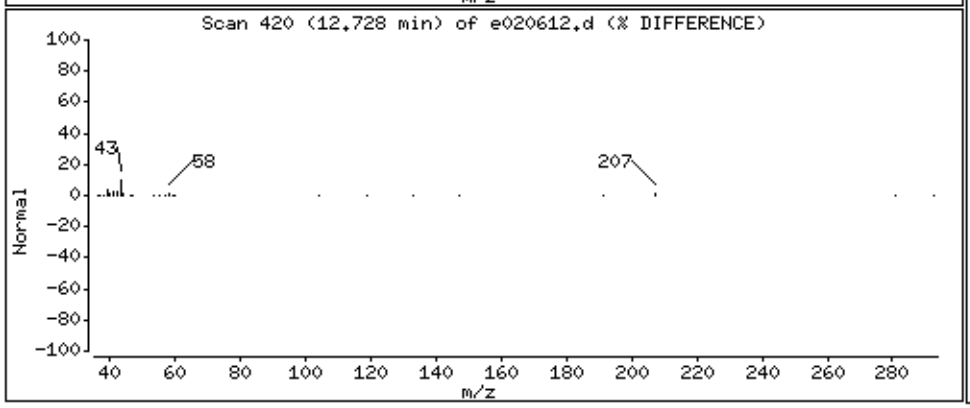
57 2-Propanol

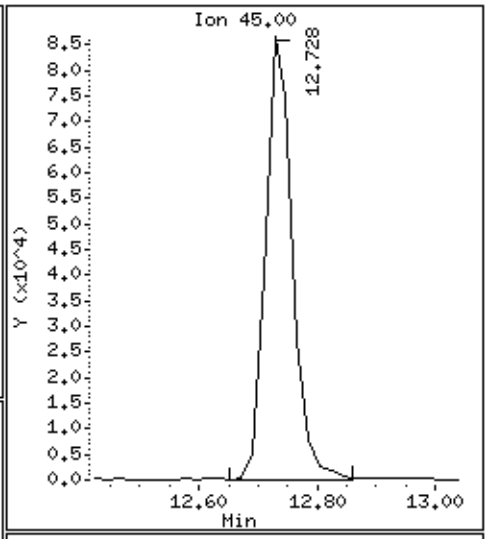
Concentration: 7.445 PPBV

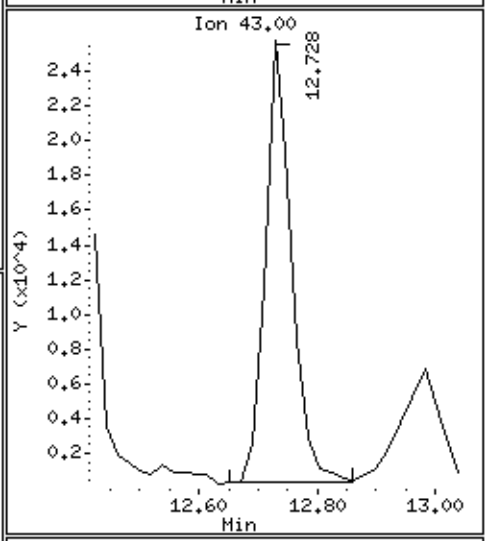


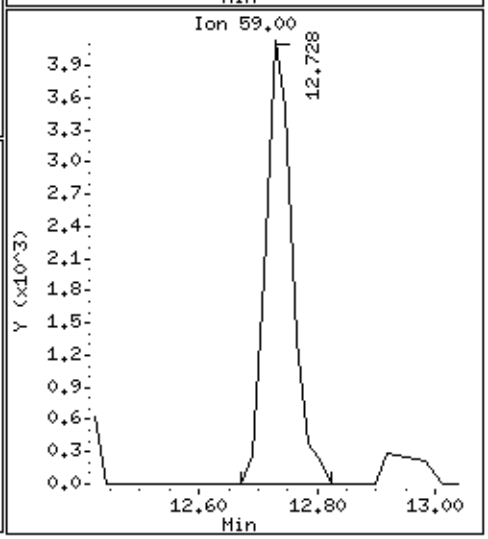












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

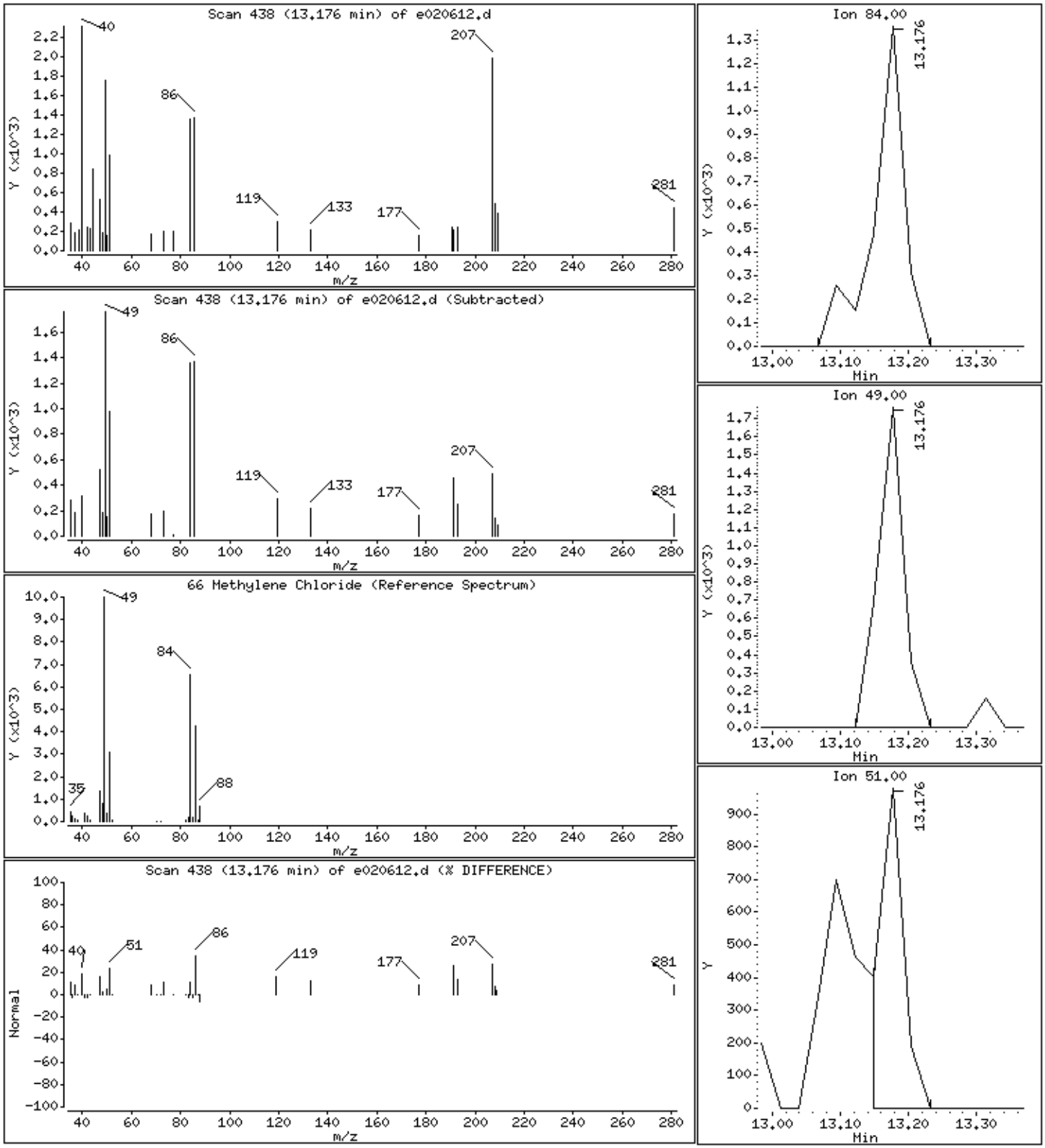
Operator: EA

Column phase: RTX-624

Column diameter: 0.32

66 Methylene Chloride

Concentration: 0.1469 PPBV



Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

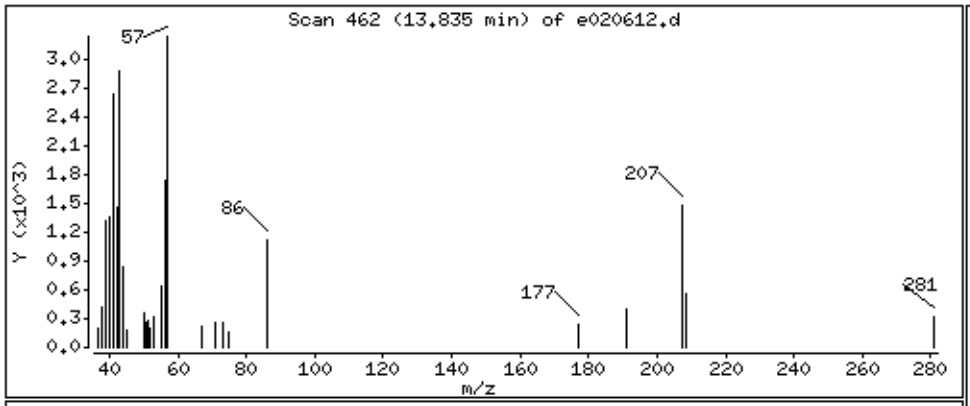
Operator: EA

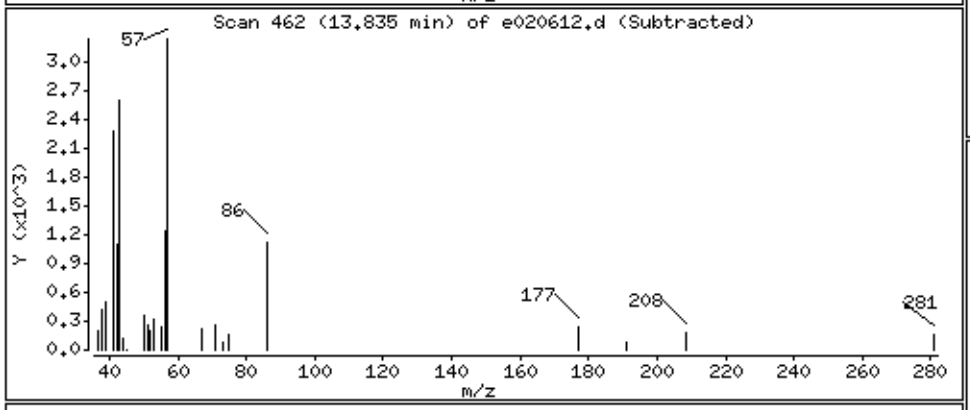
Column phase: RTX-624

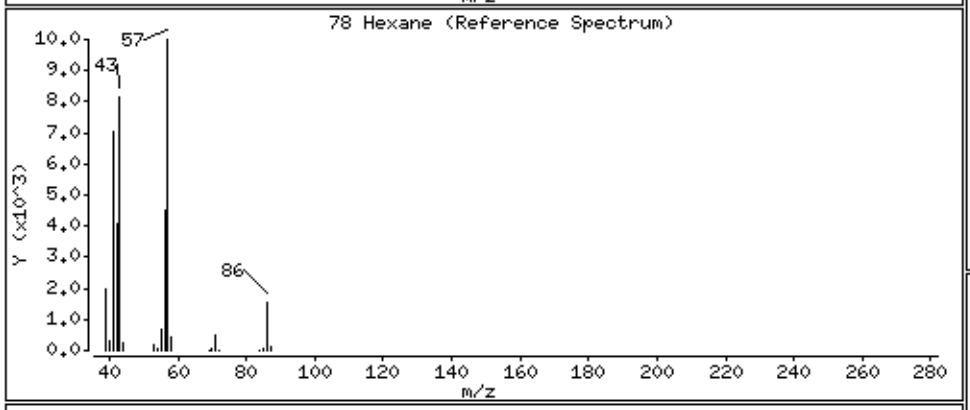
Column diameter: 0.32

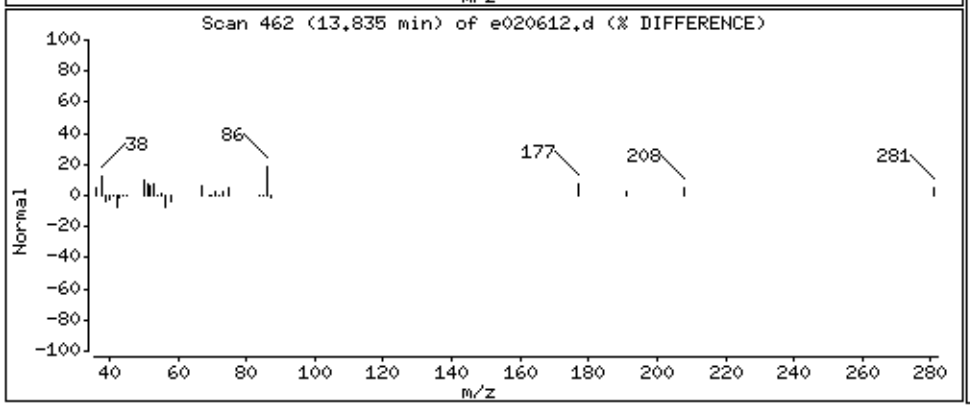
78 Hexane

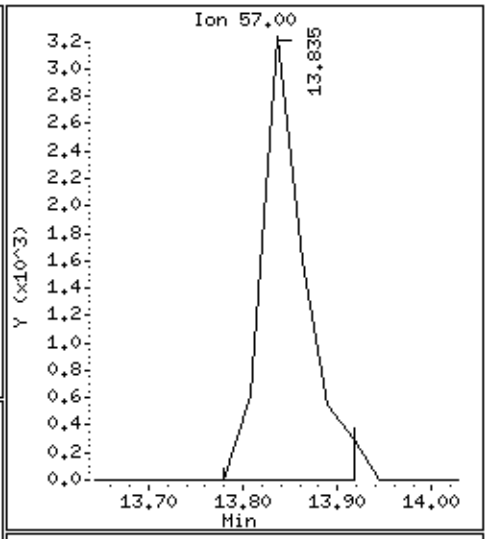
Concentration: 0.3032 PPBV

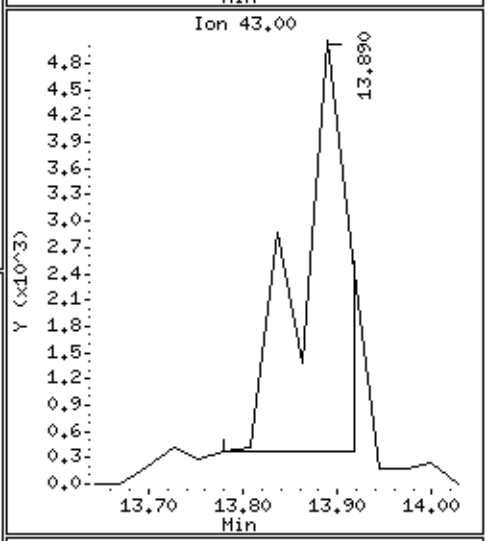


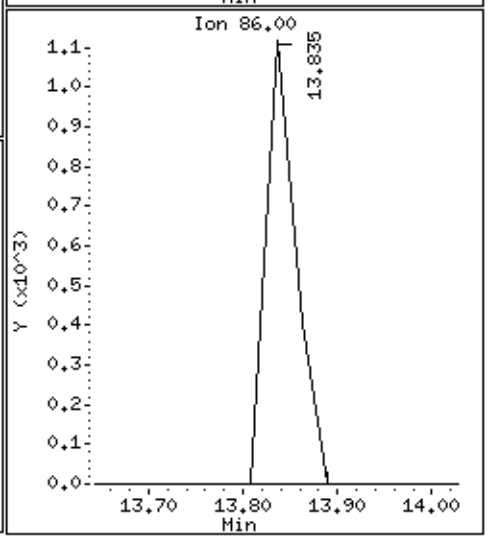












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

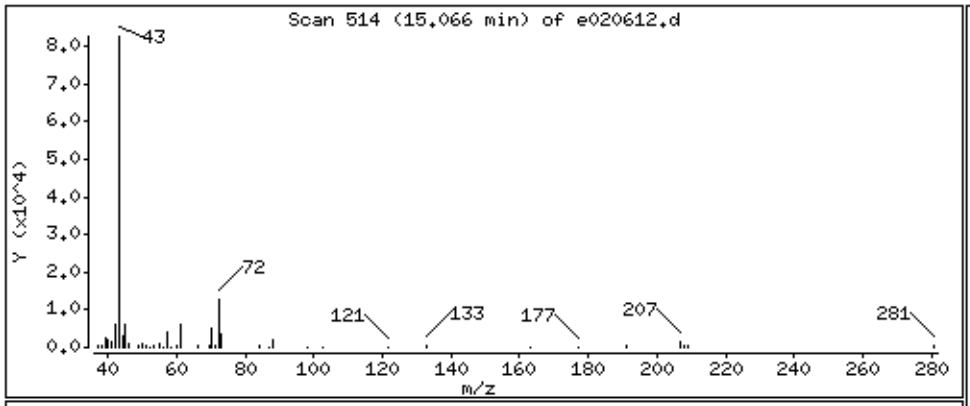
Operator: EA

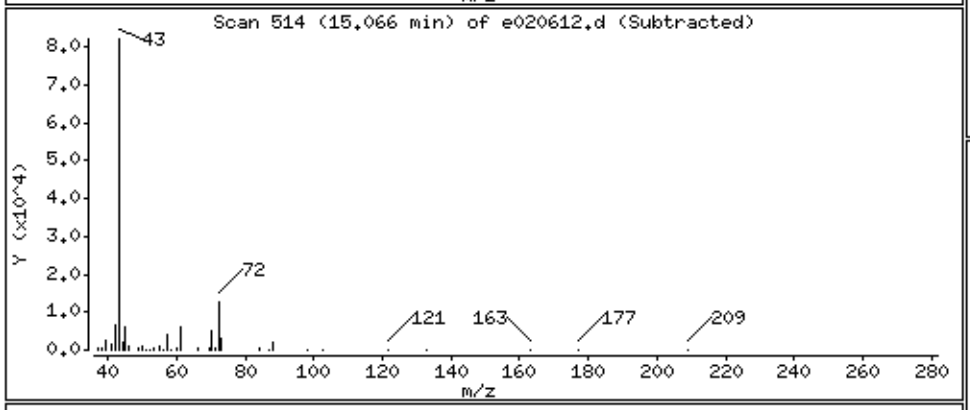
Column phase: RTX-624

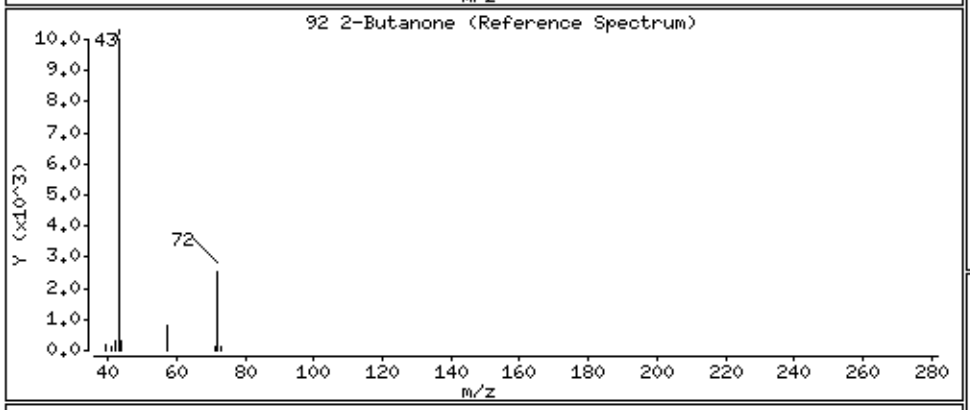
Column diameter: 0.32

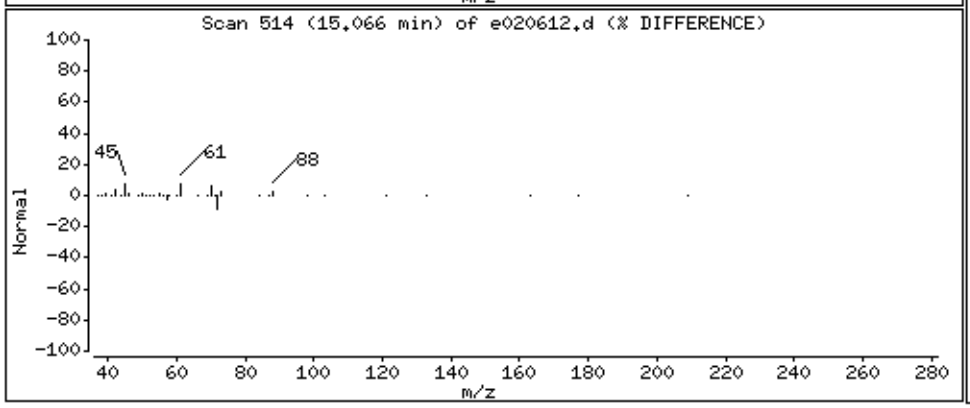
92 2-Butanone

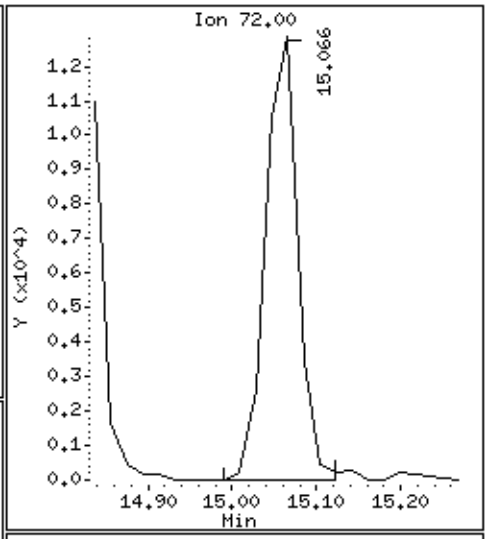
Concentration: 2.734 PPBV

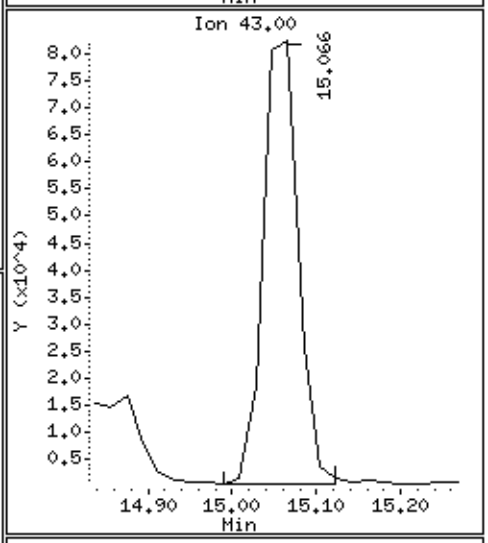


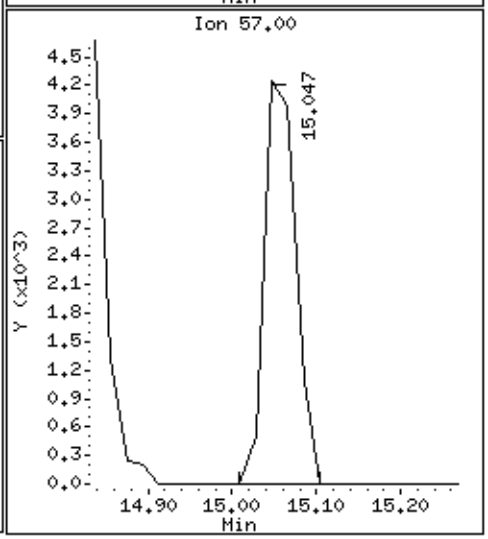












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

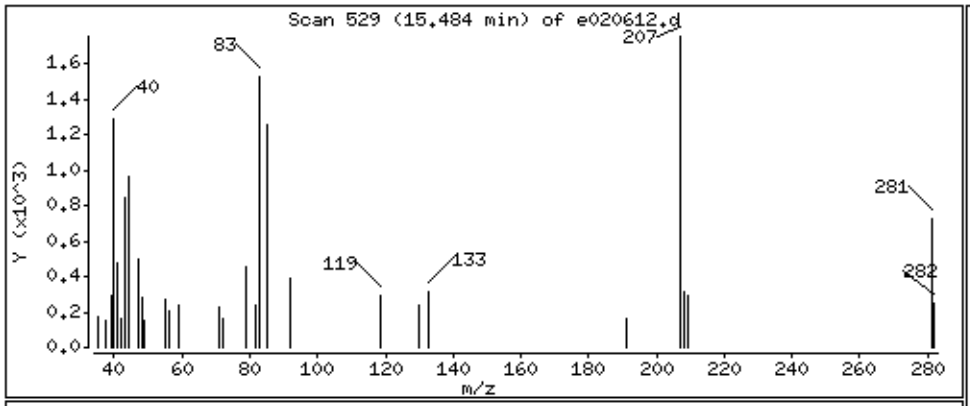
Operator: EA

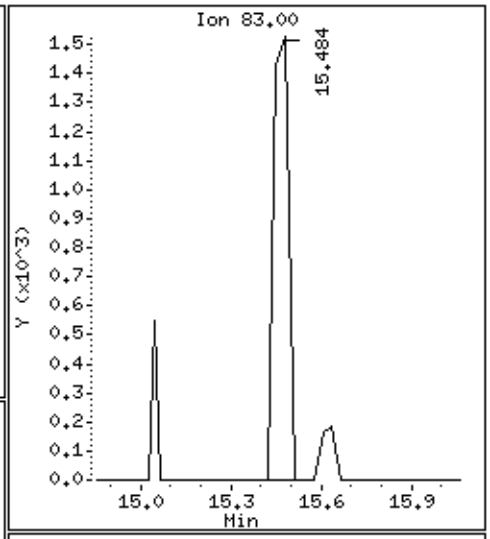
Column phase: RTX-624

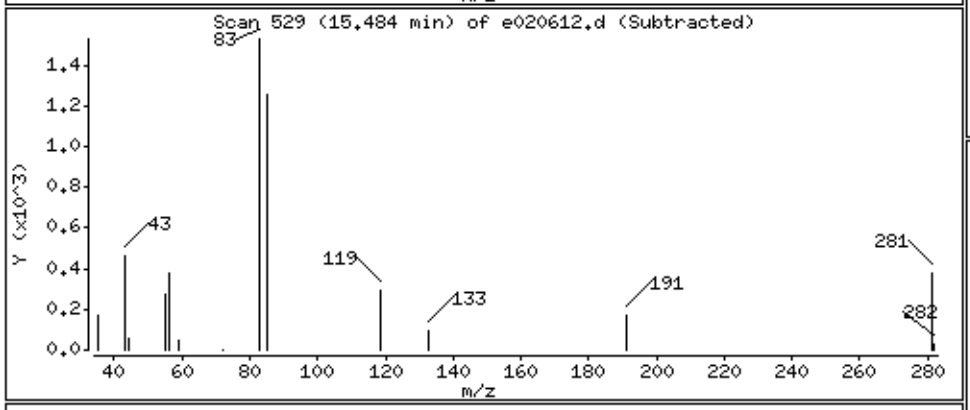
Column diameter: 0.32

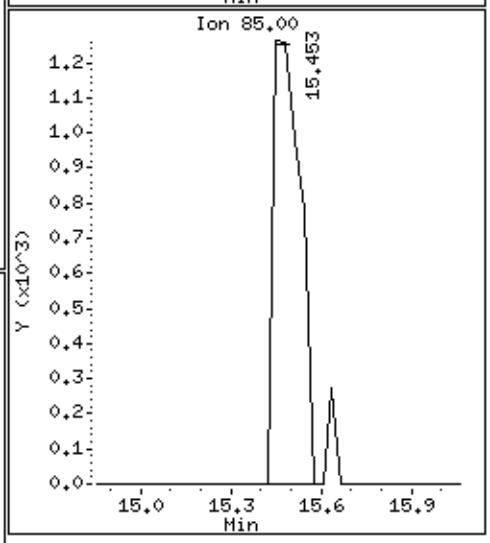
100 Chloroform

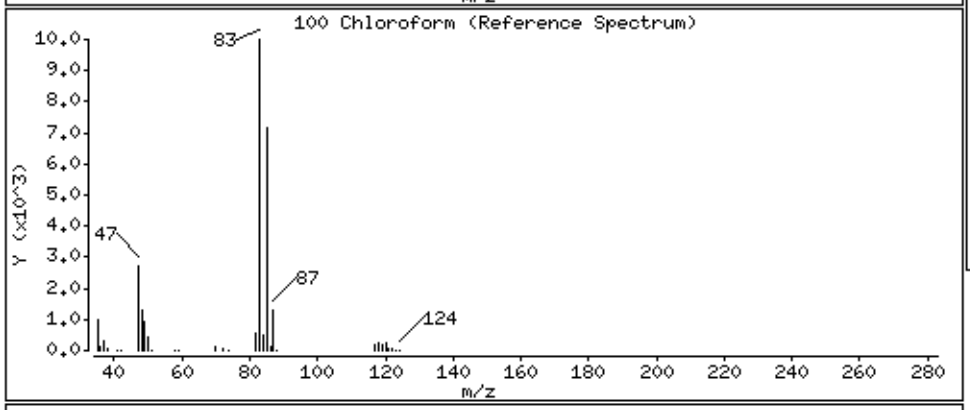
Concentration: 0.07296 PPBV

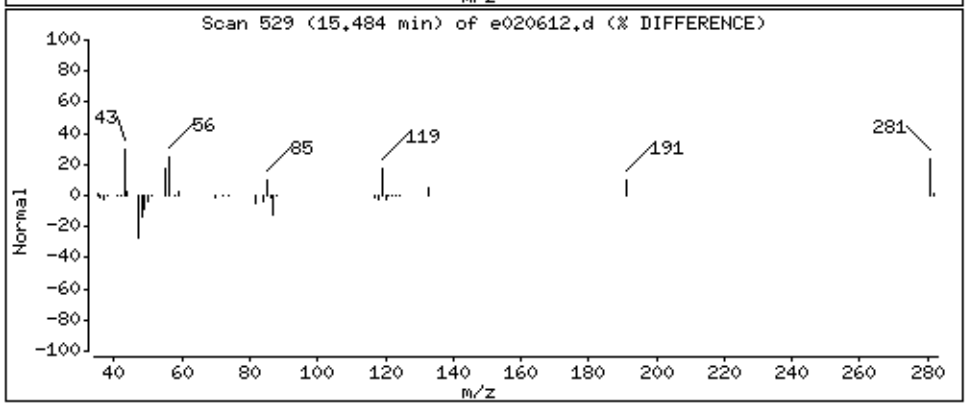












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

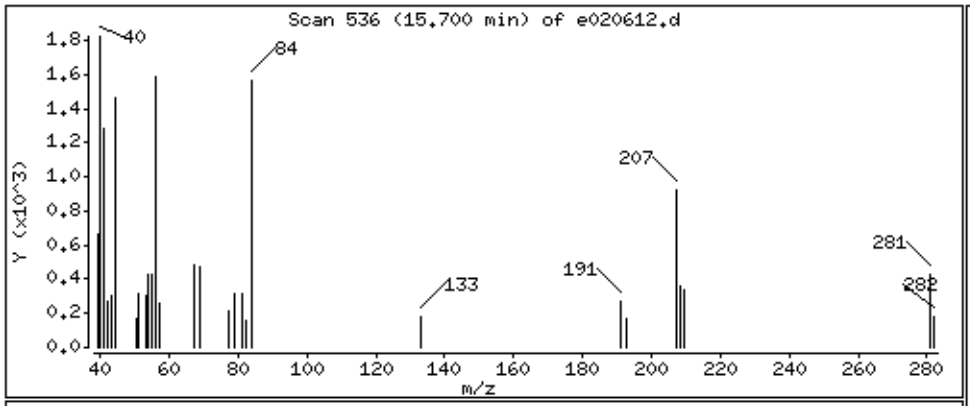
Operator: EA

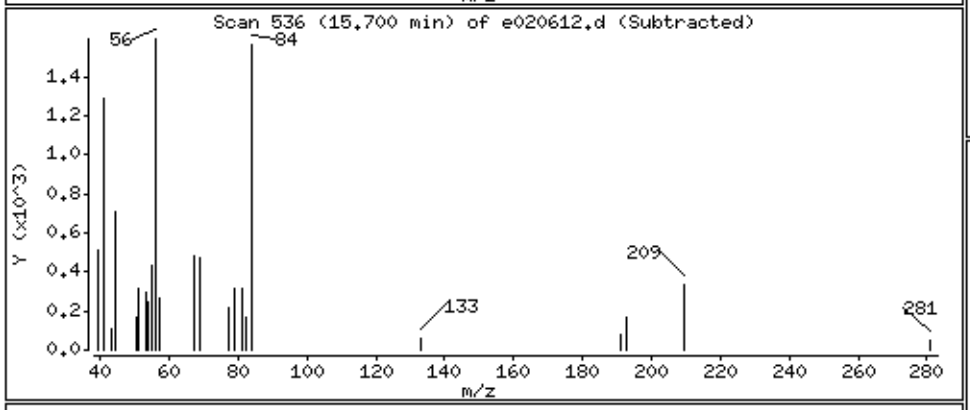
Column phase: RTX-624

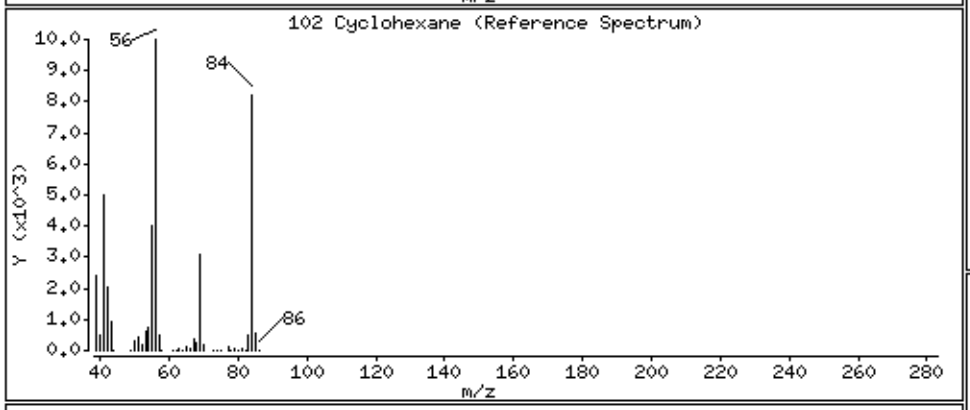
Column diameter: 0.32

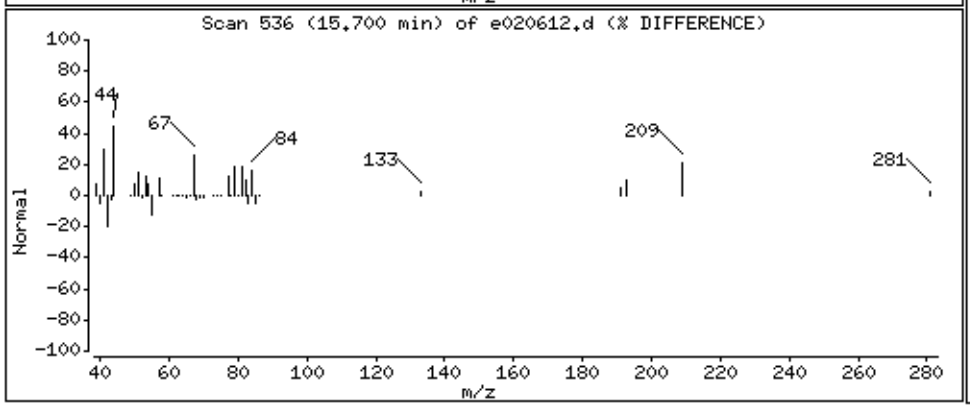
102 Cyclohexane

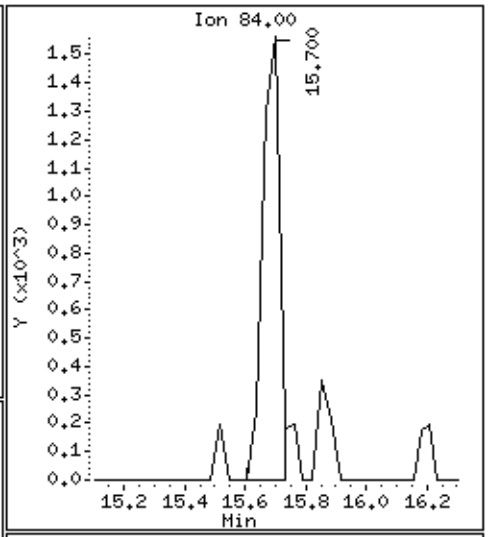
Concentration: 0.1694 PPBV

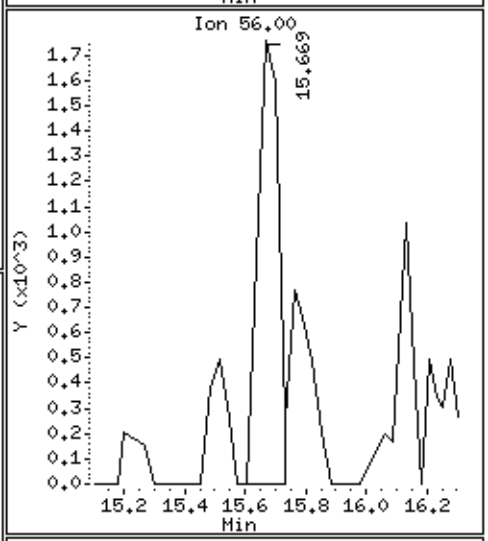


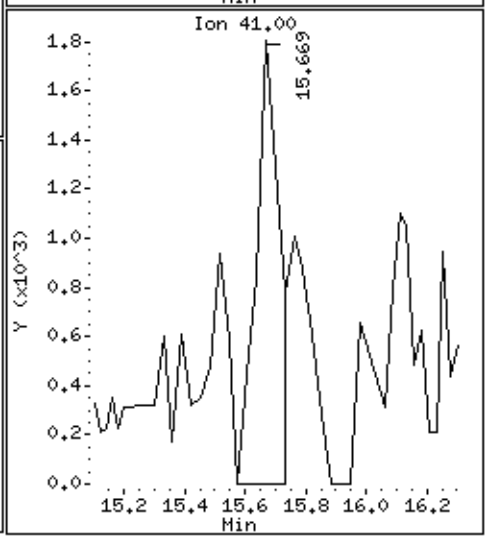












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

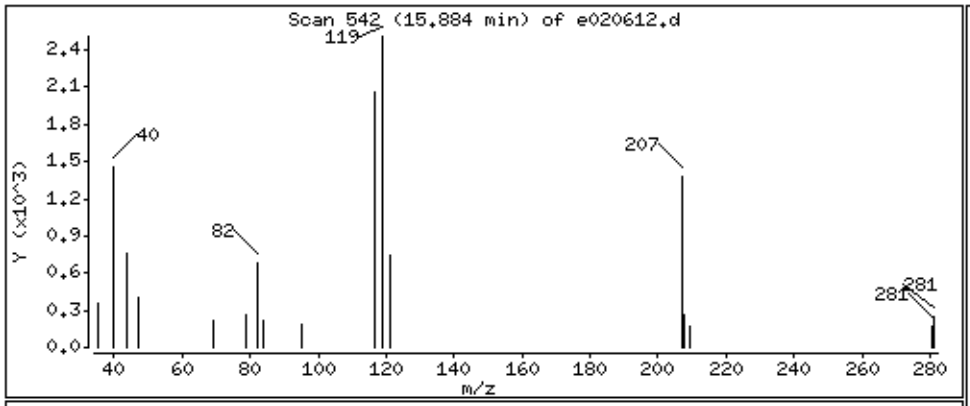
Operator: EA

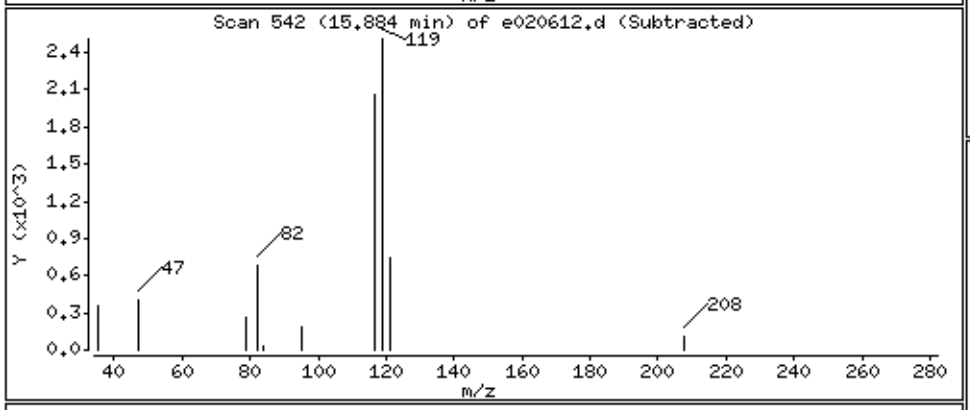
Column phase: RTX-624

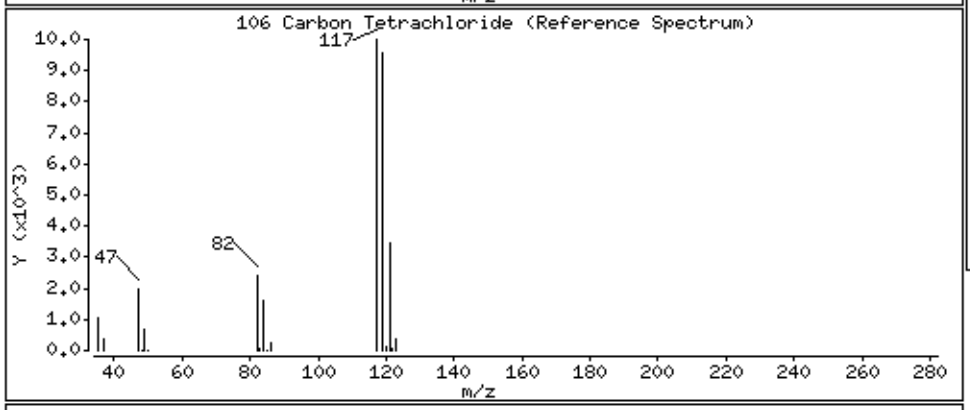
Column diameter: 0.32

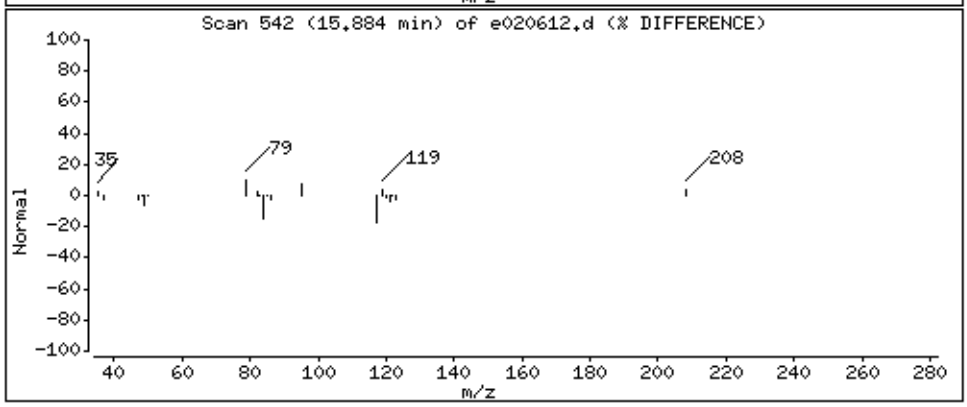
106 Carbon Tetrachloride

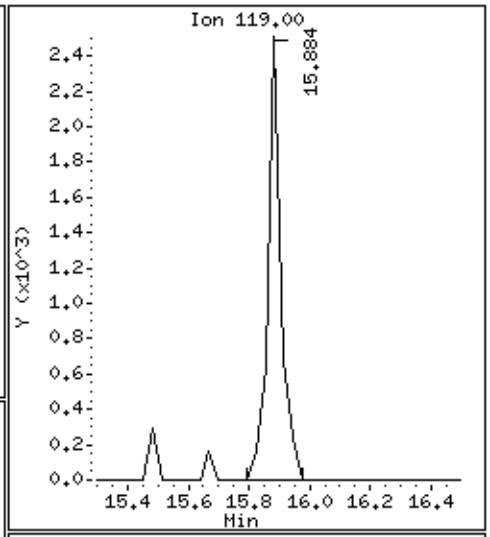
Concentration: 0.09146 PPBV

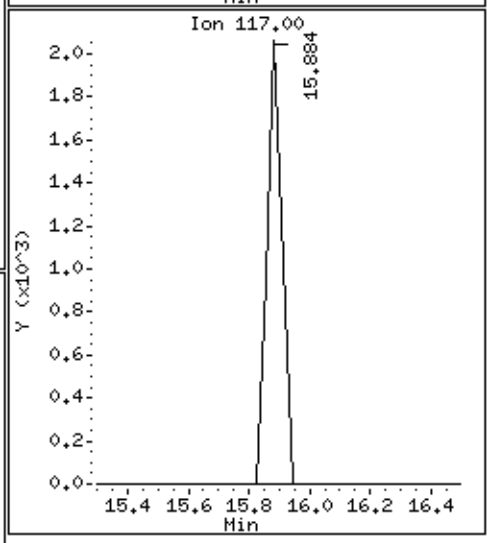












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

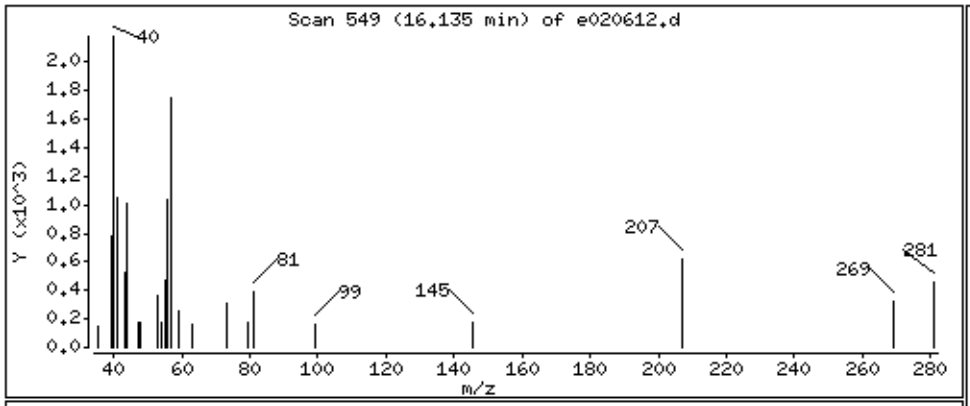
Operator: EA

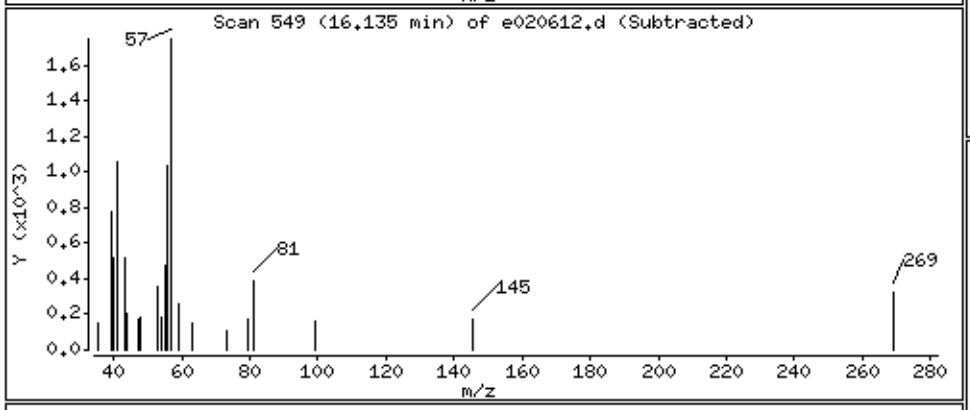
Column phase: RTX-624

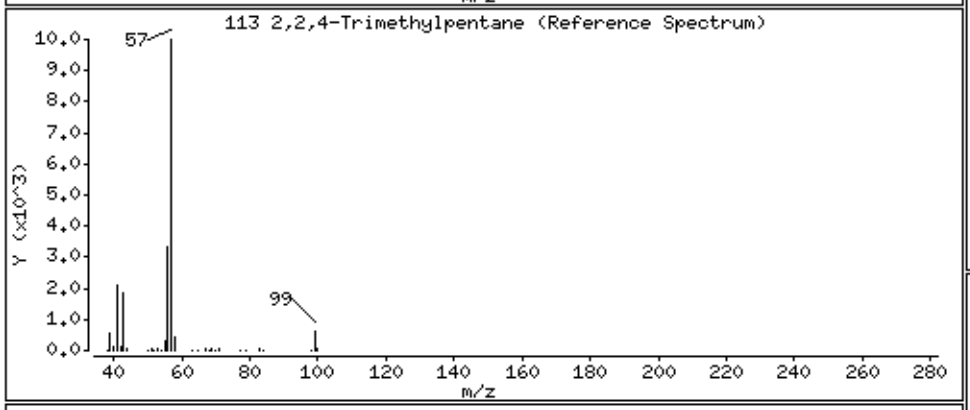
Column diameter: 0.32

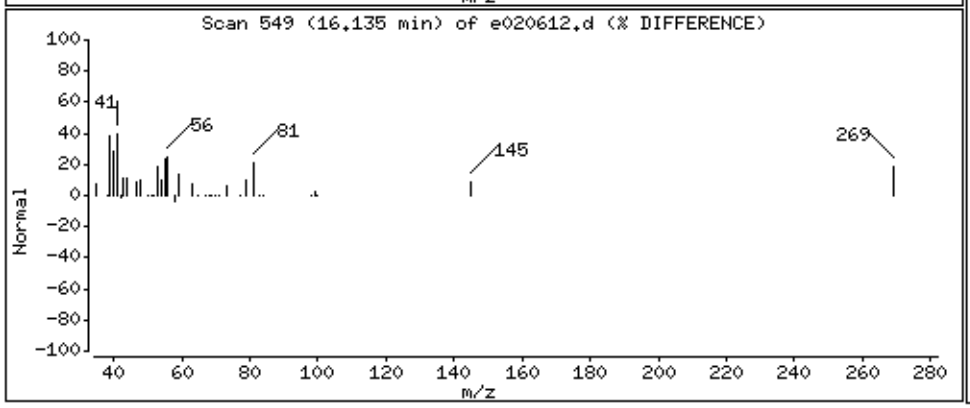
113 2,2,4-Trimethylpentane

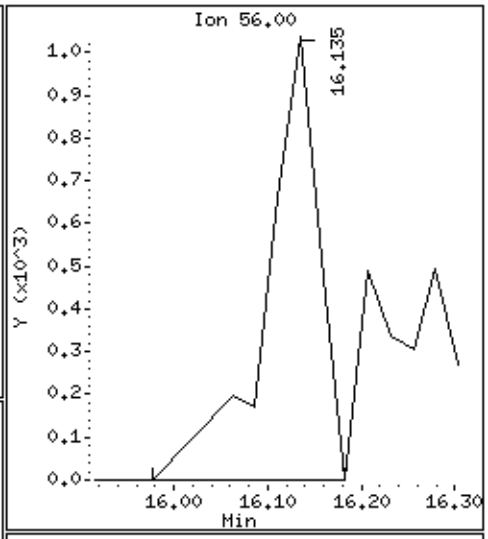
Concentration: 0.1088 PPBV

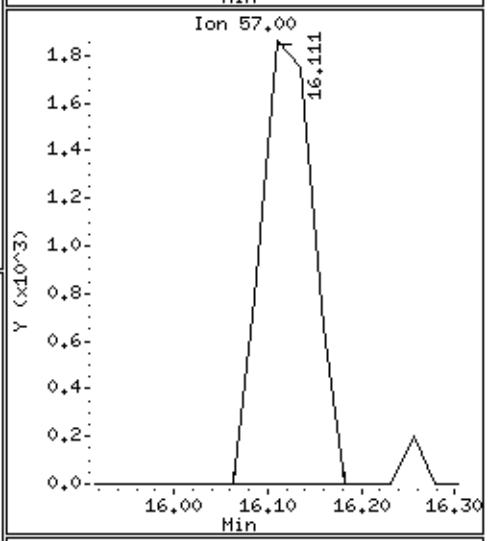


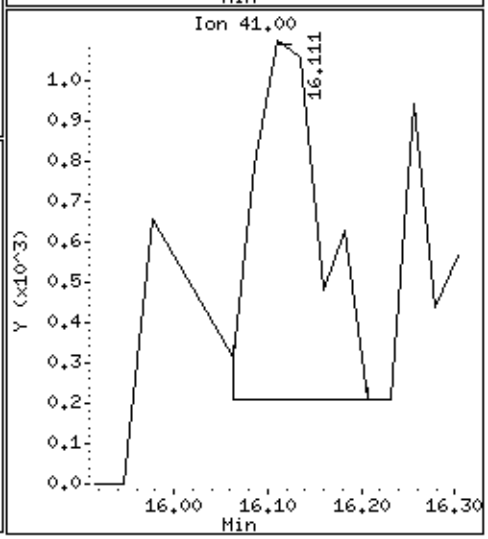












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

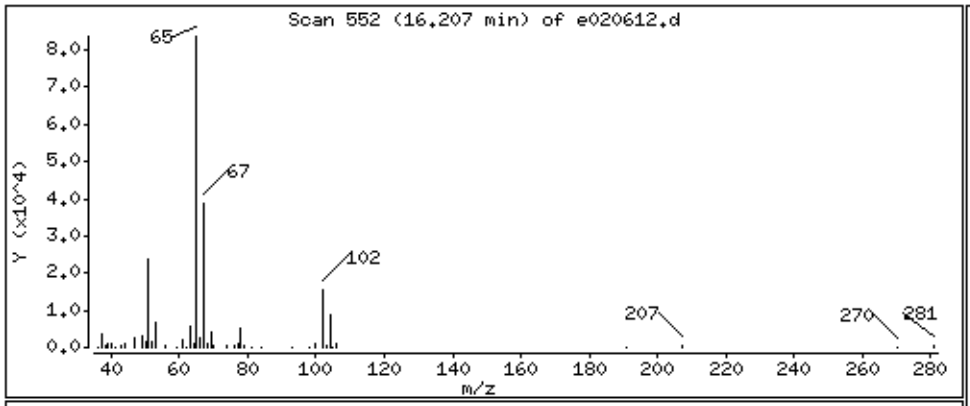
Operator: EA

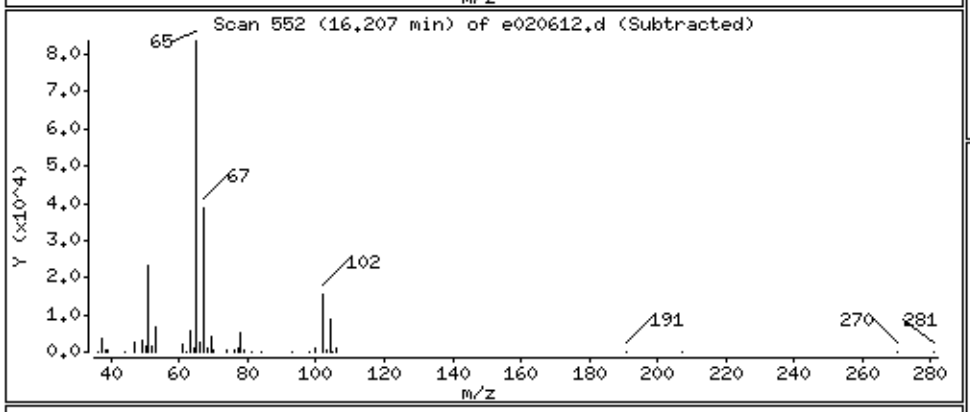
Column phase: RTX-624

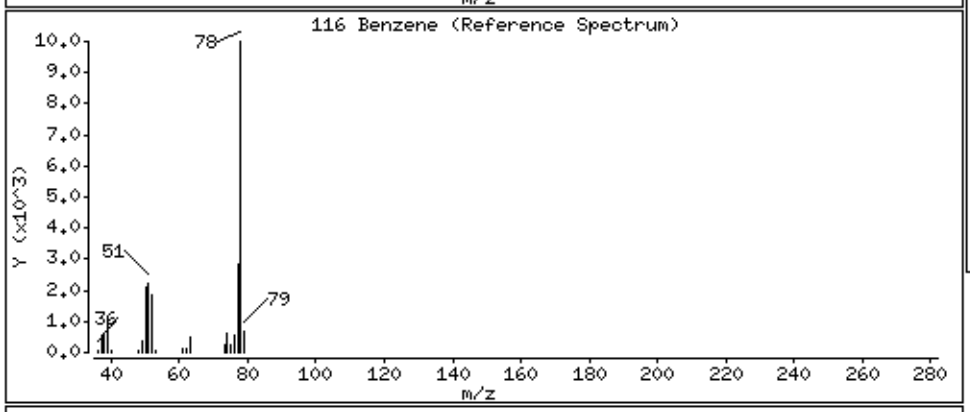
Column diameter: 0.32

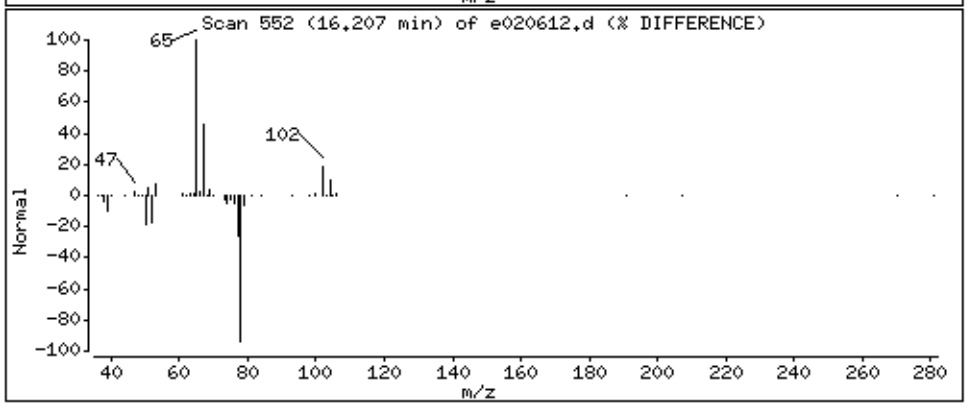
116 Benzene

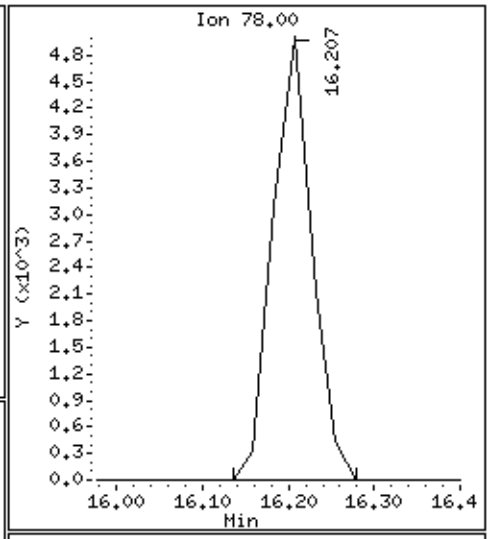
Concentration: 0.1768 PPBV

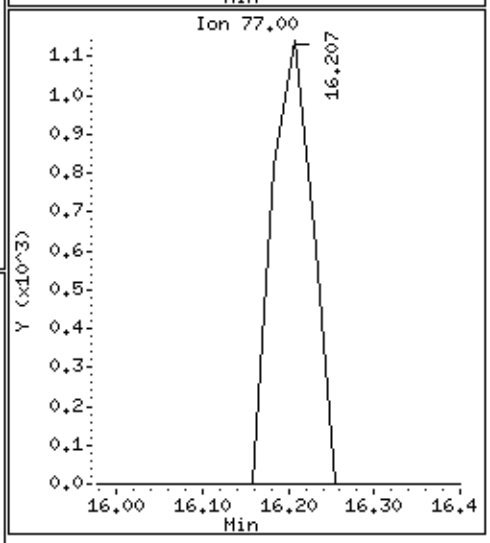












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

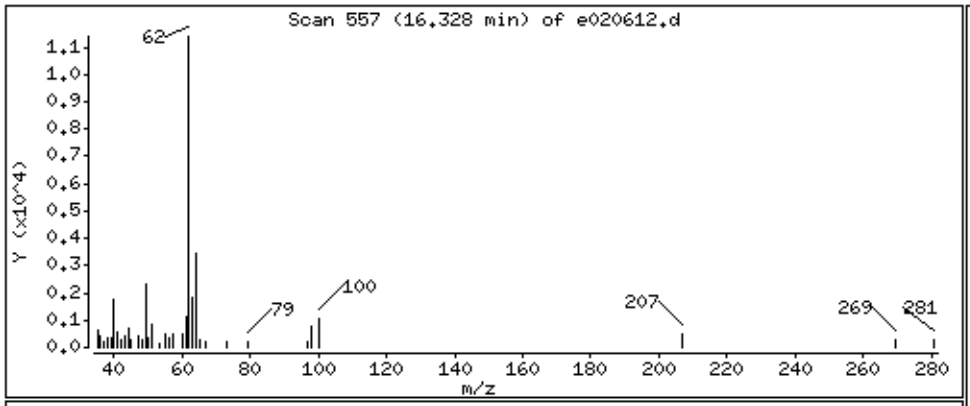
Operator: EA

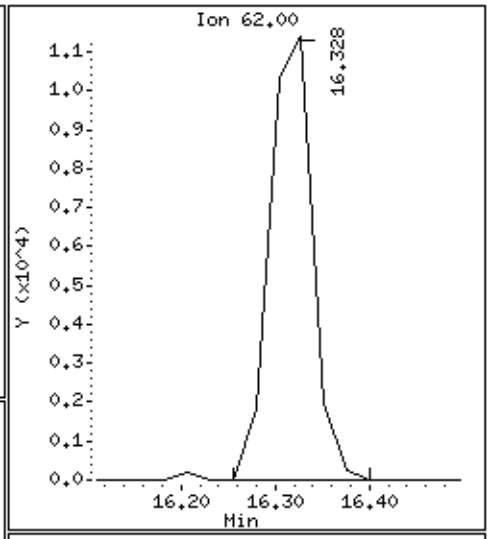
Column phase: RTX-624

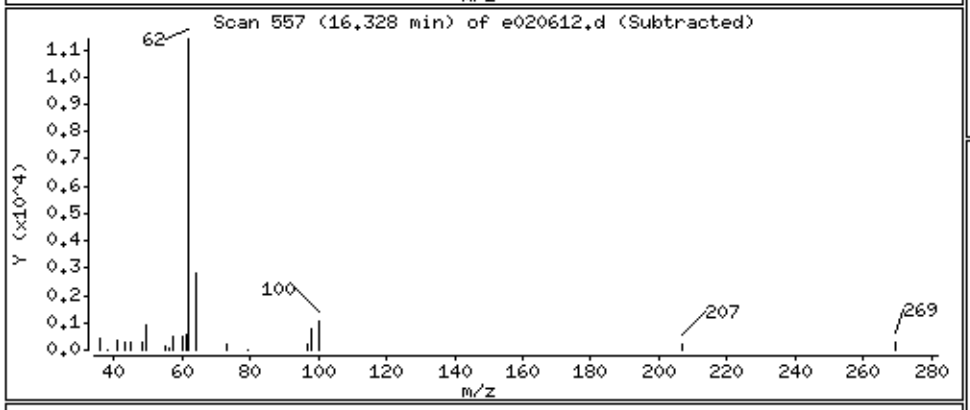
Column diameter: 0.32

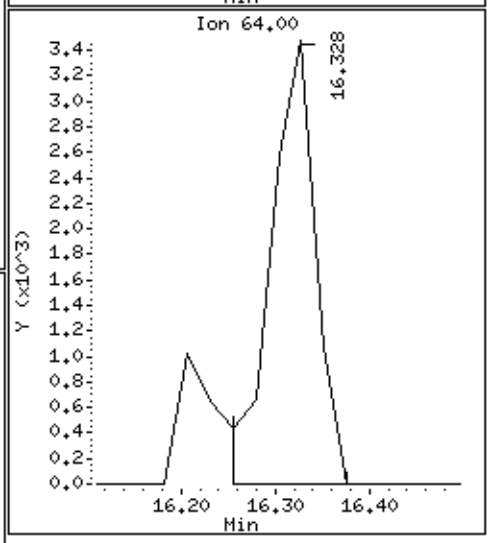
120 1,2-Dichloroethane

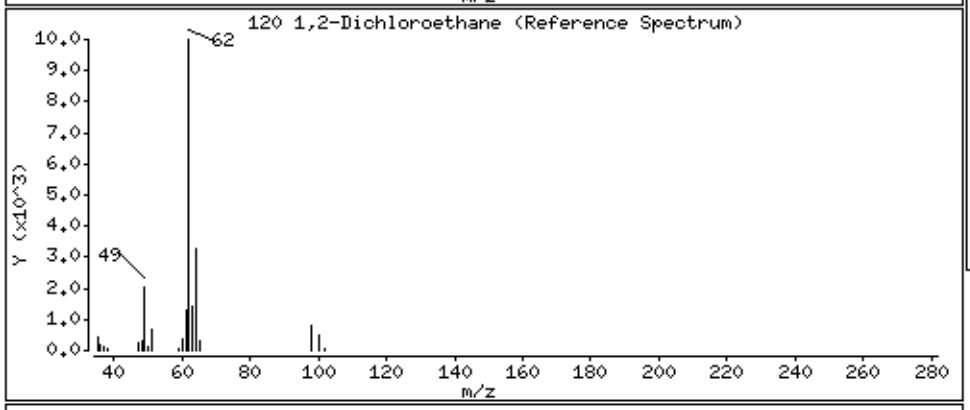
Concentration: 0.6725 PPBV

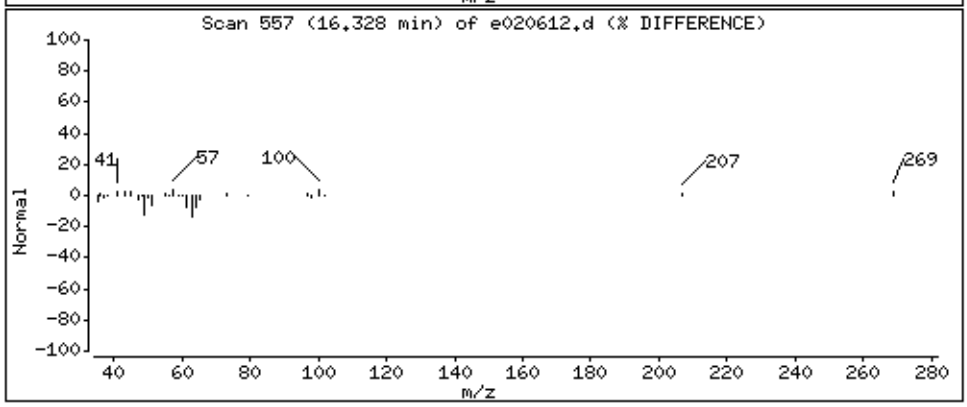












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

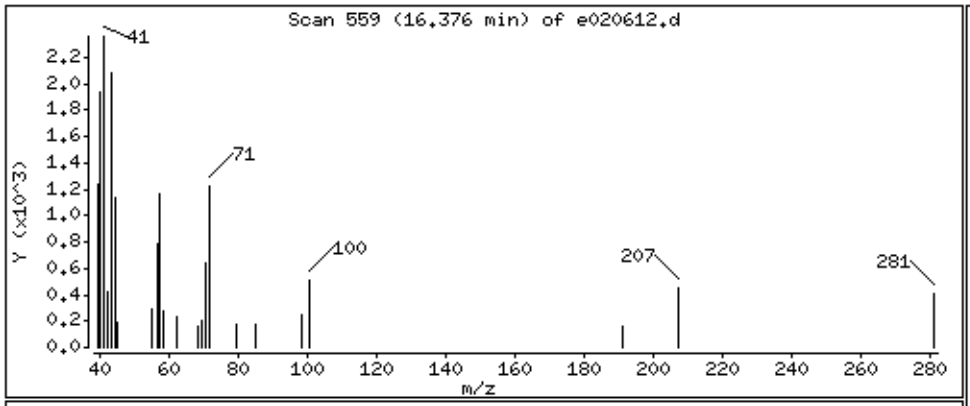
Operator: EA

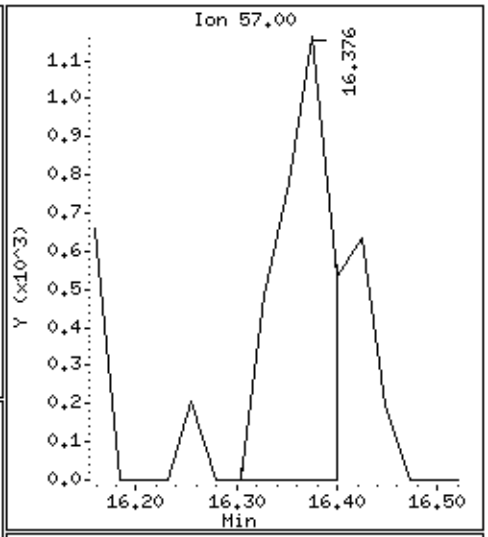
Column phase: RTX-624

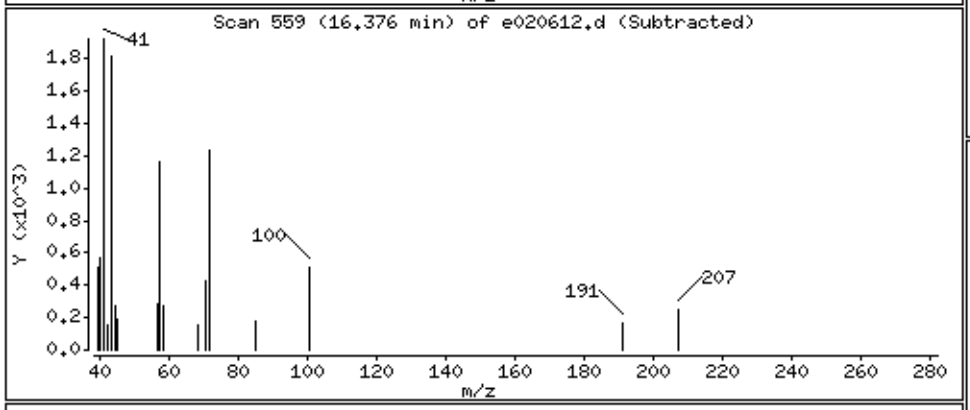
Column diameter: 0.32

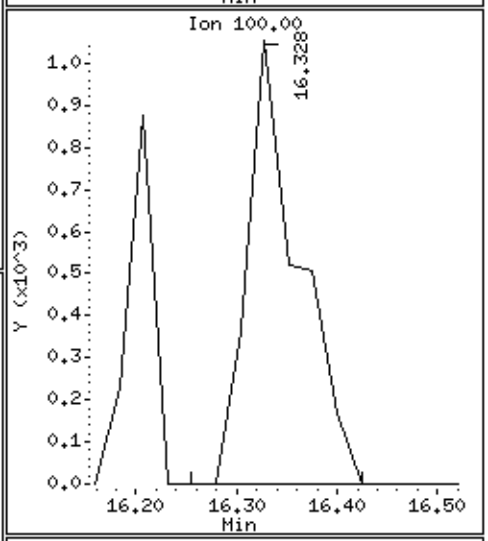
121 Heptane

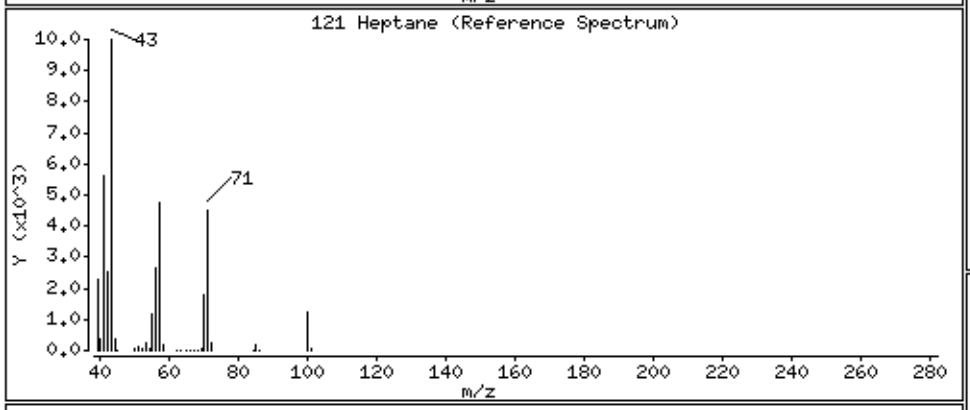
Concentration: 0.1886 PPBV

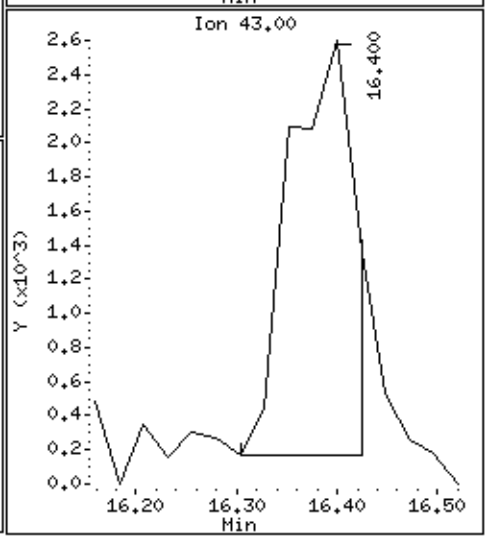


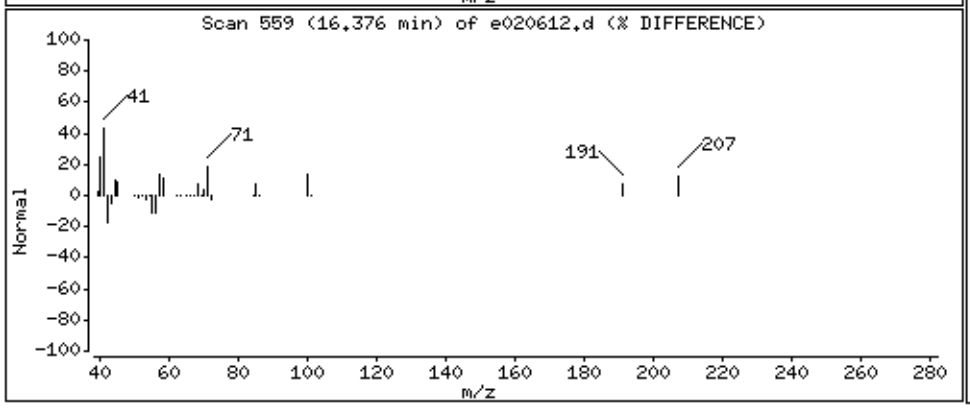












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

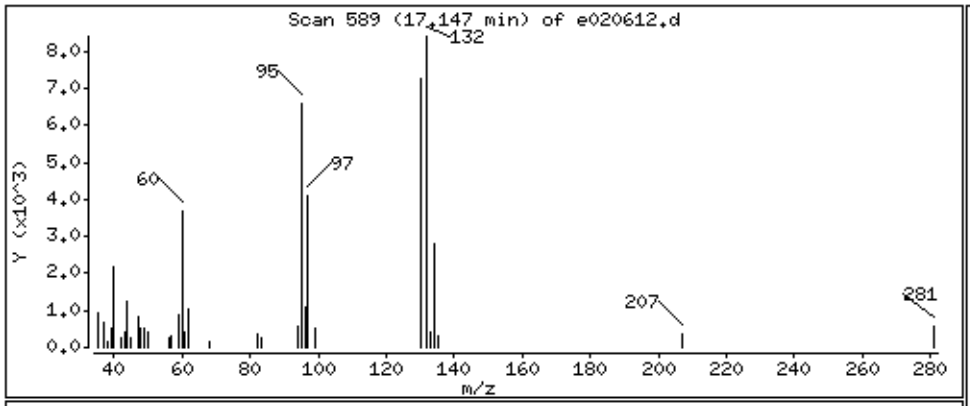
Operator: EA

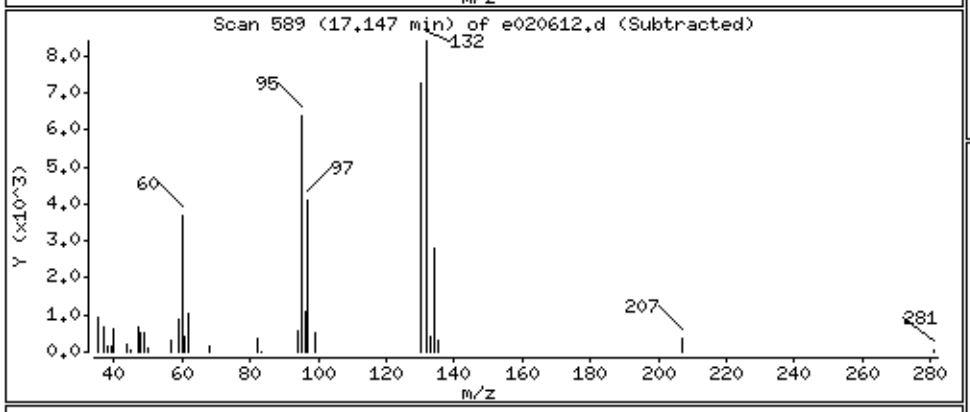
Column phase: RTX-624

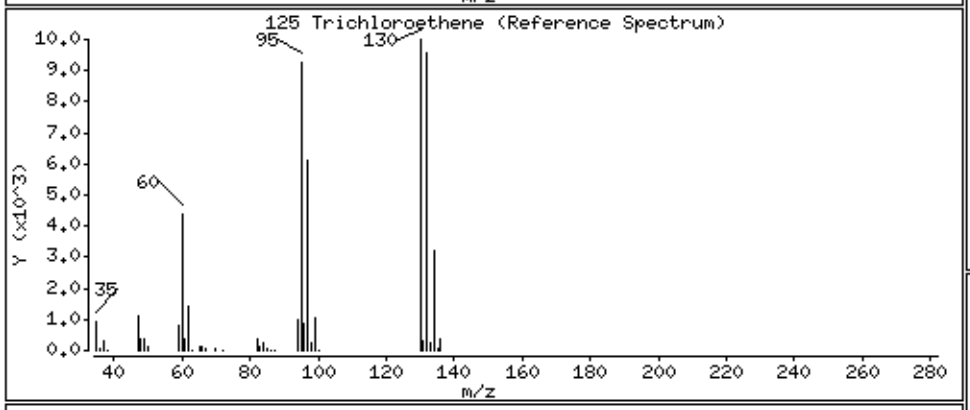
Column diameter: 0.32

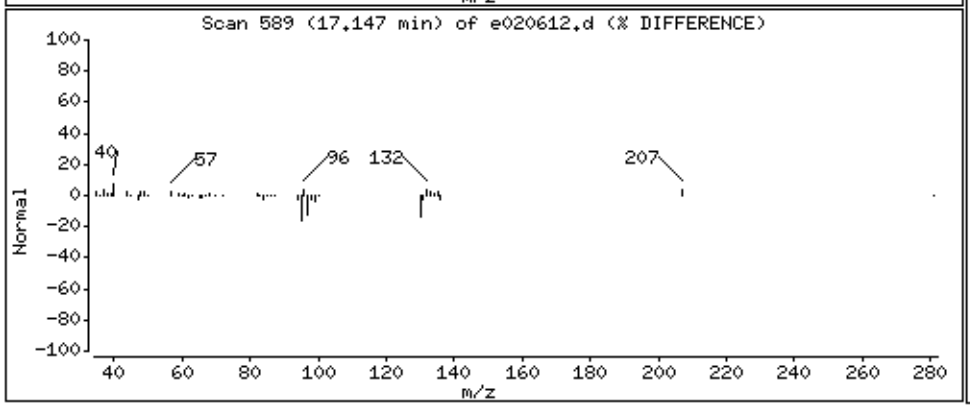
125 Trichloroethene

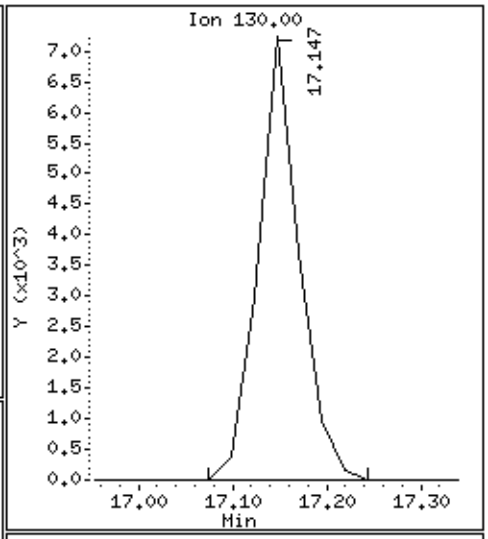
Concentration: 0.4461 PPBV

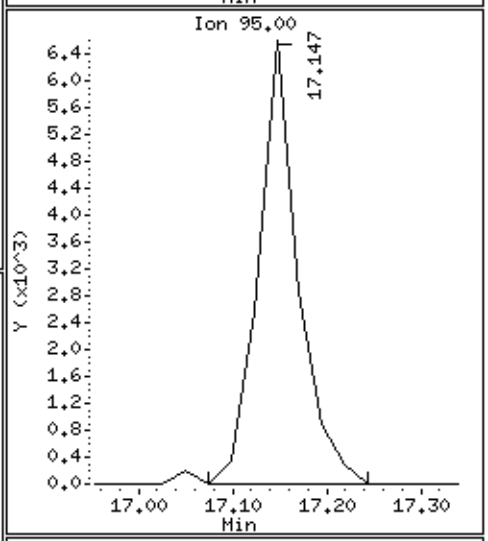


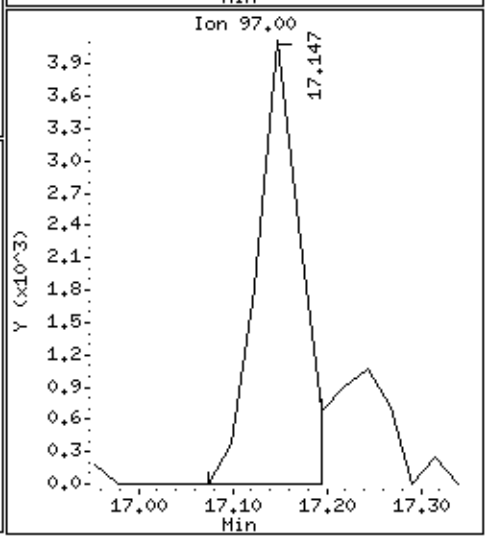












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

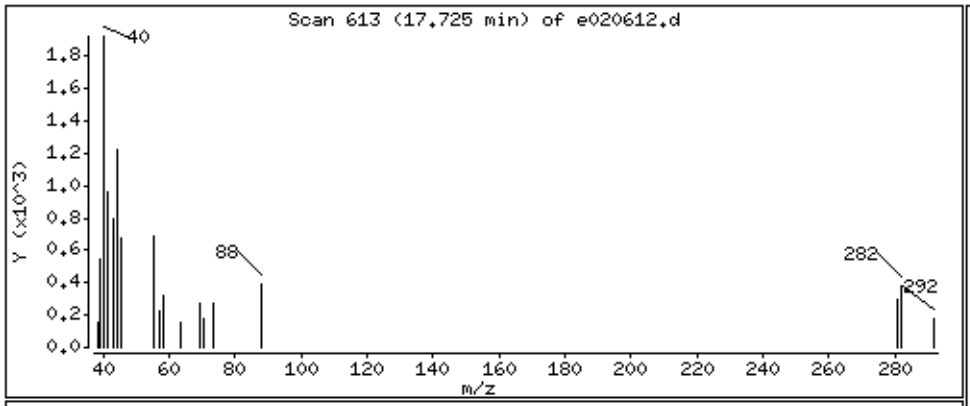
Operator: EA

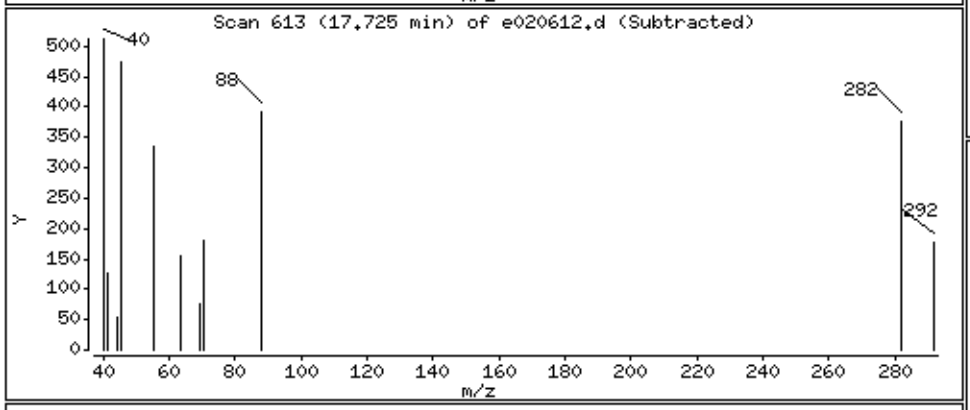
Column phase: RTX-624

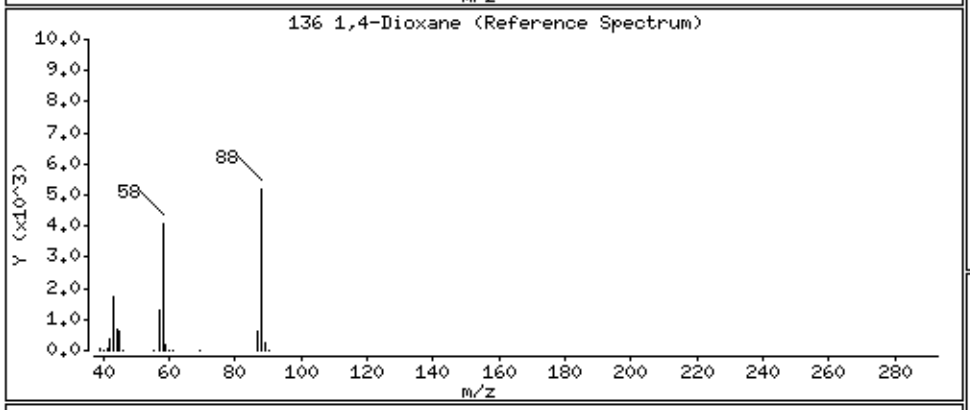
Column diameter: 0.32

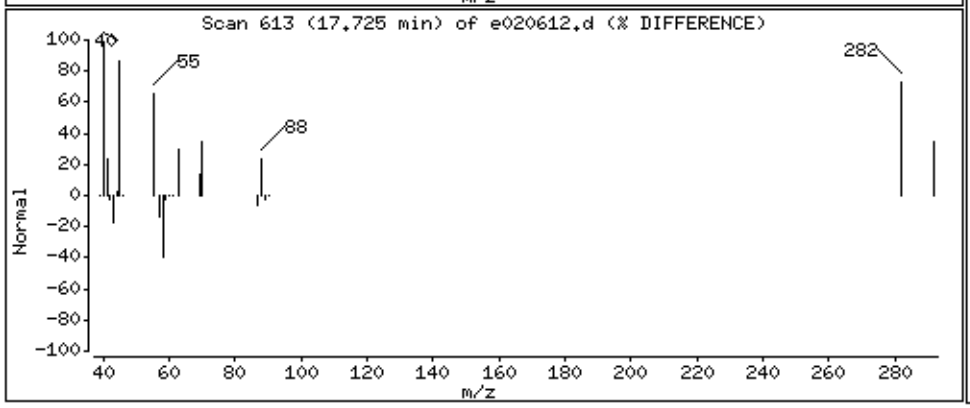
136 1,4-Dioxane

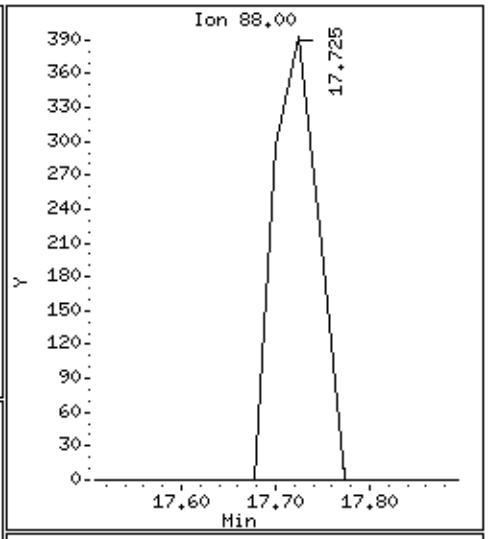
Concentration: 0.05977 PPBV

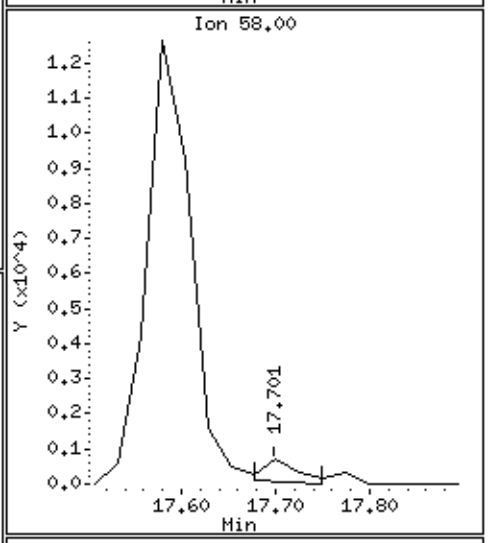


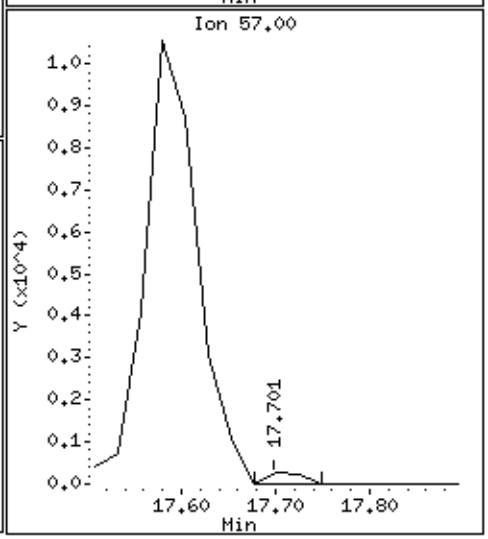












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

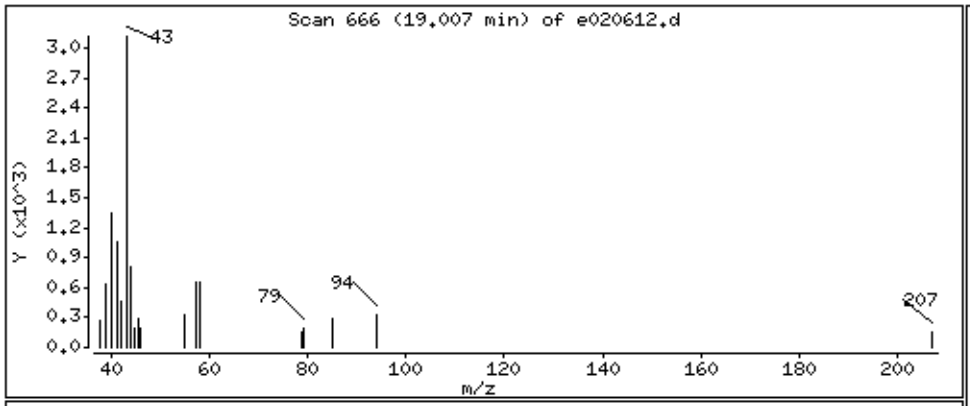
Operator: EA

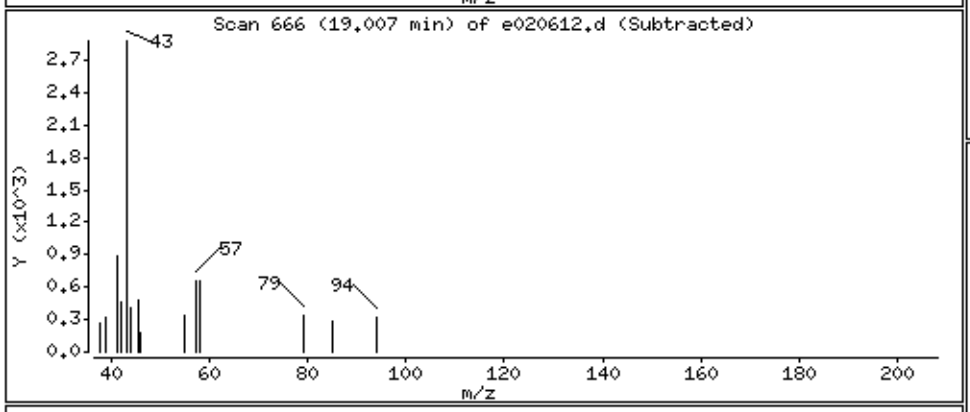
Column phase: RTX-624

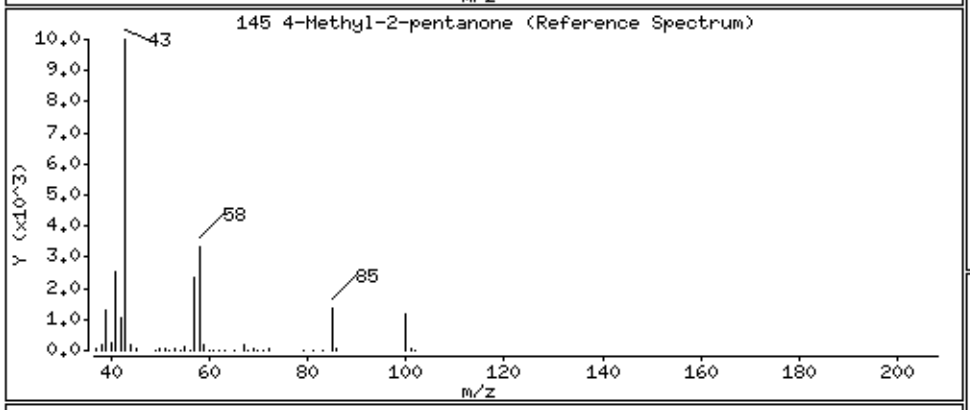
Column diameter: 0.32

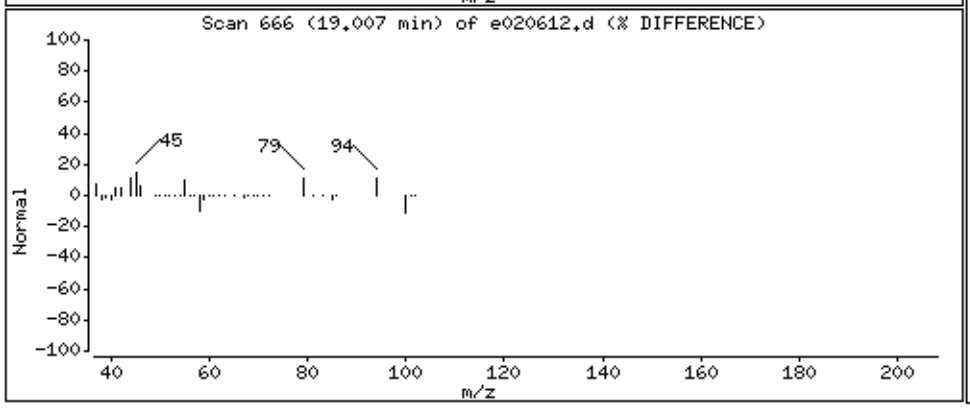
145 4-Methyl-2-pentanone

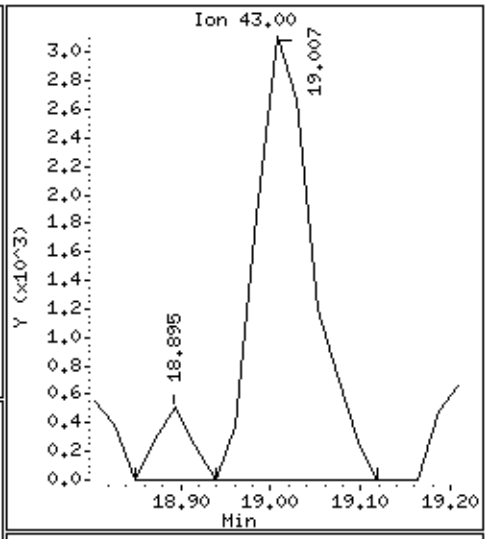
Concentration: 0.2576 PPBV

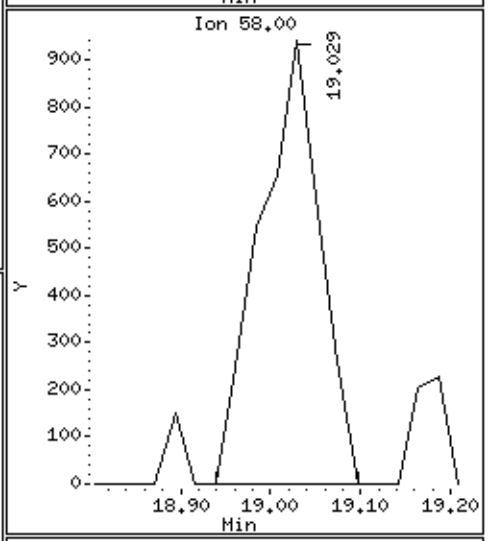


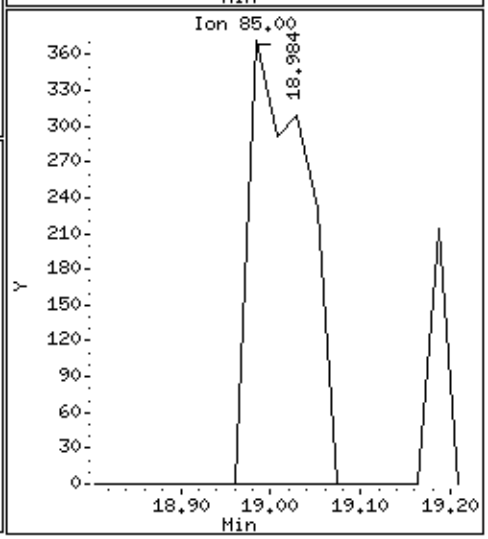












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

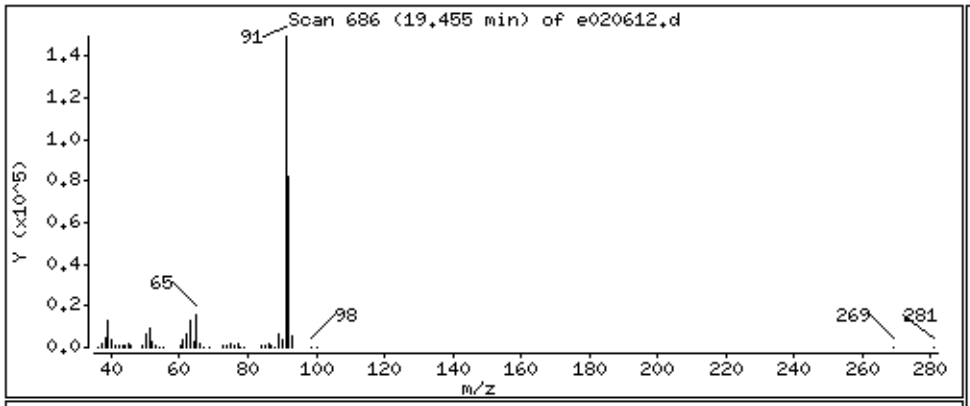
Operator: EA

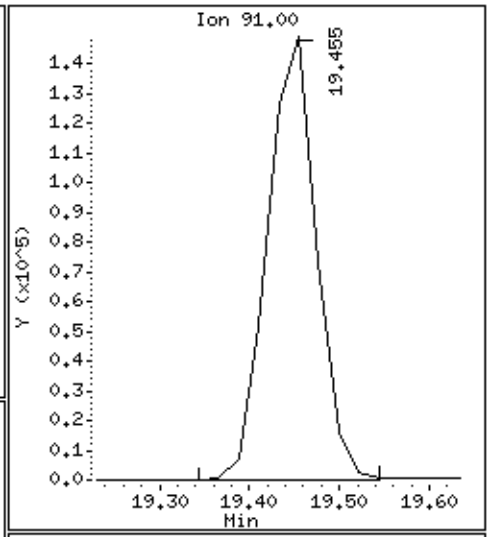
Column phase: RTX-624

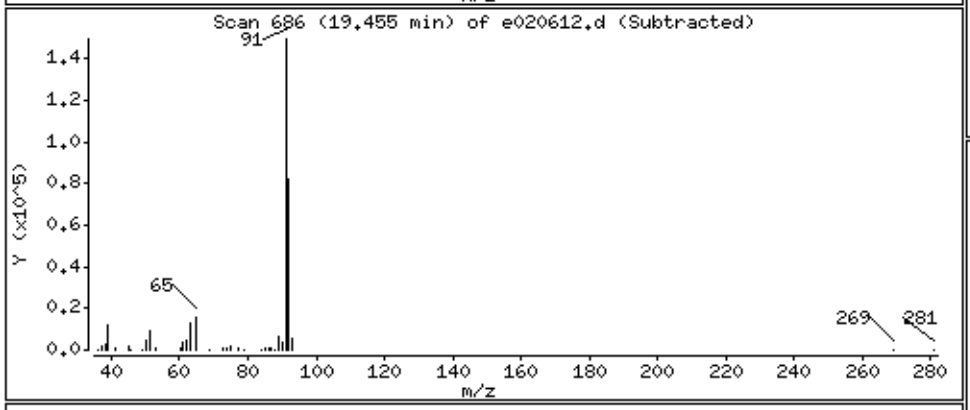
Column diameter: 0.32

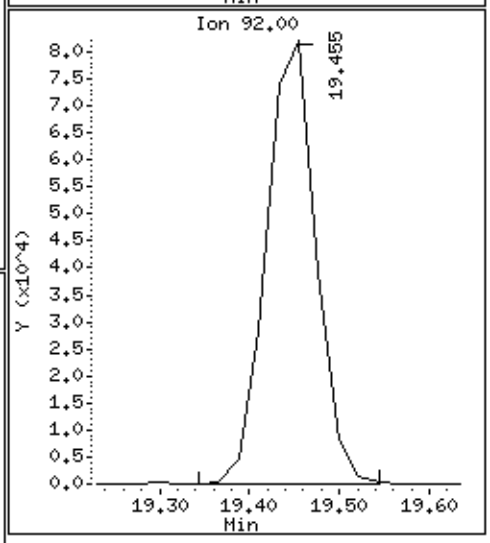
147 Toluene

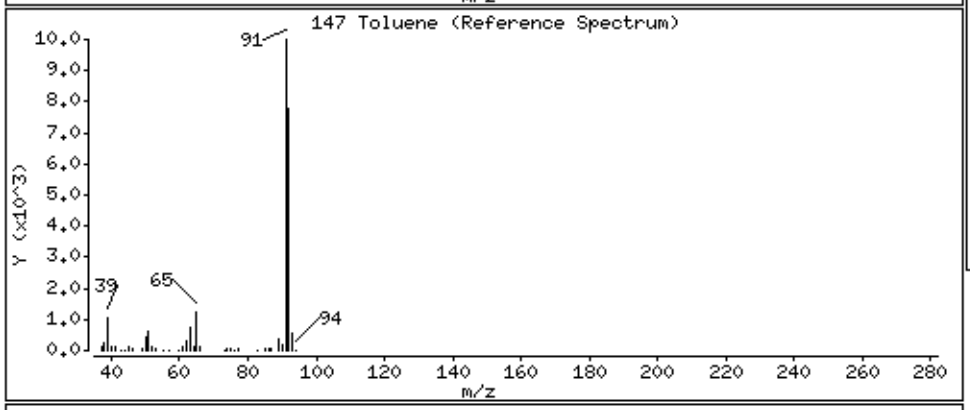
Concentration: 5.313 PPBV

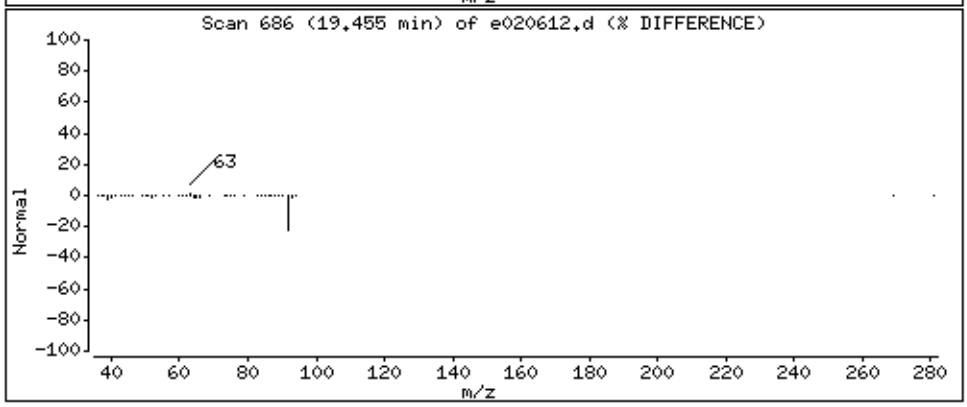












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

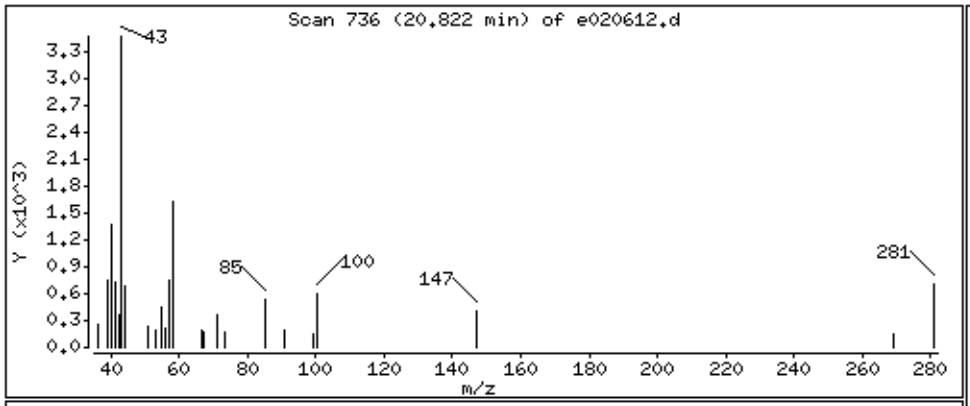
Operator: EA

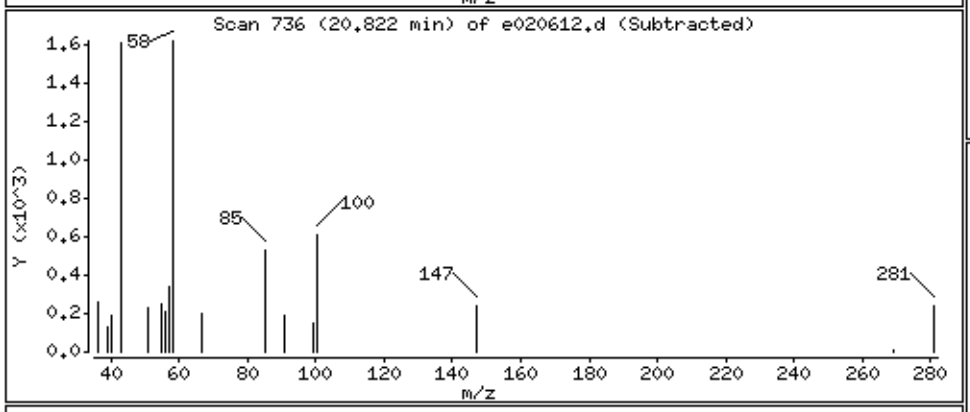
Column phase: RTX-624

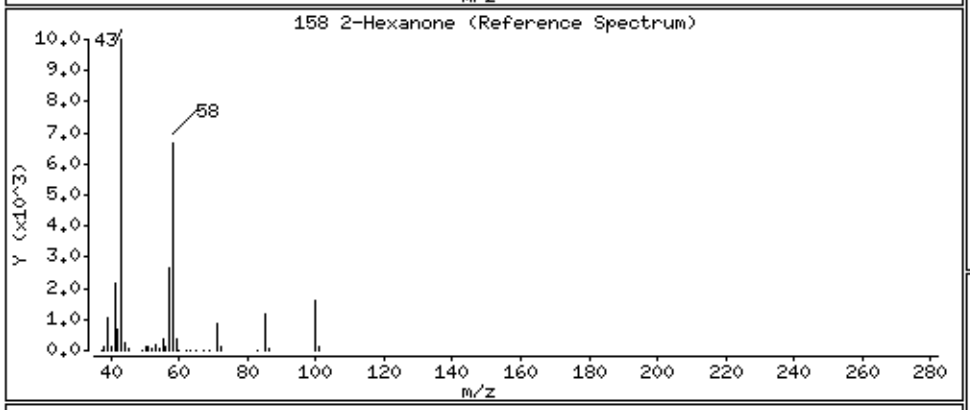
Column diameter: 0.32

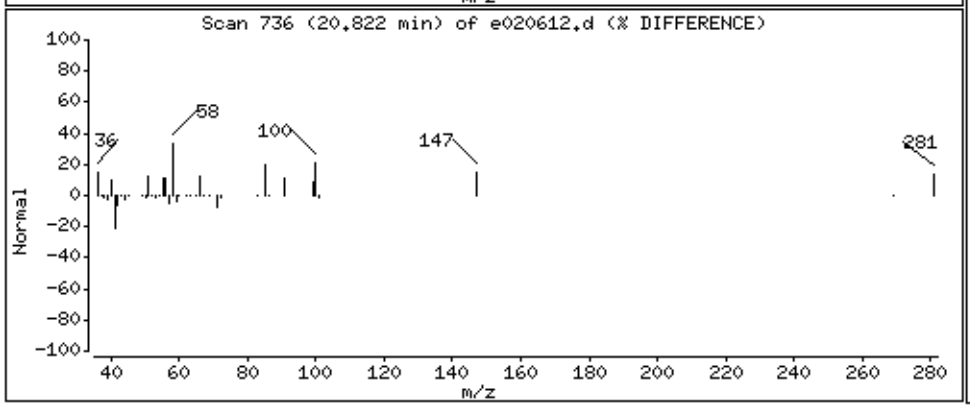
158 2-Hexanone

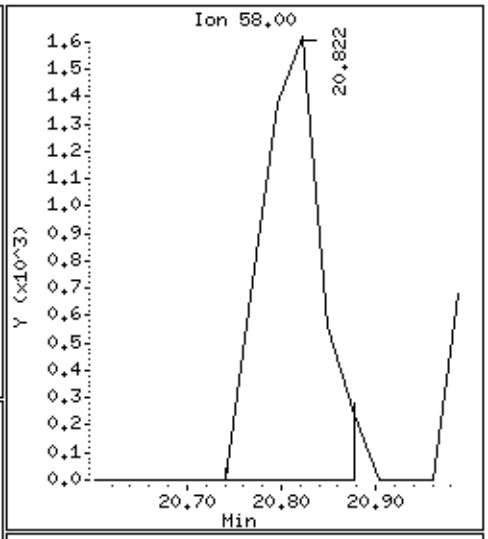
Concentration: 0.2793 PPBV

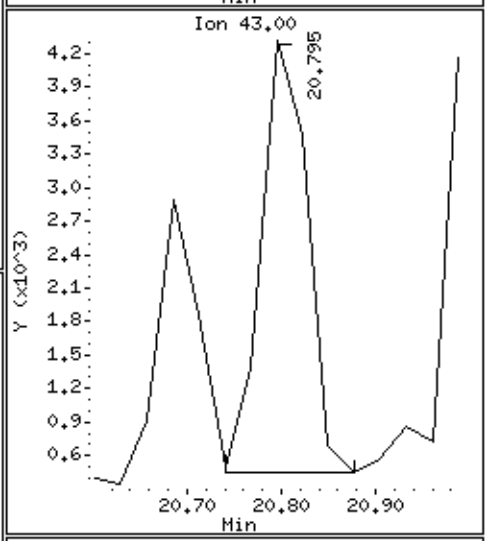


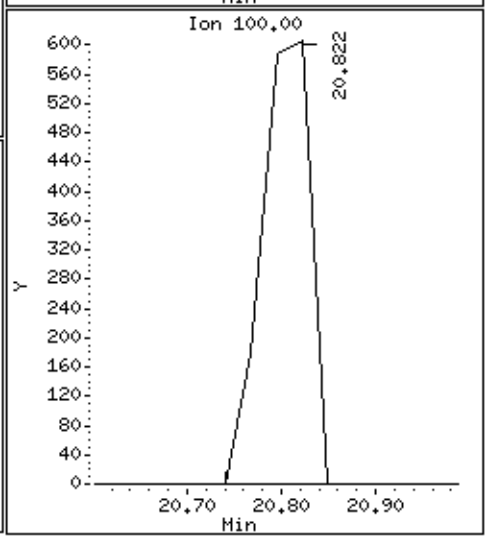












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

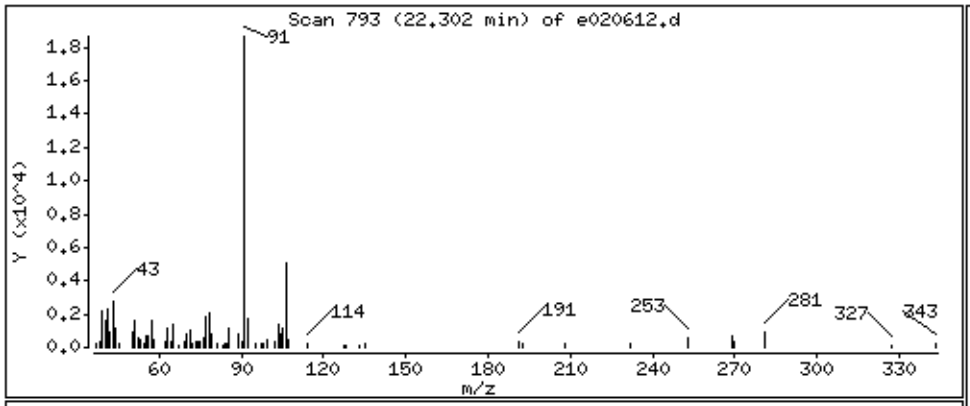
Operator: EA

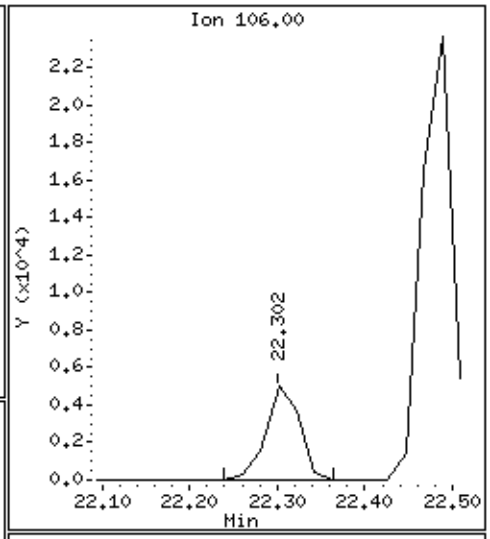
Column phase: RTX-624

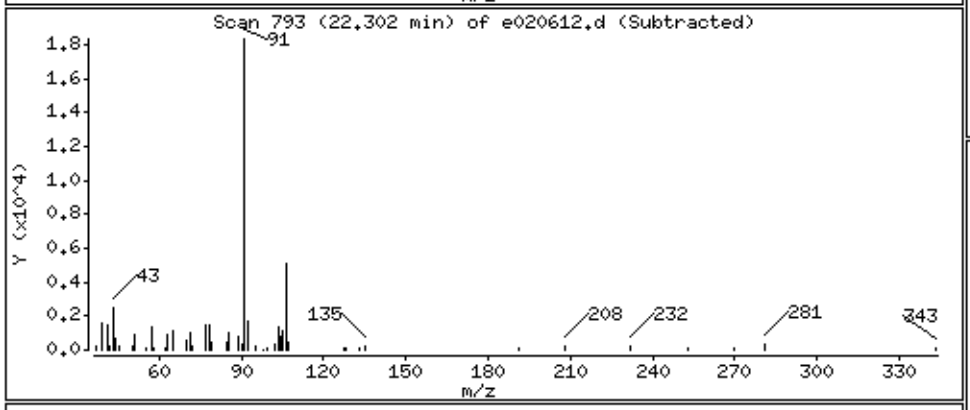
Column diameter: 0.32

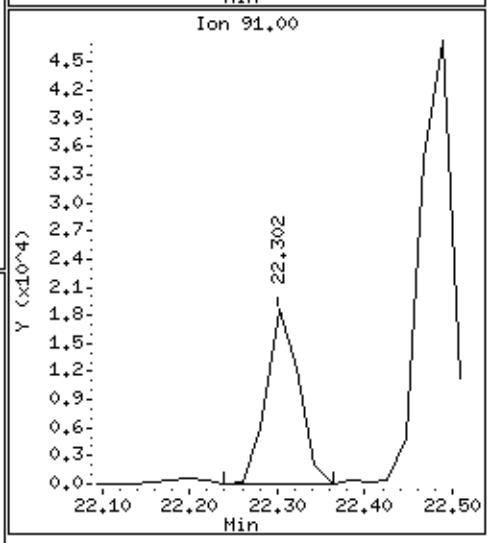
167 Ethyl Benzene

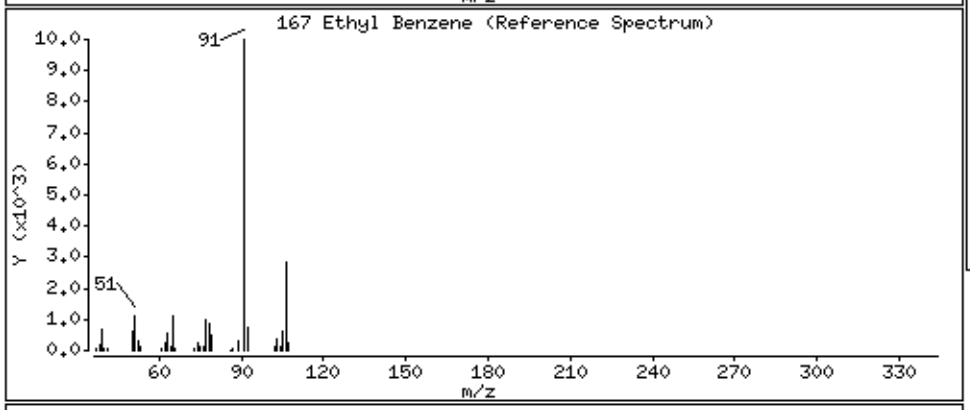
Concentration: 0.3050 PPBV

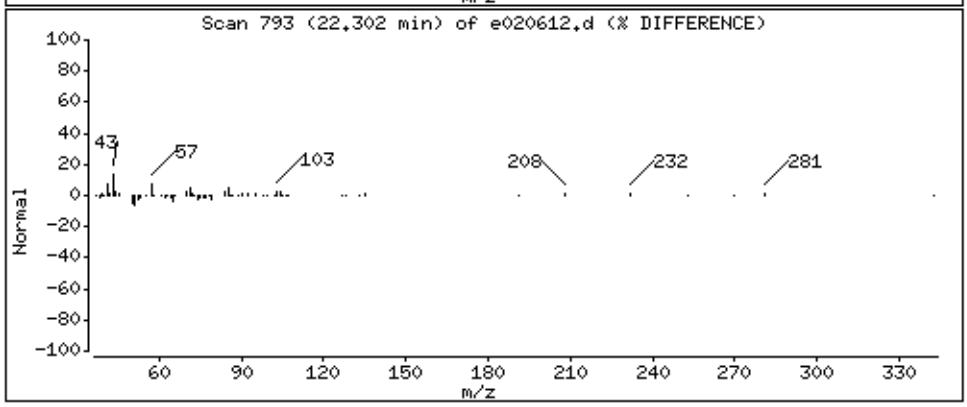












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

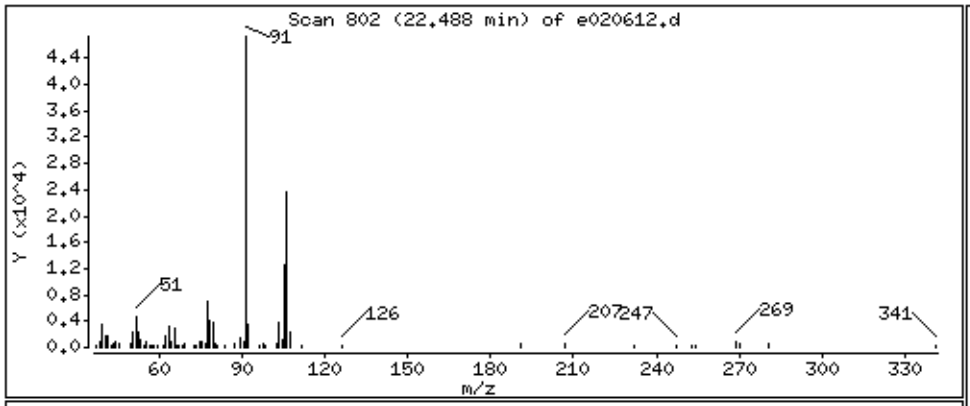
Operator: EA

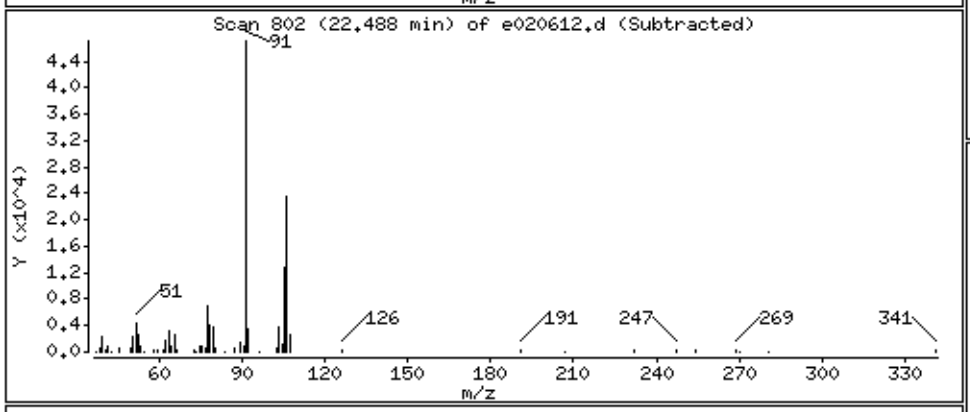
Column phase: RTX-624

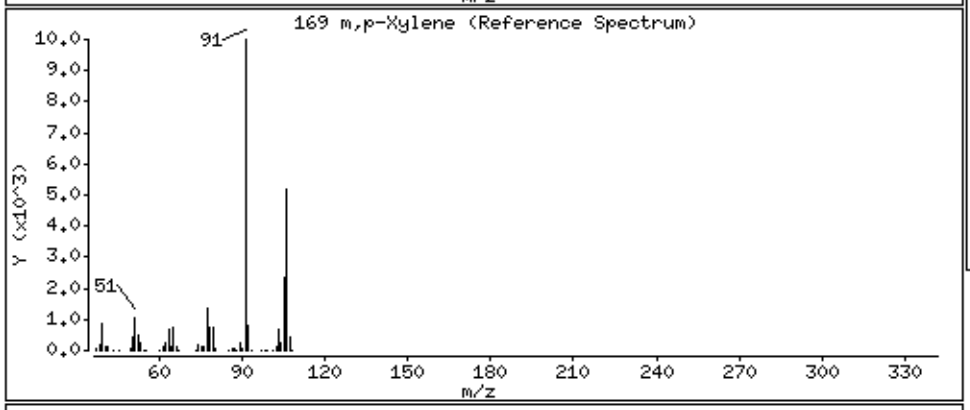
Column diameter: 0.32

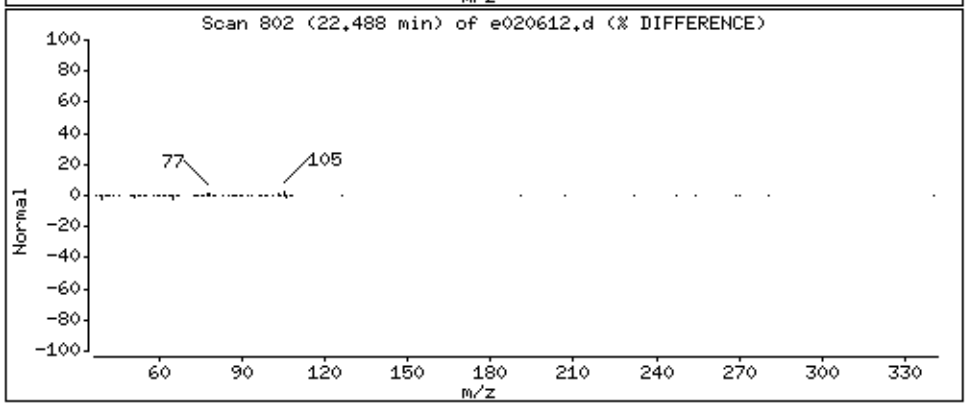
169 m,p-Xylene

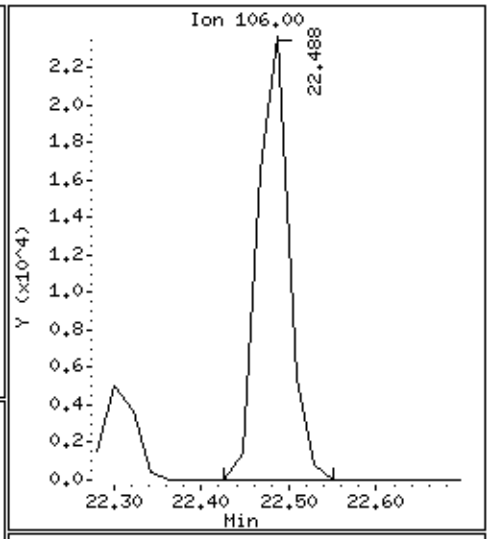
Concentration: 1.116 PPBV

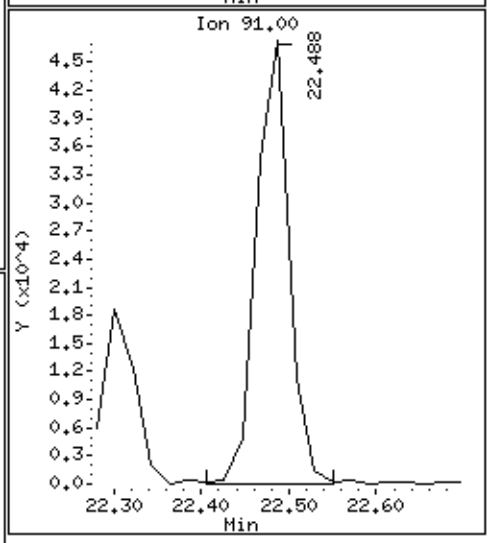












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

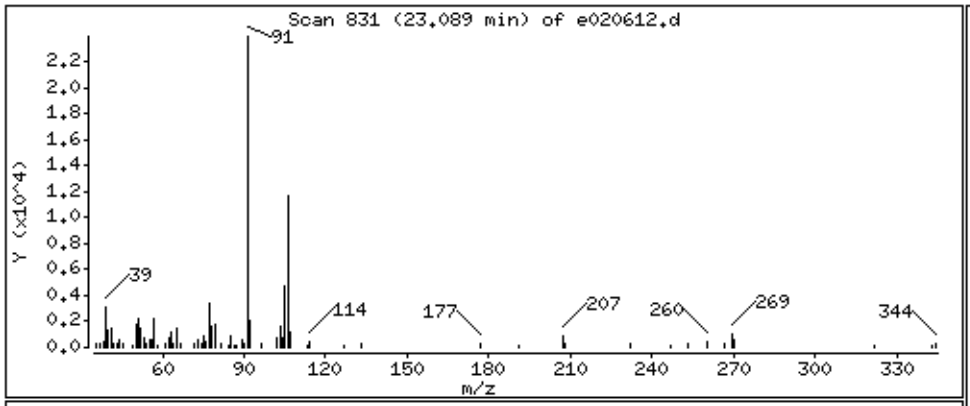
Operator: EA

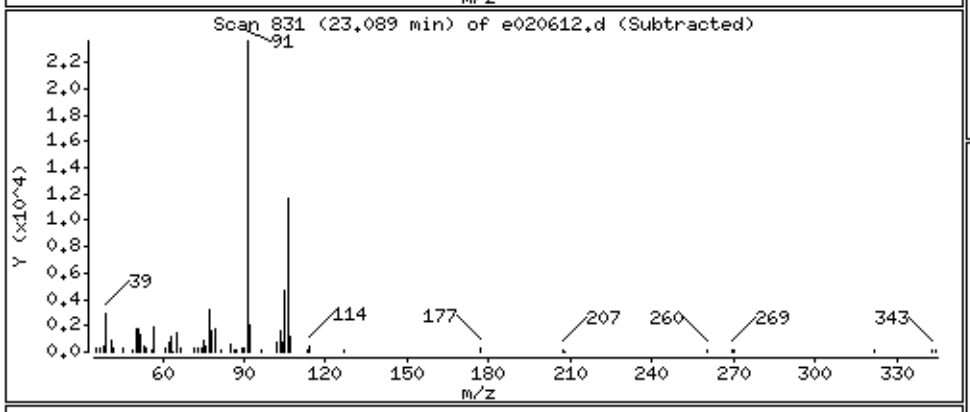
Column phase: RTX-624

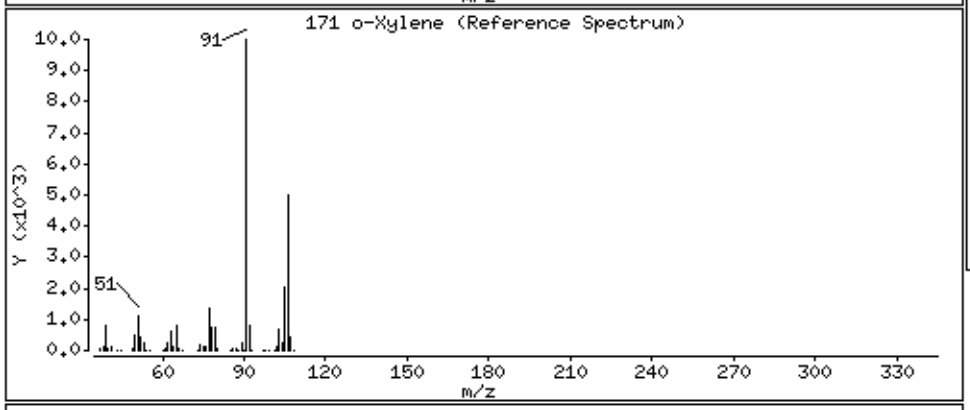
Column diameter: 0.32

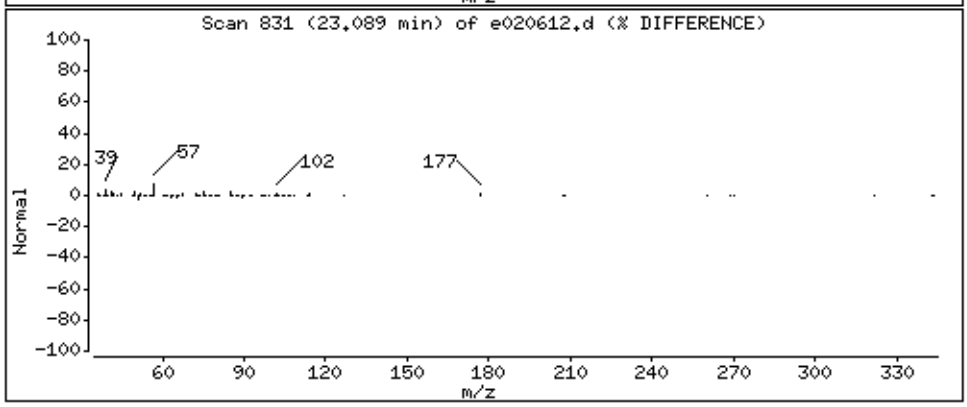
171 o-Xylene

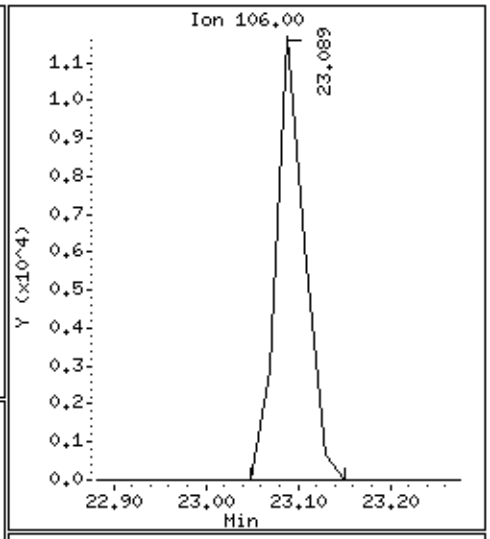
Concentration: 0.5262 PPBV

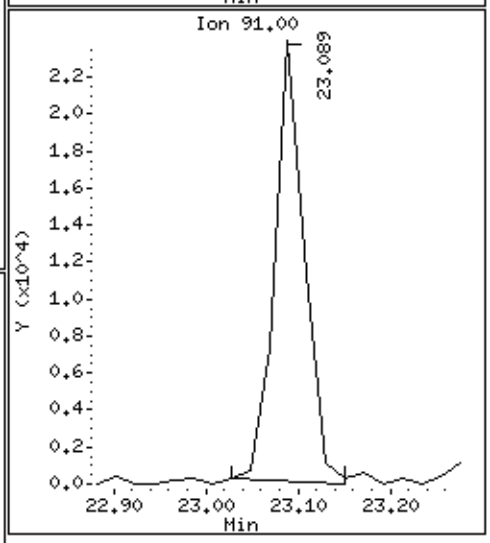












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

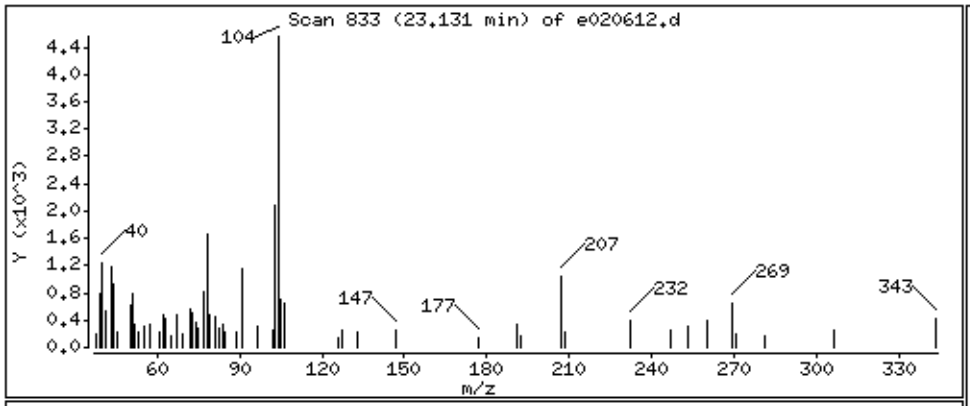
Operator: EA

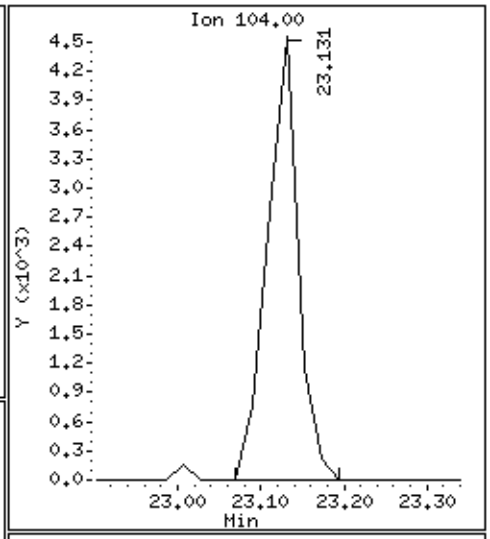
Column phase: RTX-624

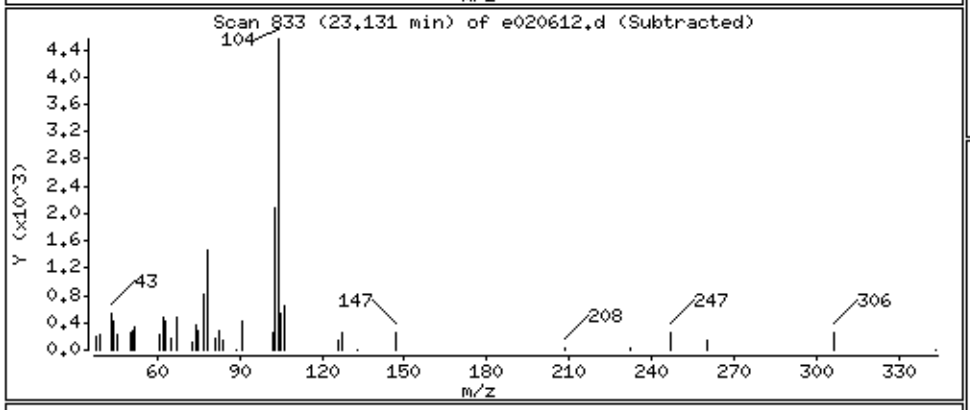
Column diameter: 0.32

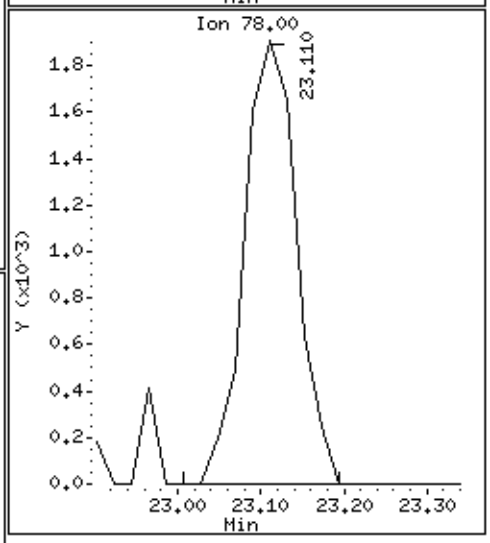
172 Styrene

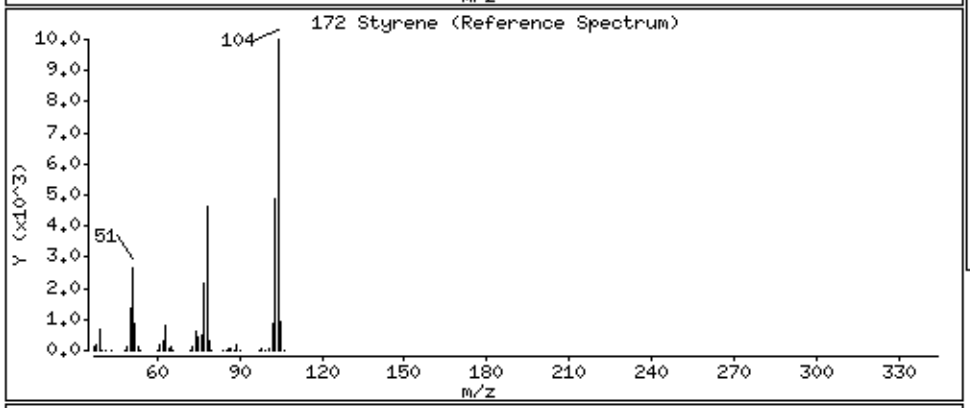
Concentration: 0.1428 PPBV

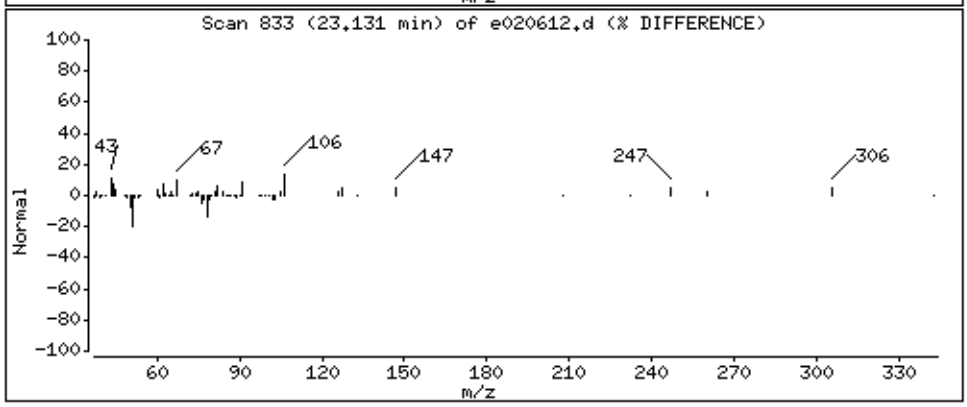












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

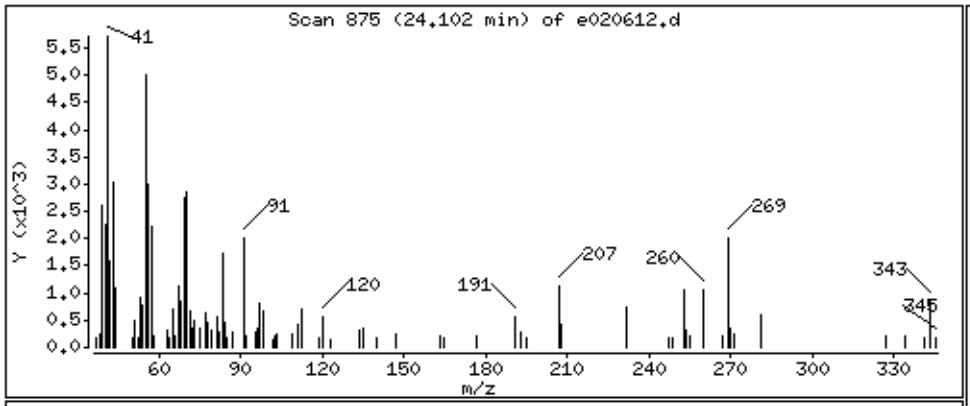
Operator: EA

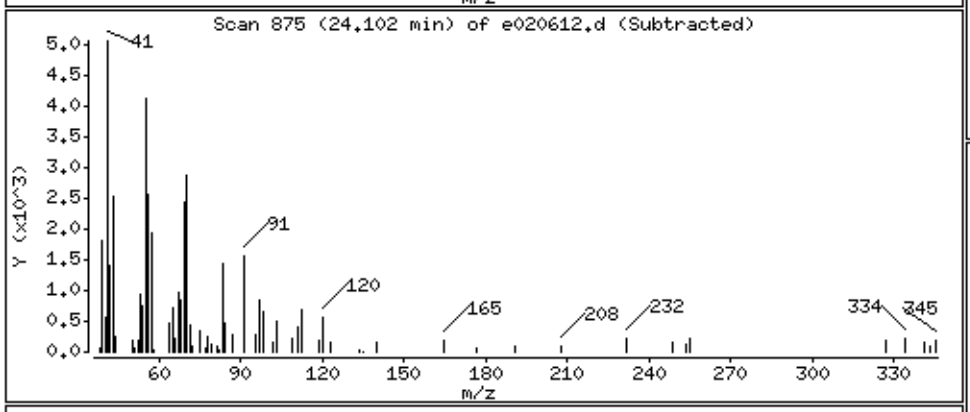
Column phase: RTX-624

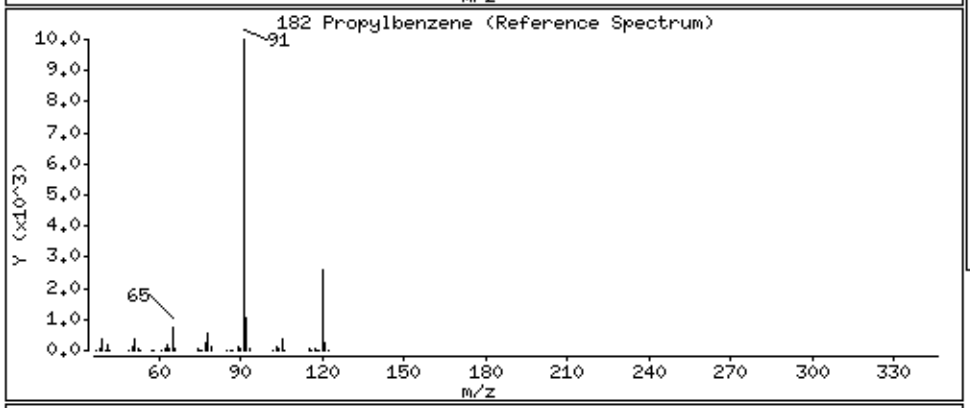
Column diameter: 0.32

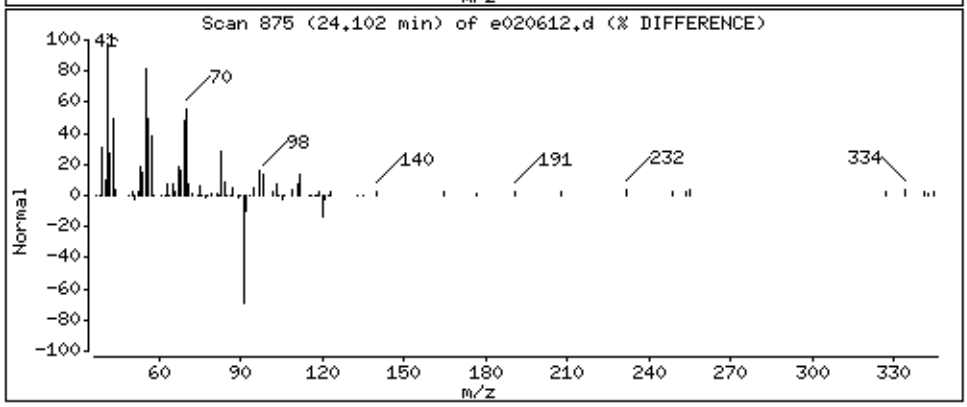
182 Propylbenzene

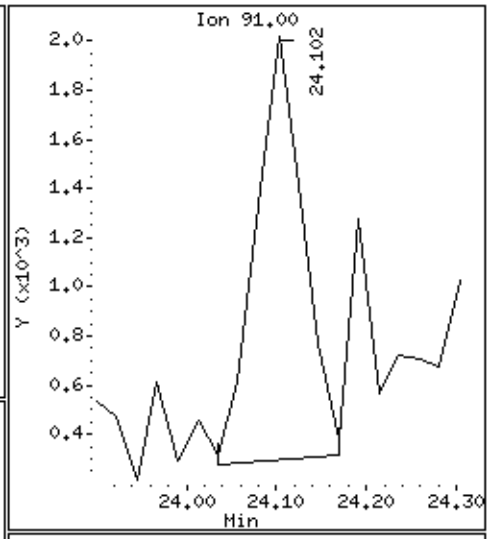
Concentration: 0.04168 PPBV

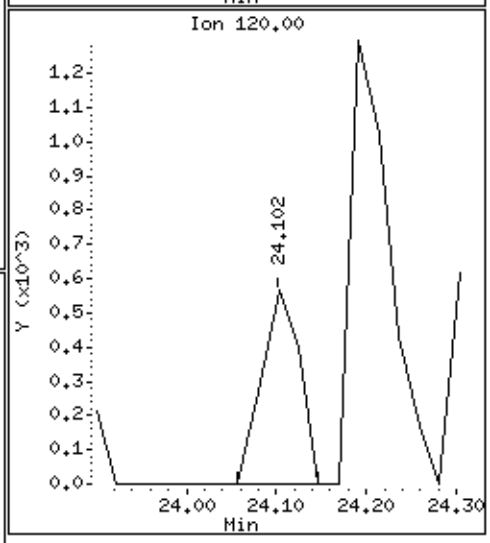












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

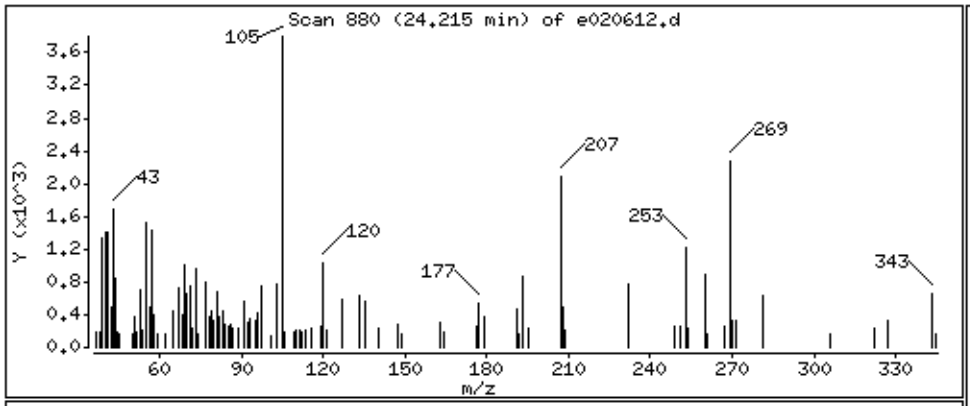
Operator: EA

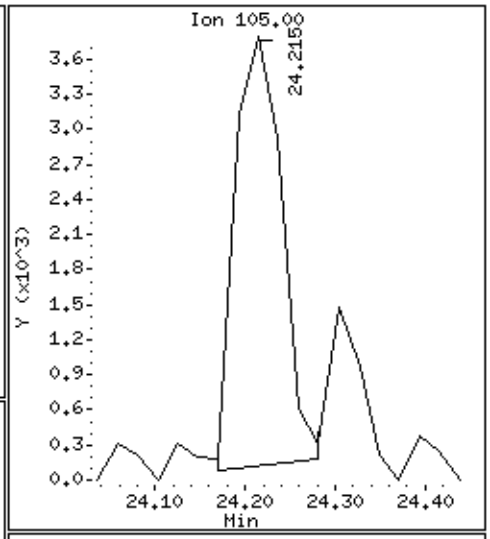
Column phase: RTX-624

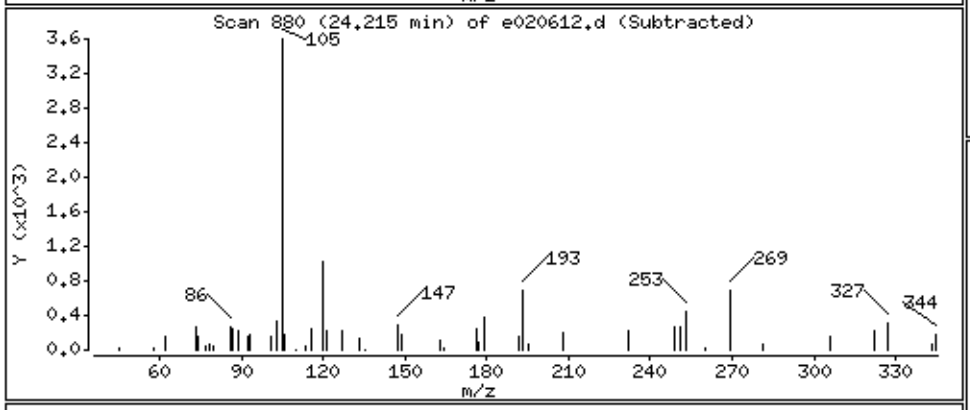
Column diameter: 0.32

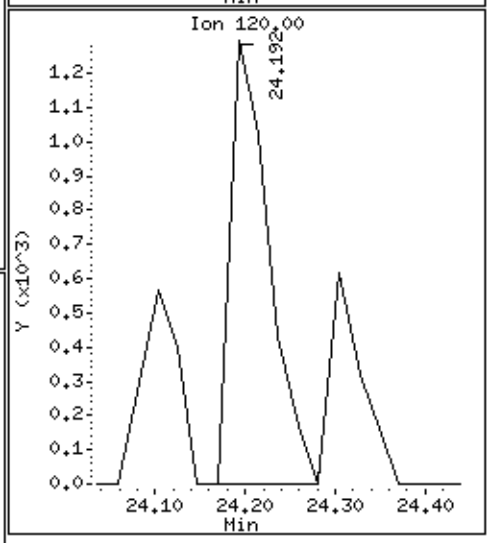
188 4-Ethyltoluene

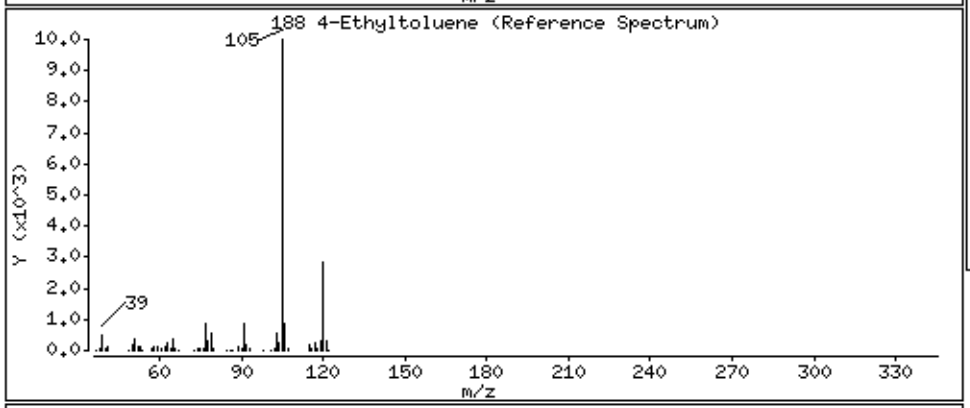
Concentration: 0.1069 PPBV

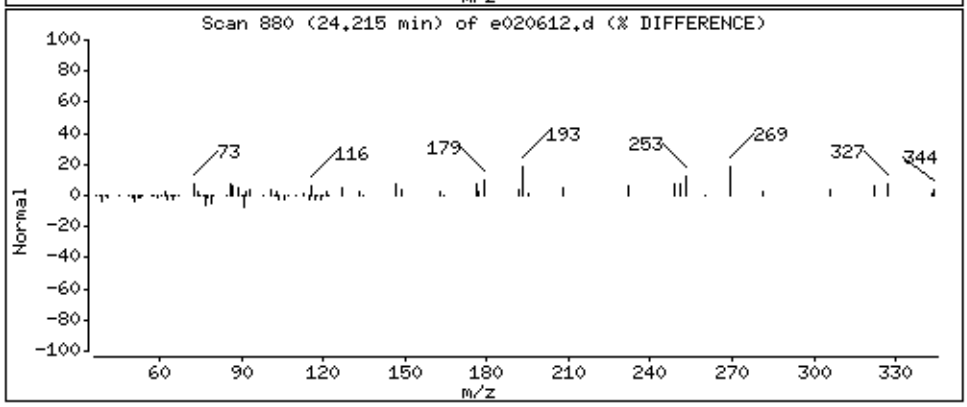












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

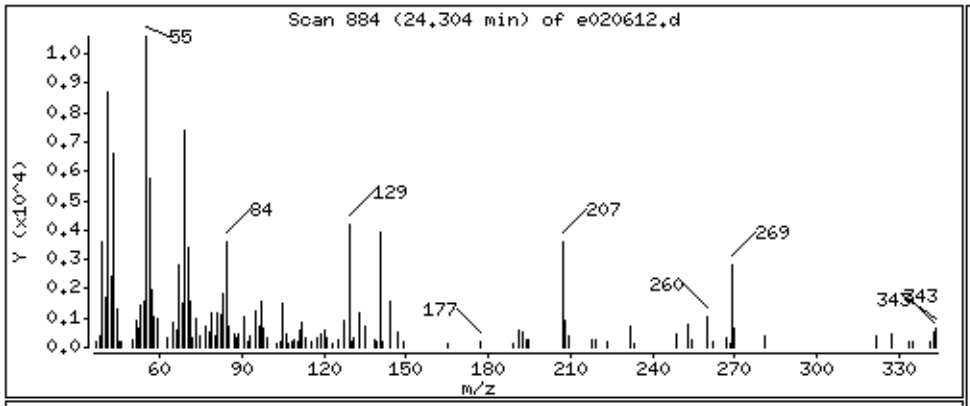
Operator: EA

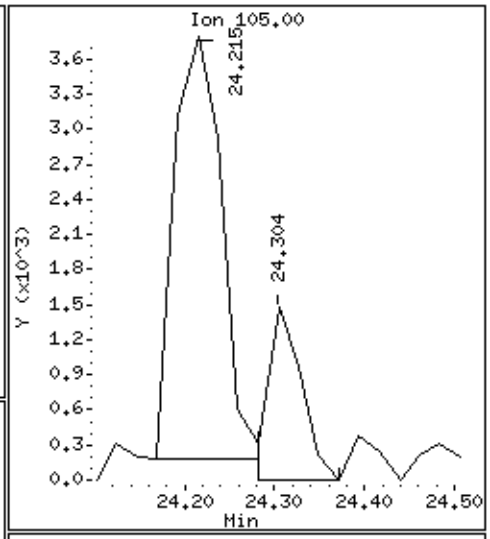
Column phase: RTX-624

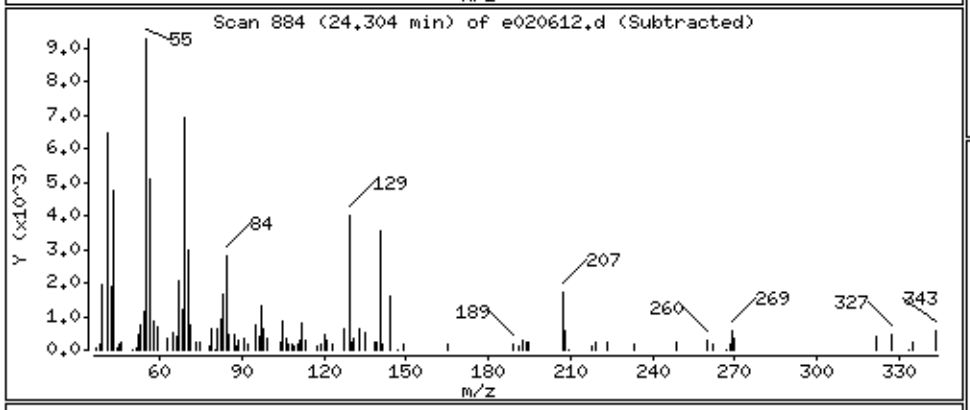
Column diameter: 0.32

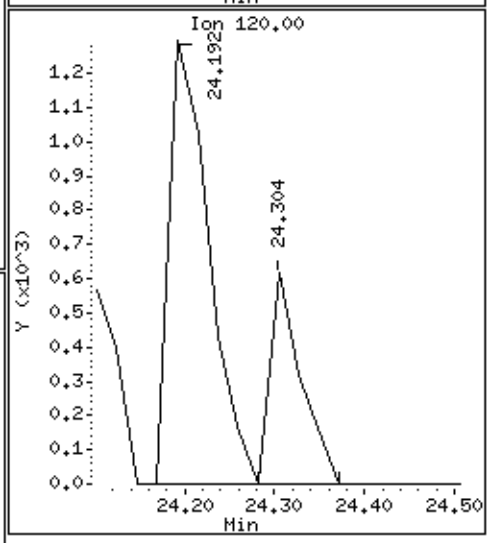
190 1,3,5-Trimethylbenzene

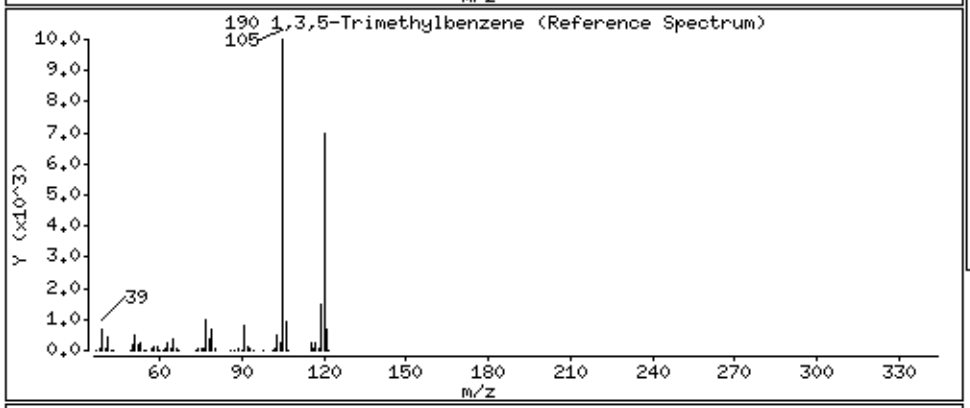
Concentration: 0.04226 PPBV

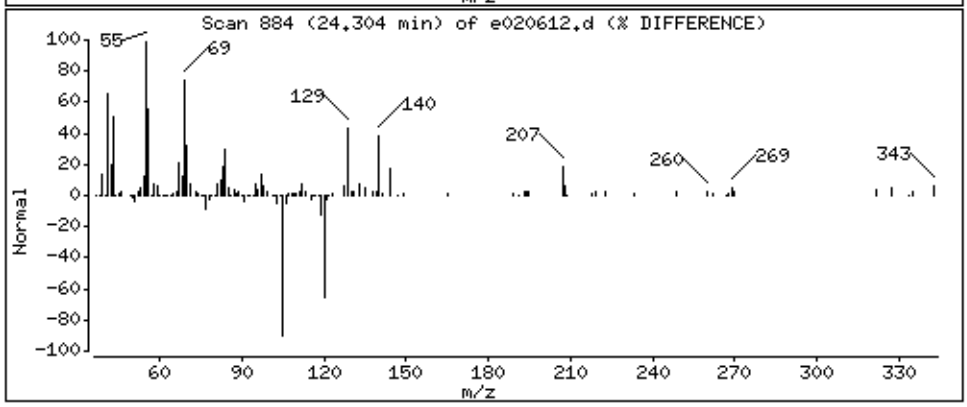












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

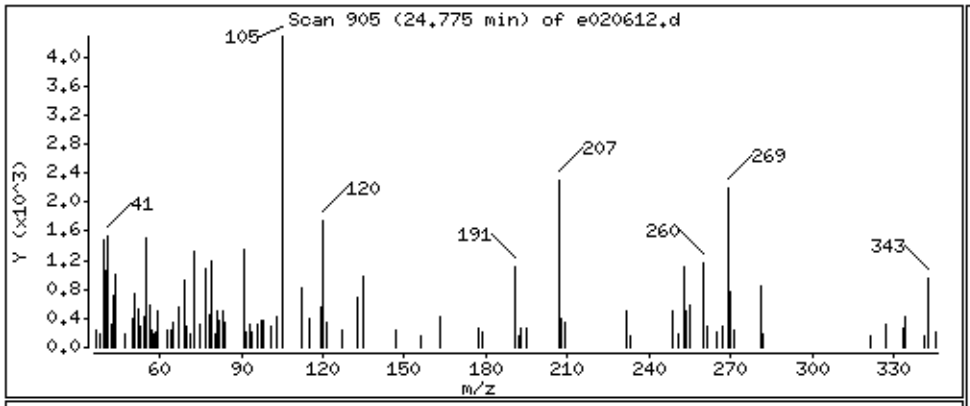
Operator: EA

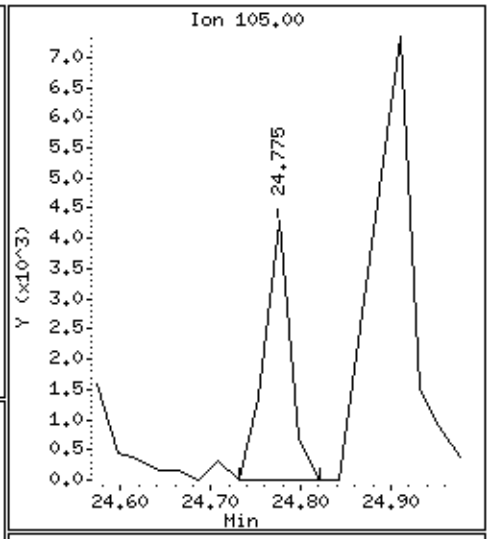
Column phase: RTX-624

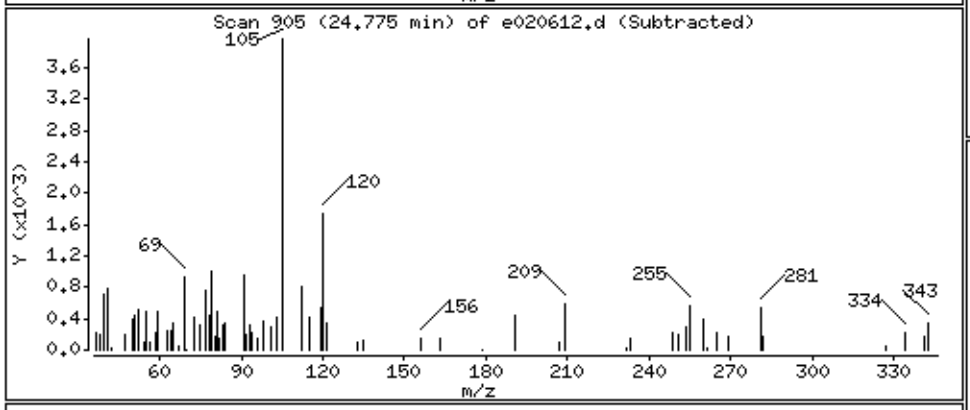
Column diameter: 0.32

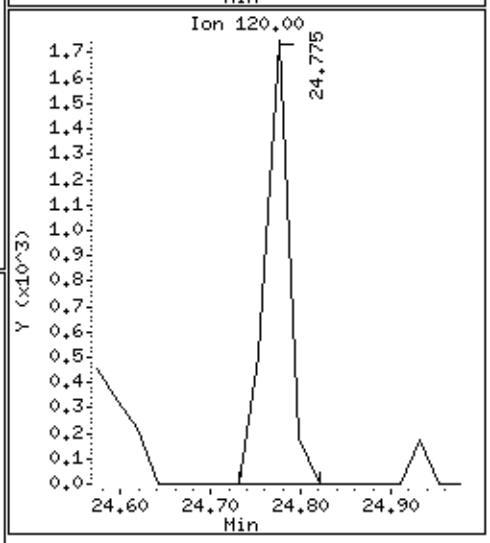
196 1,2,4-Trimethylbenzene

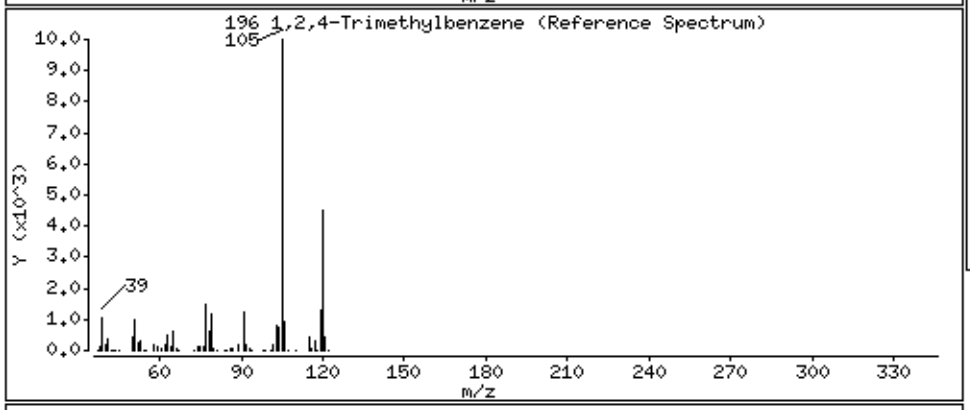
Concentration: 0.1074 PPBV

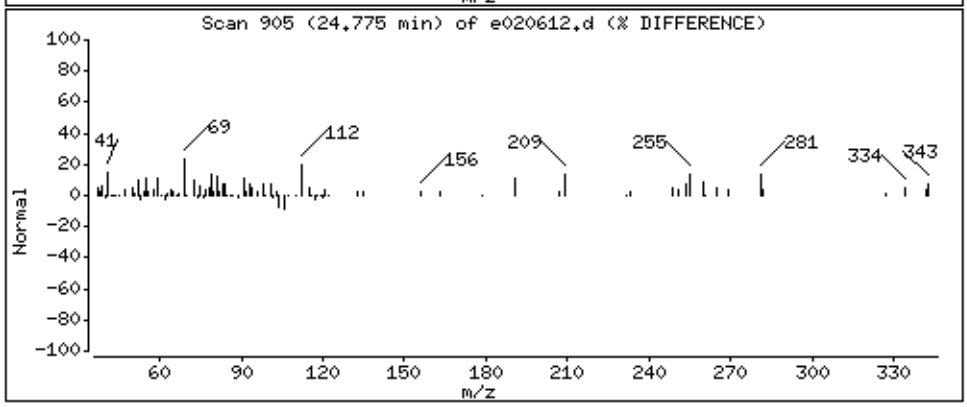












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

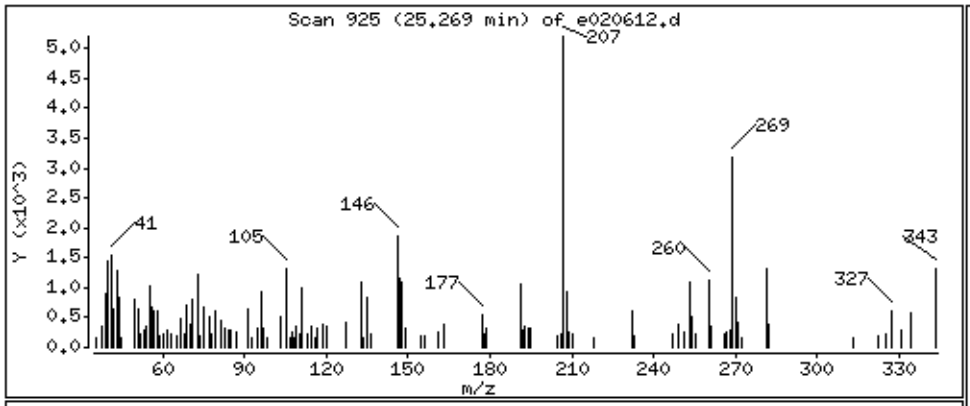
Operator: EA

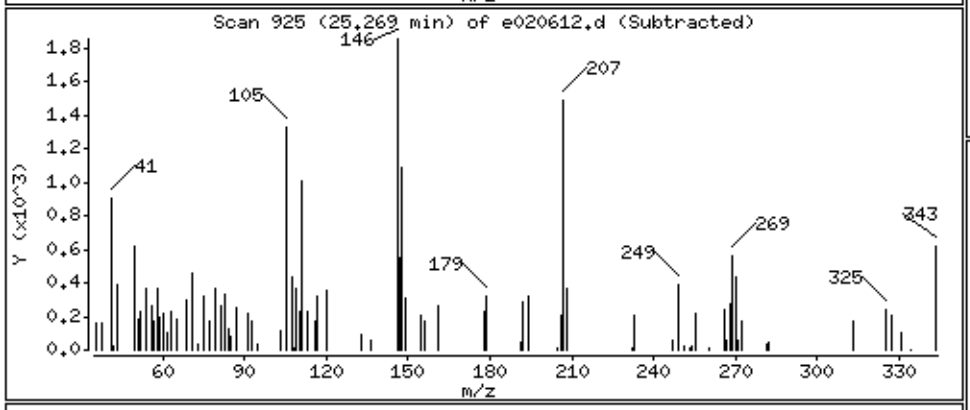
Column phase: RTX-624

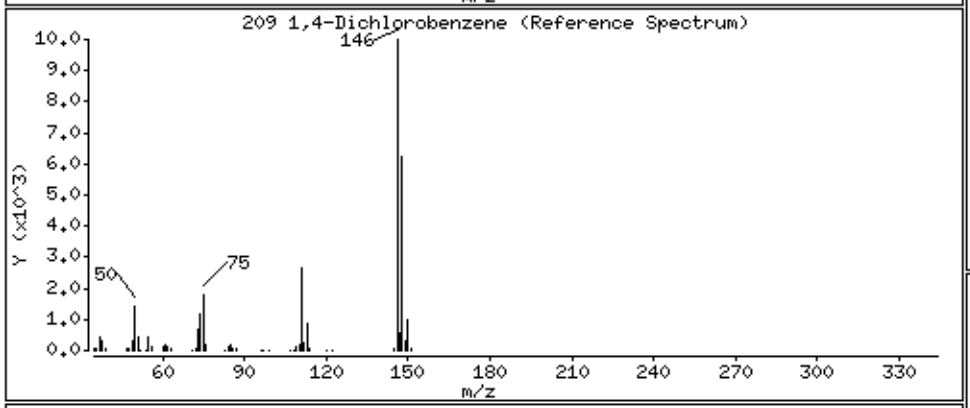
Column diameter: 0.32

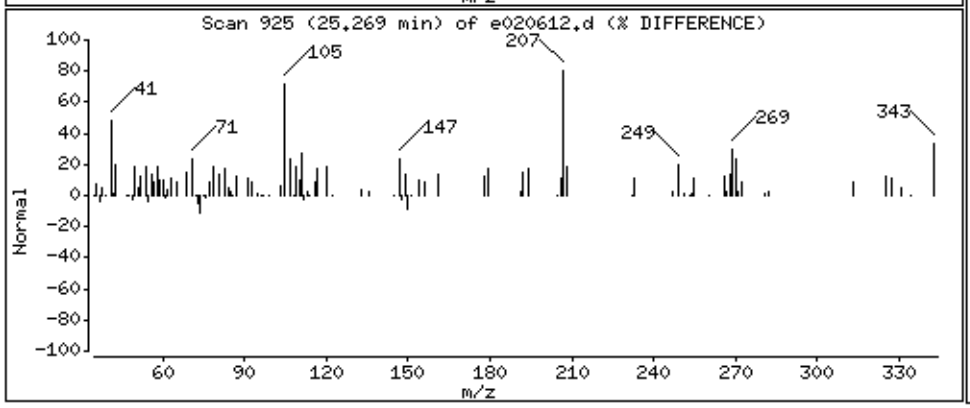
209 1,4-Dichlorobenzene

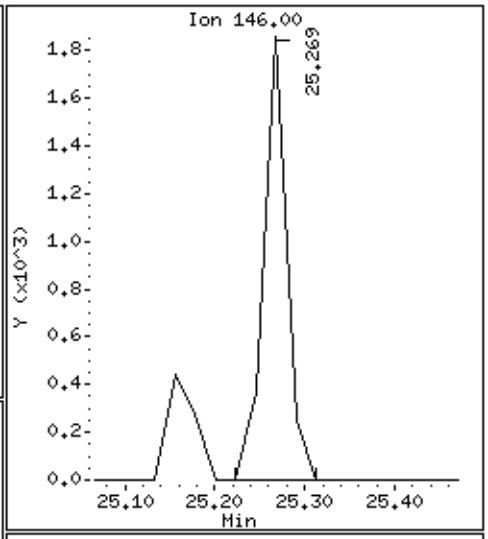
Concentration: 0.03792 PPBV

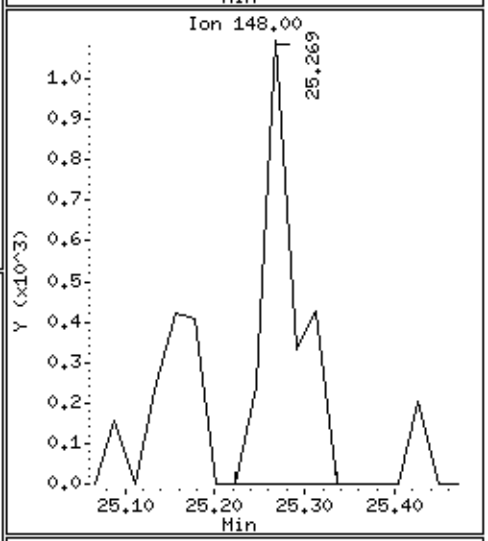


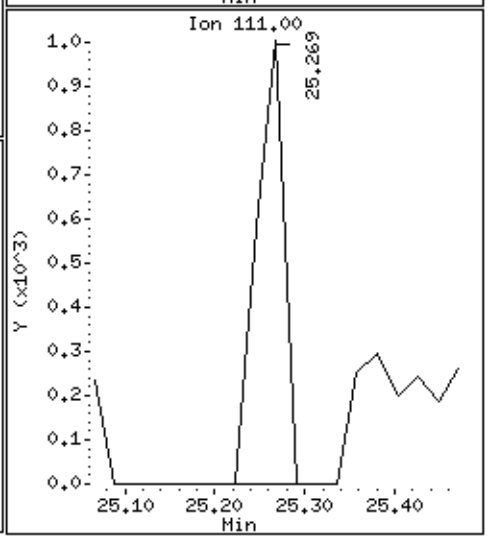












Data File: /chem/msde.i/06Feb2017.b/e020612.d

Date : 06-FEB-2017 16:28

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1591

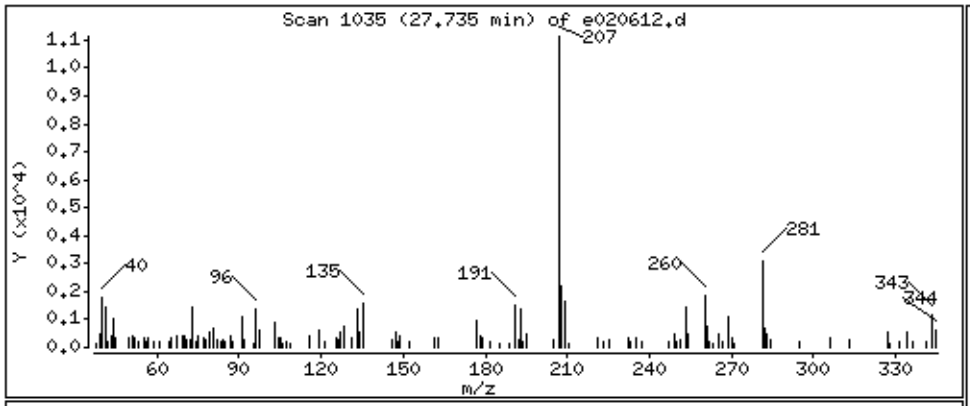
Operator: EA

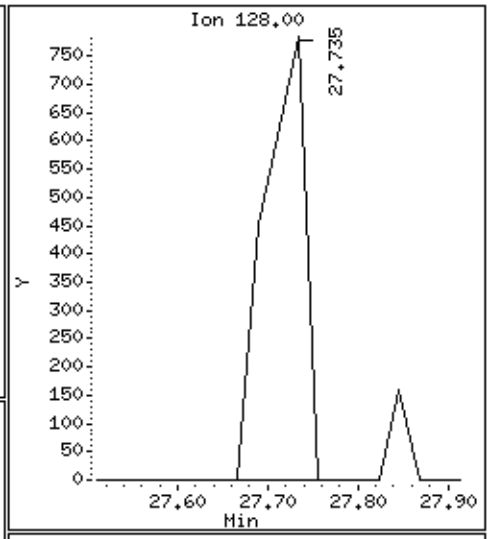
Column phase: RTX-624

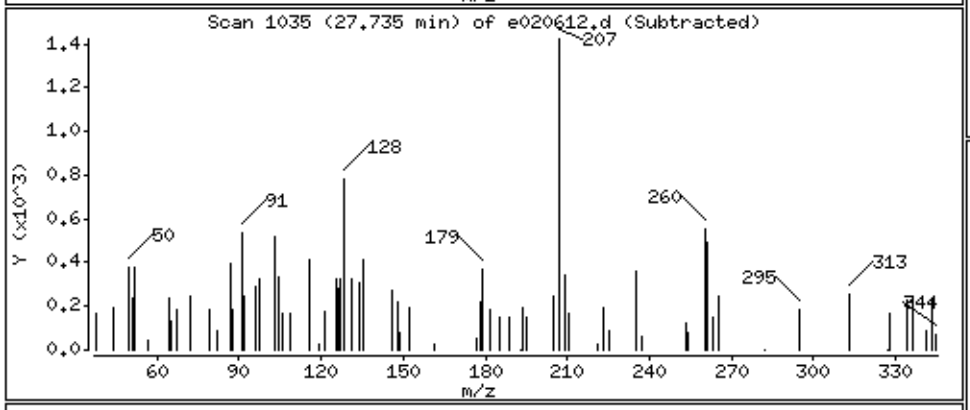
Column diameter: 0.32

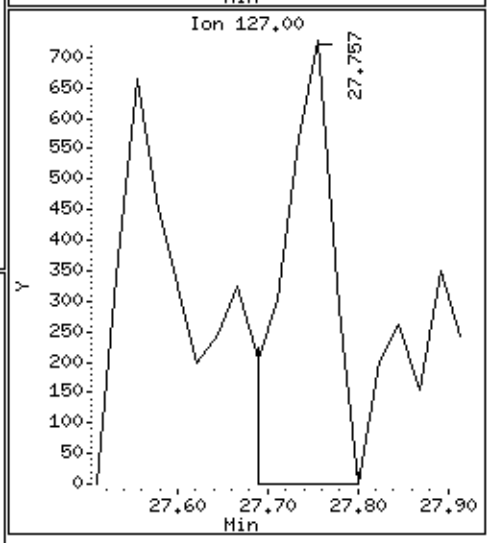
228 Naphthalene

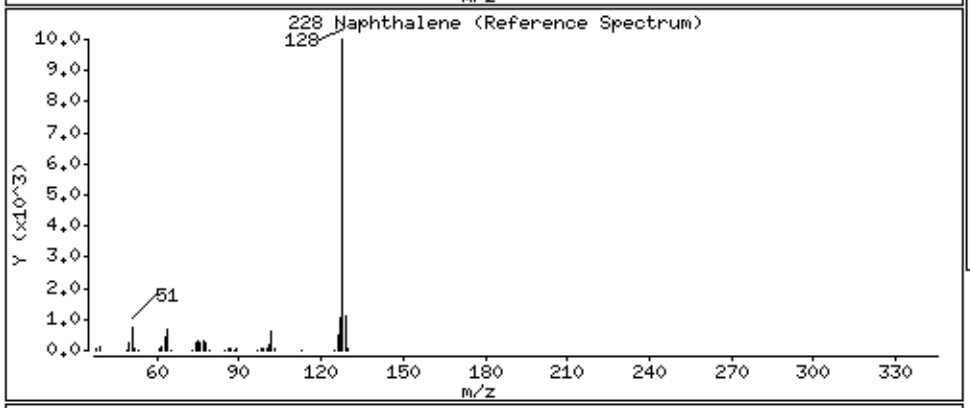
Concentration: 0.03006 PPBV

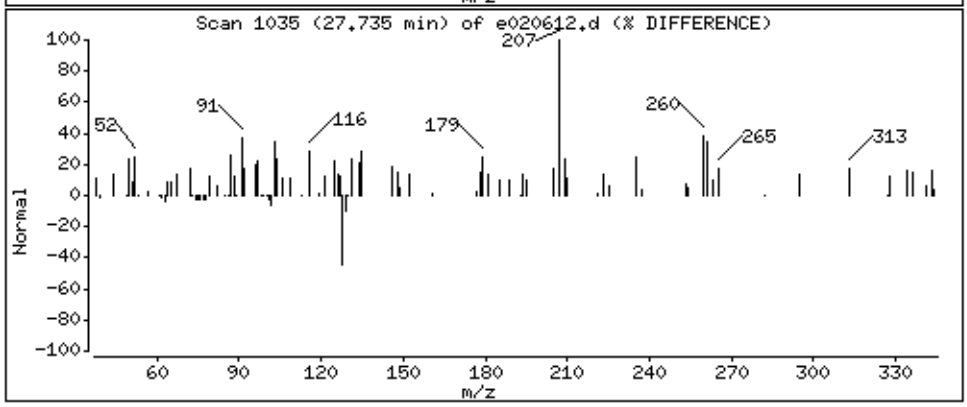












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B8IA-2-012317

Lab ID#: 1701428A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.47	0.86	2.3
Chloromethane	0.88	0.90	1.8	1.8
Bromomethane	0.88	0.12 J	3.4	0.47 J
Freon 11	0.18	0.20	0.98	1.1
Ethanol	0.88	4.6	1.6	8.6
Freon 113	0.18	0.067 J	1.3	0.51 J
Acetone	0.88	12	2.1	28
2-Propanol	0.88	1.8	2.2	4.5
Carbon Disulfide	0.88	0.48 J	2.7	1.5 J
Methylene Chloride	0.35	0.12 J	1.2	0.41 J
Hexane	0.18	0.22	0.62	0.76
2-Butanone (Methyl Ethyl Ketone)	0.88	2.1	2.6	6.3
Tetrahydrofuran	0.88	0.41 J	2.6	1.2 J
Chloroform	0.18	0.039 J	0.85	0.19 J
Carbon Tetrachloride	0.18	0.084 J	1.1	0.53 J
Benzene	0.18	0.23	0.56	0.72
4-Methyl-2-pentanone	0.18	0.11 J	0.72	0.45 J
Toluene	0.18	0.46	0.66	1.7
2-Hexanone	0.88	0.30 J	3.6	1.2 J
Ethyl Benzene	0.18	0.062 J	0.76	0.27 J
m,p-Xylene	0.18	0.25	0.76	1.1
o-Xylene	0.18	0.10 J	0.76	0.43 J
Styrene	0.18	0.052 J	0.74	0.22 J
4-Ethyltoluene	0.18	0.089 J	0.86	0.44 J
1,2,4-Trimethylbenzene	0.18	0.099 J	0.86	0.49 J
1,4-Dichlorobenzene	0.18	0.039 J	1.0	0.23 J

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Client Sample ID: B8IA-2-012317

Lab ID#: 1701428A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020616**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/6/17 08:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.47	0.86	2.3
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	0.90	1.8	1.8
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	0.12 J	3.4	0.47 J
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	0.20	0.98	1.1
Ethanol	0.88	4.6	1.6	8.6
Freon 113	0.18	0.067 J	1.3	0.51 J
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	12	2.1	28
2-Propanol	0.88	1.8	2.2	4.5
Carbon Disulfide	0.88	0.48 J	2.7	1.5 J
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.12 J	1.2	0.41 J
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	0.22	0.62	0.76
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	2.1	2.6	6.3
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	0.41 J	2.6	1.2 J
Chloroform	0.18	0.039 J	0.85	0.19 J
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	0.084 J	1.1	0.53 J
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	0.23	0.56	0.72
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	0.11 J	0.72	0.45 J
Toluene	0.18	0.46	0.66	1.7
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	0.30 J	3.6	1.2 J

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Client Sample ID: B8IA-2-012317

Lab ID#: 1701428A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020616**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/6/17 08:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.062 J	0.76	0.27 J
m,p-Xylene	0.18	0.25	0.76	1.1
o-Xylene	0.18	0.10 J	0.76	0.43 J
Styrene	0.18	0.052 J	0.74	0.22 J
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	0.089 J	0.86	0.44 J
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.099 J	0.86	0.49 J
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	0.039 J	1.0	0.23 J
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
Naphthalene	0.88	Not Detected	4.6	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	106	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020616.d
Lab Smp Id: 1701428A-13A
Inj Date : 06-FEB-2017 20:19
Operator : EA Inst ID: msde.i
Smp Info : 250mL#N1726
Misc Info : 7.0"Hg-5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 07-Feb-2017 06:37 atoyama Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1
Dil Factor: 1.75000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	32849	0.26787	0.4688	80.00- 120.00	100.00
5.196	5.220 (0.338)	87	9536			1.91- 61.91	29.03
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	11709	0.51196	0.8959	80.00- 120.00	100.00
6.956	6.932 (0.452)	52	3469			3.31- 63.31	29.63
29 Bromomethane					CAS #: 74-83-9		
9.548	9.510 (0.620)	94	2350	0.06991	0.1223	80.00- 120.00	100.00(a)
9.529	9.510 (0.619)	96	1754			64.26- 124.26	74.67
35 Freon 11					CAS #: 75-69-4		
10.747	10.766 (0.698)	101	15988	0.11176	0.1956	80.00- 120.00	100.00
10.747	10.766 (0.698)	103	11386			33.74- 93.74	71.22
42 Ethanol					CAS #: 64-17-5		
11.662	11.661 (0.758)	45	32583	2.61299	4.573	80.00- 120.00	100.00
11.662	11.661 (0.758)	46	12674			9.60- 69.60	38.90
11.662	11.661 (0.758)	43	9341			0.00- 59.21	28.67

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
49 Freon 113					CAS #: 76-13-1		
12.062	12.081 (0.784)	151	3650	0.03821	0.06687	80.00- 120.00	100.00(a)
12.062	12.081 (0.784)	153	3439			34.83- 94.83	94.24
12.081	12.081 (0.785)	101	4858			77.16- 137.16	133.10
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	104898	6.69073	11.709	80.00- 120.00	100.00
12.347	12.366 (0.802)	43	362841			344.13- 404.13	345.90
56 Carbon Disulfide					CAS #: 75-15-0		
12.443	12.462 (0.808)	76	29828	0.27503	0.4813	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
12.728	12.728 (0.827)	45	53272	1.05543	1.847	80.00- 120.00	100.00
12.728	12.728 (0.827)	43	14084			0.00- 55.65	26.44
12.728	12.728 (0.827)	59	2987			0.00- 34.42	5.61
66 Methylene Chloride					CAS #: 75-09-2		
13.149	13.176 (0.854)	84	2573	0.06706	0.1174	80.00- 120.00	100.00(a)
13.149	13.176 (0.854)	49	3309			83.76- 143.76	128.61
13.176	13.176 (0.856)	51	2360			2.61- 62.61	91.74
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	5659	0.12385	0.2167	80.00- 120.00	100.00
13.890	13.835 (0.902)	43	16696			27.83- 87.83	294.99
13.808	13.835 (0.897)	86	1131			0.00- 50.45	20.00
92 2-Butanone					CAS #: 78-93-3		
15.047	15.047 (0.978)	72	20785	1.22257	2.140	80.00- 120.00	100.00
15.047	15.047 (0.978)	43	80096			325.72- 385.72	385.35
15.047	15.047 (0.978)	57	6710			1.13- 61.13	32.29
99 Tetrahydrofuran					CAS #: 109-99-9		
15.391	15.391 (1.000)	42	7181	0.23335	0.4084	80.00- 120.00	100.00(a)
15.391	15.391 (1.000)	71	3120			20.32- 80.32	43.45
15.391	15.391 (1.000)	72	4838			21.98- 81.98	67.37
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	138124	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	110321			46.73- 106.73	79.87
15.391	15.391 (1.000)	49	115872			55.35- 115.35	83.89
100 Chloroform					CAS #: 67-66-3		
15.453	15.453 (1.004)	83	2256	0.02254	0.03944	80.00- 120.00	100.00(a)
15.484	15.453 (1.006)	85	2139			36.62- 96.62	94.84

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
106 Carbon Tetrachloride						CAS #: 56-23-5	
15.884	15.884 (1.032)	119	5514	0.04810	0.08418	80.00- 120.00	100.00(a)
15.884	15.884 (1.032)	117	2944			74.11- 134.11	53.39
116 Benzene						CAS #: 71-43-2	
16.183	16.207 (0.967)	78	15223	0.12923	0.2262	80.00- 120.00	100.00
16.183	16.207 (0.967)	77	4859			0.00- 53.00	31.92
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
16.183	16.207 (1.051)	65	217725	5.48909	5.489	80.00- 120.00	100.00
16.183	16.207 (1.051)	67	106575			22.67- 82.67	48.95
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	477132	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	75466			0.00- 45.16	15.82
145 4-Methyl-2-pentanone						CAS #: 108-10-1	
19.007	19.006 (1.136)	43	4425	0.06315	0.1105	80.00- 120.00	100.00(a)
18.984	19.006 (1.134)	58	1437			10.02- 70.02	32.48
19.007	19.006 (1.136)	85	765			0.00- 52.01	17.29
$ 146 Toluene-d8						CAS #: 2037-26-5	
19.275	19.298 (1.152)	98	458578	4.95480	4.955	80.00- 120.00	100.00
19.275	19.298 (1.152)	70	55665			0.00- 40.89	12.14
19.275	19.298 (1.152)	100	306021			40.09- 100.09	66.73
147 Toluene						CAS #: 108-88-3	
19.432	19.432 (1.161)	91	37219	0.26117	0.4570	80.00- 120.00	100.00
19.432	19.432 (1.161)	92	20809			27.79- 87.79	55.91
158 2-Hexanone						CAS #: 591-78-6	
20.795	20.795 (0.938)	58	5895	0.17122	0.2996	80.00- 120.00	100.00(a)
20.795	20.795 (0.938)	43	8539			162.96- 222.96	144.84
20.795	20.795 (0.938)	100	1017			0.00- 59.39	17.25
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	449266	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	221320			17.27- 77.27	49.26
167 Ethyl Benzene						CAS #: 100-41-4	
22.302	22.301 (1.006)	106	2097	0.03564	0.06236	80.00- 120.00	100.00(a)
22.302	22.301 (1.006)	91	6878			278.11- 338.11	327.94
169 m,p-Xylene						CAS #: 108-38-3	
22.467	22.488 (1.013)	106	10045	0.14422	0.2524	80.00- 120.00	100.00
22.467	22.488 (1.013)	91	19087			170.01- 230.01	190.01

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
171 o-Xylene						CAS #: 95-47-6		
23.069	23.089	(1.040)	106	3671	0.05688	0.09953	80.00- 120.00	100.00(a)
23.089	23.089	(1.041)	91	8700			175.84- 235.84	236.98
172 Styrene						CAS #: 100-42-5		
23.110	23.110	(1.042)	104	3187	0.02960	0.05180	80.00- 120.00	100.00(a)
23.110	23.110	(1.042)	78	2678			20.21- 80.21	84.01
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4		
23.856	23.856	(1.076)	174	331426	5.28120	5.281	80.00- 120.00	100.00
23.856	23.856	(1.076)	95	324640			66.74- 126.74	97.95
23.856	23.856	(1.076)	176	315558			67.47- 127.47	95.21
188 4-Ethyltoluene						CAS #: 622-96-8		
24.192	24.237	(1.091)	105	8535	0.05108	0.08940	80.00- 120.00	100.00(a)
24.192	24.237	(1.091)	120	3540			1.00- 61.00	41.48
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
24.775	24.775	(1.117)	105	5894	0.05670	0.09922	80.00- 120.00	100.00(a)
24.753	24.775	(1.116)	120	2702			16.84- 76.84	45.84
209 1,4-Dichlorobenzene						CAS #: 106-46-7		
25.269	25.269	(1.139)	146	2555	0.02225	0.03893	80.00- 120.00	100.00(a)
25.246	25.269	(1.138)	148	2285			35.10- 95.10	89.42
25.269	25.269	(1.139)	111	894			4.80- 64.80	35.00

QC Flag Legend

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

Report Date: 09-Feb-2017 13:15

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e020616.d
Lab Smp Id: 1701428A-13A
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 7.0"Hg-5.0psi

Calibration Date: 06-FEB-2017
Calibration Time: 07:43

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	138124	-4.97
123 1,4-Difluorobenze	497113	298268	695958	477132	-4.02
163 Chlorobenzene-d5	465931	279559	652303	449266	-3.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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: 09-Feb-2017 13:15

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428A-13A
Level: LOW
Operator: EA
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 7.0"Hg-5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.489	109.78	70-130
$ 146 Toluene-d8	5.000	4.955	99.10	70-130
$ 177 4-Bromofluorobenze	5.000	5.281	105.62	70-130

Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

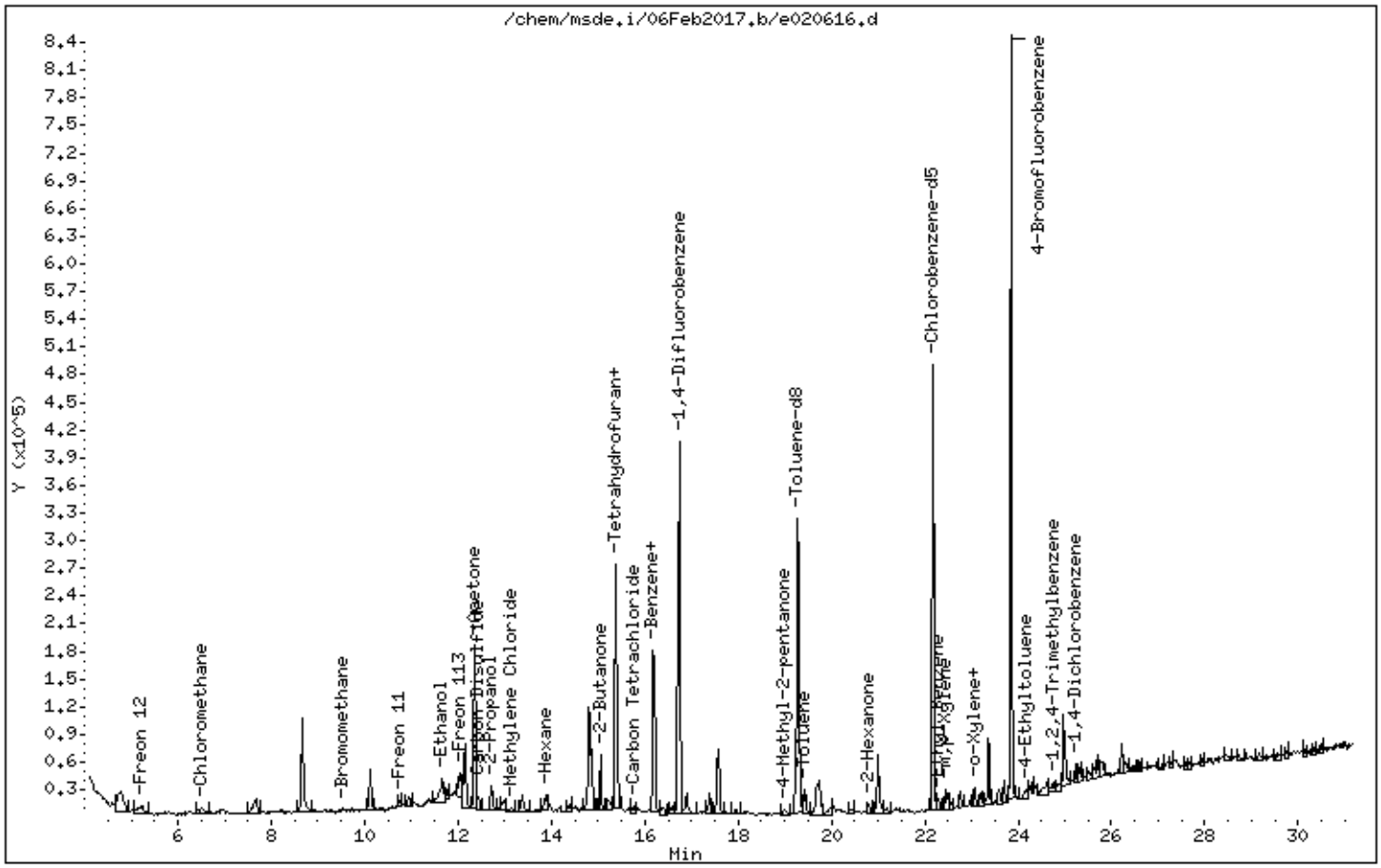
Instrument: msde.i

Sample Info: 250mL#N1726

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

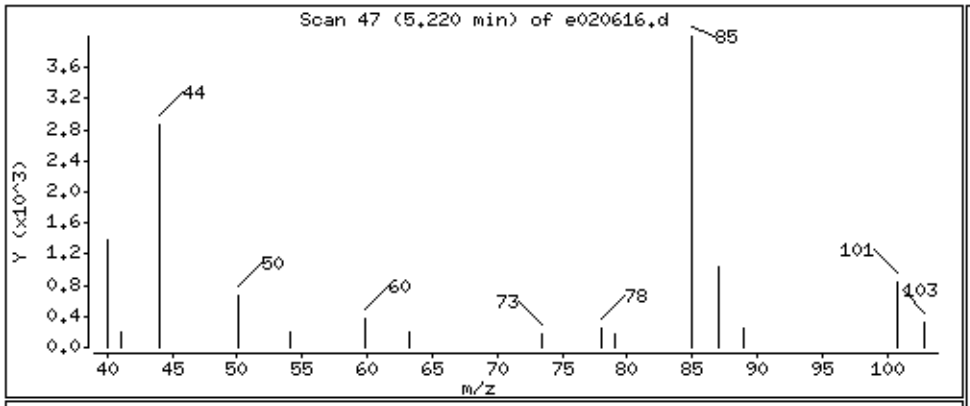
Operator: EA

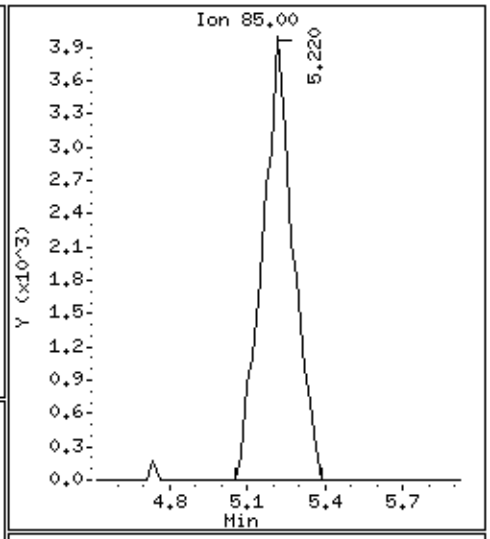
Column phase: RTX-624

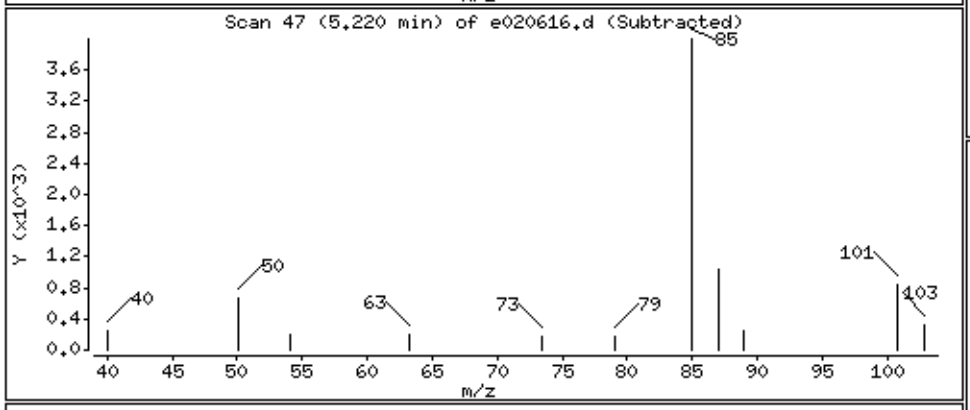
Column diameter: 0.32

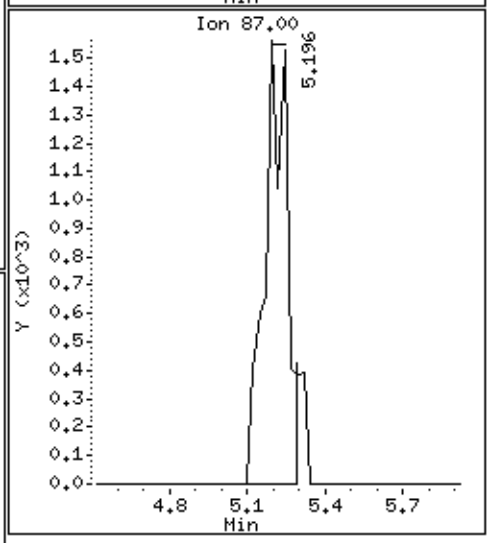
11 Freon 12

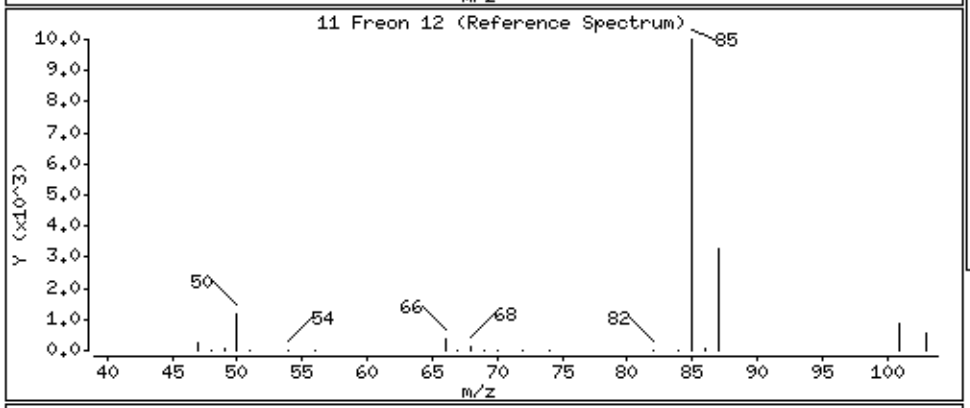
Concentration: 0.4688 PPBV

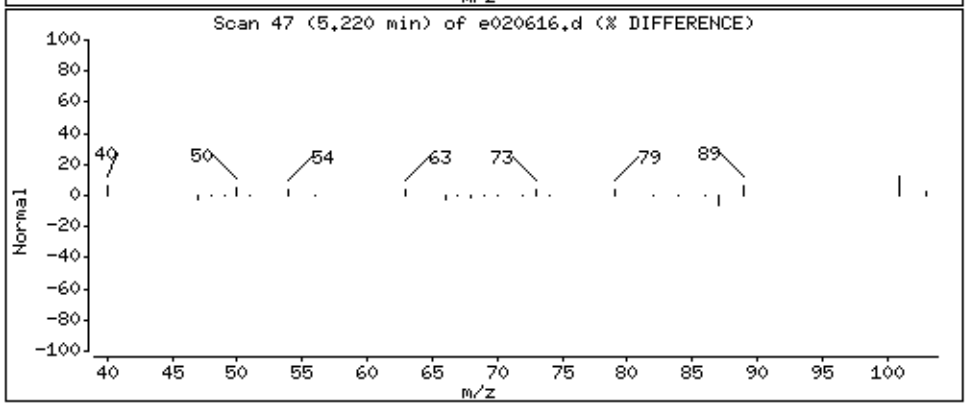












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

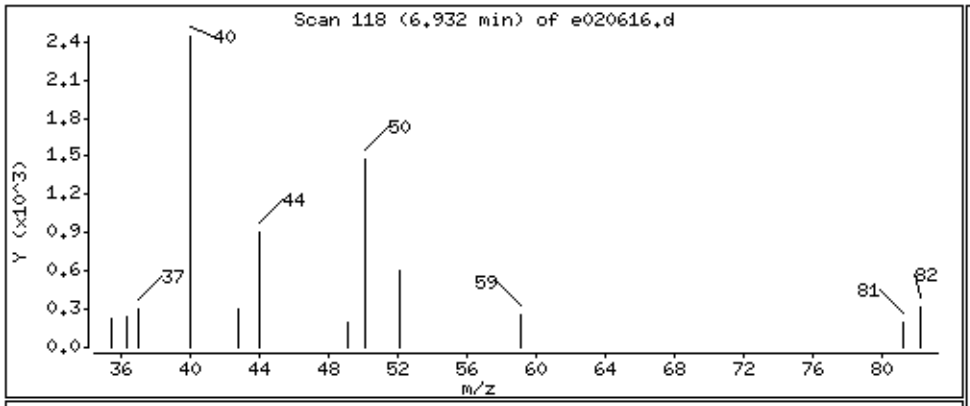
Operator: EA

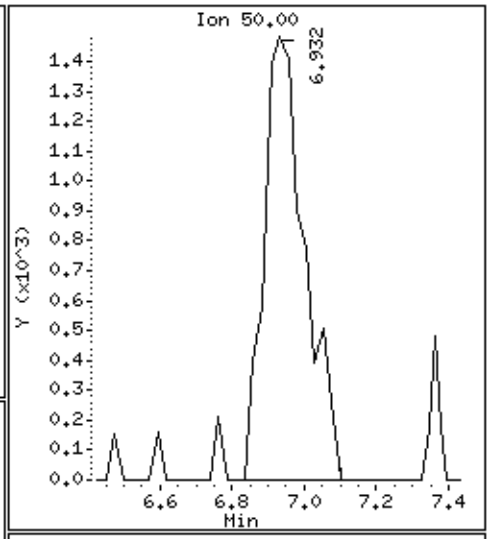
Column phase: RTX-624

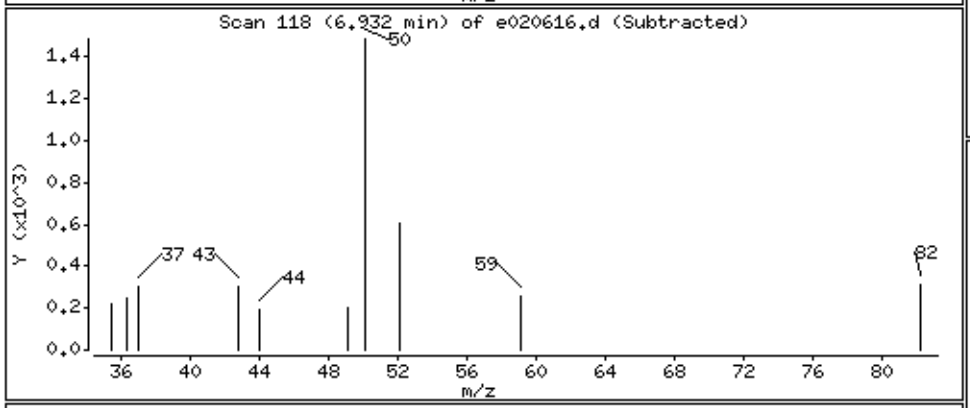
Column diameter: 0.32

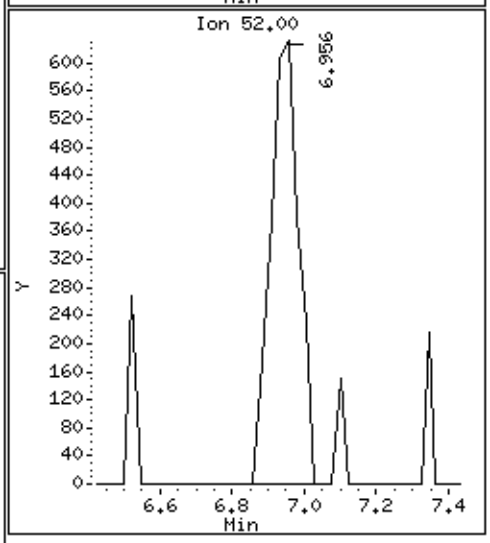
17 Chloromethane

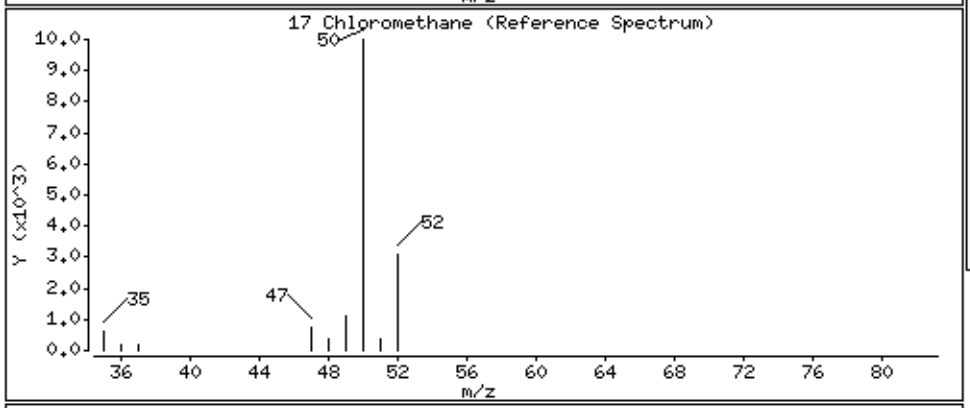
Concentration: 0.8959 PPBV

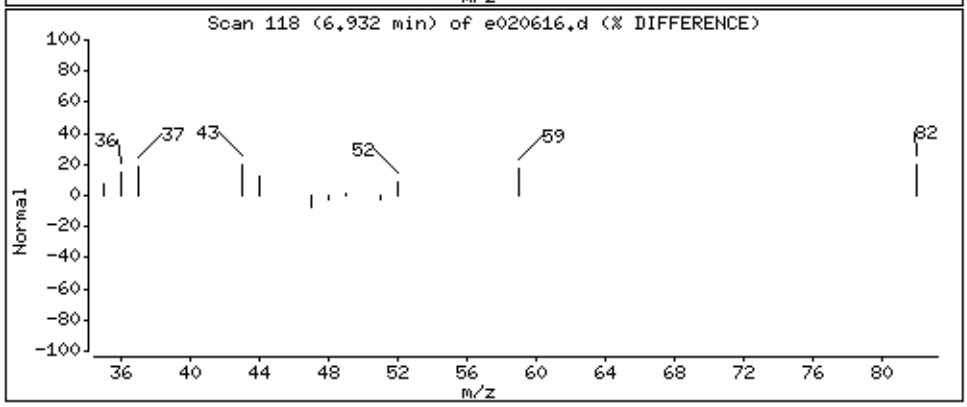












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

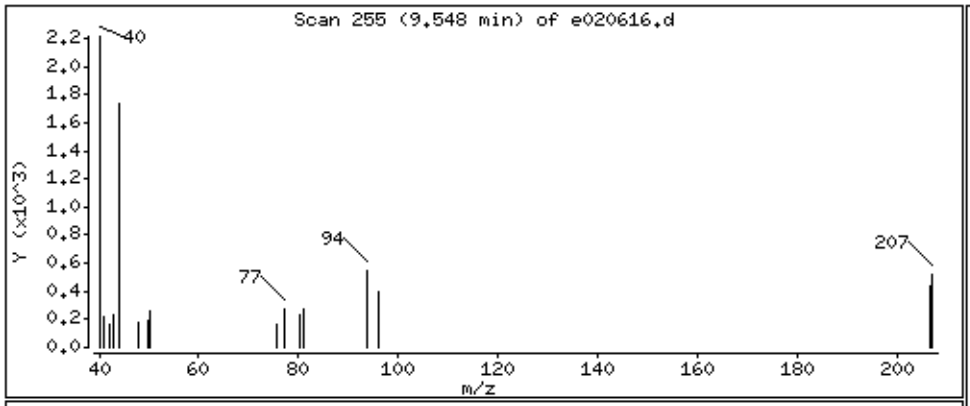
Operator: EA

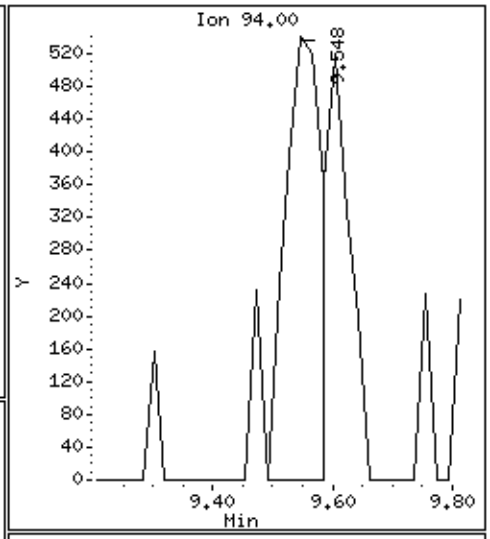
Column phase: RTX-624

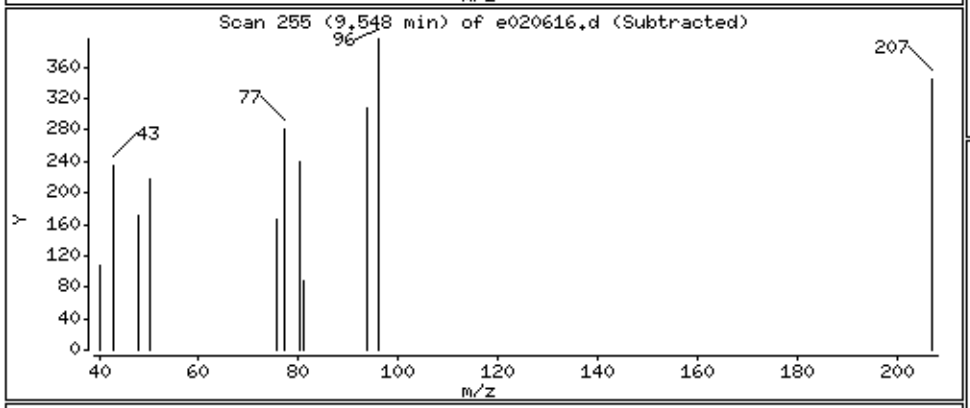
Column diameter: 0.32

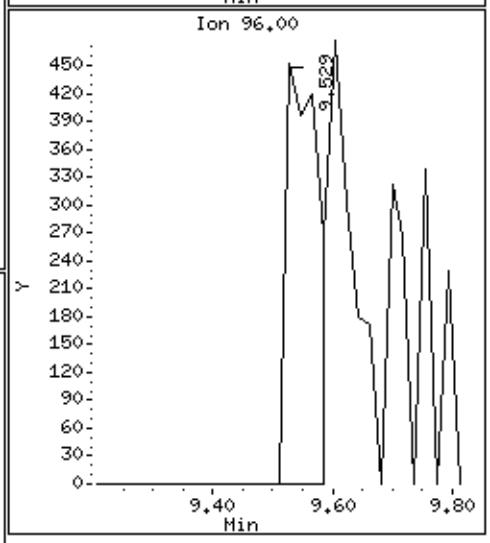
29 Bromomethane

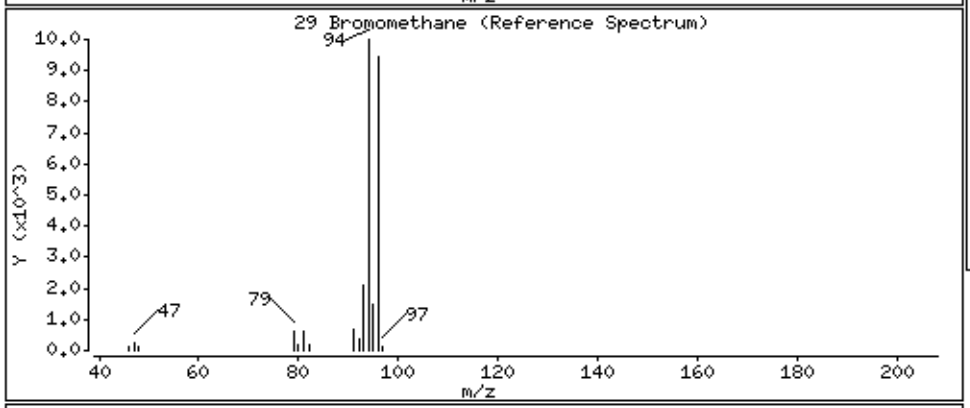
Concentration: 0.1223 PPBV

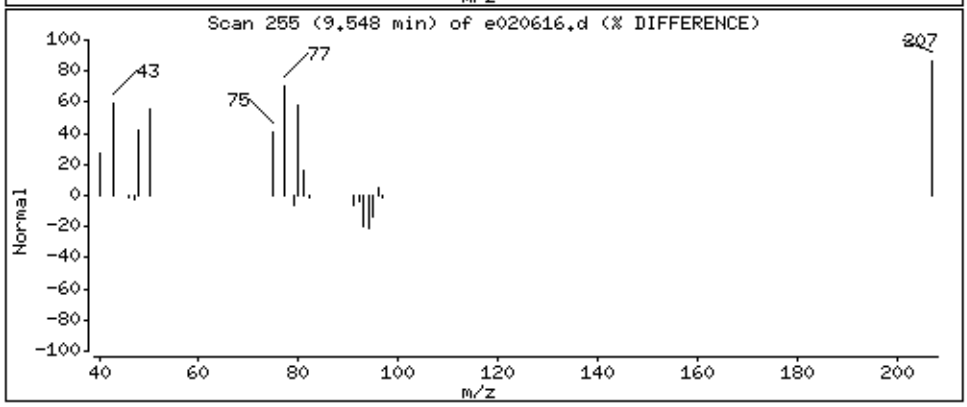












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

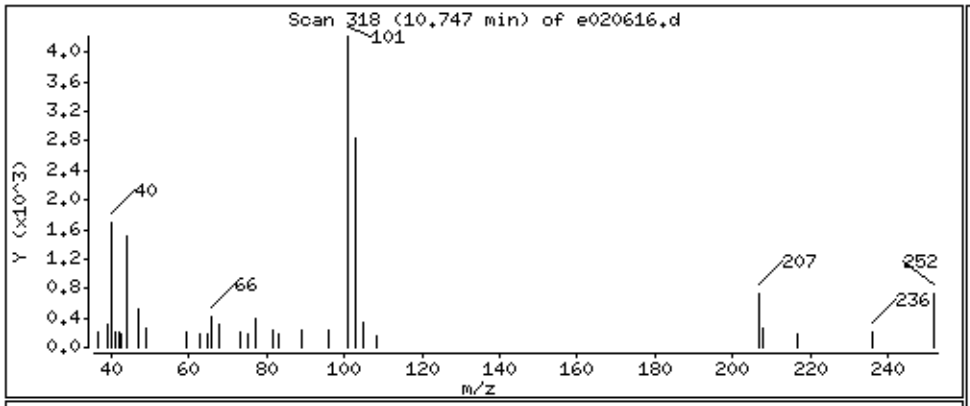
Operator: EA

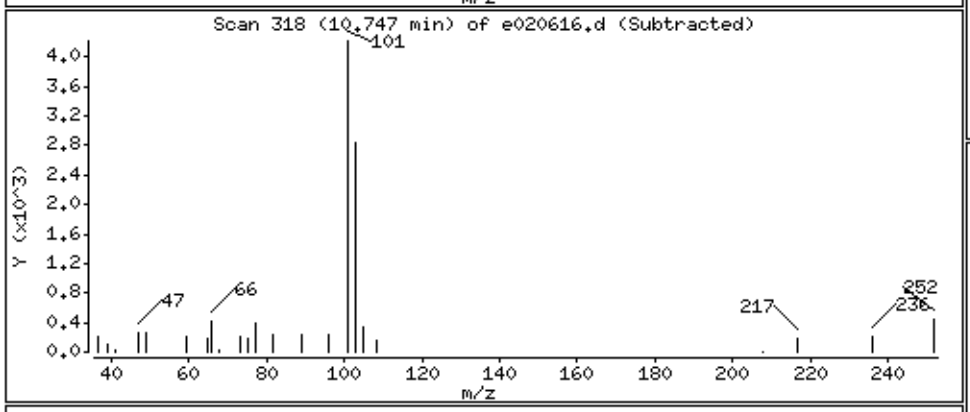
Column phase: RTX-624

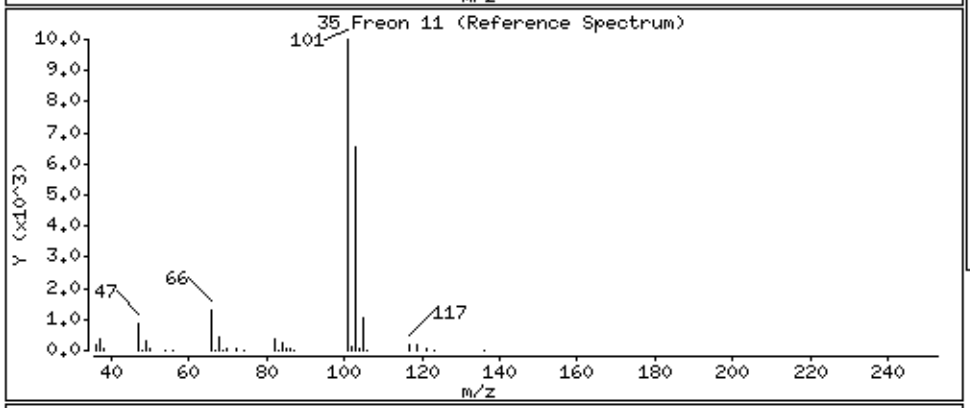
Column diameter: 0.32

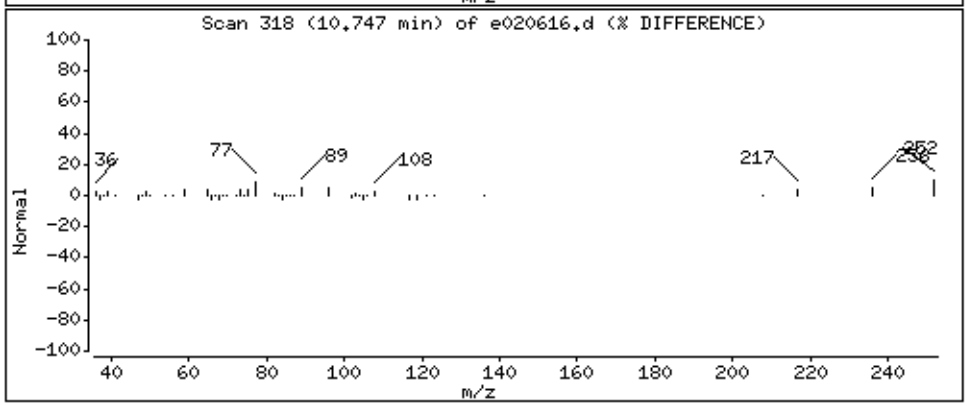
35 Freon 11

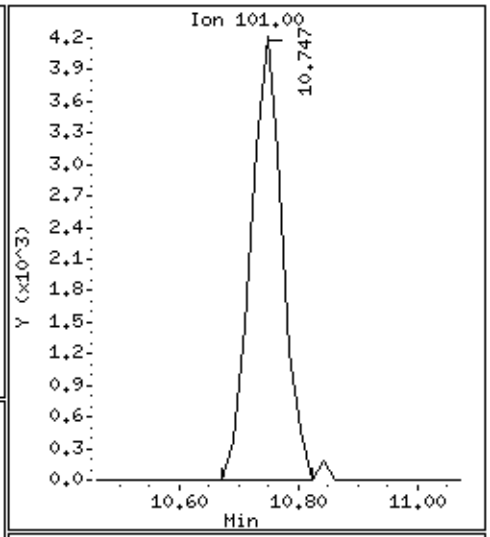
Concentration: 0.1956 PPBV

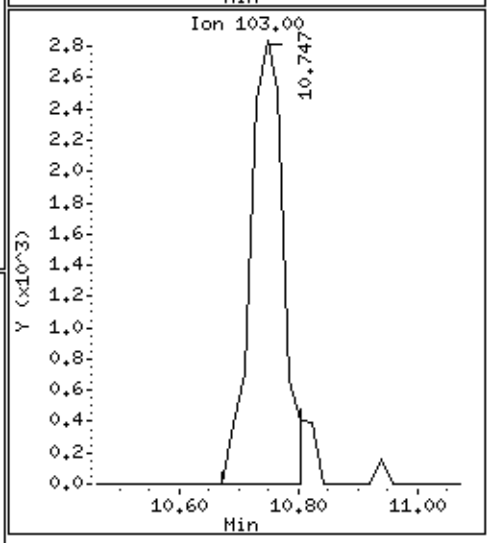












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

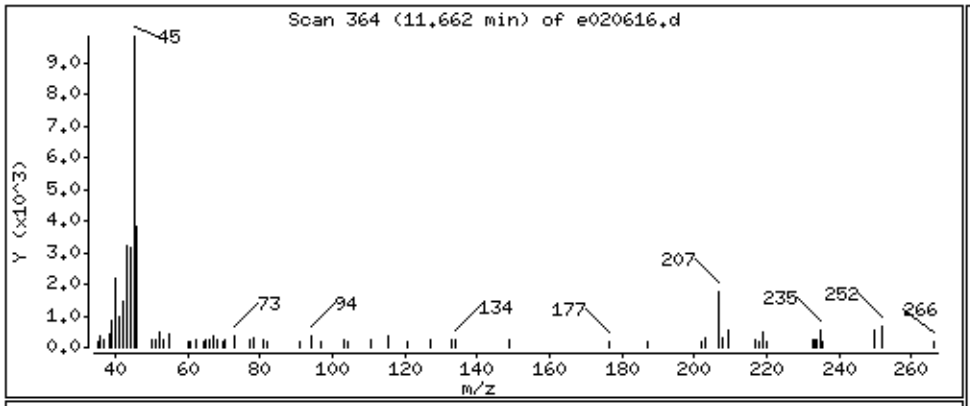
Operator: EA

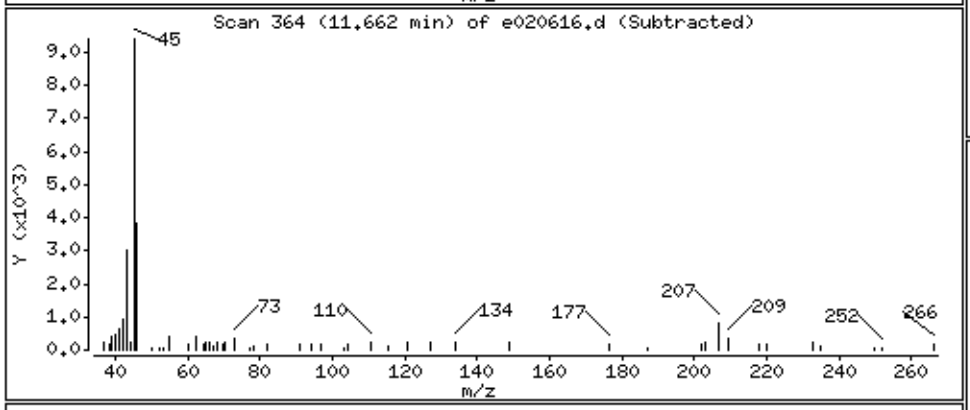
Column phase: RTX-624

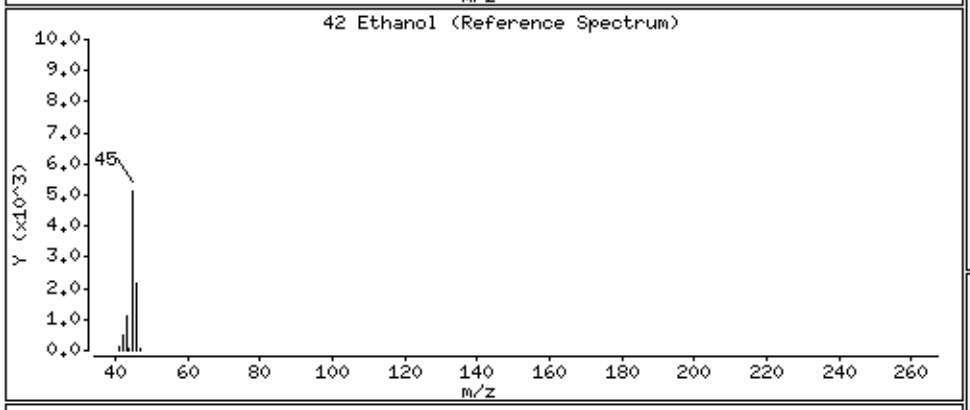
Column diameter: 0.32

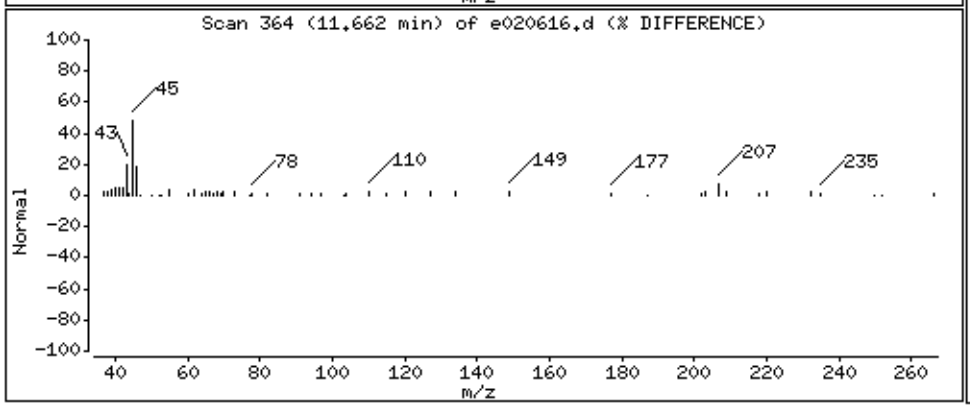
42 Ethanol

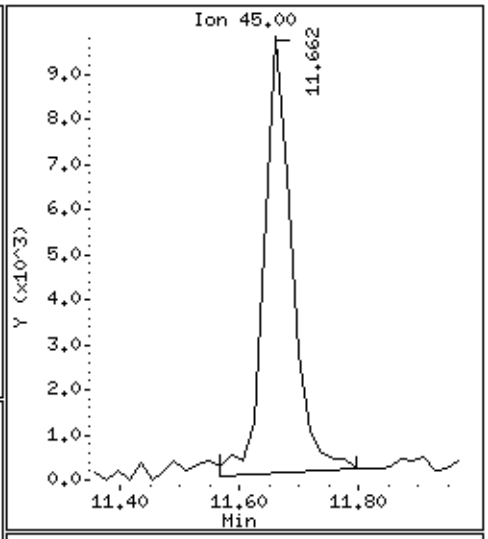
Concentration: 4.573 PPBV

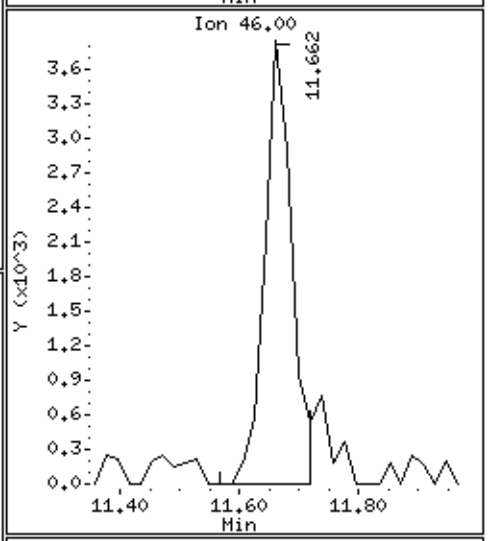


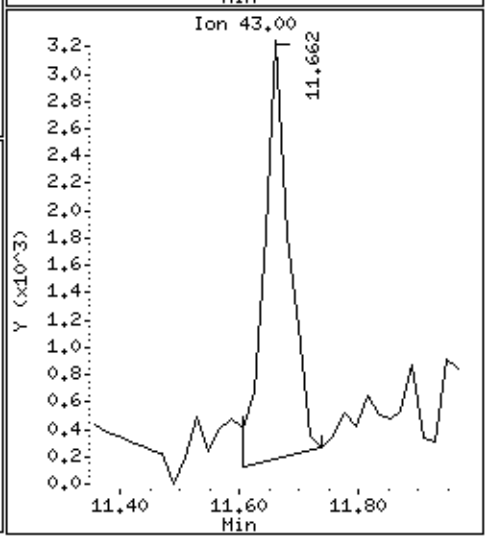












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

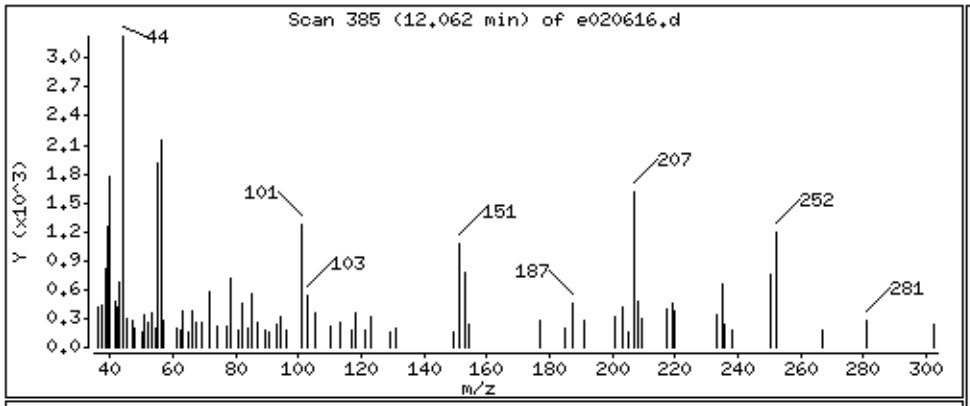
Operator: EA

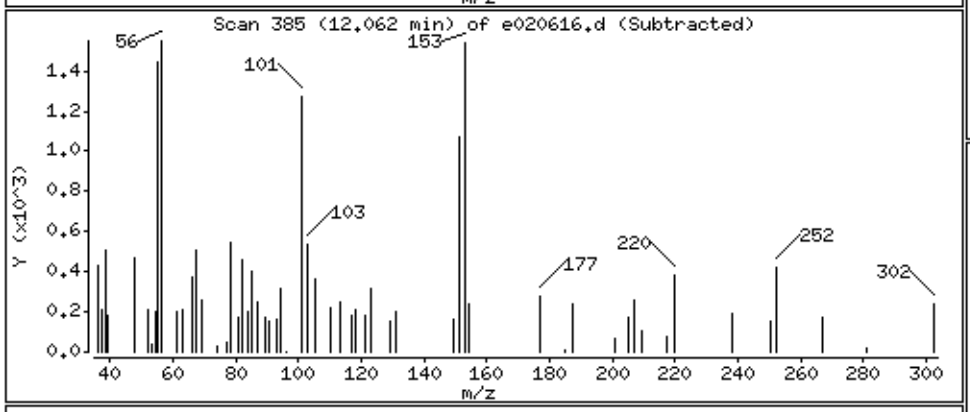
Column phase: RTX-624

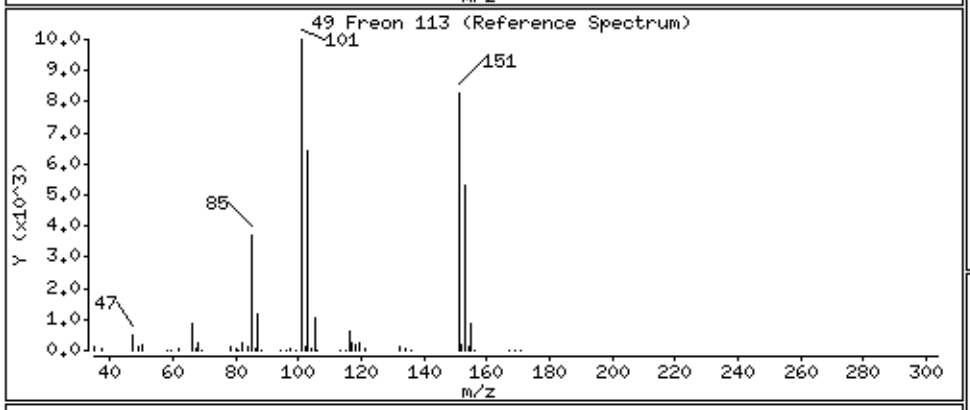
Column diameter: 0.32

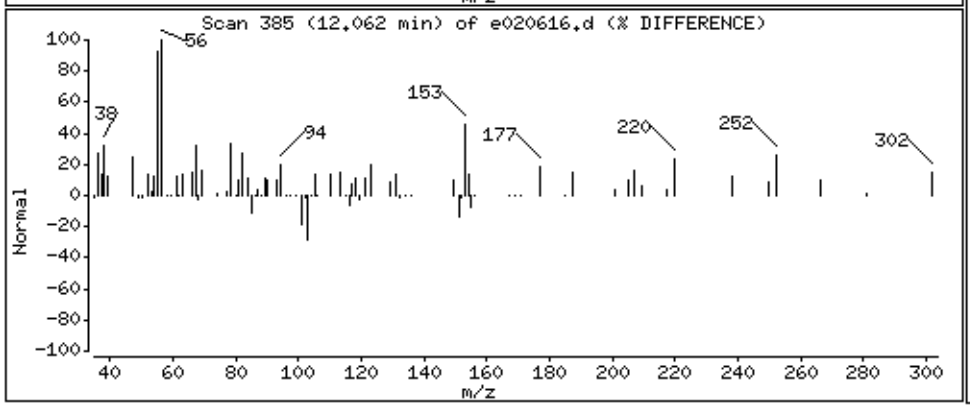
49 Freon 113

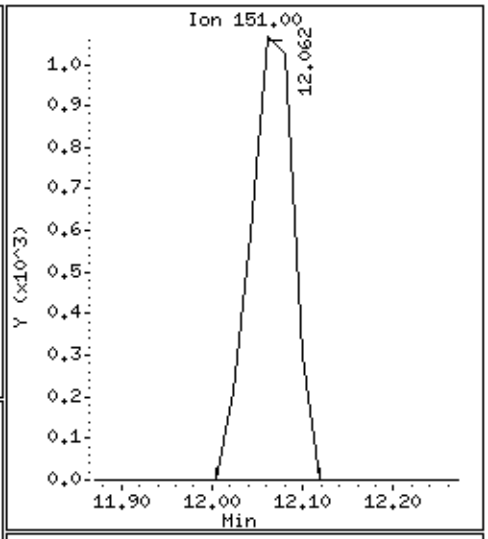
Concentration: 0.06687 PPBV

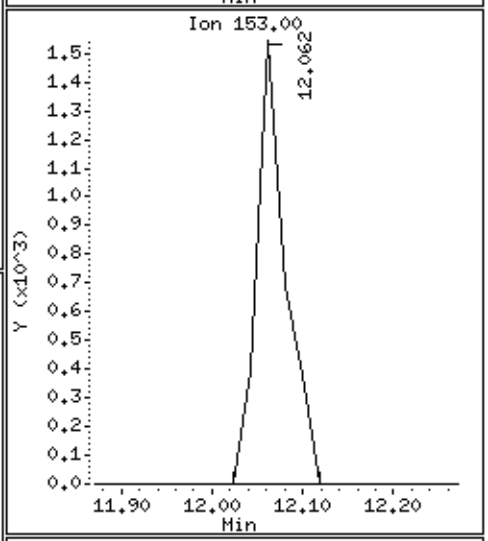


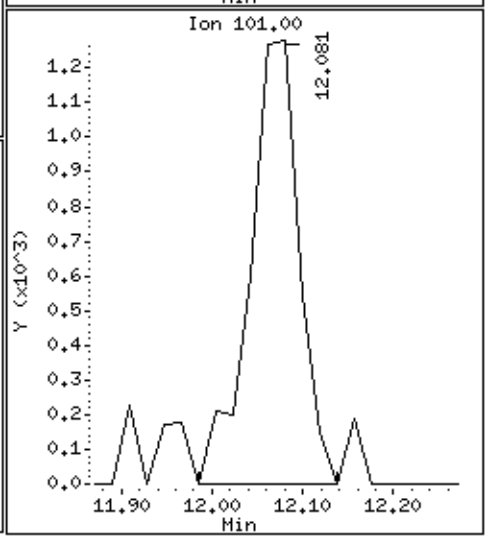












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

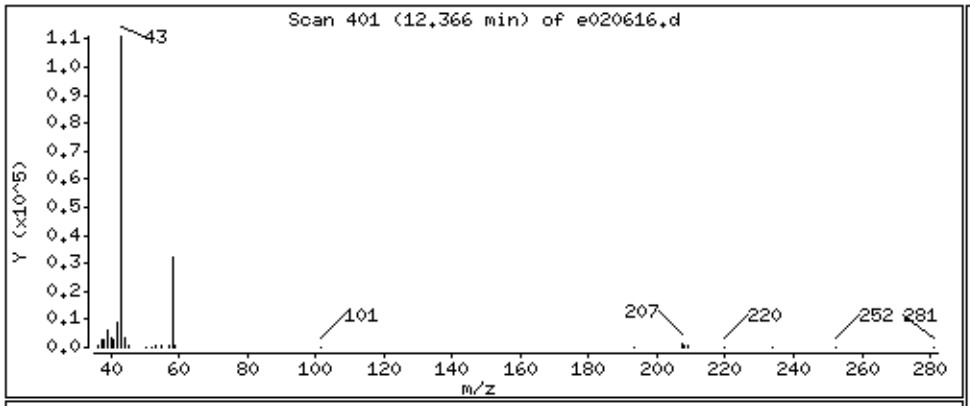
Operator: EA

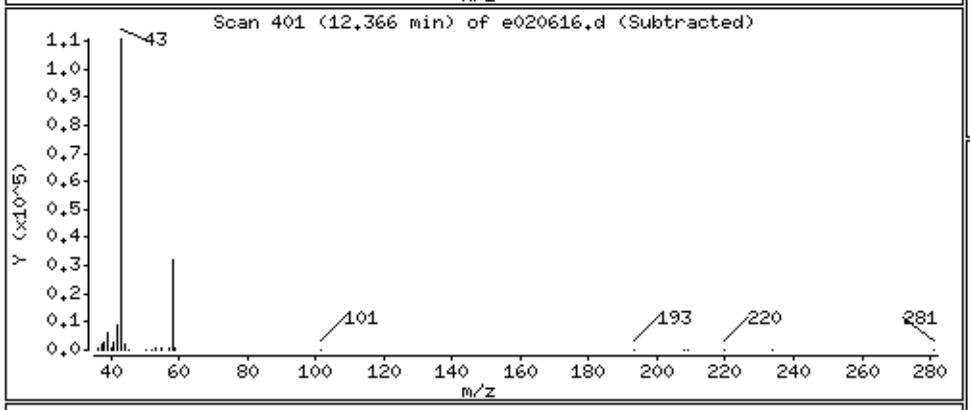
Column phase: RTX-624

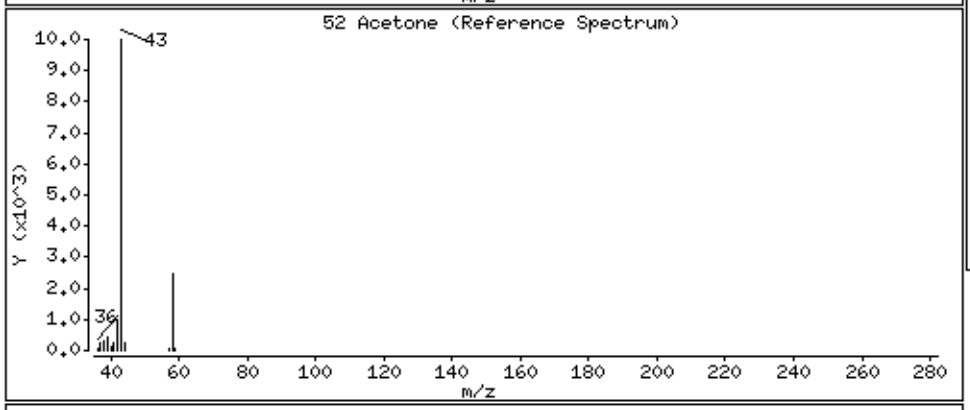
Column diameter: 0.32

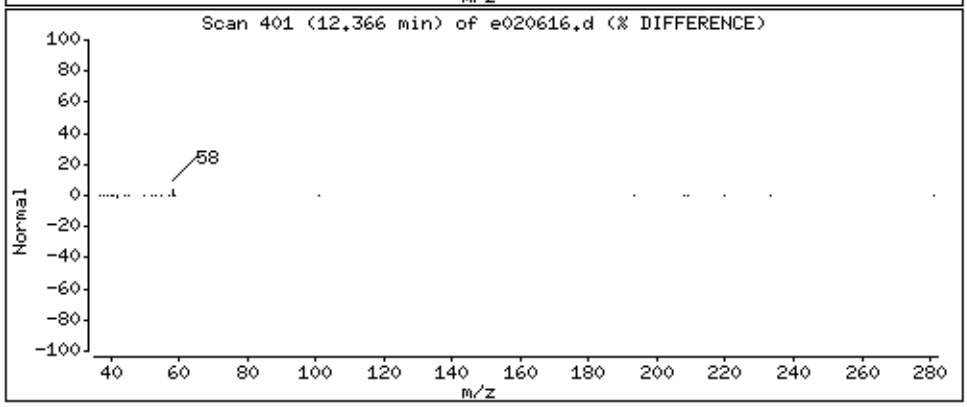
52 Acetone

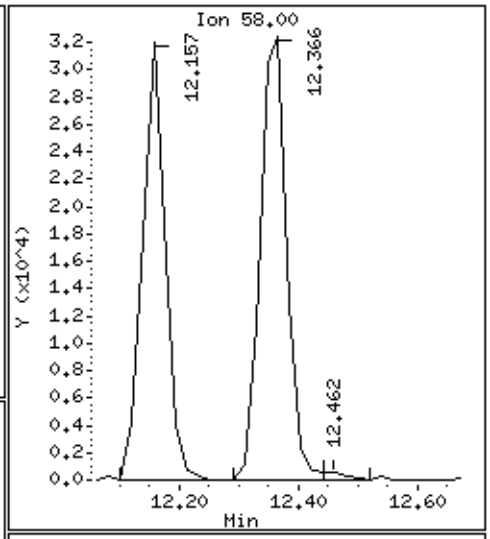
Concentration: 11.709 PPBV

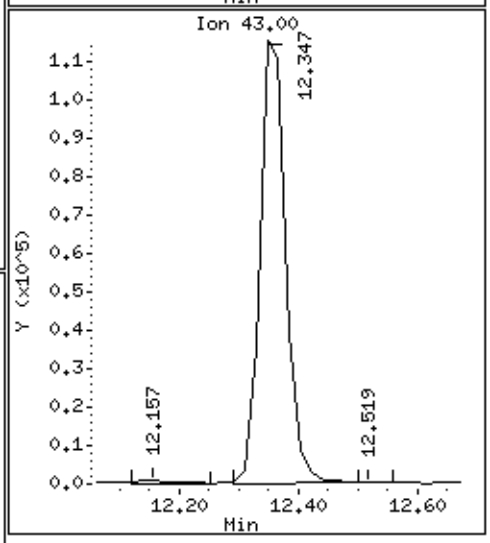












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

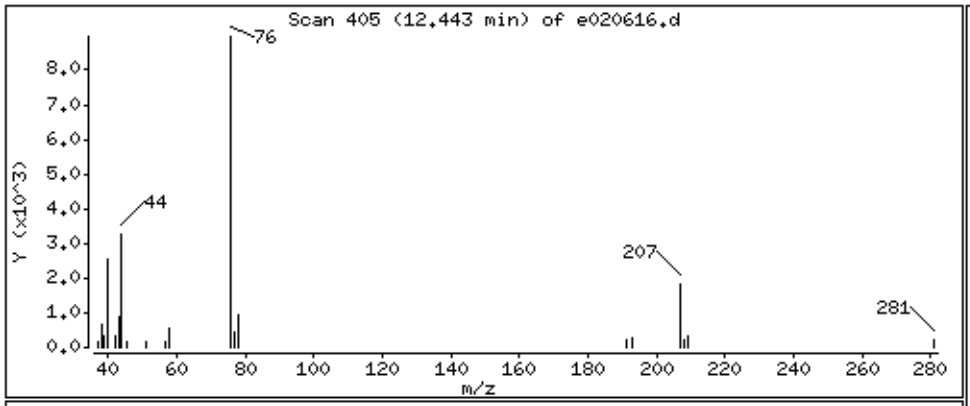
Operator: EA

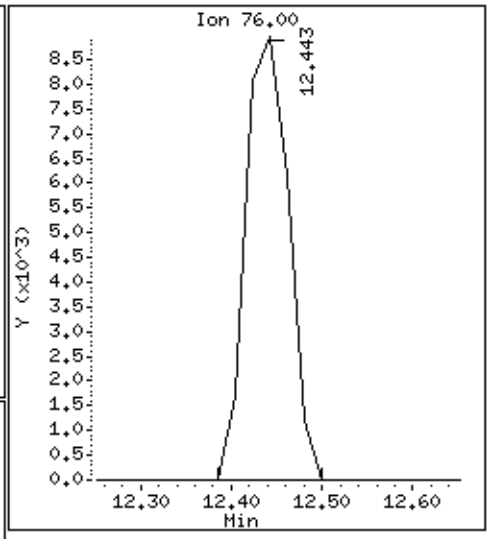
Column phase: RTX-624

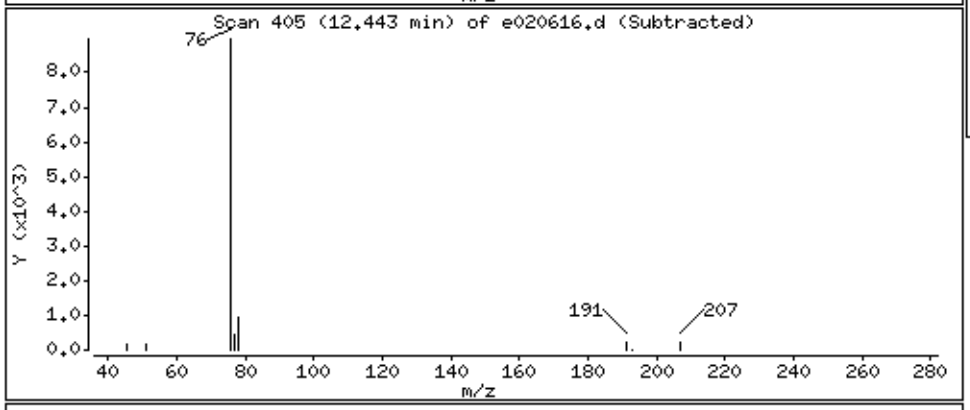
Column diameter: 0.32

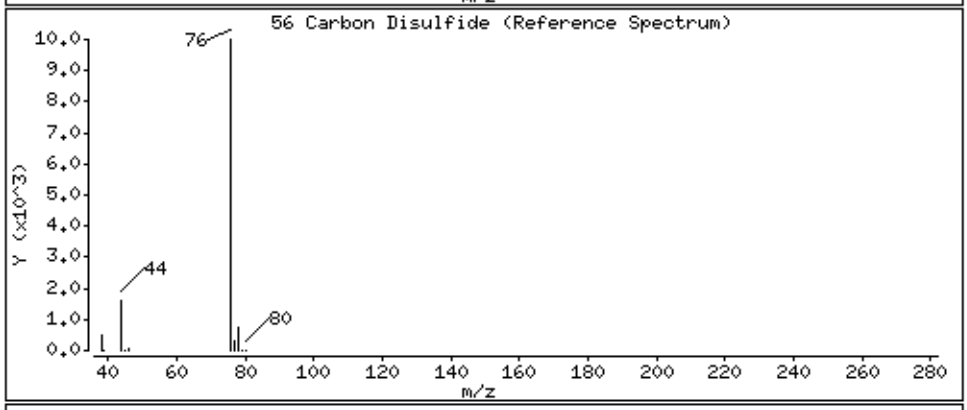
56 Carbon Disulfide

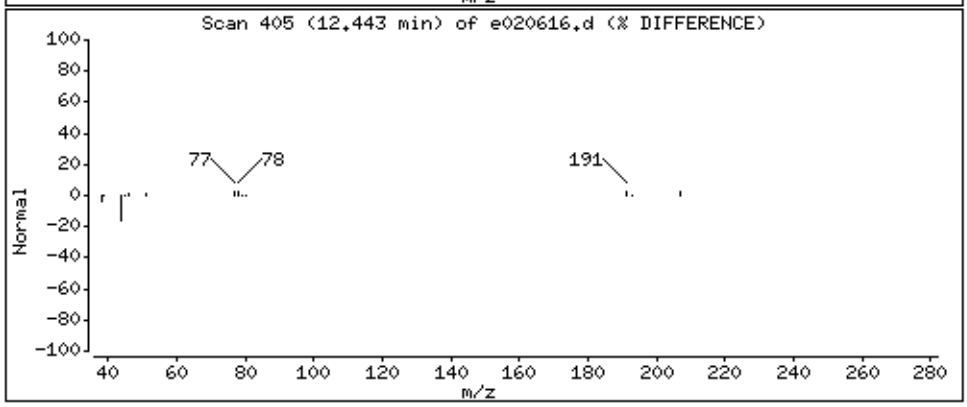
Concentration: 0.4813 PPBV











Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

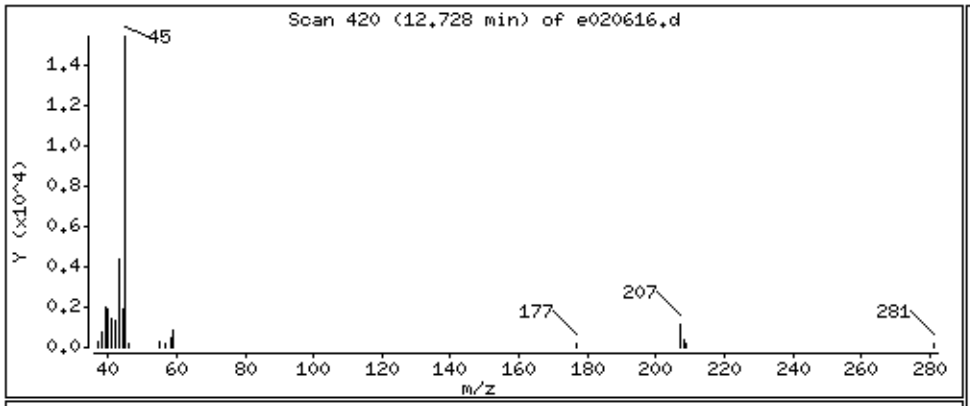
Operator: EA

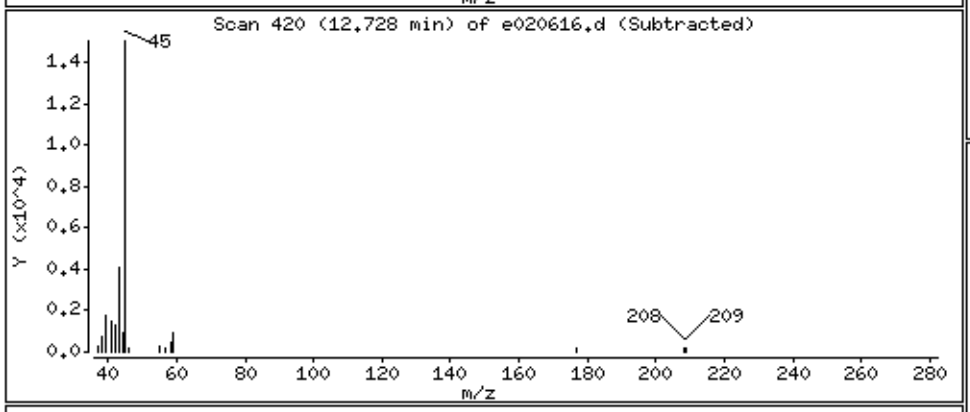
Column phase: RTX-624

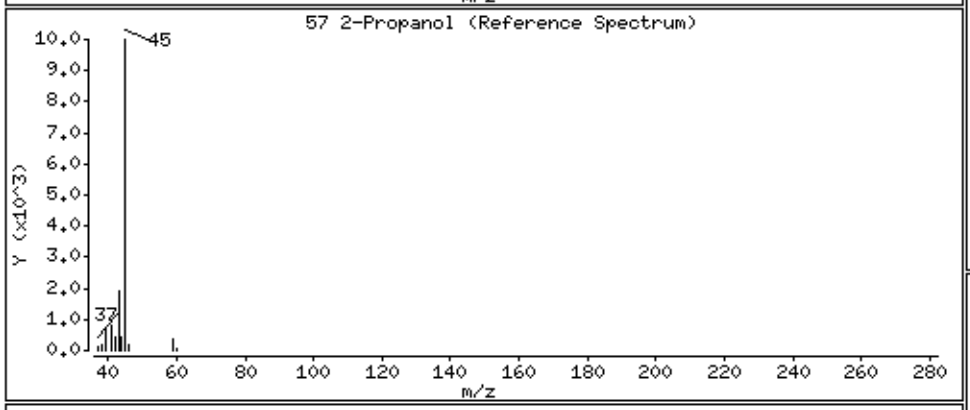
Column diameter: 0.32

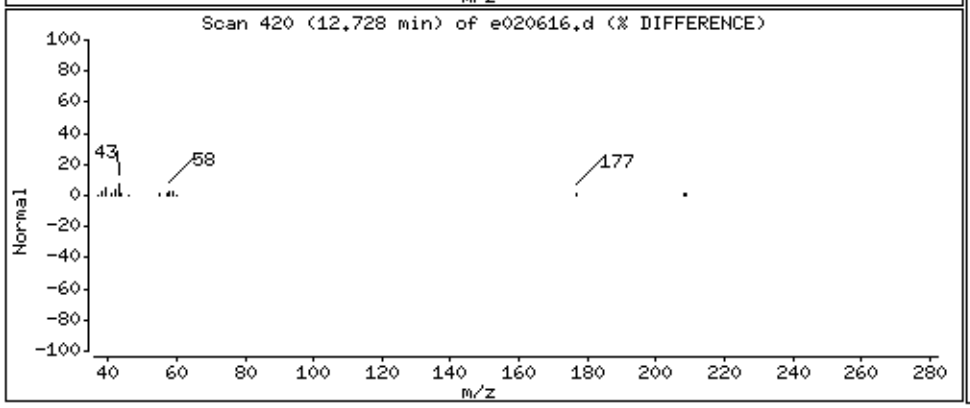
57 2-Propanol

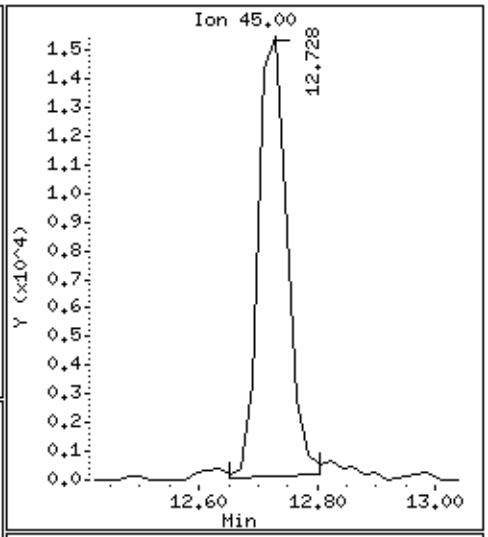
Concentration: 1.847 PPBV

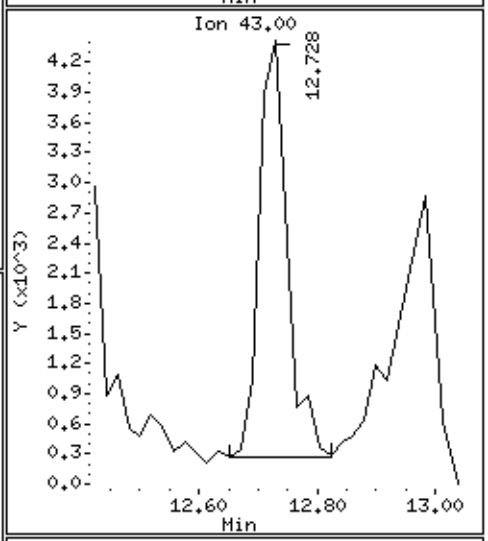


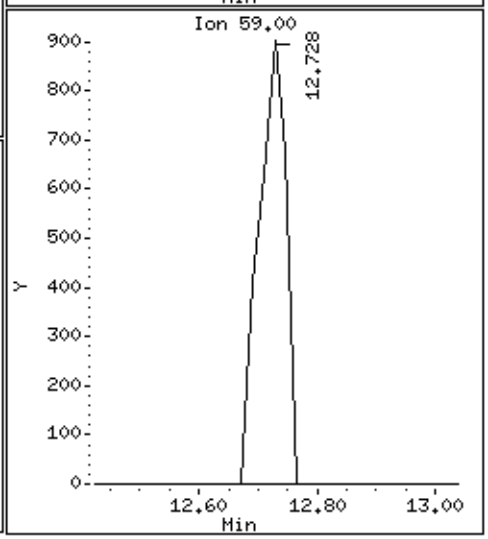












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

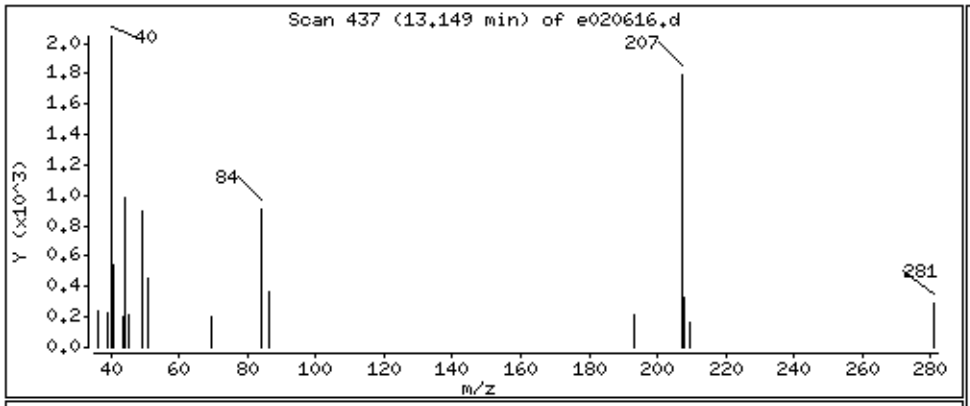
Operator: EA

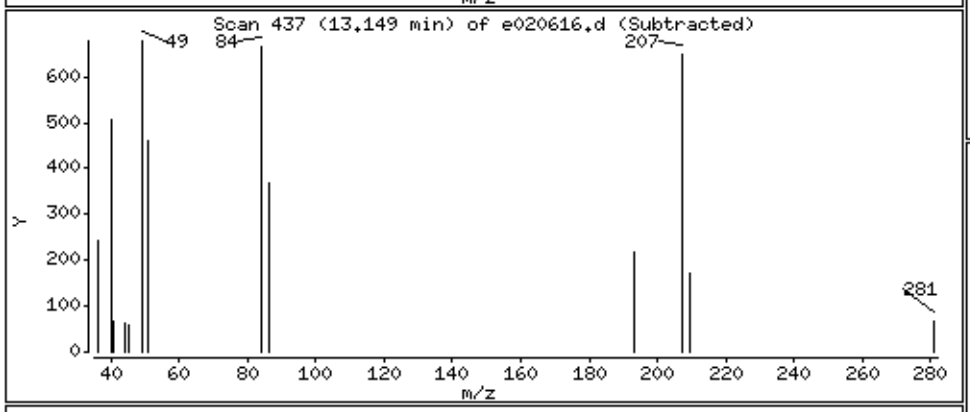
Column phase: RTX-624

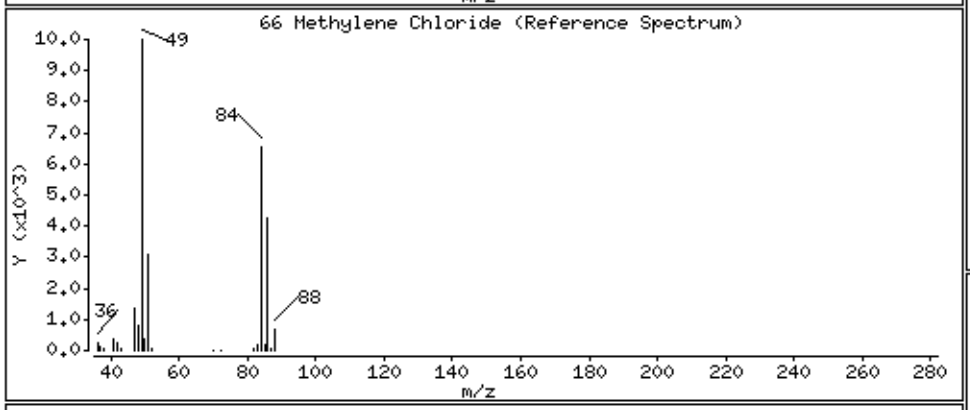
Column diameter: 0.32

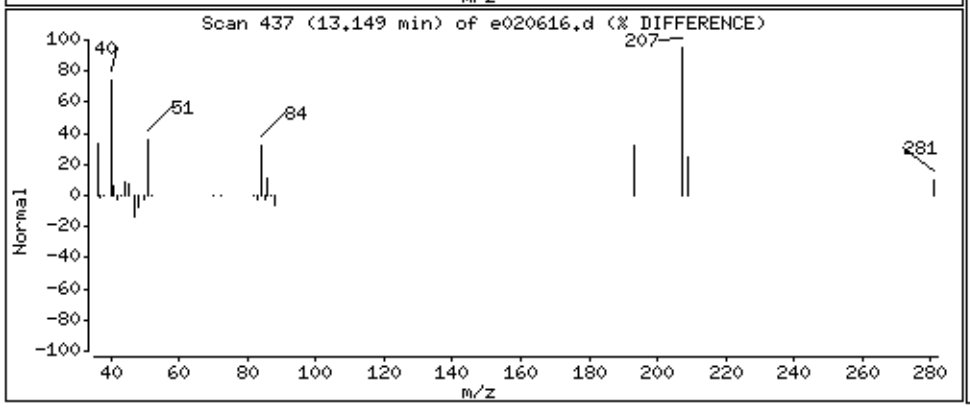
66 Methylene Chloride

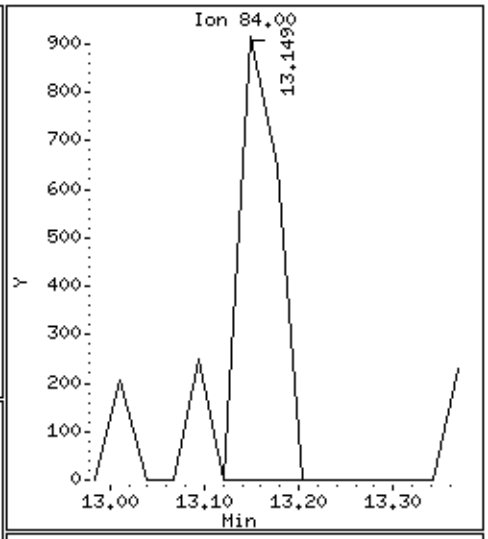
Concentration: 0.1174 PPBV

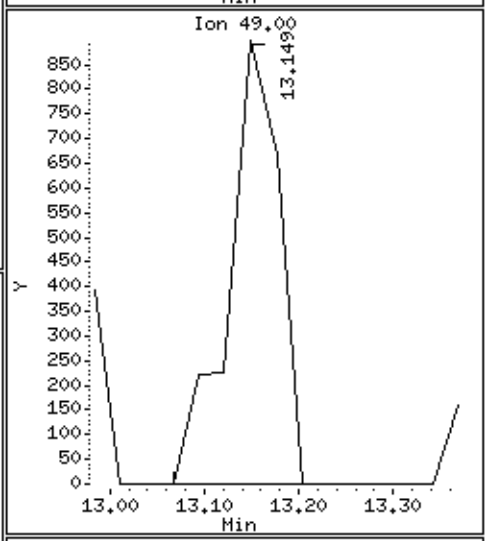


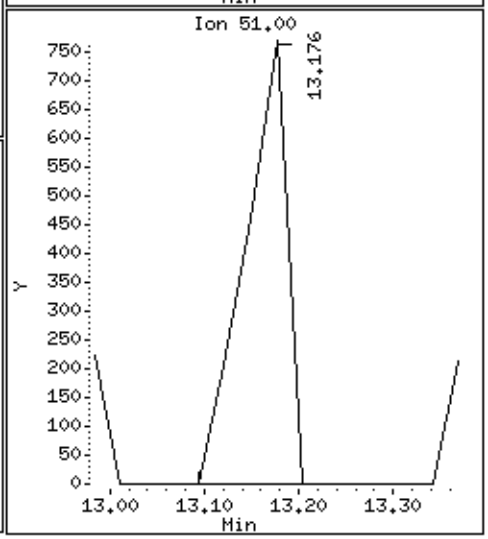












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

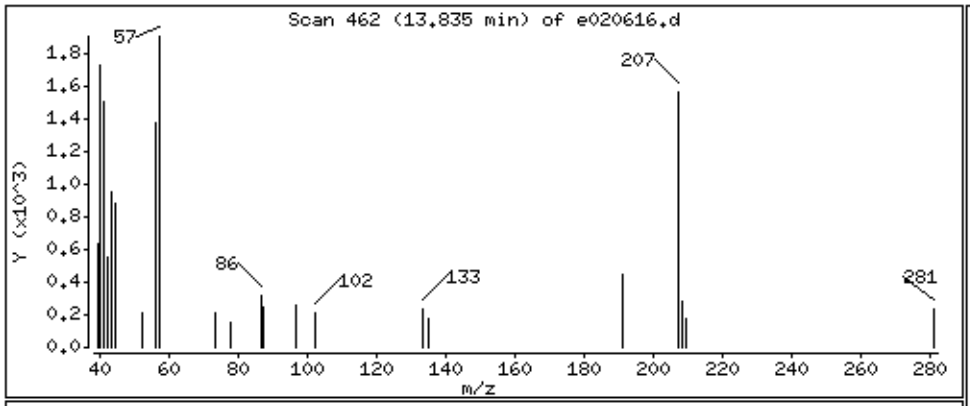
Operator: EA

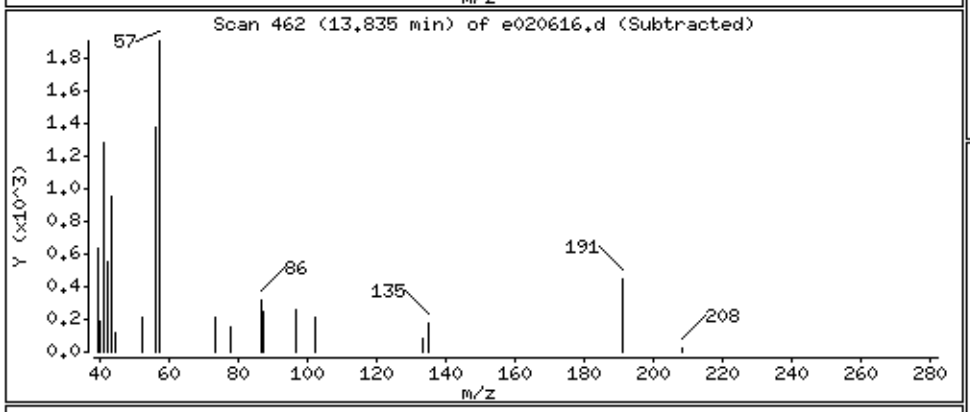
Column phase: RTX-624

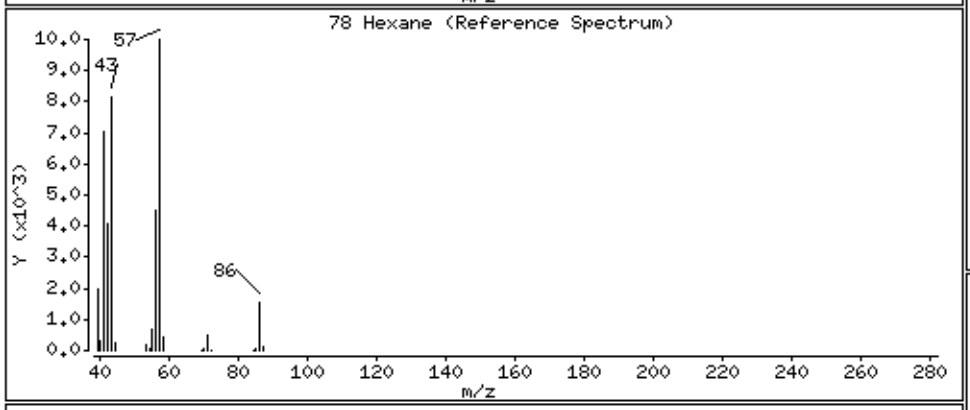
Column diameter: 0.32

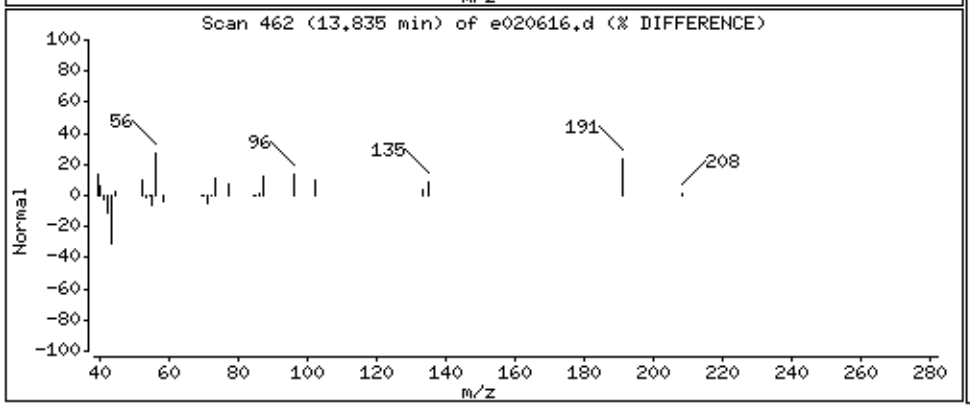
78 Hexane

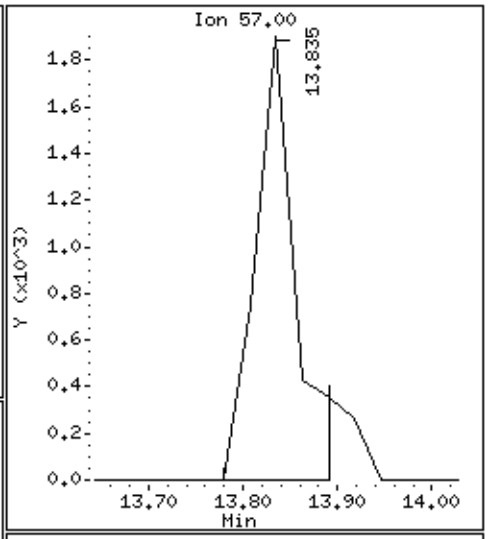
Concentration: 0.2167 PPBV

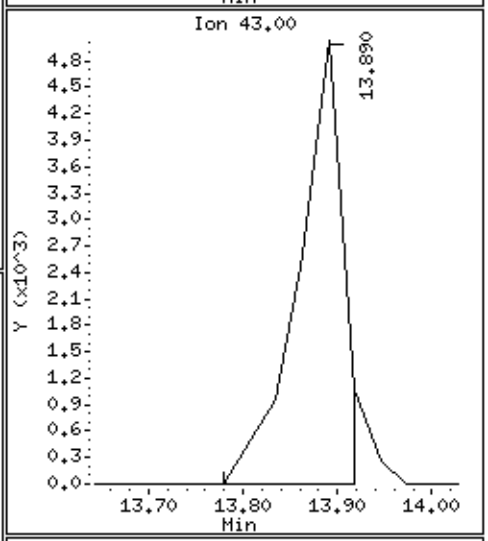


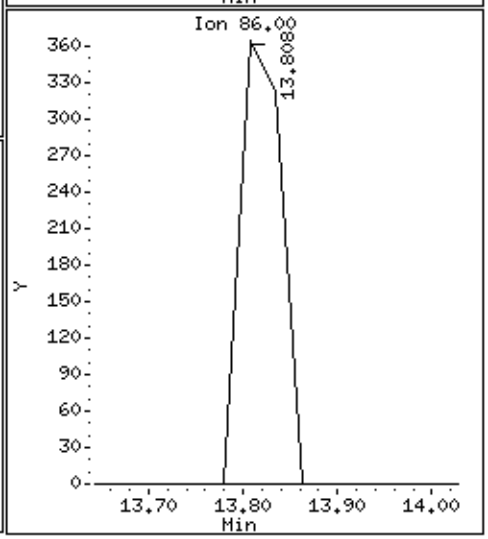












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

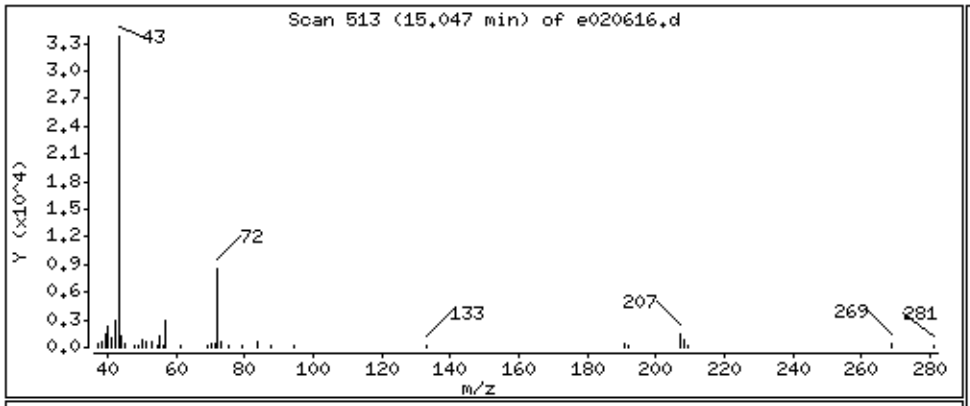
Operator: EA

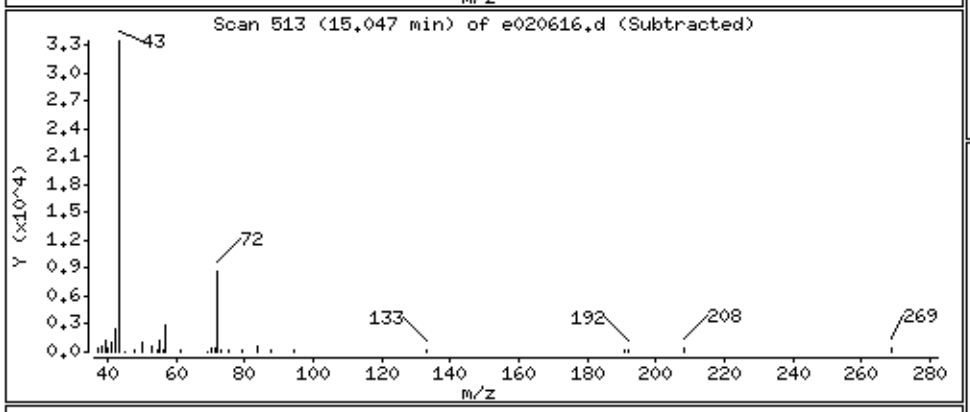
Column phase: RTX-624

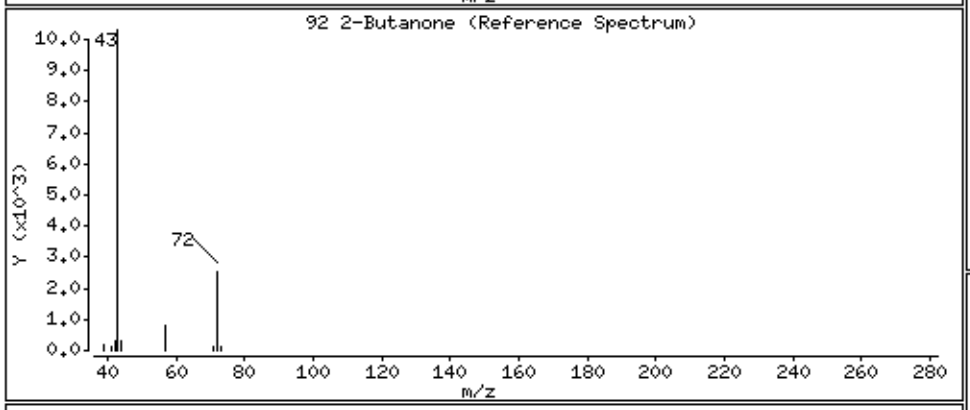
Column diameter: 0.32

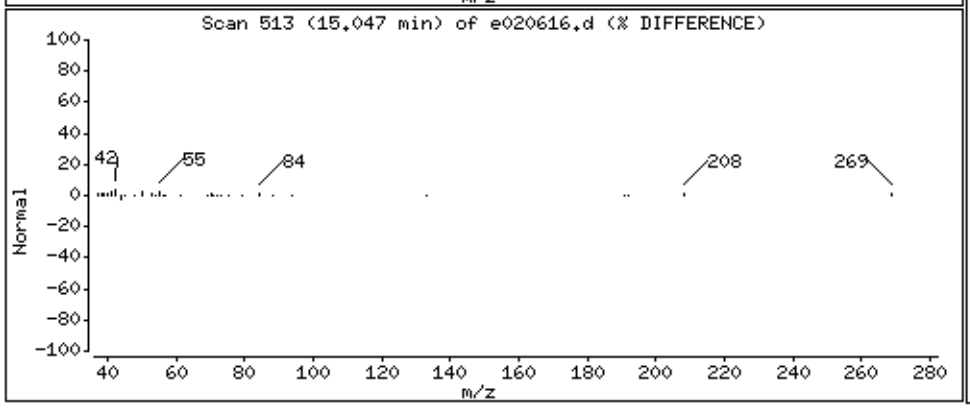
92 2-Butanone

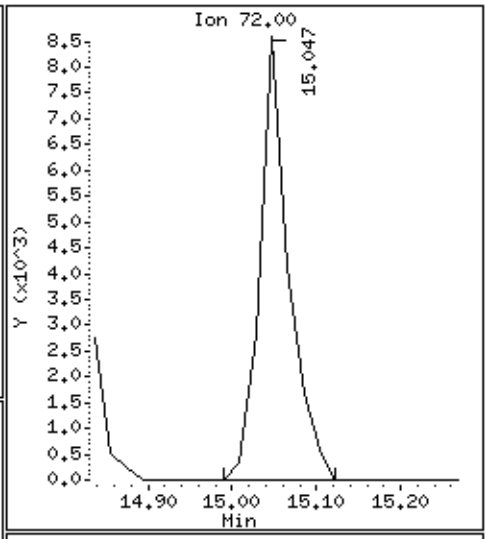
Concentration: 2.140 PPBV

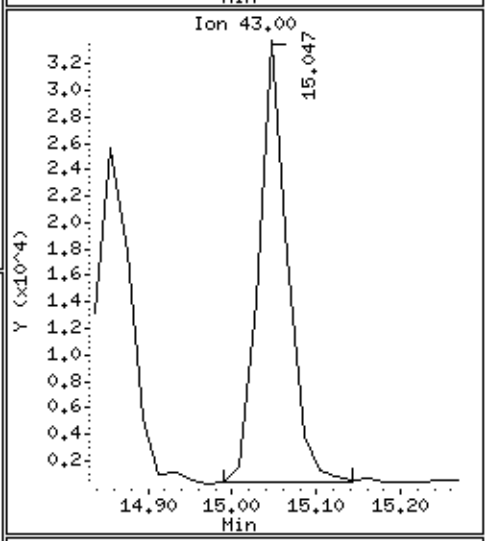


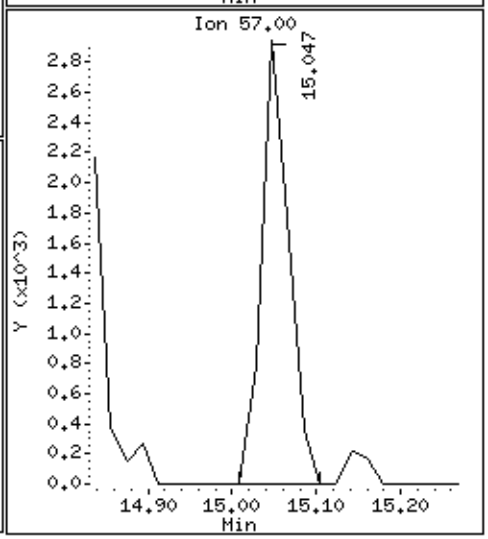












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

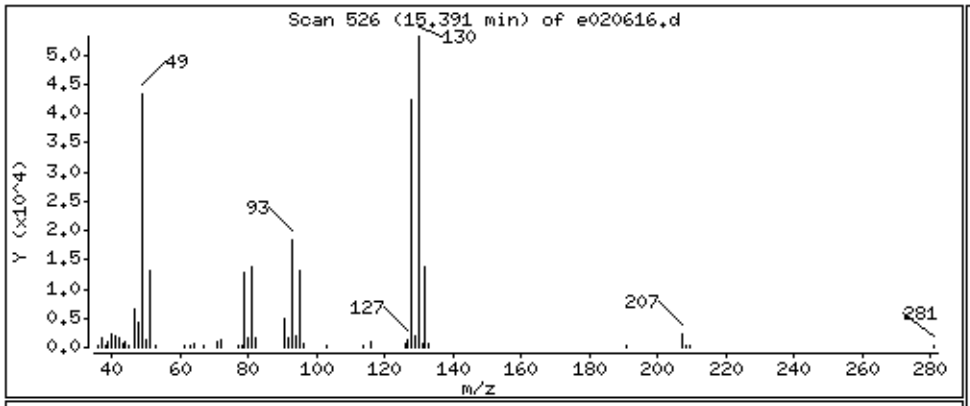
Operator: EA

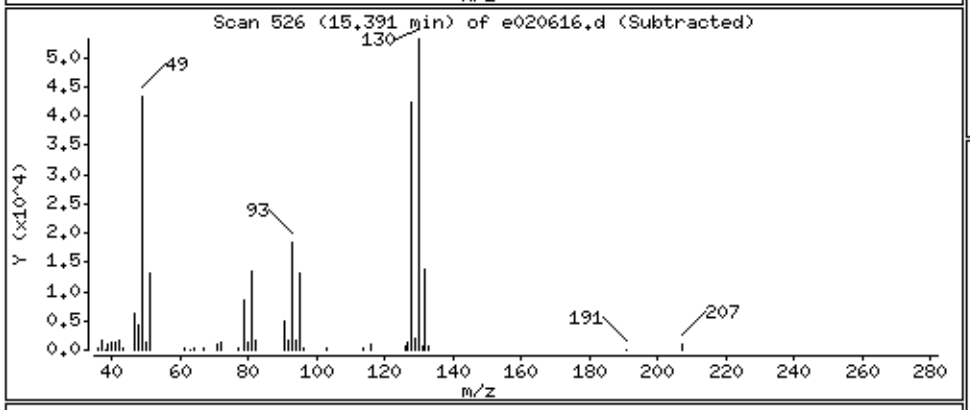
Column phase: RTX-624

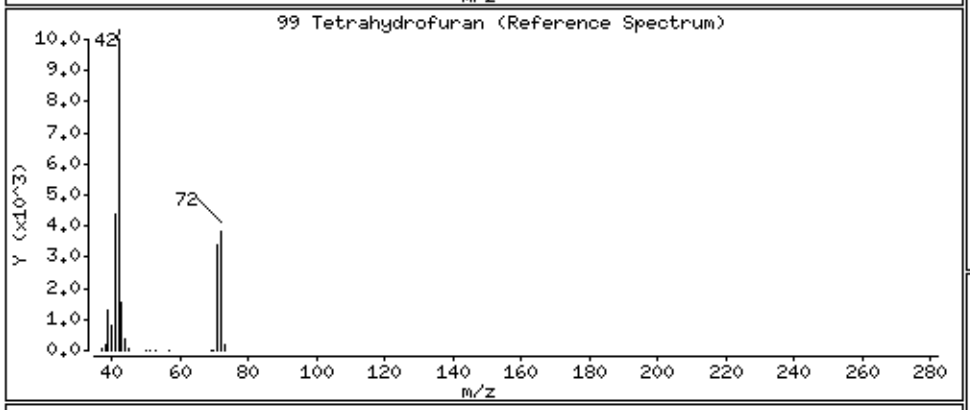
Column diameter: 0.32

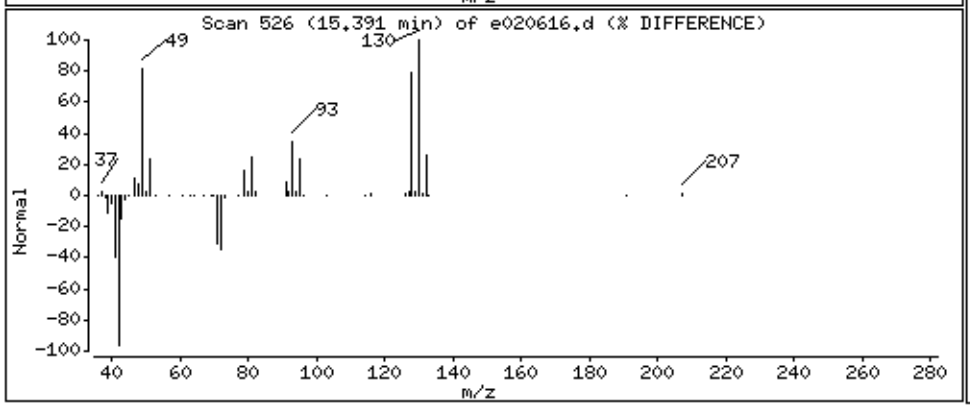
99 Tetrahydrofuran

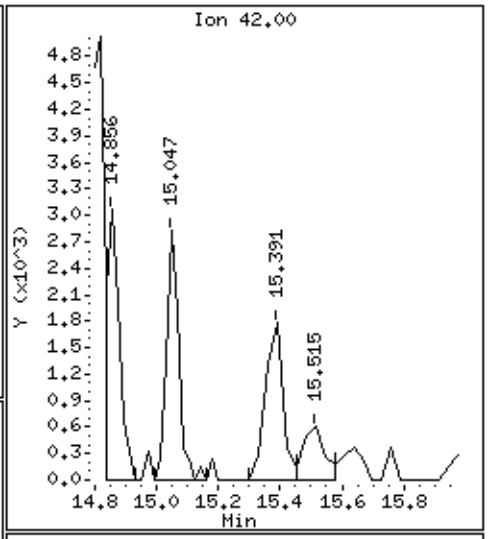
Concentration: 0.4084 PPBV

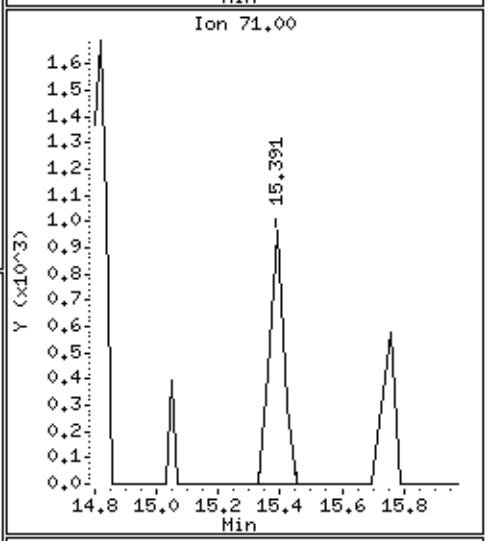


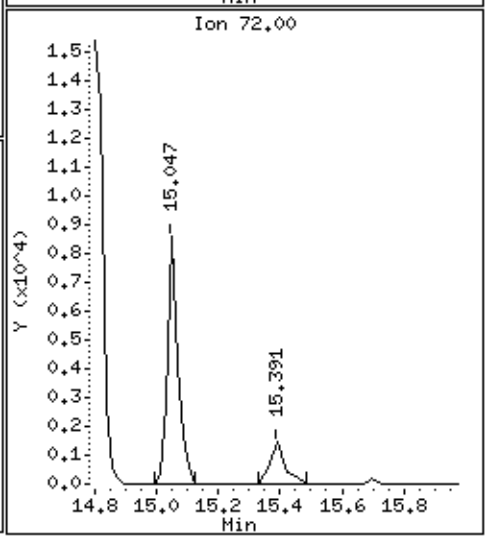












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

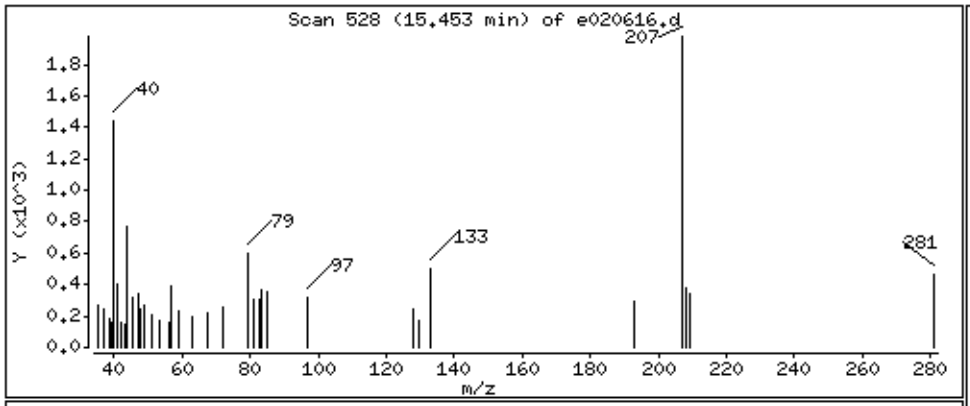
Operator: EA

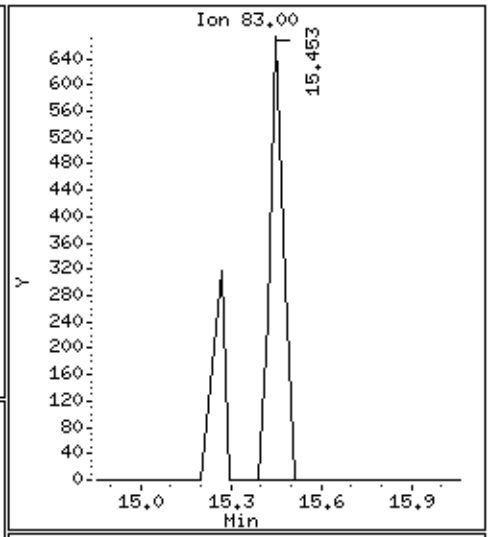
Column phase: RTX-624

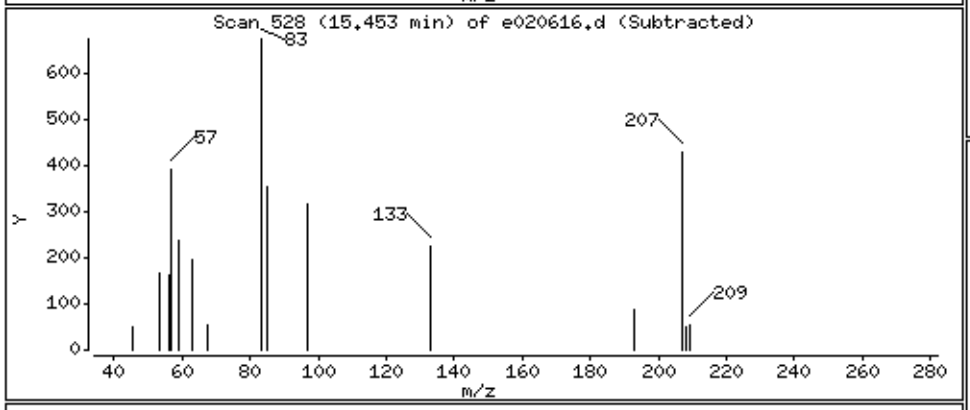
Column diameter: 0.32

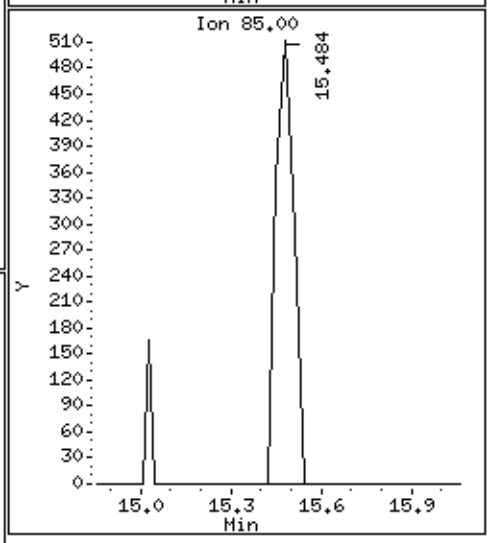
100 Chloroform

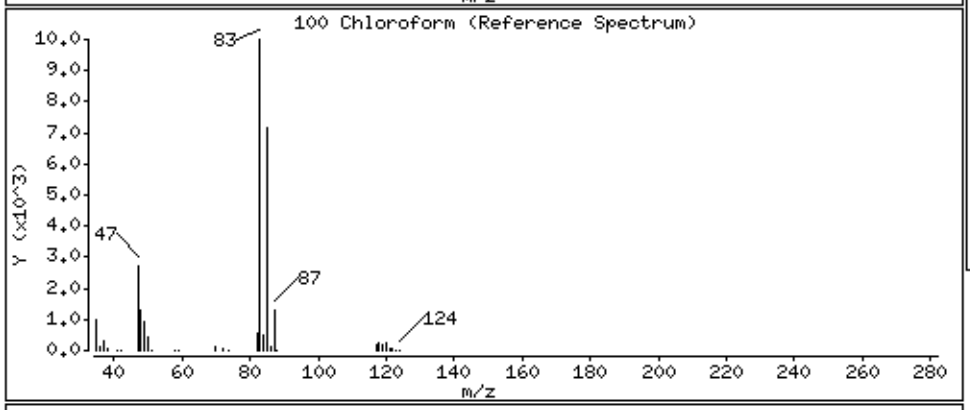
Concentration: 0.03944 PPBV

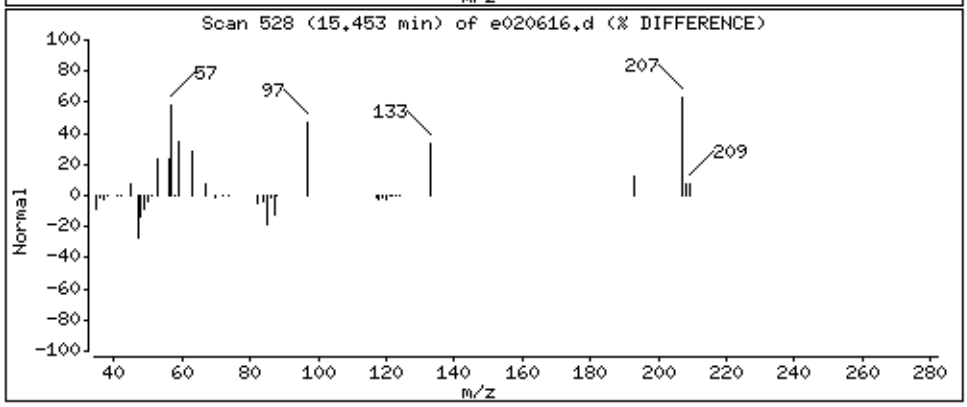












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

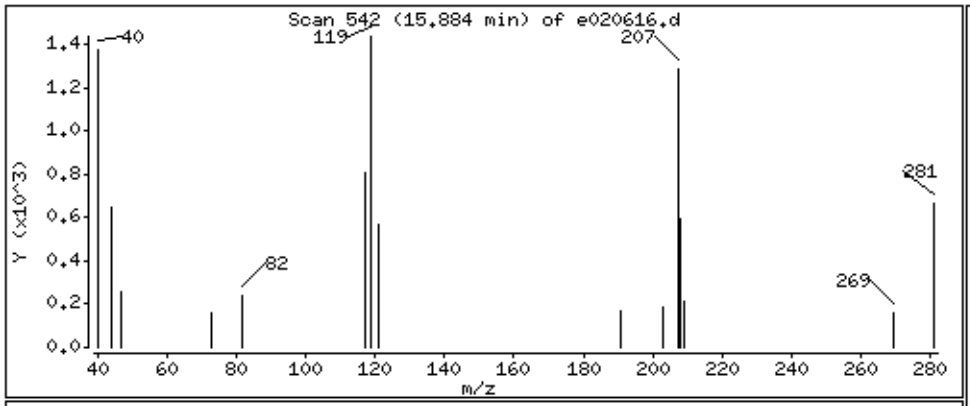
Operator: EA

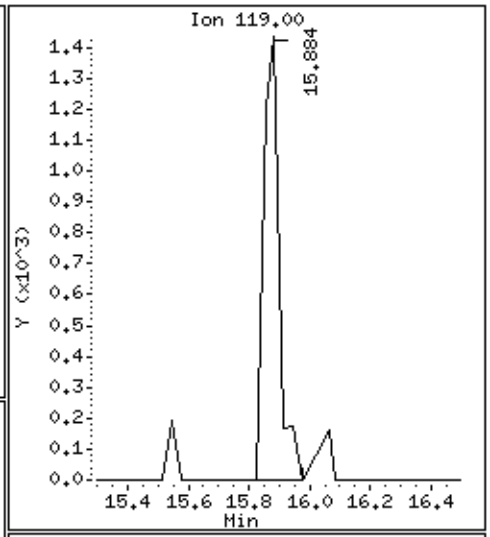
Column phase: RTX-624

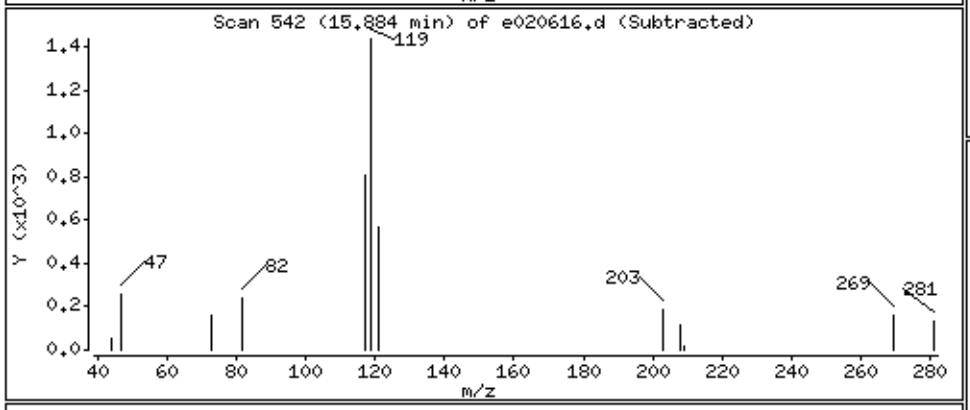
Column diameter: 0.32

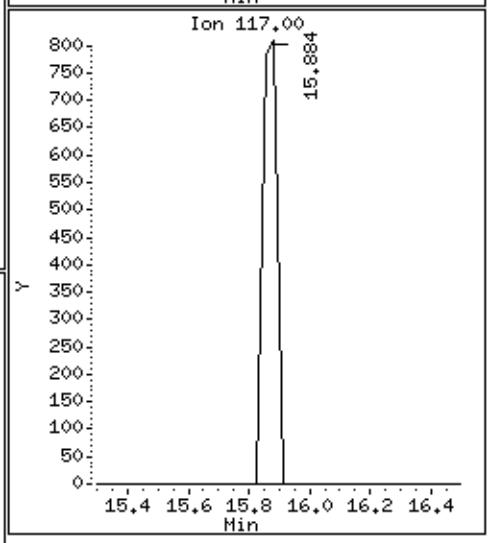
106 Carbon Tetrachloride

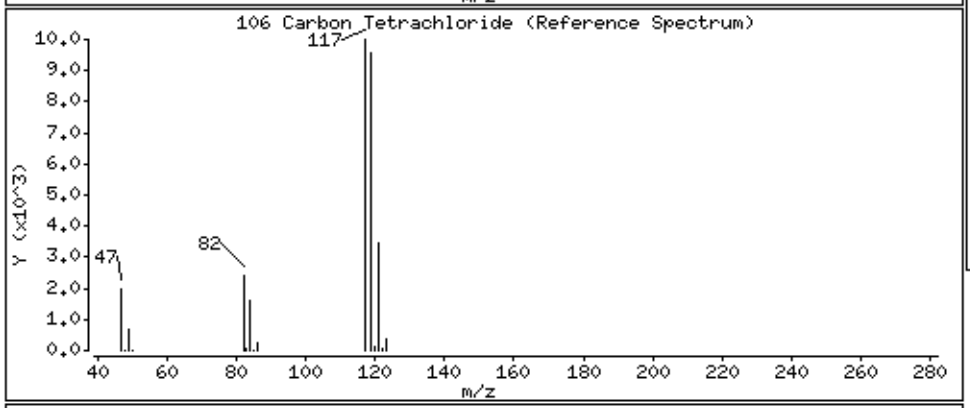
Concentration: 0.08418 PPBV

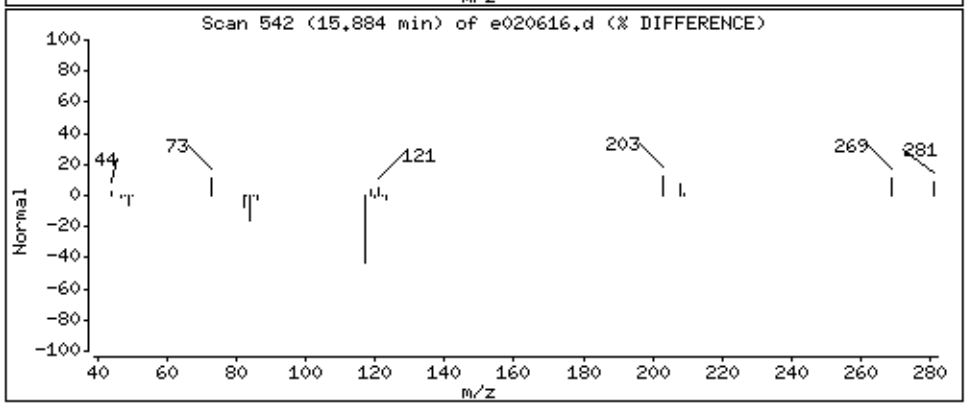












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

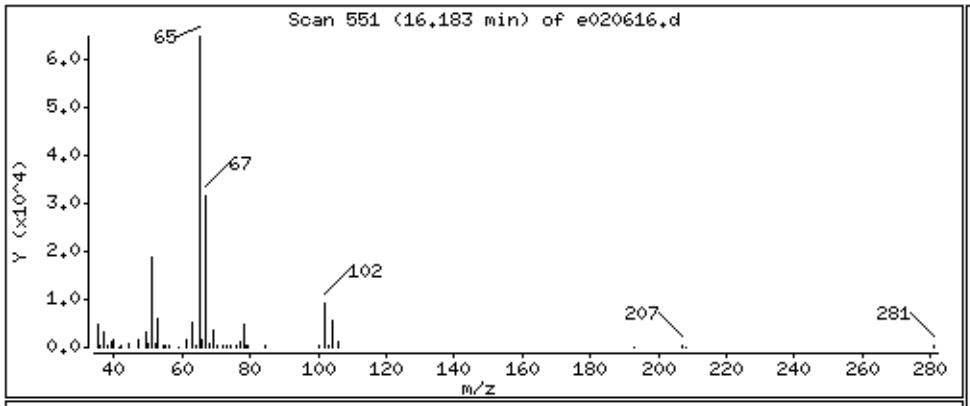
Operator: EA

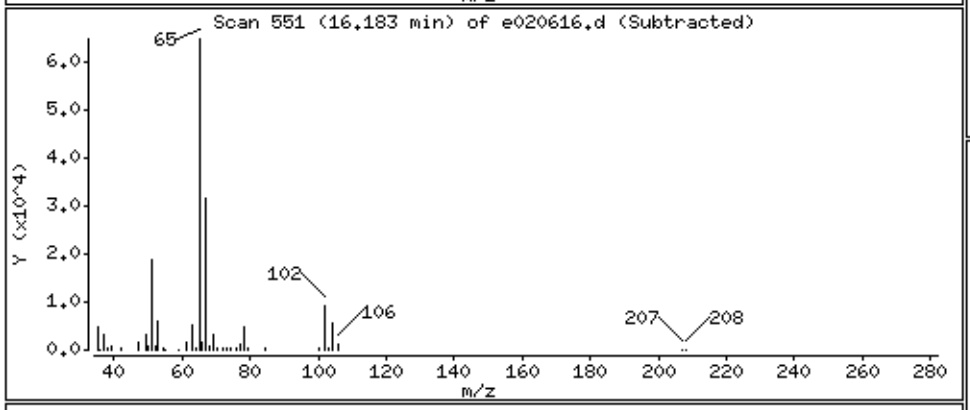
Column phase: RTX-624

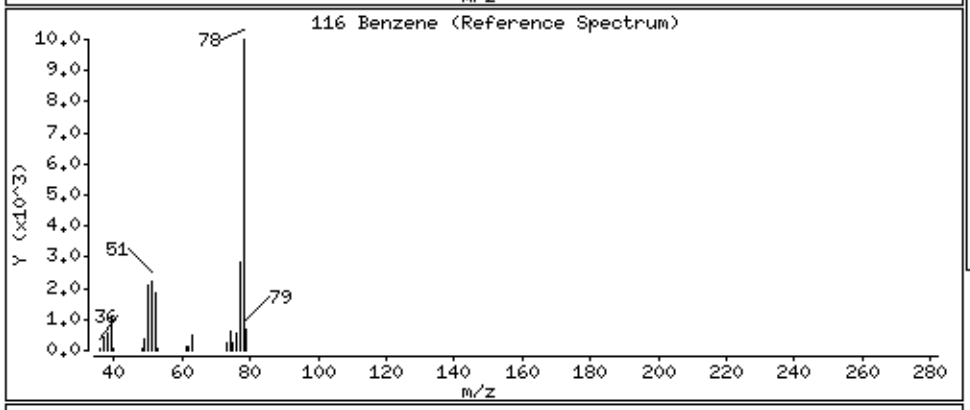
Column diameter: 0.32

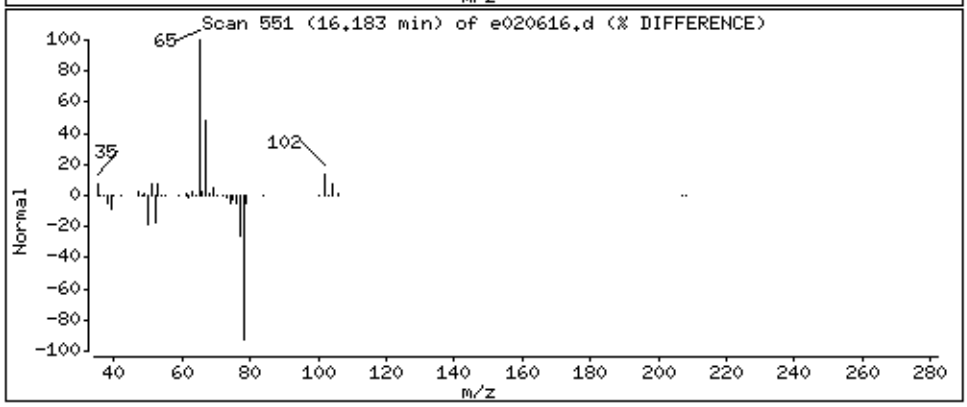
116 Benzene

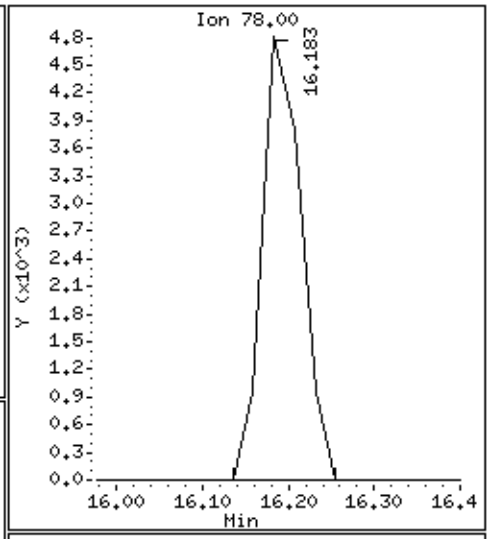
Concentration: 0.2262 PPBV

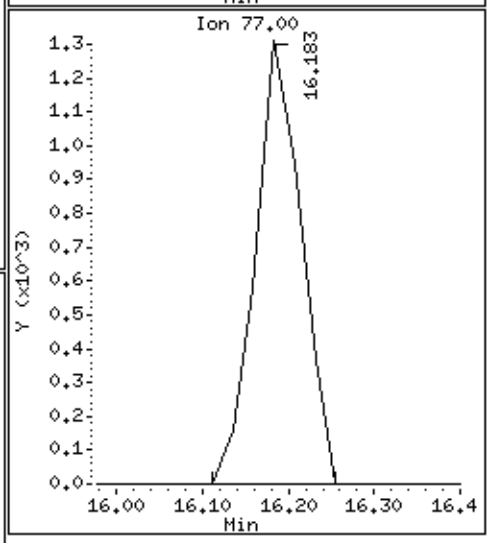












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

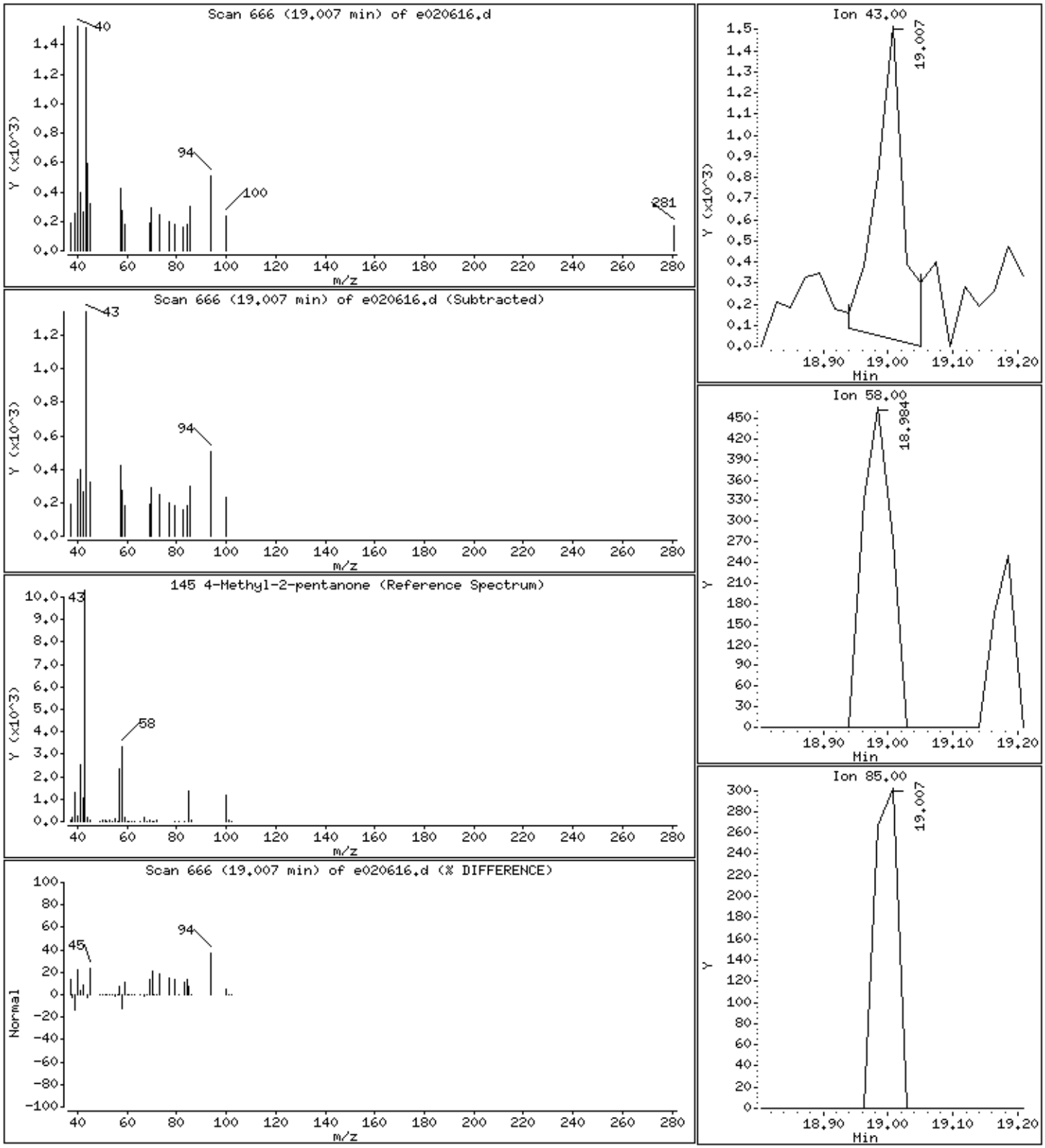
Operator: EA

Column phase: RTX-624

Column diameter: 0.32

145 4-Methyl-2-pentanone

Concentration: 0.1105 PPBV



Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

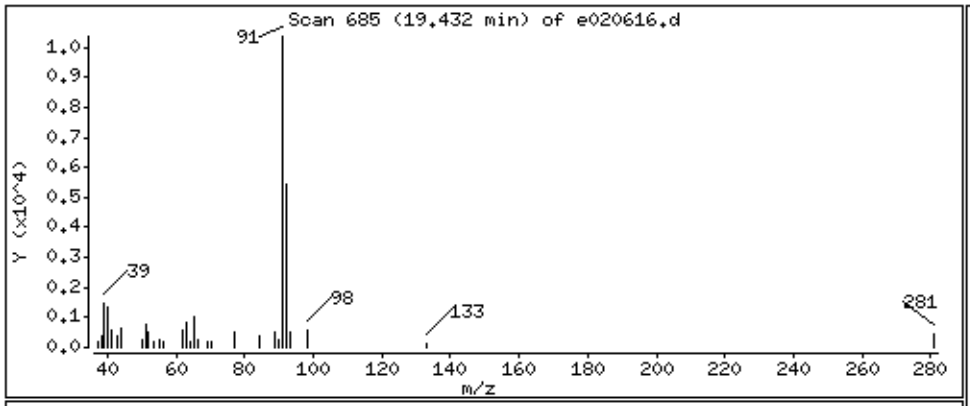
Operator: EA

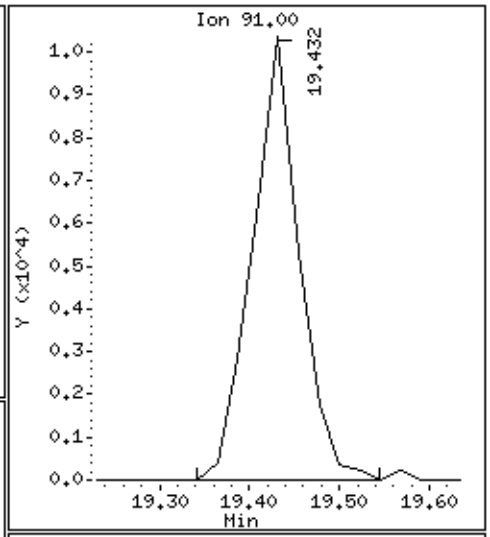
Column phase: RTX-624

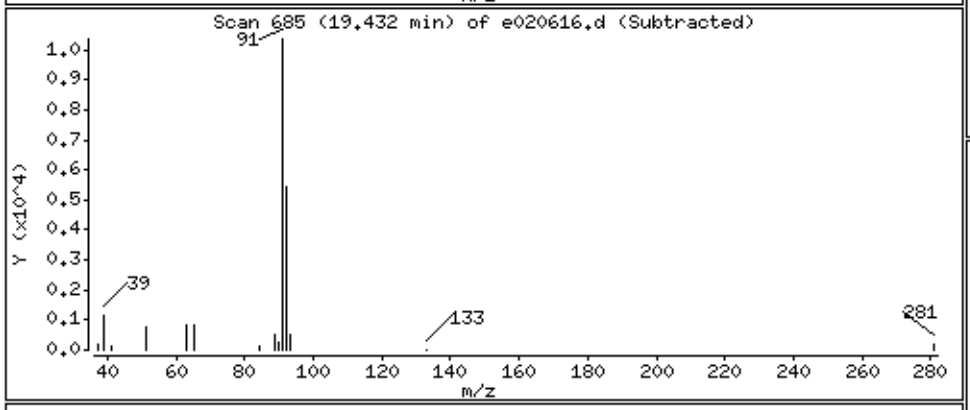
Column diameter: 0.32

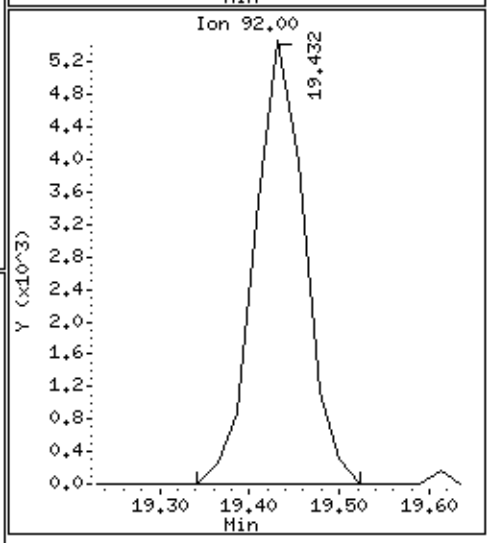
147 Toluene

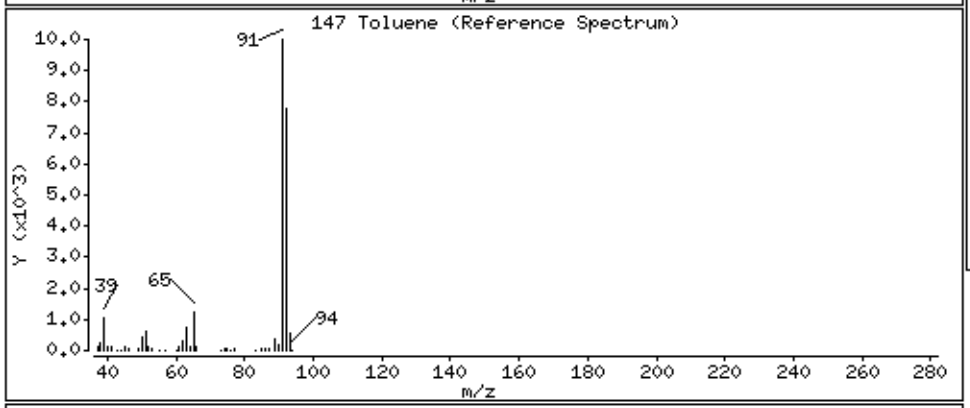
Concentration: 0.4570 PPBV

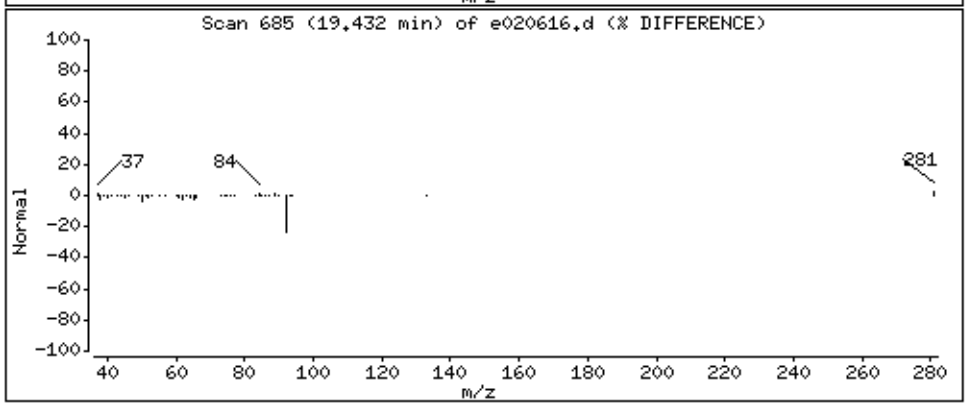












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

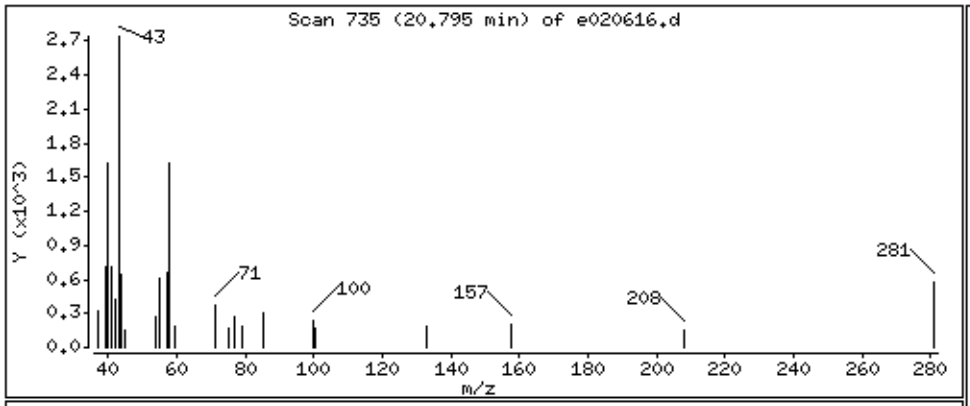
Operator: EA

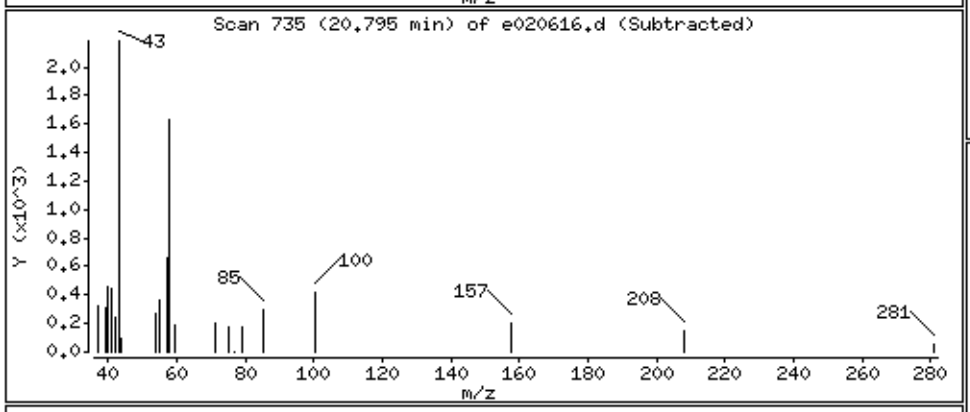
Column phase: RTX-624

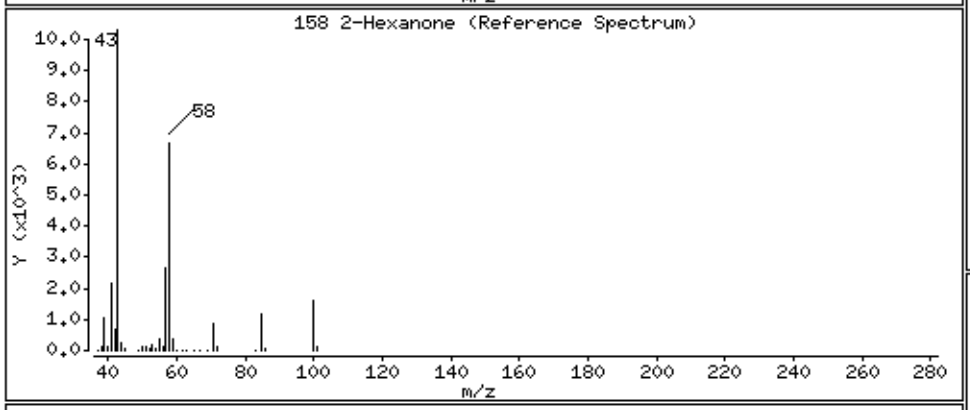
Column diameter: 0.32

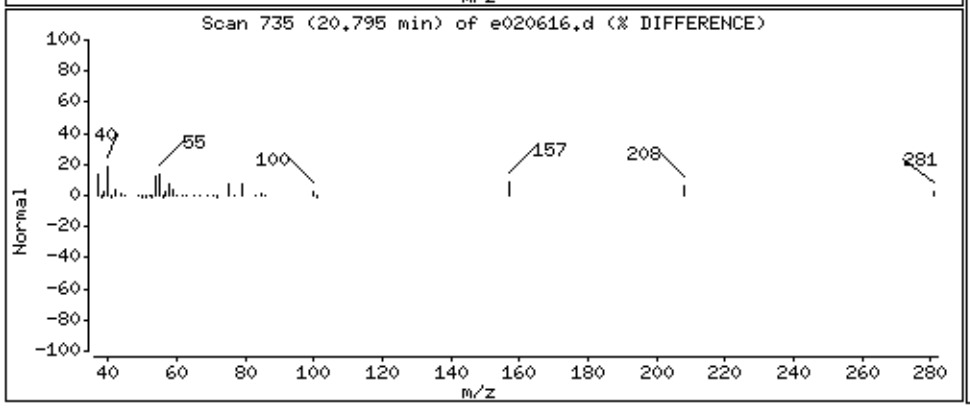
158 2-Hexanone

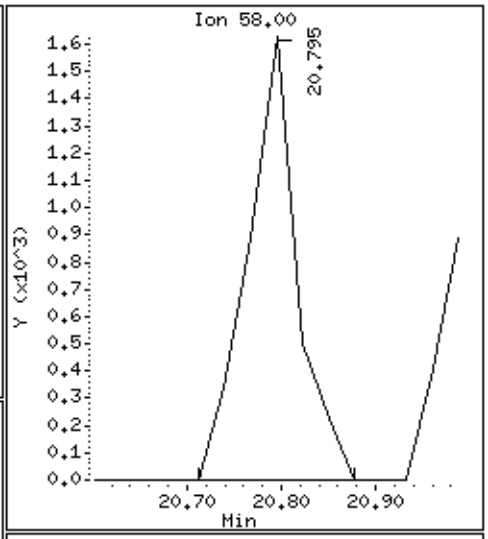
Concentration: 0.2996 PPBV

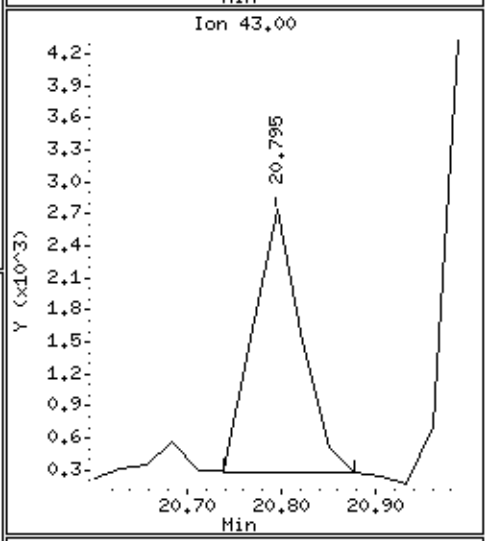


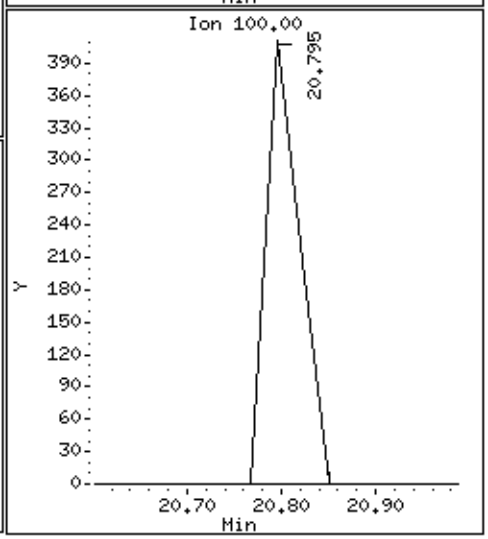












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

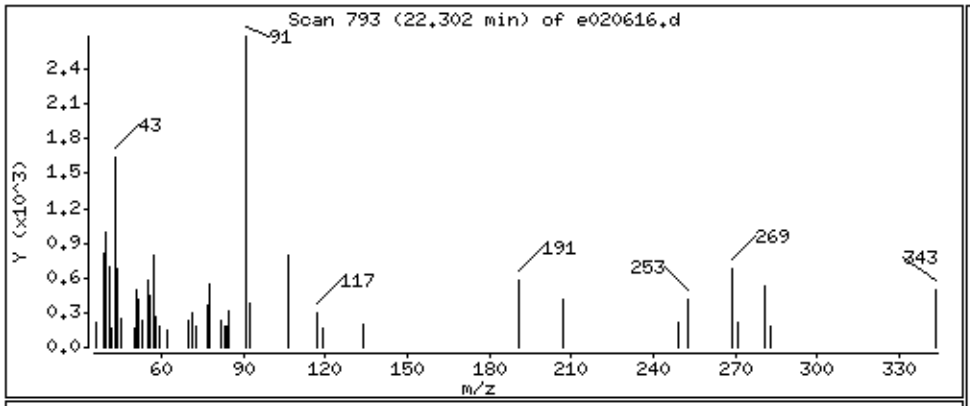
Operator: EA

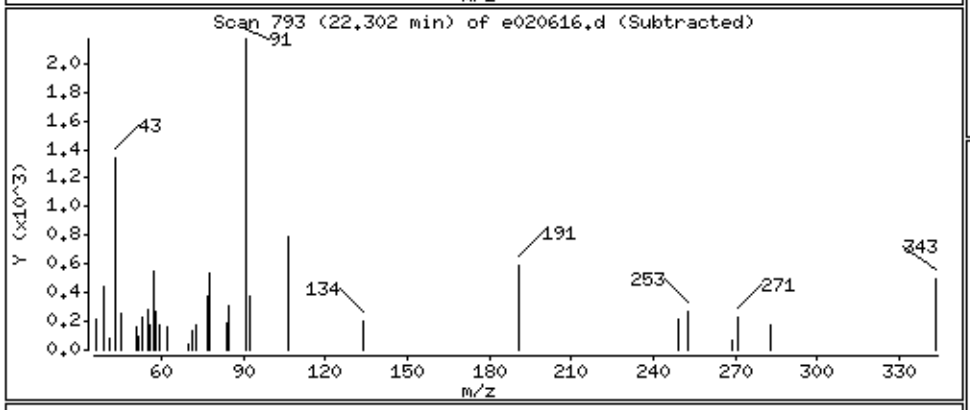
Column phase: RTX-624

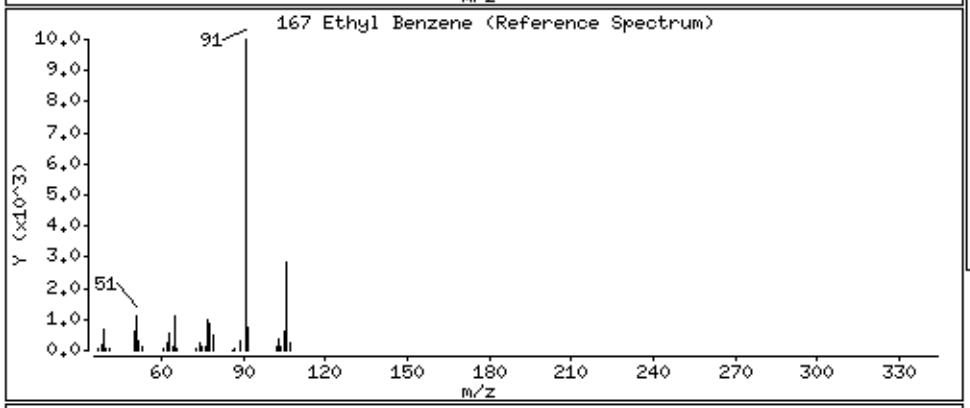
Column diameter: 0.32

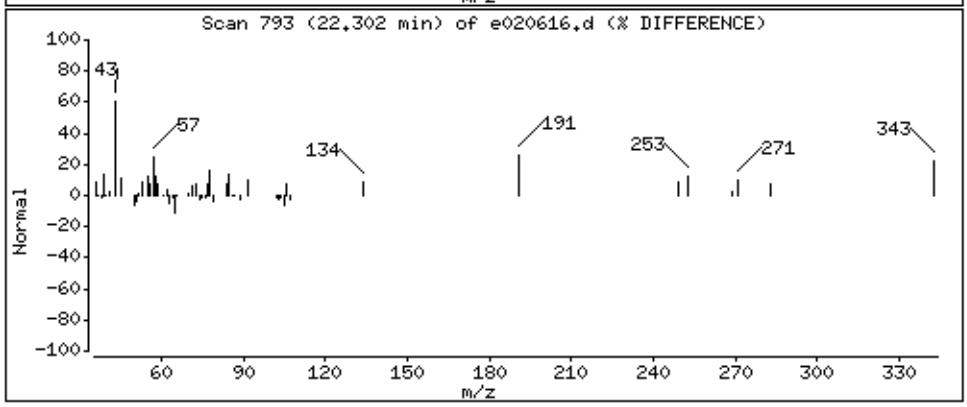
167 Ethyl Benzene

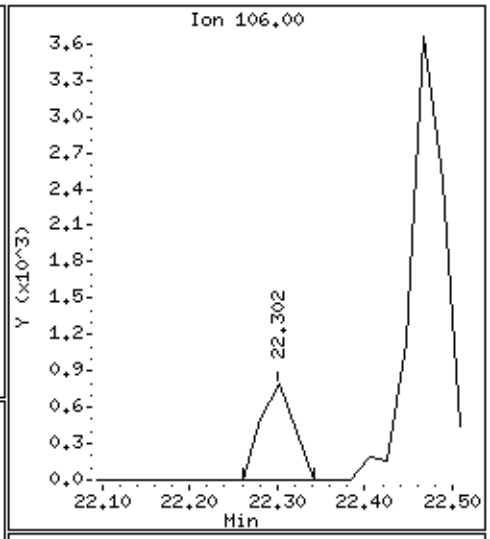
Concentration: 0.06236 PPBV

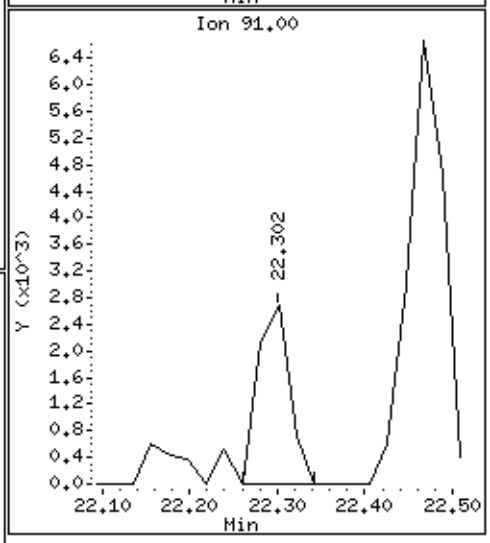












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

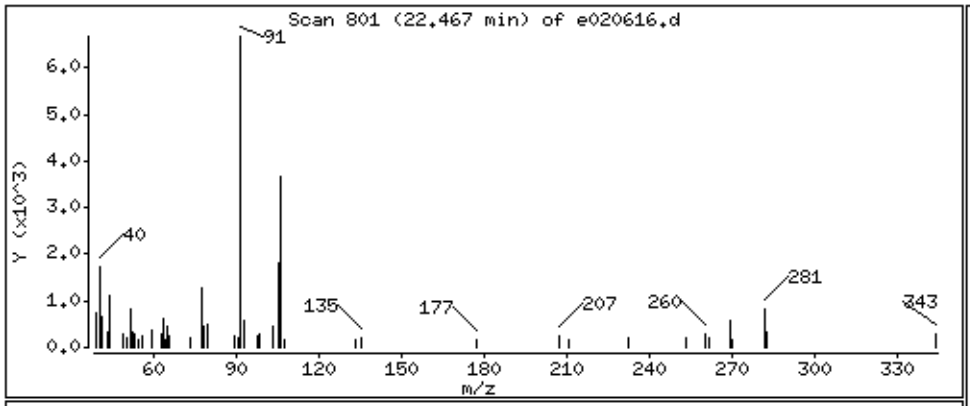
Operator: EA

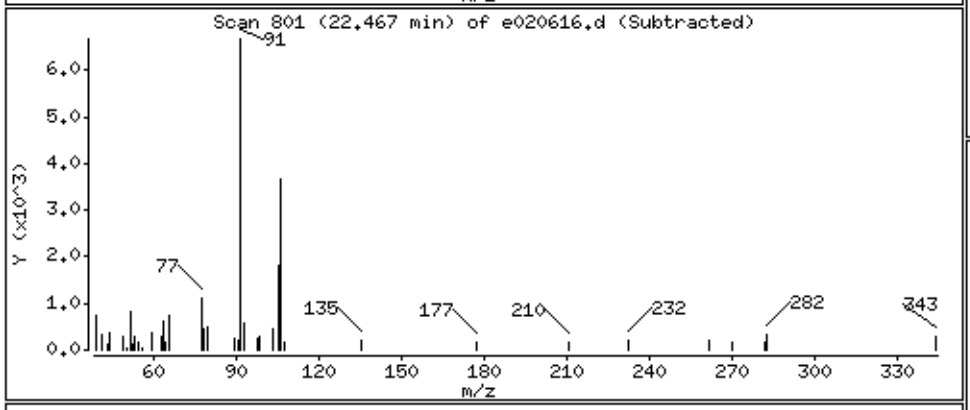
Column phase: RTX-624

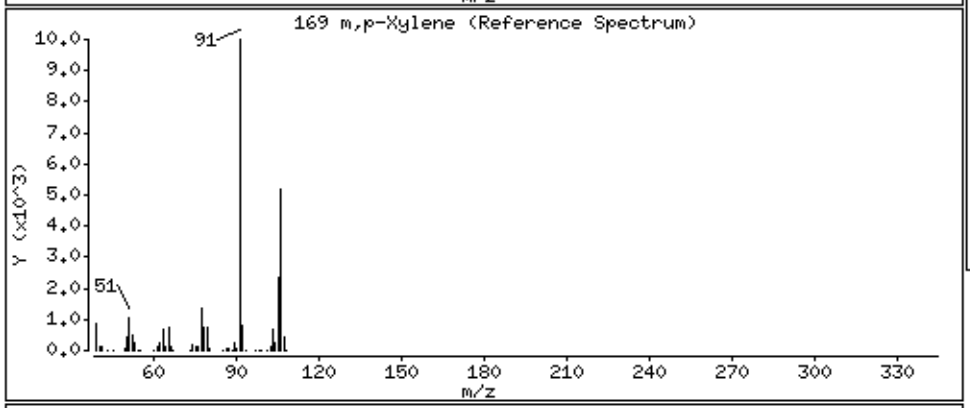
Column diameter: 0.32

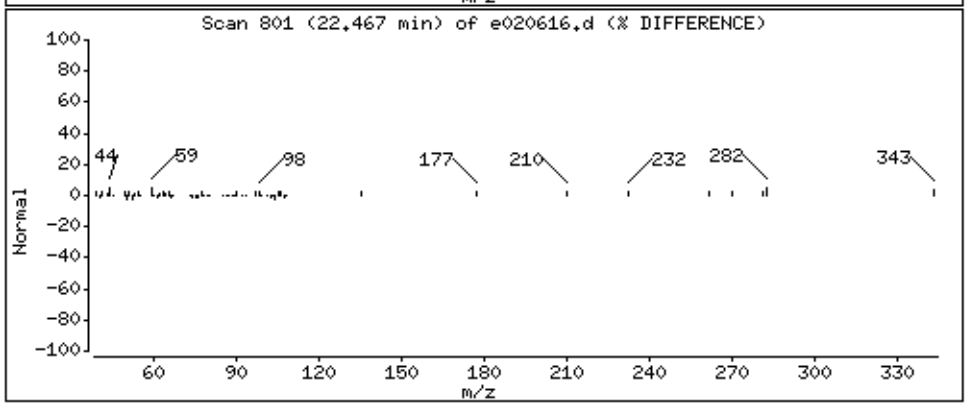
169 m,p-Xylene

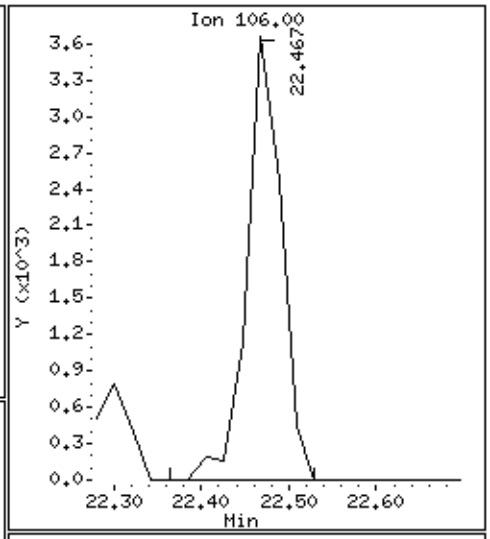
Concentration: 0.2524 PPBV

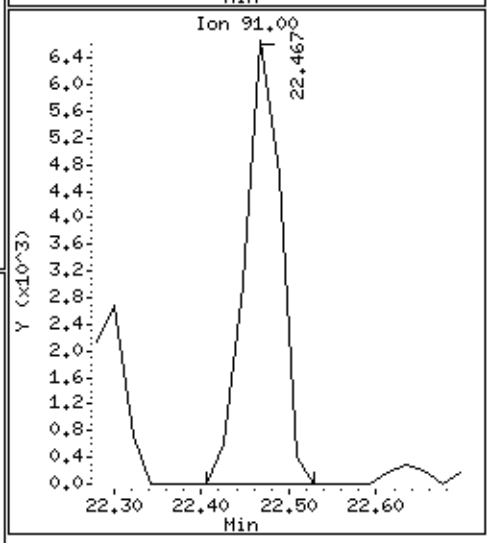












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

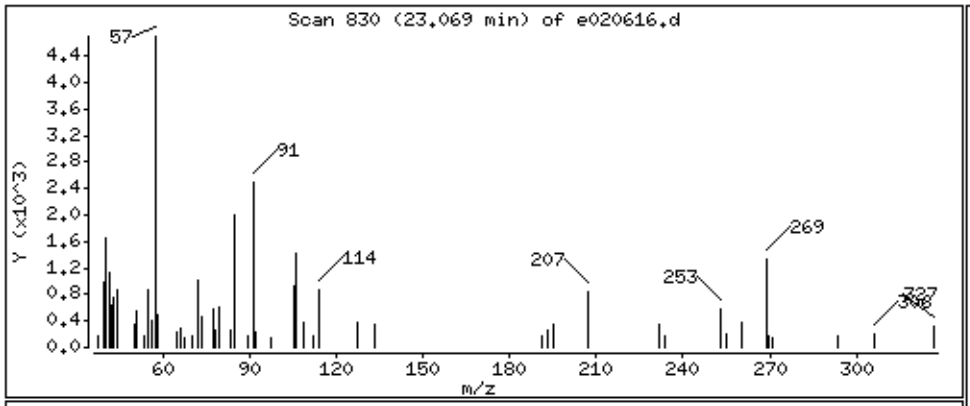
Operator: EA

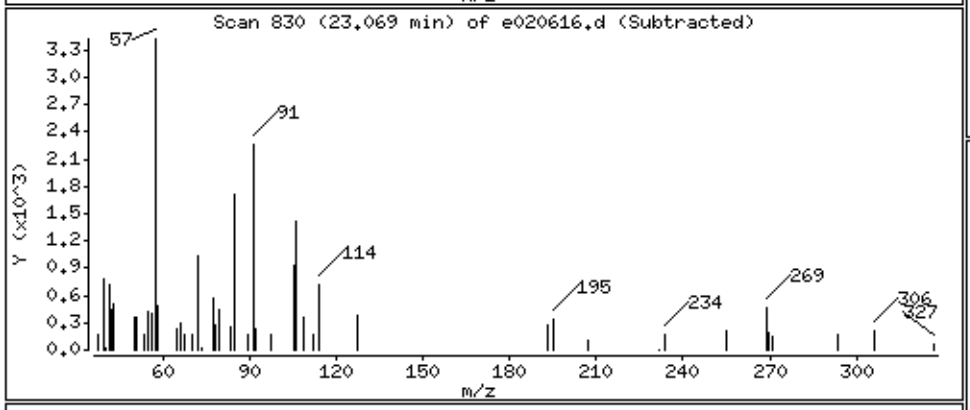
Column phase: RTX-624

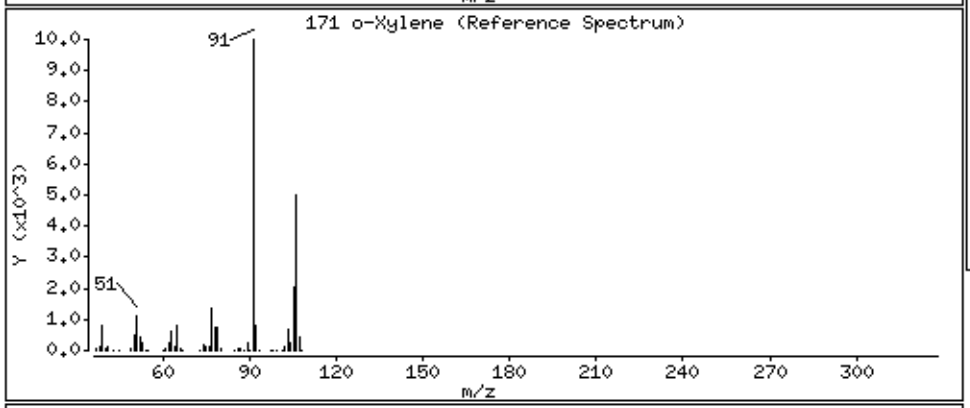
Column diameter: 0.32

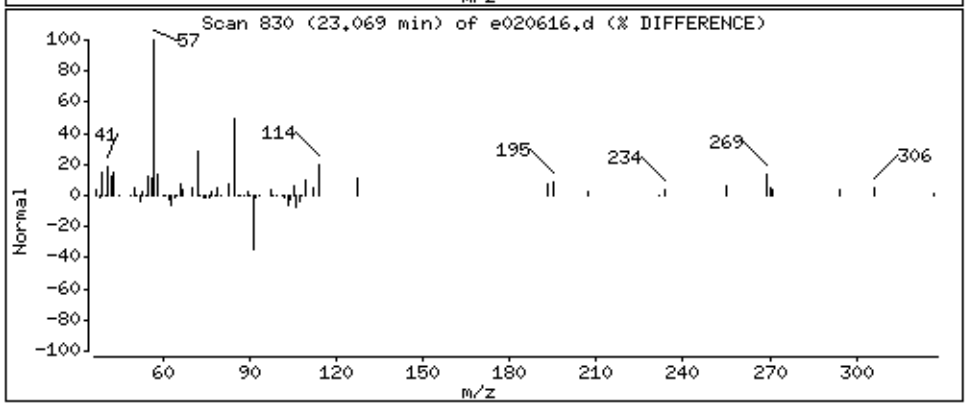
171 o-Xylene

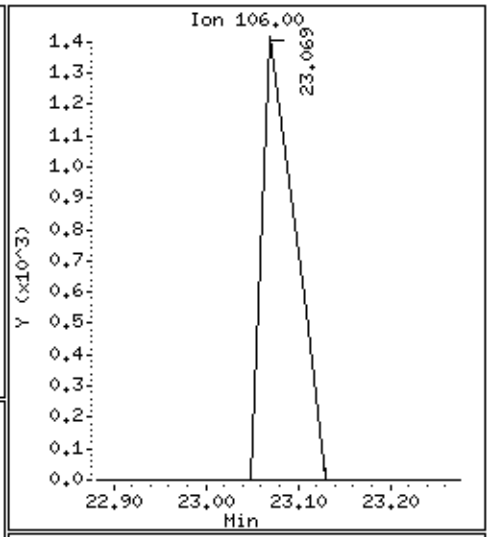
Concentration: 0.09953 PPBV

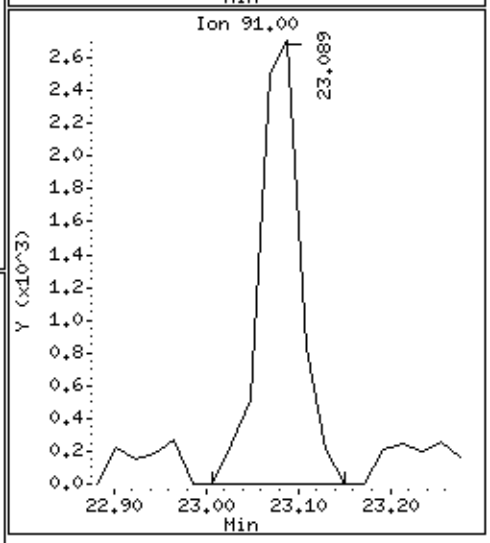












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

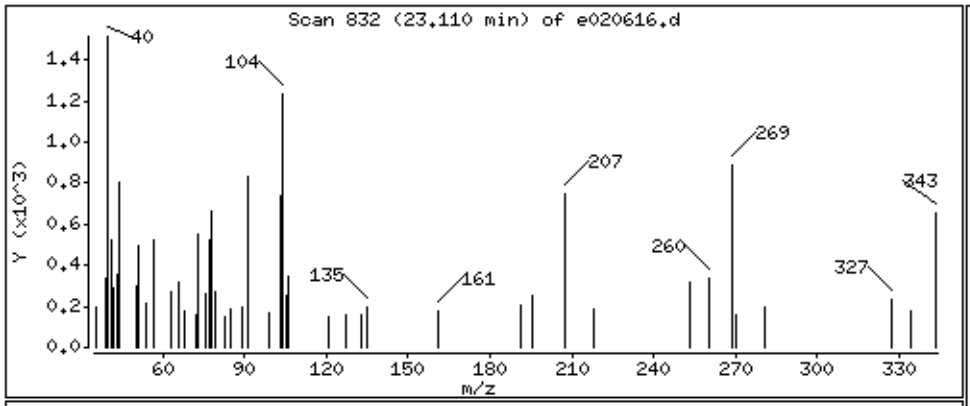
Operator: EA

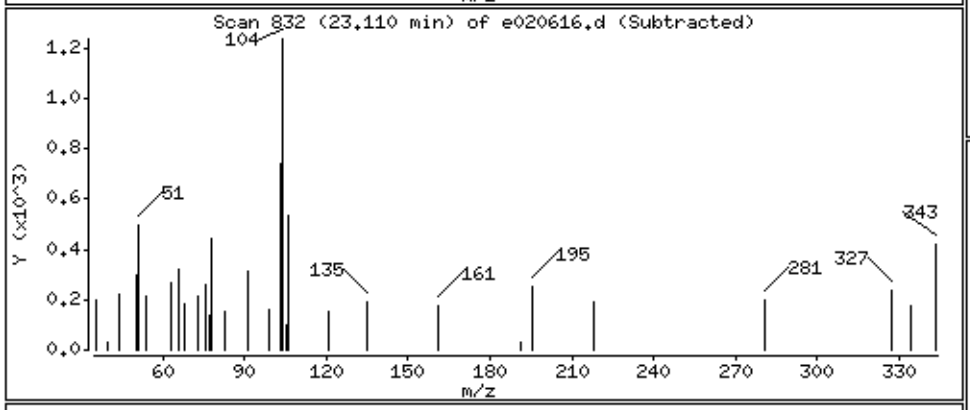
Column phase: RTX-624

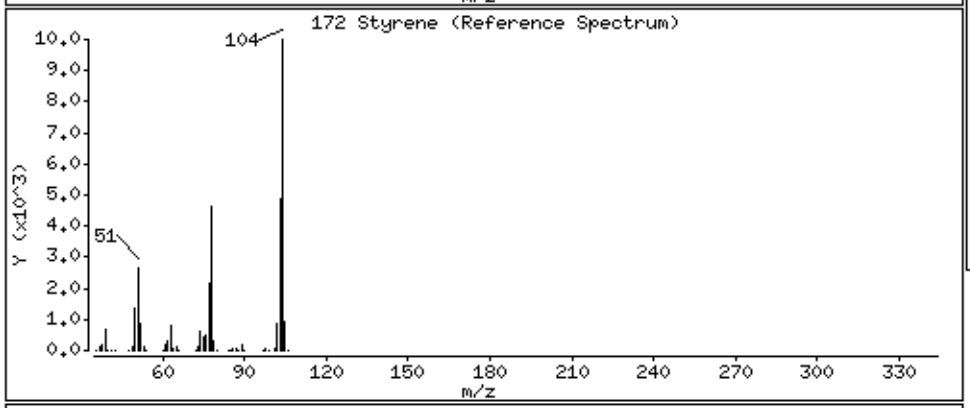
Column diameter: 0.32

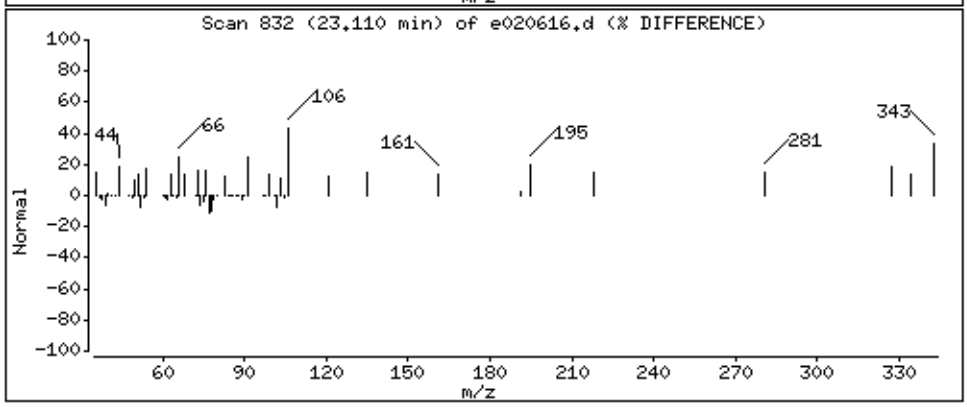
172 Styrene

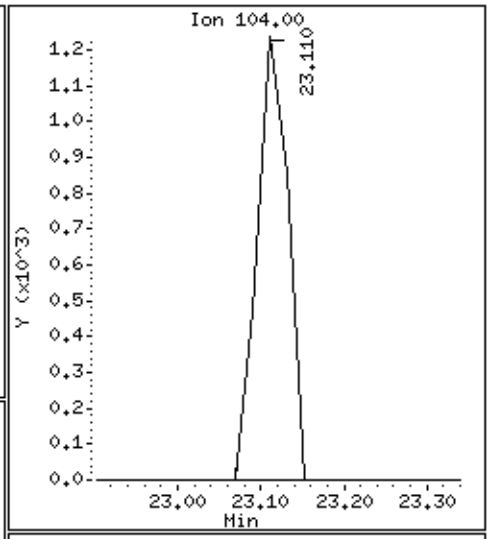
Concentration: 0.05180 PPBV

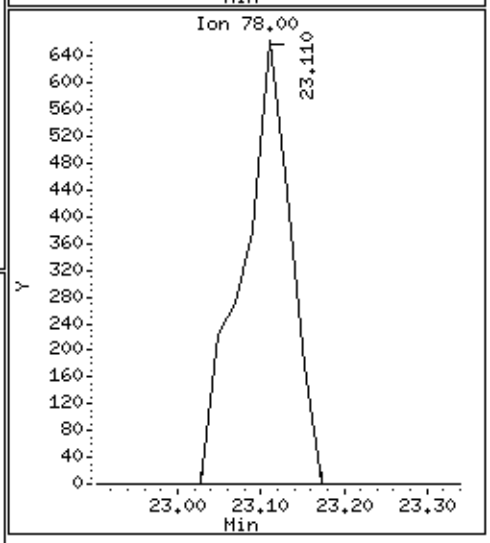












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

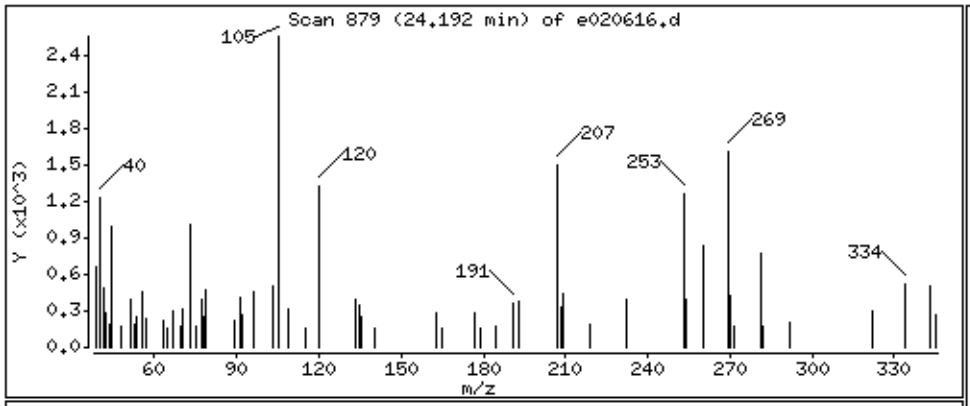
Operator: EA

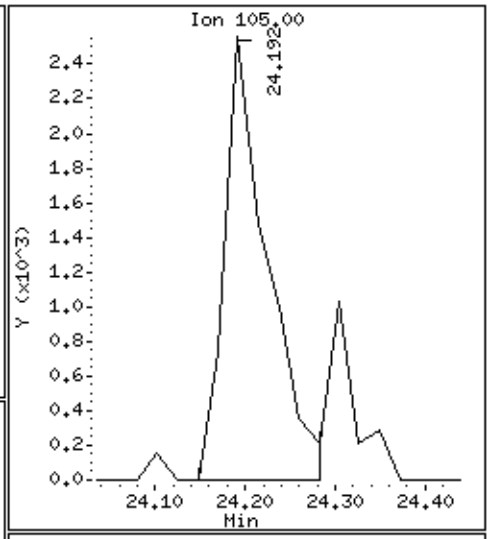
Column phase: RTX-624

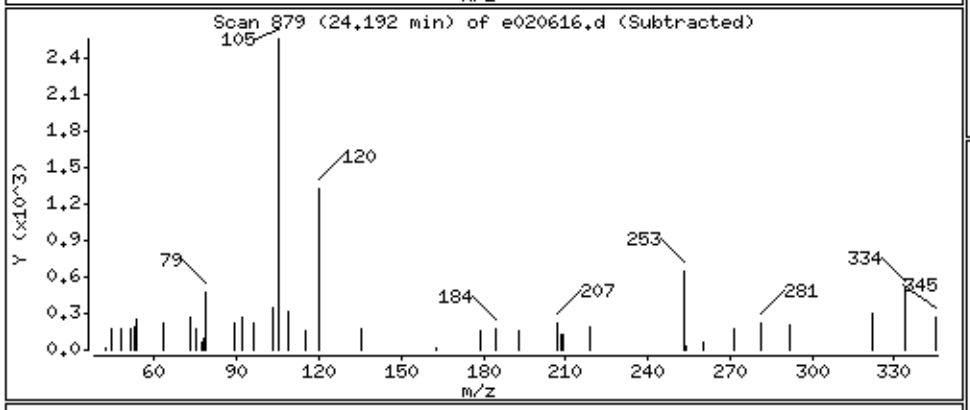
Column diameter: 0.32

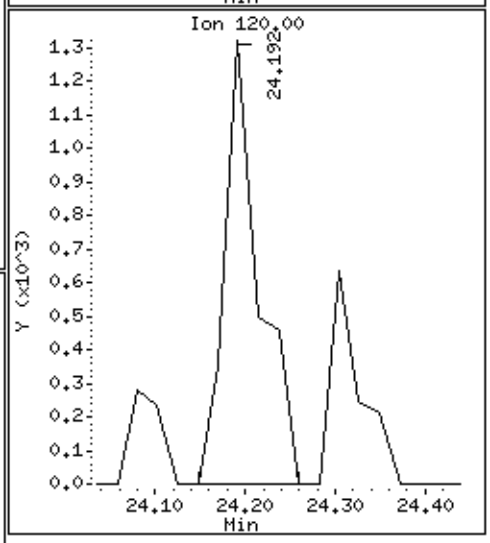
188 4-Ethyltoluene

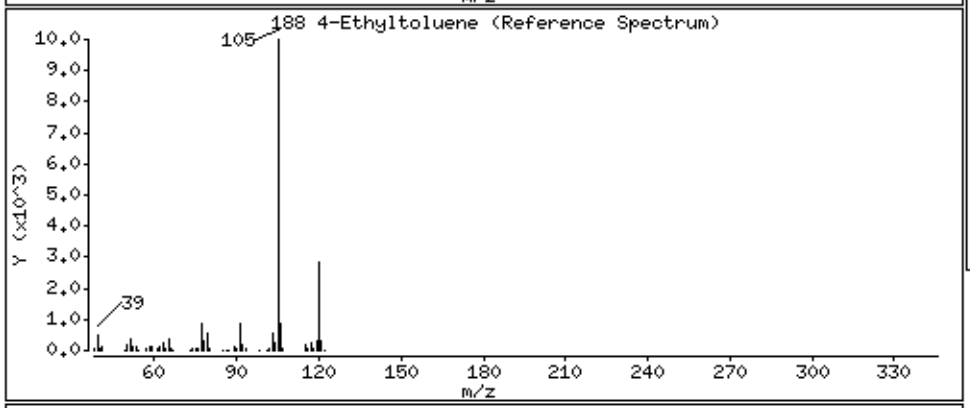
Concentration: 0.08940 PPBV

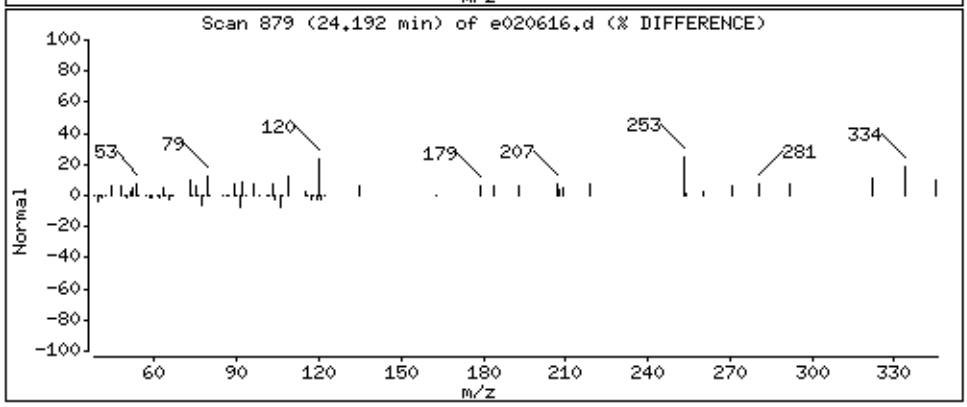












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

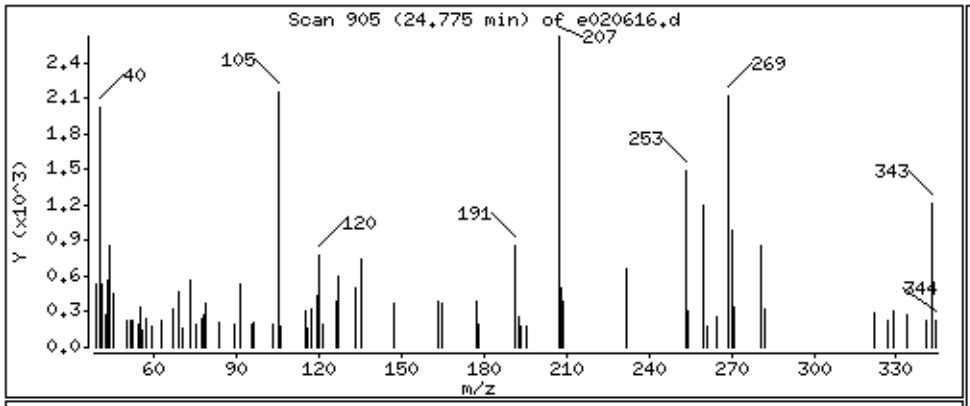
Operator: EA

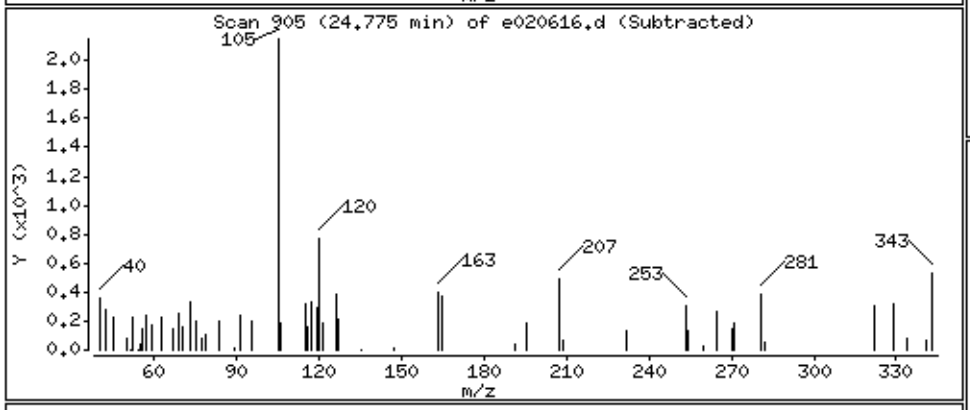
Column phase: RTX-624

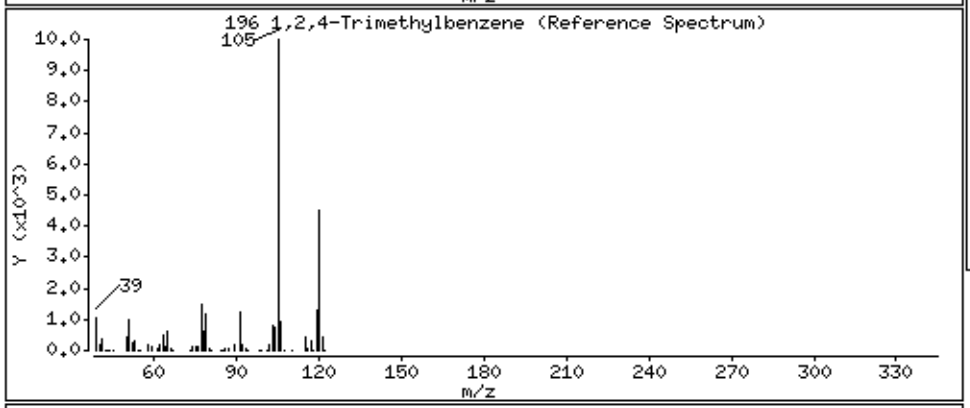
Column diameter: 0.32

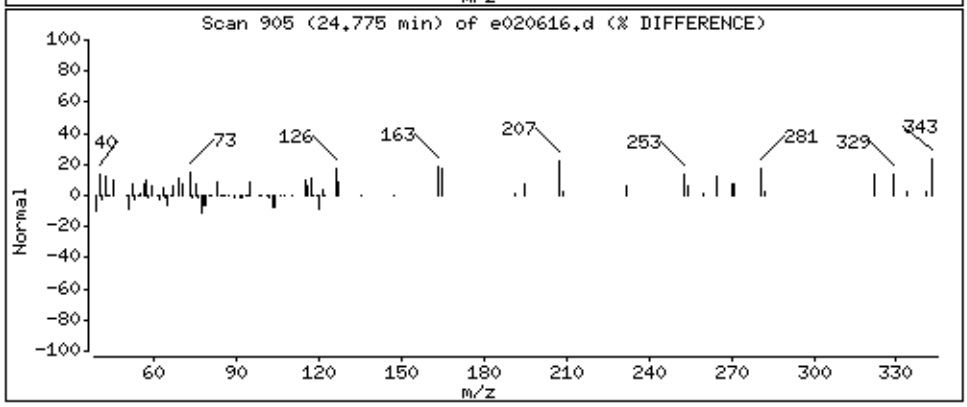
196 1,2,4-Trimethylbenzene

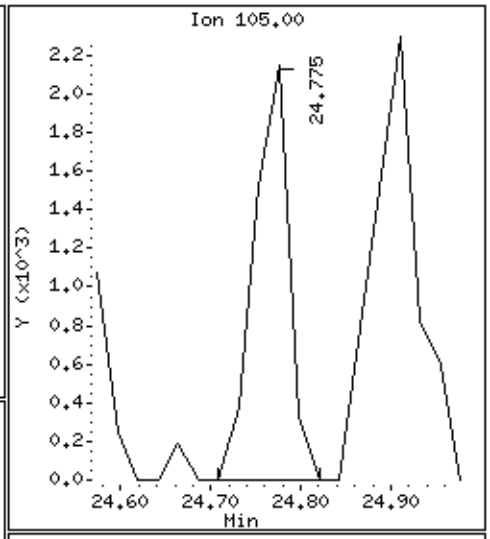
Concentration: 0.09922 PPBV

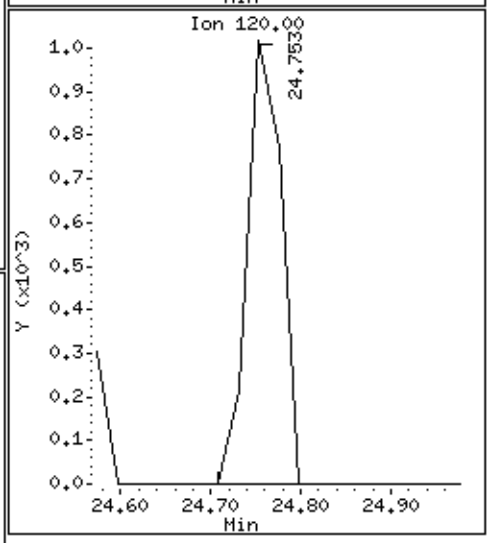












Data File: /chem/msde.i/06Feb2017.b/e020616.d

Date : 06-FEB-2017 20:19

Client ID:

Instrument: msde.i

Sample Info: 250mL#N1726

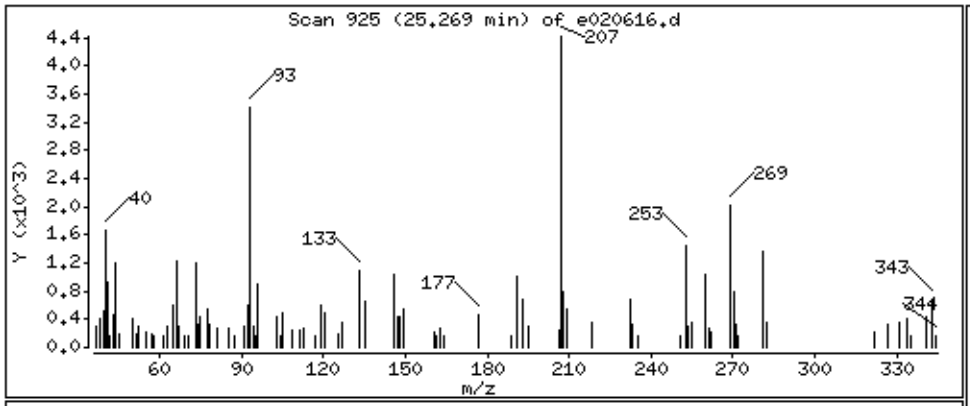
Operator: EA

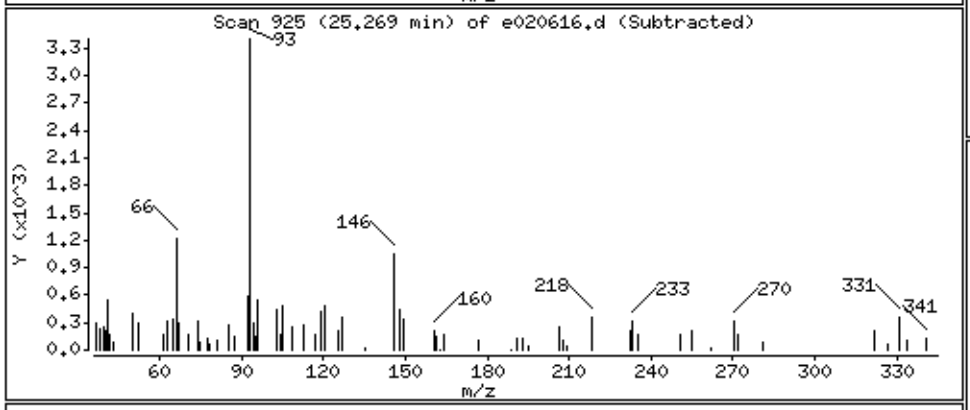
Column phase: RTX-624

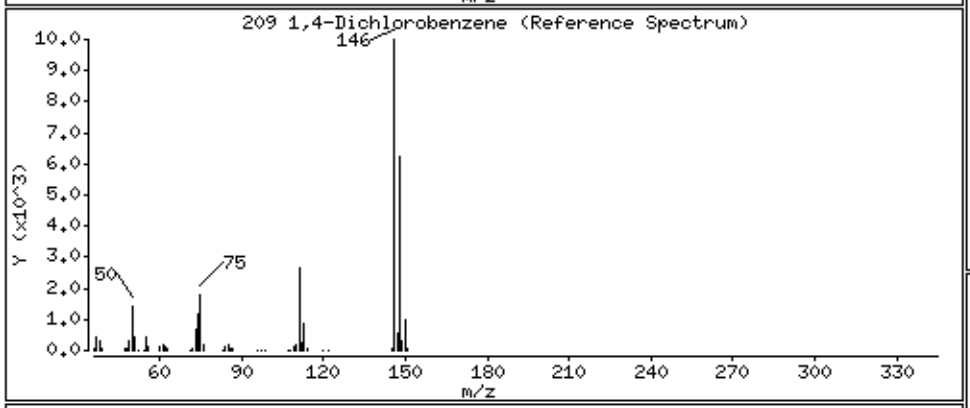
Column diameter: 0.32

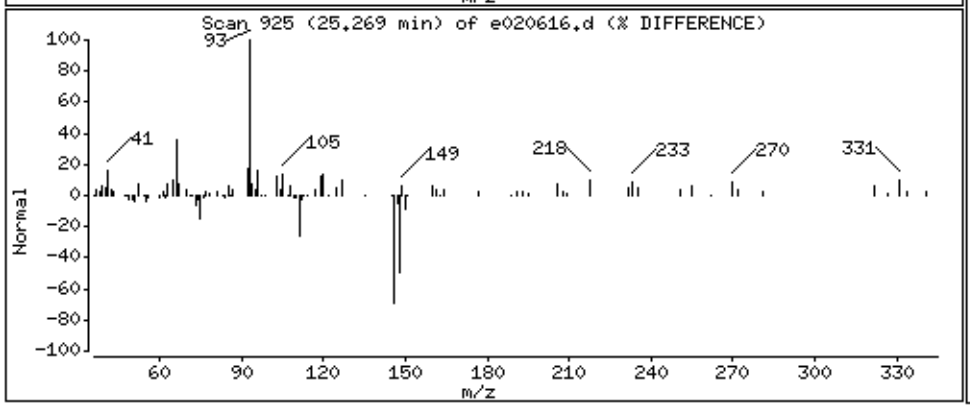
209 1,4-Dichlorobenzene

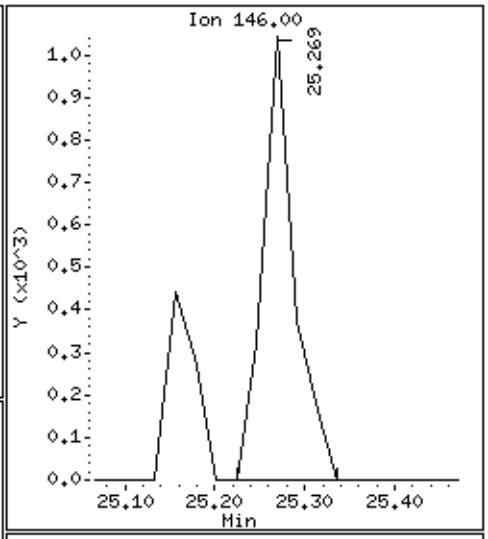
Concentration: 0.03893 PPBV

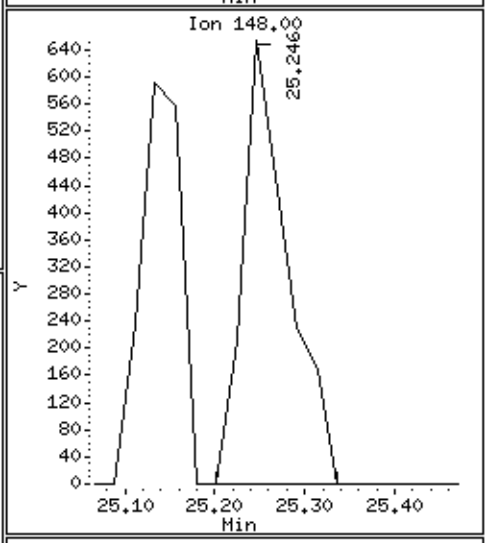


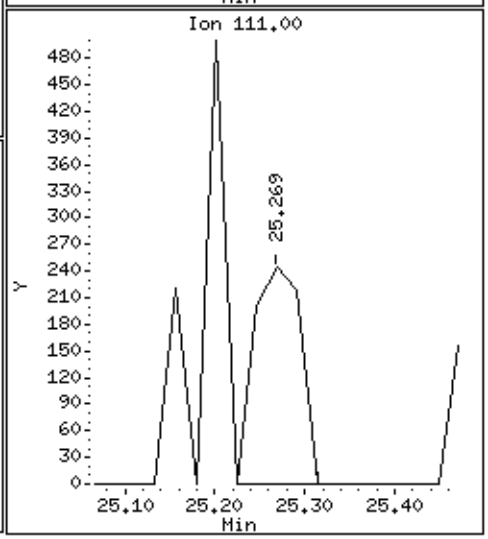












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B8IA-2D-012317

Lab ID#: 1701428A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.42	0.92	2.1
Chloromethane	0.94	1.3	1.9	2.7
Freon 11	0.19	0.21	1.0	1.2
Ethanol	0.94	4.0	1.8	7.6
Freon 113	0.19	0.076 J	1.4	0.58 J
Acetone	0.94	18	2.2	42
2-Propanol	0.94	3.1	2.3	7.7
Carbon Disulfide	0.94	0.87 J	2.9	2.7 J
Methylene Chloride	0.37	0.082 J	1.3	0.29 J
Hexane	0.19	0.23	0.66	0.82
2-Butanone (Methyl Ethyl Ketone)	0.94	3.0	2.8	8.8
Tetrahydrofuran	0.94	0.39 J	2.8	1.2 J
Chloroform	0.19	0.21	0.91	1.0
Carbon Tetrachloride	0.19	0.079 J	1.2	0.50 J
Benzene	0.19	0.21	0.60	0.67
Trichloroethene	0.19	0.20	1.0	1.1
4-Methyl-2-pentanone	0.19	0.19	0.77	0.80
Toluene	0.19	0.46	0.70	1.7
Ethyl Benzene	0.19	0.095 J	0.81	0.41 J
m,p-Xylene	0.19	0.21	0.81	0.92
o-Xylene	0.19	0.074 J	0.81	0.32 J
Styrene	0.19	0.063 J	0.80	0.27 J
Propylbenzene	0.19	0.025 J	0.92	0.12 J
4-Ethyltoluene	0.19	0.099 J	0.92	0.49 J
1,2,4-Trimethylbenzene	0.19	0.089 J	0.92	0.44 J
1,4-Dichlorobenzene	0.19	0.044 J	1.1	0.27 J

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Client Sample ID: B8IA-2D-012317

Lab ID#: 1701428A-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020614**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**2/6/17 06:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.42	0.92	2.1
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.94	1.3	1.9	2.7
Vinyl Chloride	0.19	Not Detected	0.48	Not Detected
1,3-Butadiene	0.19	Not Detected	0.41	Not Detected
Bromomethane	0.94	Not Detected	3.6	Not Detected
Chloroethane	0.94	Not Detected	2.5	Not Detected
Freon 11	0.19	0.21	1.0	1.2
Ethanol	0.94	4.0	1.8	7.6
Freon 113	0.19	0.076 J	1.4	0.58 J
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	18	2.2	42
2-Propanol	0.94	3.1	2.3	7.7
Carbon Disulfide	0.94	0.87 J	2.9	2.7 J
3-Chloropropene	0.94	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	0.082 J	1.3	0.29 J
Methyl tert-butyl ether	0.19	Not Detected	0.67	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Hexane	0.19	0.23	0.66	0.82
1,1-Dichloroethane	0.19	Not Detected	0.76	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	3.0	2.8	8.8
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Tetrahydrofuran	0.94	0.39 J	2.8	1.2 J
Chloroform	0.19	0.21	0.91	1.0
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.64	Not Detected
Carbon Tetrachloride	0.19	0.079 J	1.2	0.50 J
2,2,4-Trimethylpentane	0.94	Not Detected	4.4	Not Detected
Benzene	0.19	0.21	0.60	0.67
1,2-Dichloroethane	0.19	Not Detected	0.76	Not Detected
Heptane	0.19	Not Detected	0.77	Not Detected
Trichloroethene	0.19	0.20	1.0	1.1
1,2-Dichloropropane	0.19	Not Detected	0.86	Not Detected
1,4-Dioxane	0.19	Not Detected	0.67	Not Detected
Bromodichloromethane	0.19	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
4-Methyl-2-pentanone	0.19	0.19	0.77	0.80
Toluene	0.19	0.46	0.70	1.7
trans-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.94	Not Detected	3.8	Not Detected

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Client Sample ID: B8IA-2D-012317

Lab ID#: 1701428A-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020614**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**2/6/17 06:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.4	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	0.095 J	0.81	0.41 J
m,p-Xylene	0.19	0.21	0.81	0.92
o-Xylene	0.19	0.074 J	0.81	0.32 J
Styrene	0.19	0.063 J	0.80	0.27 J
Bromoform	0.19	Not Detected	1.9	Not Detected
Cumene	0.19	Not Detected	0.92	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	0.025 J	0.92	0.12 J
4-Ethyltoluene	0.19	0.099 J	0.92	0.49 J
1,3,5-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,2,4-Trimethylbenzene	0.19	0.089 J	0.92	0.44 J
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	0.044 J	1.1	0.27 J
alpha-Chlorotoluene	0.19	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected	6.9	Not Detected
Hexachlorobutadiene	0.94	Not Detected	10	Not Detected
Naphthalene	0.94	Not Detected	4.9	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020614.d
Lab Smp Id: 1701428A-14A
Inj Date : 06-FEB-2017 18:17
Operator : EA Inst ID: msde.i
Smp Info : 250mL#6L1318
Misc Info : 8.5"Hg-5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 07-Feb-2017 06:37 atoyama Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	27725	0.22626	0.4231	80.00- 120.00	100.00
5.269	5.220 (0.342)	87	10303			1.91- 61.91	37.16
17 Chloromethane					CAS #: 74-87-3		
6.956	6.932 (0.452)	50	15992	0.69976	1.308	80.00- 120.00	100.00
6.956	6.932 (0.452)	52	6191			3.31- 63.31	38.71
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	15835	0.11077	0.2071	80.00- 120.00	100.00
10.747	10.766 (0.698)	103	10071			33.74- 93.74	63.60
42 Ethanol					CAS #: 64-17-5		
11.681	11.661 (0.759)	45	26725	2.14486	4.011	80.00- 120.00	100.00
11.681	11.661 (0.759)	46	10964			9.60- 69.60	41.03
11.681	11.661 (0.759)	43	7122			0.00- 59.21	26.65
49 Freon 113					CAS #: 76-13-1		
12.100	12.081 (0.786)	151	3885	0.04070	0.07611	80.00- 120.00	100.00(a)
12.081	12.081 (0.785)	153	2218			34.83- 94.83	57.11

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

   49 Freon 113 (continued)
 12.081  12.081 (0.785)   101      4894                    77.16- 137.16   125.98
-------------------------------------------------------------------------------
   52 Acetone                                     CAS #: 67-64-1
 12.366  12.366 (0.803)    58    149764 9.55976   17.877  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    564823                  344.13- 404.13   377.14
-------------------------------------------------------------------------------
   56 Carbon Disulfide                            CAS #: 75-15-0
 12.462  12.462 (0.810)    76     50601 0.46693   0.8732  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                  CAS #: 67-63-0
 12.728  12.728 (0.827)    45     84867 1.68269    3.147  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43     25008                     0.00-  55.65    29.47
 12.728  12.728 (0.827)    59      3419                     0.00-  34.42     4.03
-------------------------------------------------------------------------------
   66 Methylene Chloride                          CAS #: 75-09-2
 13.176  13.176 (0.856)    84      1691 0.04411  0.08248  80.00- 120.00   100.00(a)
 13.149  13.176 (0.854)    49      2299                    83.76- 143.76   135.93
 13.149  13.176 (0.854)    51      1372                     2.61-  62.61    81.11
-------------------------------------------------------------------------------
   78 Hexane                                      CAS #: 110-54-3
 13.835  13.835 (0.899)    57      5663 0.12403   0.2319  80.00- 120.00   100.00
 13.890  13.835 (0.902)    43     11026                    27.83-  87.83   194.71
 13.835  13.835 (0.899)    86      1563                     0.00-  50.45    27.61
-------------------------------------------------------------------------------
   92 2-Butanone                                  CAS #: 78-93-3
 15.047  15.047 (0.978)    72     27136 1.59736    2.987  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    117288                   325.72- 385.72   432.23
 15.047  15.047 (0.978)    57     11281                     1.13-  61.13    41.57
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                             CAS #: 109-99-9
 15.391  15.391 (1.000)    42      6429 0.20907   0.3910  80.00- 120.00   100.00(a)
 15.391  15.391 (1.000)    71      3084                    20.32-  80.32    47.98
 15.391  15.391 (1.000)    72      3177                    21.98-  81.98    49.41
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 15.391  15.391 (1.000)   130    138018 5.00000            80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    107953                    46.73- 106.73    78.22
 15.391  15.391 (1.000)    49    111792                    55.35- 115.35    81.00
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83     11183 0.11180   0.2091  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85      8179                    36.62-  96.62    73.14
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.884  15.884 (1.032)   119      4856 0.04239  0.07928  80.00- 120.00   100.00(a)
```

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

  106 Carbon Tetrachloride (continued)
 15.884  15.884 (1.032)   117      4497                    74.11- 134.11    92.61
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.207  16.207 (0.968)    78     13119 0.11290   0.2111  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77      4525                     0.00-  53.00    34.50
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    212235 5.35479    5.355  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    100926                    22.67-  82.67    47.55
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 16.737  16.737 (1.000)   114    470641 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     68889                     0.00-  45.16    14.64
-------------------------------------------------------------------------------
  125 Trichloroethene                             CAS #: 79-01-6
 17.147  17.147 (1.024)   130      6891 0.10629   0.1988  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95      8584                    61.87- 121.87   124.57
 17.147  17.147 (1.024)    97      4747                    29.29-  89.29    68.88
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                        CAS #: 108-10-1
 19.007  19.006 (1.136)    43      7176 0.10381   0.1941  80.00- 120.00   100.00
 19.007  19.006 (1.136)    58      1971                    10.02-  70.02    27.46
 19.029  19.006 (1.137)    85      2002                     0.00-  52.01    27.90
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                  CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    463027 5.07187    5.072  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     55362                     0.00-  40.89    11.96
 19.298  19.298 (1.153)   100    308927                    40.09- 100.09    66.72
-------------------------------------------------------------------------------
  147 Toluene                                     CAS #: 108-88-3
 19.432  19.432 (1.161)    91     34278 0.24385   0.4560  80.00- 120.00   100.00
 19.455  19.432 (1.162)    92     20016                    27.79-  87.79    58.40
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                            CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    482848 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    231390                    17.27-  77.27    47.92
-------------------------------------------------------------------------------
  167 Ethyl Benzene                               CAS #: 100-41-4
 22.302  22.301 (1.006)   106      3214 0.05082  0.09503  80.00- 120.00   100.00(a)
 22.302  22.301 (1.006)    91      9460                   278.11- 338.11   294.36
-------------------------------------------------------------------------------
  169 m,p-Xylene                                  CAS #: 108-38-3
 22.467  22.488 (1.013)   106      8445 0.11281   0.2110  80.00- 120.00   100.00
 22.467  22.488 (1.013)    91     18153                   170.01- 230.01   214.95
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
171 o-Xylene					CAS #: 95-47-6		
23.089	23.089 (1.041)	106	2729	0.03934	0.07357	80.00- 120.00	100.00(a)
23.089	23.089 (1.041)	91	8923			175.84- 235.84	326.95
172 Styrene					CAS #: 100-42-5		
23.131	23.110 (1.043)	104	3875	0.03349	0.06262	80.00- 120.00	100.00(a)
23.131	23.110 (1.043)	78	3162			20.21- 80.21	81.61
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	327731	4.85911	4.859	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	334681			66.74- 126.74	102.12
23.856	23.856 (1.076)	176	319957			67.47- 127.47	97.63
182 Propylbenzene					CAS #: 103-65-1		
24.102	24.102 (1.087)	91	2908	0.01343	0.02511	80.00- 120.00	100.00(a)
24.102	24.102 (1.087)	120	1051			0.00- 55.73	36.14
188 4-Ethyltoluene					CAS #: 622-96-8		
24.192	24.237 (1.091)	105	9501	0.05291	0.09894	80.00- 120.00	100.00(a)
24.192	24.237 (1.091)	120	3379			1.00- 61.00	35.57
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	5318	0.04760	0.08901	80.00- 120.00	100.00(a)
24.775	24.775 (1.117)	120	2517			16.84- 76.84	47.34
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	2942	0.02383	0.04457	80.00- 120.00	100.00(a)
25.269	25.269 (1.139)	148	1537			35.10- 95.10	52.27
25.269	25.269 (1.139)	111	1226			4.80- 64.80	41.70

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: msde.i
Lab File ID: e020614.d
Lab Smp Id: 1701428A-14A
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 8.5"Hg-5.0psi

Calibration Date: 06-FEB-2017
Calibration Time: 07:43

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	138018	-5.05
123 1,4-Difluorobenze	497113	298268	695958	470641	-5.33
163 Chlorobenzene-d5	465931	279559	652303	482848	3.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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: 09-Feb-2017 13:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428A-14A
Level: LOW
Operator: EA
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 8.5"Hg-5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.355	107.10	70-130
$ 146 Toluene-d8	5.000	5.072	101.44	70-130
$ 177 4-Bromofluorobenze	5.000	4.859	97.18	70-130

Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

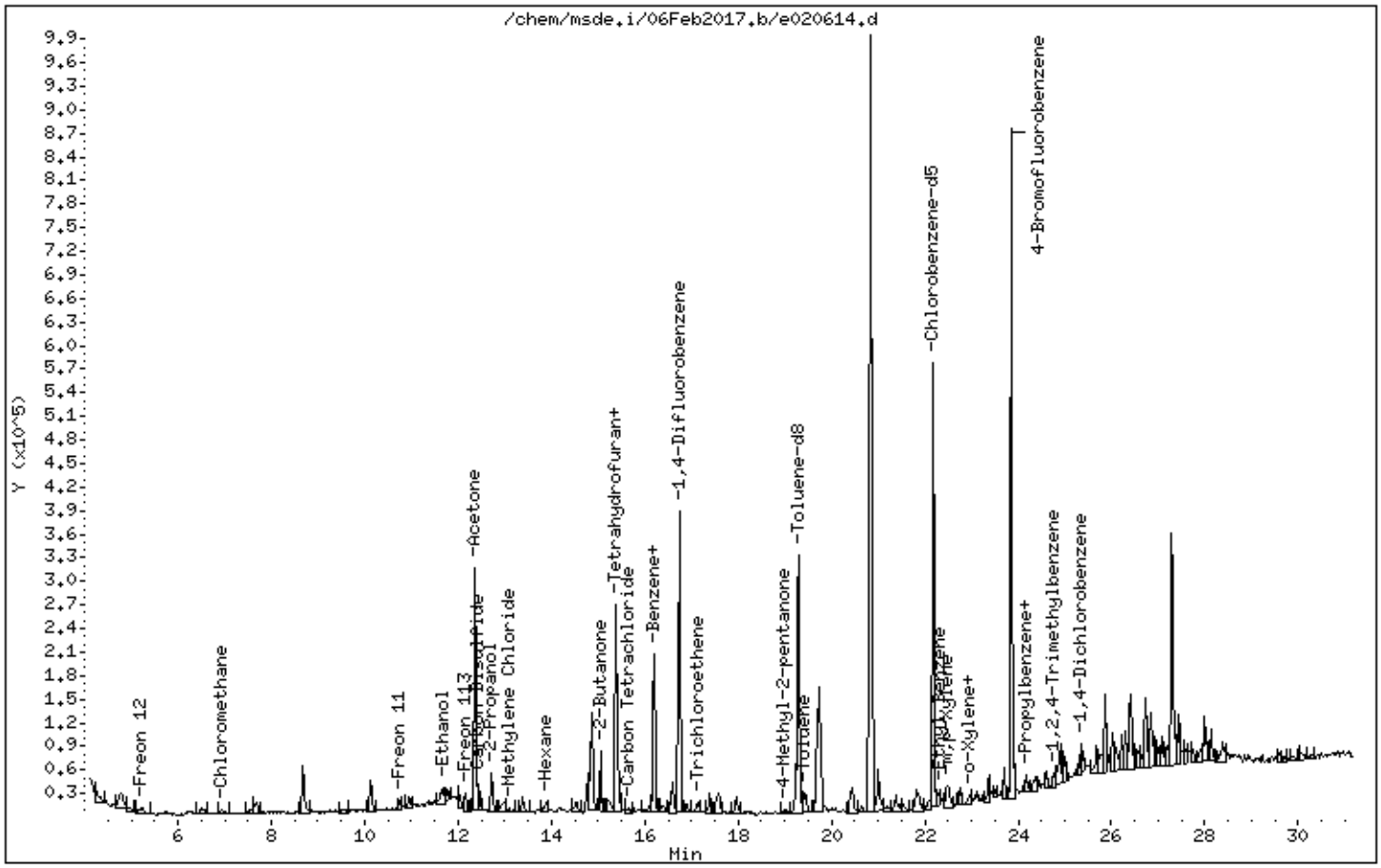
Instrument: msde.i

Sample Info: 250mL#6L1318

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

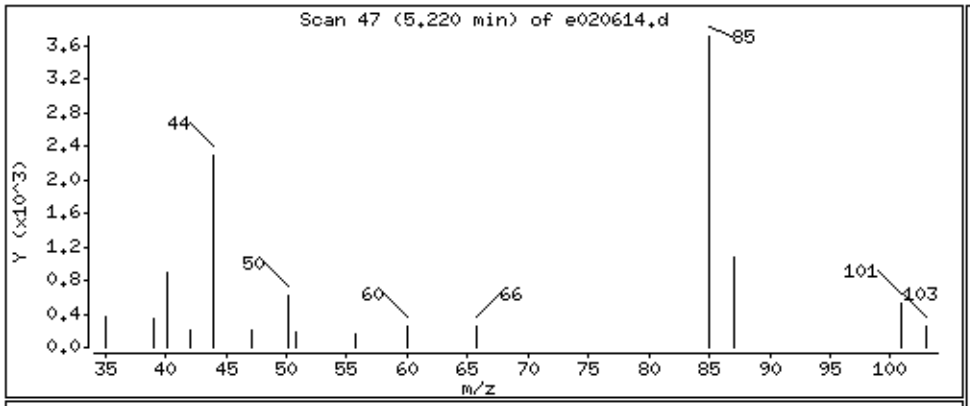
Operator: EA

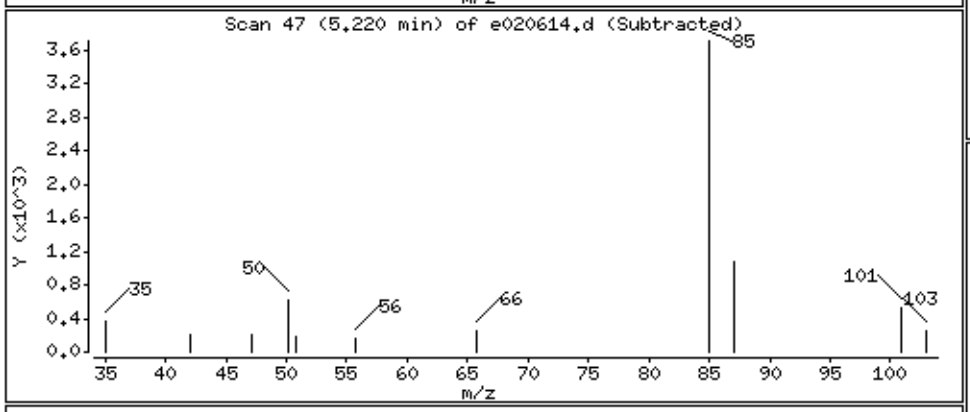
Column phase: RTX-624

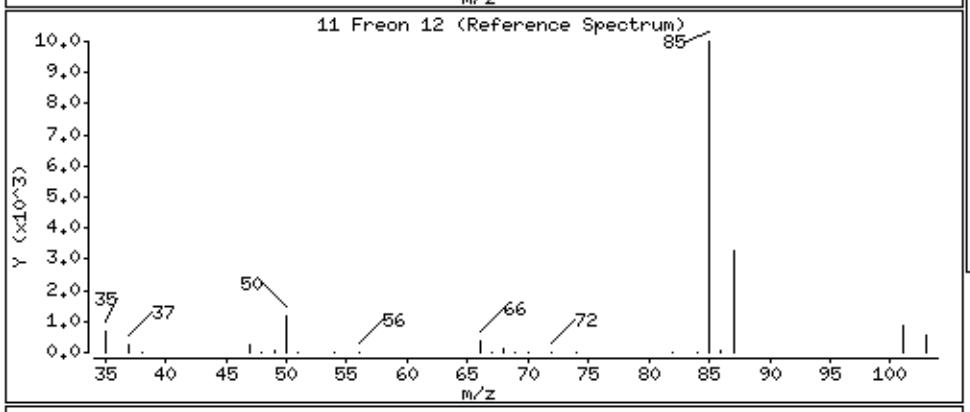
Column diameter: 0.32

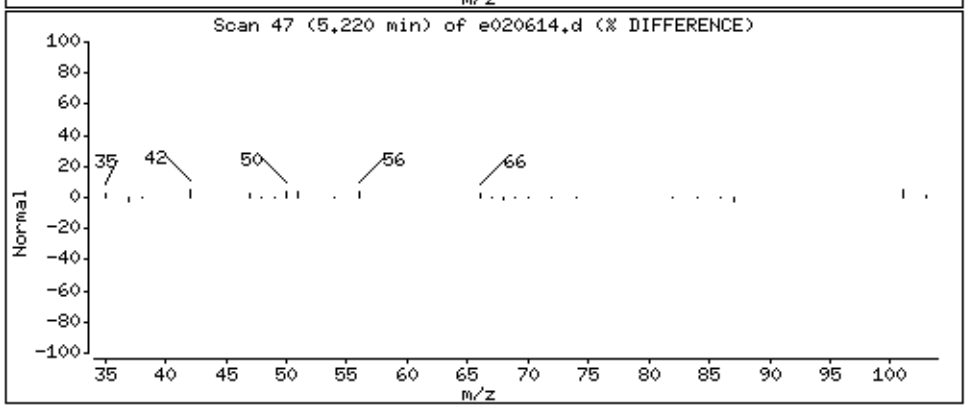
11 Freon 12

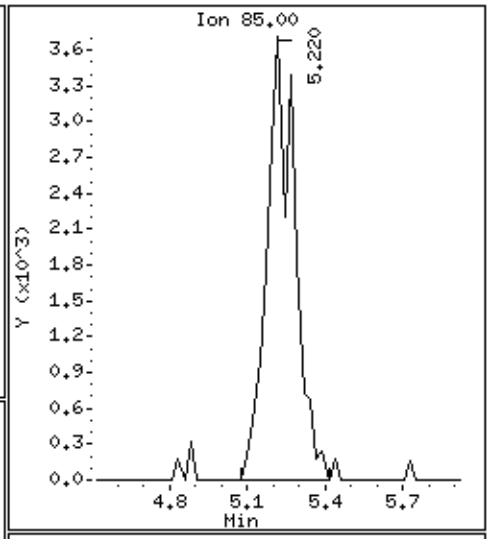
Concentration: 0.4231 PPBV

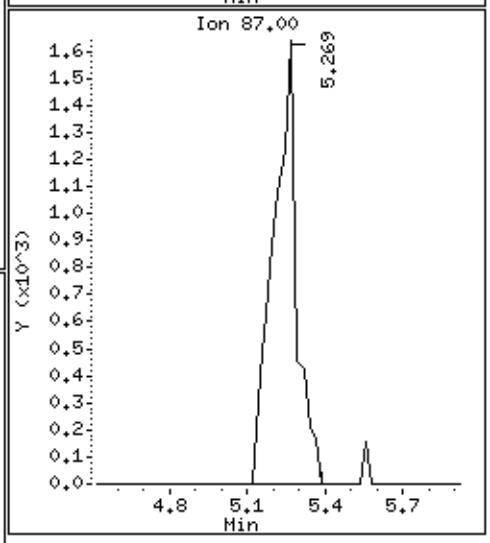












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

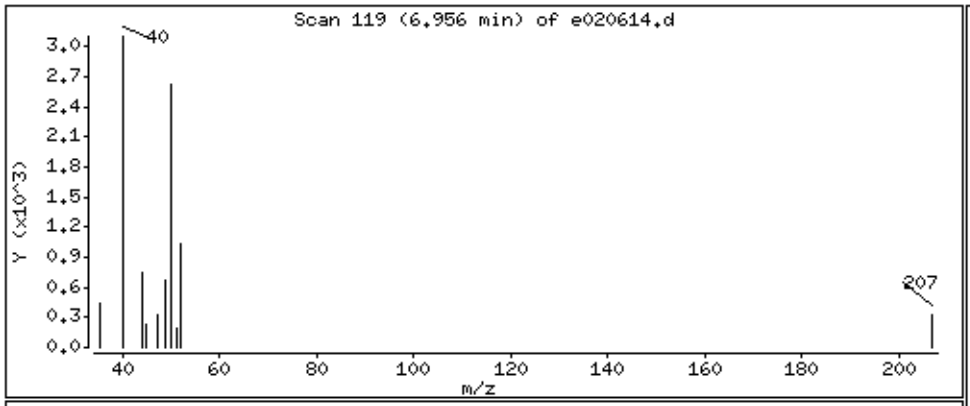
Operator: EA

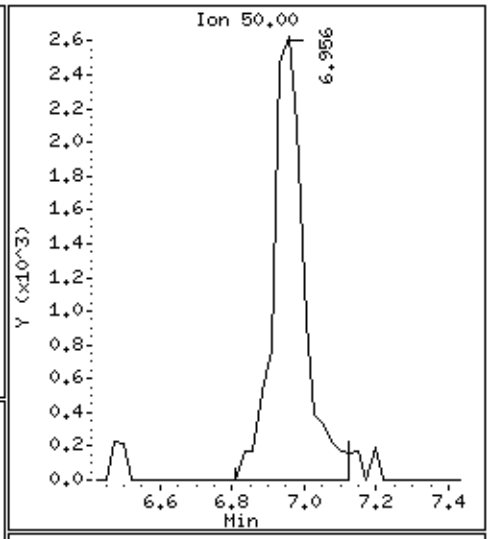
Column phase: RTX-624

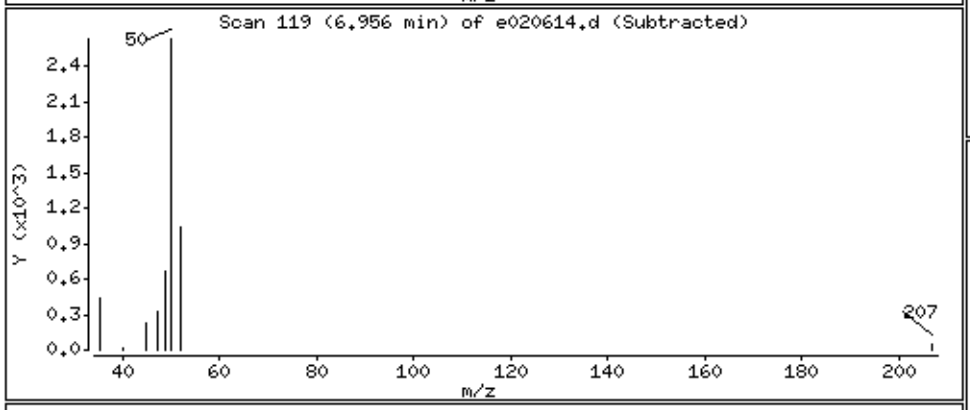
Column diameter: 0.32

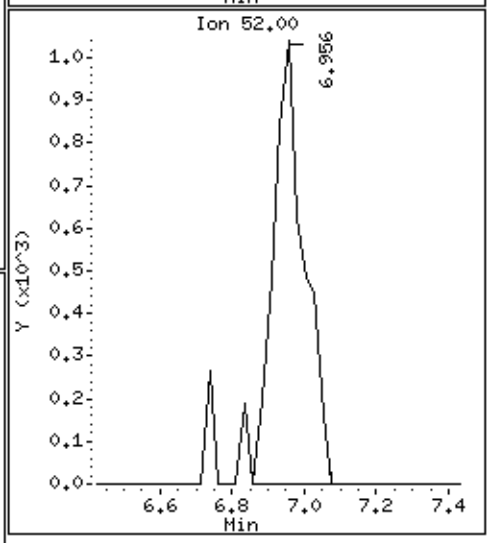
17 Chloromethane

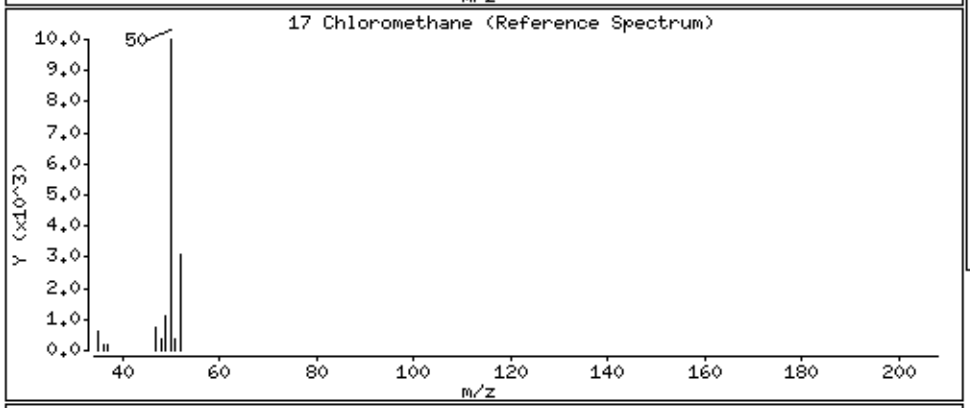
Concentration: 1.308 PPBV

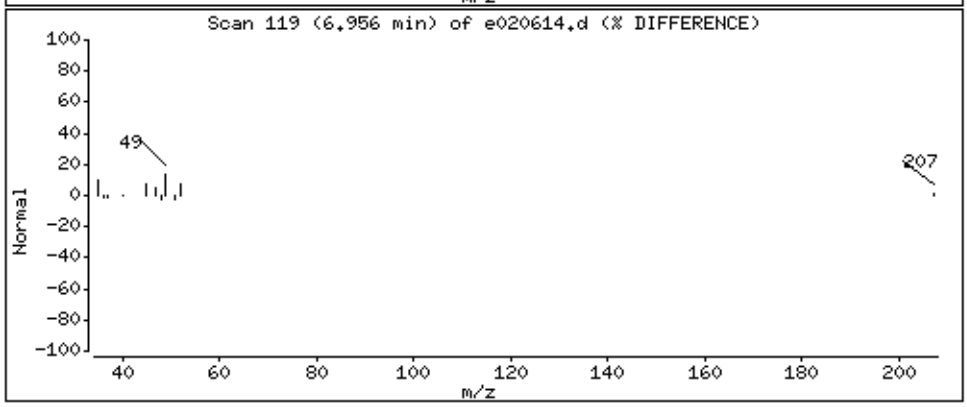












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

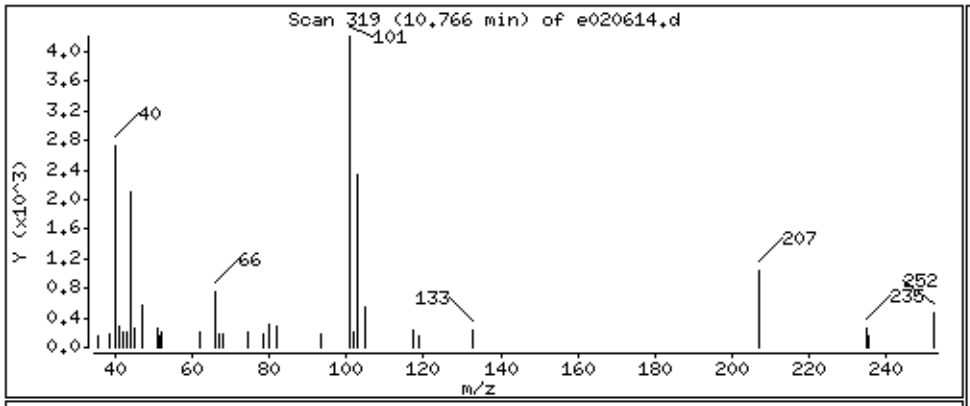
Operator: EA

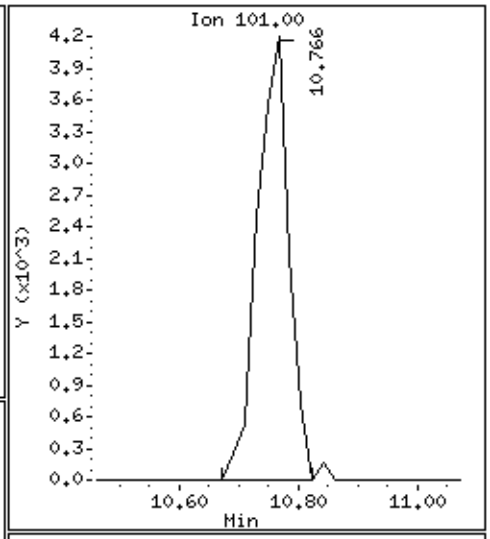
Column phase: RTX-624

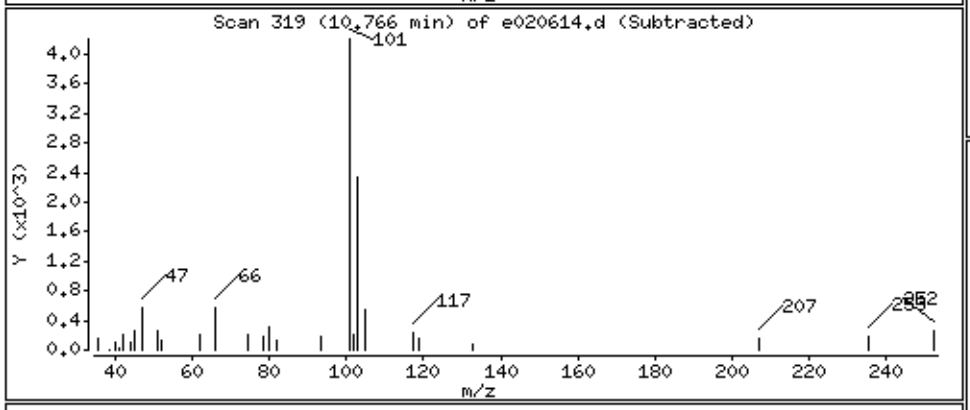
Column diameter: 0.32

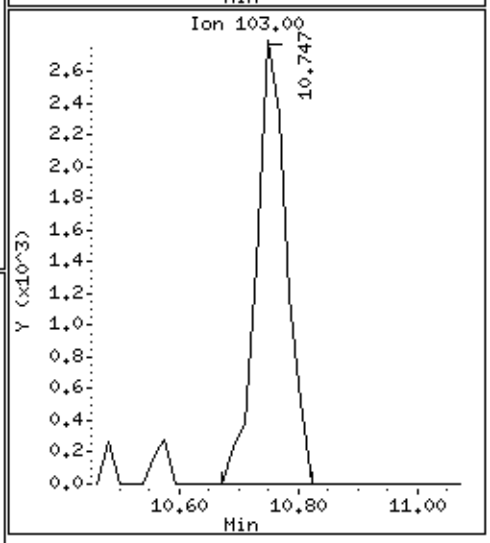
35 Freon 11

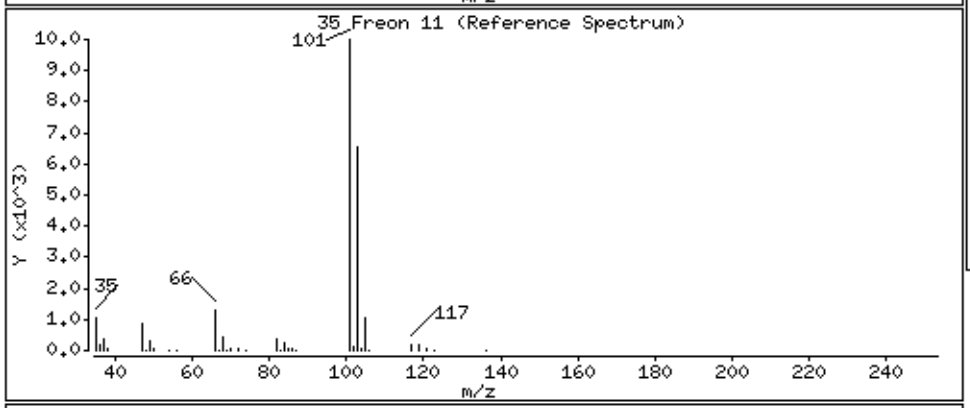
Concentration: 0.2071 PPBV

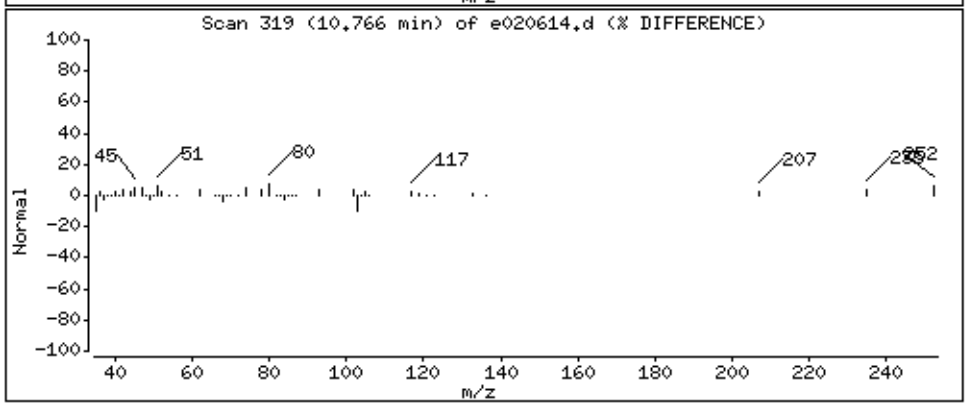












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

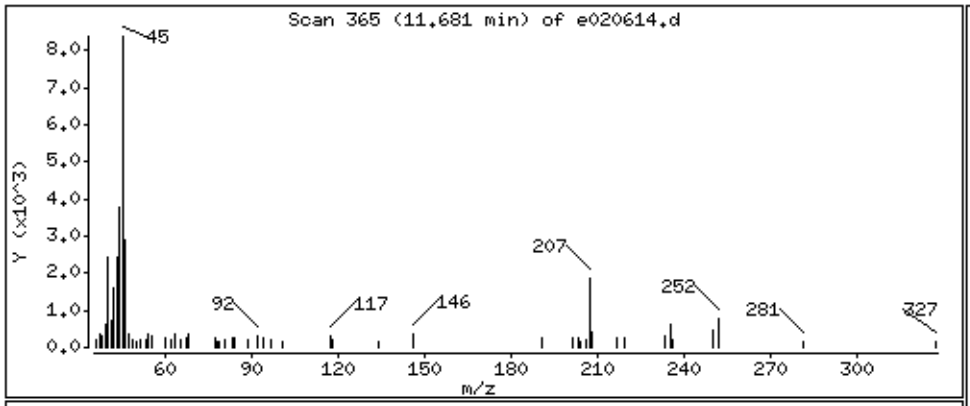
Operator: EA

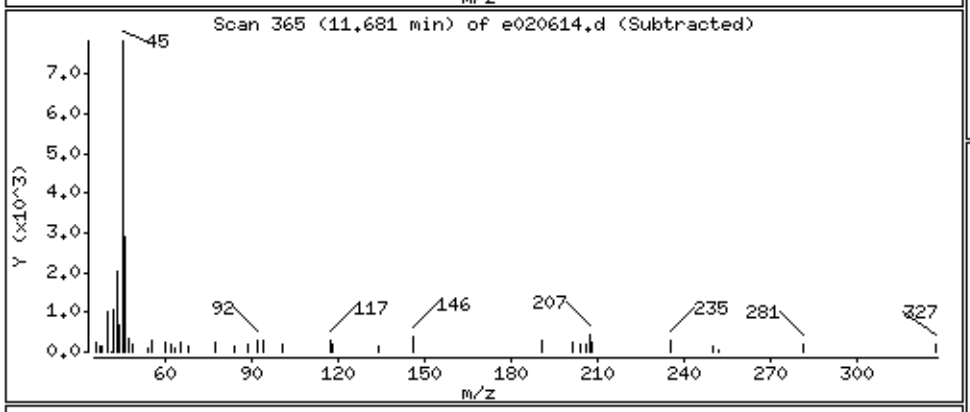
Column phase: RTX-624

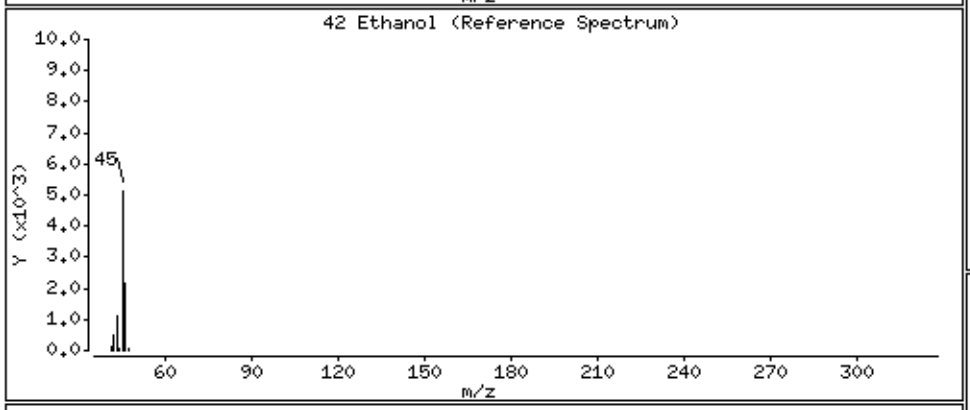
Column diameter: 0.32

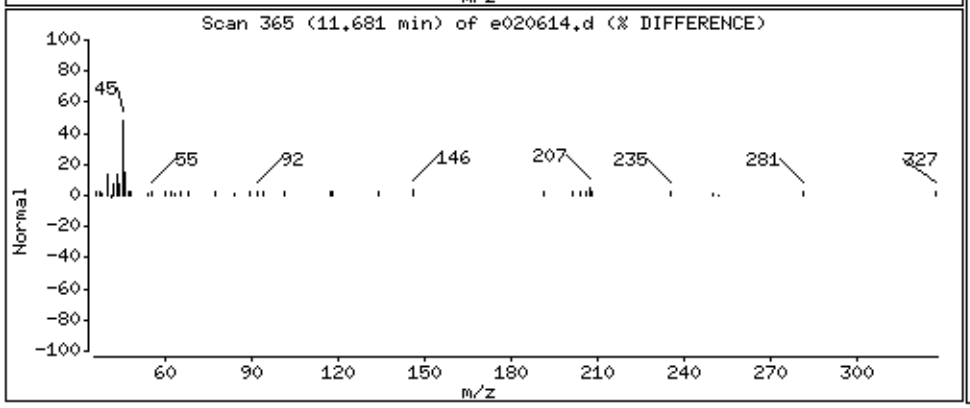
42 Ethanol

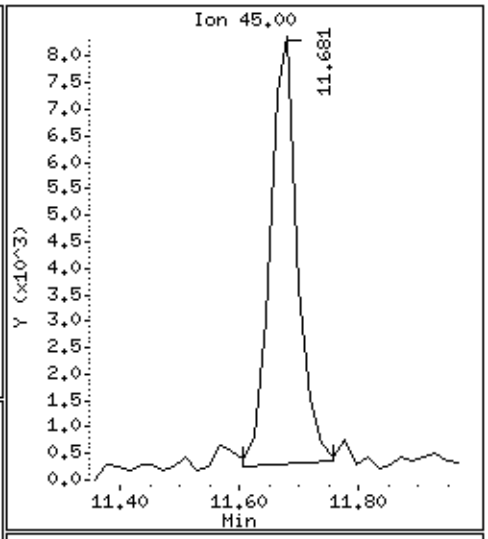
Concentration: 4.011 PPBV

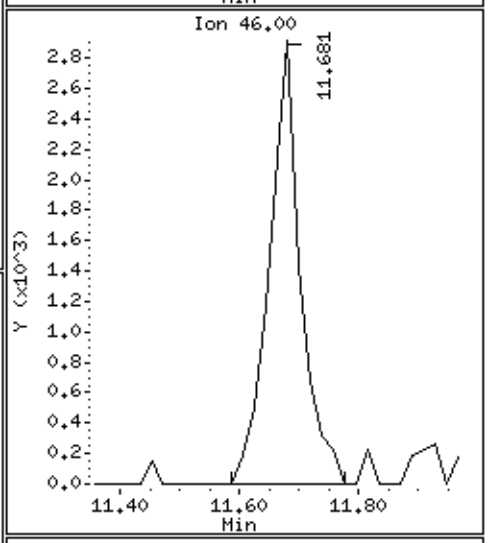


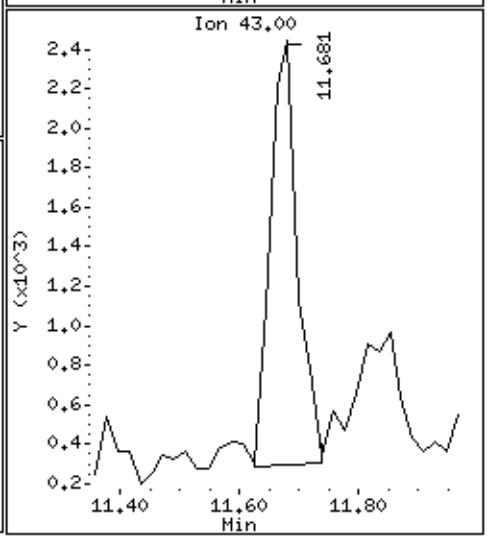












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

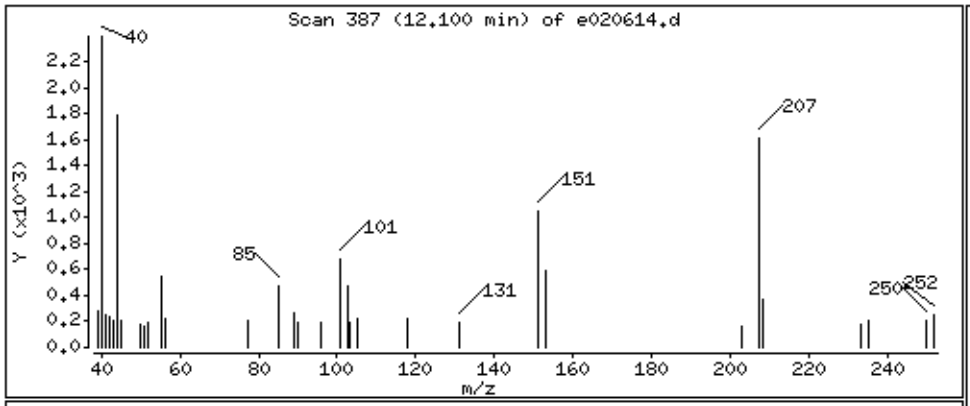
Operator: EA

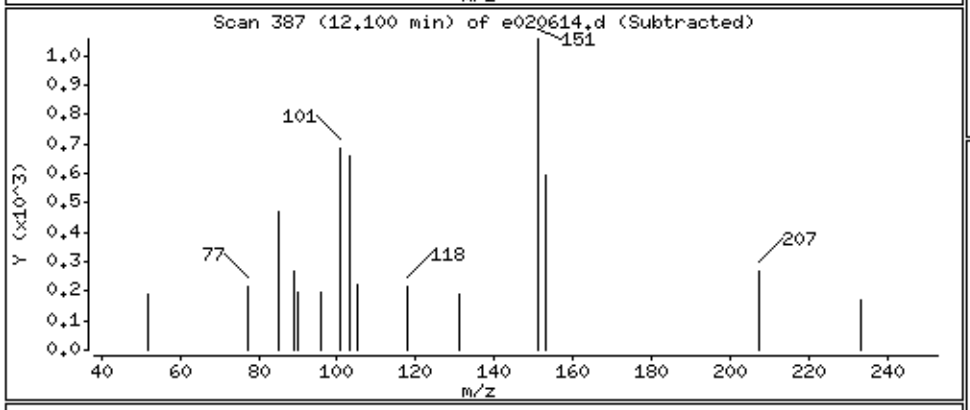
Column phase: RTX-624

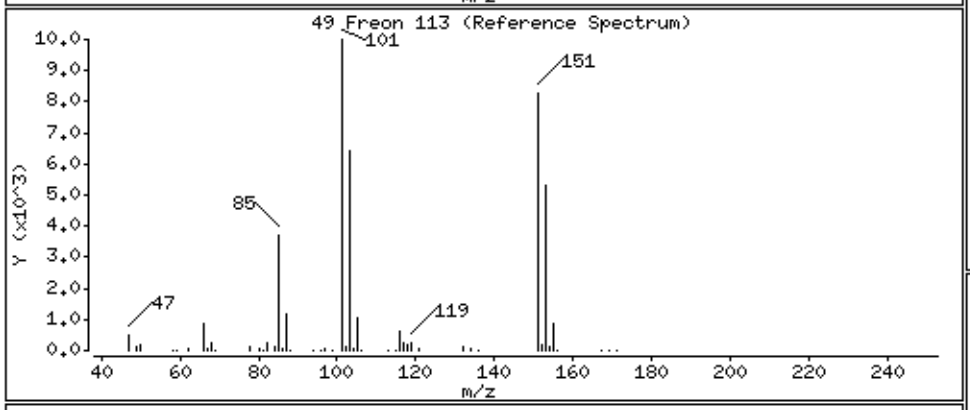
Column diameter: 0.32

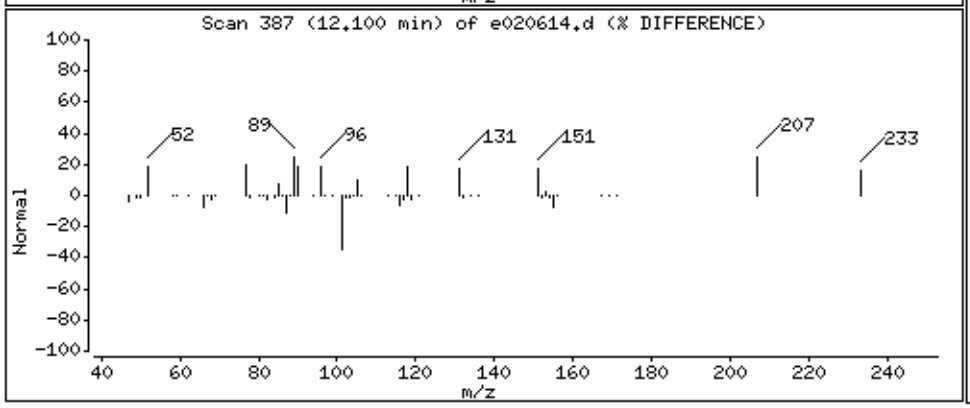
49 Freon 113

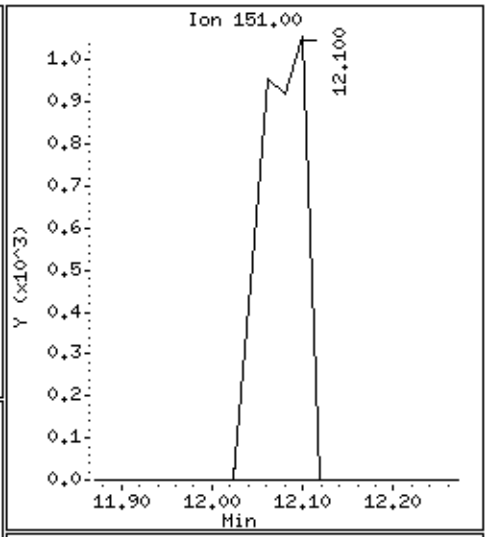
Concentration: 0.07611 PPBV

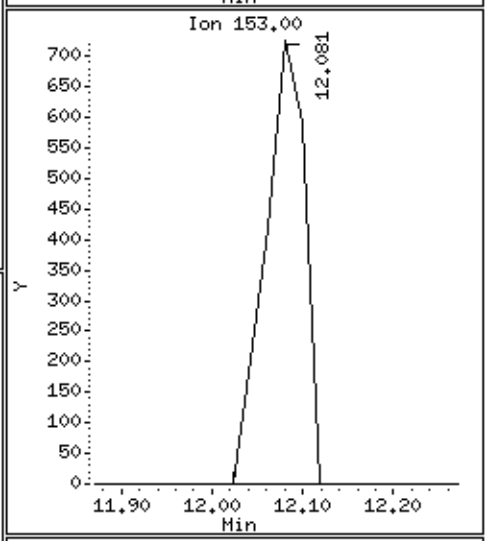


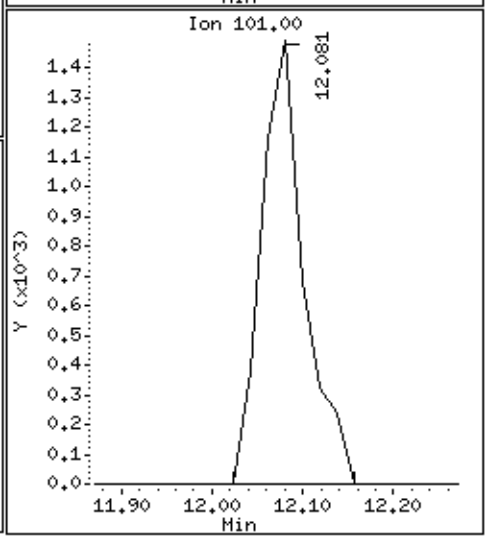












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

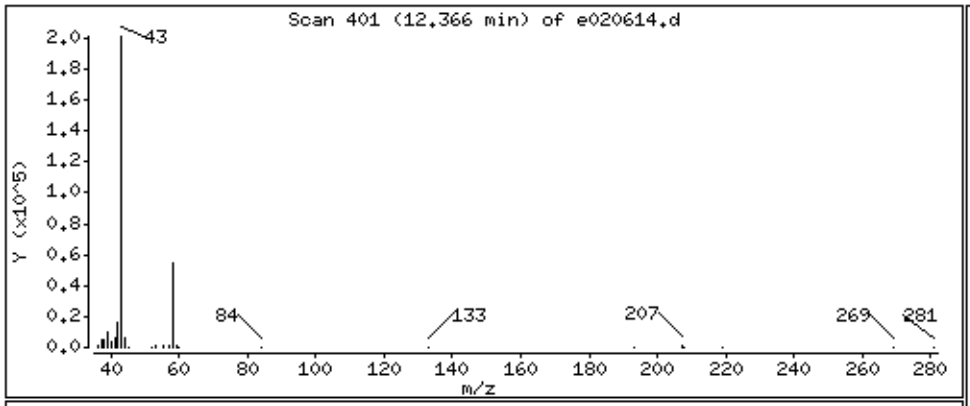
Operator: EA

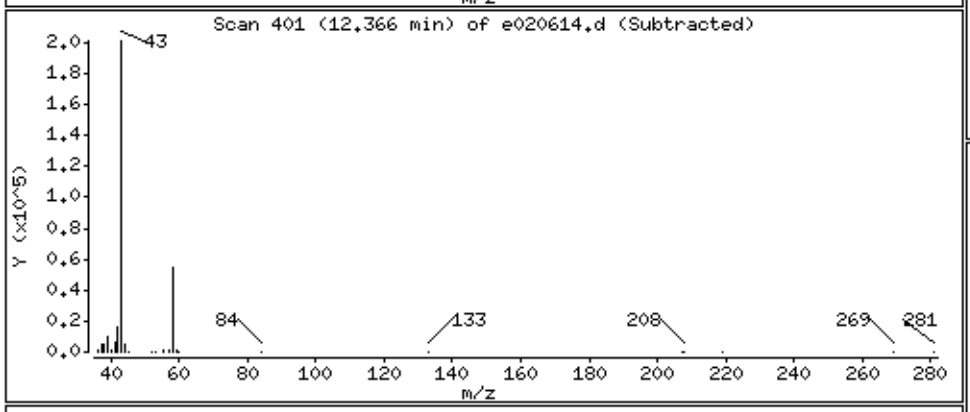
Column phase: RTX-624

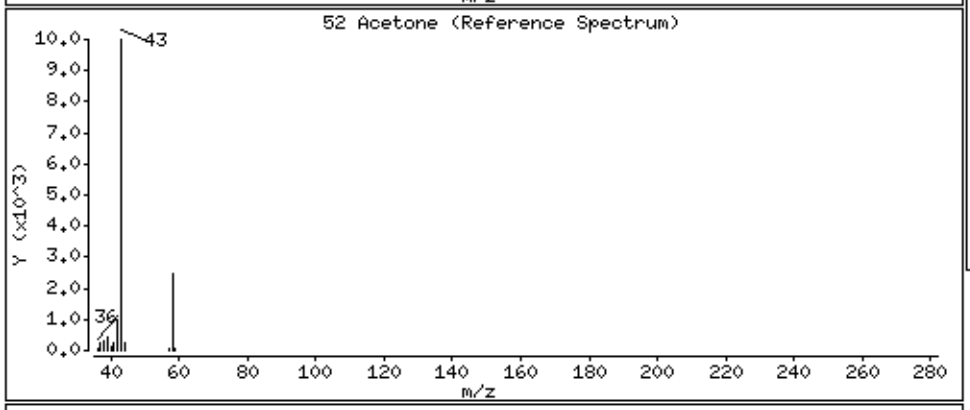
Column diameter: 0.32

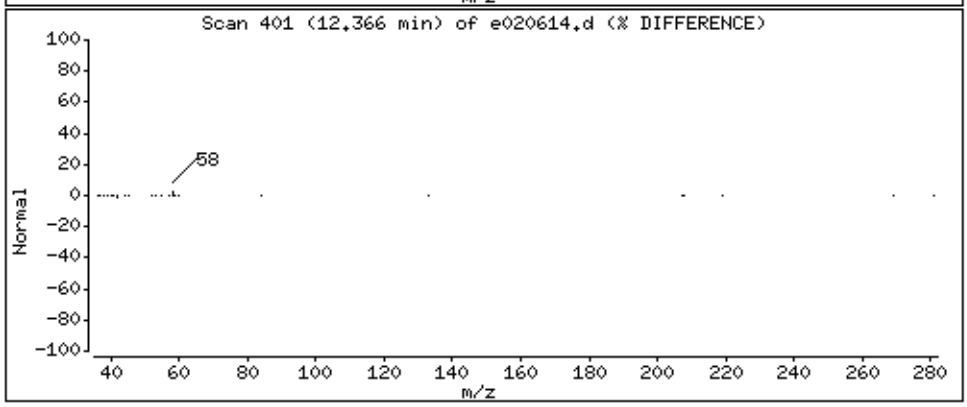
52 Acetone

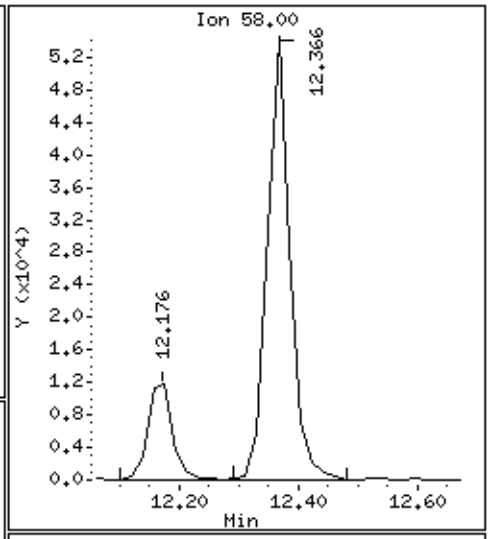
Concentration: 17.877 PPBV

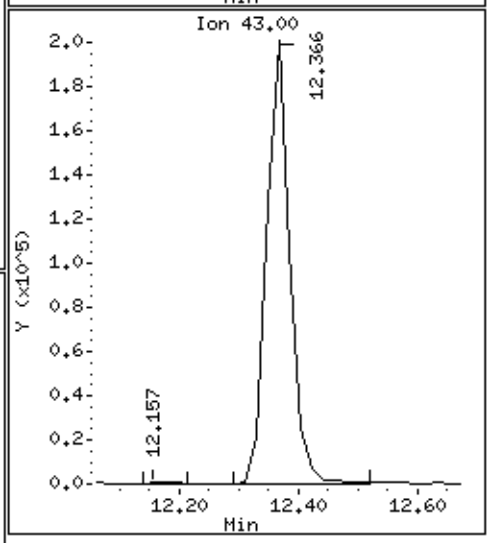












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

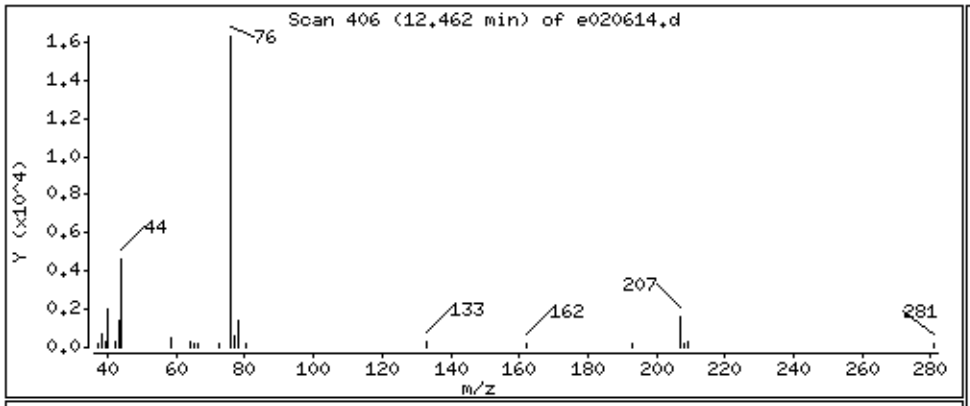
Operator: EA

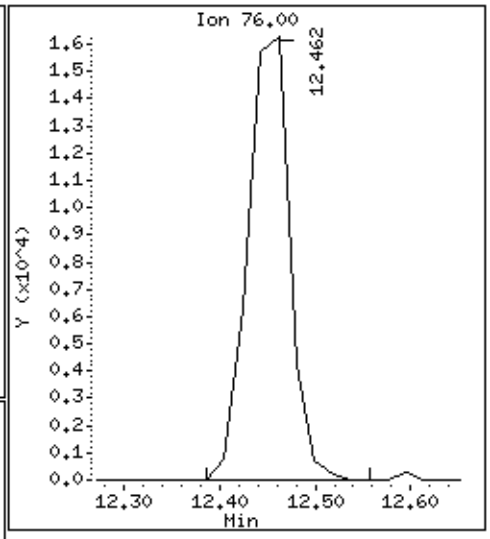
Column phase: RTX-624

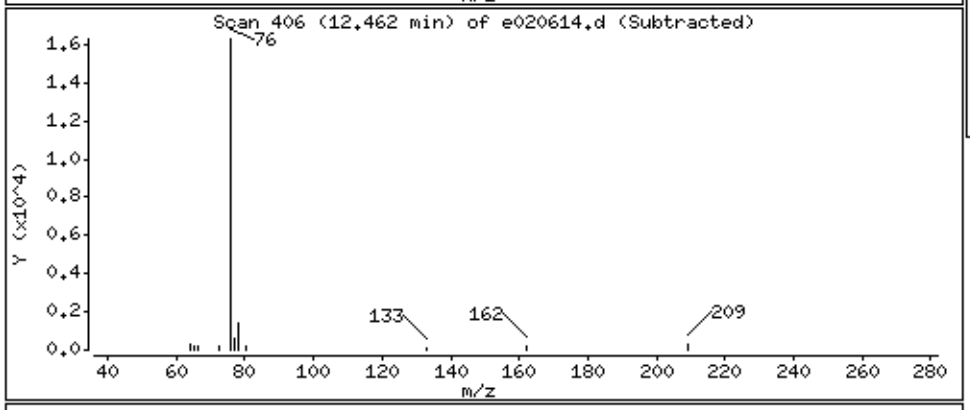
Column diameter: 0.32

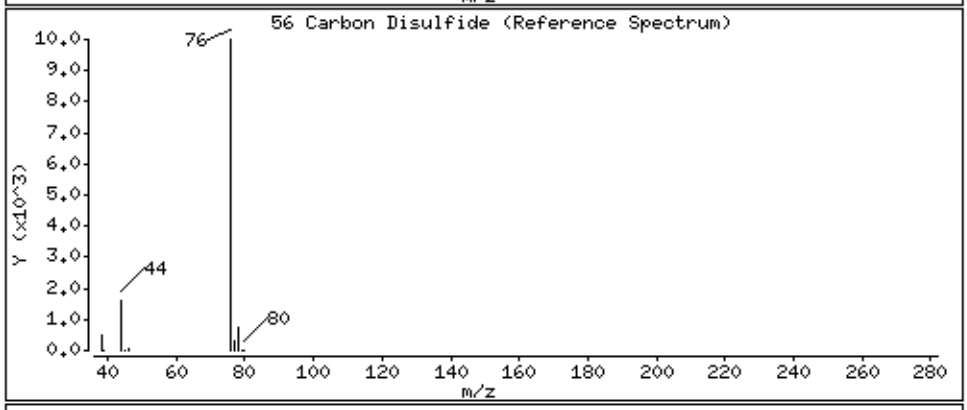
56 Carbon Disulfide

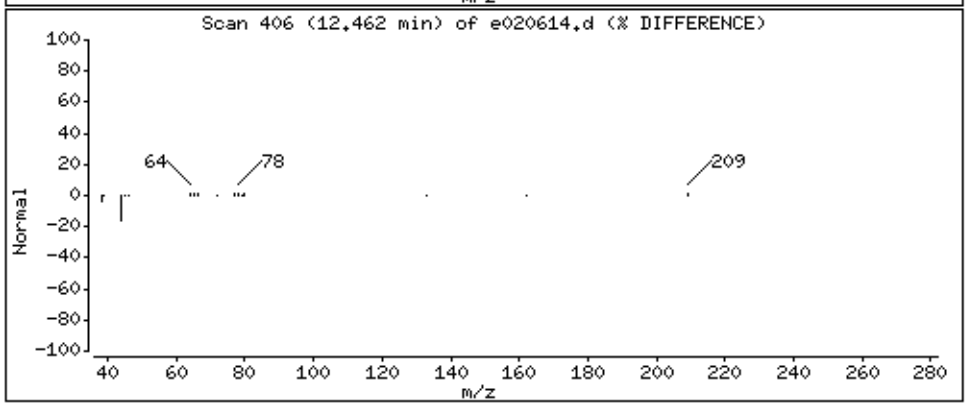
Concentration: 0.8732 PPBV











Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

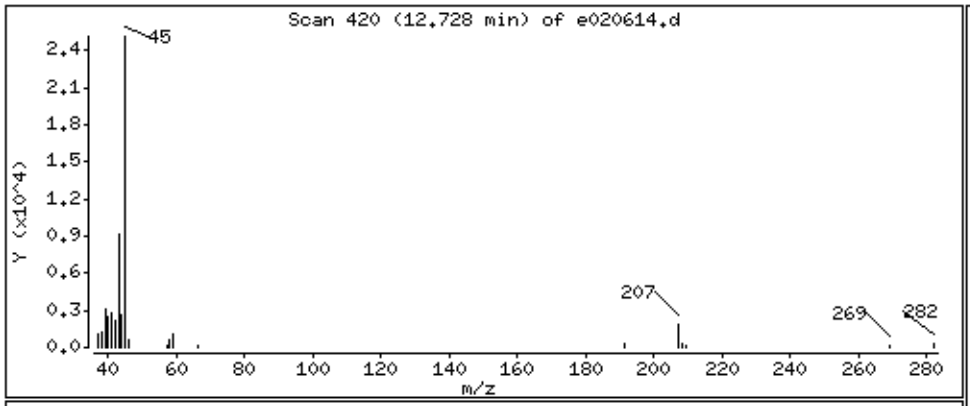
Operator: EA

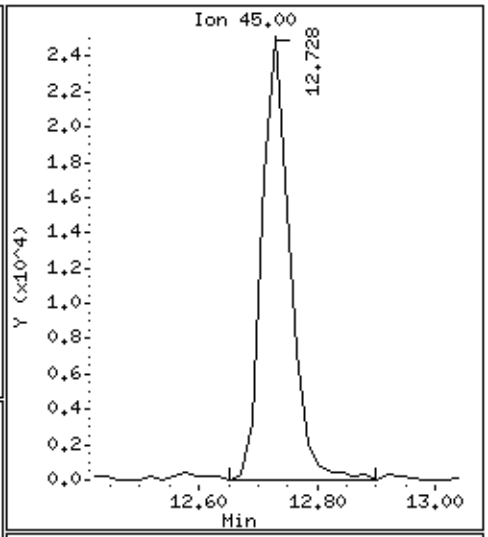
Column phase: RTX-624

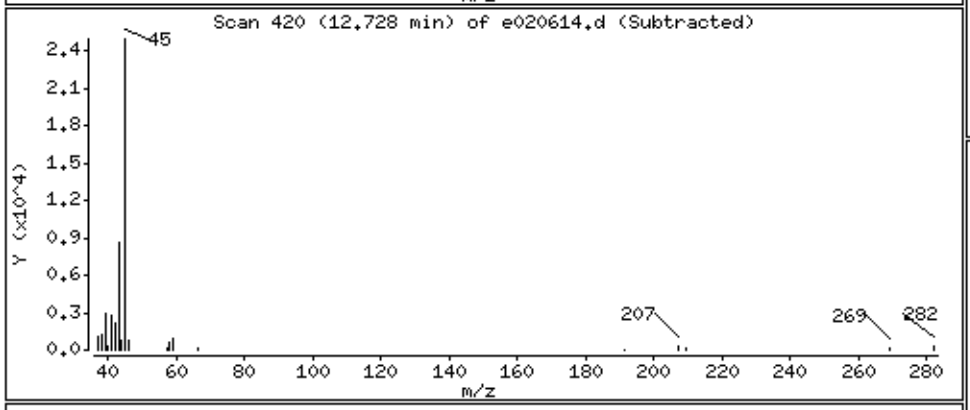
Column diameter: 0.32

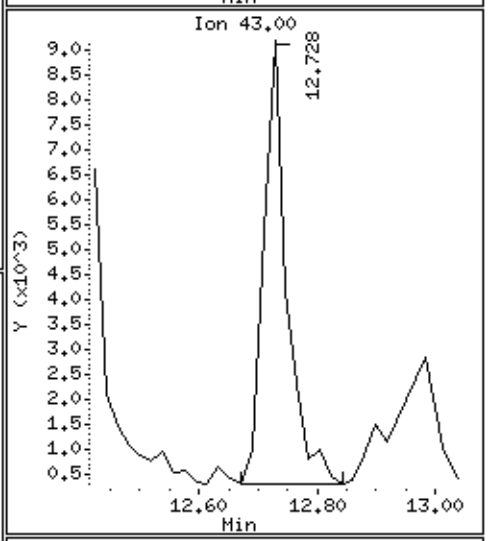
57 2-Propanol

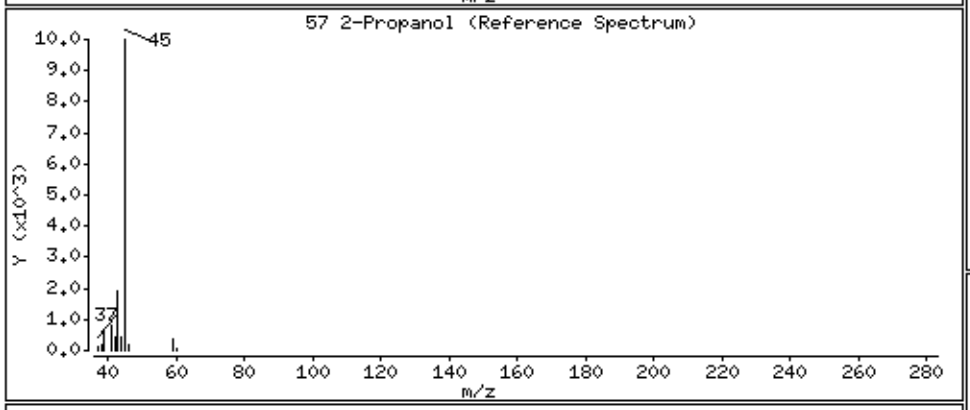
Concentration: 3.147 PPBV

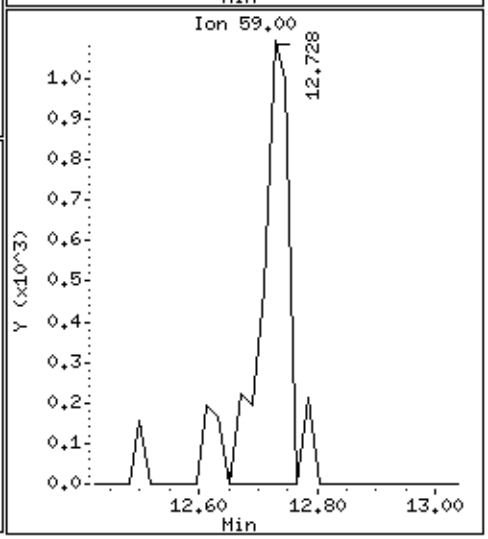


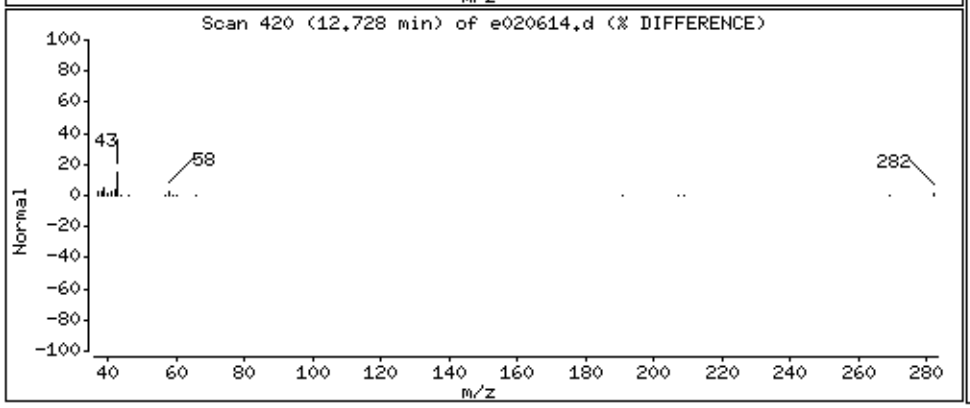












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

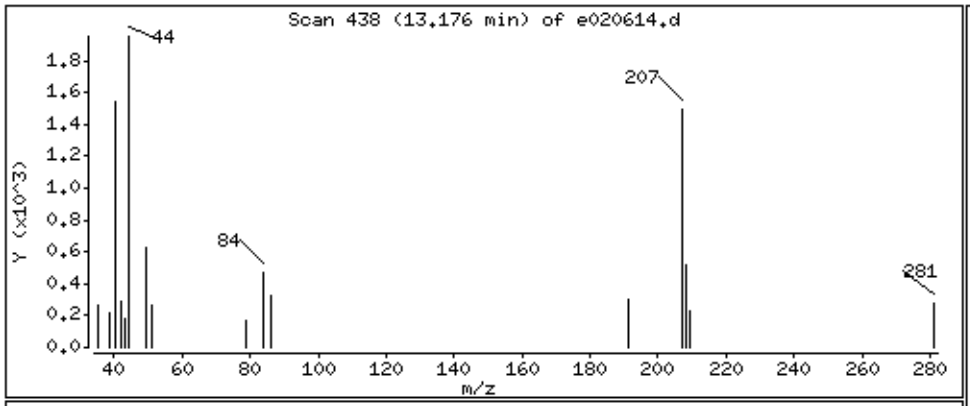
Operator: EA

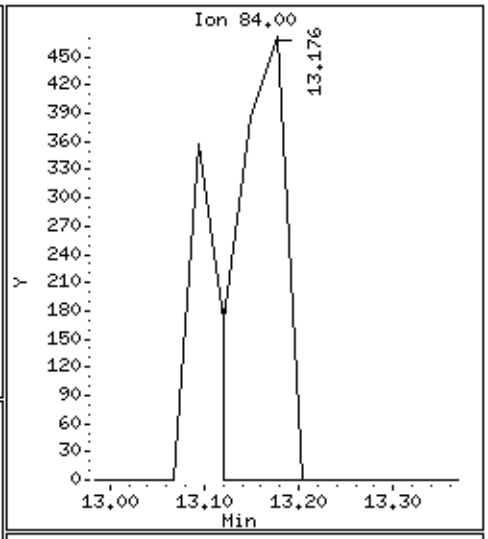
Column phase: RTX-624

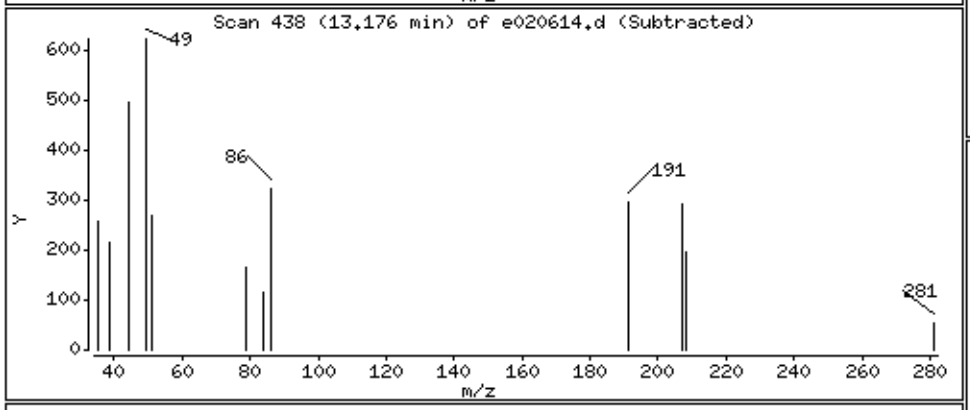
Column diameter: 0.32

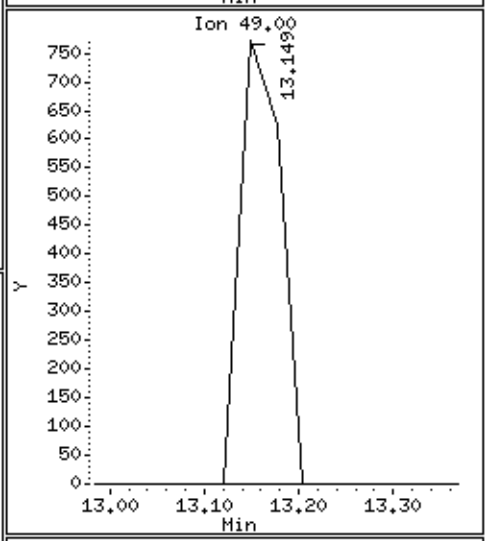
66 Methylene Chloride

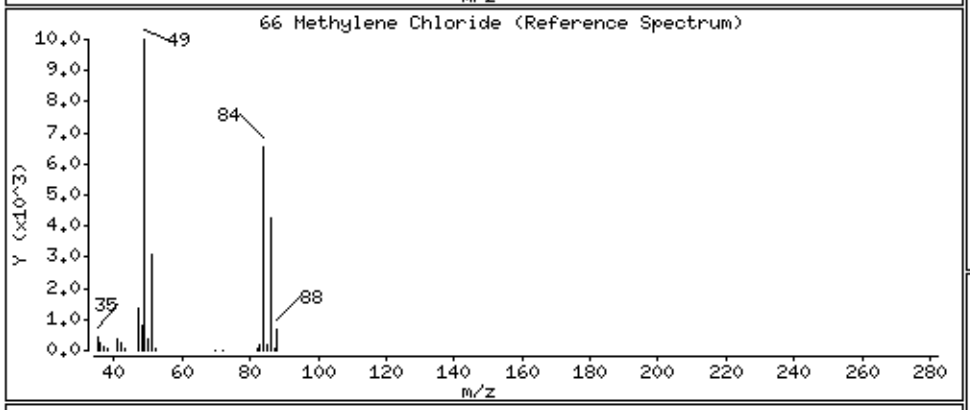
Concentration: 0.08248 PPBV

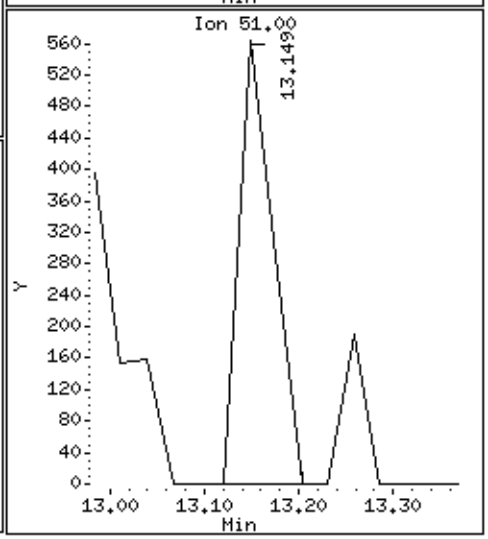


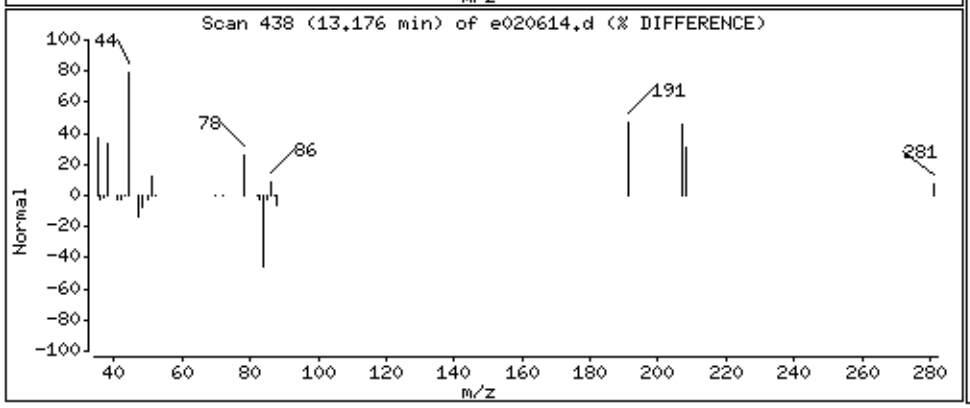












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

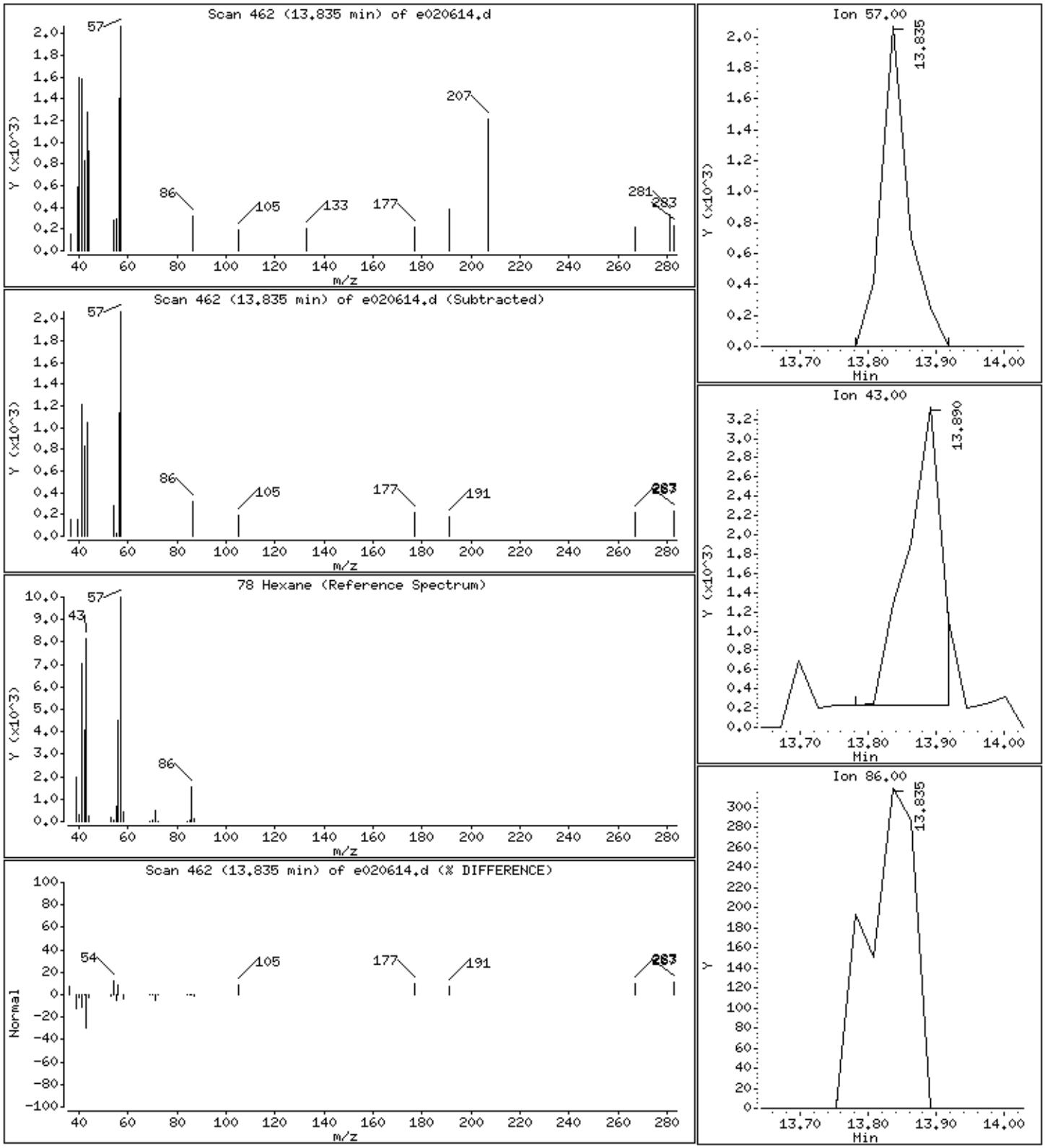
Operator: EA

Column phase: RTX-624

Column diameter: 0.32

78 Hexane

Concentration: 0.2319 PPBV



Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

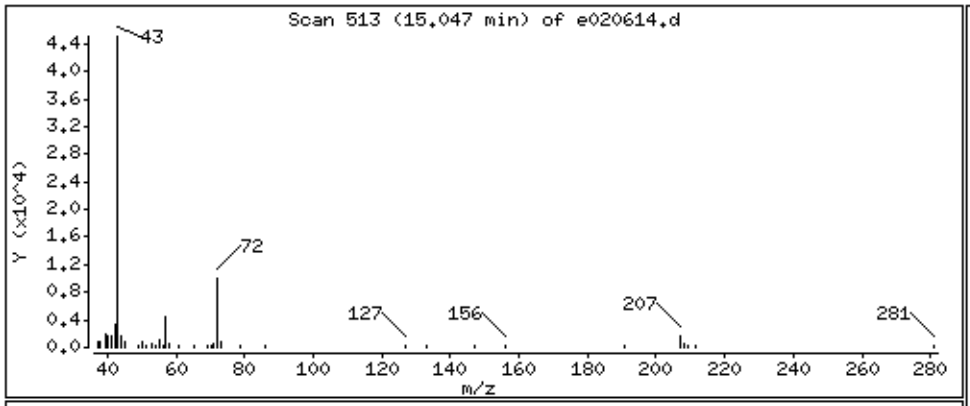
Operator: EA

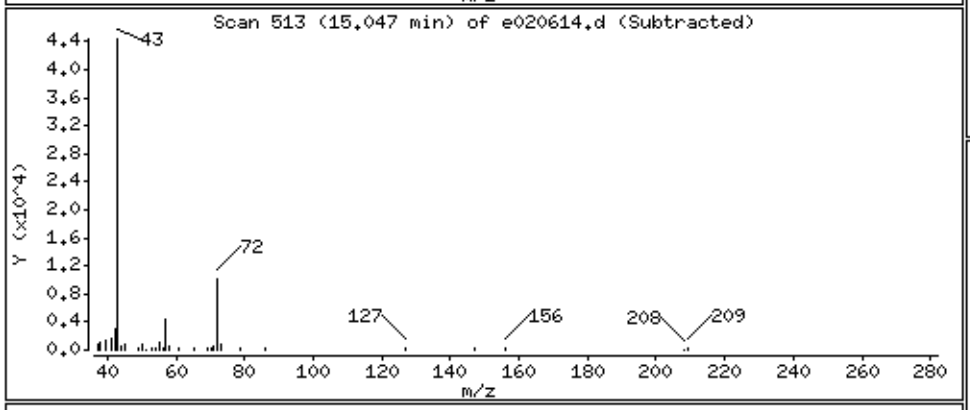
Column phase: RTX-624

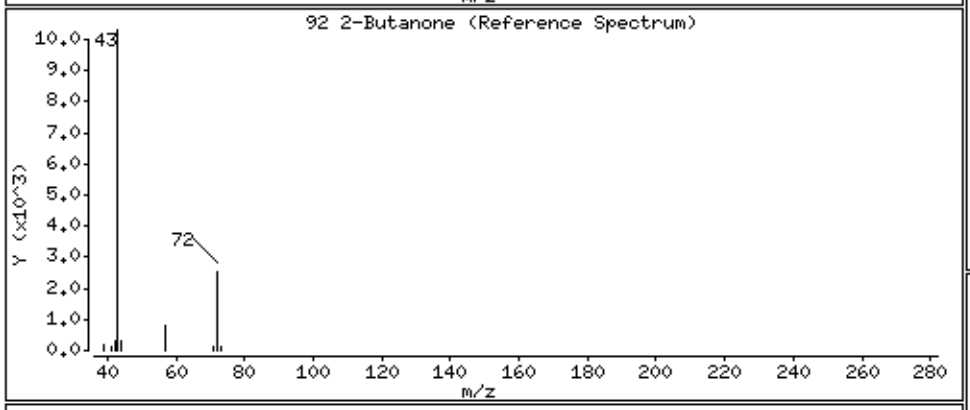
Column diameter: 0.32

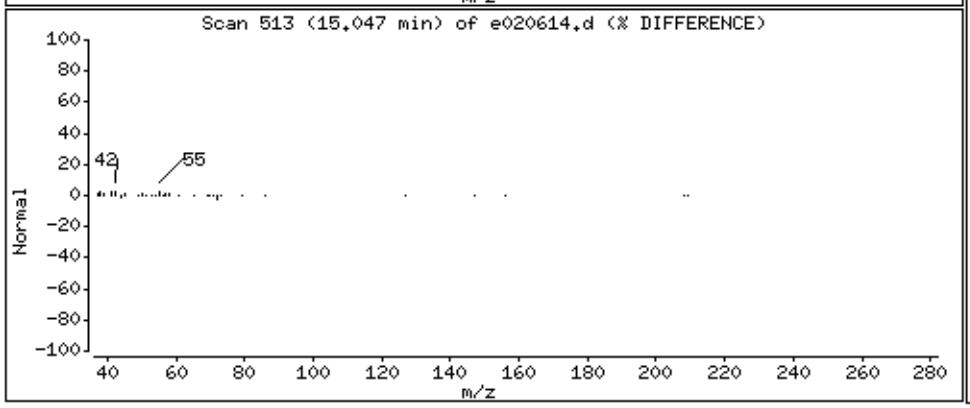
92 2-Butanone

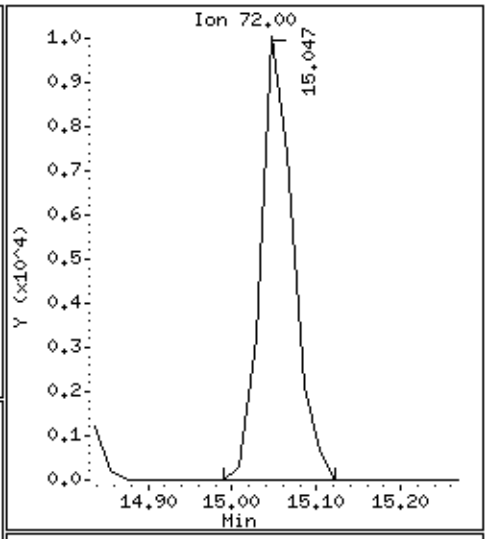
Concentration: 2.987 PPBV

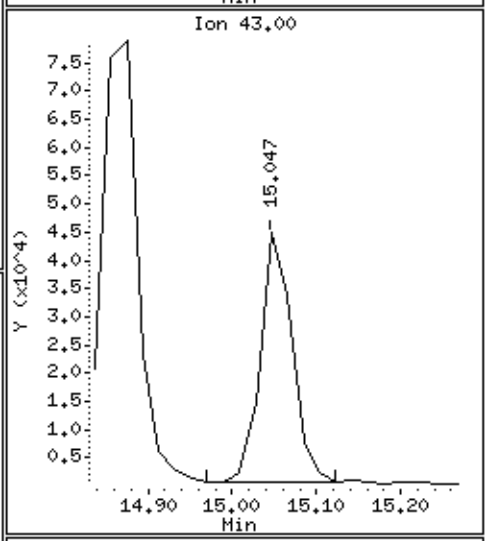


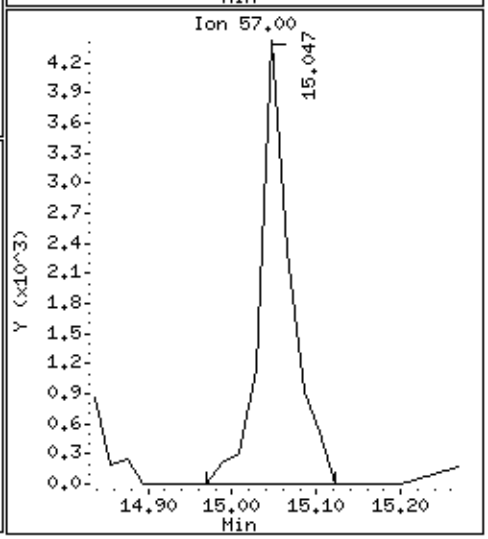












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

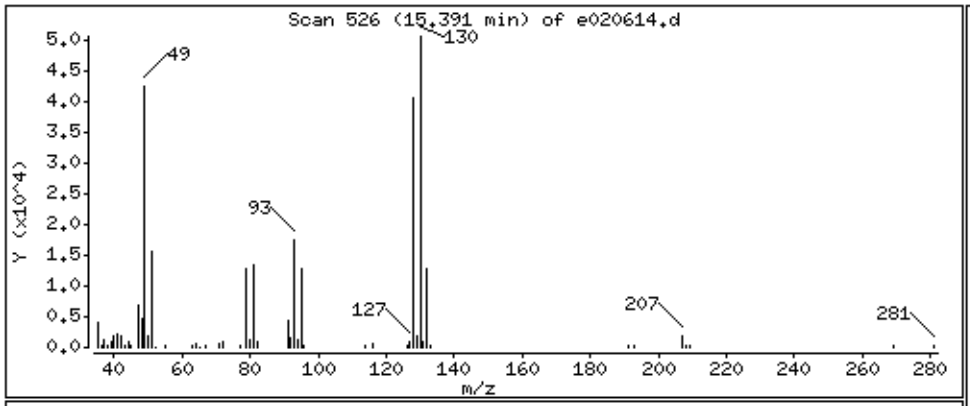
Operator: EA

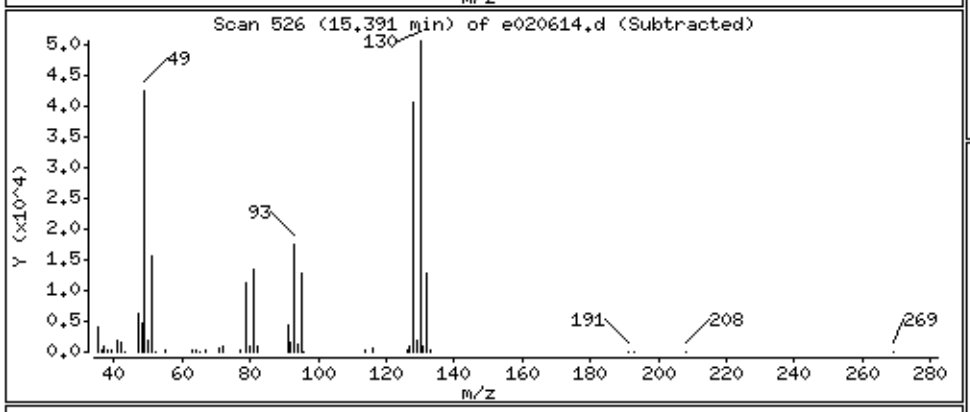
Column phase: RTX-624

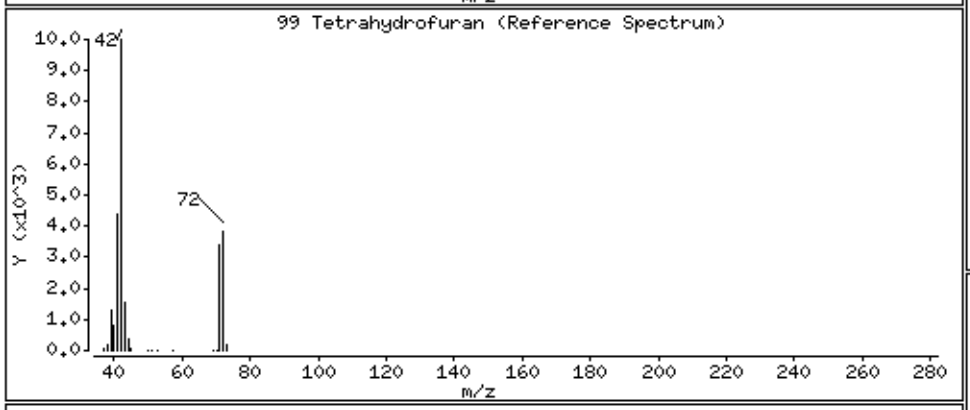
Column diameter: 0.32

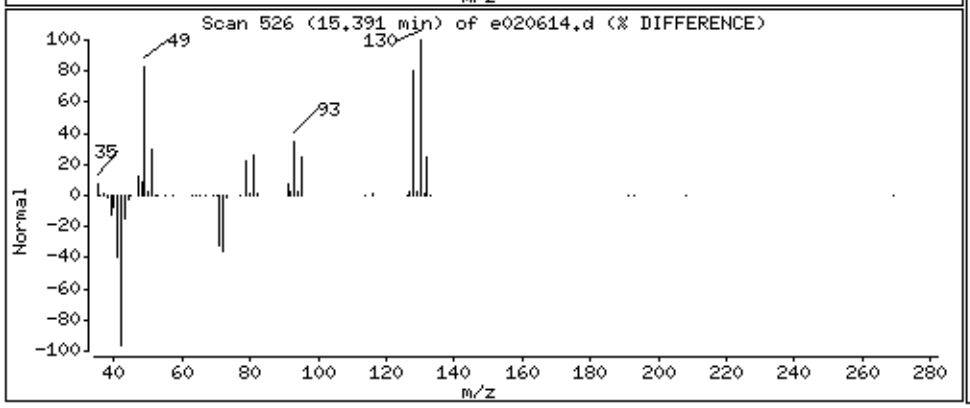
99 Tetrahydrofuran

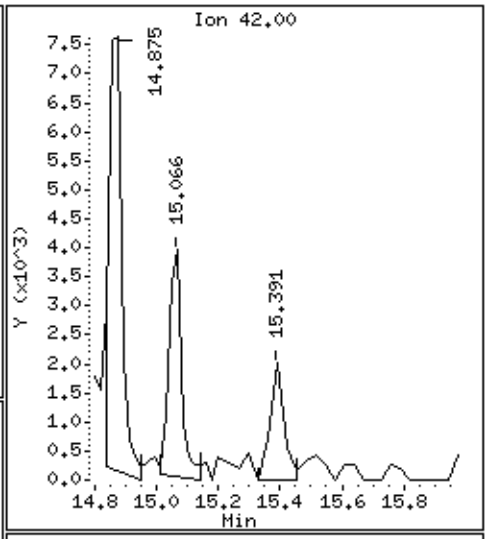
Concentration: 0.3910 PPBV

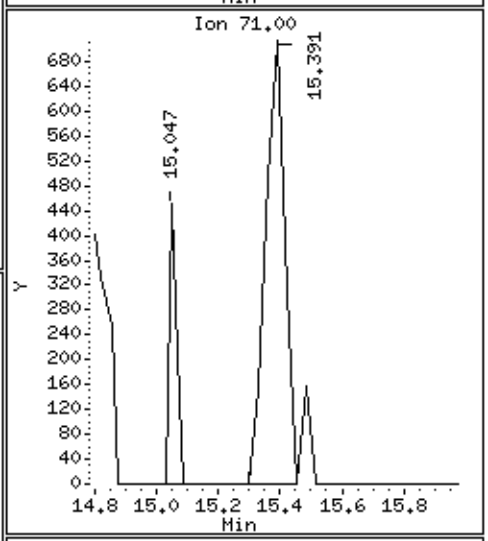


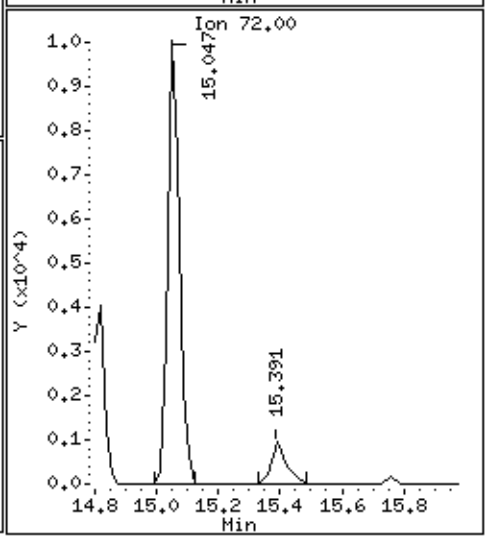












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

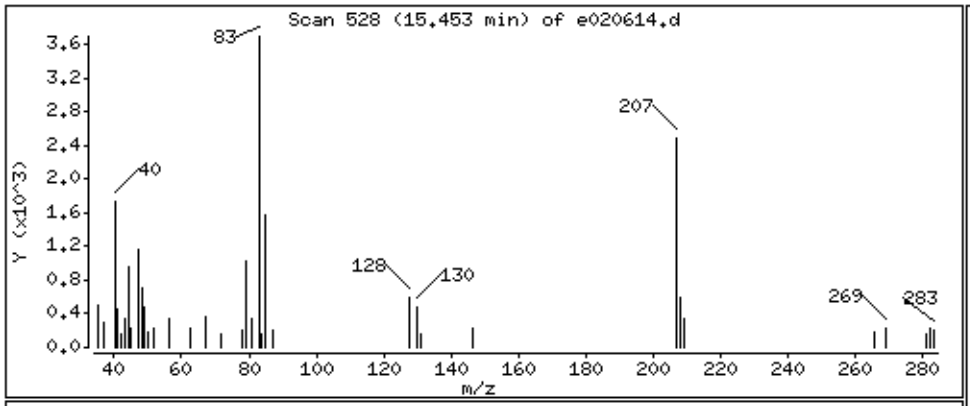
Operator: EA

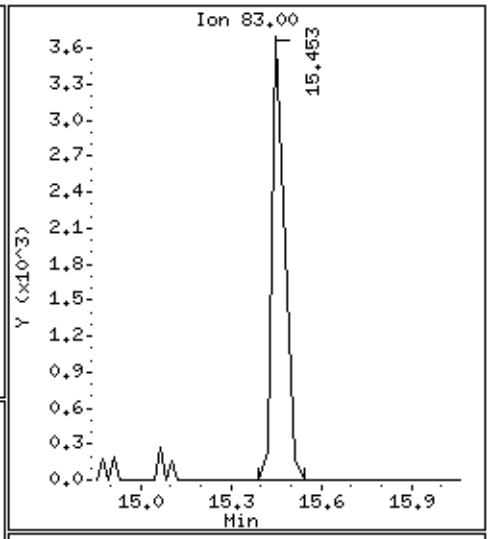
Column phase: RTX-624

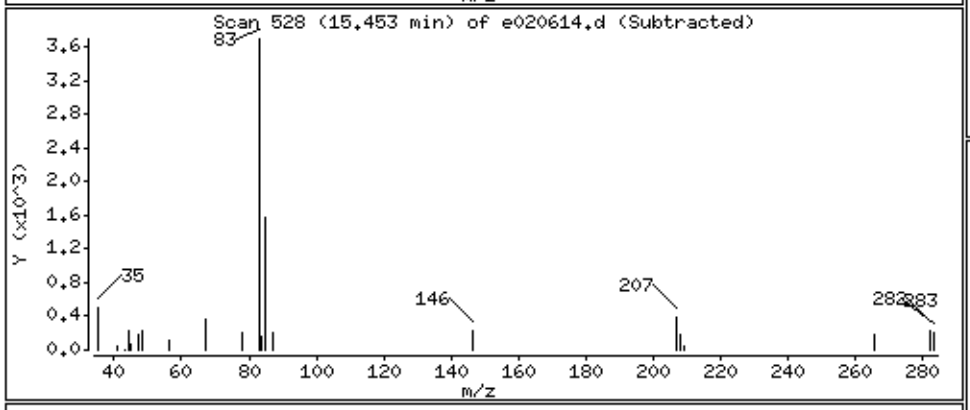
Column diameter: 0.32

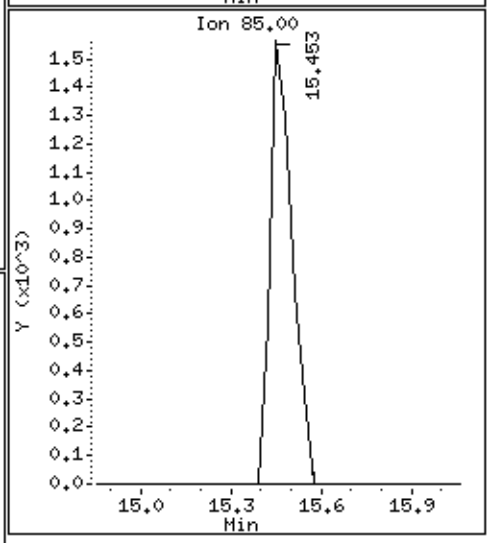
100 Chloroform

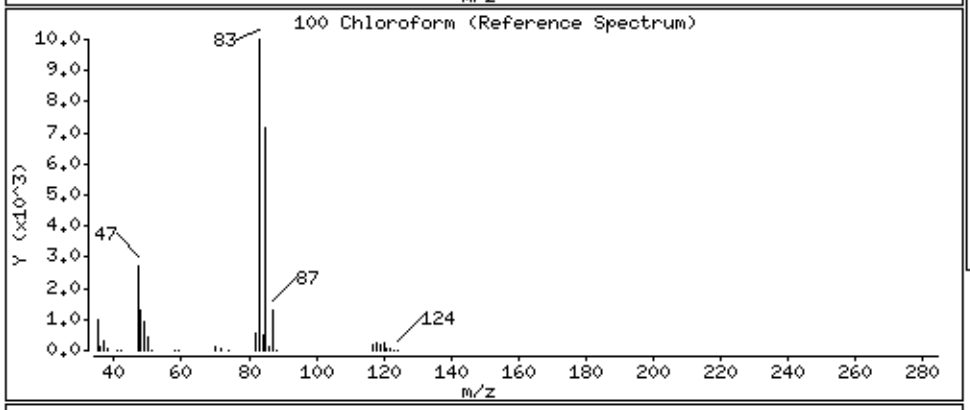
Concentration: 0.2091 PPBV

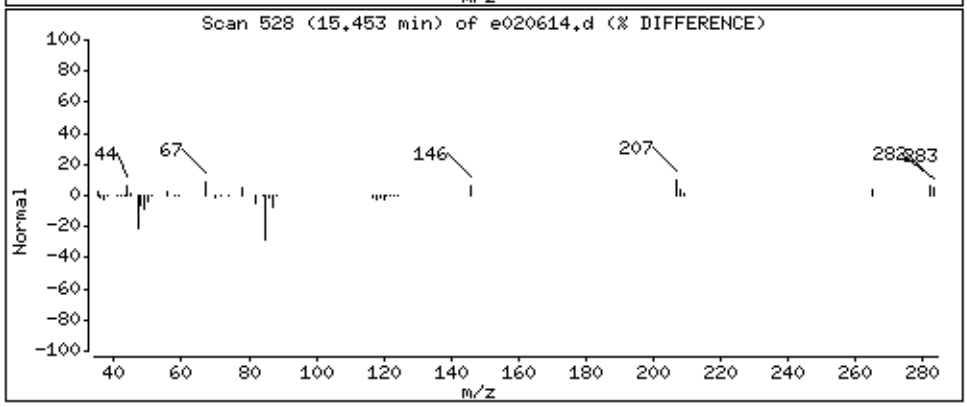












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

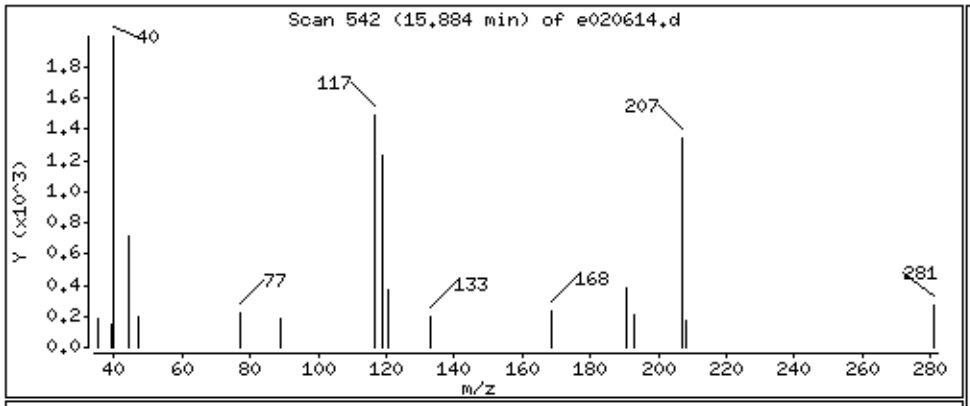
Operator: EA

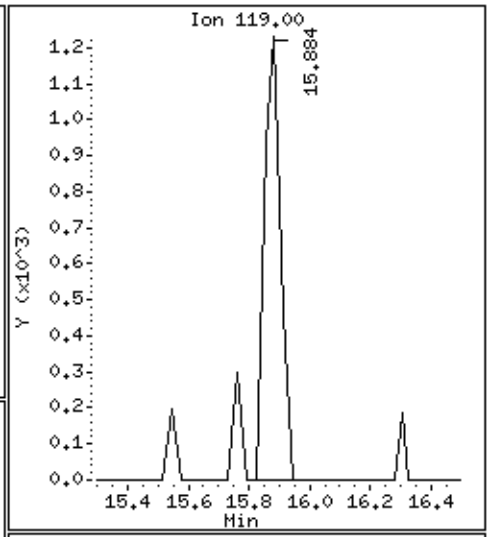
Column phase: RTX-624

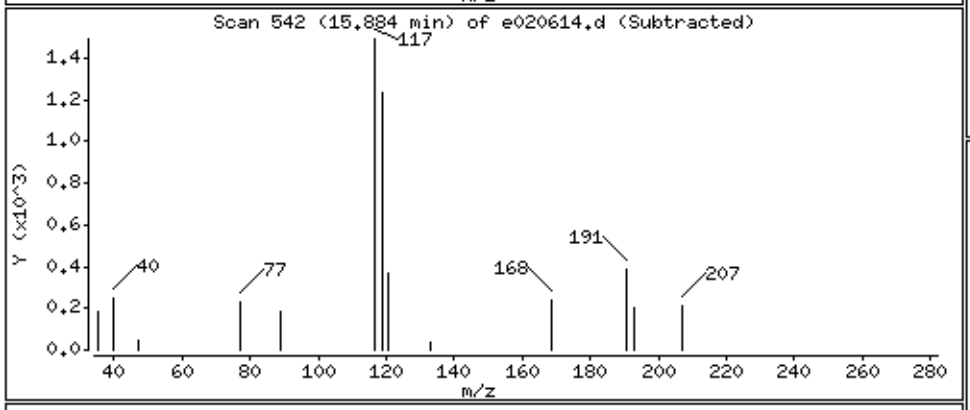
Column diameter: 0.32

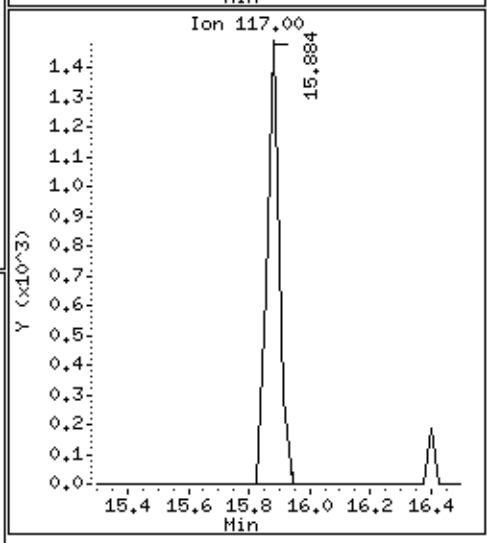
106 Carbon Tetrachloride

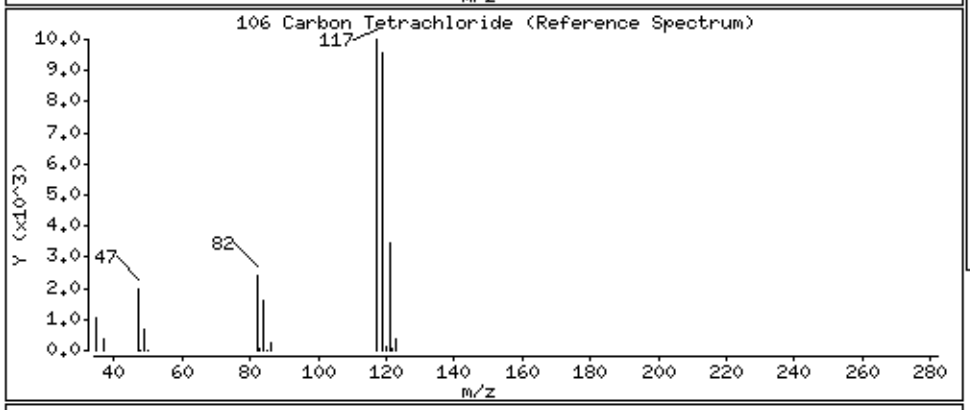
Concentration: 0.07928 PPBV

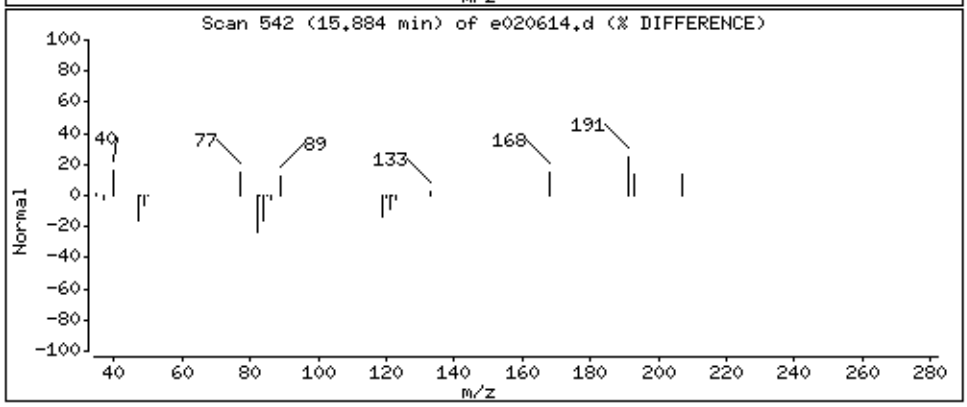












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

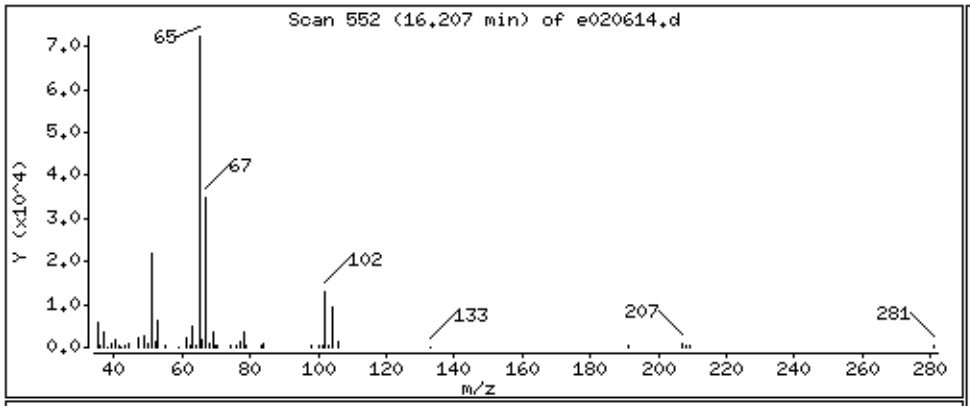
Operator: EA

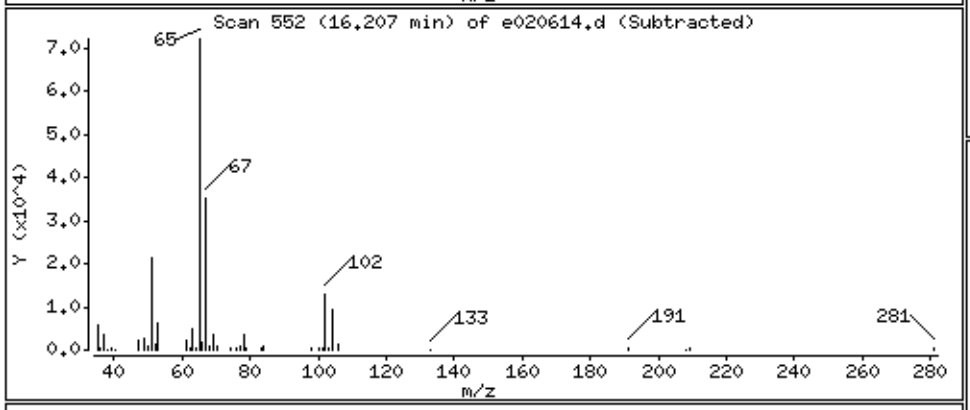
Column phase: RTX-624

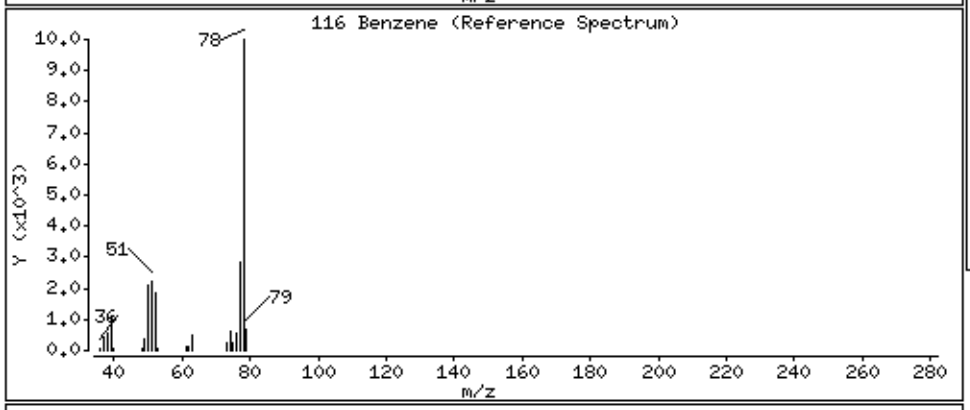
Column diameter: 0.32

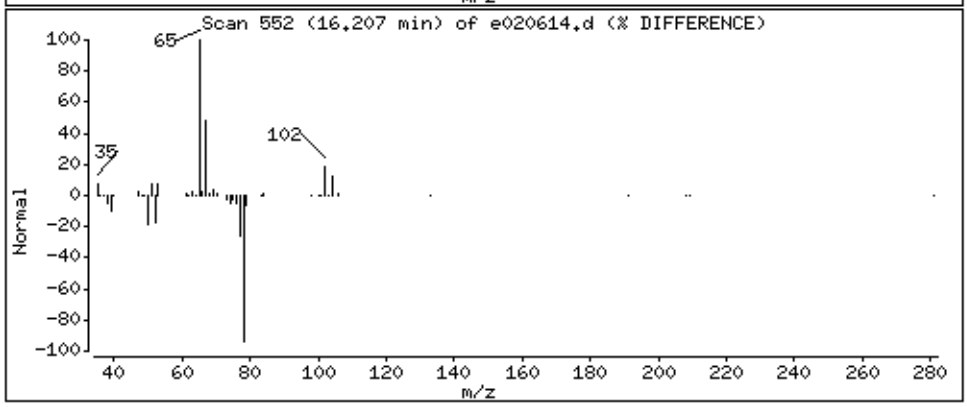
116 Benzene

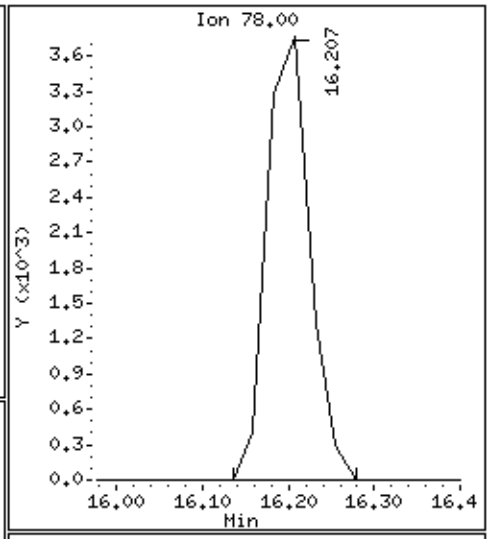
Concentration: 0.2111 PPBV

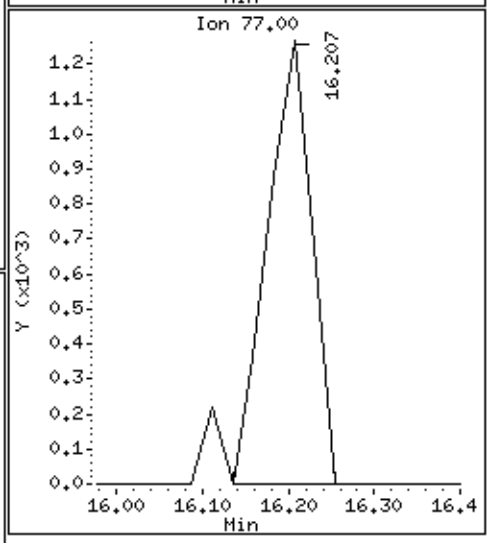












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

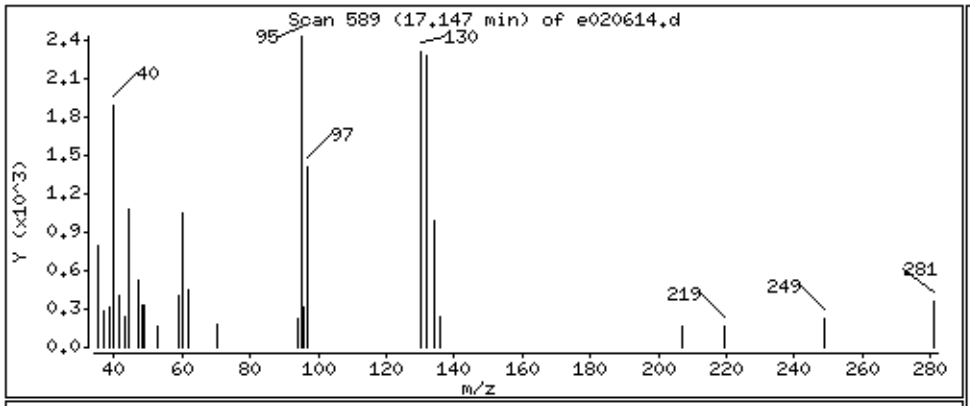
Operator: EA

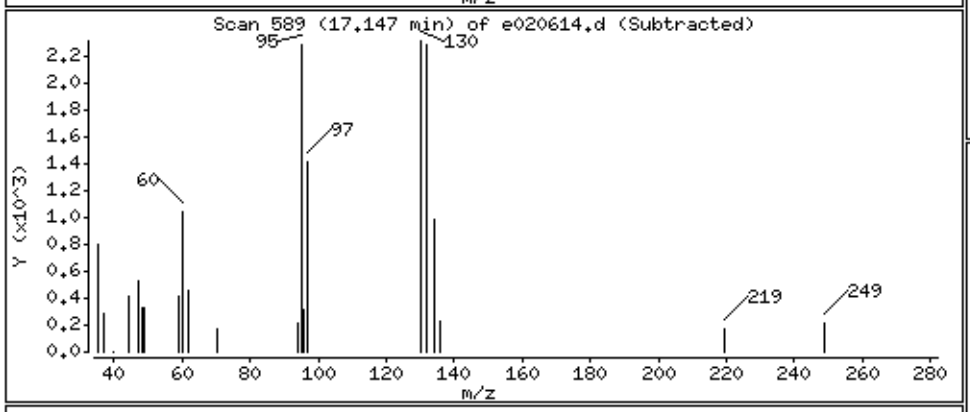
Column phase: RTX-624

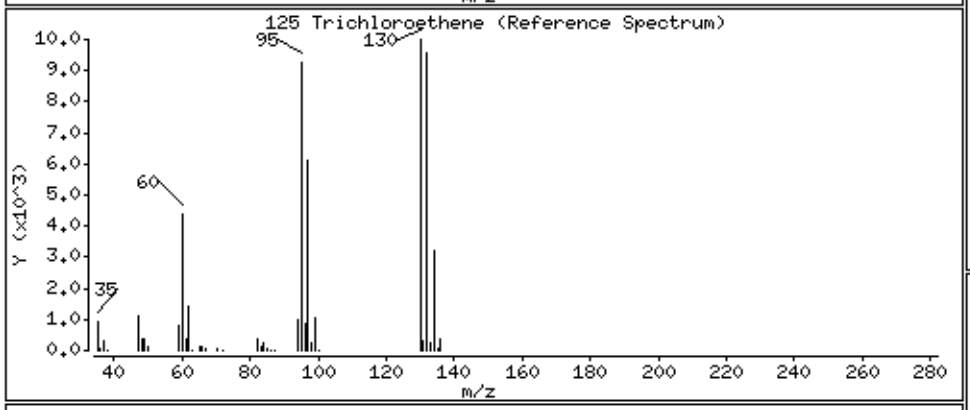
Column diameter: 0.32

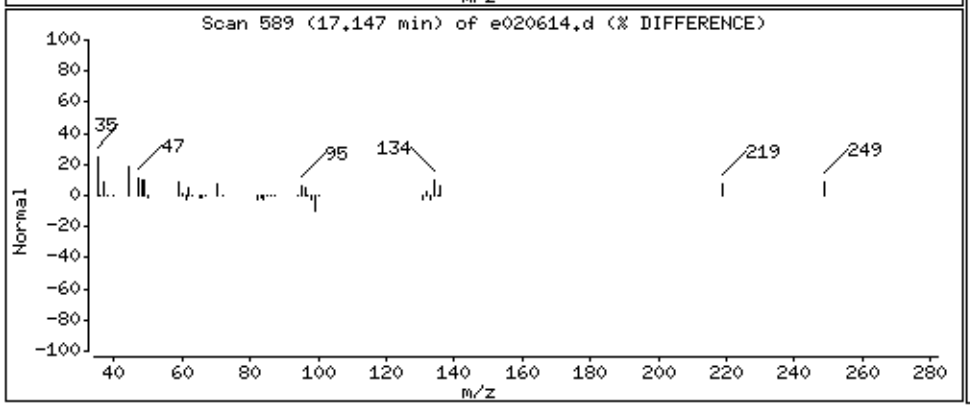
125 Trichloroethene

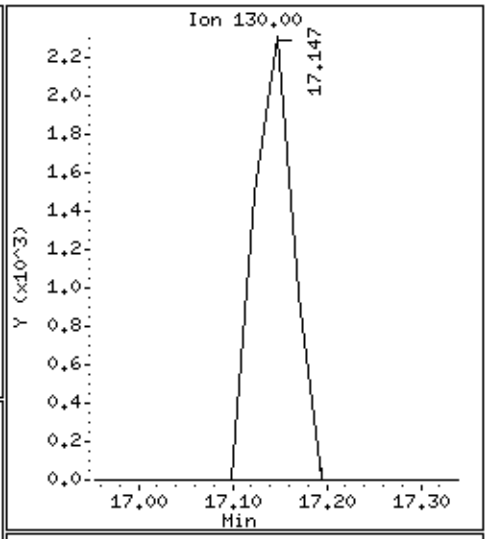
Concentration: 0.1988 PPBV

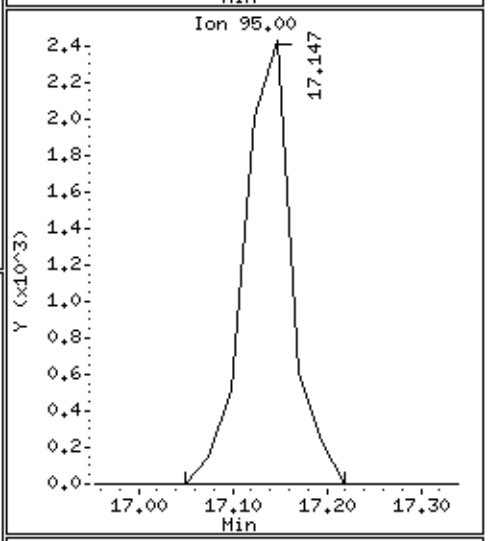


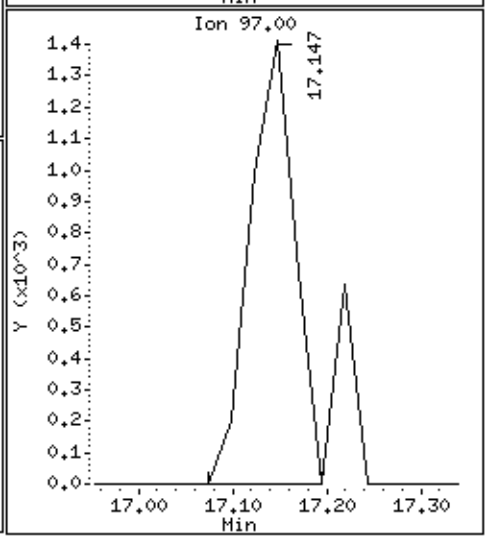












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

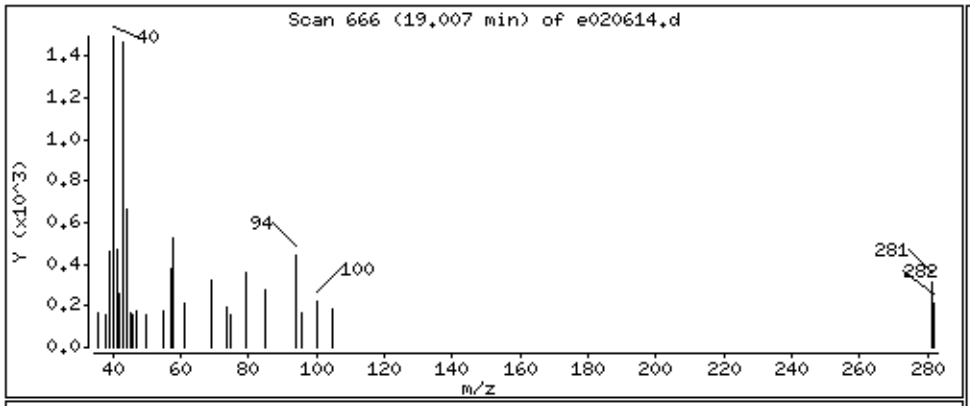
Operator: EA

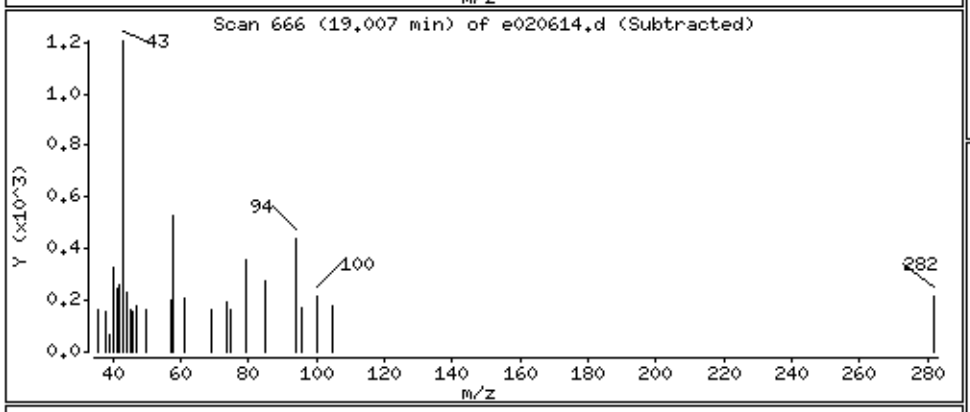
Column phase: RTX-624

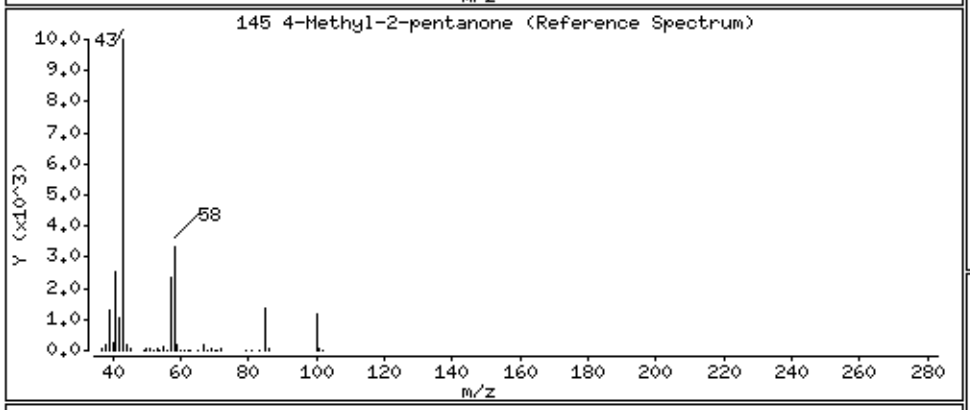
Column diameter: 0.32

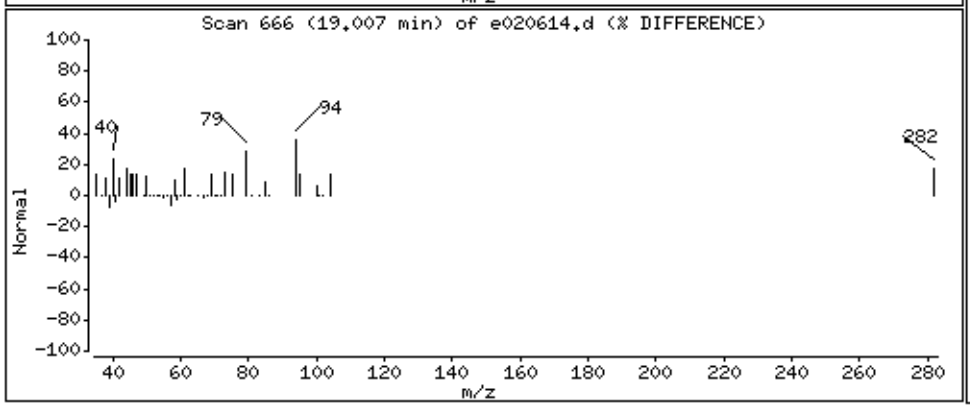
145 4-Methyl-2-pentanone

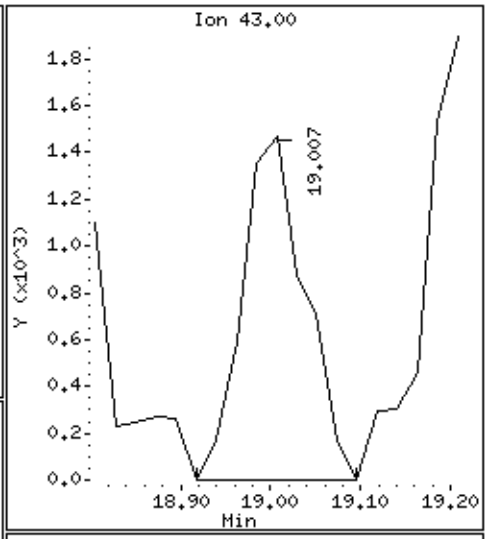
Concentration: 0.1941 PPBV

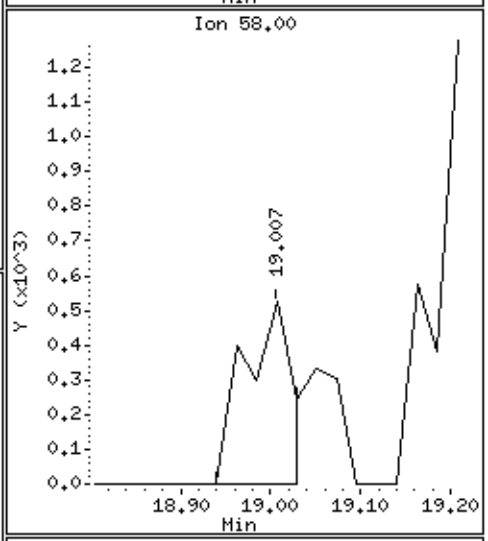


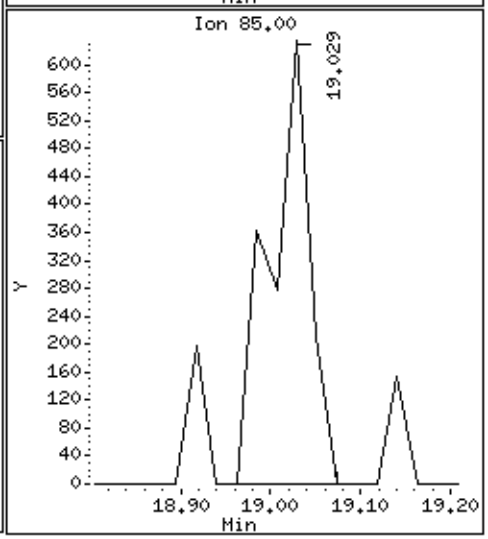












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

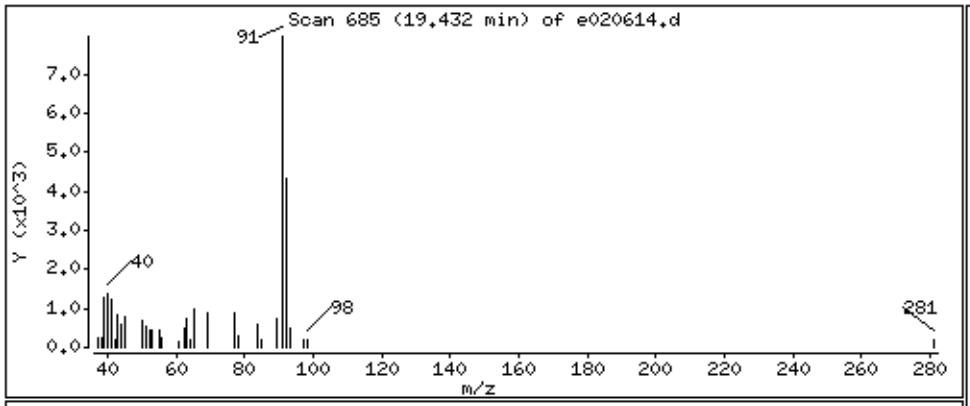
Operator: EA

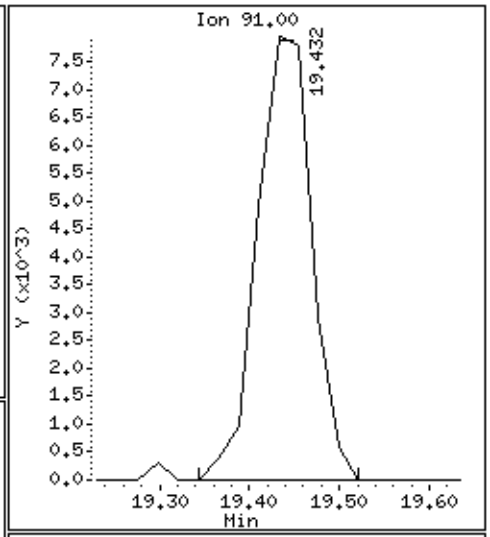
Column phase: RTX-624

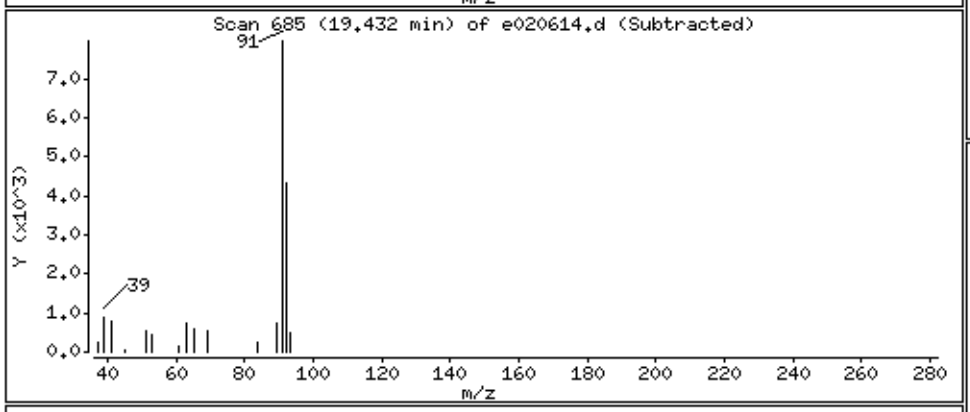
Column diameter: 0.32

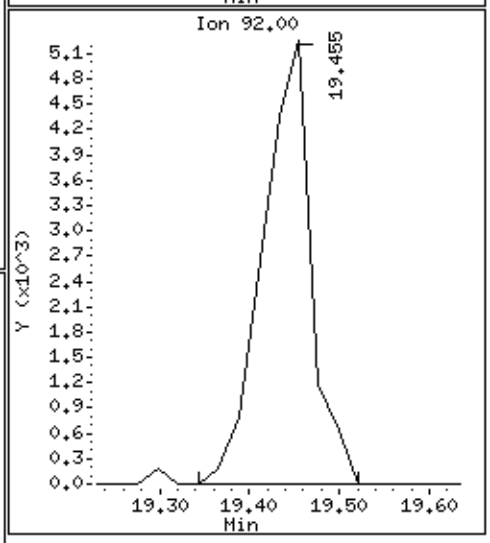
147 Toluene

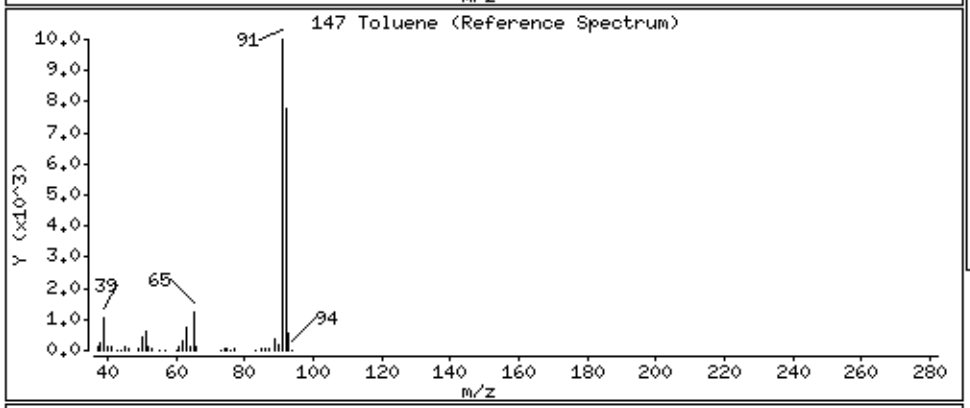
Concentration: 0.4560 PPBV

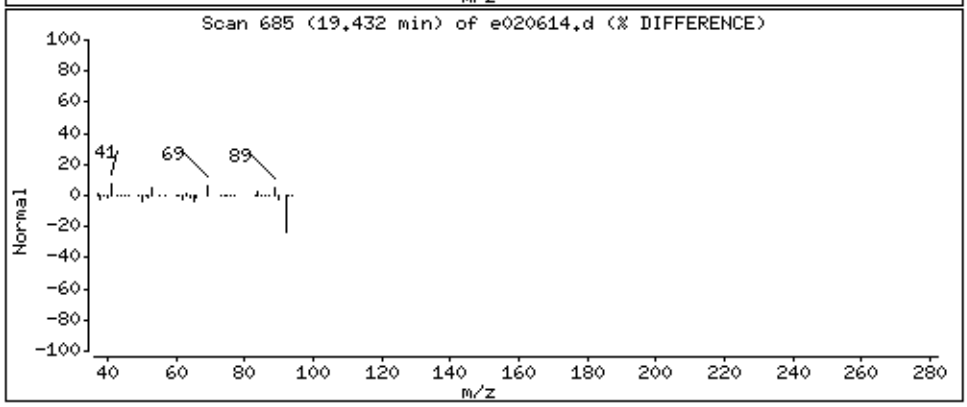












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

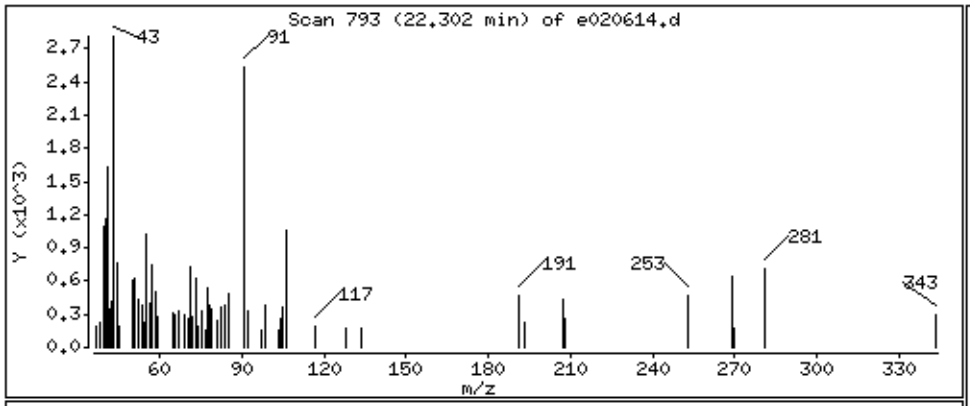
Operator: EA

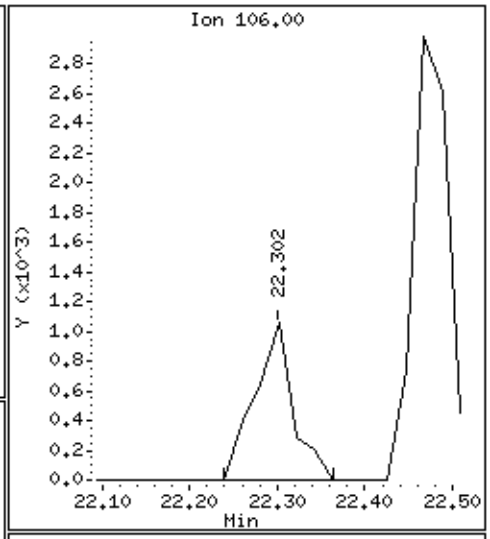
Column phase: RTX-624

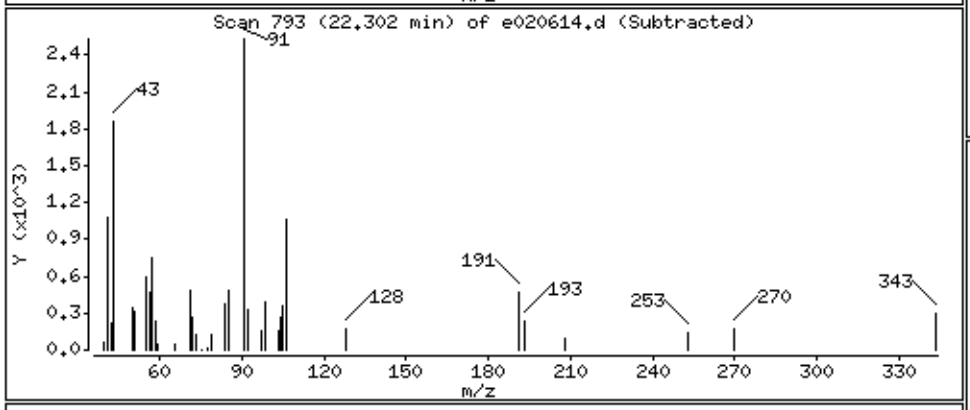
Column diameter: 0.32

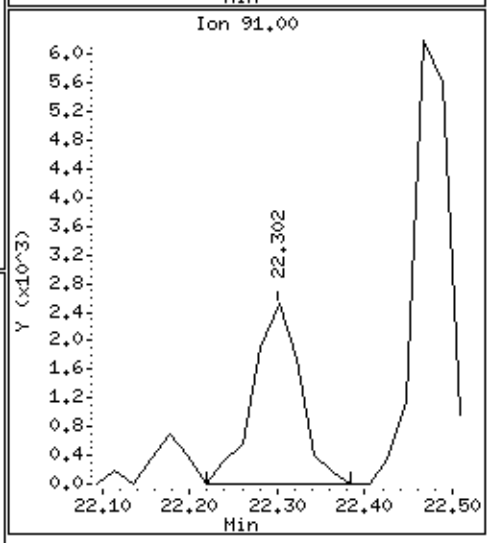
167 Ethyl Benzene

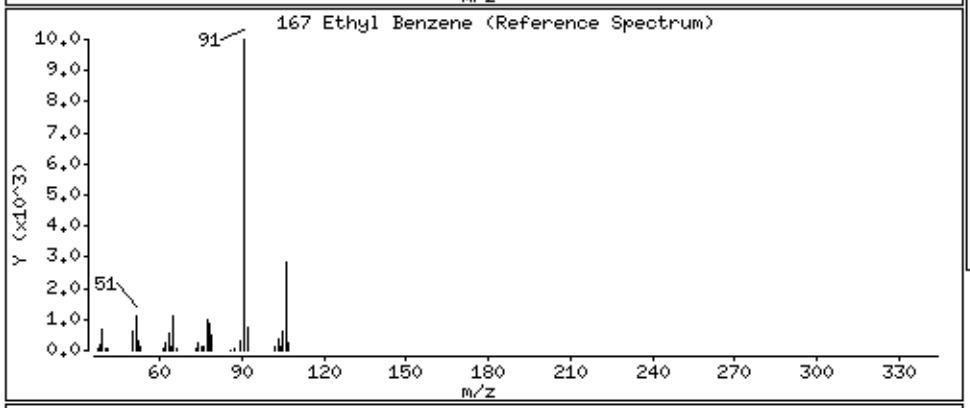
Concentration: 0.09503 PPBV

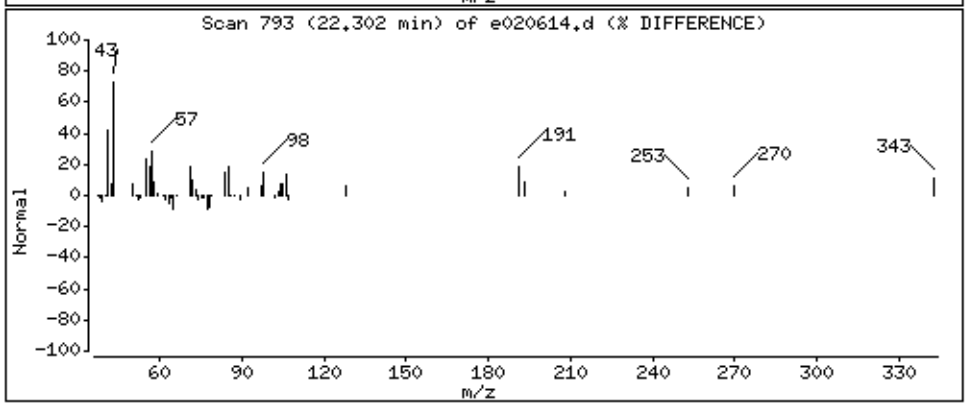












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

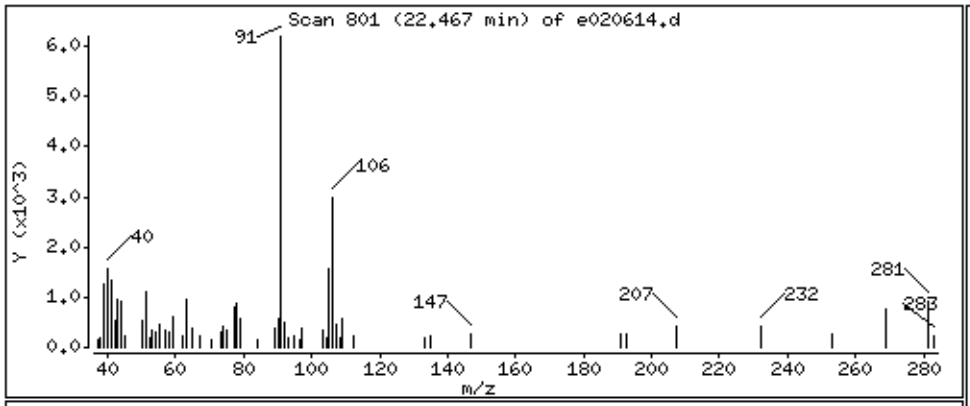
Operator: EA

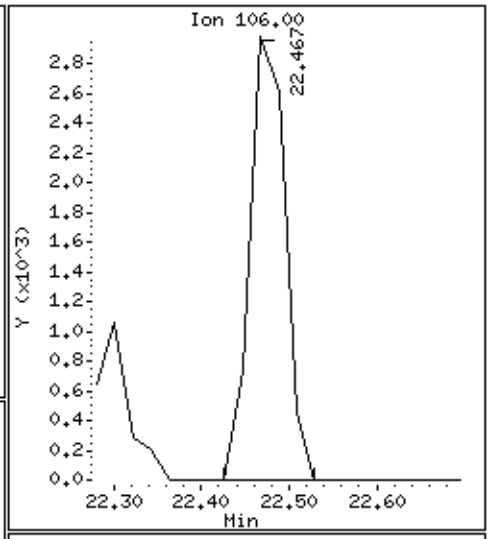
Column phase: RTX-624

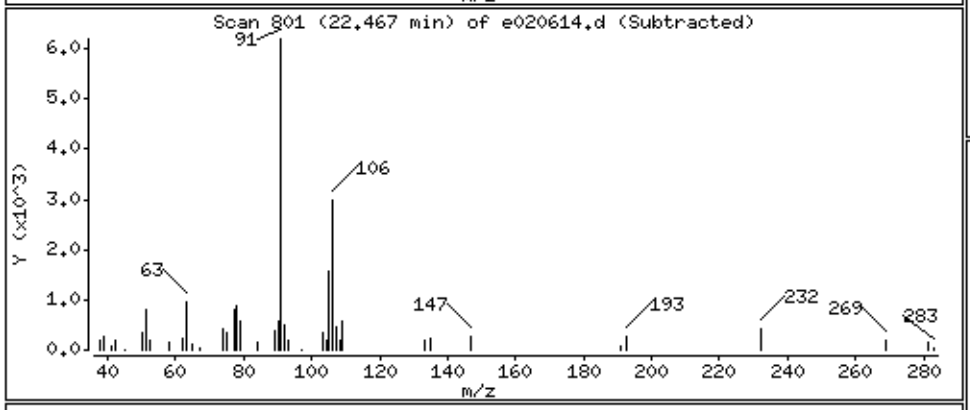
Column diameter: 0.32

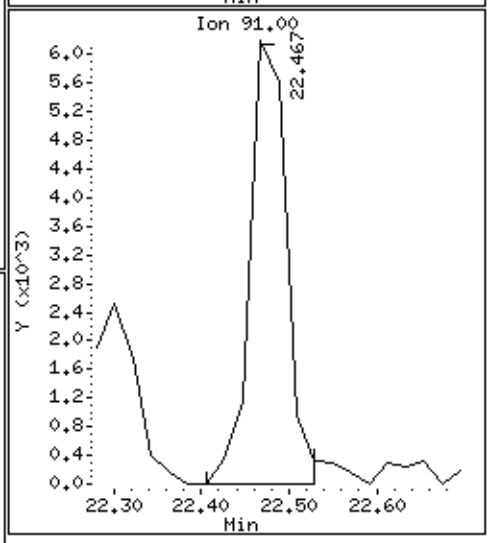
169 m,p-Xylene

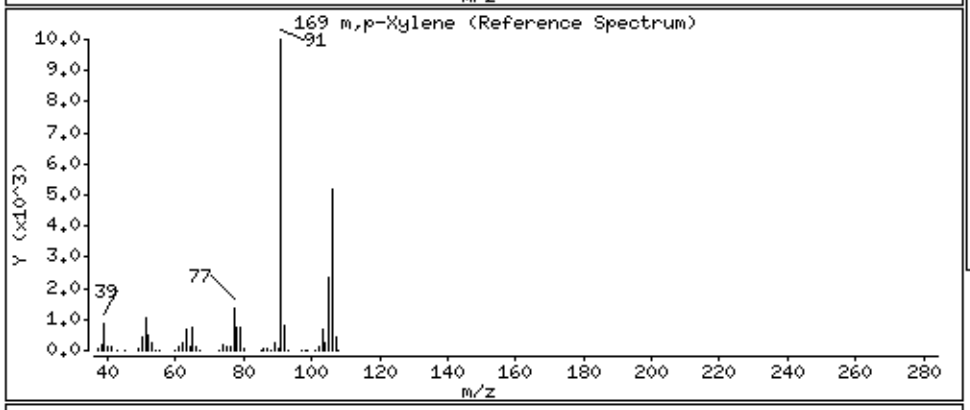
Concentration: 0.2110 PPBV

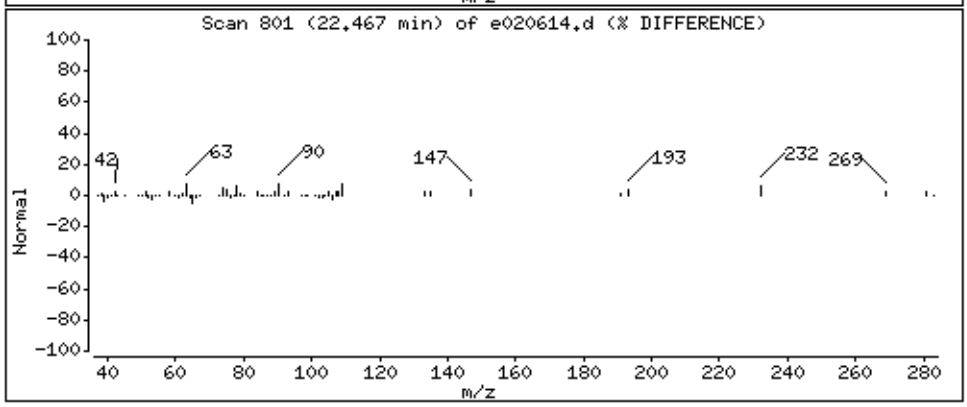












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

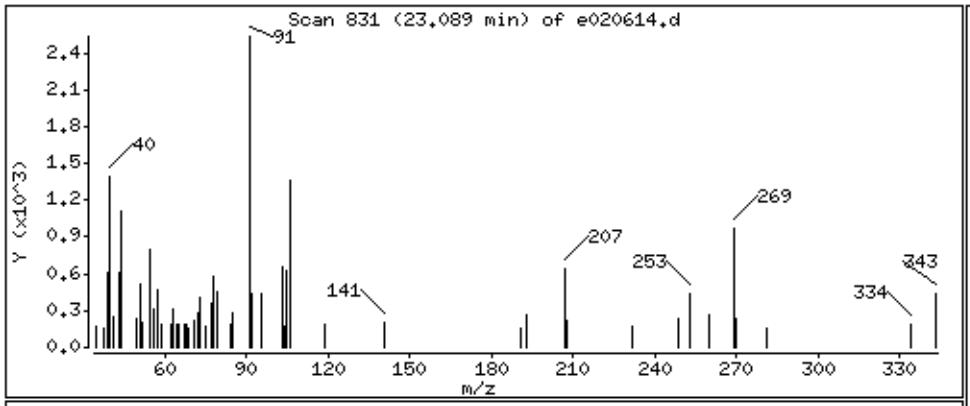
Operator: EA

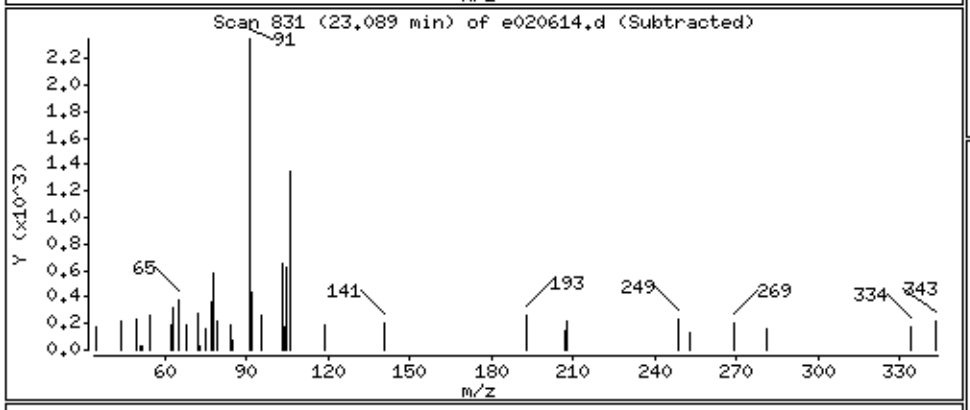
Column phase: RTX-624

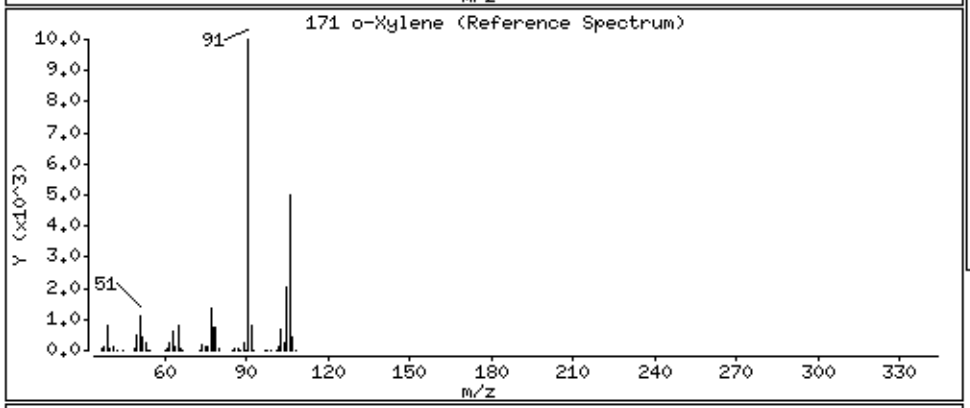
Column diameter: 0.32

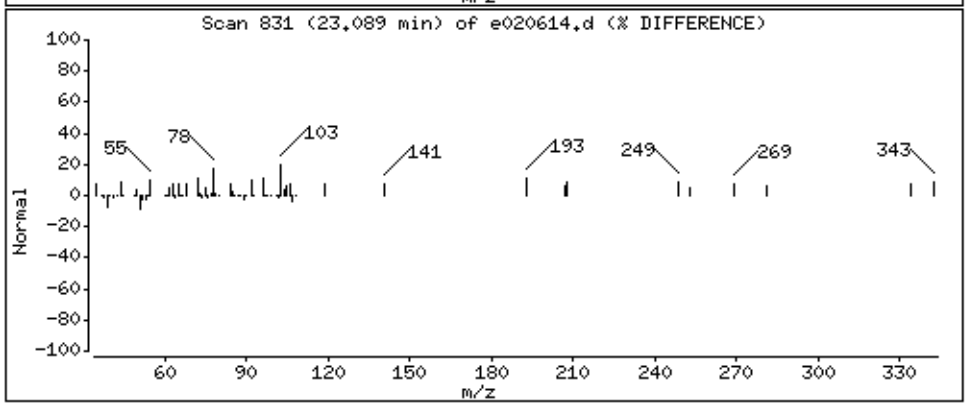
171 o-Xylene

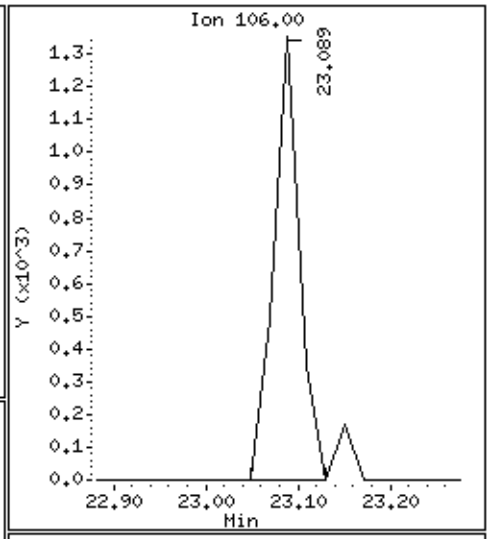
Concentration: 0.07357 PPBV

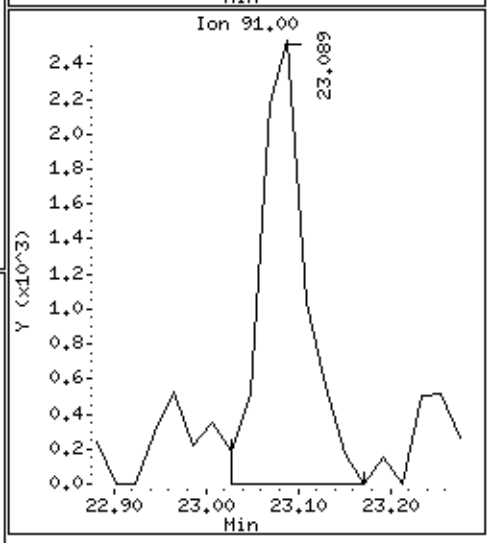












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

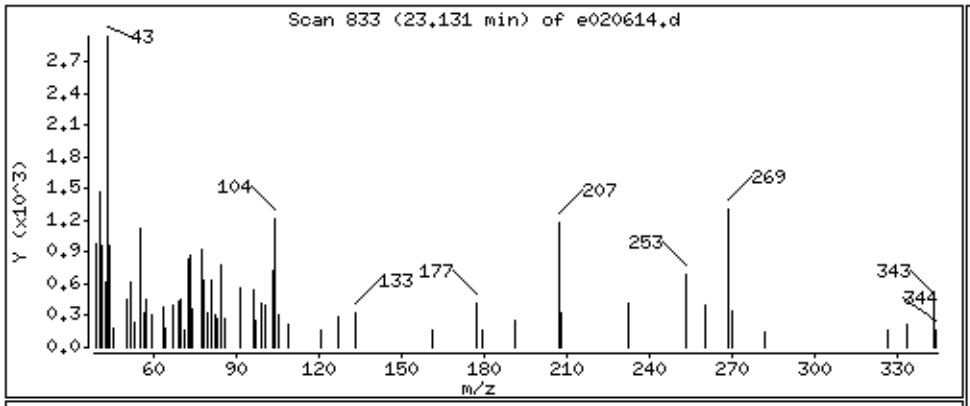
Operator: EA

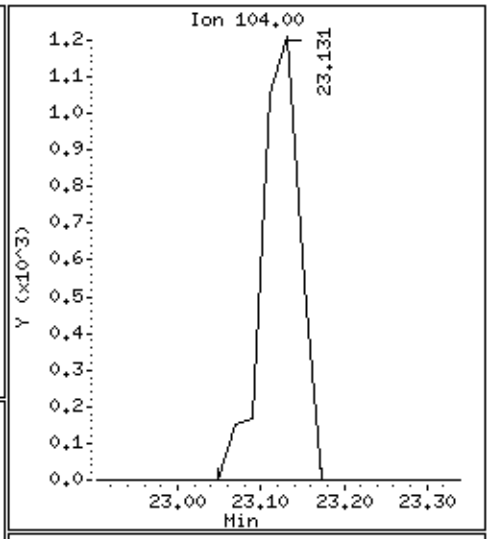
Column phase: RTX-624

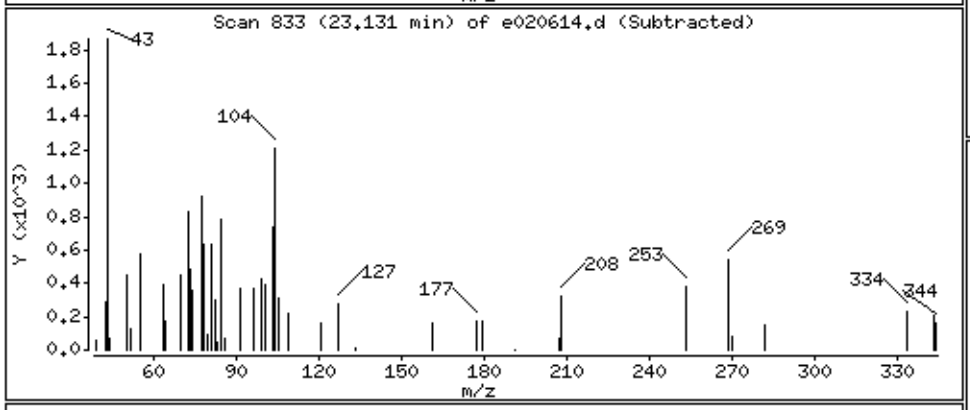
Column diameter: 0.32

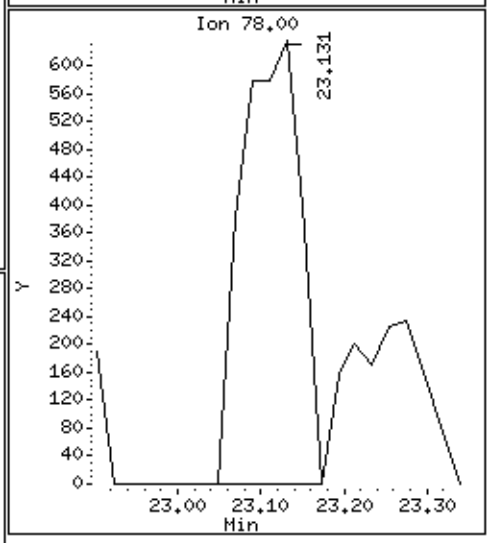
172 Styrene

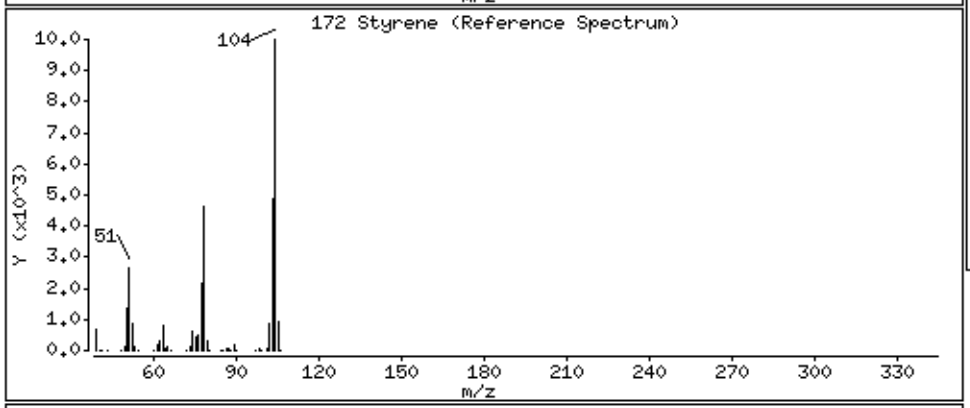
Concentration: 0.06262 PPBV

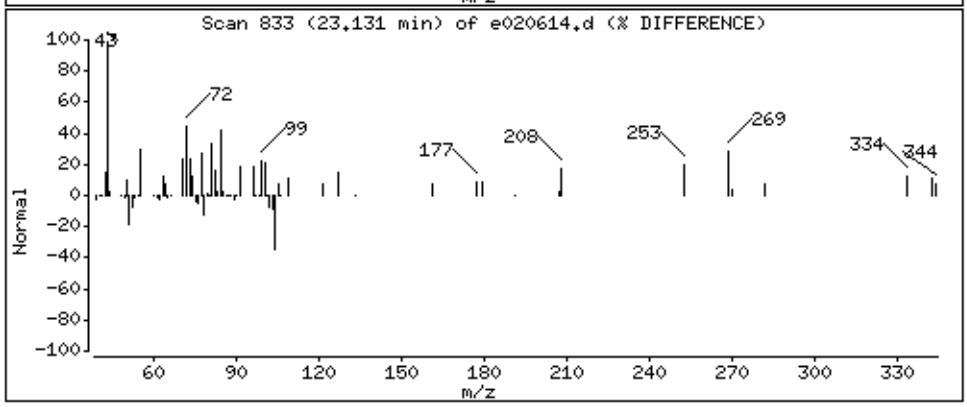












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

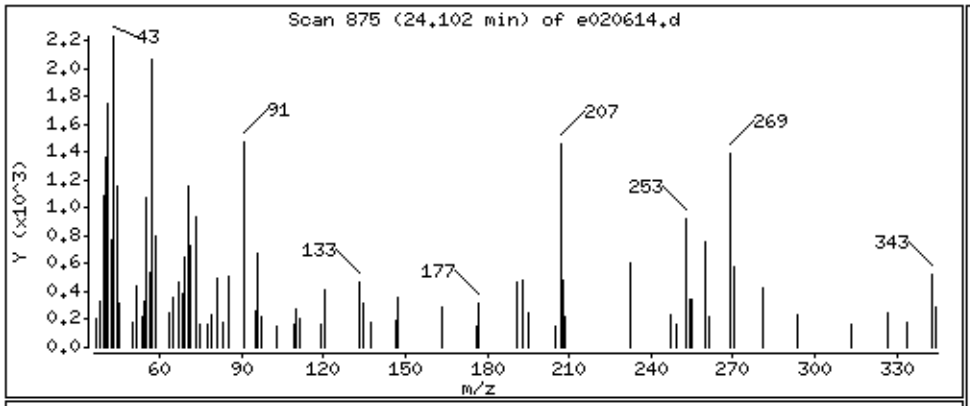
Operator: EA

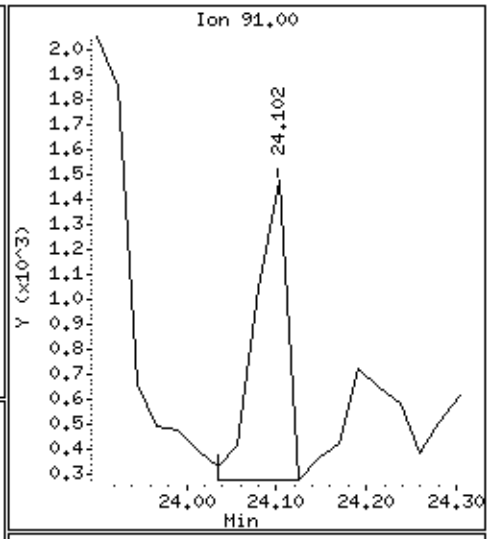
Column phase: RTX-624

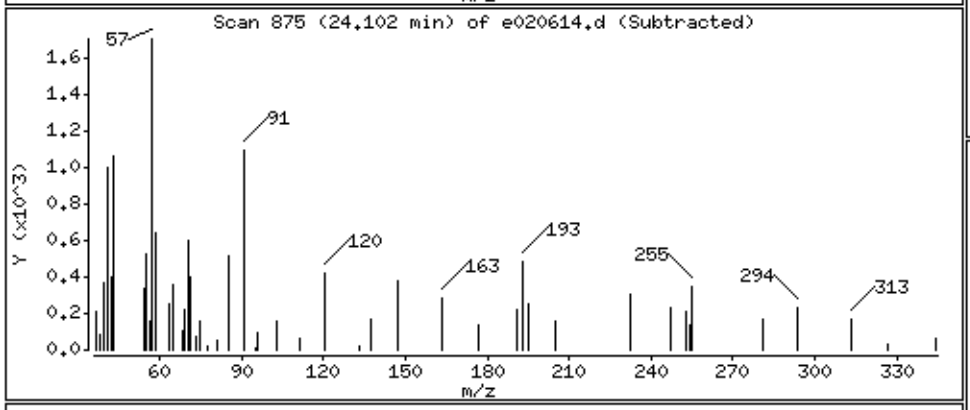
Column diameter: 0.32

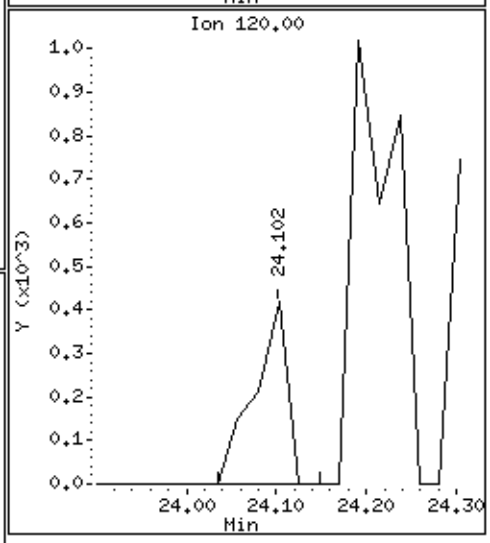
182 Propylbenzene

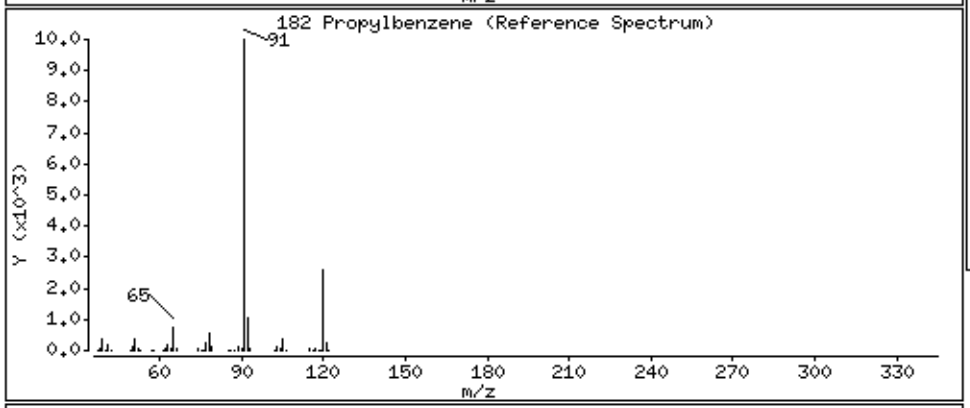
Concentration: 0.02511 PPBV

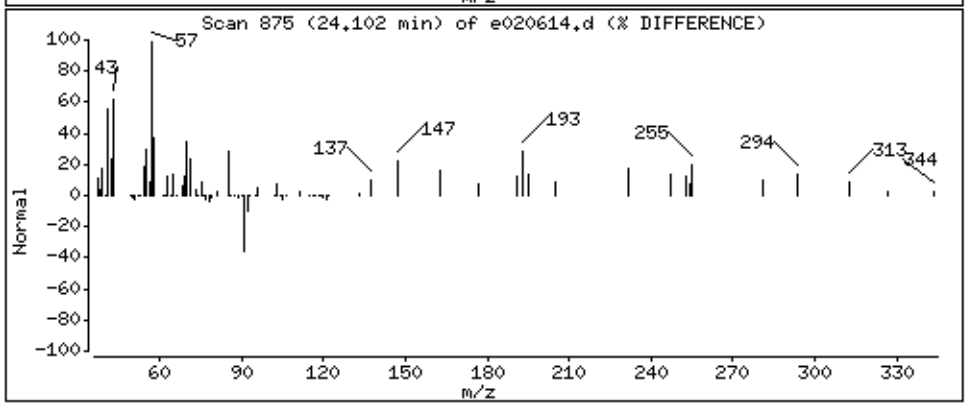












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

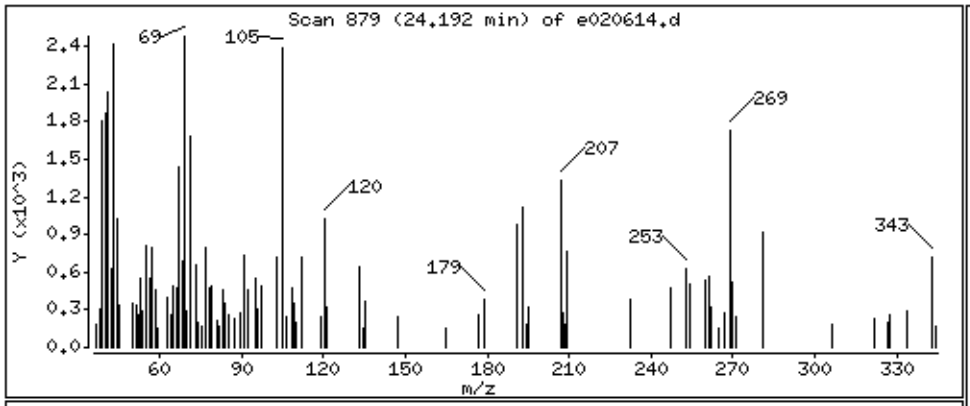
Operator: EA

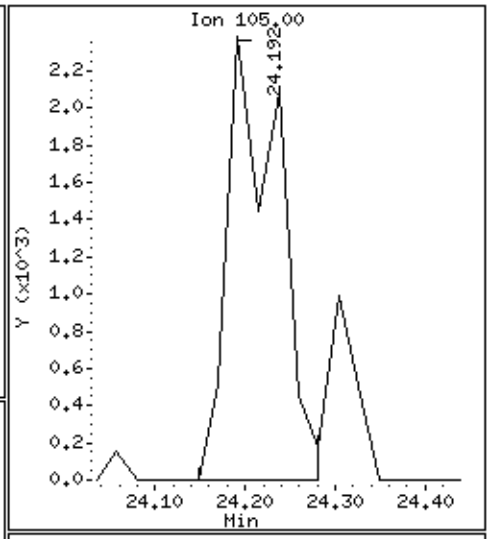
Column phase: RTX-624

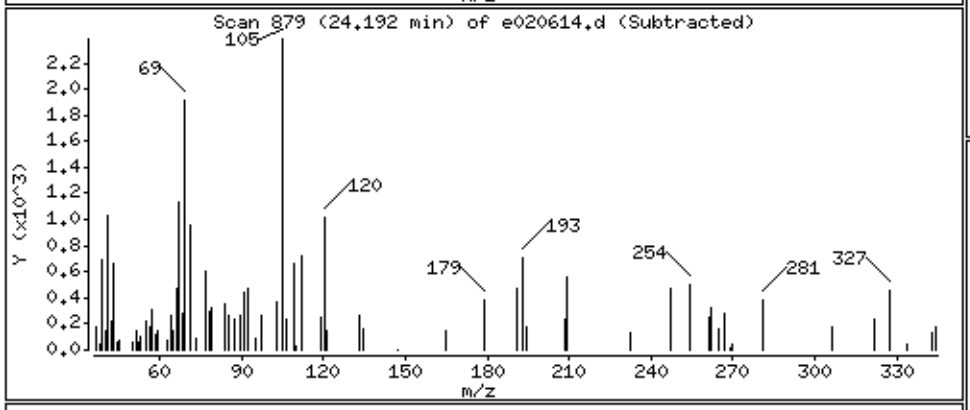
Column diameter: 0.32

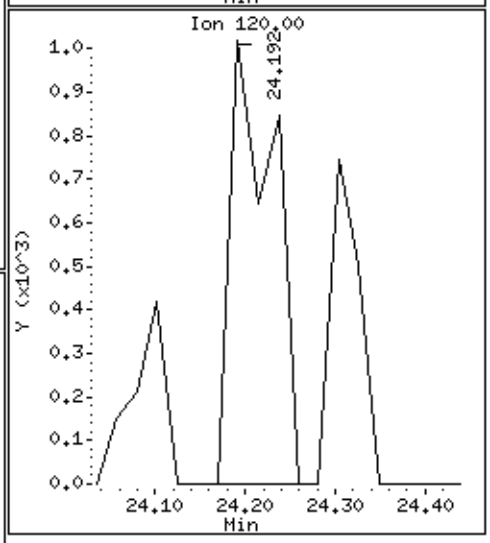
188 4-Ethyltoluene

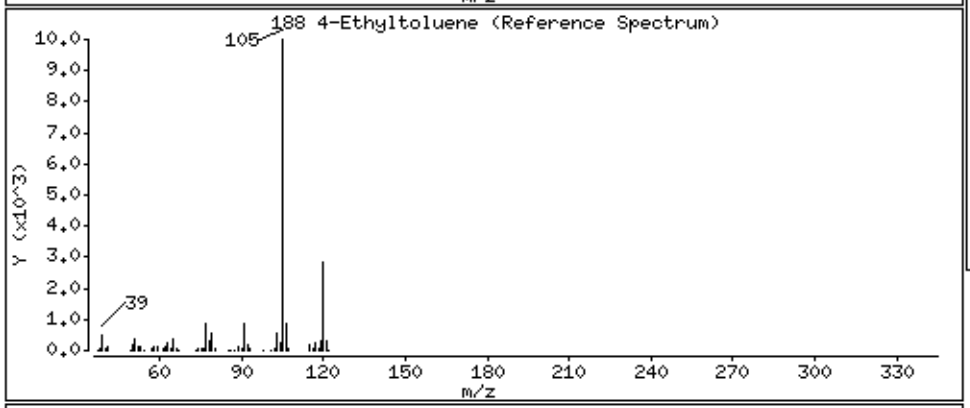
Concentration: 0.09894 PPBV

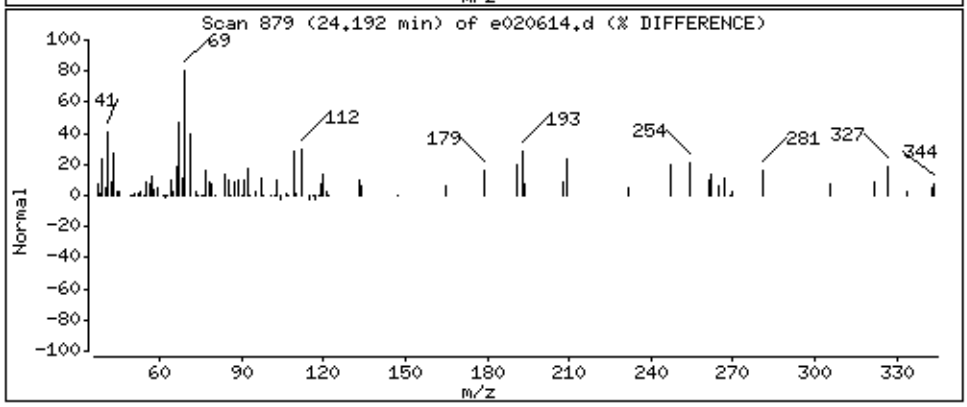












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

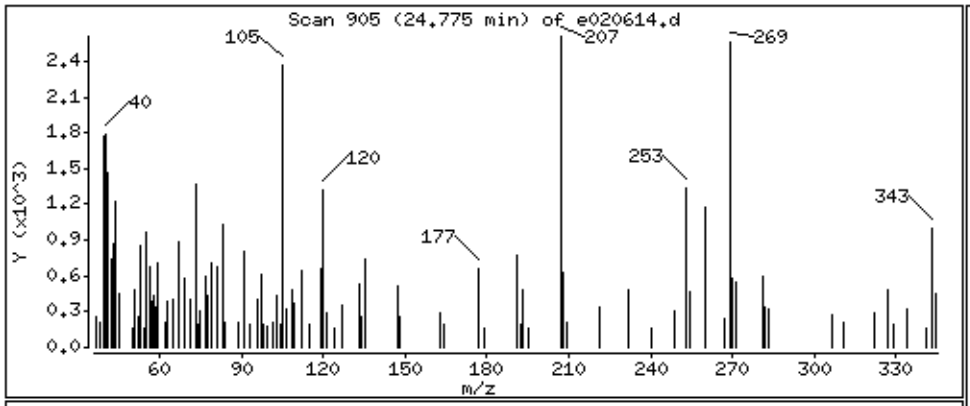
Operator: EA

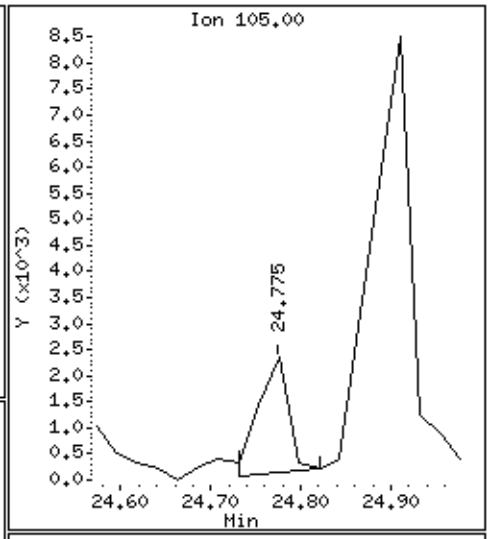
Column phase: RTX-624

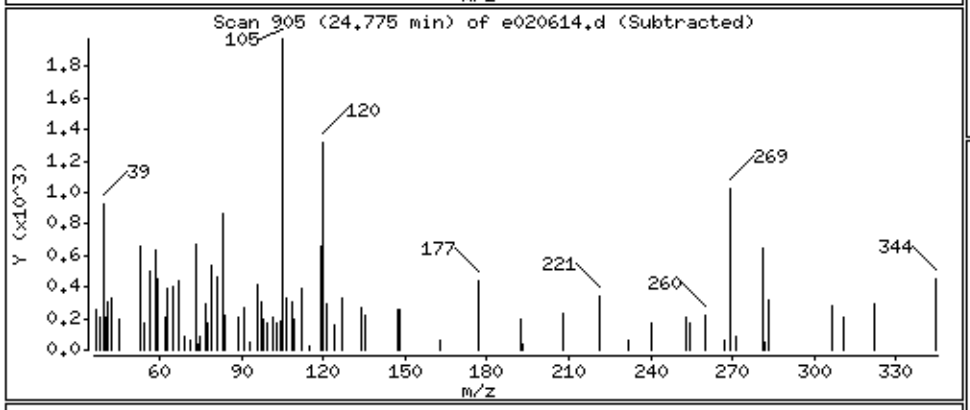
Column diameter: 0.32

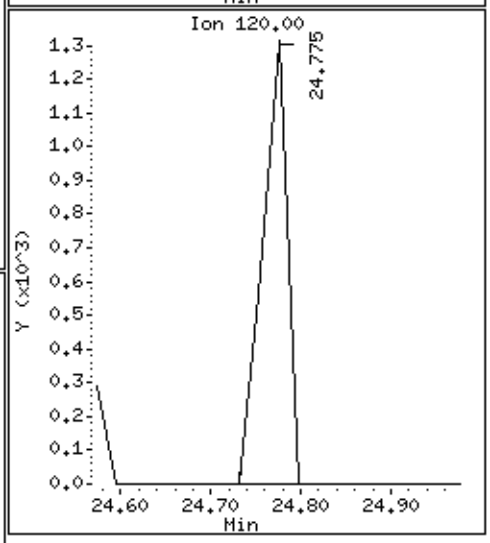
196 1,2,4-Trimethylbenzene

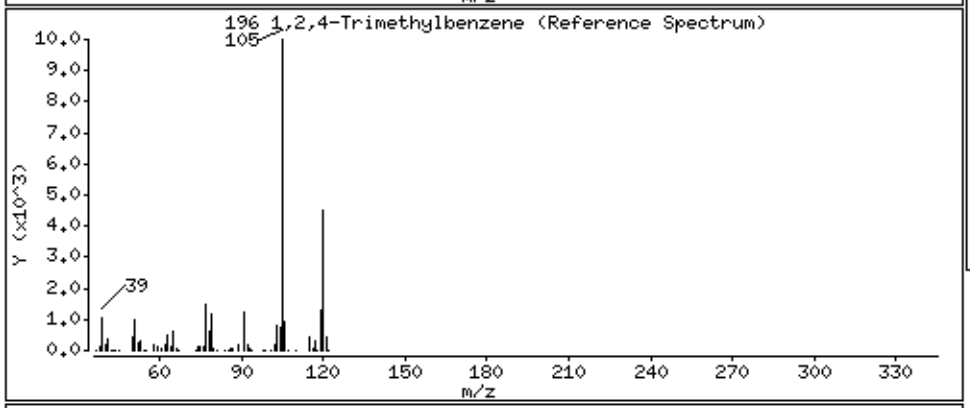
Concentration: 0.08901 PPBV

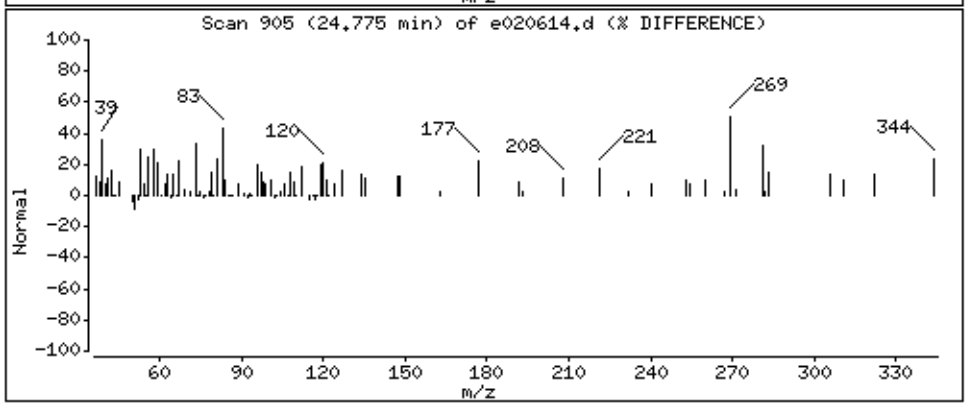












Data File: /chem/msde.i/06Feb2017.b/e020614.d

Date : 06-FEB-2017 18:17

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1318

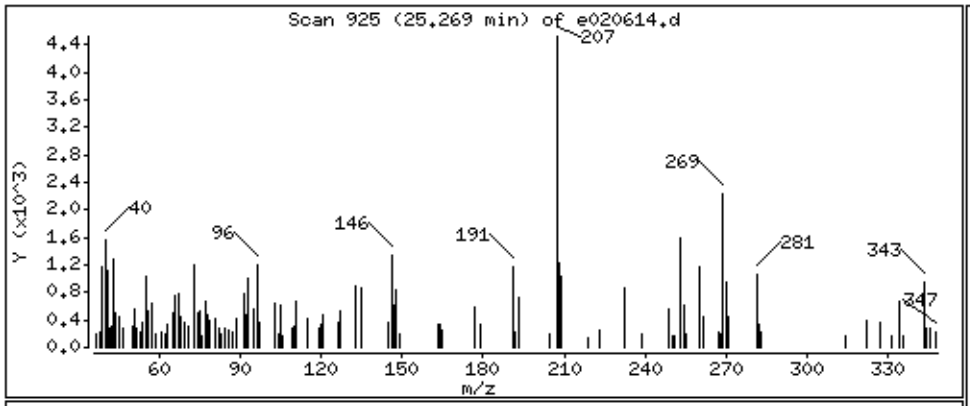
Operator: EA

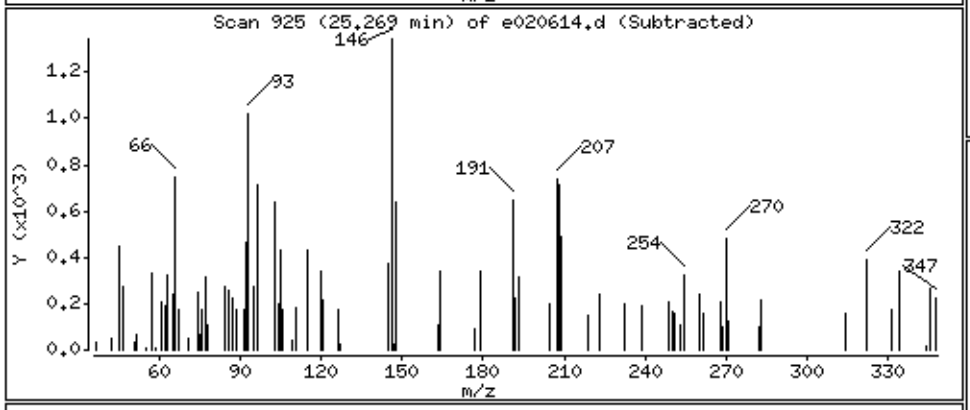
Column phase: RTX-624

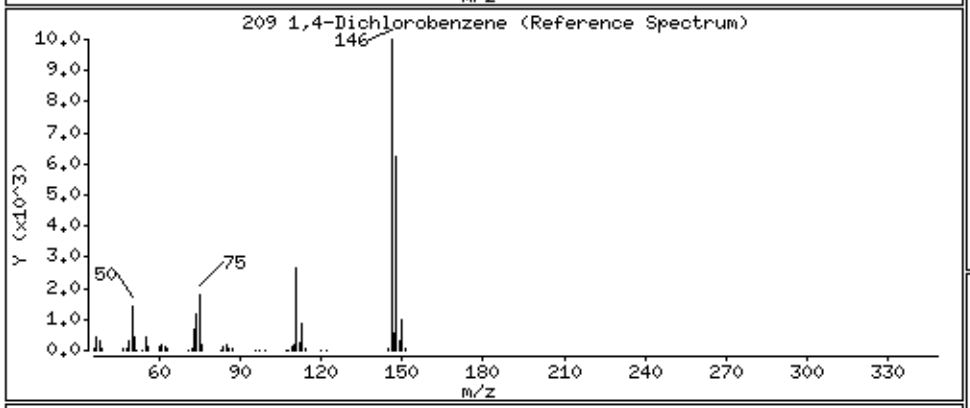
Column diameter: 0.32

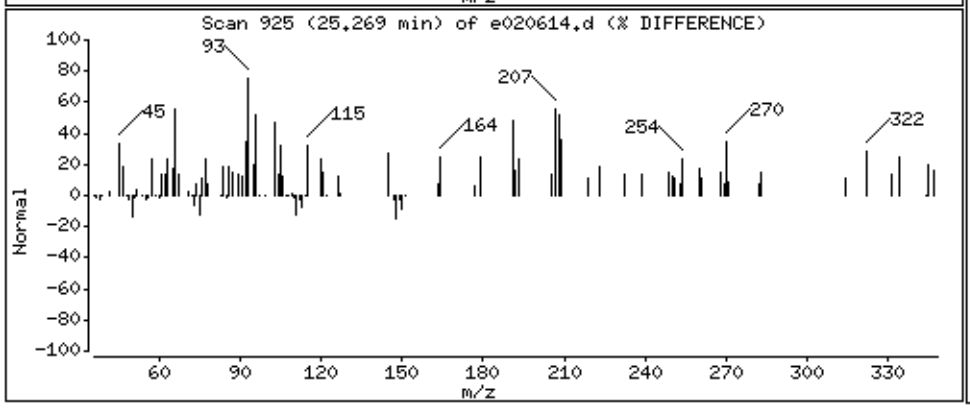
209 1,4-Dichlorobenzene

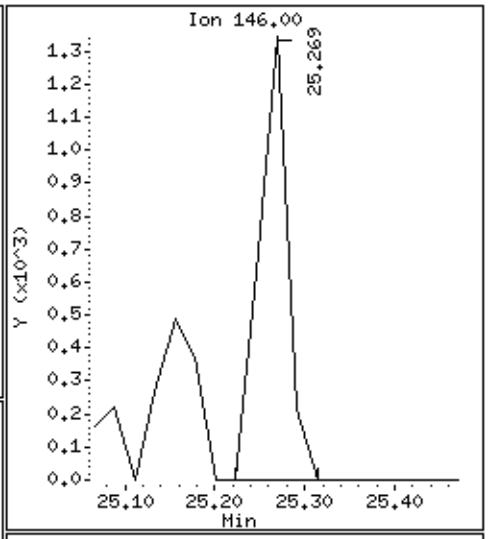
Concentration: 0.04457 PPBV

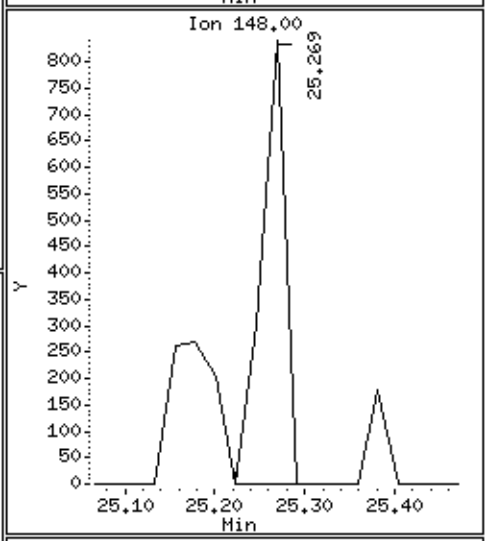


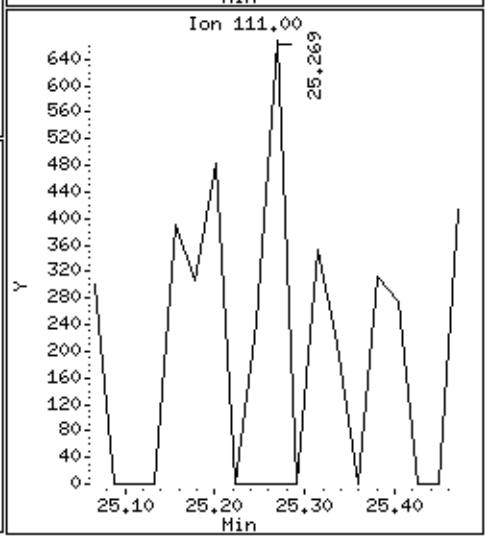












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B8AA-012317

Lab ID#: 1701428A-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.49	0.72	2.4
Chloromethane	0.73	0.97	1.5	2.0
Bromomethane	0.73	0.17 J	2.8	0.67 J
Freon 11	0.15	0.25	0.82	1.4
Ethanol	0.73	3.9	1.4	7.3
Freon 113	0.15	0.054 J	1.1	0.41 J
Acetone	0.73	5.2	1.7	12
2-Propanol	0.73	2.1	1.8	5.2
Carbon Disulfide	0.73	0.42 J	2.3	1.3 J
Methylene Chloride	0.29	0.13 J	1.0	0.44 J
Hexane	0.15	0.28	0.51	0.98
2-Butanone (Methyl Ethyl Ketone)	0.73	0.70 J	2.2	2.1 J
Chloroform	0.15	0.047 J	0.71	0.23 J
Carbon Tetrachloride	0.15	0.085 J	0.92	0.53 J
2,2,4-Trimethylpentane	0.73	0.10 J	3.4	0.47 J
Benzene	0.15	0.20	0.47	0.65
Heptane	0.15	0.18	0.60	0.73
Toluene	0.15	0.40	0.55	1.5
Ethyl Benzene	0.15	0.051 J	0.63	0.22 J
m,p-Xylene	0.15	0.19	0.63	0.81
o-Xylene	0.15	0.070 J	0.63	0.30 J
Styrene	0.15	0.038 J	0.62	0.16 J
Propylbenzene	0.15	0.021 J	0.72	0.10 J
4-Ethyltoluene	0.15	0.070 J	0.72	0.34 J
1,3,5-Trimethylbenzene	0.15	0.032 J	0.72	0.15 J
1,2,4-Trimethylbenzene	0.15	0.077 J	0.72	0.38 J
1,4-Dichlorobenzene	0.15	0.036 J	0.88	0.22 J

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Client Sample ID: B8AA-012317

Lab ID#: 1701428A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020615**	**Date of Collection:**	**1/23/17 9:20:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**2/6/17 07:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.49	0.72	2.4
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.73	0.97	1.5	2.0
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,3-Butadiene	0.15	Not Detected	0.32	Not Detected
Bromomethane	0.73	0.17 J	2.8	0.67 J
Chloroethane	0.73	Not Detected	1.9	Not Detected
Freon 11	0.15	0.25	0.82	1.4
Ethanol	0.73	3.9	1.4	7.3
Freon 113	0.15	0.054 J	1.1	0.41 J
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	5.2	1.7	12
2-Propanol	0.73	2.1	1.8	5.2
Carbon Disulfide	0.73	0.42 J	2.3	1.3 J
3-Chloropropene	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	0.13 J	1.0	0.44 J
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Hexane	0.15	0.28	0.51	0.98
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.73	0.70 J	2.2	2.1 J
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	0.047 J	0.71	0.23 J
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Cyclohexane	0.15	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.15	0.085 J	0.92	0.53 J
2,2,4-Trimethylpentane	0.73	0.10 J	3.4	0.47 J
Benzene	0.15	0.20	0.47	0.65
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Heptane	0.15	0.18	0.60	0.73
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	0.40	0.55	1.5
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	Not Detected	0.99	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected

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Client Sample ID: B8AA-012317

Lab ID#: 1701428A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020615**	**Date of Collection:**	**1/23/17 9:20:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**2/6/17 07:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	0.051 J	0.63	0.22 J
m,p-Xylene	0.15	0.19	0.63	0.81
o-Xylene	0.15	0.070 J	0.63	0.30 J
Styrene	0.15	0.038 J	0.62	0.16 J
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	0.021 J	0.72	0.10 J
4-Ethyltoluene	0.15	0.070 J	0.72	0.34 J
1,3,5-Trimethylbenzene	0.15	0.032 J	0.72	0.15 J
1,2,4-Trimethylbenzene	0.15	0.077 J	0.72	0.38 J
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	0.036 J	0.88	0.22 J
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected
Naphthalene	0.73	Not Detected	3.8	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020615.d
Lab Smp Id: 1701428A-15A
Inj Date : 06-FEB-2017 19:23
Operator : EA Inst ID: msde.i
Smp Info : 250mL#O0316
Misc Info : 2.5"Hg-5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 07-Feb-2017 06:37 atoyama Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1
Dil Factor: 1.46000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	39096	0.33770	0.4930	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	7480			1.91- 61.91	19.13
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	14297	0.66215	0.9667	80.00- 120.00	100.00
6.932	6.932 (0.450)	52	3672			3.31- 63.31	25.68
29 Bromomethane					CAS #: 74-83-9		
9.548	9.510 (0.620)	94	3778	0.11904	0.1738	80.00- 120.00	100.00(a)
9.567	9.510 (0.622)	96	4311			64.26- 124.26	114.11
35 Freon 11					CAS #: 75-69-4		
10.747	10.766 (0.698)	101	22892	0.16950	0.2475	80.00- 120.00	100.00
10.747	10.766 (0.698)	103	14329			33.74- 93.74	62.60
42 Ethanol					CAS #: 64-17-5		
11.662	11.661 (0.758)	45	31213	2.65144	3.871	80.00- 120.00	100.00
11.662	11.661 (0.758)	46	12672			9.60- 69.60	40.60
11.662	11.661 (0.758)	43	10368			0.00- 59.21	33.22

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

   49 Freon 113                                     CAS #: 76-13-1
 12.062  12.081 (0.784)   151      3323 0.03685  0.05380  80.00- 120.00   100.00(a)
 12.062  12.081 (0.784)   153      3012                   34.83-  94.83    90.65
 12.062  12.081 (0.784)   101      4890                   77.16- 137.16   147.15
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 12.366  12.366 (0.803)    58     52259 3.53074    5.155  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    200491                  344.13- 404.13   383.65
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 12.443  12.462 (0.808)    76     29112 0.28434   0.4151  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 12.728  12.728 (0.827)    45     69596 1.46054    2.132  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43     22755                    0.00-  55.65    32.70
 12.709  12.728 (0.826)    59      2521                    0.00-  34.42     3.62
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 13.149  13.176 (0.854)    84      3147 0.08688   0.1268  80.00- 120.00   100.00(a)
 13.149  13.176 (0.854)    49      2785                   83.76- 143.76    88.49
 13.176  13.176 (0.856)    51       858                    2.61-  62.61    27.27
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 13.835  13.835 (0.899)    57      8185 0.18974   0.2770  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43     10610                   27.83-  87.83   129.62
 13.835  13.835 (0.899)    86      1980                    0.00-  50.45    24.19
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 15.047  15.047 (0.978)    72      7704 0.48000   0.7008  80.00- 120.00   100.00(a)
 15.047  15.047 (0.978)    43     33568                  325.72- 385.72   435.68
 15.047  15.047 (0.978)    57      3112                    1.13-  61.13    40.39
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    130398 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    100634                   46.73- 106.73    77.17
 15.391  15.391 (1.000)    49    109442                   55.35- 115.35    83.93
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 15.453  15.453 (1.004)    83      3020 0.03196  0.04666  80.00- 120.00   100.00(a)
 15.453  15.453 (1.004)    85      1396                   36.62-  96.62    46.23
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.884  15.884 (1.032)   119      6293 0.05815  0.08490  80.00- 120.00   100.00(a)
 15.854  15.884 (1.030)   117      6775                   74.11- 134.11   107.66
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.111  16.111 (1.047)    56      4191 0.06906   0.1008  80.00- 120.00   100.00(a)
```

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

  113 2,2,4-Trimethylpentane (continued)
 16.111  16.111 (1.047)    57     16201                  277.67- 337.67   386.49
 16.111  16.111 (1.047)    41      3934                   73.43- 133.43    93.86
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 16.207  16.207 (0.968)    78     16164 0.13901   0.2030  80.00- 120.00   100.00
 16.183  16.207 (0.967)    77      4452                    0.00-  53.00    27.55
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    219074 5.85034    5.850  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    100415                   22.67-  82.67    45.84
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 16.352  16.352 (0.977)    57      3587 0.12182   0.1779  80.00- 120.00   100.00
  0.000  16.352 (0.000)   100         0                   23.08-  83.08     0.00
 16.352  16.352 (0.977)    43      4741                  136.91- 196.91   132.14
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.737  16.737 (1.000)   114    470980 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     72764                    0.00-  45.16    15.45
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    433538 4.74544    4.745  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     53847                    0.00-  40.89    12.42
 19.298  19.298 (1.153)   100    295522                   40.09- 100.09    68.17
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91     38595 0.27437   0.4006  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92     19882                   27.79-  87.79    51.51
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    453744 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    222077                   17.27-  77.27    48.94
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.301 (1.006)   106      2078 0.03496  0.05105  80.00- 120.00   100.00(a)
 22.302  22.301 (1.006)    91      7078                  278.11- 338.11   340.51
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.467  22.488 (1.013)   106      8991 0.12781   0.1866  80.00- 120.00   100.00
 22.467  22.488 (1.013)    91     18546                  170.01- 230.01   206.26
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106      3133 0.04806  0.07017  80.00- 120.00   100.00(a)
 23.089  23.089 (1.041)    91      6517                  175.84- 235.84   207.98
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
172 Styrene					CAS #: 100-42-5		
23.110	23.110 (1.042)	104	2826	0.02599	0.03794	80.00- 120.00	100.00(a)
23.131	23.110 (1.043)	78	3332			20.21- 80.21	117.91
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	304076	4.79756	4.798	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	295184			66.74- 126.74	97.08
23.856	23.856 (1.076)	176	304665			67.47- 127.47	100.19
182 Propylbenzene					CAS #: 103-65-1		
24.102	24.102 (1.087)	91	2963	0.01456	0.02125	80.00- 120.00	100.00(a)
24.192	24.102 (1.091)	120	2284			0.00- 55.73	77.08
188 4-Ethyltoluene					CAS #: 622-96-8		
24.192	24.237 (1.091)	105	8043	0.04766	0.06959	80.00- 120.00	100.00(a)
24.192	24.237 (1.091)	120	3131			1.00- 61.00	38.93
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	2699	0.02158	0.03150	80.00- 120.00	100.00(a)
24.192	24.304 (1.091)	120	3131			19.17- 79.17	116.01
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.753	24.775 (1.116)	105	5523	0.05260	0.07680	80.00- 120.00	100.00(a)
24.775	24.775 (1.117)	120	1597			16.84- 76.84	28.92
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	2897	0.02497	0.03646	80.00- 120.00	100.00(a)
25.269	25.269 (1.139)	148	2021			35.10- 95.10	69.78
25.246	25.269 (1.138)	111	1032			4.80- 64.80	35.65

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: msde.i
Lab File ID: e020615.d
Lab Smp Id: 1701428A-15A
Analysis Type: VOA
Quant Type: ISTD
Operator: EA
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 2.5"Hg-5.0psi

Calibration Date: 06-FEB-2017
Calibration Time: 07:43

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	130398	-10.29
123 1,4-Difluorobenze	497113	298268	695958	470980	-5.26
163 Chlorobenzene-d5	465931	279559	652303	453744	-2.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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: 09-Feb-2017 13:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428A-15A
Level: LOW
Operator: EA
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 2.5"Hg-5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.850	117.01	70-130
$ 146 Toluene-d8	5.000	4.745	94.91	70-130
$ 177 4-Bromofluorobenze	5.000	4.798	95.95	70-130

Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

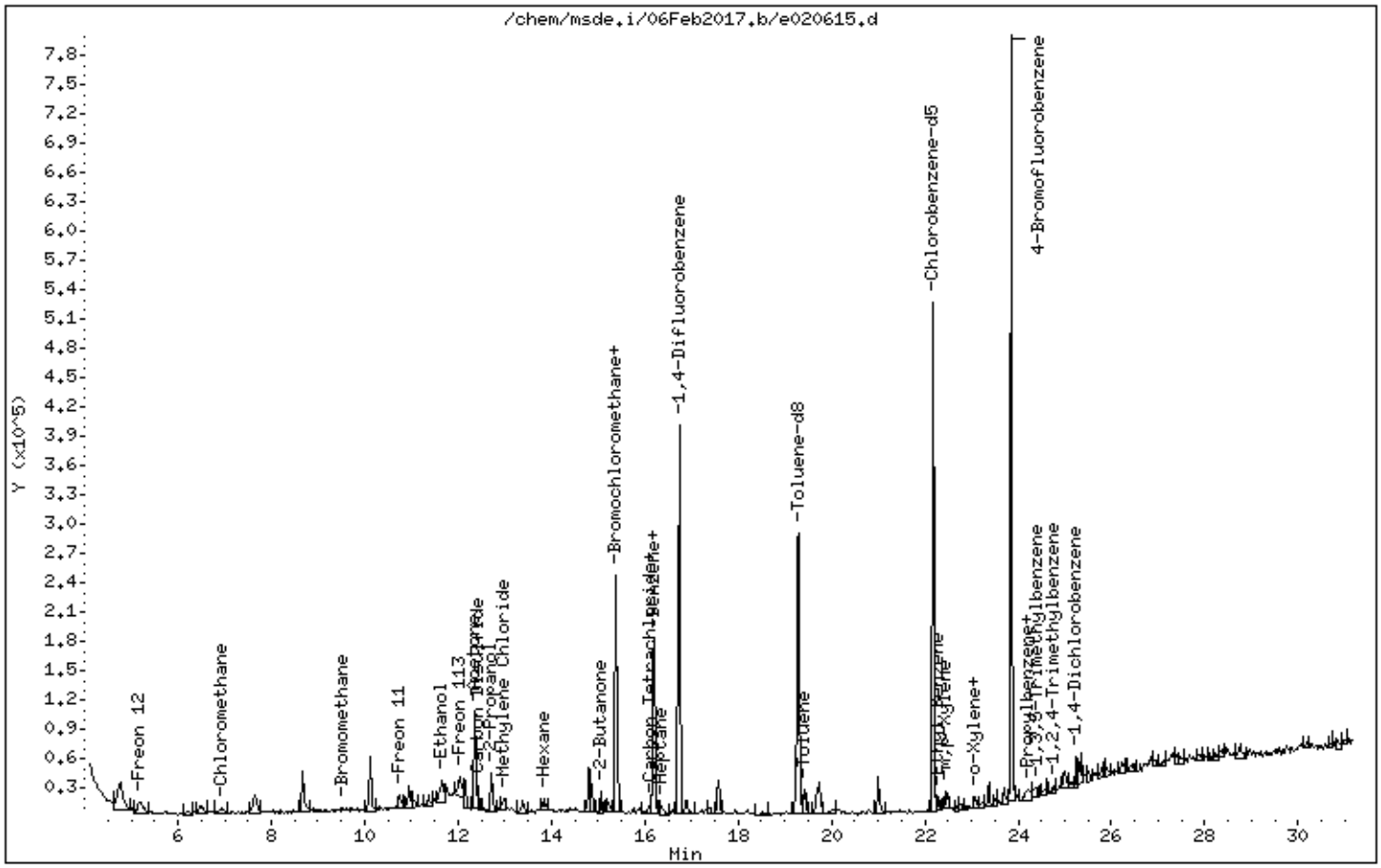
Instrument: msde.i

Sample Info: 250mL#00316

Operator: EA

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

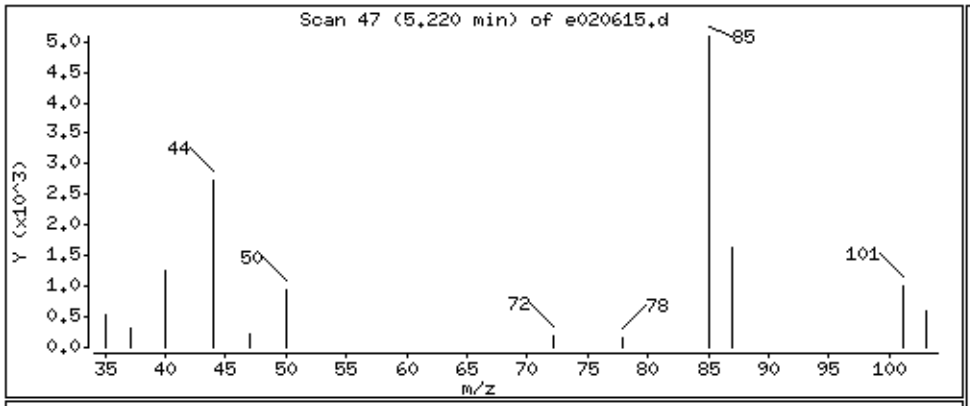
Operator: EA

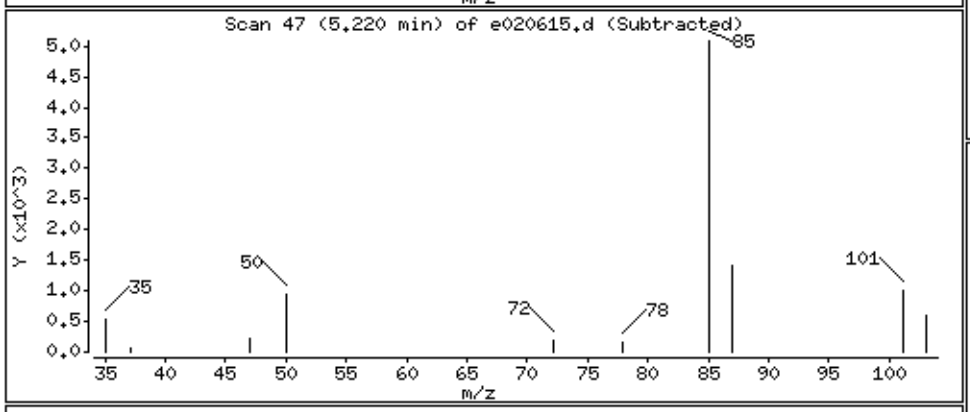
Column phase: RTX-624

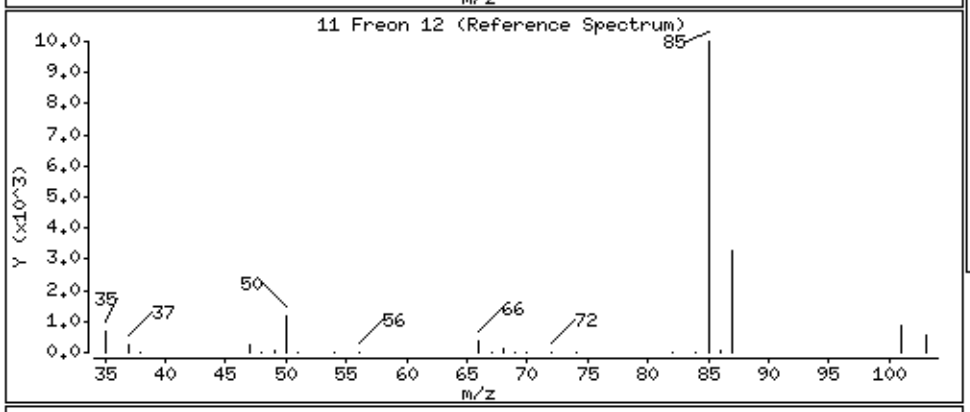
Column diameter: 0.32

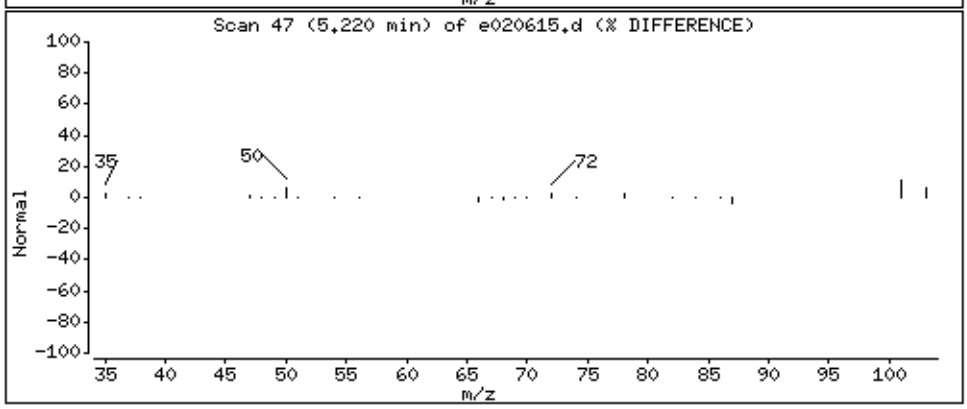
11 Freon 12

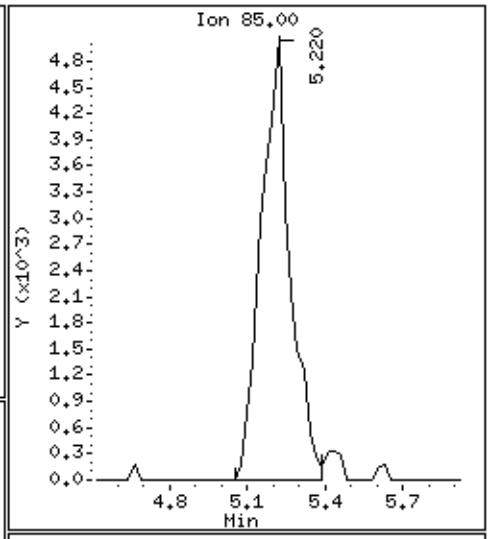
Concentration: 0.4930 PPBV

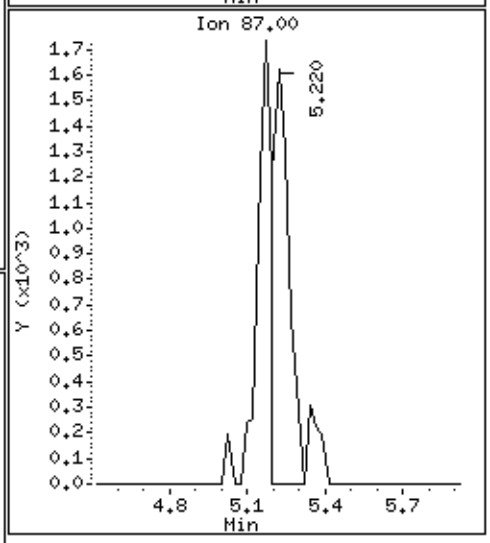












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

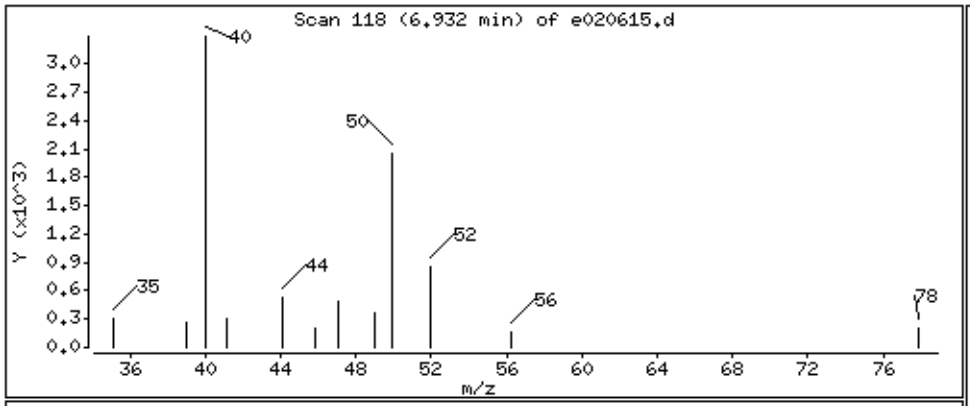
Operator: EA

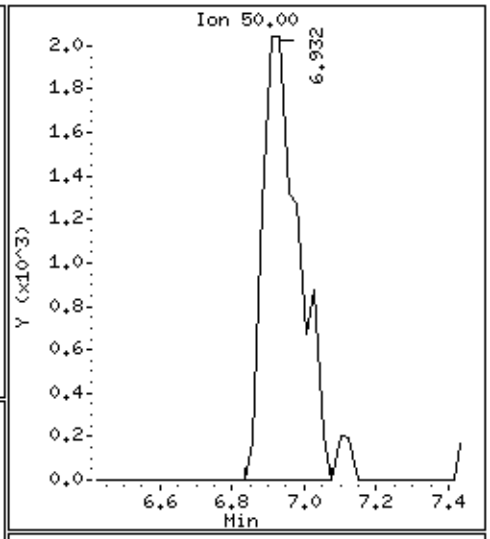
Column phase: RTX-624

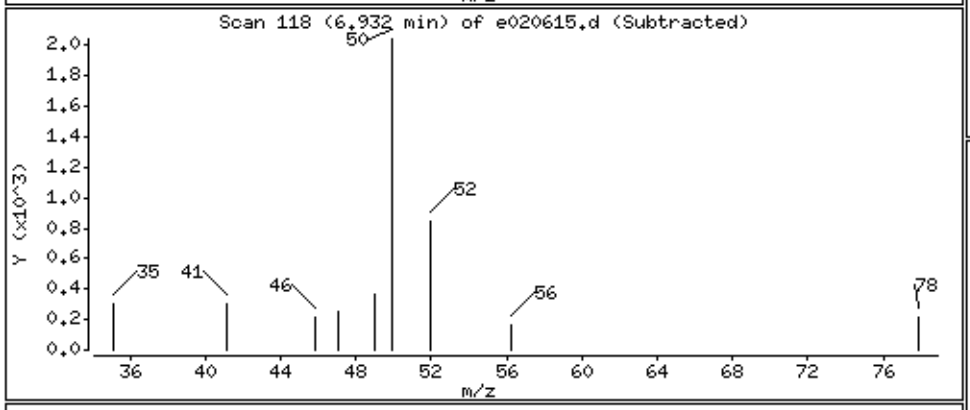
Column diameter: 0.32

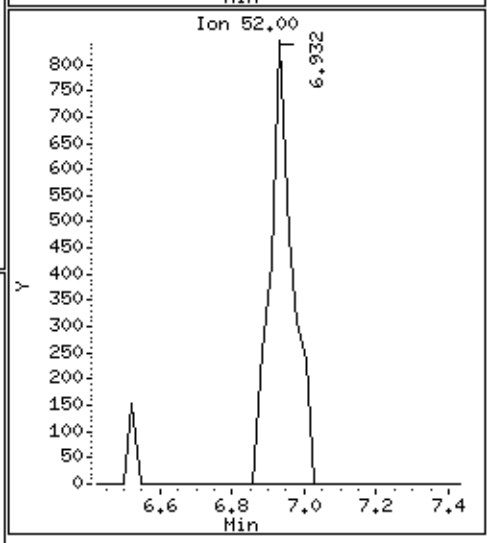
17 Chloromethane

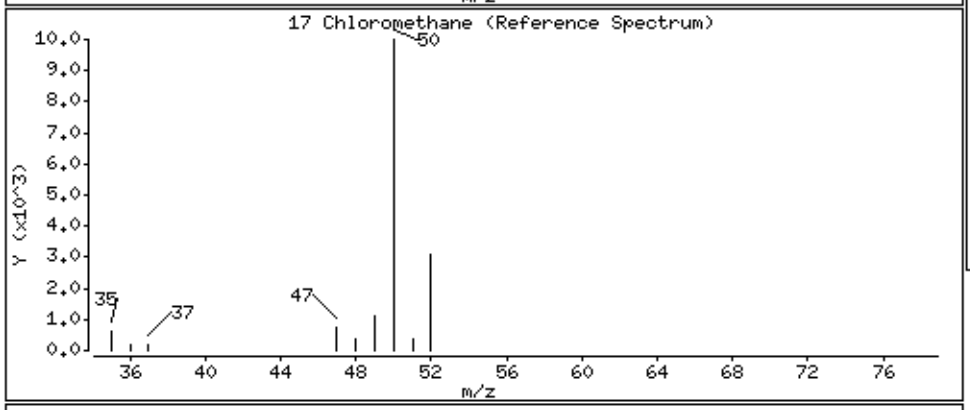
Concentration: 0.9667 PPBV

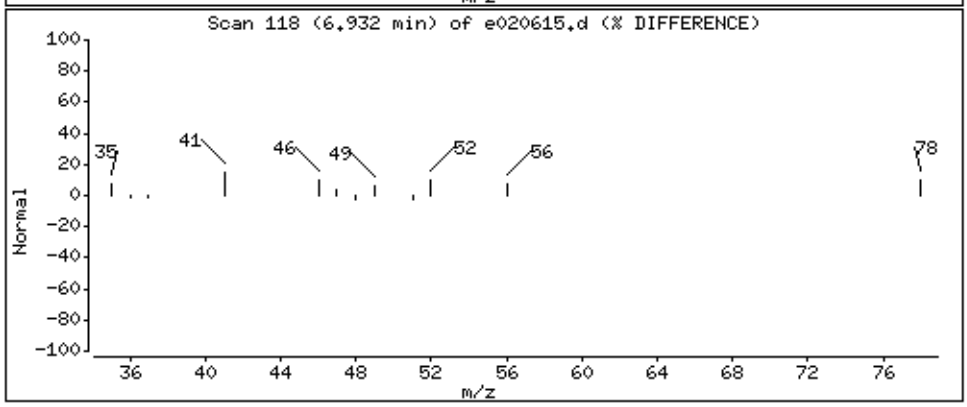












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

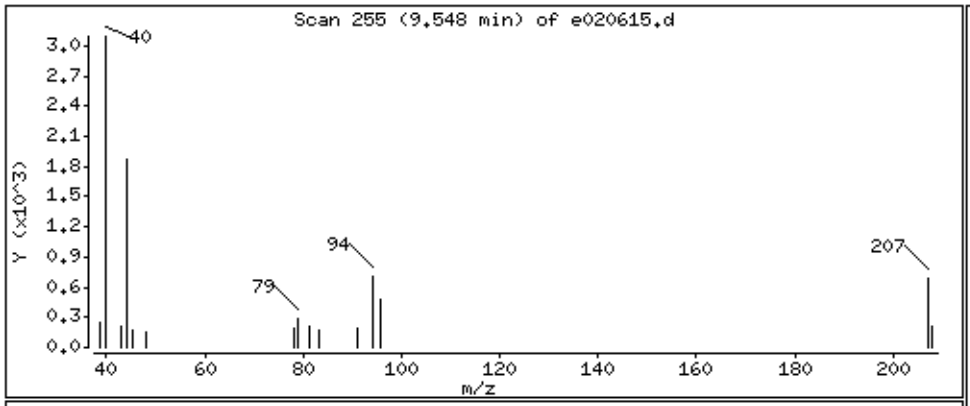
Operator: EA

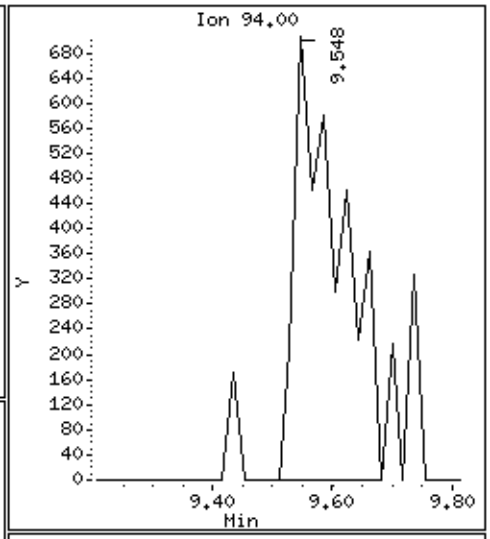
Column phase: RTX-624

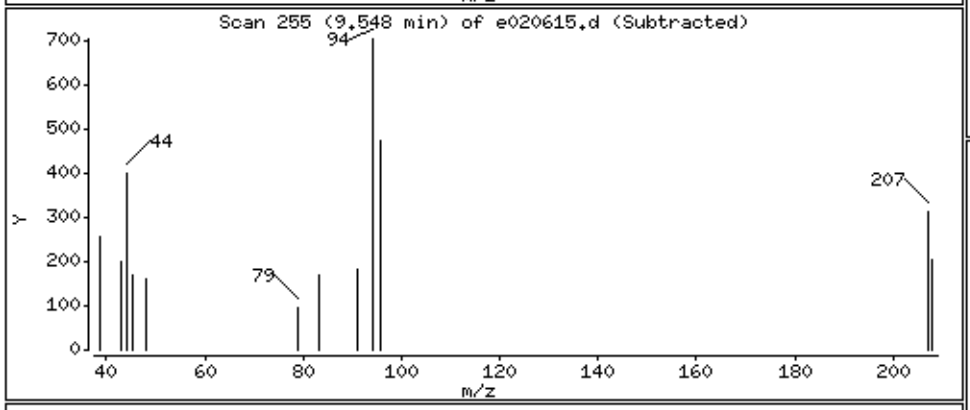
Column diameter: 0.32

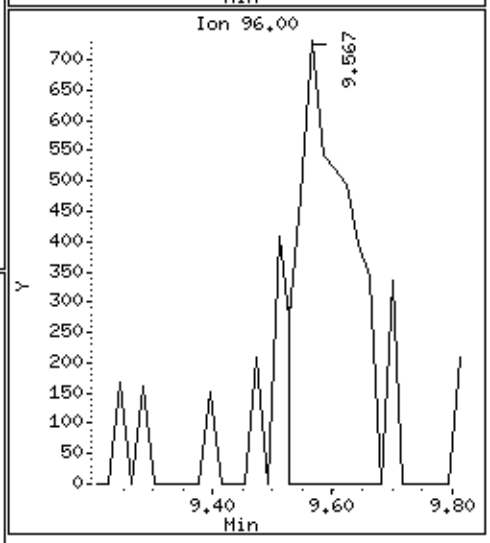
29 Bromomethane

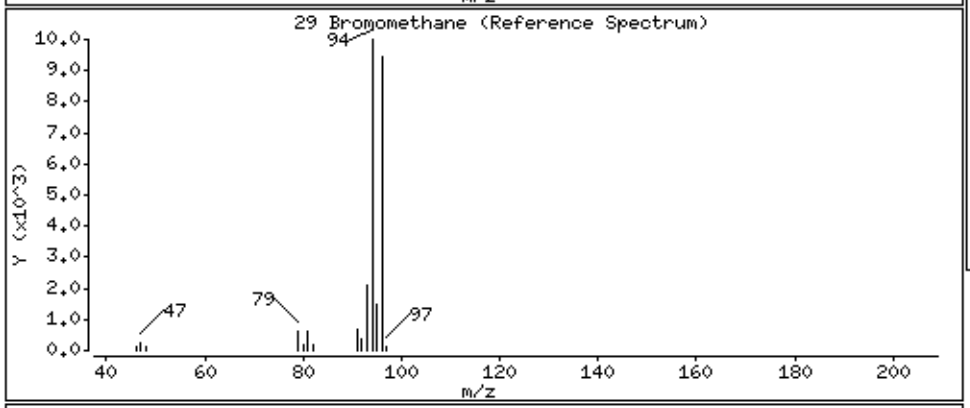
Concentration: 0.1738 PPBV

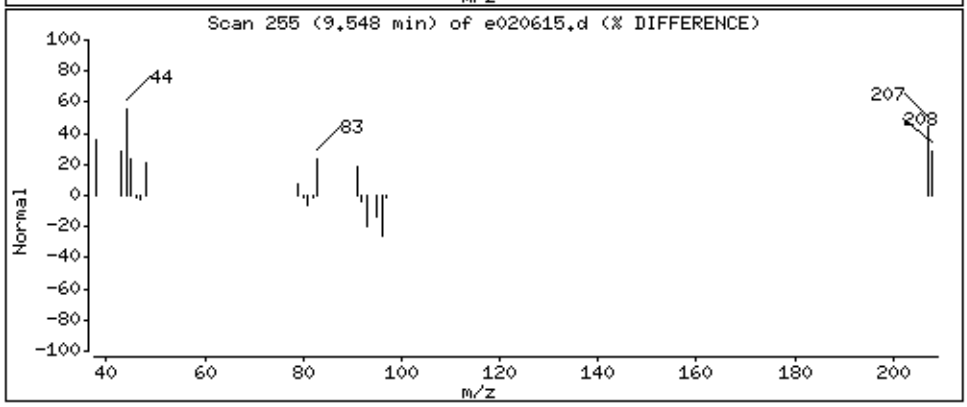












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

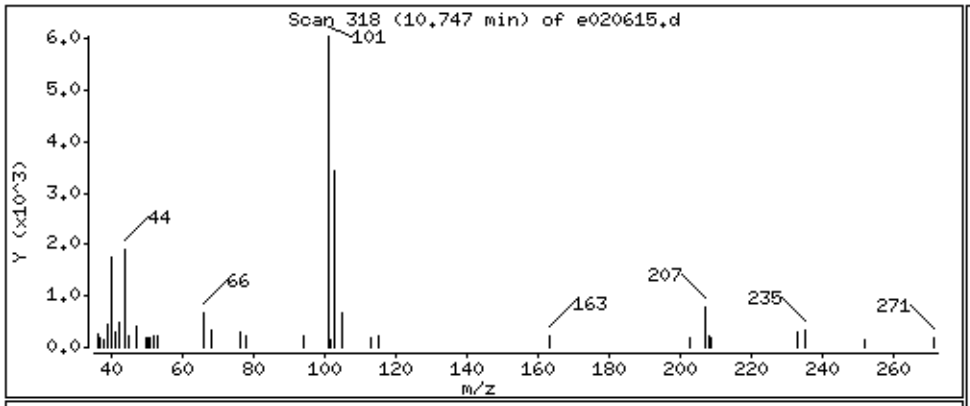
Operator: EA

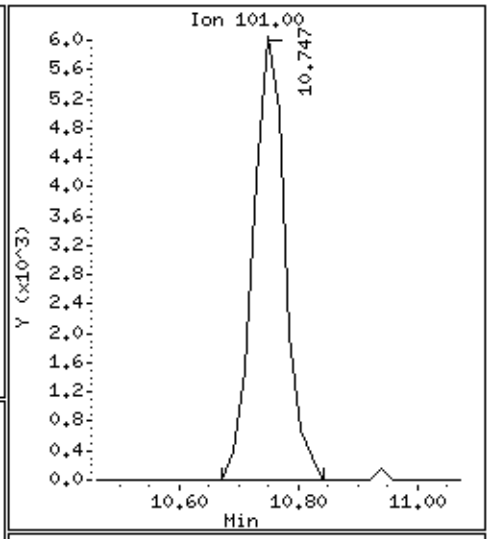
Column phase: RTX-624

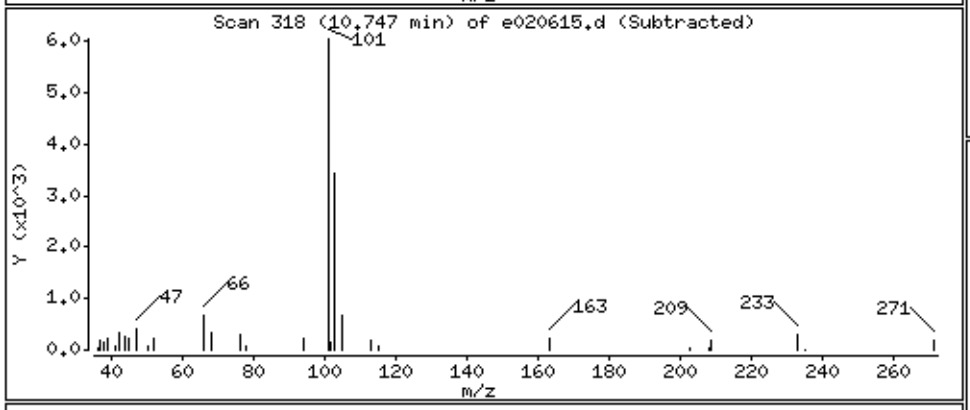
Column diameter: 0.32

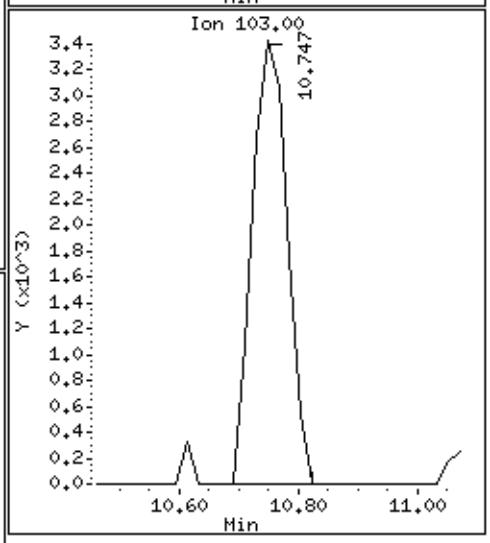
35 Freon 11

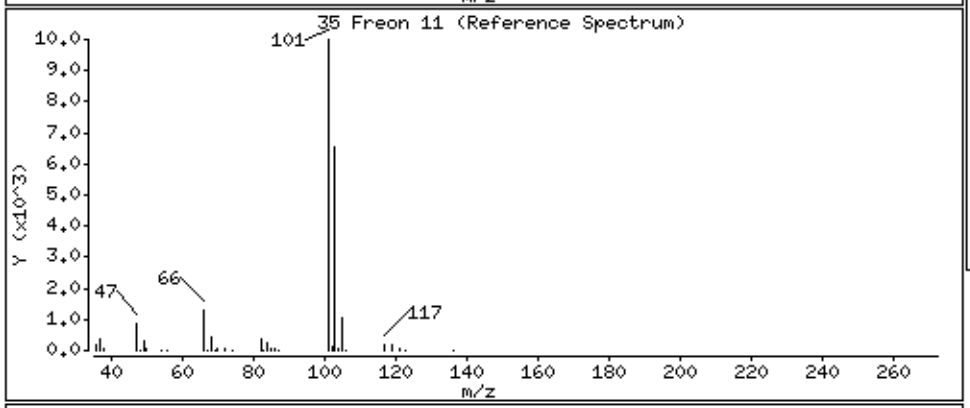
Concentration: 0.2475 PPBV

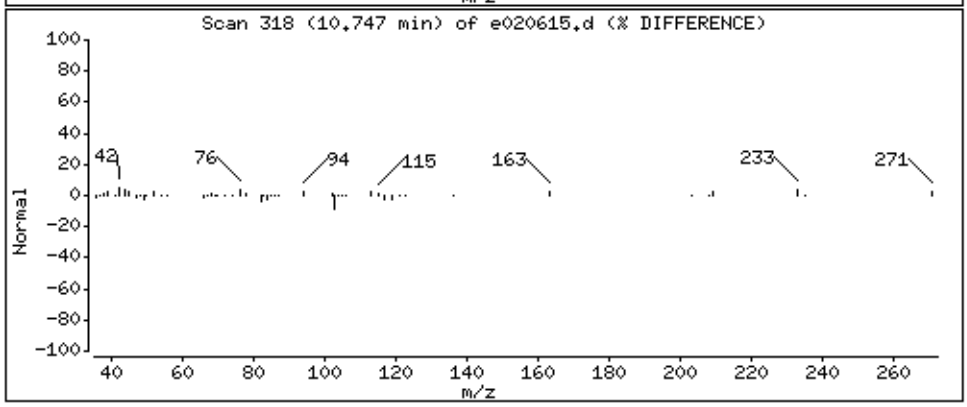












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

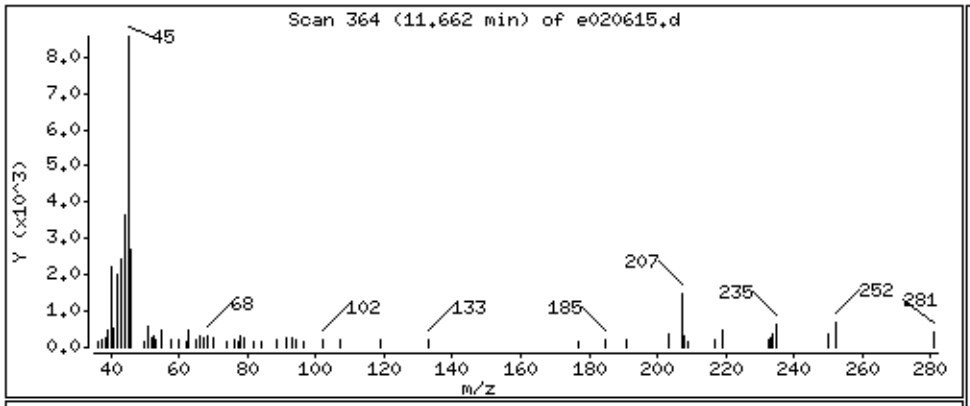
Operator: EA

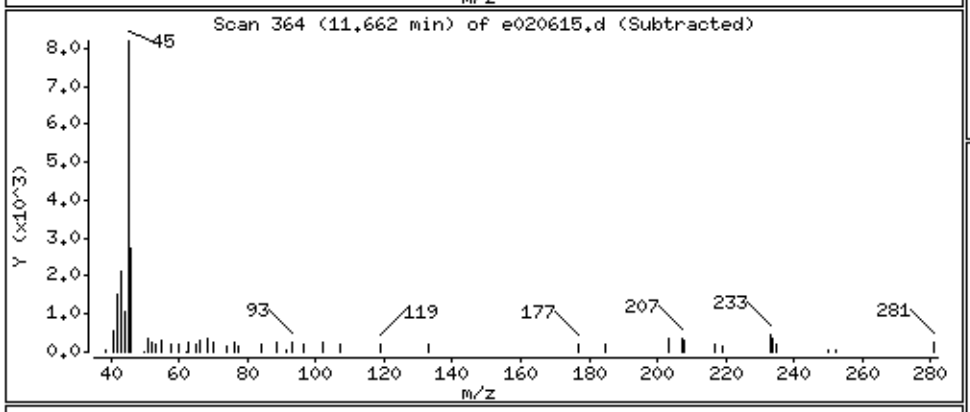
Column phase: RTX-624

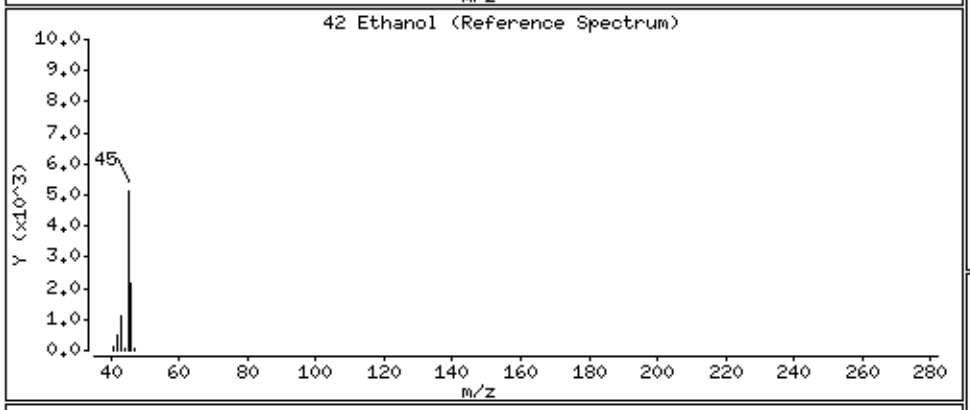
Column diameter: 0.32

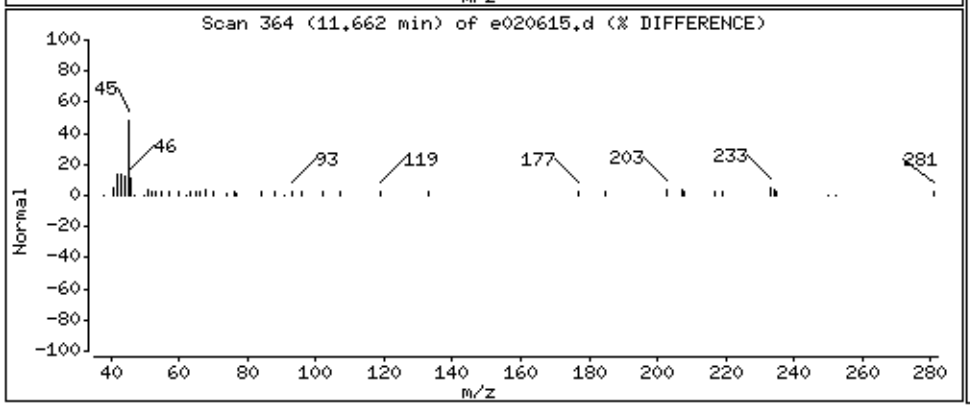
42 Ethanol

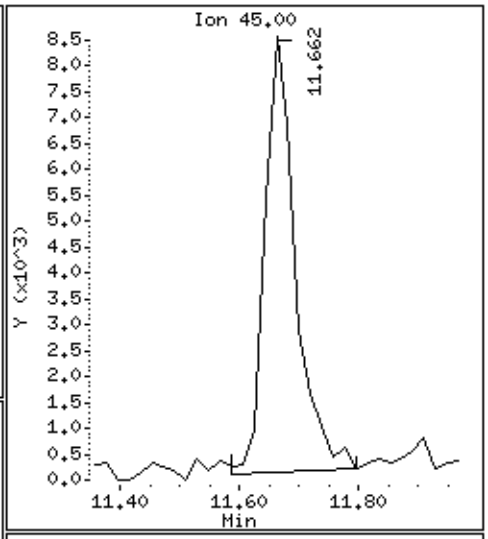
Concentration: 3.871 PPBV

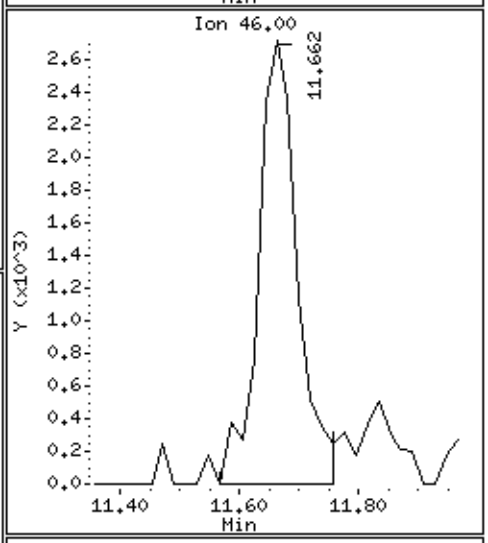


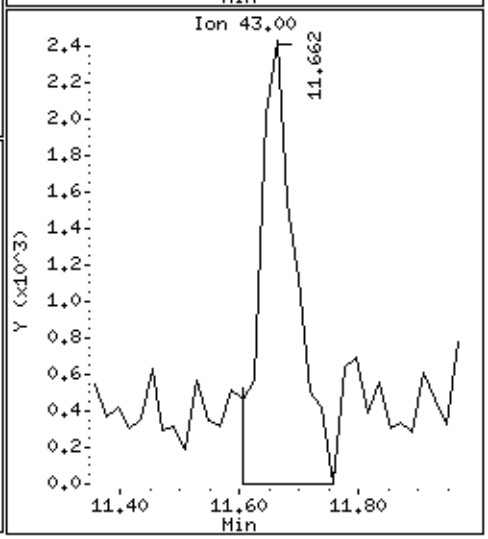












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

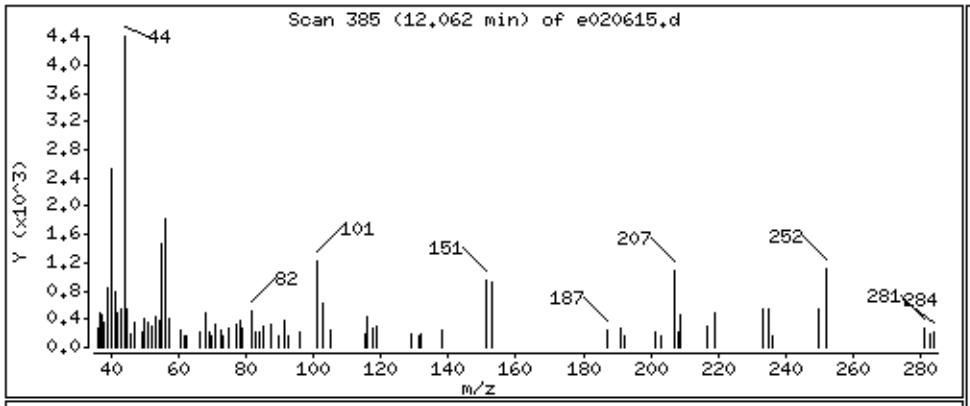
Operator: EA

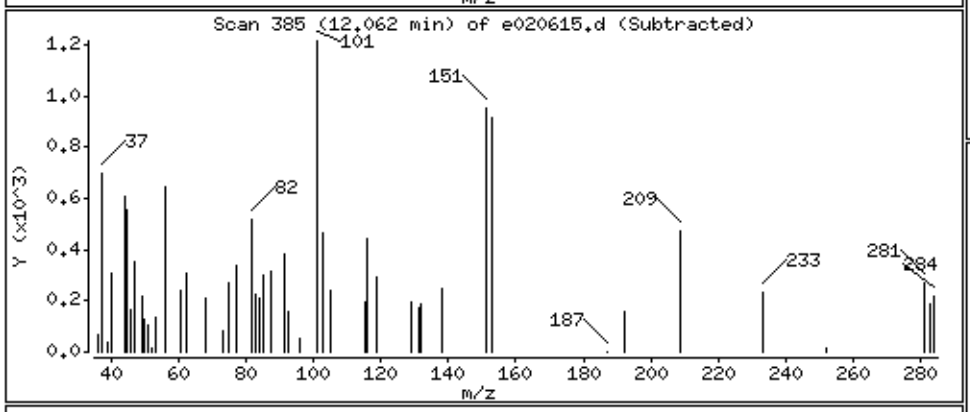
Column phase: RTX-624

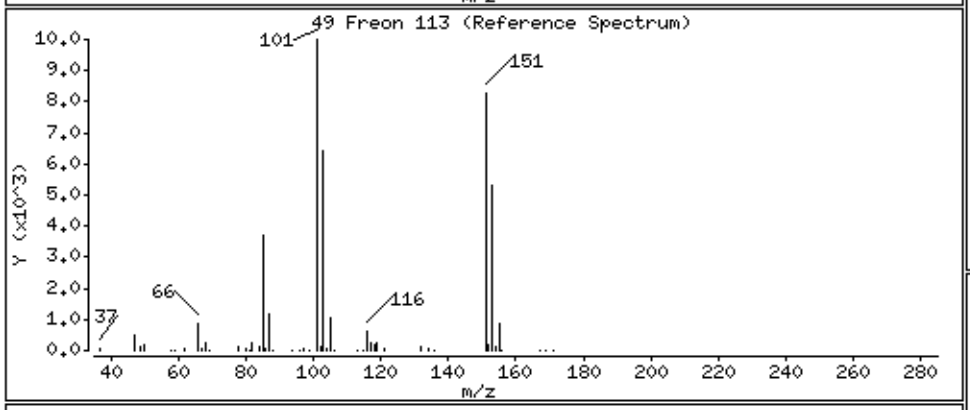
Column diameter: 0.32

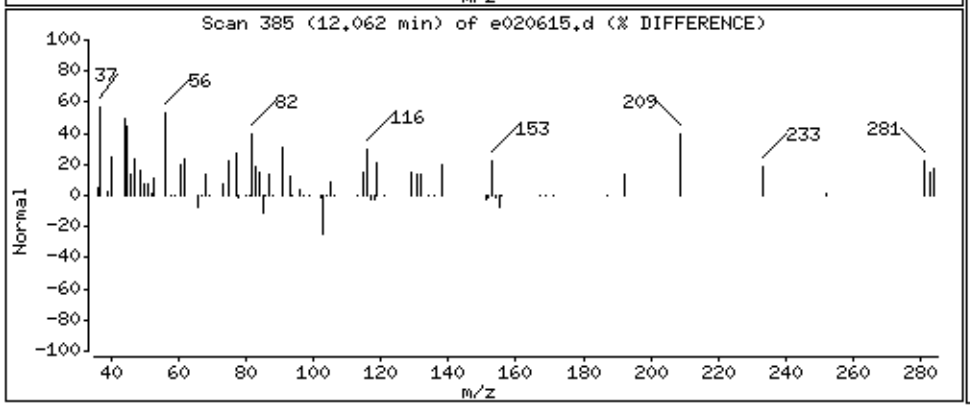
49 Freon 113

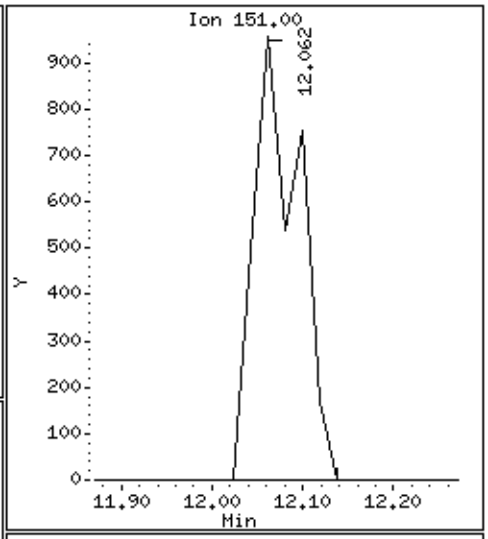
Concentration: 0.05380 PPBV

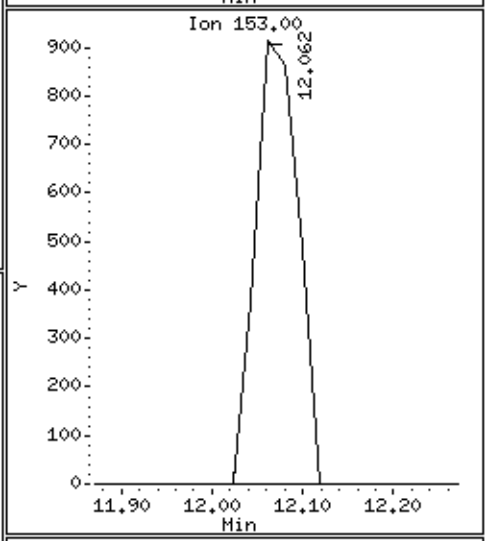


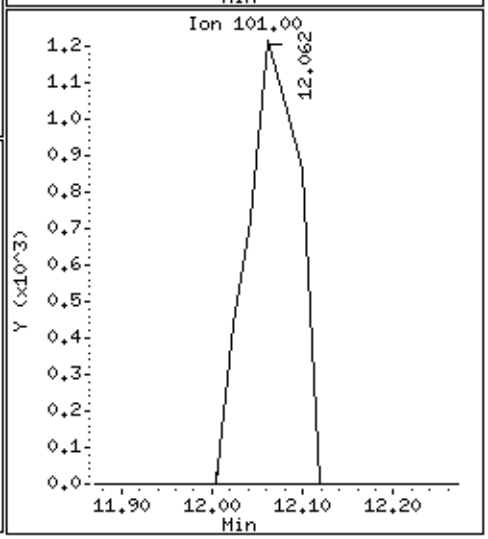












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

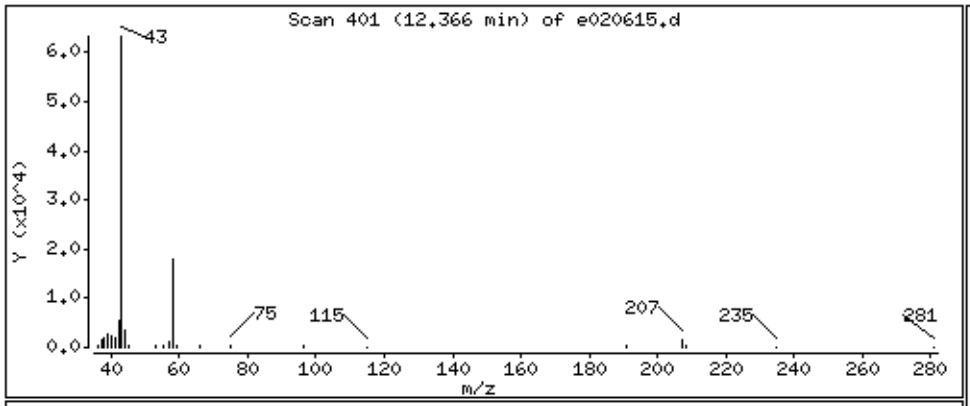
Operator: EA

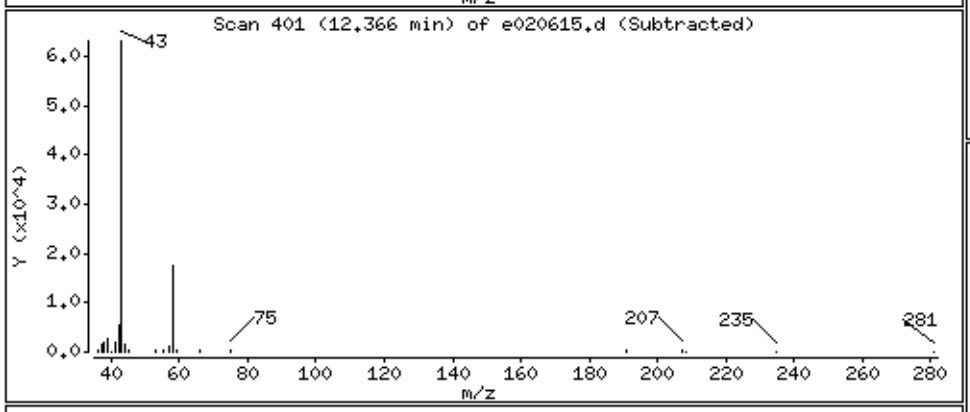
Column phase: RTX-624

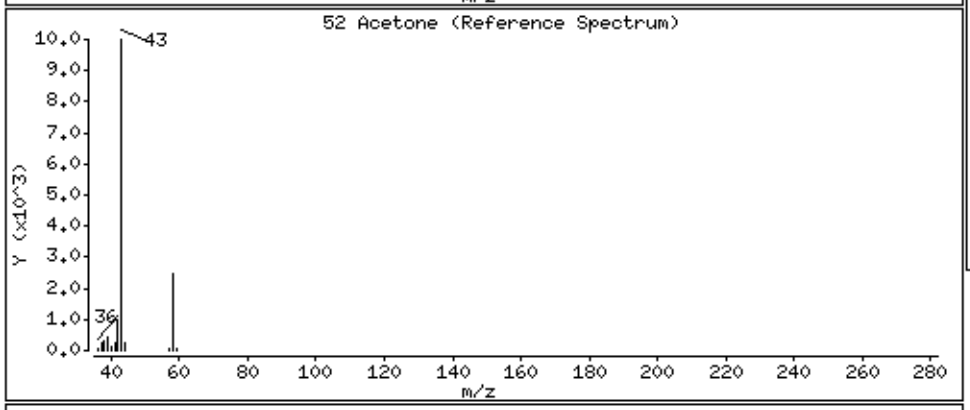
Column diameter: 0.32

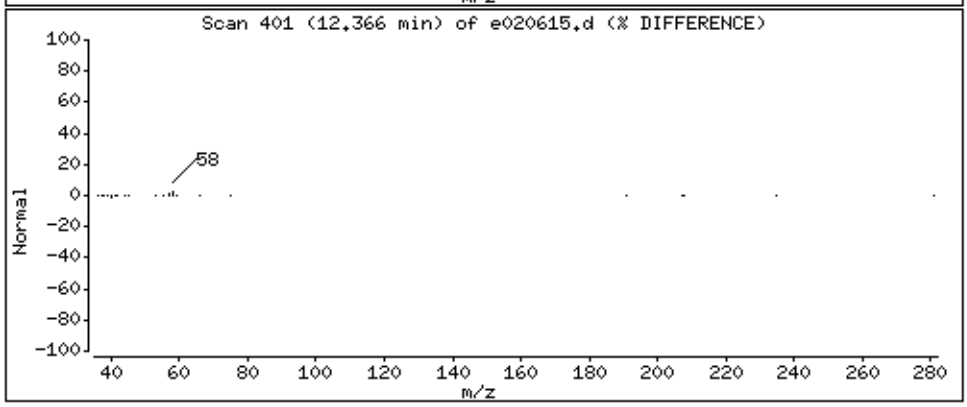
52 Acetone

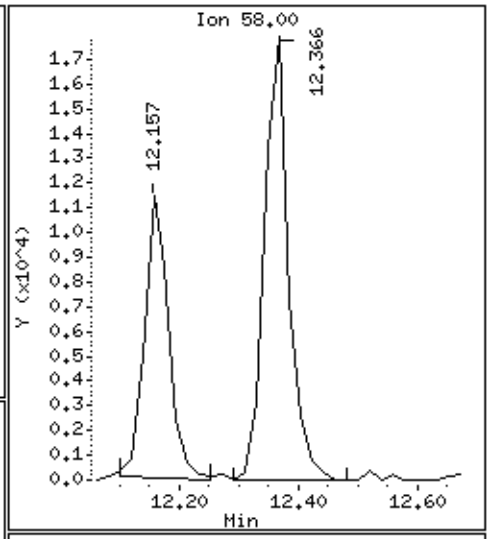
Concentration: 5.155 PPBV

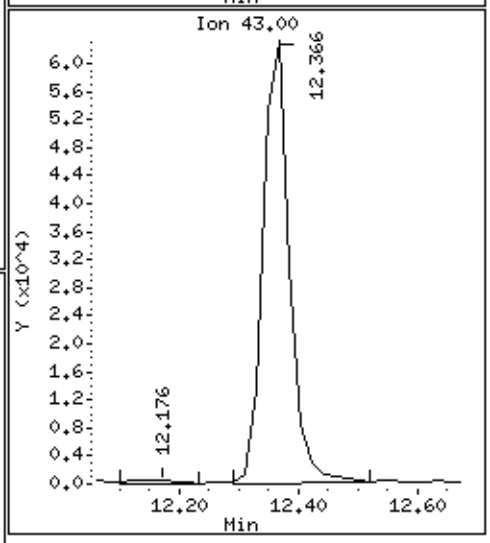












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

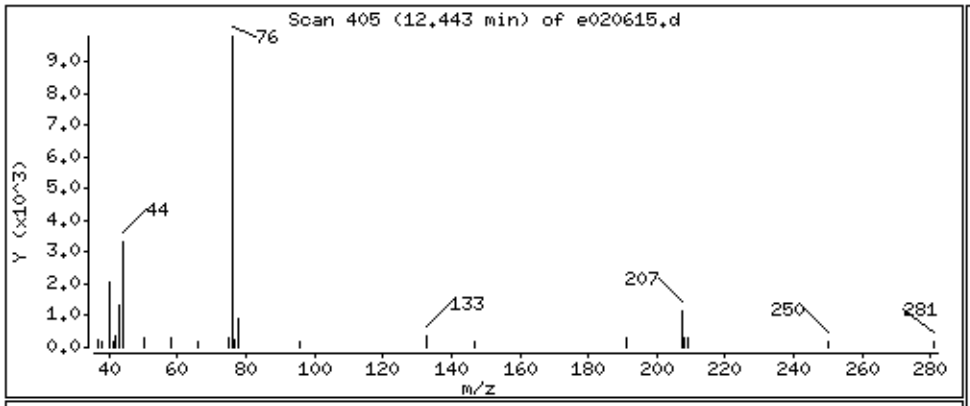
Operator: EA

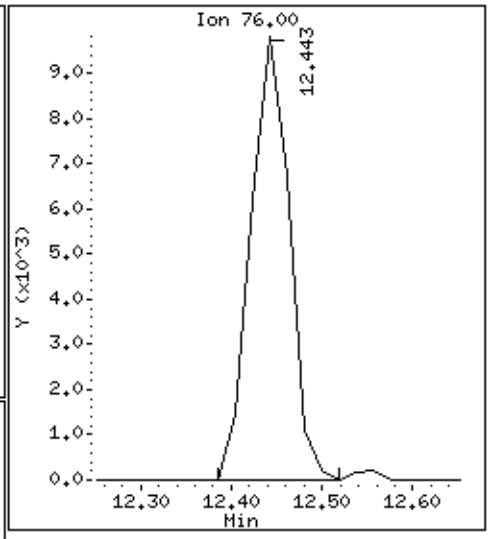
Column phase: RTX-624

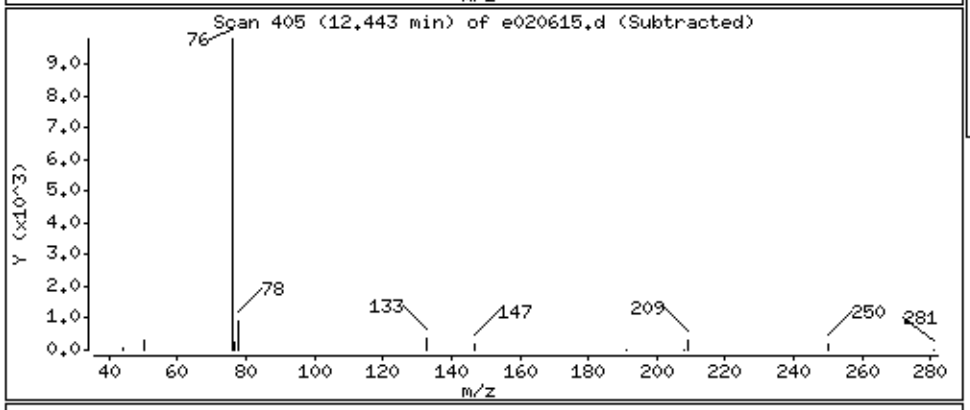
Column diameter: 0.32

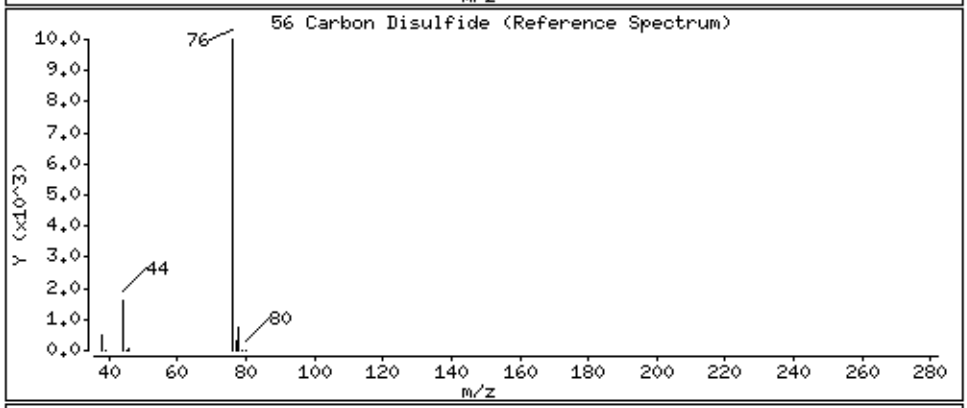
56 Carbon Disulfide

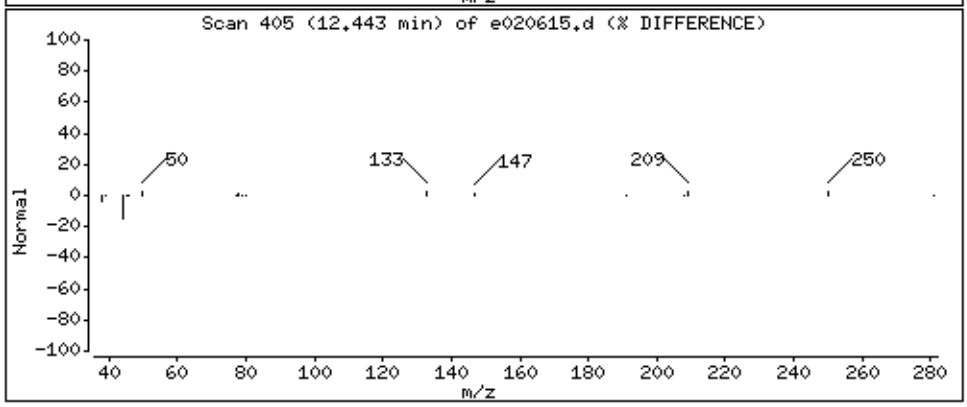
Concentration: 0.4151 PPBV











Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

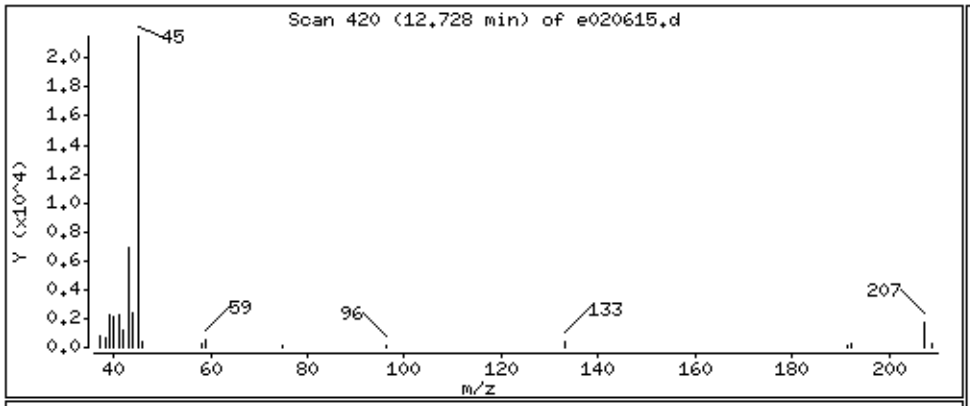
Operator: EA

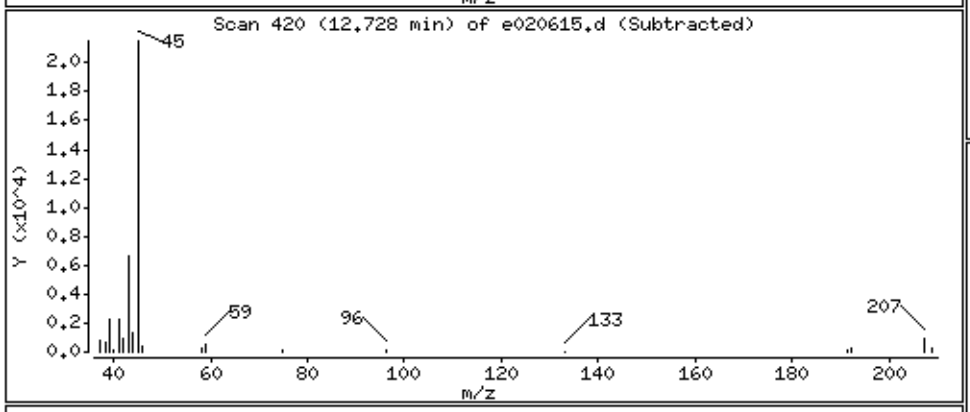
Column phase: RTX-624

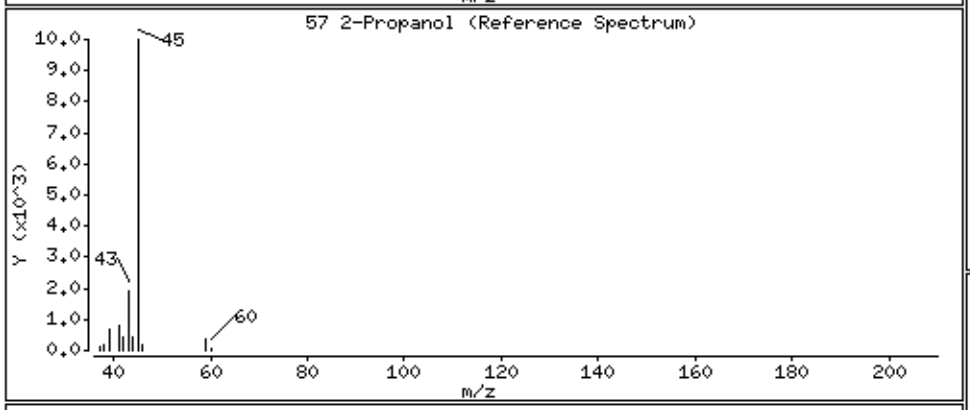
Column diameter: 0.32

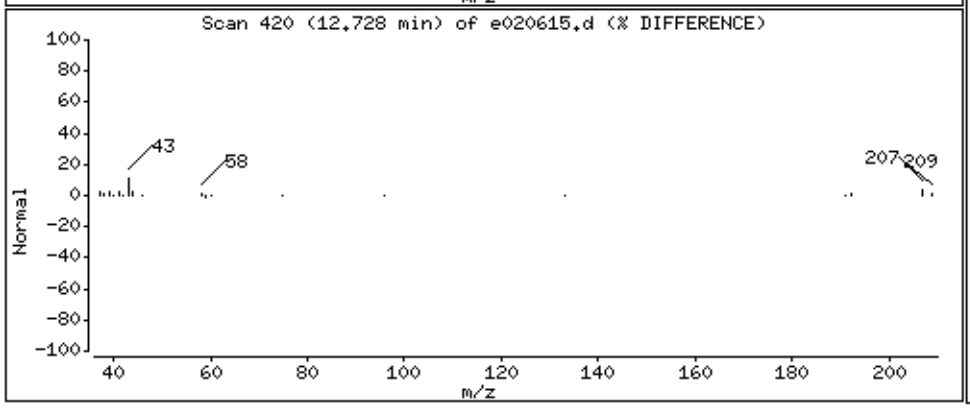
57 2-Propanol

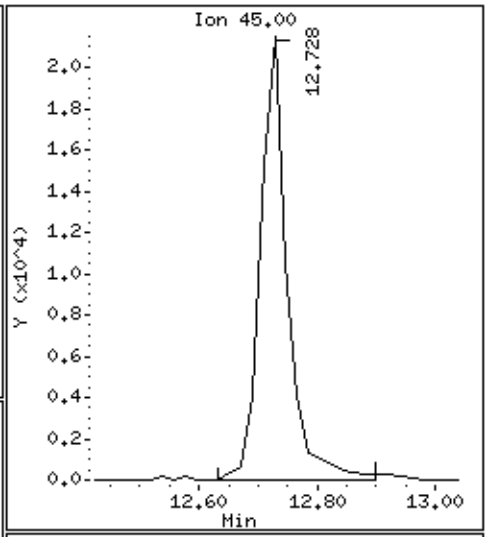
Concentration: 2.132 PPBV

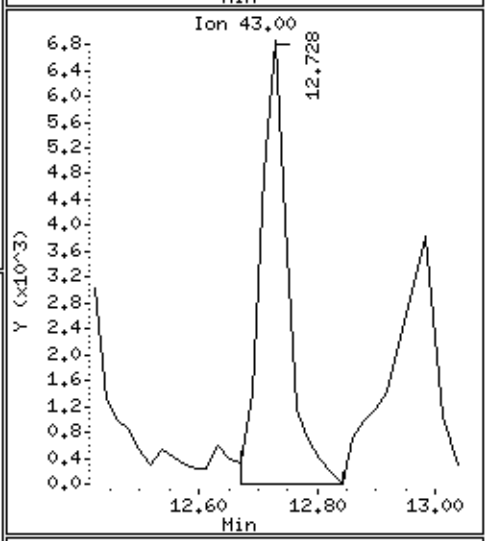


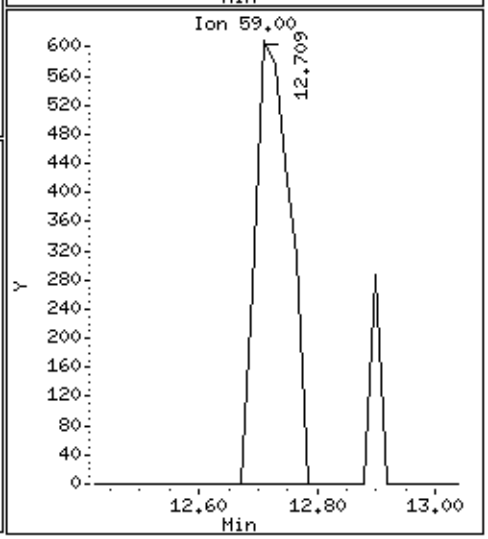












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

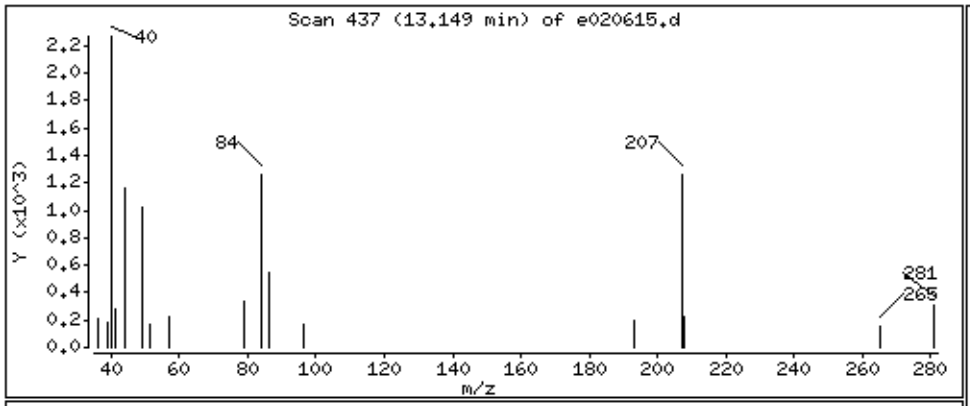
Operator: EA

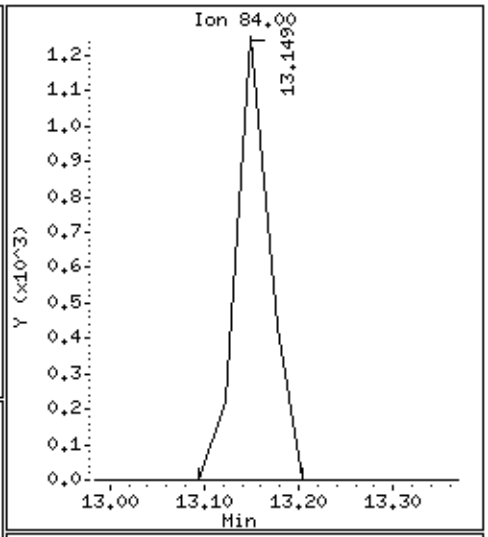
Column phase: RTX-624

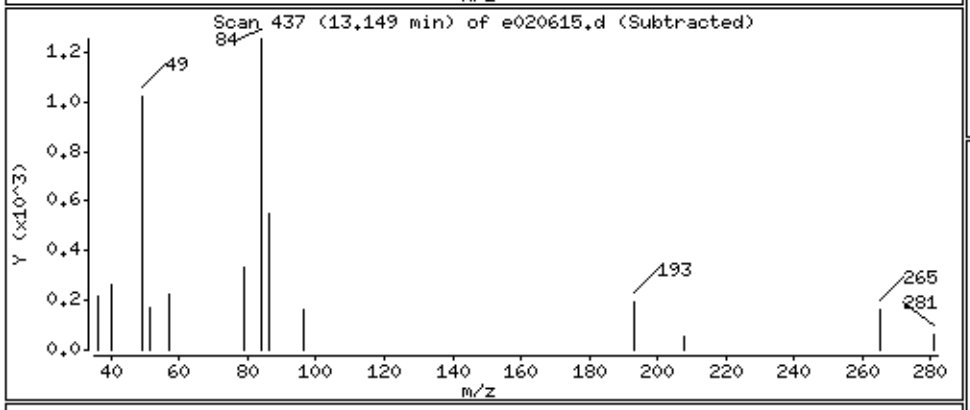
Column diameter: 0.32

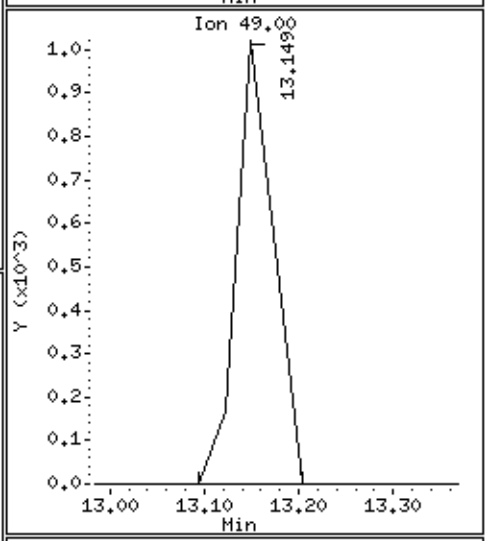
66 Methylene Chloride

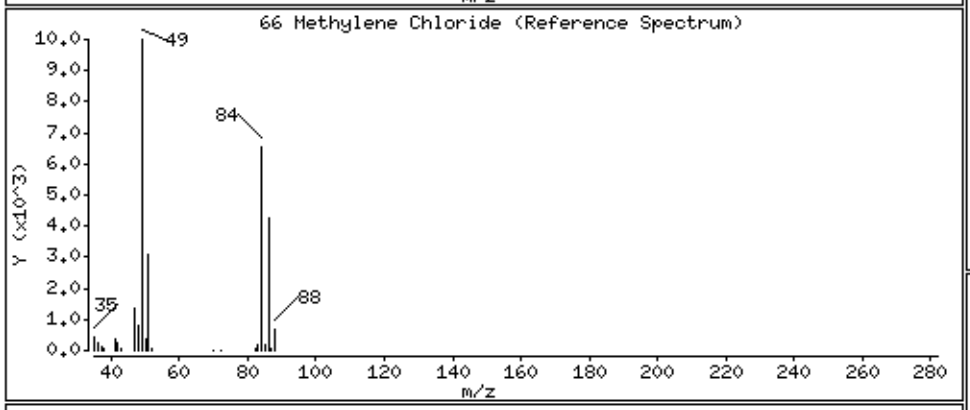
Concentration: 0.1268 PPBV

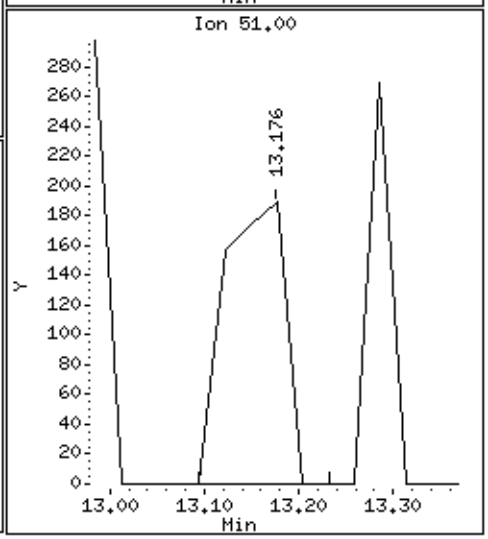


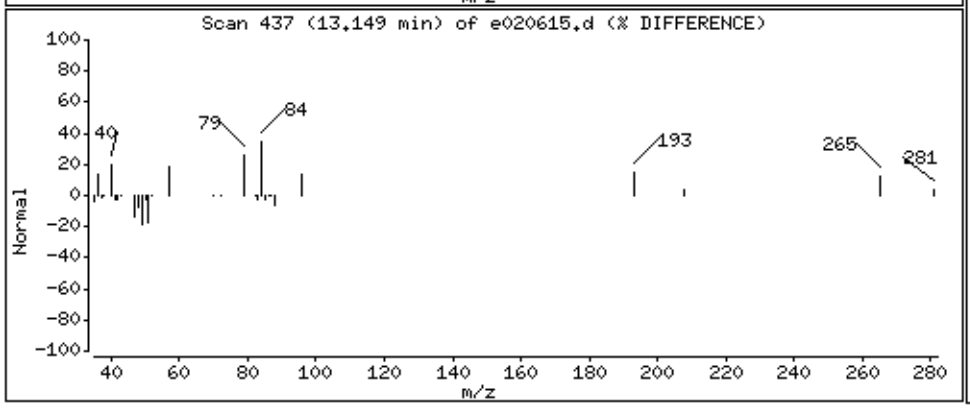












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

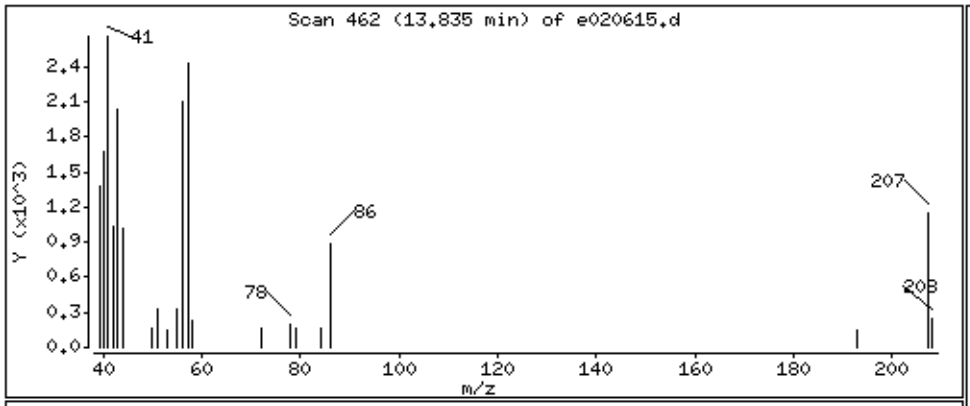
Operator: EA

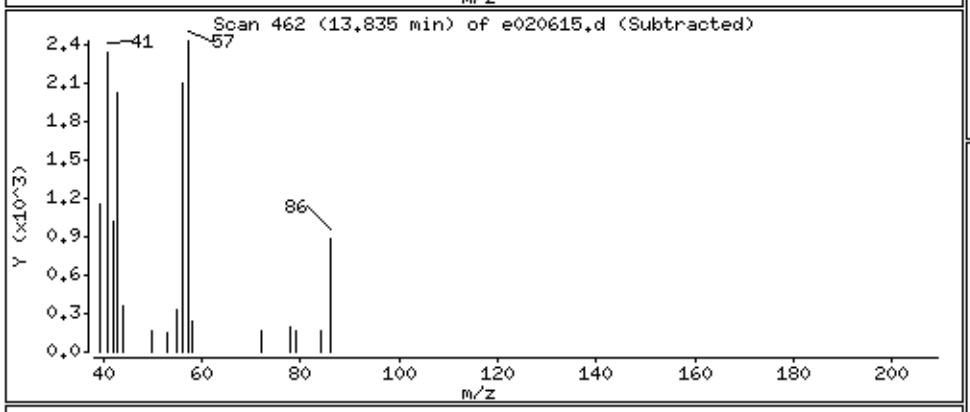
Column phase: RTX-624

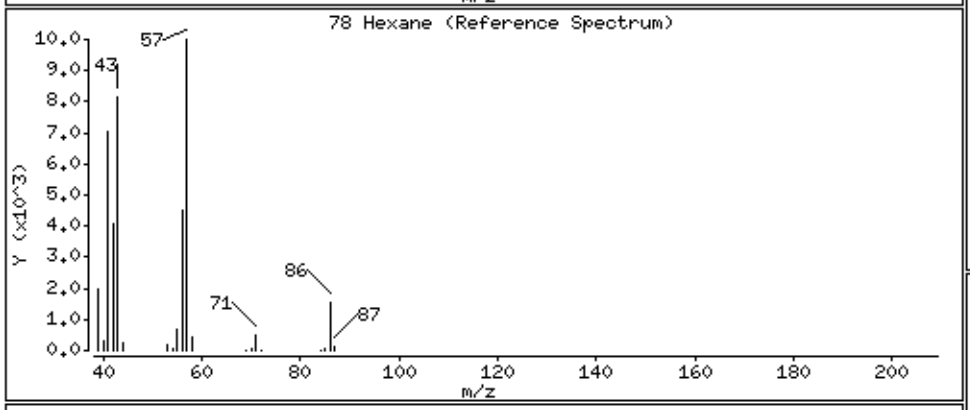
Column diameter: 0.32

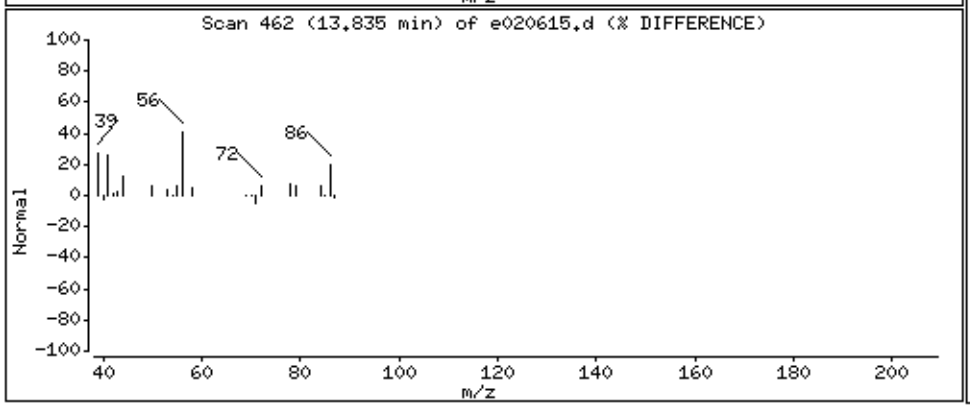
78 Hexane

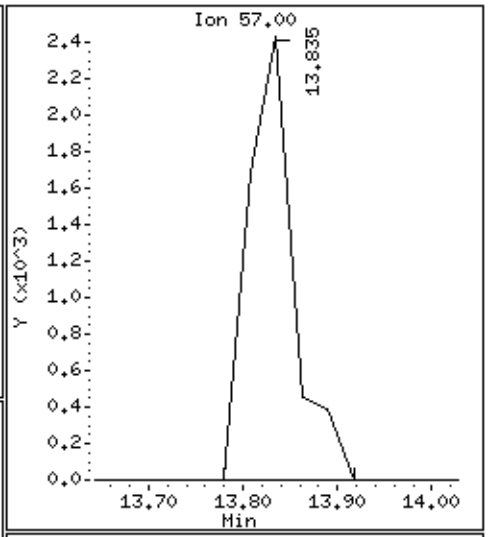
Concentration: 0.2770 PPBV

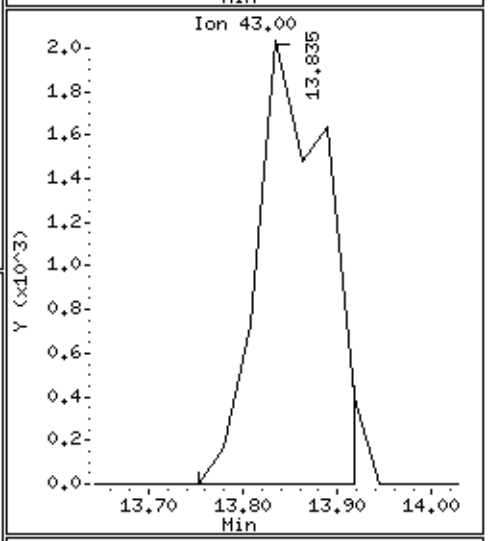


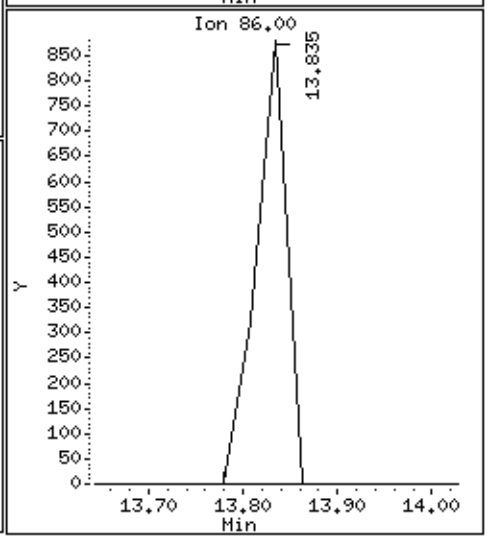












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

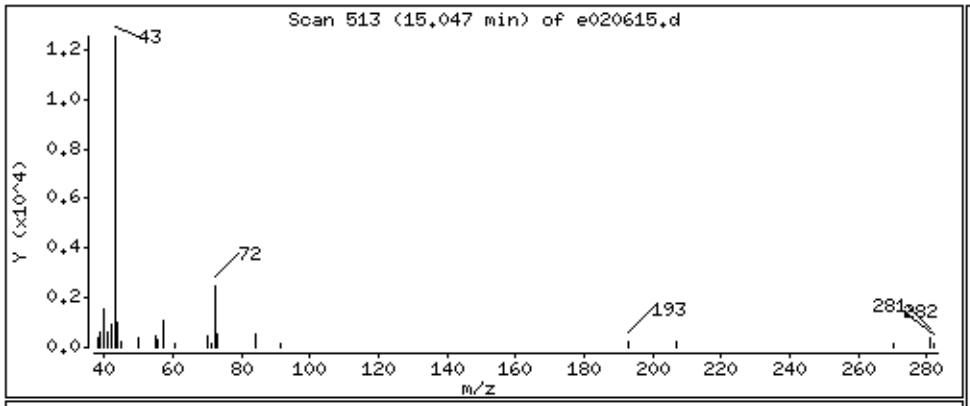
Operator: EA

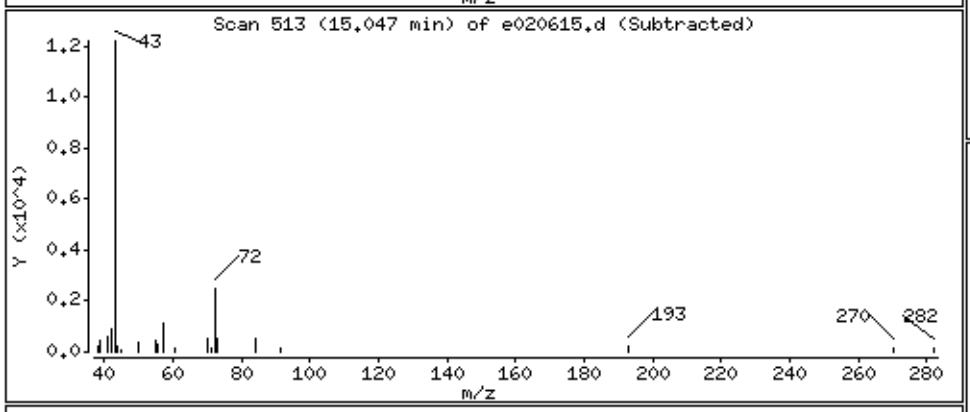
Column phase: RTX-624

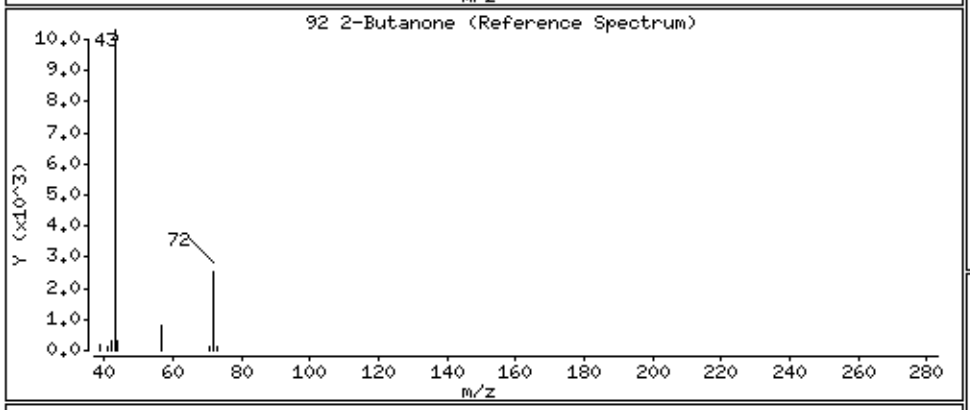
Column diameter: 0.32

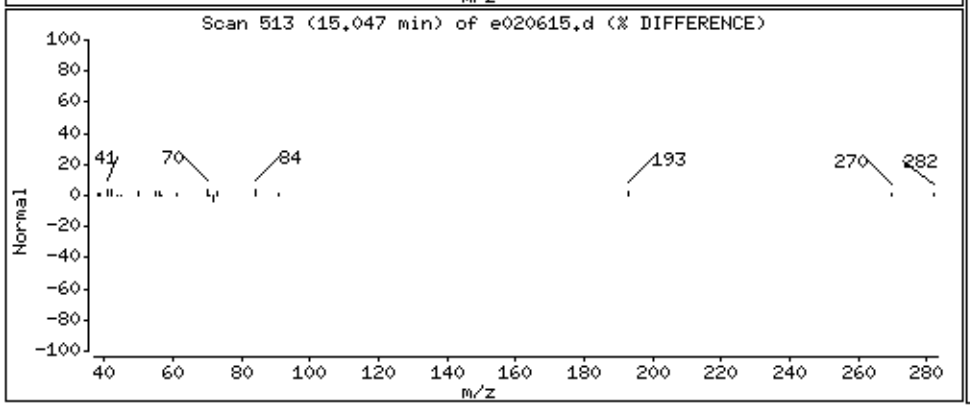
92 2-Butanone

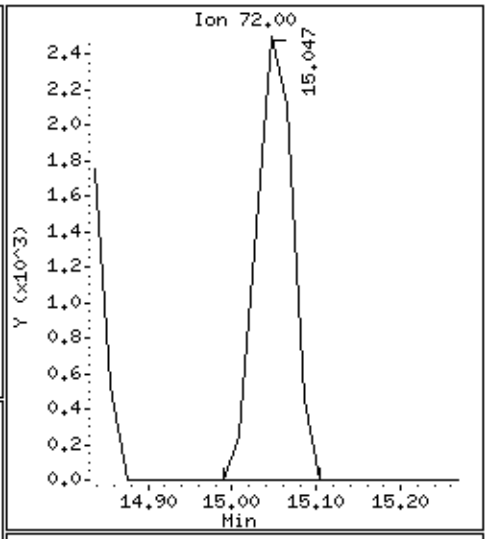
Concentration: 0.7008 PPBV

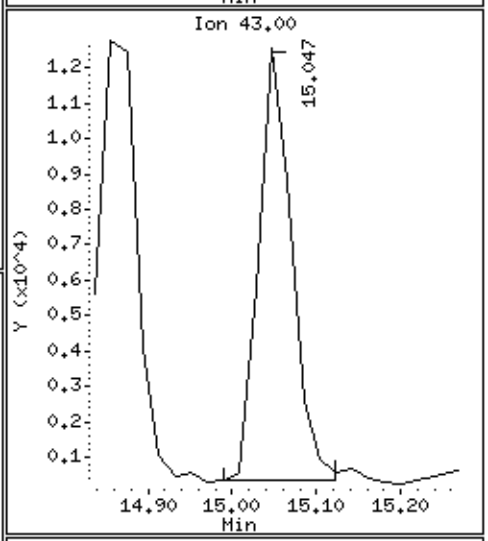


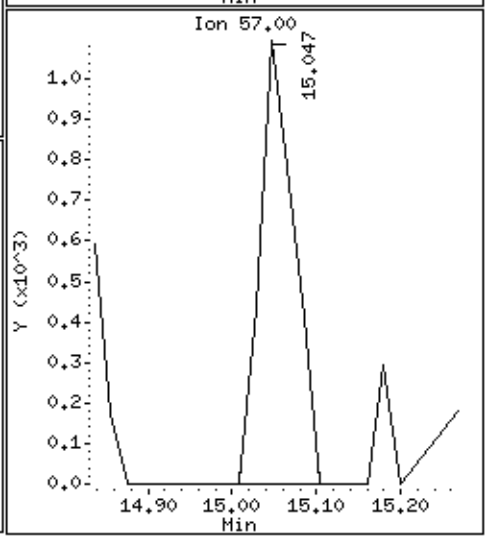












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

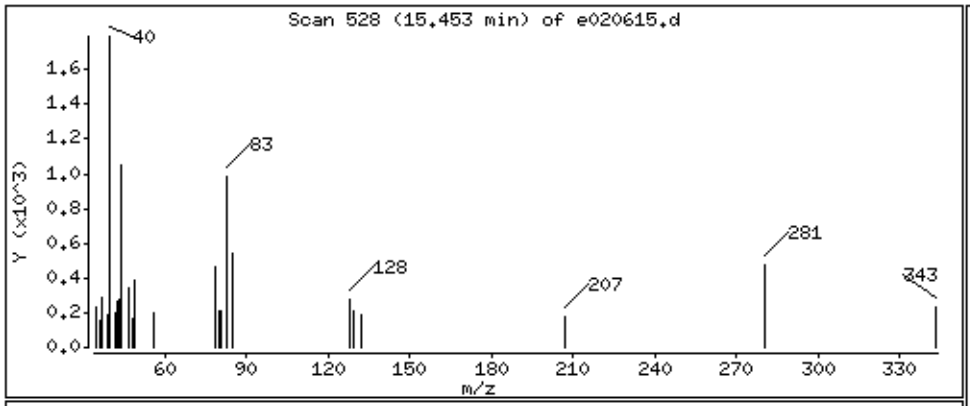
Operator: EA

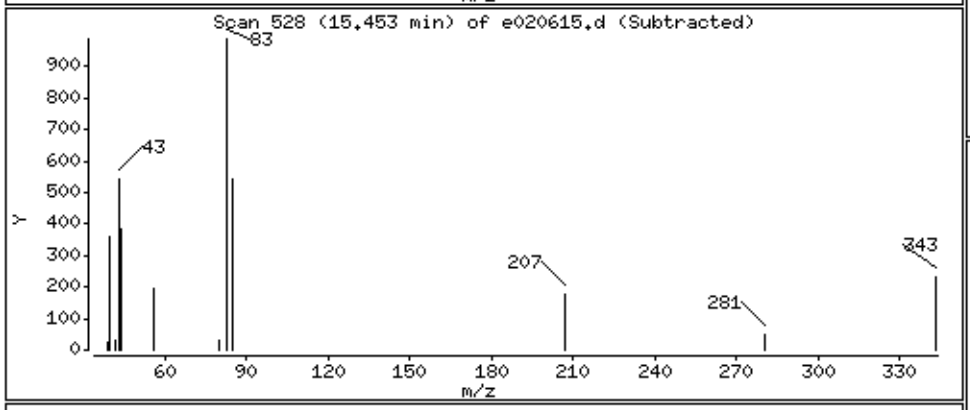
Column phase: RTX-624

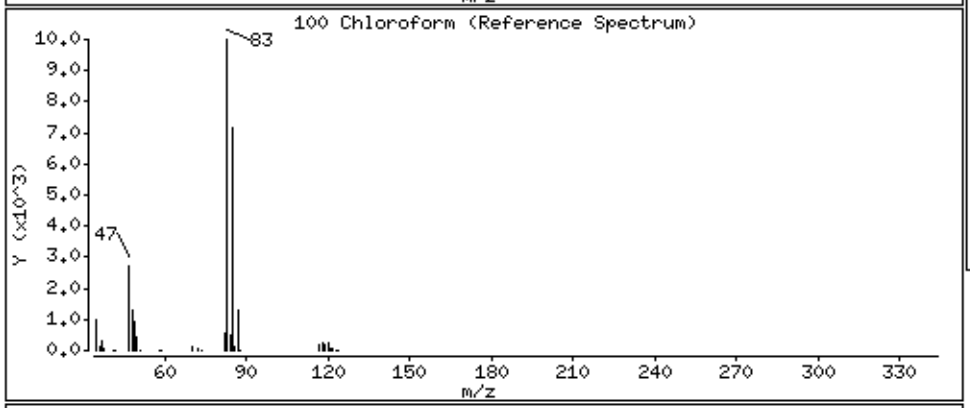
Column diameter: 0.32

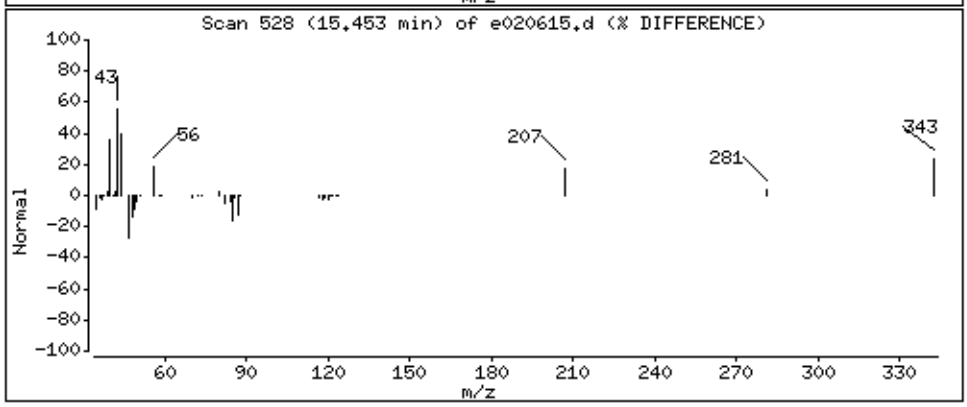
100 Chloroform

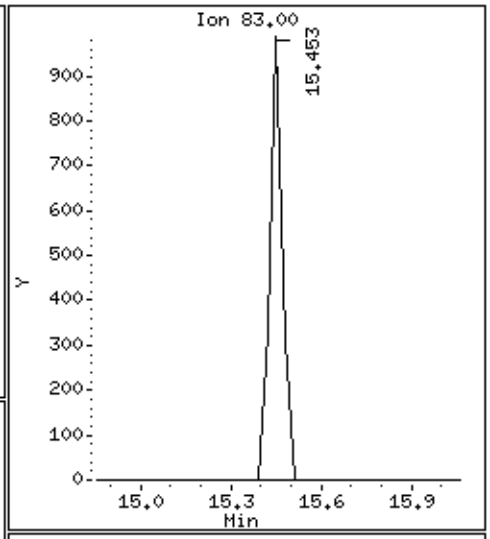
Concentration: 0.04666 PPBV

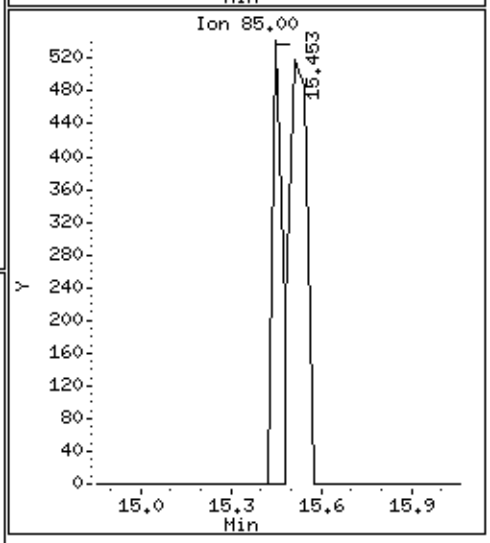












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

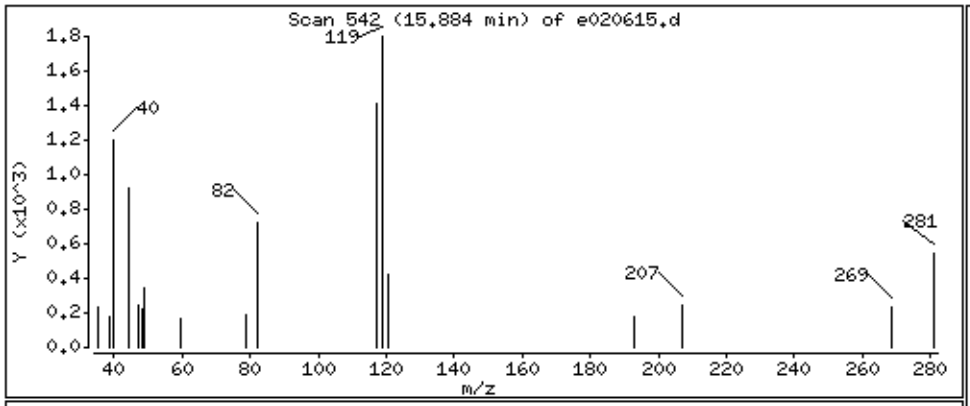
Operator: EA

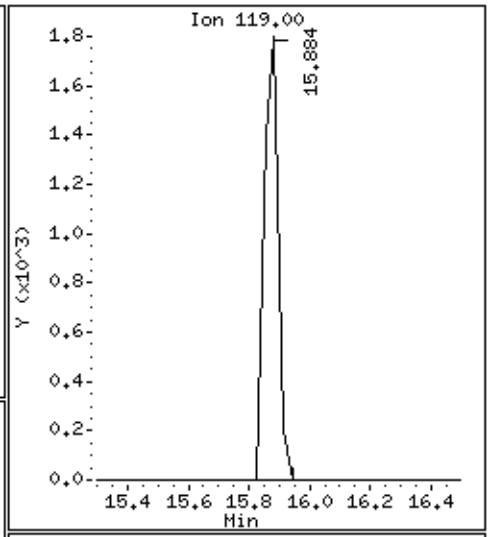
Column phase: RTX-624

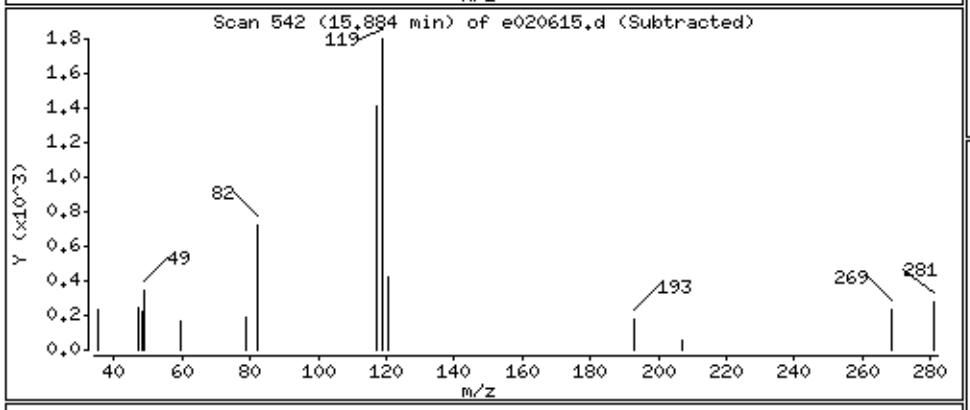
Column diameter: 0.32

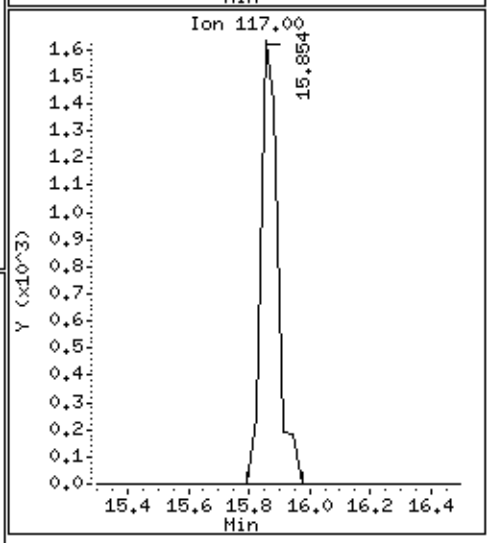
106 Carbon Tetrachloride

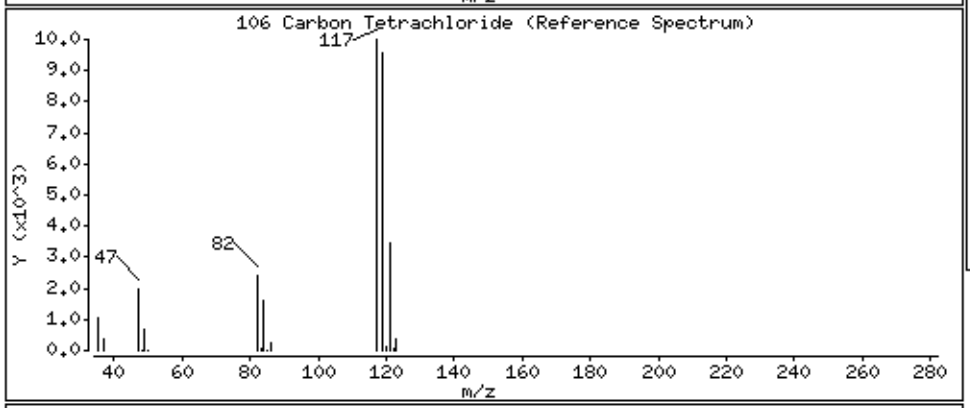
Concentration: 0.08490 PPBV

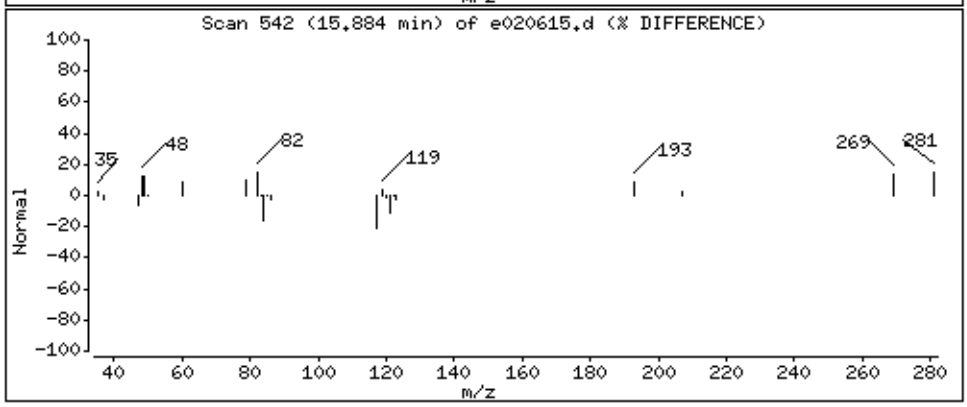












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

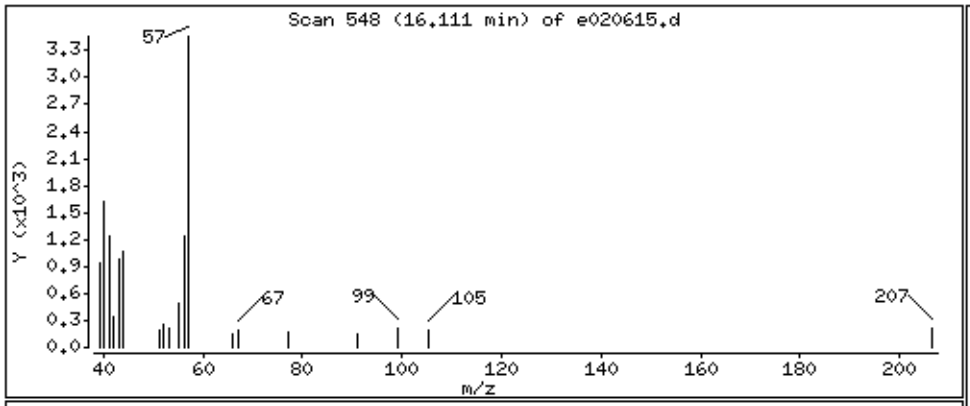
Operator: EA

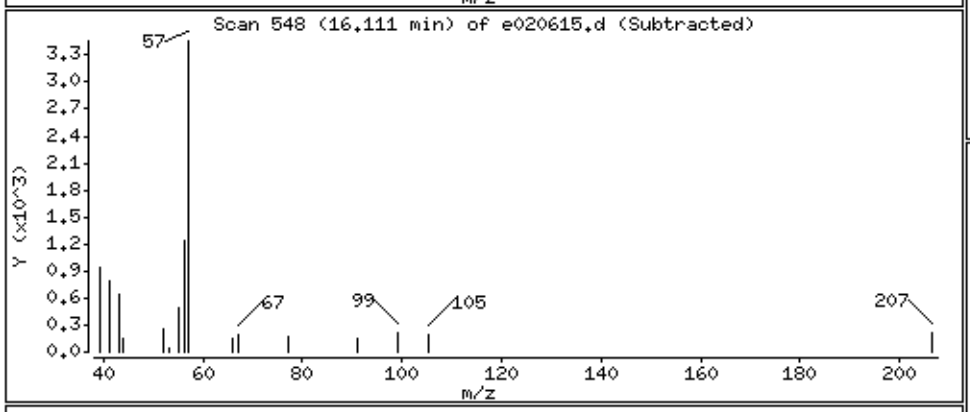
Column phase: RTX-624

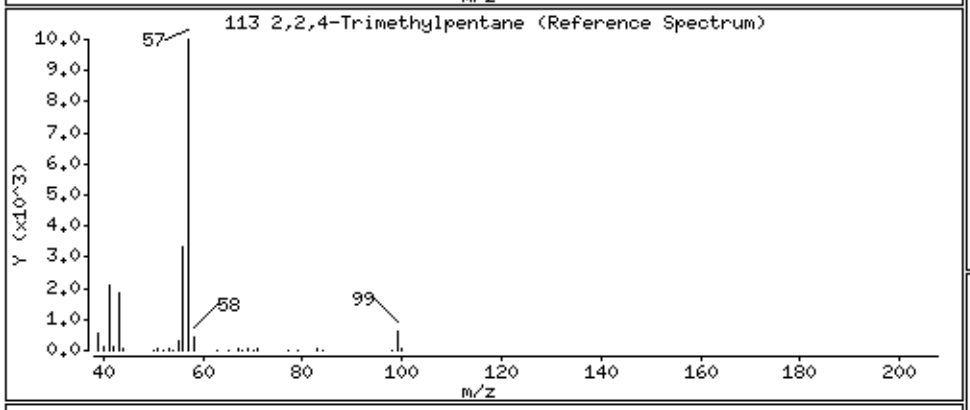
Column diameter: 0.32

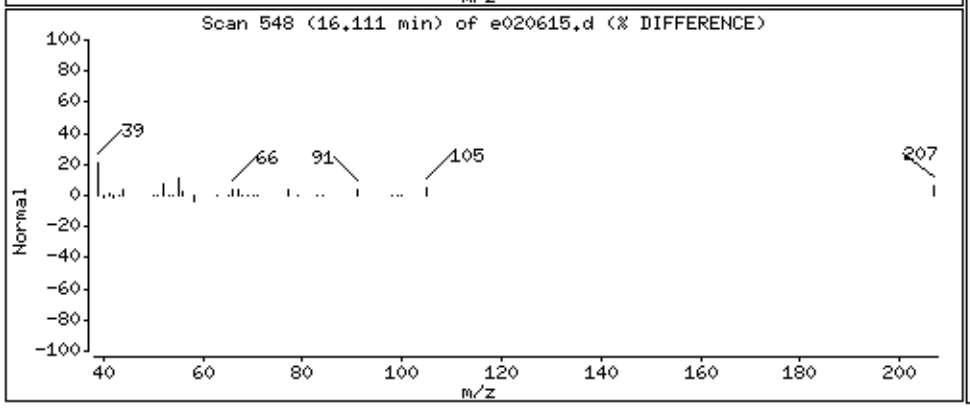
113 2,2,4-Trimethylpentane

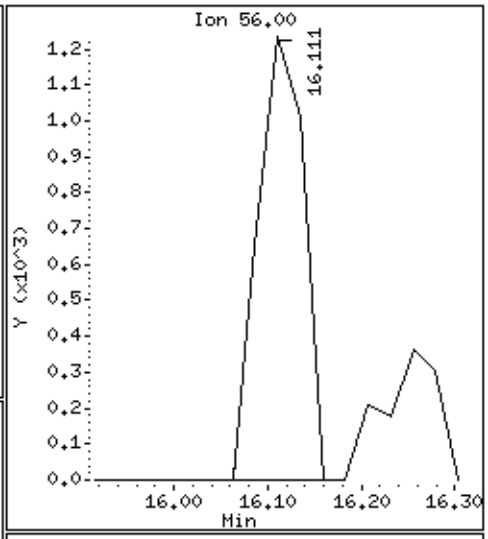
Concentration: 0.1008 PPBV

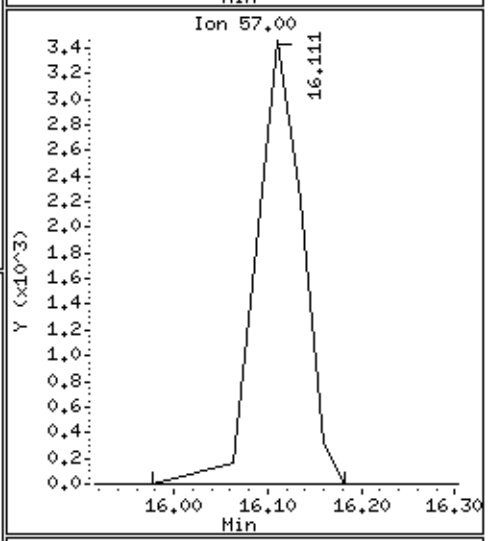


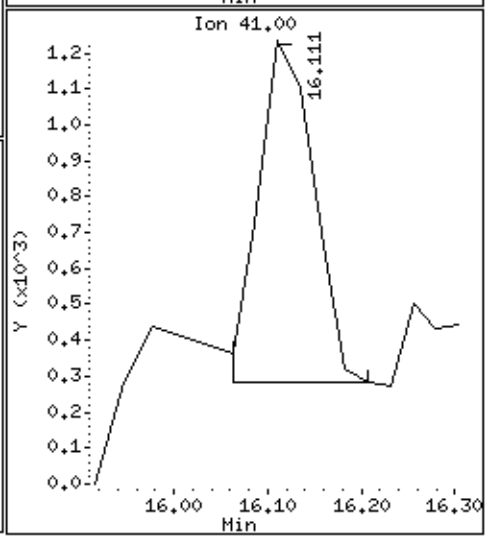












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

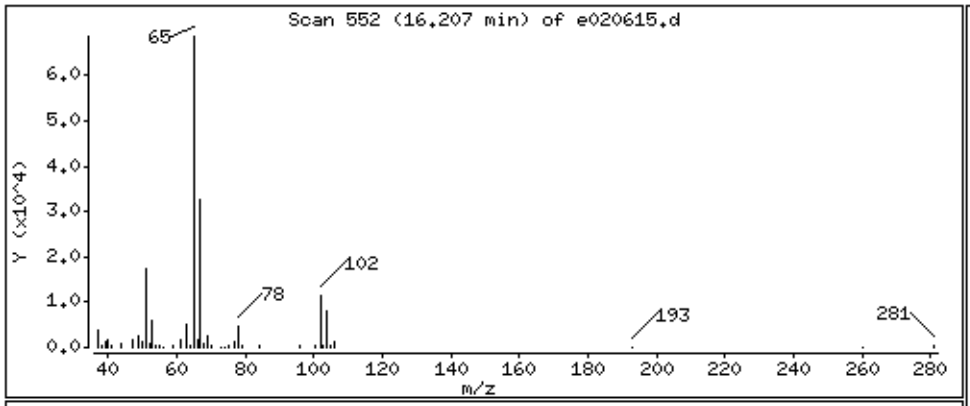
Operator: EA

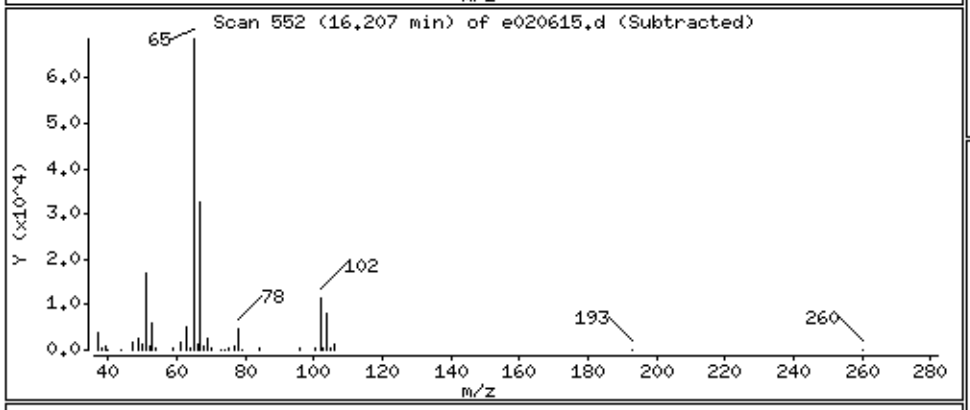
Column phase: RTX-624

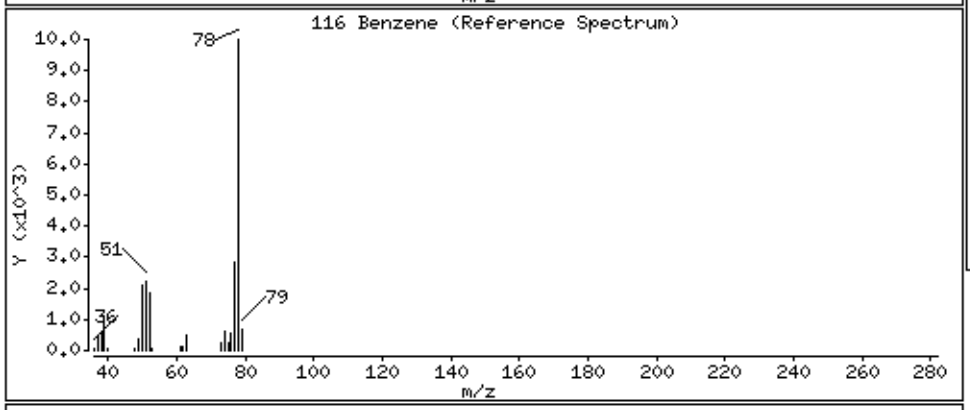
Column diameter: 0.32

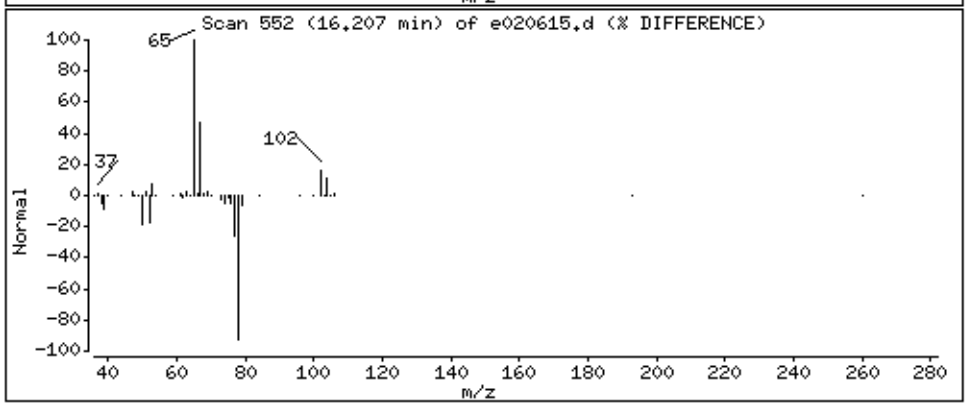
116 Benzene

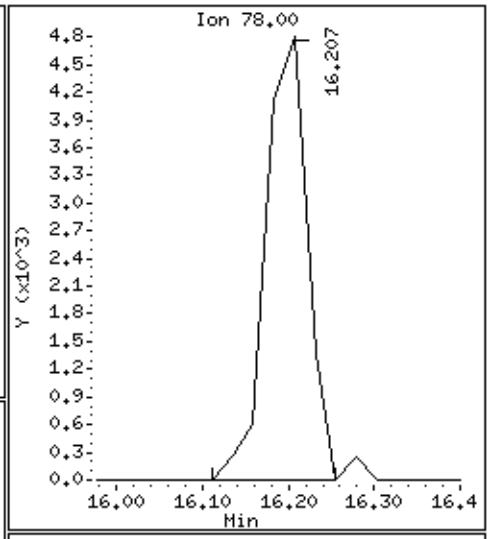
Concentration: 0.2030 PPBV

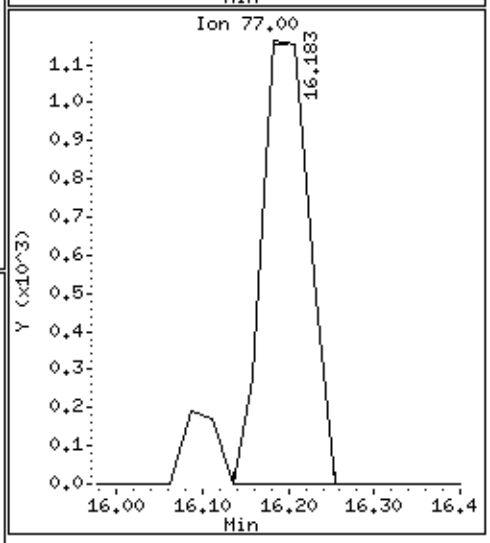












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

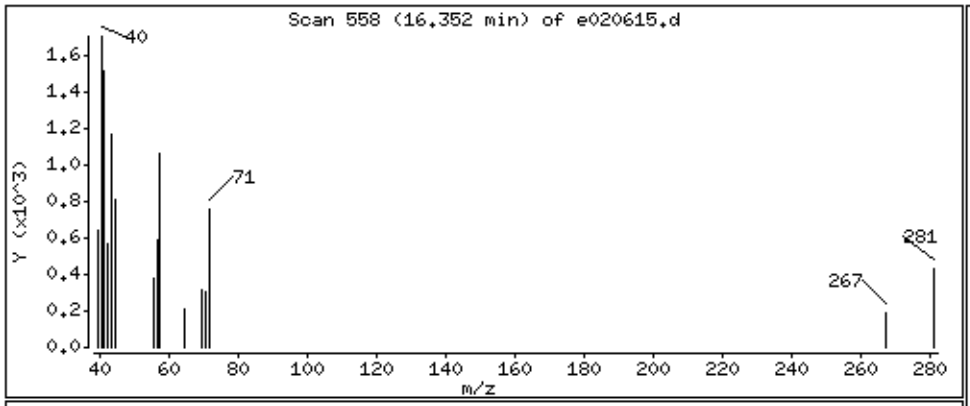
Operator: EA

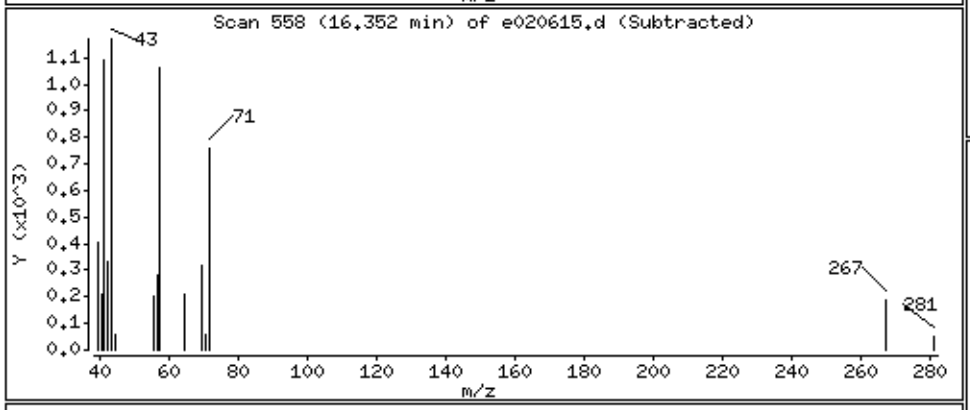
Column phase: RTX-624

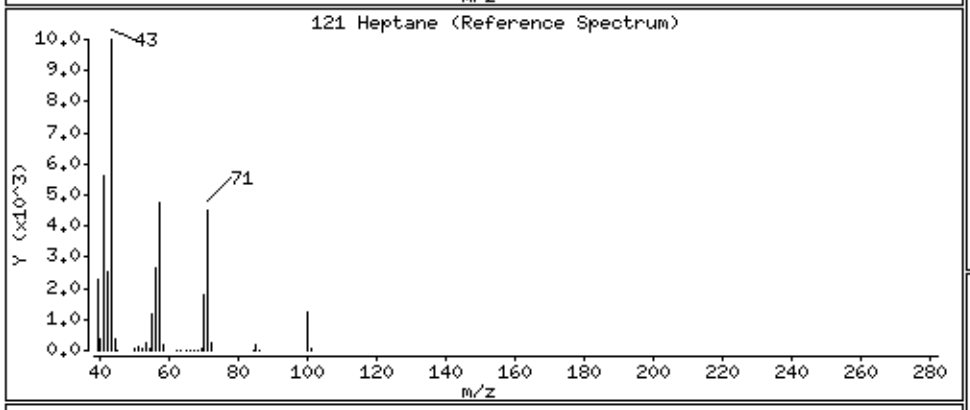
Column diameter: 0.32

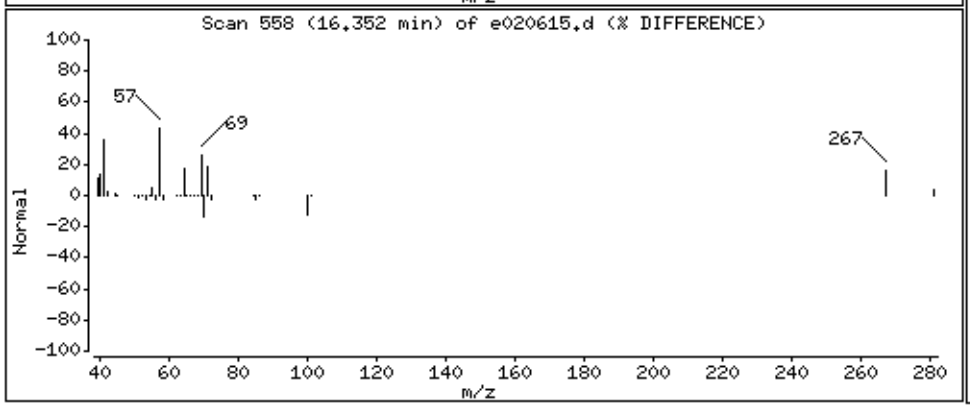
121 Heptane

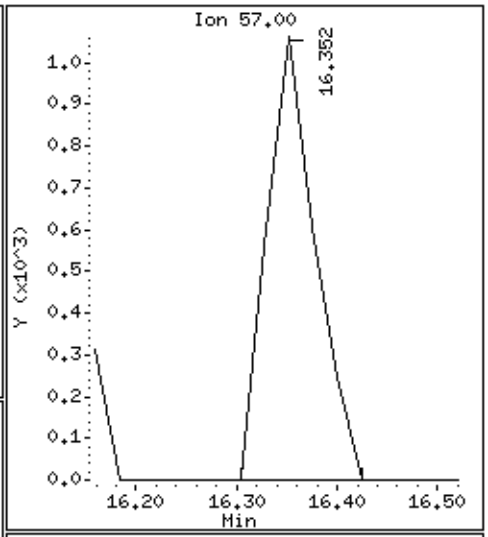
Concentration: 0.1779 PPBV

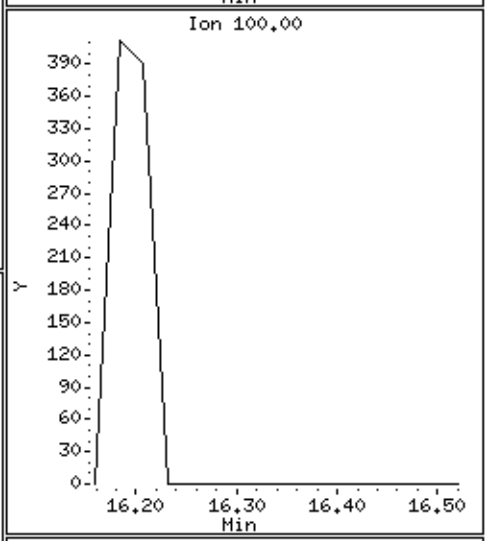


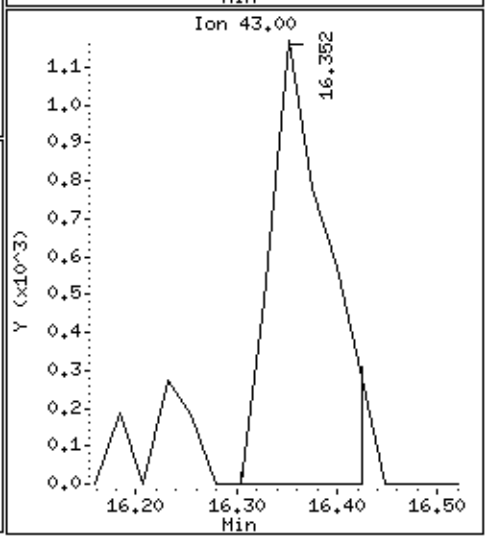












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

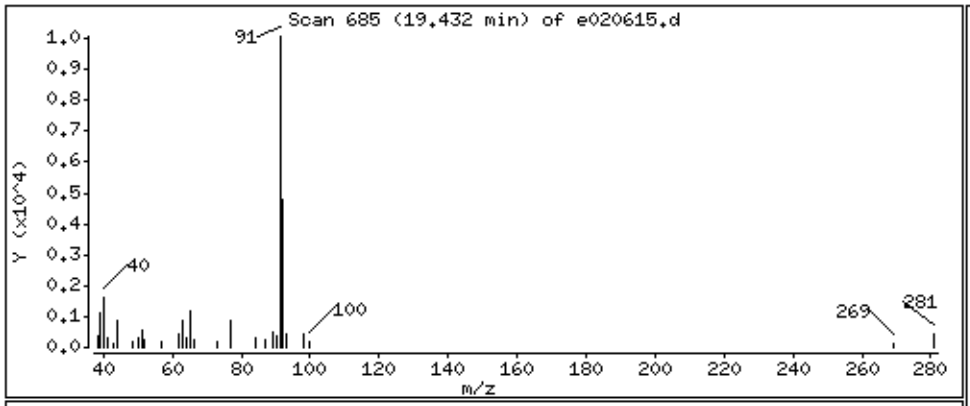
Operator: EA

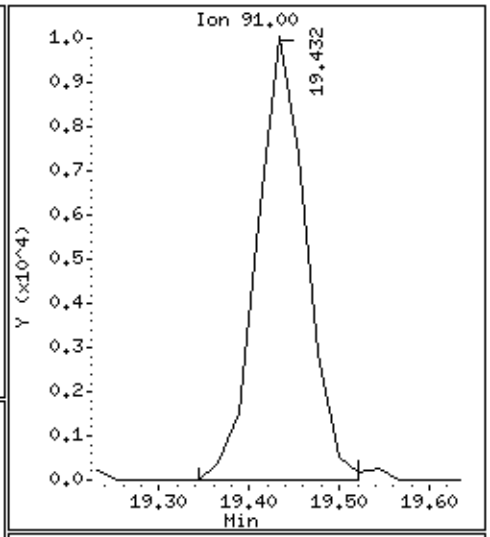
Column phase: RTX-624

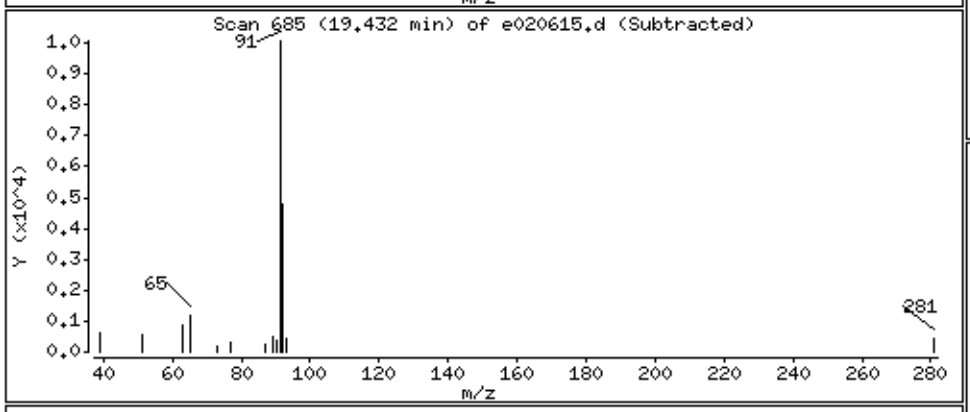
Column diameter: 0.32

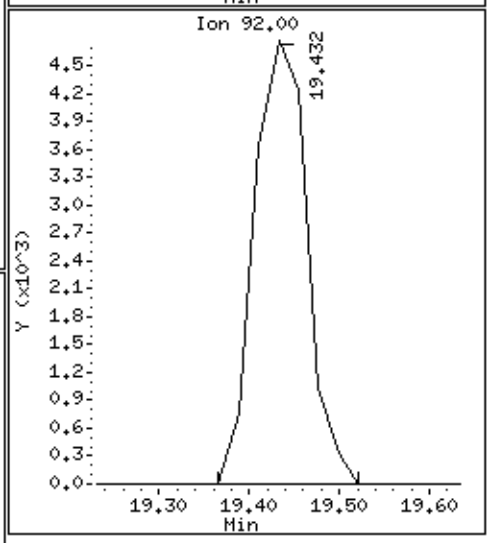
147 Toluene

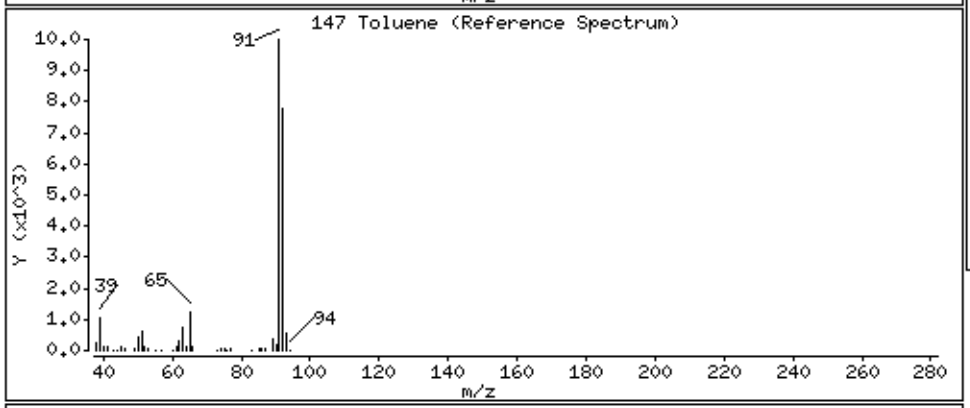
Concentration: 0.4006 PPBV

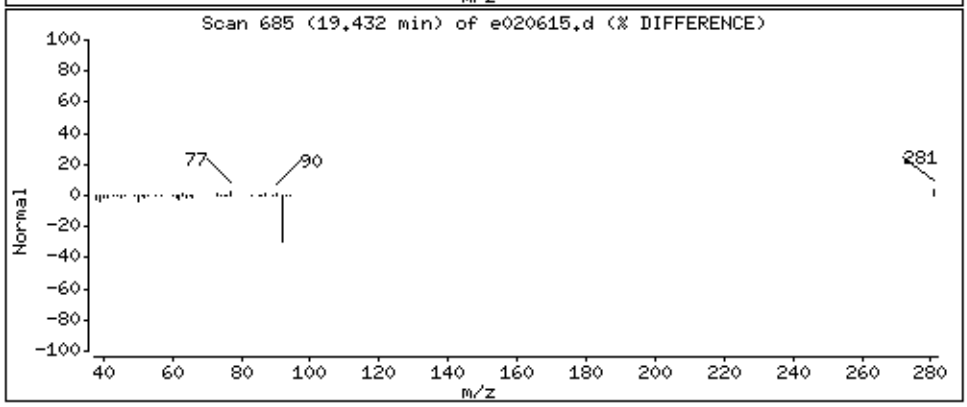












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

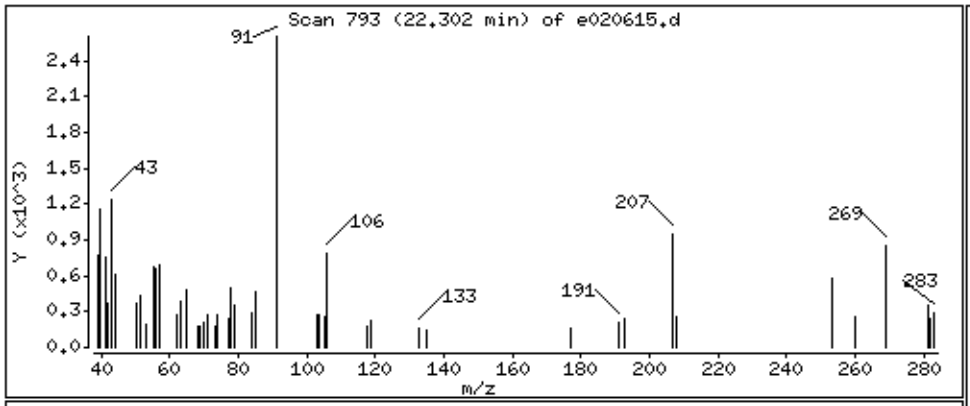
Operator: EA

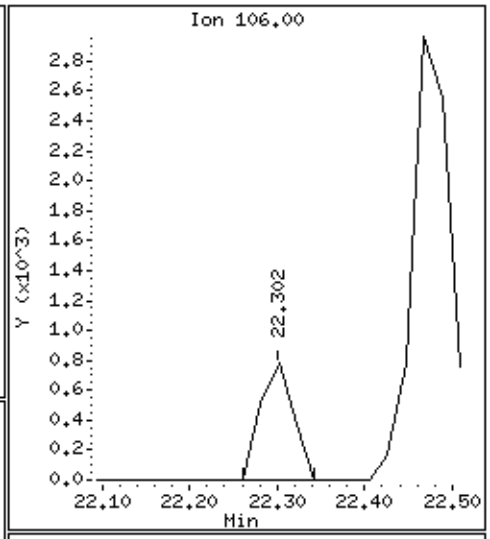
Column phase: RTX-624

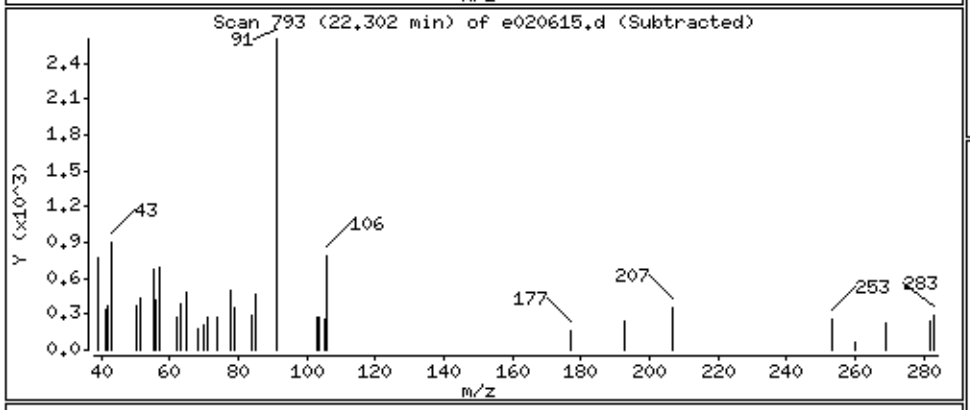
Column diameter: 0.32

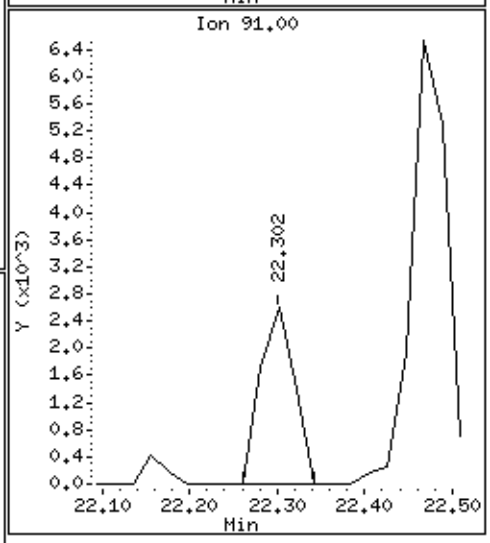
167 Ethyl Benzene

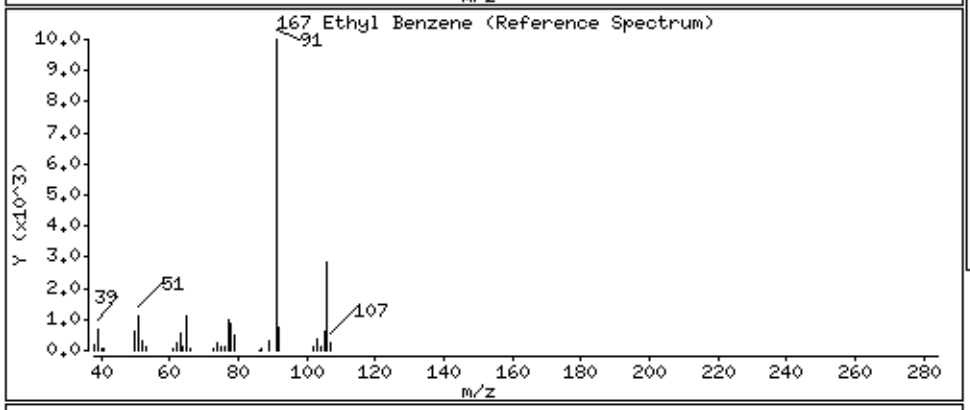
Concentration: 0.05105 PPBV

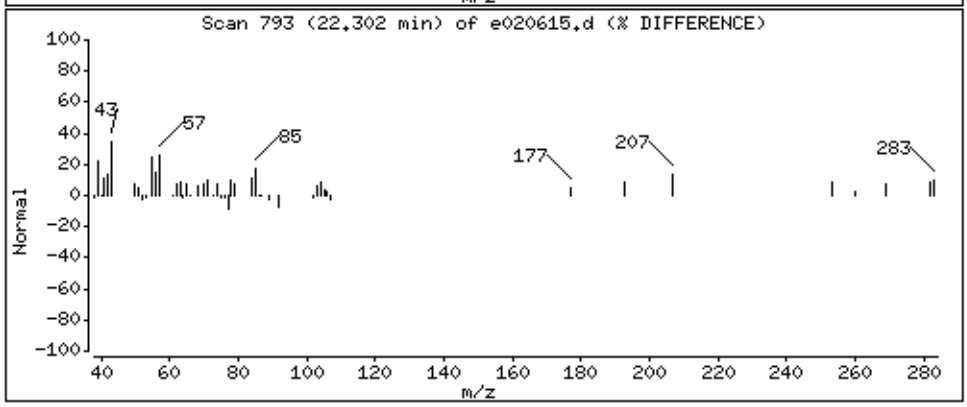












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

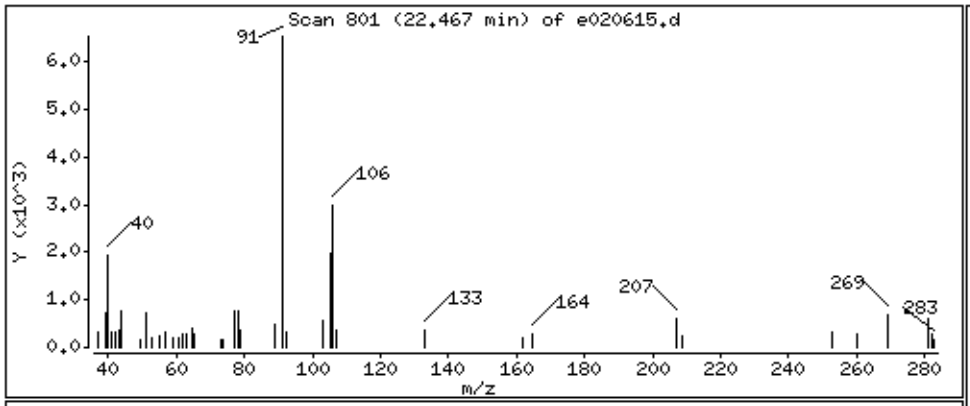
Operator: EA

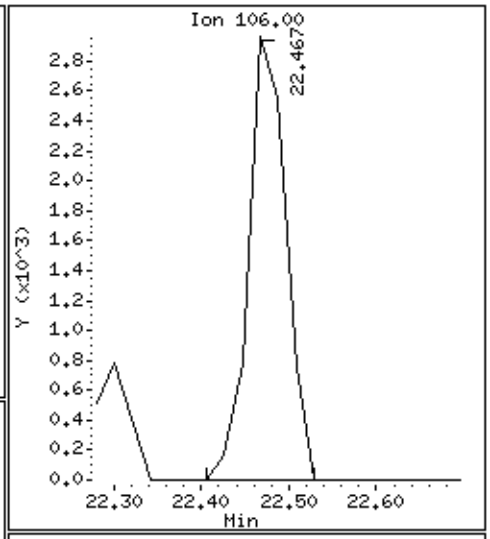
Column phase: RTX-624

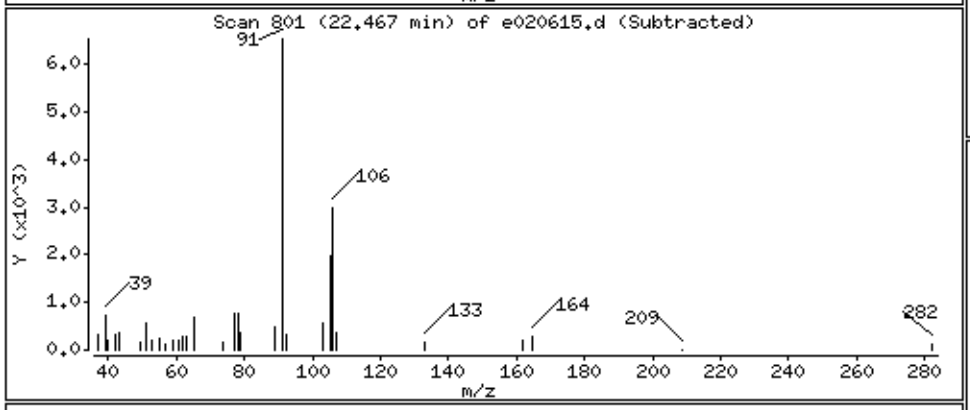
Column diameter: 0.32

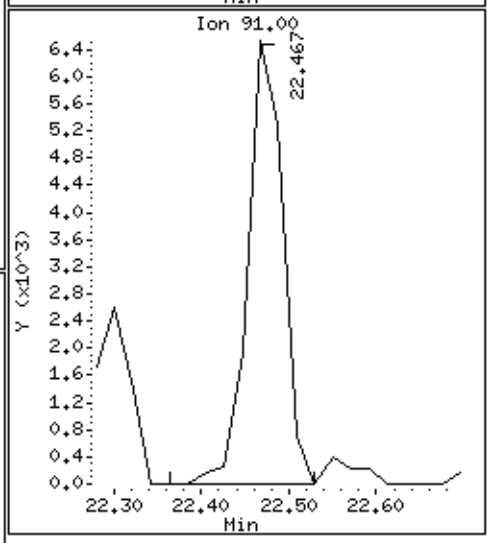
169 m,p-Xylene

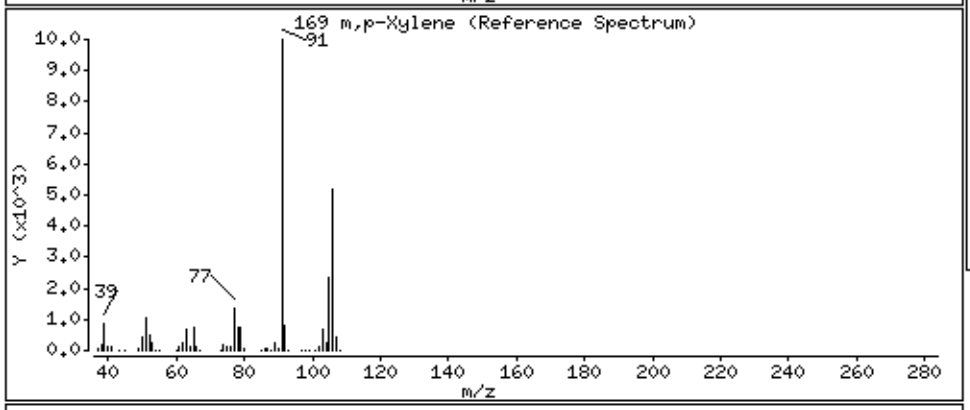
Concentration: 0.1866 PPBV

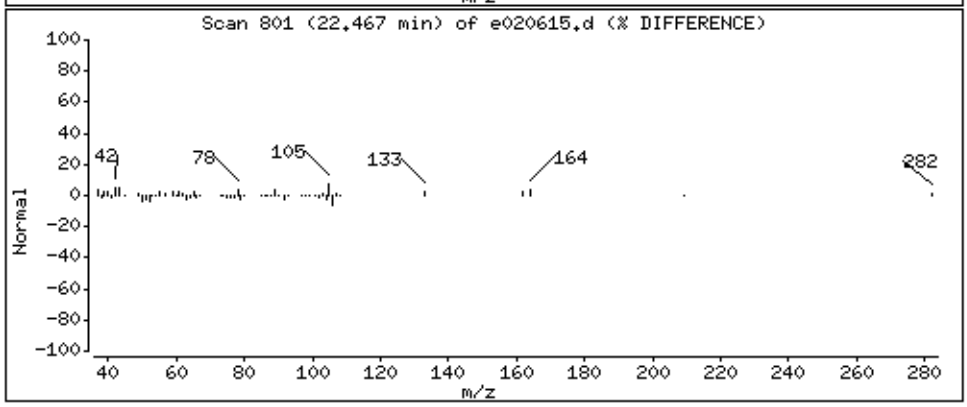












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

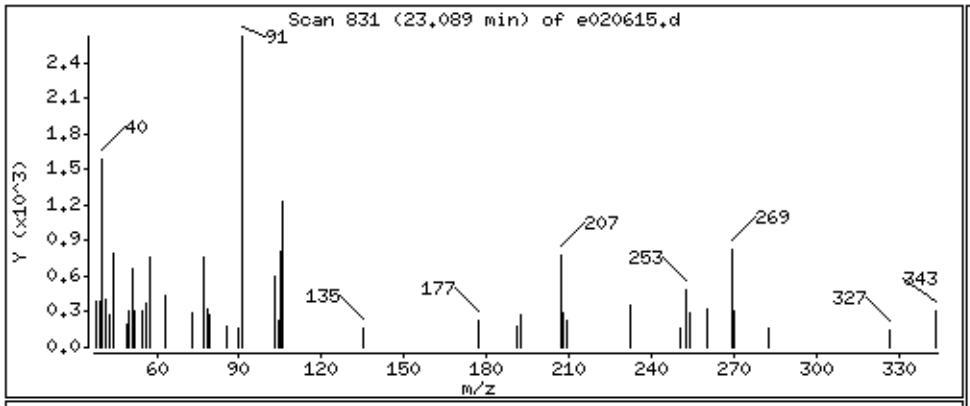
Operator: EA

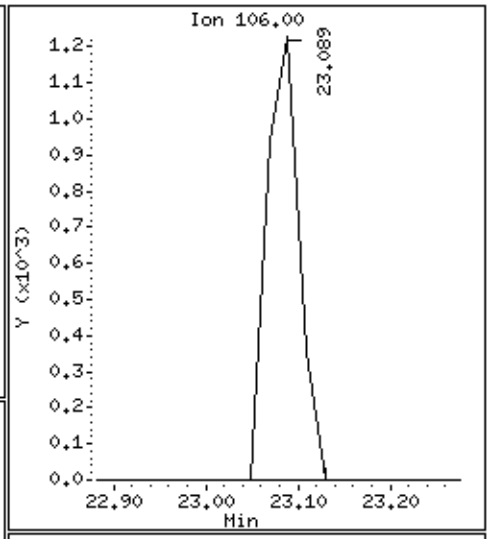
Column phase: RTX-624

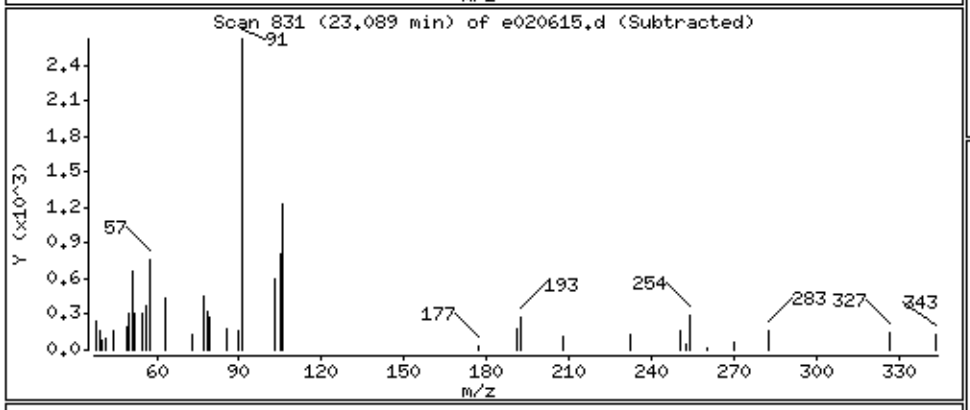
Column diameter: 0.32

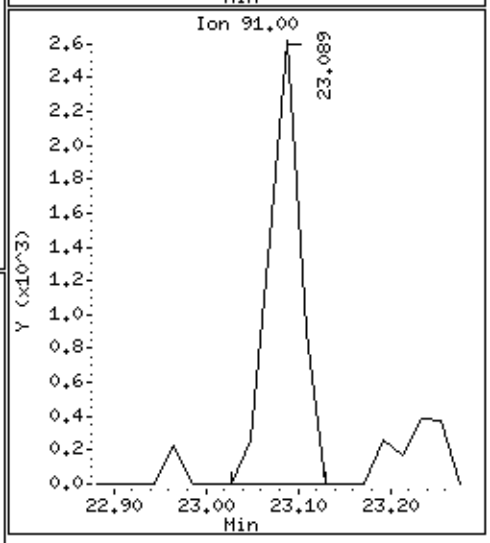
171 o-Xylene

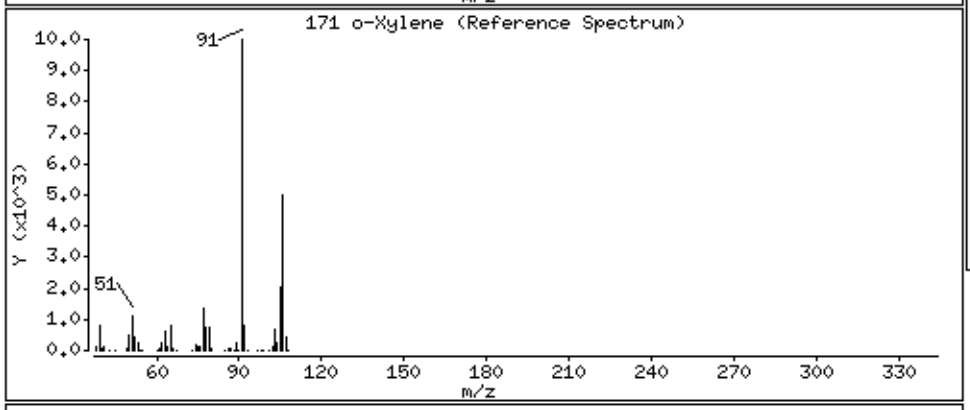
Concentration: 0.07017 PPBV

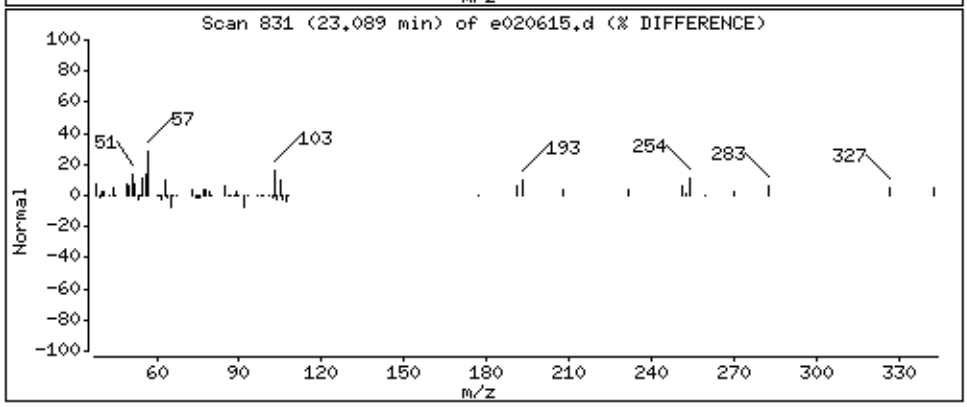












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

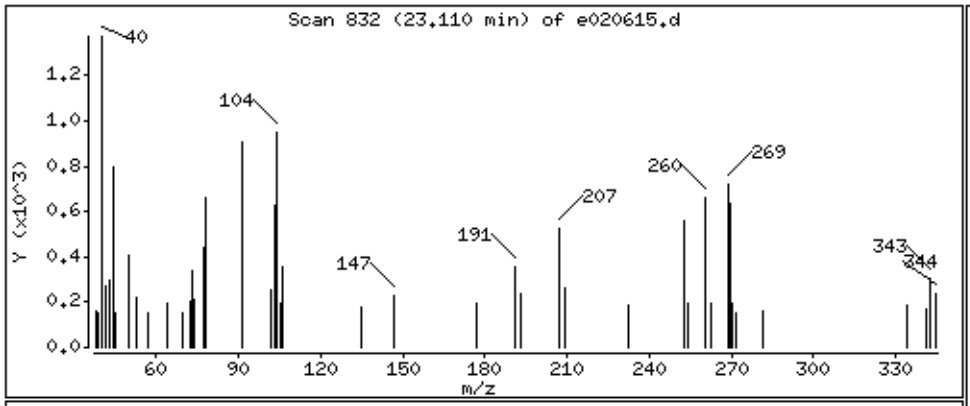
Operator: EA

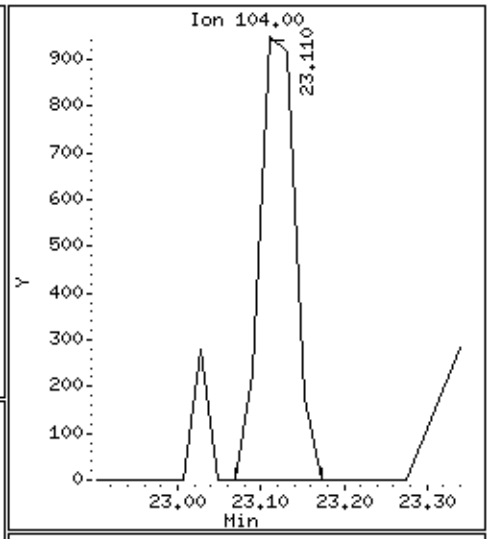
Column phase: RTX-624

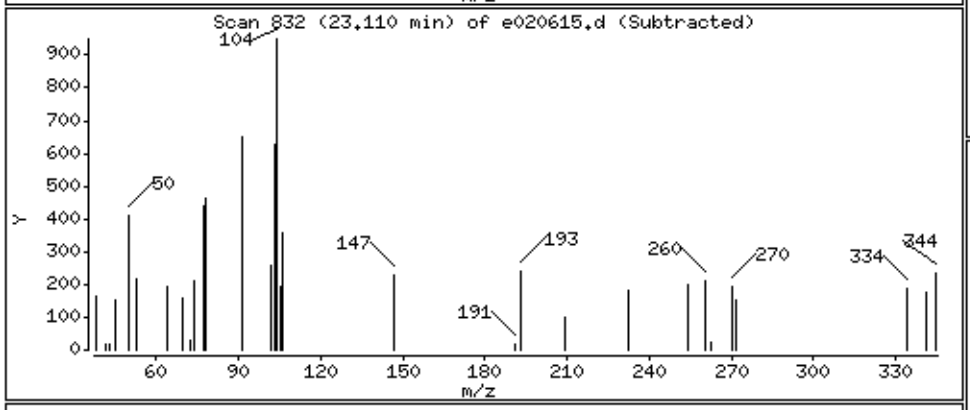
Column diameter: 0.32

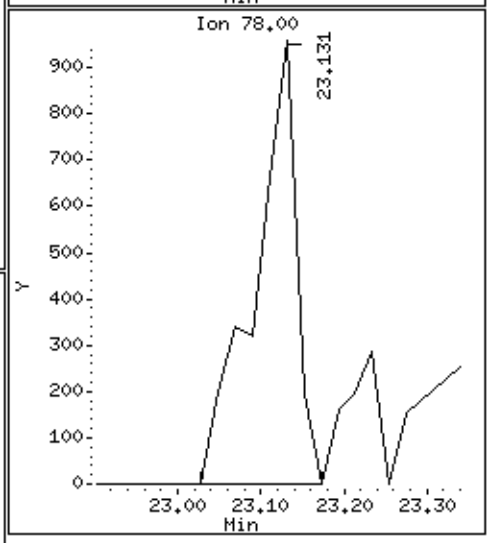
172 Styrene

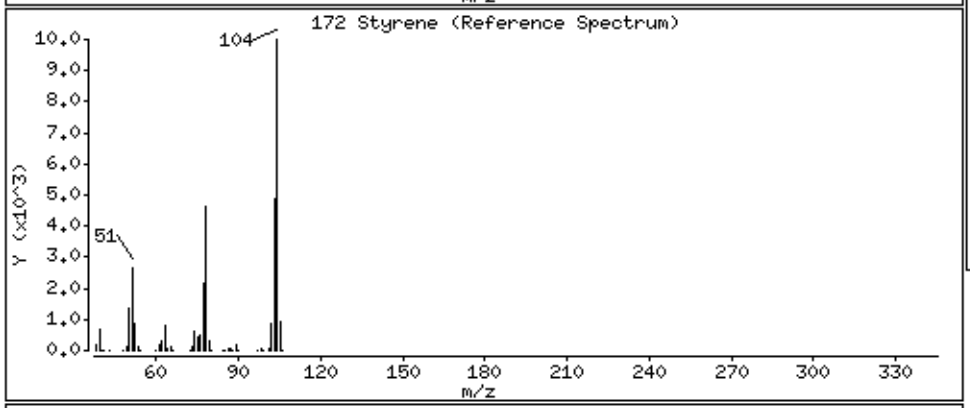
Concentration: 0.03794 PPBV

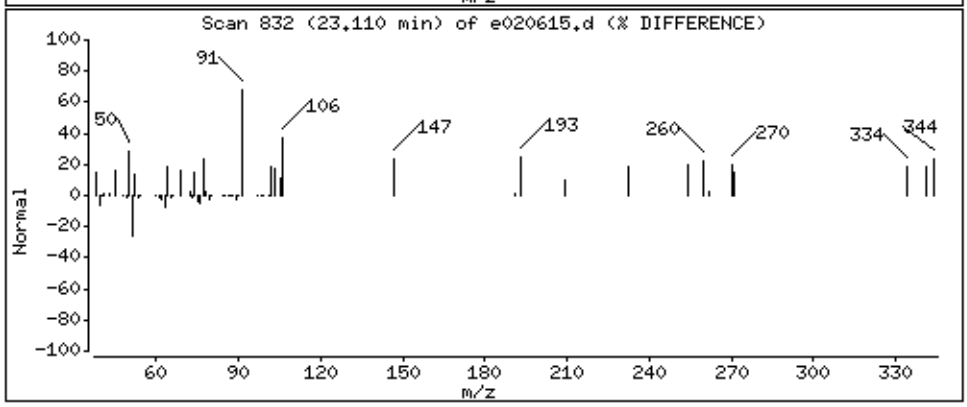












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

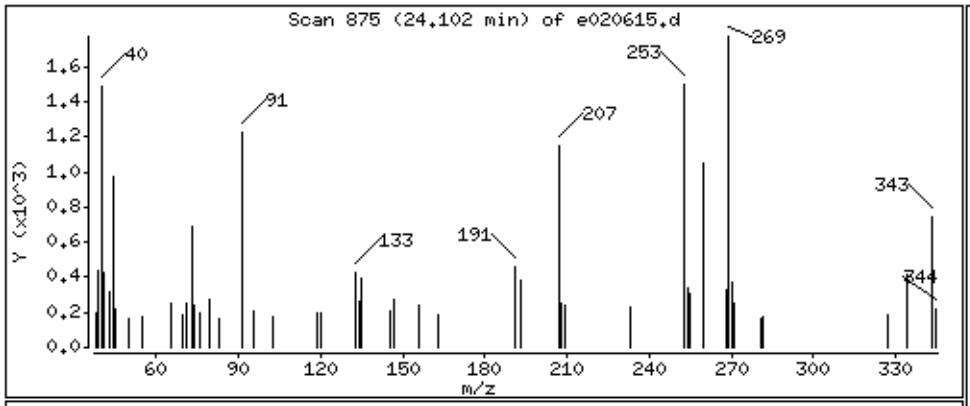
Operator: EA

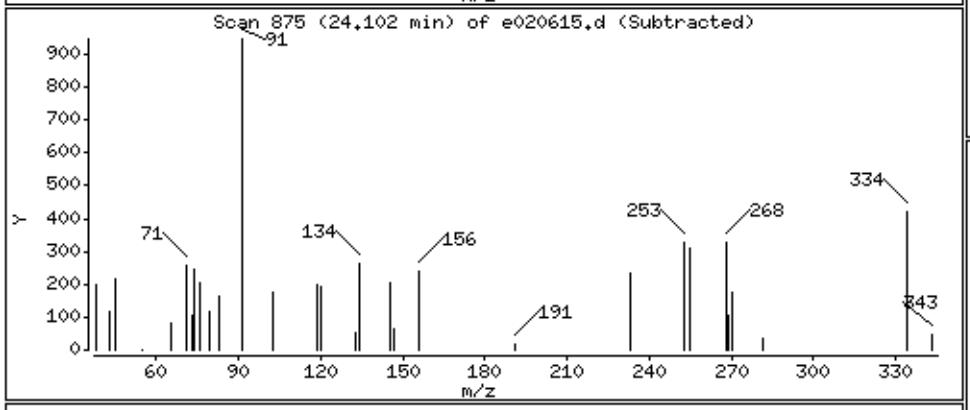
Column phase: RTX-624

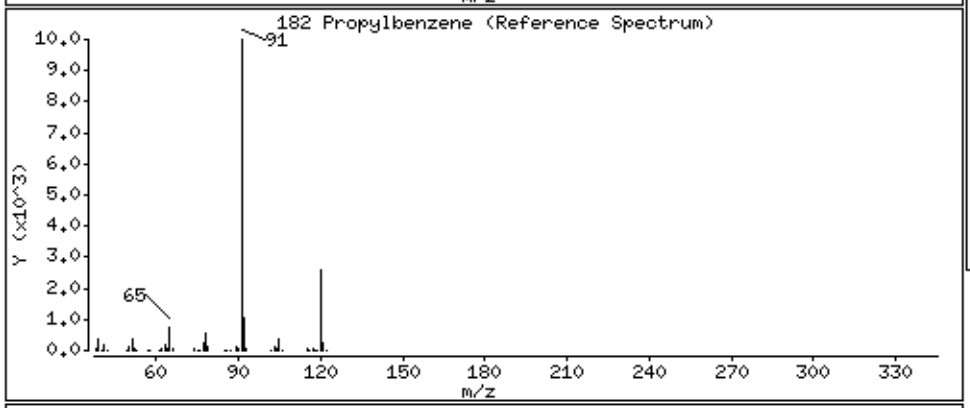
Column diameter: 0.32

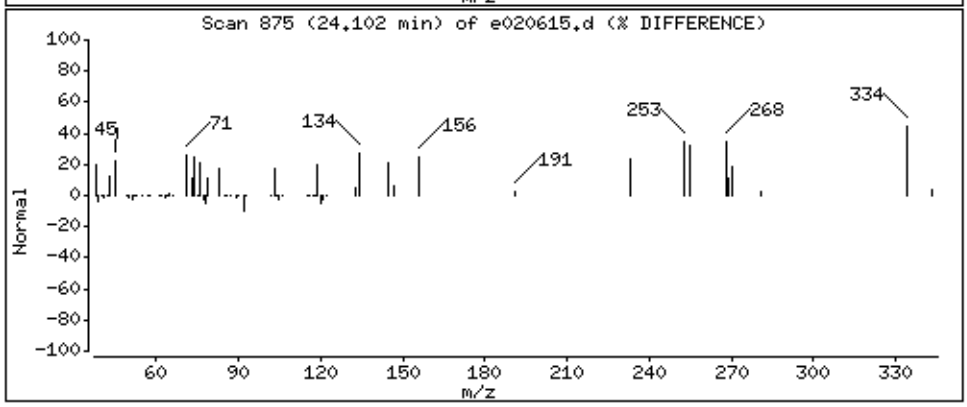
182 Propylbenzene

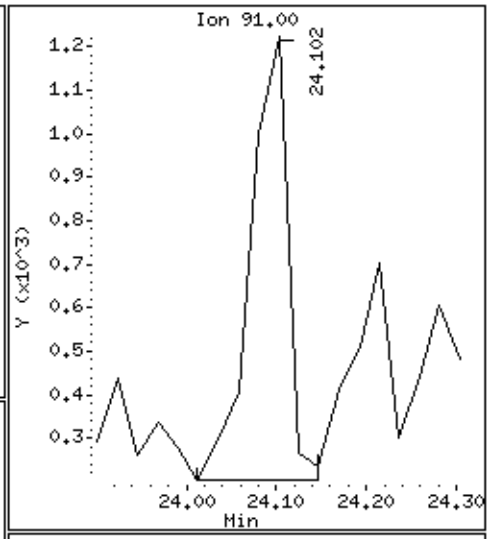
Concentration: 0.02125 PPBV

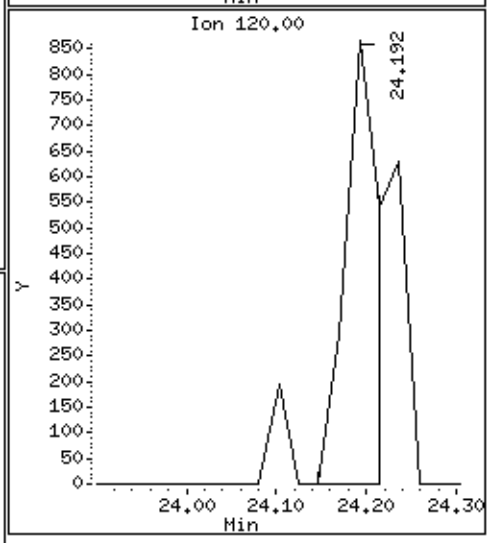












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

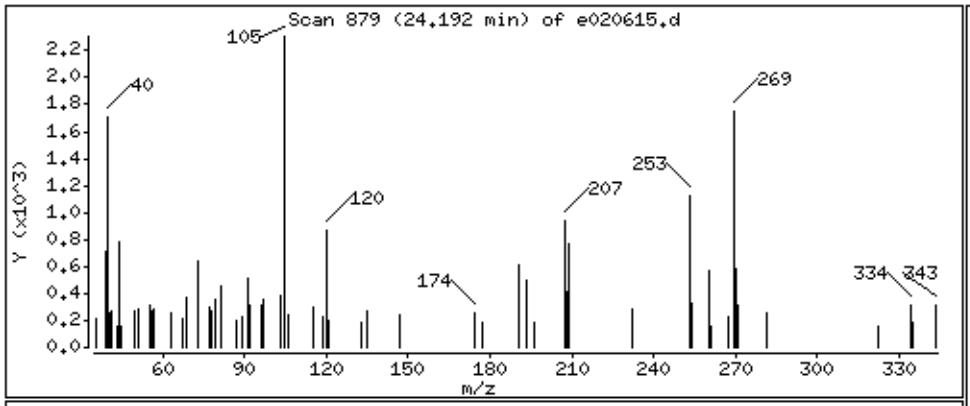
Operator: EA

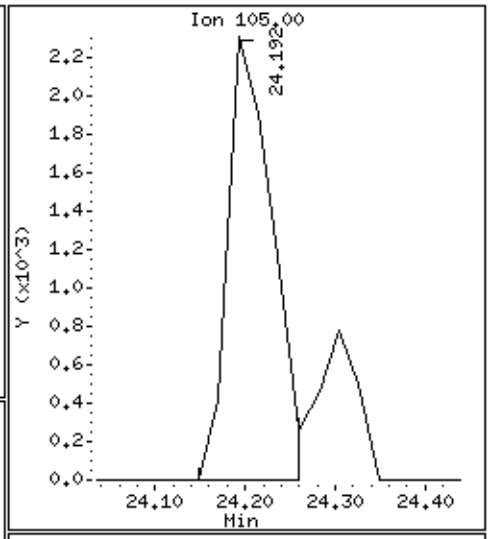
Column phase: RTX-624

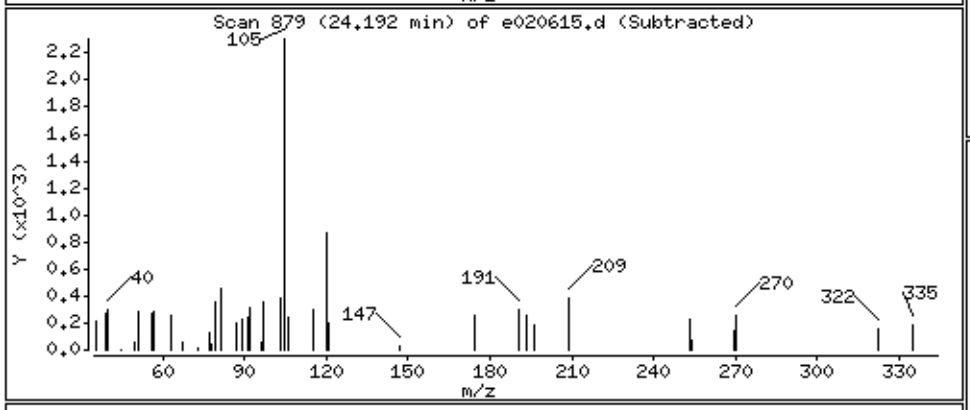
Column diameter: 0.32

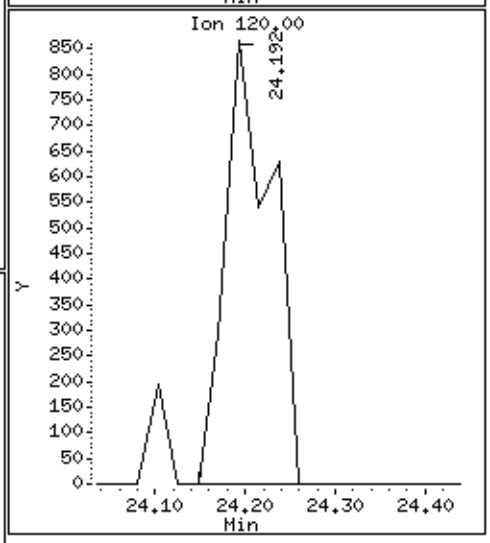
188 4-Ethyltoluene

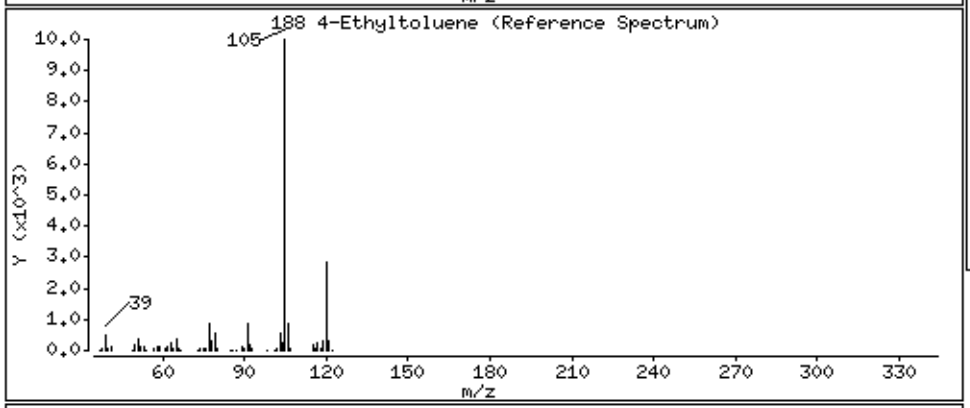
Concentration: 0.06959 PPBV

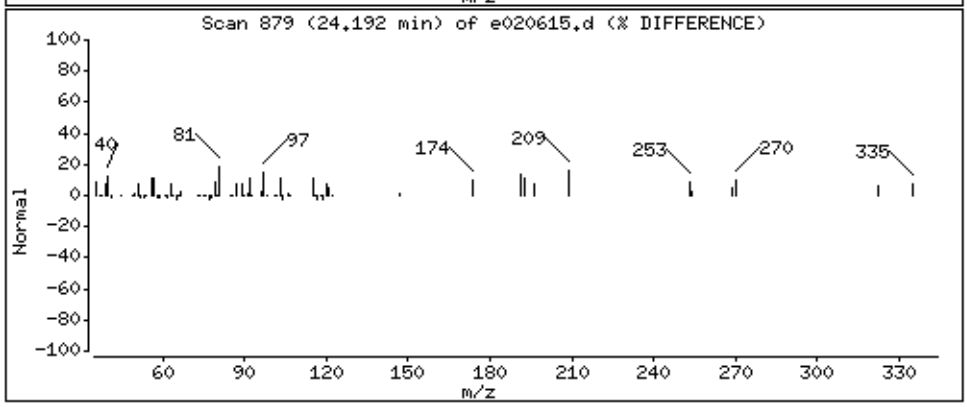












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

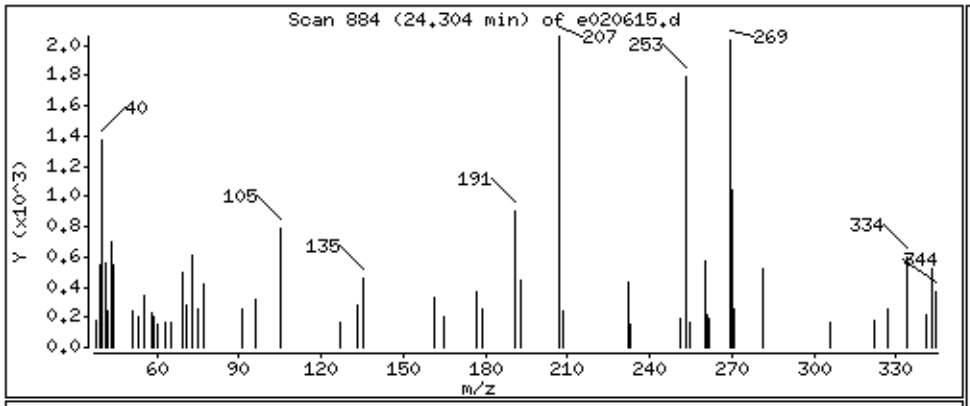
Operator: EA

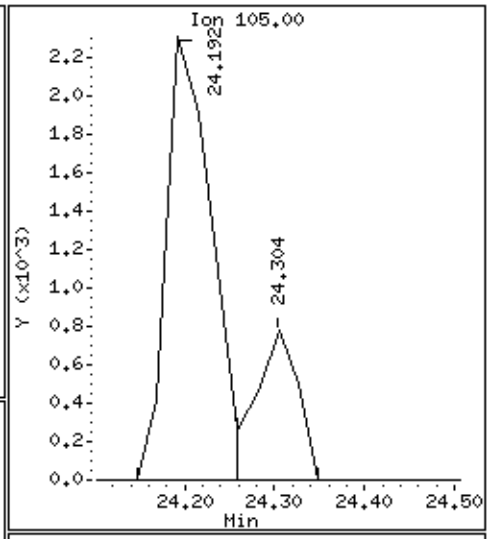
Column phase: RTX-624

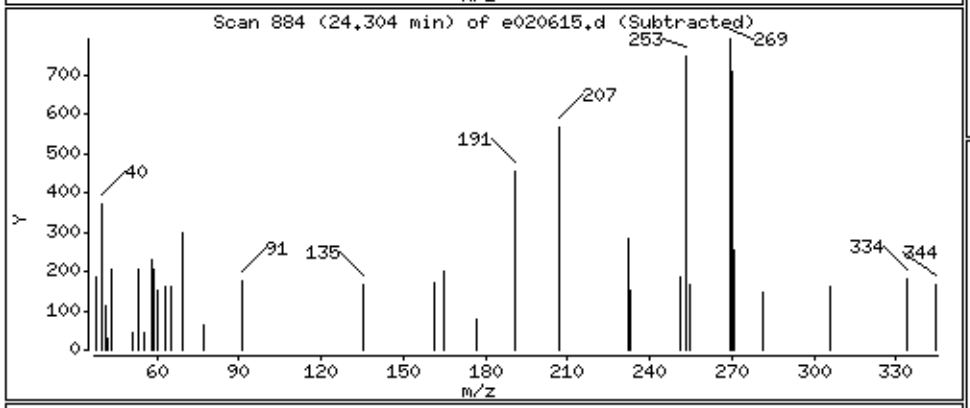
Column diameter: 0.32

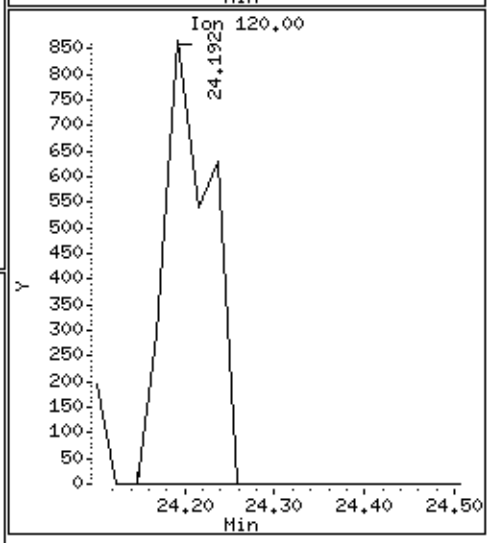
190 1,3,5-Trimethylbenzene

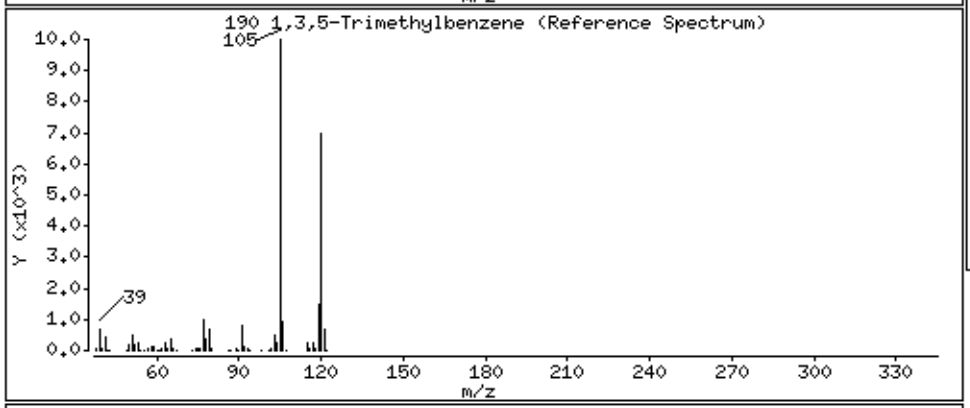
Concentration: 0.03150 PPBV

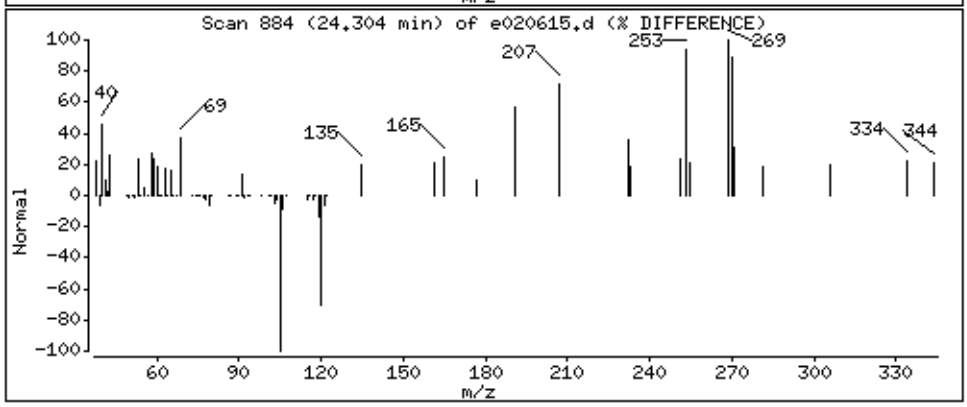












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

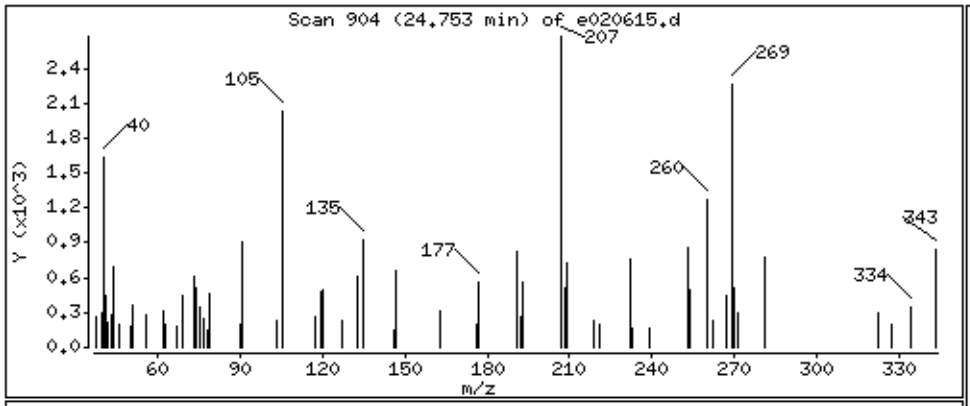
Operator: EA

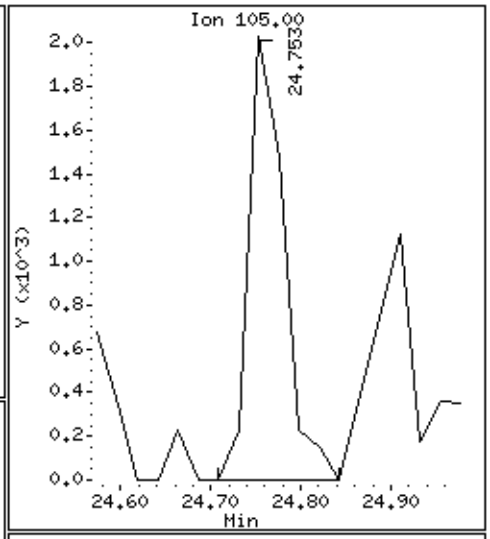
Column phase: RTX-624

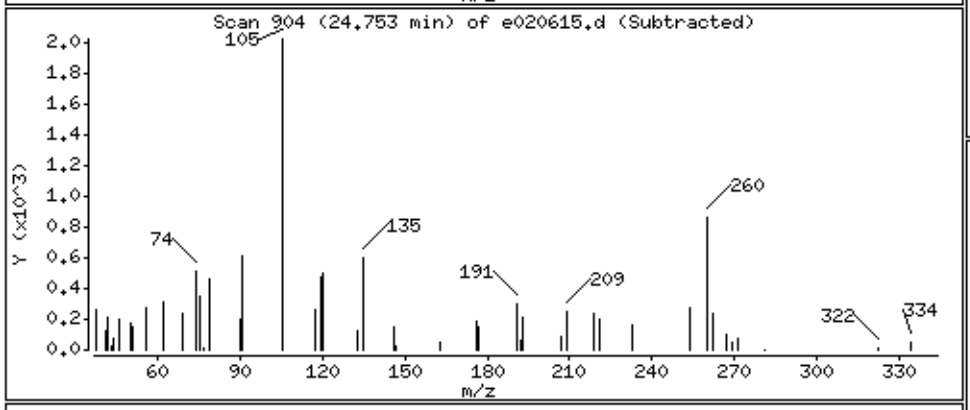
Column diameter: 0.32

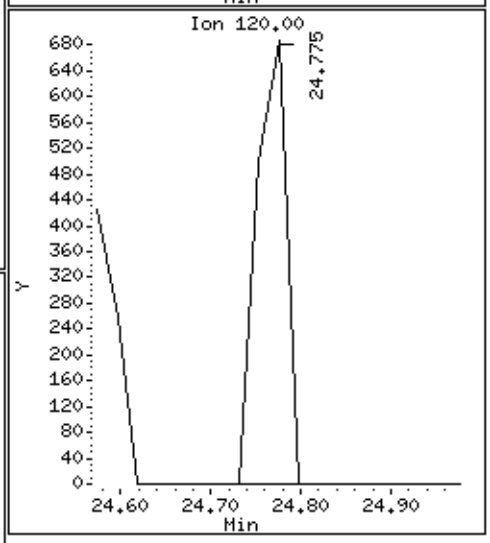
196 1,2,4-Trimethylbenzene

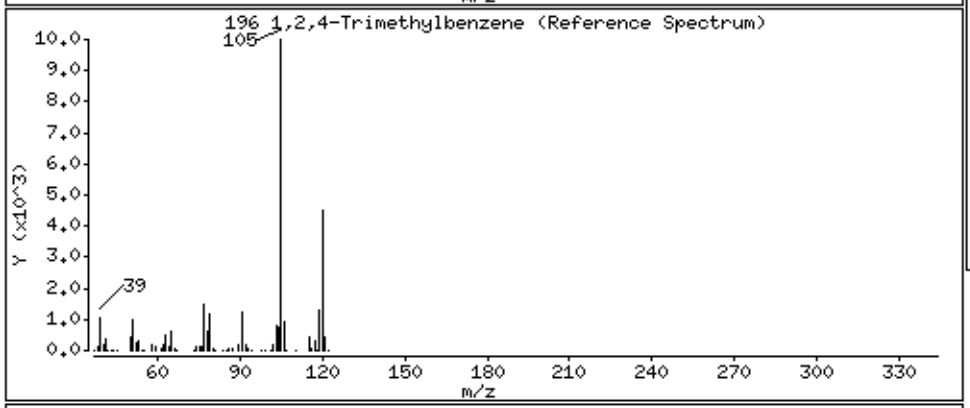
Concentration: 0.07680 PPBV

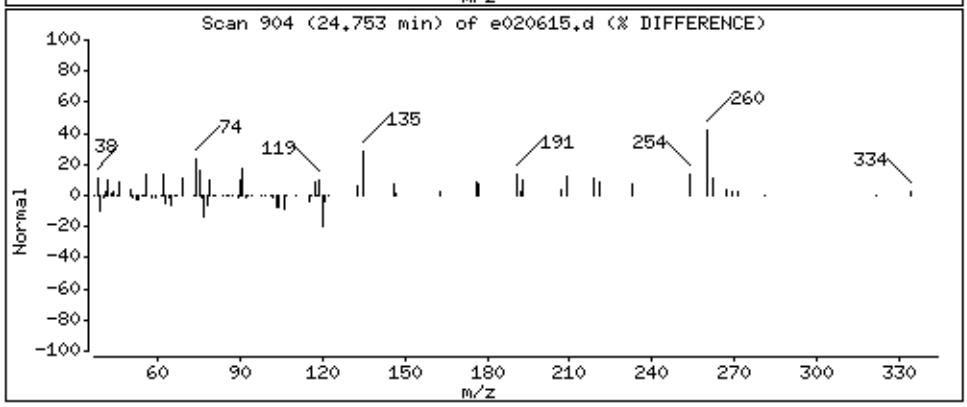












Data File: /chem/msde.i/06Feb2017.b/e020615.d

Date : 06-FEB-2017 19:23

Client ID:

Instrument: msde.i

Sample Info: 250mL#00316

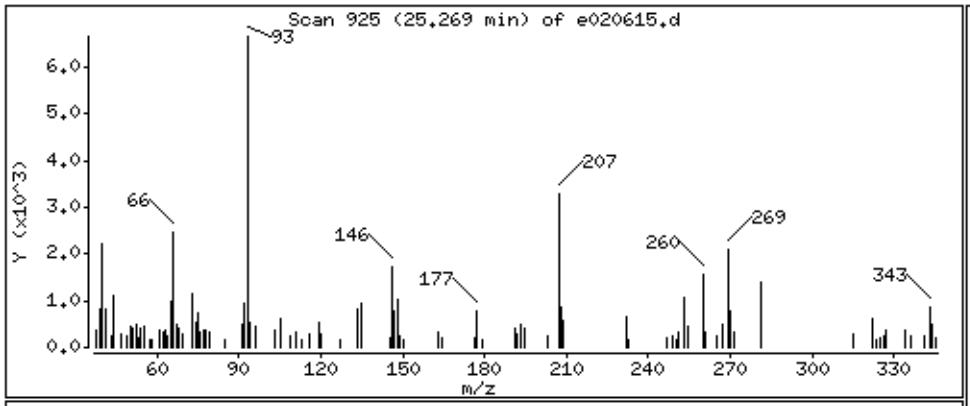
Operator: EA

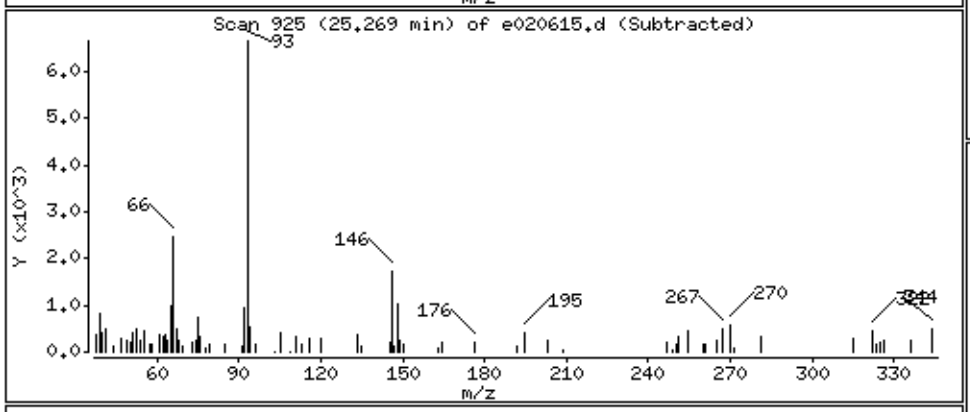
Column phase: RTX-624

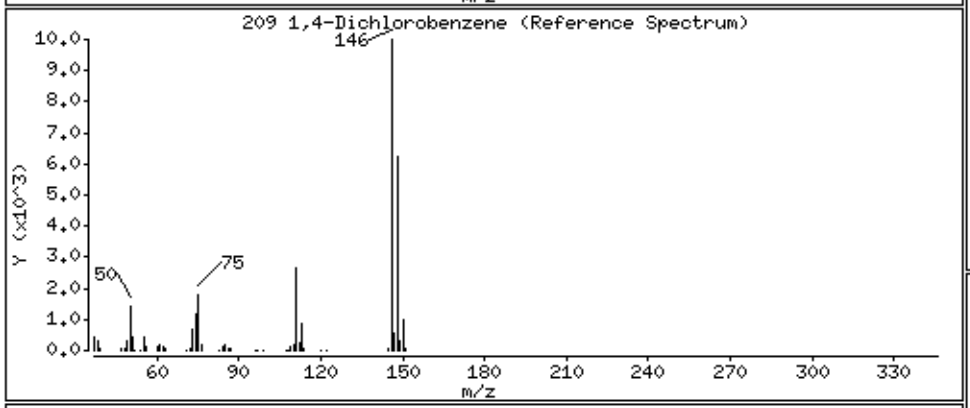
Column diameter: 0.32

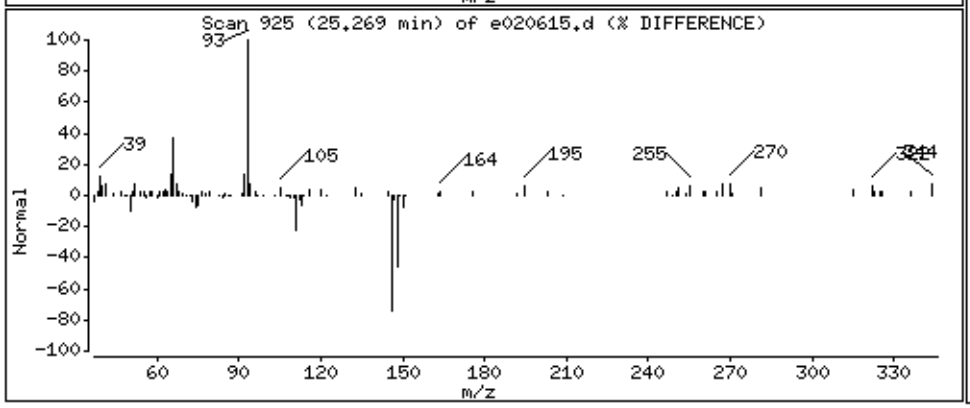
209 1,4-Dichlorobenzene

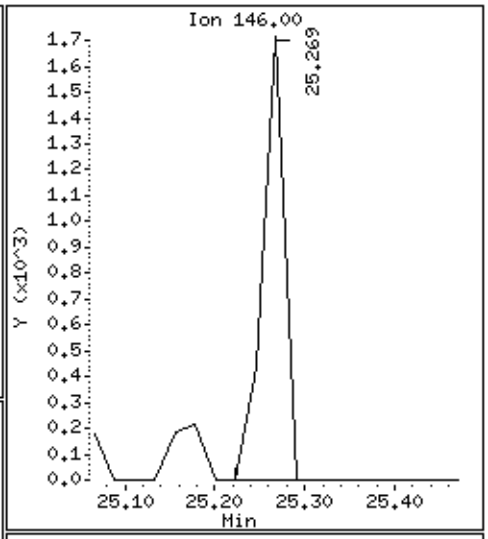
Concentration: 0.03646 PPBV

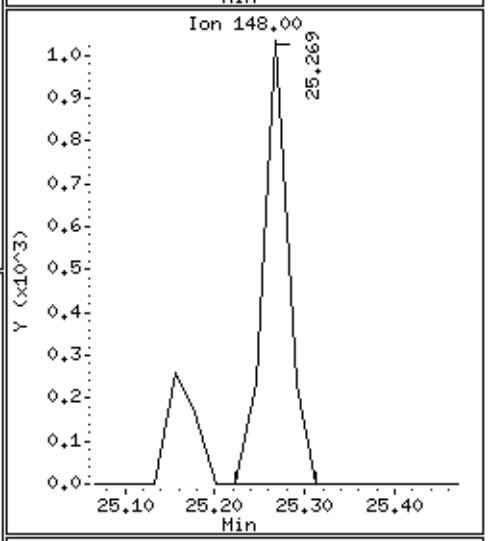


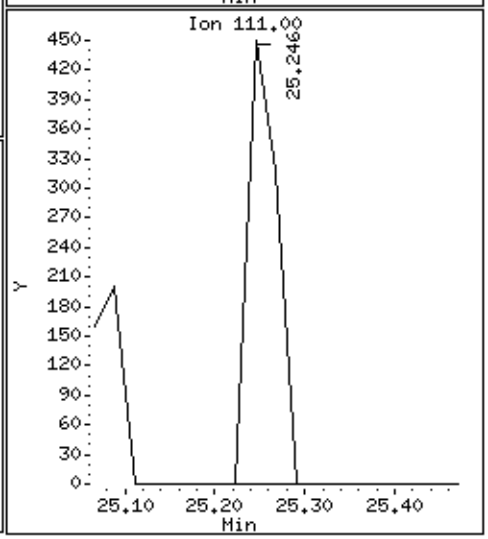












QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1701428A-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013108a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 11:36 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	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	0.023 J	0.69	0.081 J
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	Not Detected	0.35	Not Detected
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#: 1701428A-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013108a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 11:36 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	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013108a.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 31-JAN-2017 11:36
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 34737
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 31-Jan-2017 09:36 efinn Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.696 (1.000)	130	178372	5.00000		80.00- 120.00	100.00
16.726	16.696 (1.000)	128	138682			46.97- 106.97	77.75
16.695	16.696 (1.000)	49	208978			76.21- 136.21	117.16
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	624032	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	95727			0.00- 45.59	15.34
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	542621	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	294928			23.26- 83.26	54.35
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.620 (1.053)	65	247159	5.61573	5.616	80.00- 120.00	100.00
17.620	17.620 (1.053)	67	127596			31.78- 91.78	51.63
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	596814	5.00194	5.002	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	68393			0.00- 40.33	11.46

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.806	20.806 (1.143)	100	384649			35.56- 95.56	64.45
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	274875	4.74692	4.747	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	306467			79.94- 139.94	111.49
25.466	25.466 (1.072)	176	266669			67.24- 127.24	97.01
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	1276	0.02340	0.02340	80.00- 120.00	100.00(a)
14.027	14.027 (0.839)	49	1220			80.28- 140.28	95.61
14.027	14.027 (0.839)	51	657			4.61- 64.61	51.48

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: msd20.i
Lab File ID: 20013108a.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: Humid

Calibration Date: 31-JAN-2017
Calibration Time: 08:53
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	223806	134284	313328	178372	-20.30
123 1,4-Difluorobenze	838424	503054	1173794	624032	-25.57
163 Chlorobenzene-d5	697716	418630	976802	542621	-22.23

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.18
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 31-Jan-2017 12:31

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31Jan2017
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: AT12EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.616	112.31	70-130
$ 146 Toluene-d8	5.000	5.002	100.04	70-130
$ 177 4-Bromofluorobenze	5.000	4.747	94.94	70-130

Data File: /chem/msd20.i/31Jan2017a.b/20013108a.d

Date : 31-JAN-2017 11:36

Client ID: Lab Blank

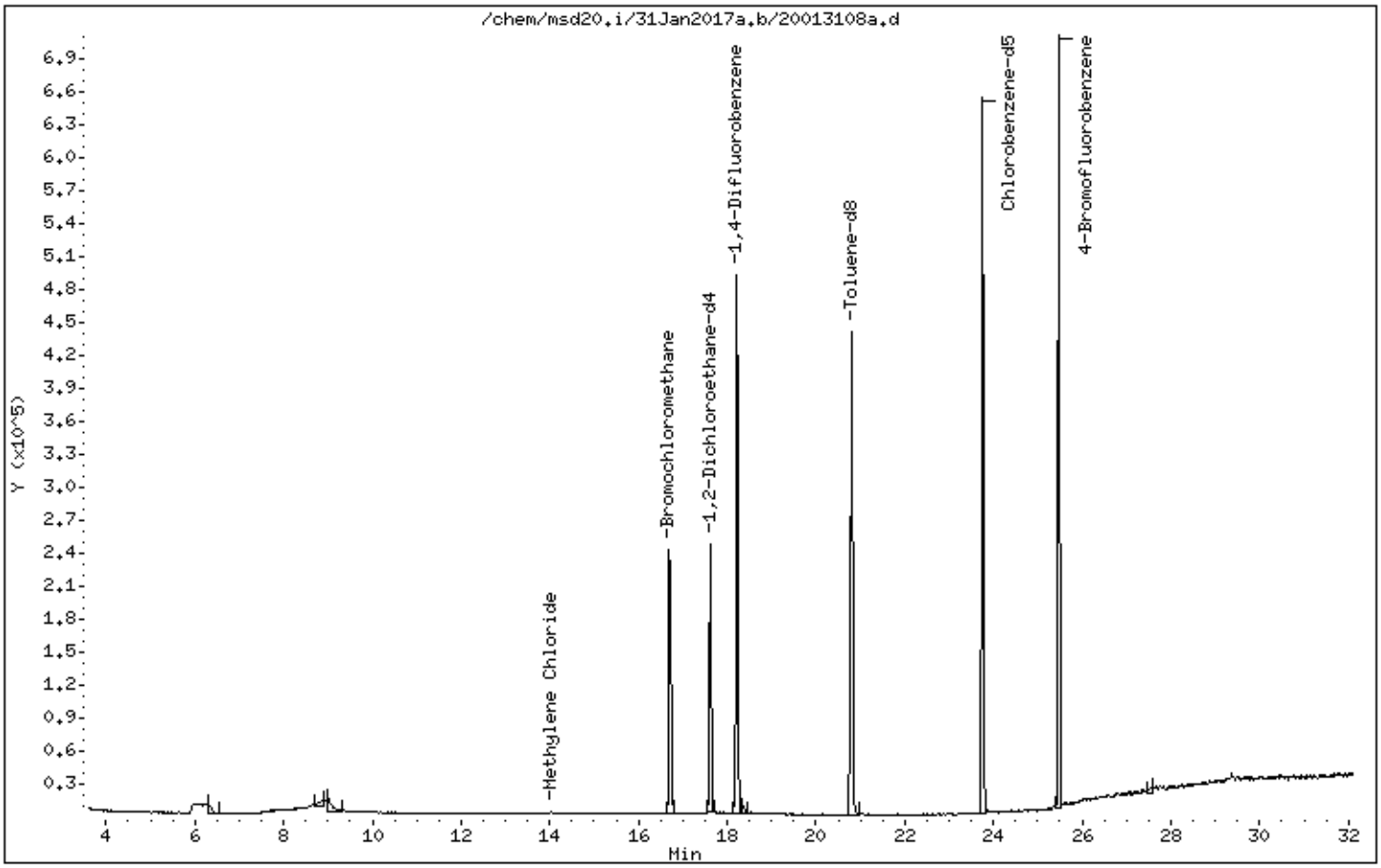
Instrument: msd20.i

Sample Info: 250mL# 34737

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/31Jan2017a.b/20013108a.d

Date : 31-JAN-2017 11:36

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL# 34737

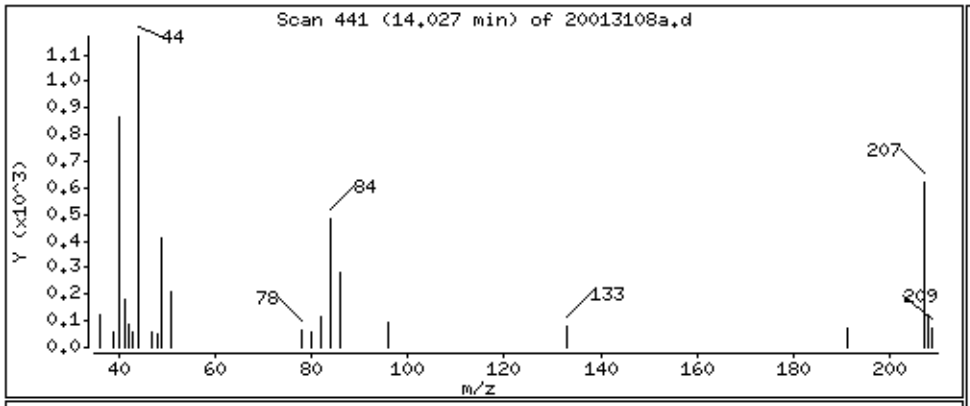
Operator: ef

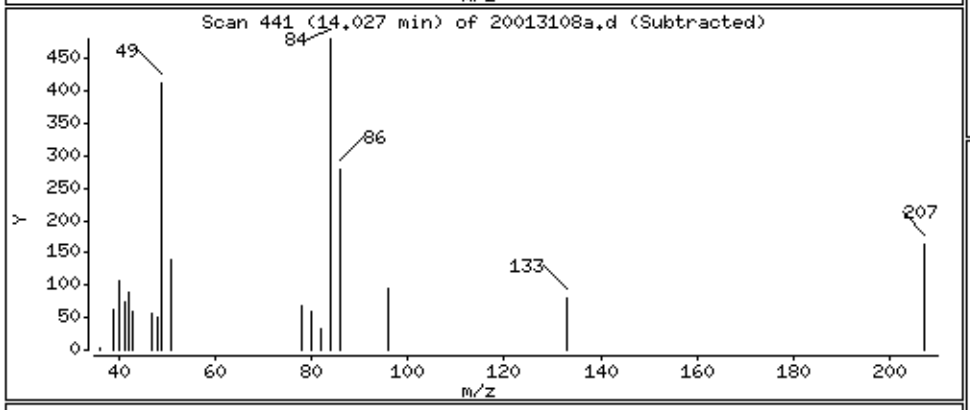
Column phase: RTX-624

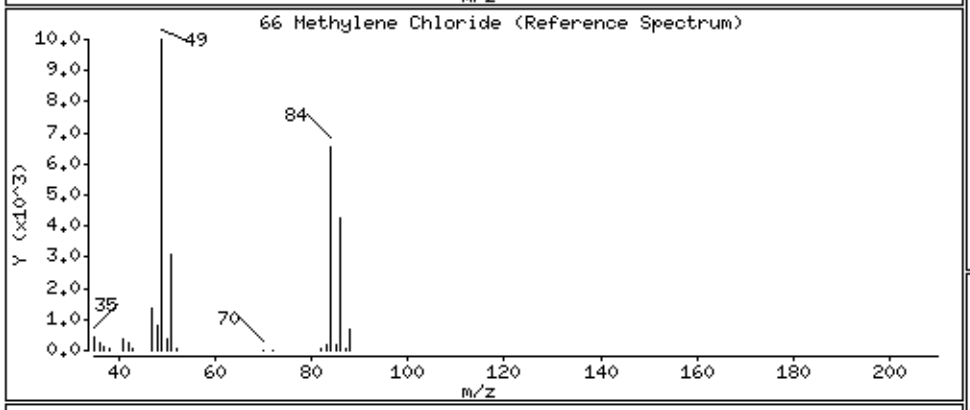
Column diameter: 0.32

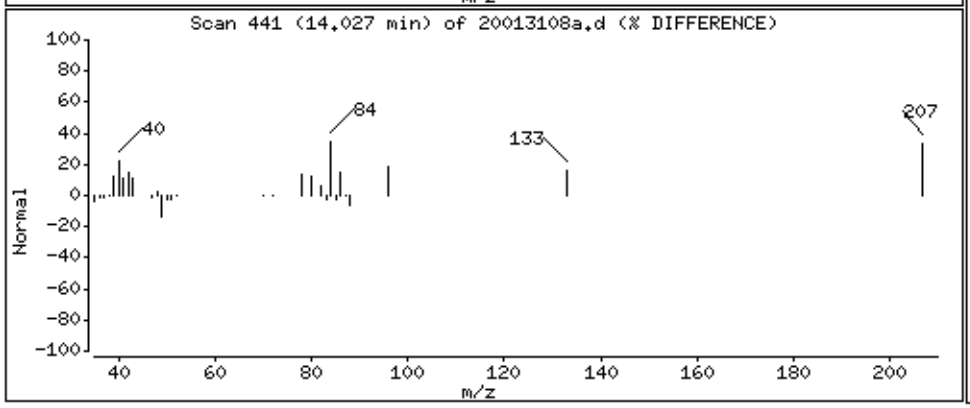
66 Methylene Chloride

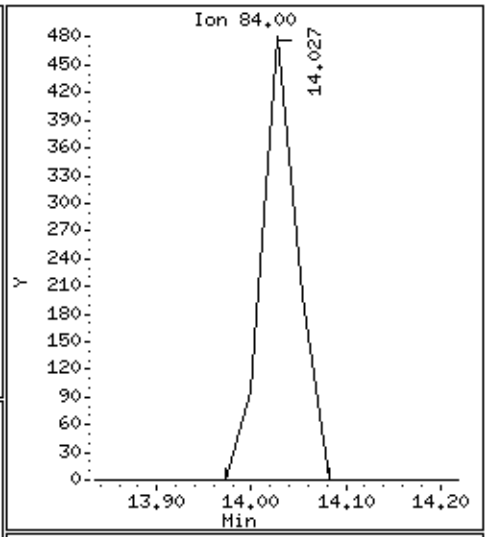
Concentration: 0.02340 PPBV

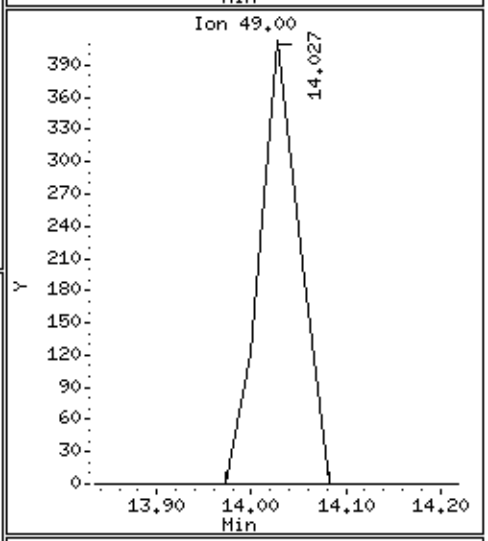


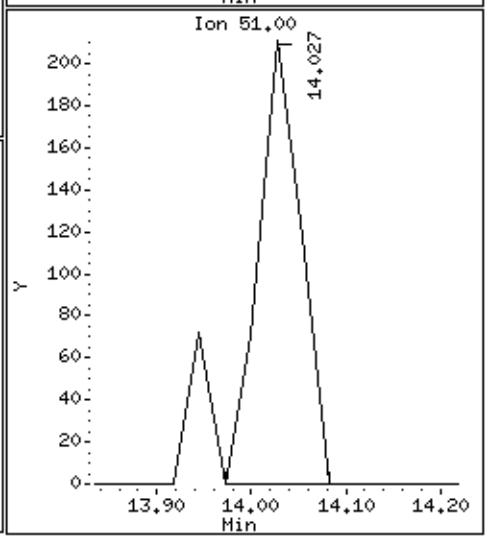












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Client Sample ID: Lab Blank

Lab ID#: 1701428A-16B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013118a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 07:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	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	Not Detected	0.35	Not Detected
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#: 1701428A-16B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013118a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 07:02 PM**	

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	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	91	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013118a.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 31-JAN-2017 19:02
Operator : gh Inst ID: msd20.i
Smp Info : 250mL# 34737
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.696	16.726 (1.000)	130	172317	5.00000		80.00- 120.00	100.00
16.696	16.726 (1.000)	128	132592			46.97- 106.97	76.95
16.696	16.696 (1.000)	49	190704			76.21- 136.21	110.67
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	542687	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	82996			0.00- 45.59	15.29
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	468284	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	256377			23.26- 83.26	54.75
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.621	17.621 (1.055)	65	226242	5.32111	5.321	80.00- 120.00	100.00
17.621	17.621 (1.055)	67	124183			31.78- 91.78	54.89
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	493812	4.75903	4.759	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	58436			0.00- 40.33	11.83

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)								
20.806	20.806	(1.143)	100	318499			35.56- 95.56	64.50
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4		
25.466	25.466	(1.072)	174	227888	4.56021	4.560	80.00- 120.00	100.00
25.466	25.466	(1.072)	95	256167			79.94- 139.94	112.41
25.466	25.466	(1.072)	176	219219			67.24- 127.24	96.20

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20013118a.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: Humid

Calibration Date: 31-JAN-2017
Calibration Time: 15:51
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	172317	-9.15
123 1,4-Difluorobenze	617206	370324	864088	542687	-12.07
163 Chlorobenzene-d5	554897	332938	776856	468284	-15.61

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.70	-0.18
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31Jan2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: gh
Data Type: MS DATA
SampleType: BLANK
SpikeList File: AT12EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.321	106.42	70-130
$ 146 Toluene-d8	5.000	4.759	95.18	70-130
$ 177 4-Bromofluorobenze	5.000	4.560	91.20	70-130

Data File: /chem/msd20.i/31Jan2017.b/20013118a.d

Date : 31-JAN-2017 19:02

Client ID: Lab Blank

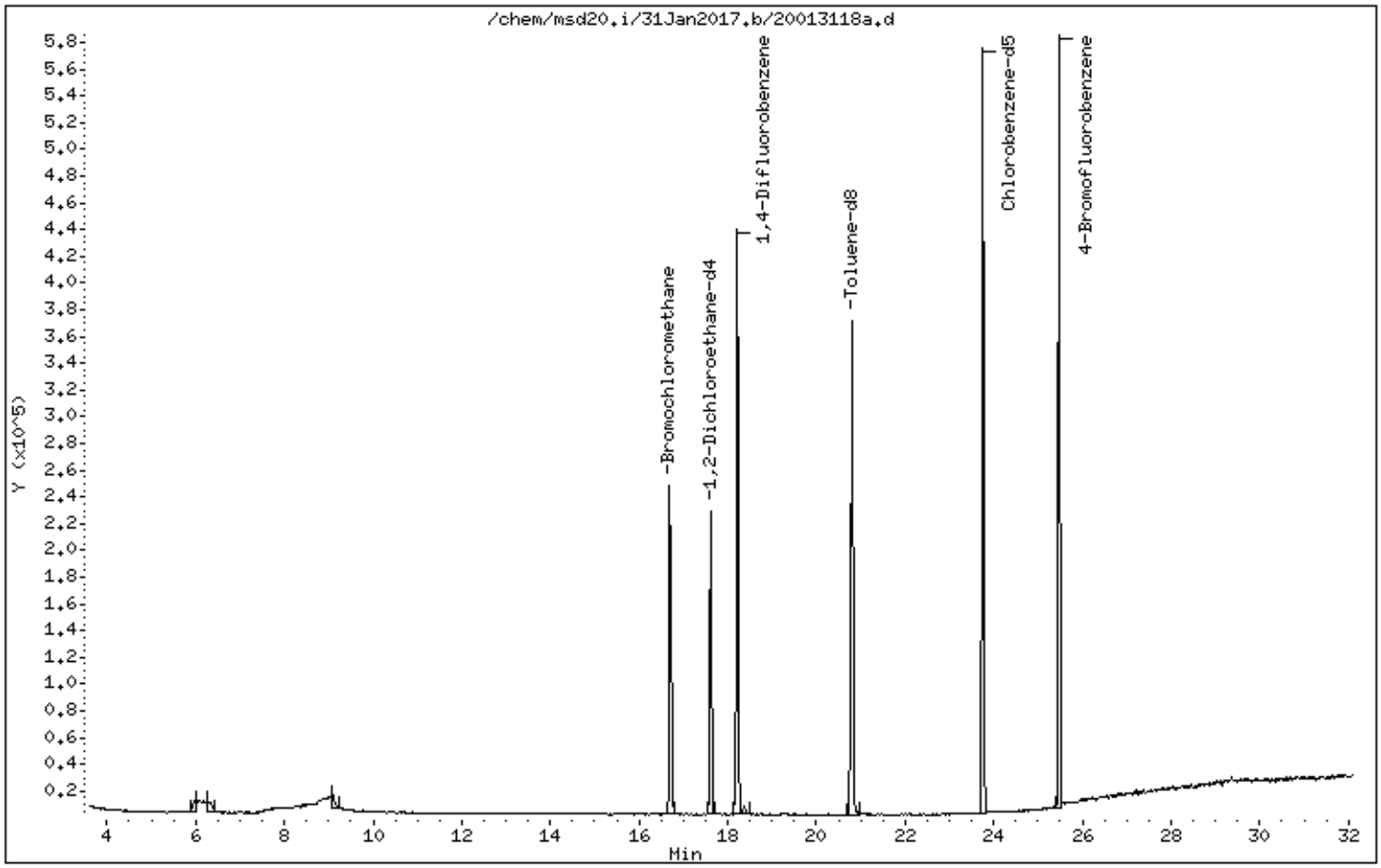
Instrument: msd20.i

Sample Info: 250mL# 34737

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: Lab Blank

Lab ID#: 1701428A-16C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020606c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 11:09 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	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	0.069 J	1.9	0.27 J
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	0.22 J	1.2	0.51 J
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	0.22 J	1.6	0.67 J
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	Not Detected	0.35	Not Detected
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	0.045 J	0.32	0.14 J
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	0.046 J	0.45	0.21 J
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

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1701428A-16C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020606c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 11:09 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	0.025 J	0.77	0.19 J
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	0.016 J	1.0	0.17 J
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	0.022 J	0.49	0.11 J
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	0.029 J	0.49	0.14 J
1,3-Dichlorobenzene	0.10	0.052 J	0.60	0.31 J
1,4-Dichlorobenzene	0.10	0.069 J	0.60	0.41 J
alpha-Chlorotoluene	0.10	0.071 J	0.52	0.37 J
1,2-Dichlorobenzene	0.10	0.059 J	0.60	0.36 J
1,2,4-Trichlorobenzene	0.50	0.23 J	3.7	1.7 J
Hexachlorobutadiene	0.50	0.074 J	5.3	0.79 J
Naphthalene	0.50	0.041 J	2.6	0.22 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020606c.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 06-FEB-2017 11:09
Operator : sab Inst ID: msde.i
Smp Info : 250mL# 34764
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 07-Feb-2017 06:37 atoyama Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
29 Bromomethane						CAS #: 74-83-9	
9.548	9.510 (0.620)	94	2130	0.06911	0.06911	80.00- 120.00	100.00(a)
9.548	9.510 (0.620)	96	1858			64.26- 124.26	87.22
52 Acetone						CAS #: 67-64-1	
12.385	12.366 (0.805)	58	3097	0.21545	0.2154	80.00- 120.00	100.00(a)
12.385	12.366 (0.805)	43	9141			344.13- 404.13	295.17
56 Carbon Disulfide						CAS #: 75-15-0	
12.462	12.462 (0.810)	76	21455	0.21577	0.2158	80.00- 120.00	100.00(a)
* 98 Bromochloromethane						CAS #: 74-97-5	
15.391	15.391 (1.000)	130	126637	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	98942			46.73- 106.73	78.13
15.391	15.391 (1.000)	49	105367			55.35- 115.35	83.20
116 Benzene						CAS #: 71-43-2	
16.207	16.207 (0.968)	78	4746	0.04488	0.04488	80.00- 120.00	100.00(a)
16.231	16.207 (0.970)	77	1002			0.00- 53.00	21.13

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.207	16.207 (1.053)	65	196611	5.40641	5.406	80.00- 120.00	100.00
16.207	16.207 (1.053)	67	89561			22.67- 82.67	45.55
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	428320	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	67841			0.00- 45.16	15.84
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.298	19.298 (1.153)	98	415084	4.99596	4.996	80.00- 120.00	100.00
19.298	19.298 (1.153)	70	50029			0.00- 40.89	12.05
19.298	19.298 (1.153)	100	277040			40.09- 100.09	66.74
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
20.026	20.026 (0.903)	75	2730	0.04642	0.04642	80.00- 120.00	100.00(a)
19.998	20.026 (0.902)	77	1702			1.55- 61.55	62.35
20.026	20.026 (0.903)	39	1834			18.82- 78.82	67.17
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.482	21.482 (0.969)	107	1986	0.02472	0.02472	80.00- 120.00	100.00(a)
21.482	21.482 (0.969)	109	2365			63.39- 123.39	119.09
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	399307	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	200481			17.27- 77.27	50.21
174 Bromoform					CAS #: 75-25-2		
23.452	23.452 (1.057)	173	1799	0.01611	0.01611	80.00- 120.00	100.00(a)
23.474	23.452 (1.058)	171	1640			21.47- 81.47	91.17
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	282272	5.06070	5.061	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	261105			66.74- 126.74	92.50
23.856	23.856 (1.076)	176	278694			67.47- 127.47	98.73
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	3295	0.02219	0.02219	80.00- 120.00	100.00(a)
24.215	24.237 (1.092)	120	772			1.00- 61.00	23.44
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	2709	0.02932	0.02932	80.00- 120.00	100.00(a)
24.708	24.775 (1.114)	120	489			16.84- 76.84	18.08
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.156 (1.134)	146	5102	0.05192	0.05192	80.00- 120.00	100.00(a)
25.157	25.156 (1.134)	148	3167			33.96- 93.96	62.07

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
208 1,3-Dichlorobenzene (continued)							
25.157	25.156 (1.134)	111	1381			6.94- 66.94	27.07
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	7019	0.06876	0.06876	80.00- 120.00	100.00(a)
25.269	25.269 (1.139)	148	3962			35.10- 95.10	56.45
25.269	25.269 (1.139)	111	2468			4.80- 64.80	35.16
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	8357	0.07098	0.07098	80.00- 120.00	100.00(a)
25.403	25.403 (1.145)	126	1928			0.00- 52.64	23.08
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.694 (1.159)	146	5476	0.05939	0.05939	80.00- 120.00	100.00(a)
25.695	25.694 (1.159)	148	4236			33.88- 93.88	77.36
25.695	25.694 (1.159)	111	1566			7.58- 67.58	28.61
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	16035	0.22921	0.2292	80.00- 120.00	100.00(a)
27.398	27.398 (1.235)	182	14211			63.70- 123.70	88.63
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	7248	0.07387	0.07387	80.00- 120.00	100.00(a)
27.488	27.488 (1.239)	223	6524			34.33- 94.33	90.02
228 Naphthalene					CAS #: 91-20-3		
27.712	27.712 (1.250)	128	3943	0.04115	0.04115	80.00- 120.00	100.00(a)
27.735	27.712 (1.251)	127	1974			0.00- 42.30	50.07

QC Flag Legend

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

Report Date: 09-Feb-2017 13:05

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e020606c.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: Humid

Calibration Date: 06-FEB-2017
Calibration Time: 07:43
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	126637	-12.88
123 1,4-Difluorobenze	497113	298268	695958	428320	-13.84
163 Chlorobenzene-d5	465931	279559	652303	399307	-14.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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: 09-Feb-2017 13:05

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: sab
Data Type: MS DATA
SampleType: BLANK
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.406	108.13	70-130
$ 146 Toluene-d8	5.000	4.996	99.92	70-130
$ 177 4-Bromofluorobenze	5.000	5.061	101.21	70-130

Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

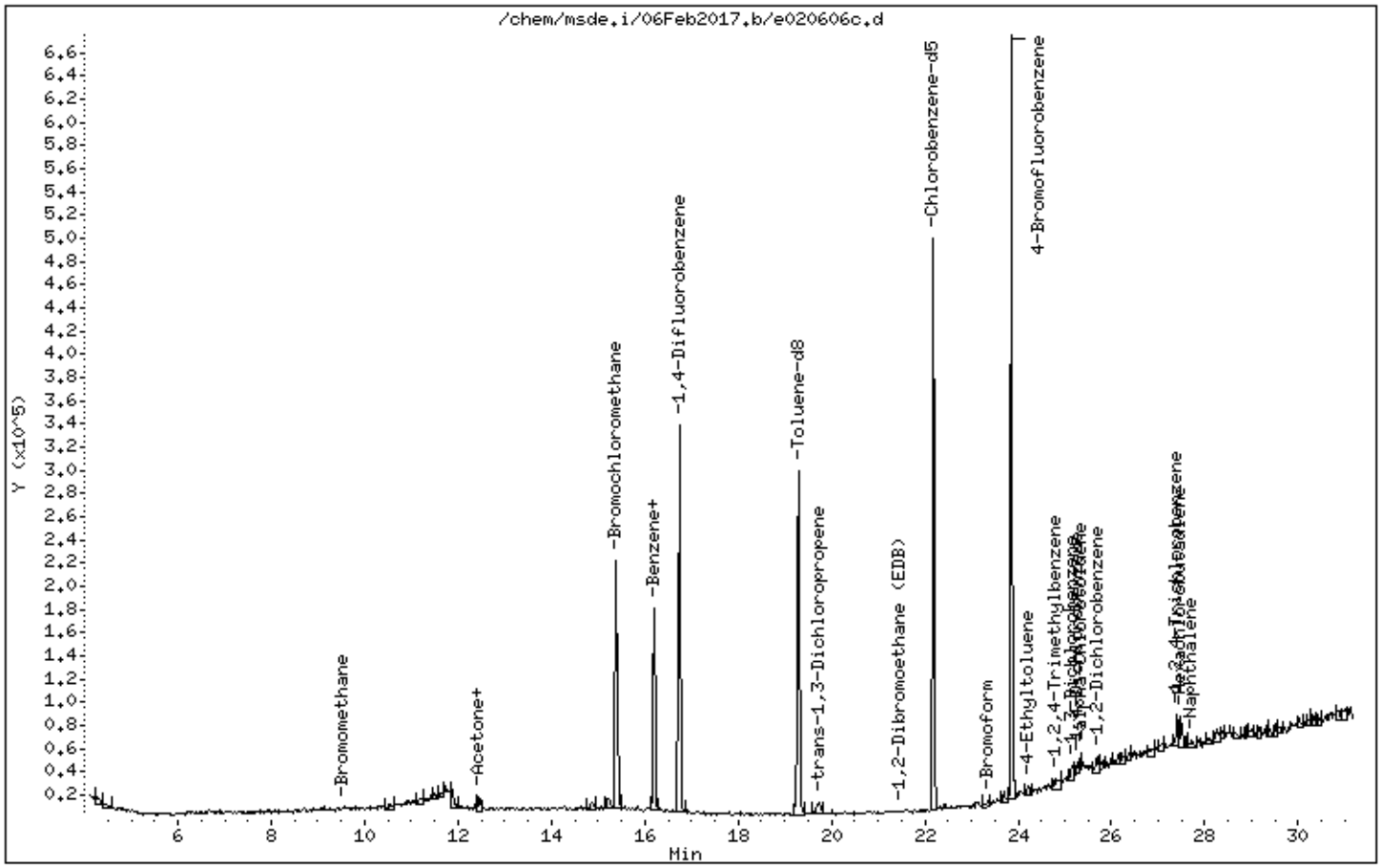
Instrument: msde.i

Sample Info: 250mL# 34764

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

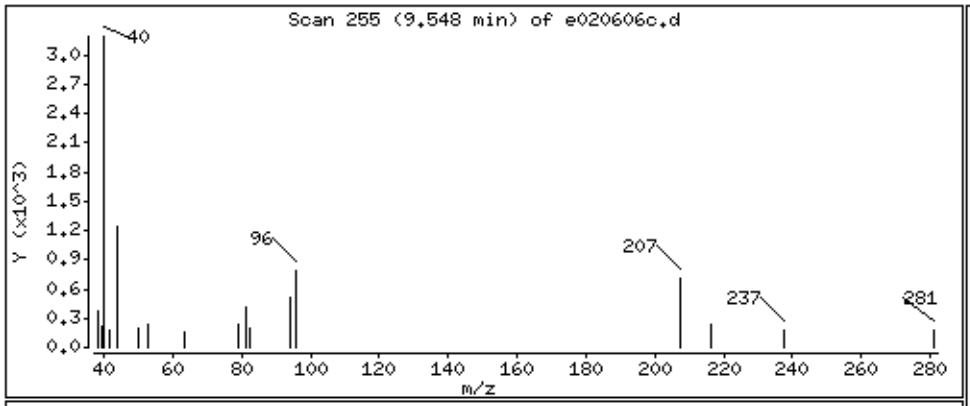
Operator: sab

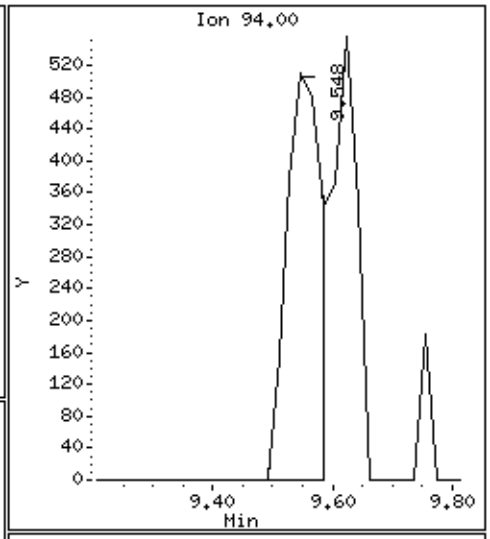
Column phase: RTX-624

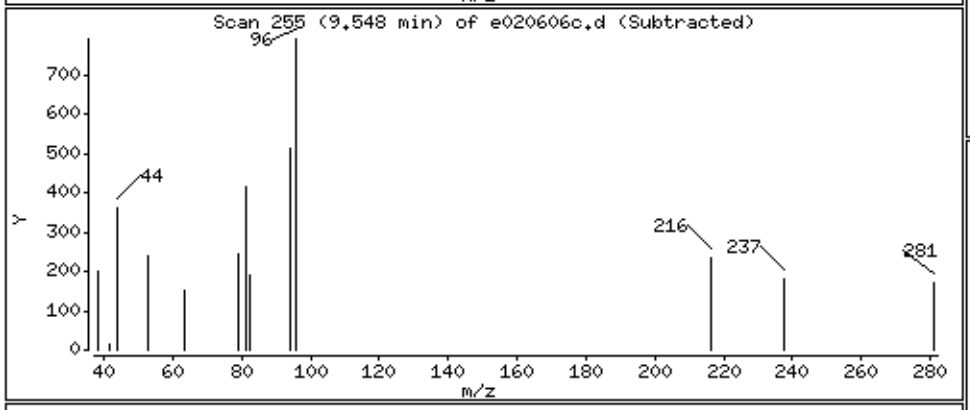
Column diameter: 0.32

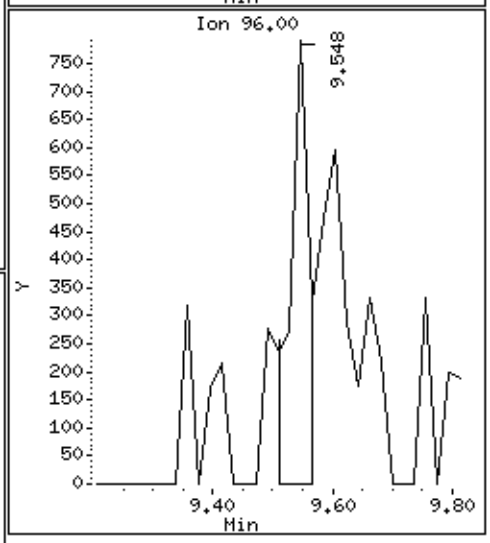
29 Bromomethane

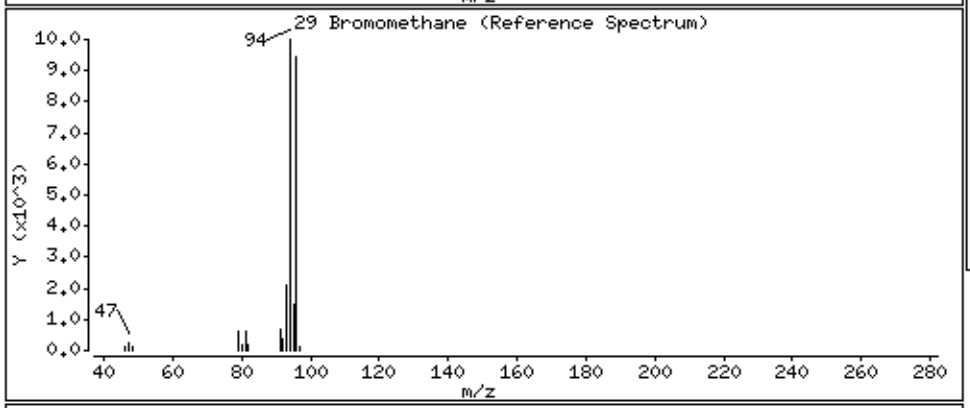
Concentration: 0.06911 PPBV

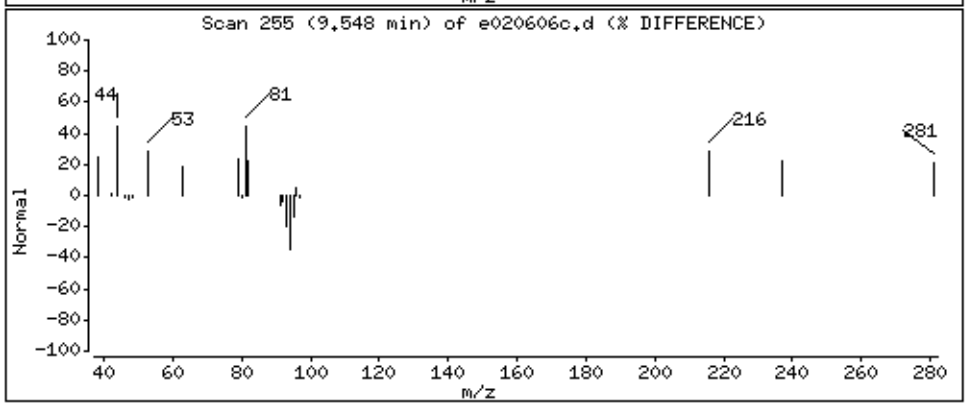












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

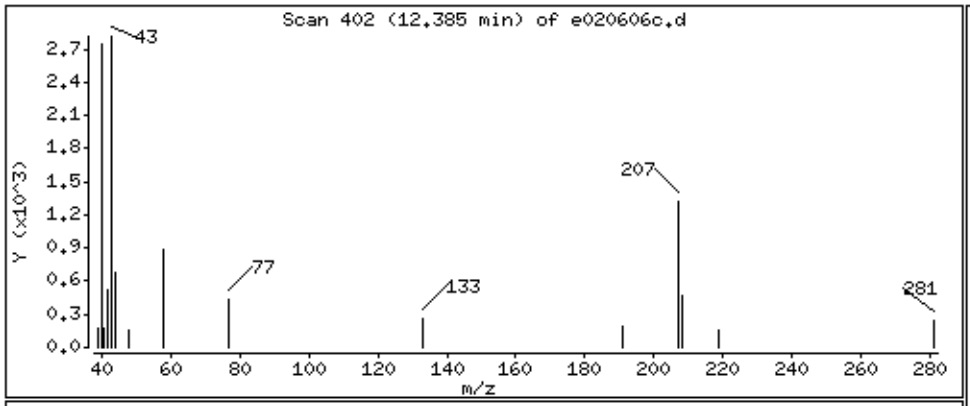
Operator: sab

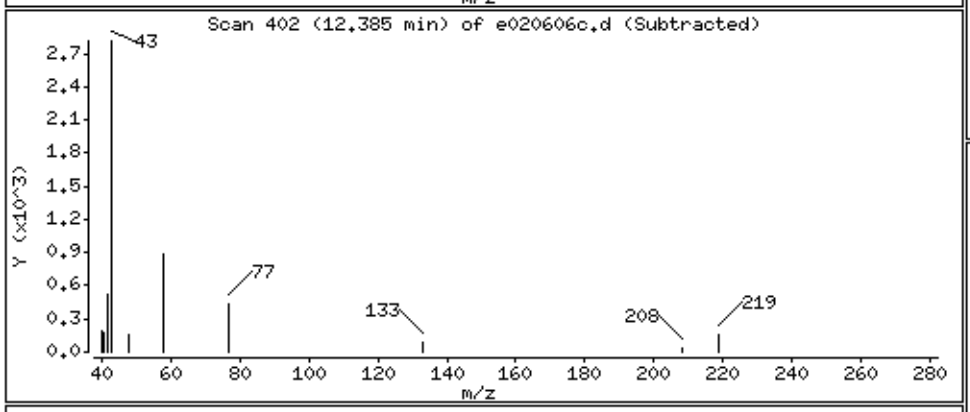
Column phase: RTX-624

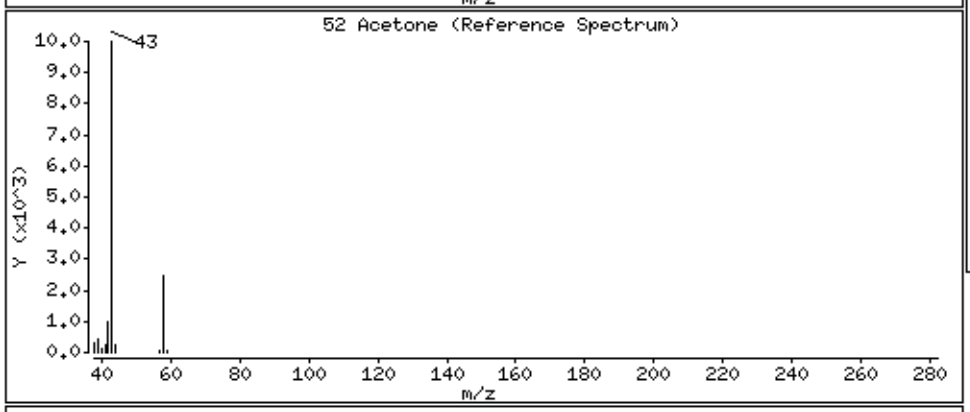
Column diameter: 0.32

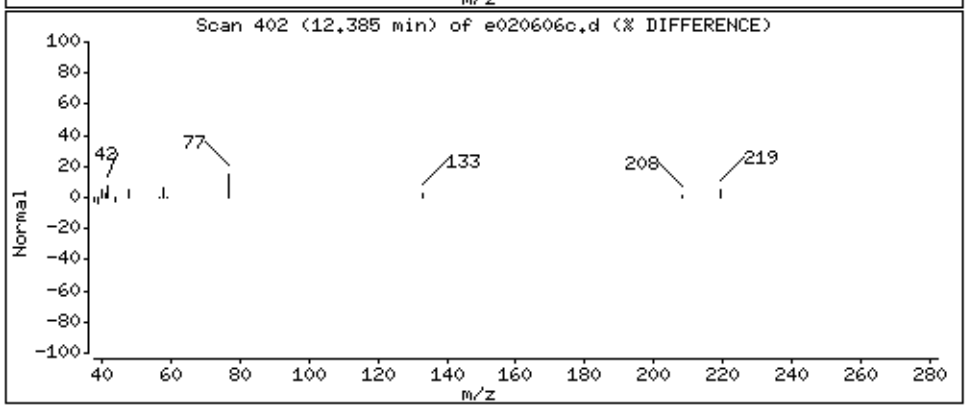
52 Acetone

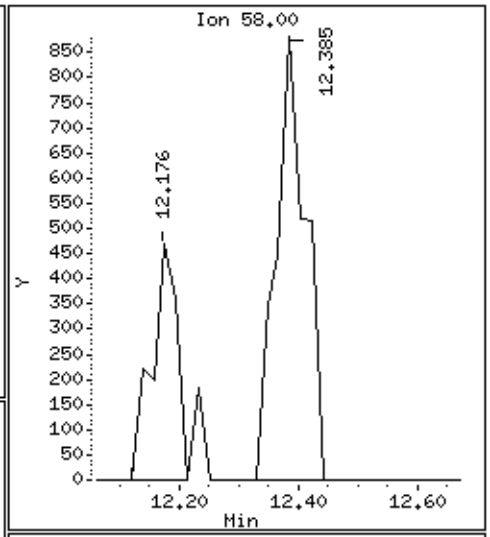
Concentration: 0.2154 PPBV

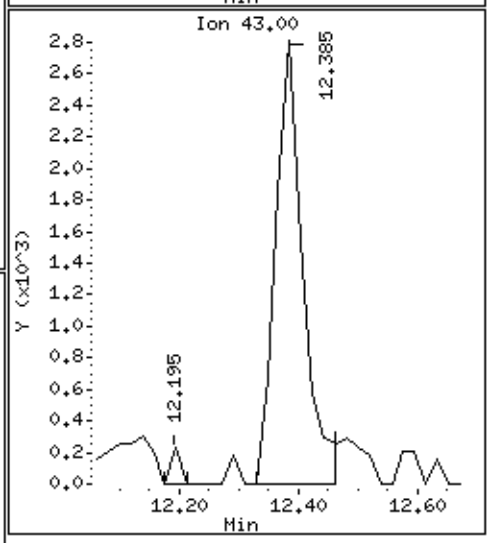












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

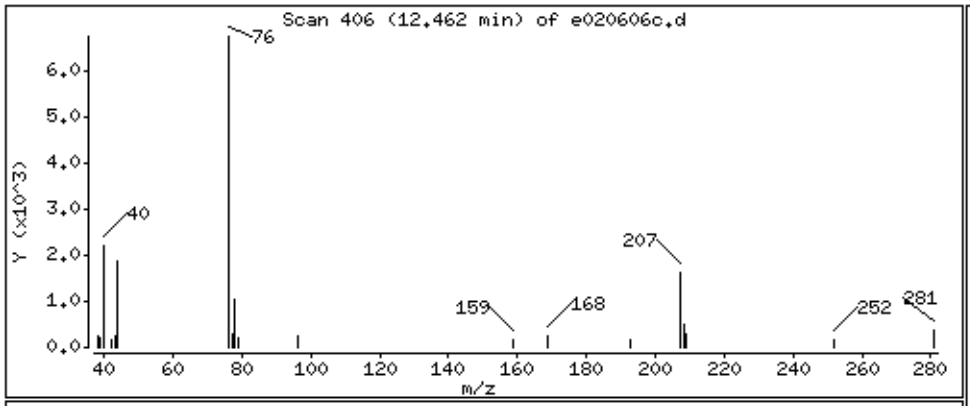
Operator: sab

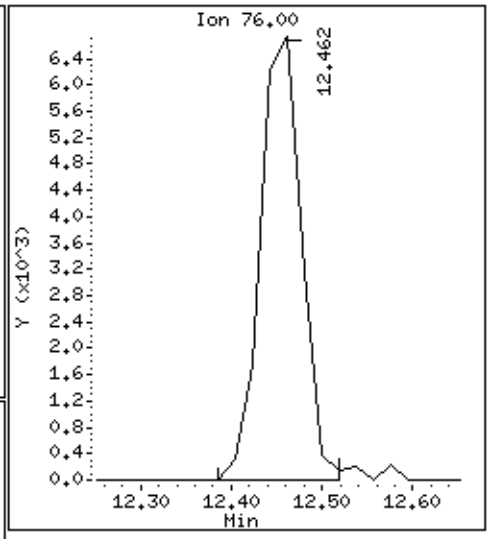
Column phase: RTX-624

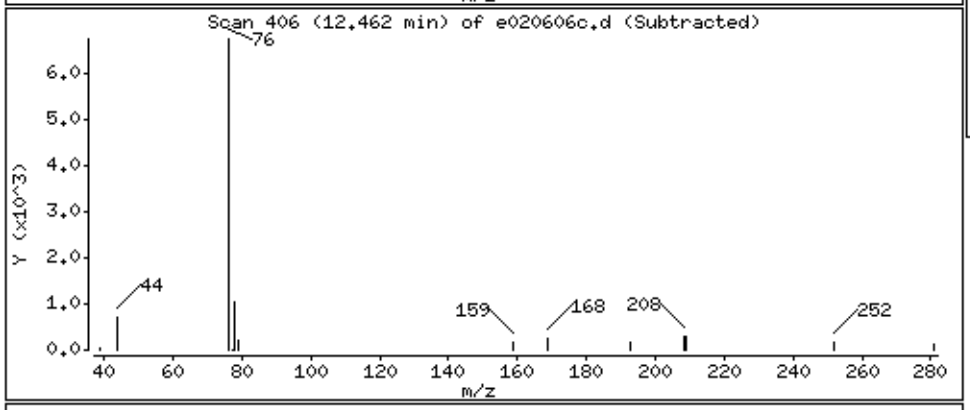
Column diameter: 0.32

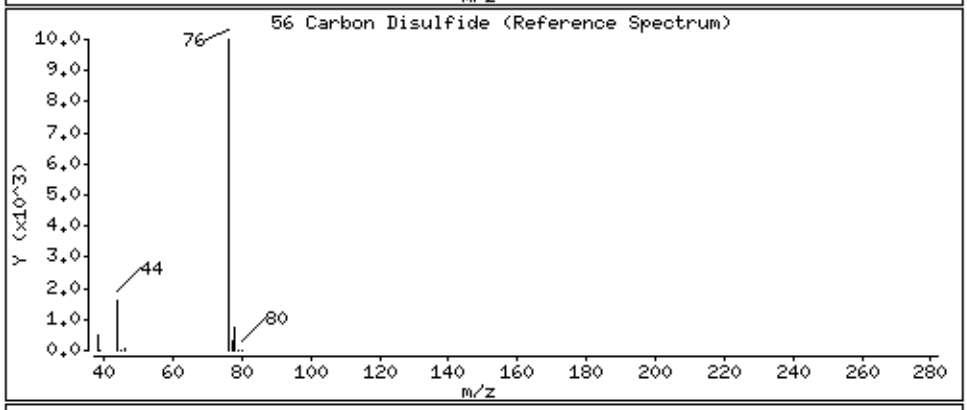
56 Carbon Disulfide

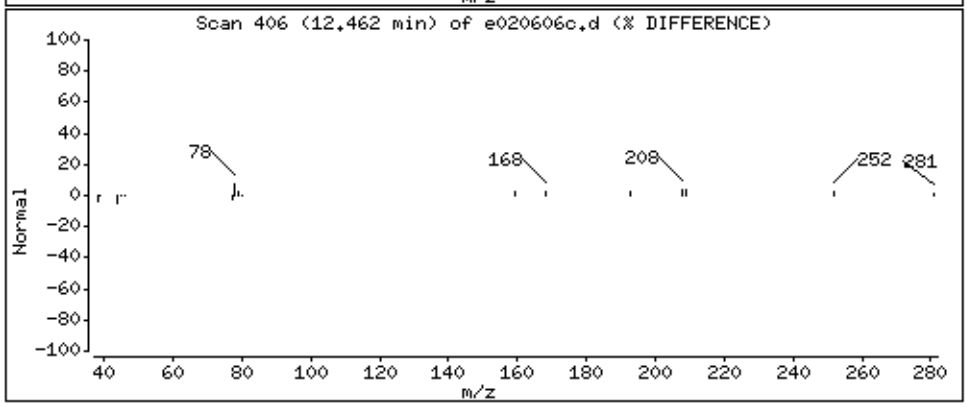
Concentration: 0.2158 PPBV











Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

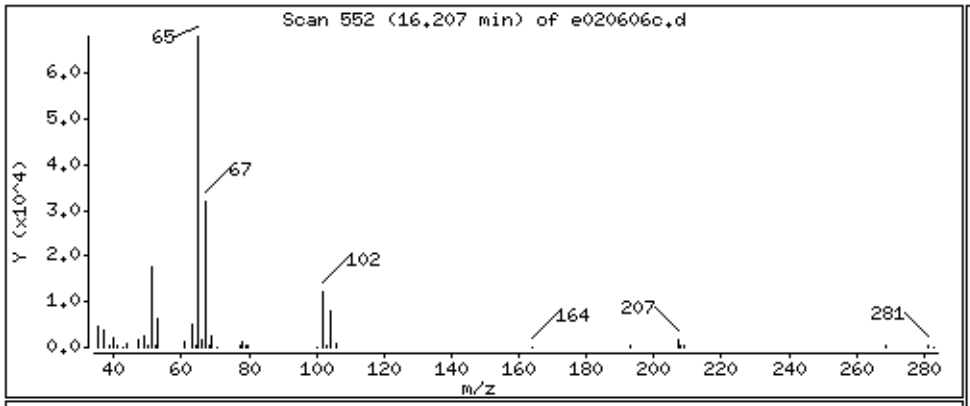
Operator: sab

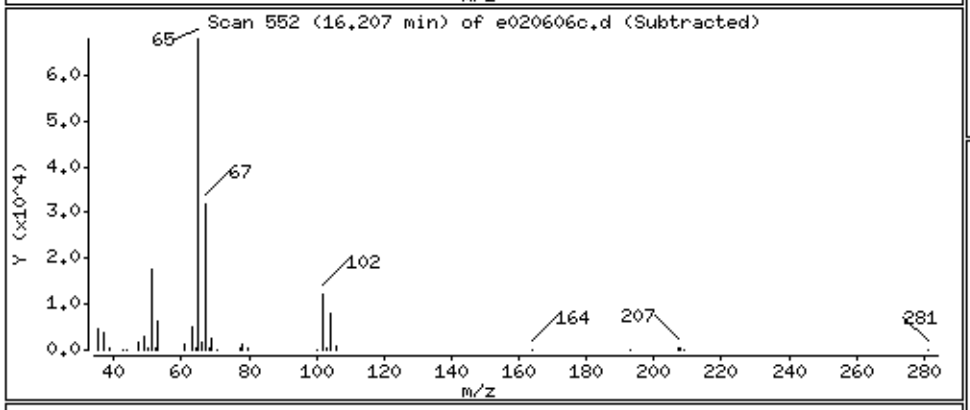
Column phase: RTX-624

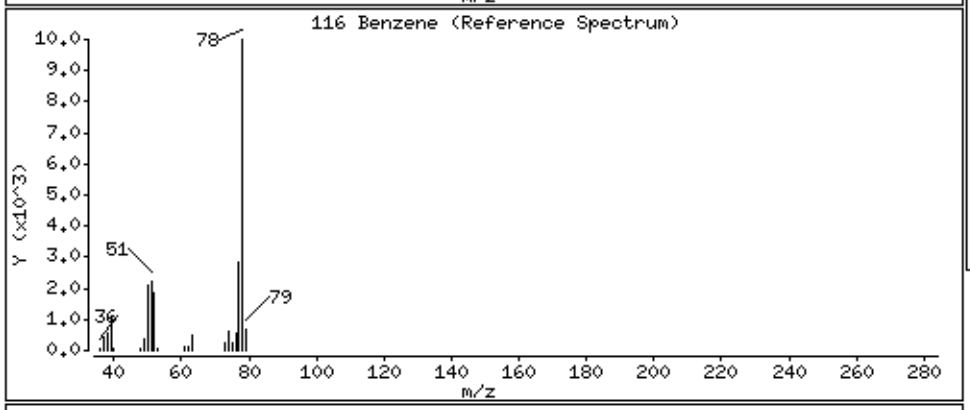
Column diameter: 0.32

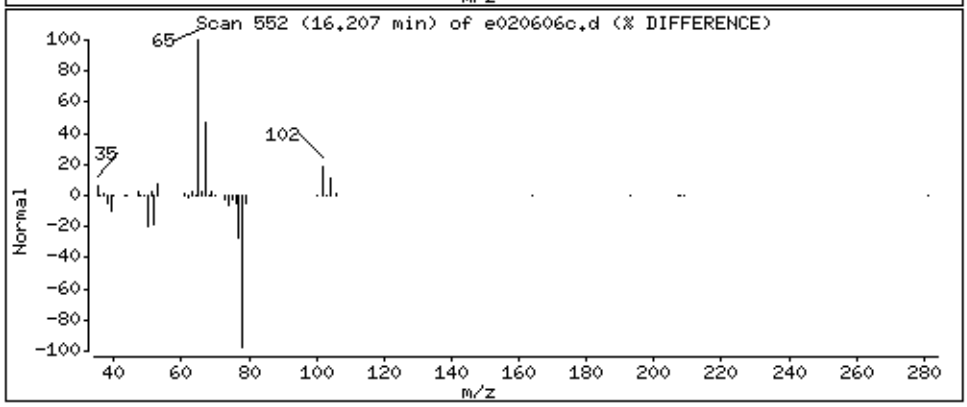
116 Benzene

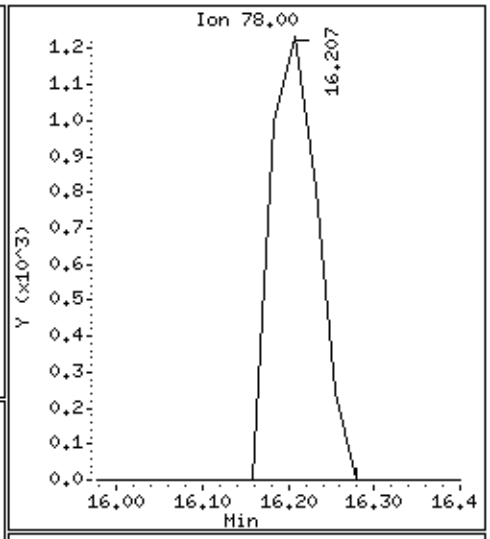
Concentration: 0.04488 PPBV

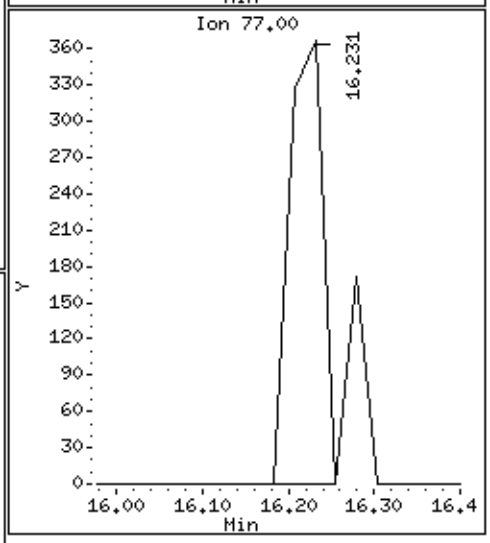












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

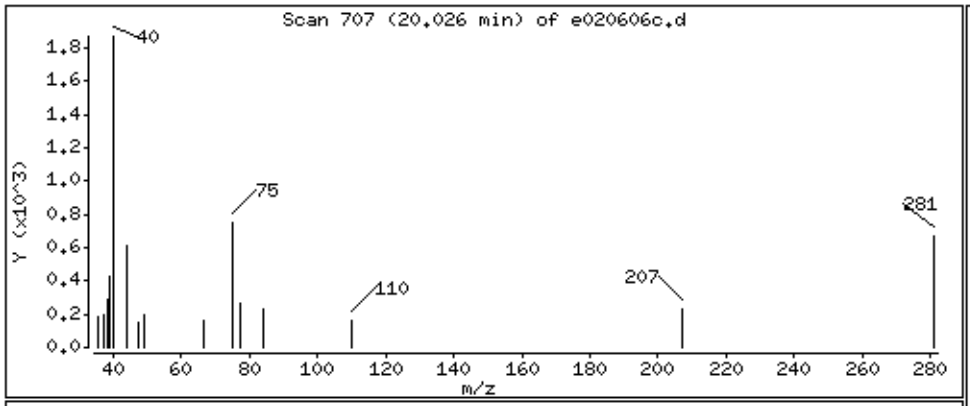
Operator: sab

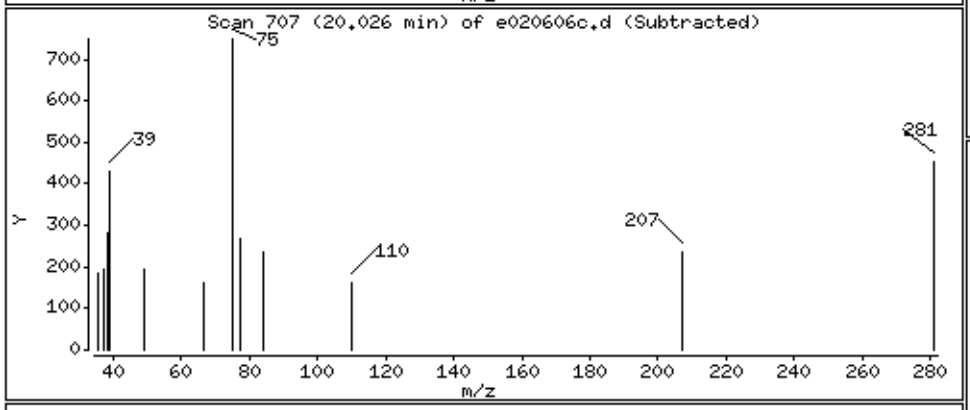
Column phase: RTX-624

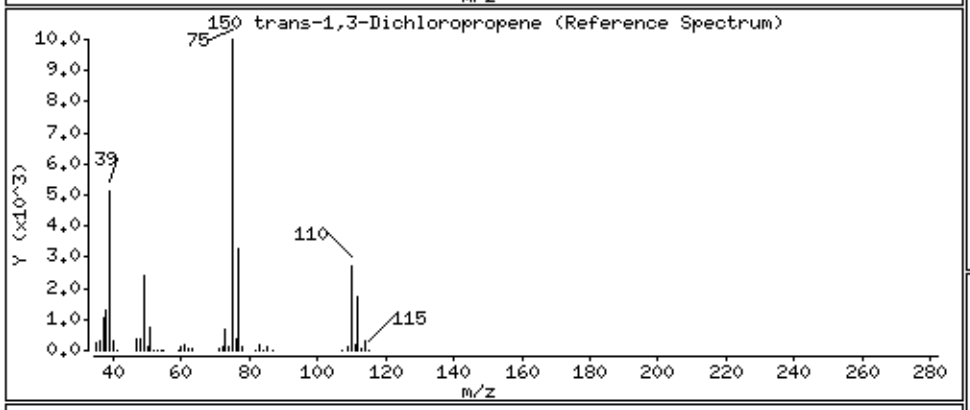
Column diameter: 0.32

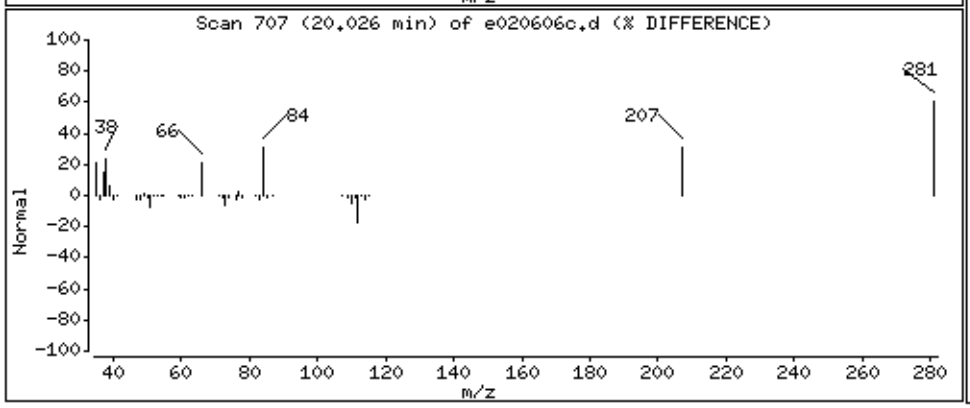
150 trans-1,3-Dichloropropene

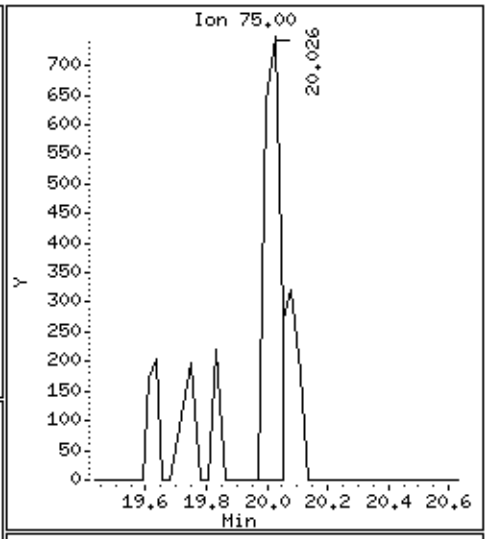
Concentration: 0.04642 PPBV

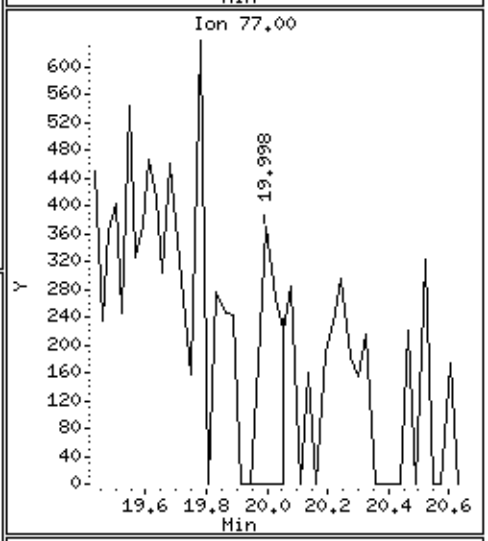


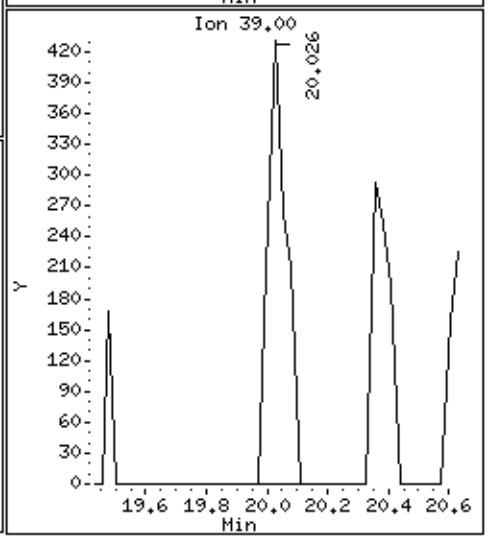












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

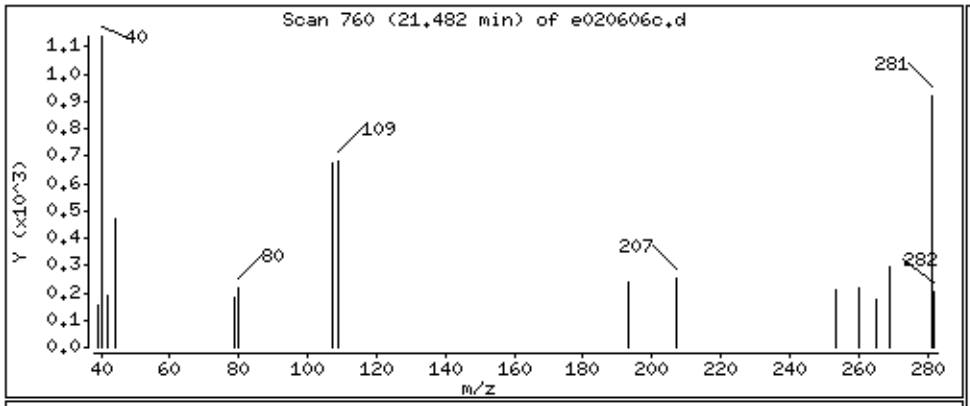
Operator: sab

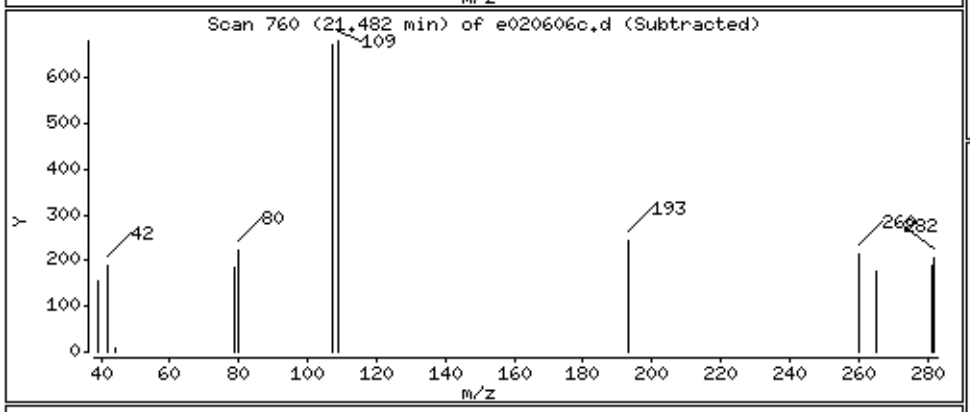
Column phase: RTX-624

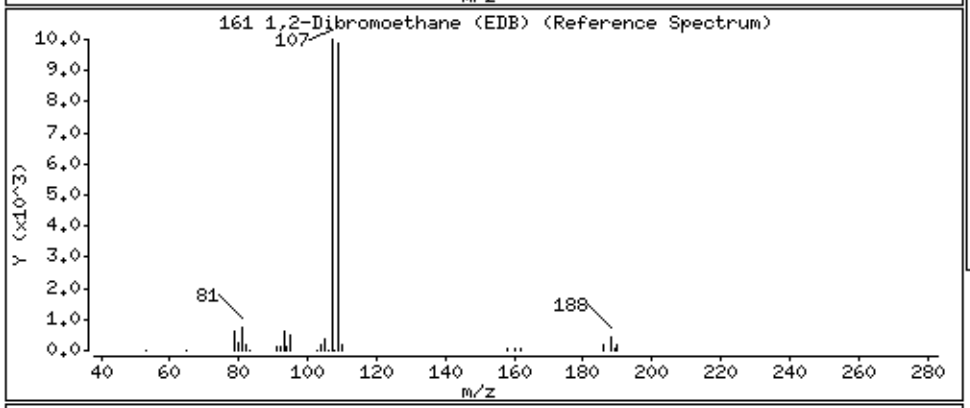
Column diameter: 0.32

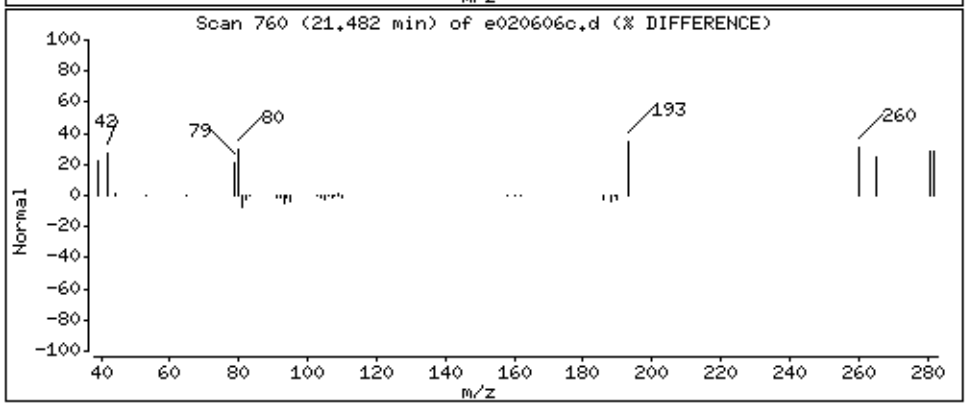
161 1,2-Dibromoethane (EDB)

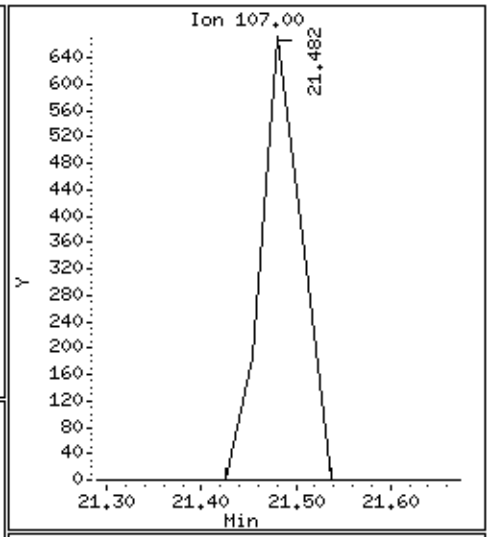
Concentration: 0.02472 PPBV

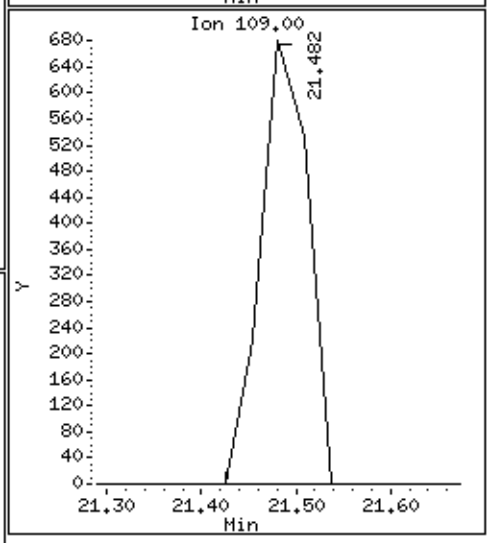












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

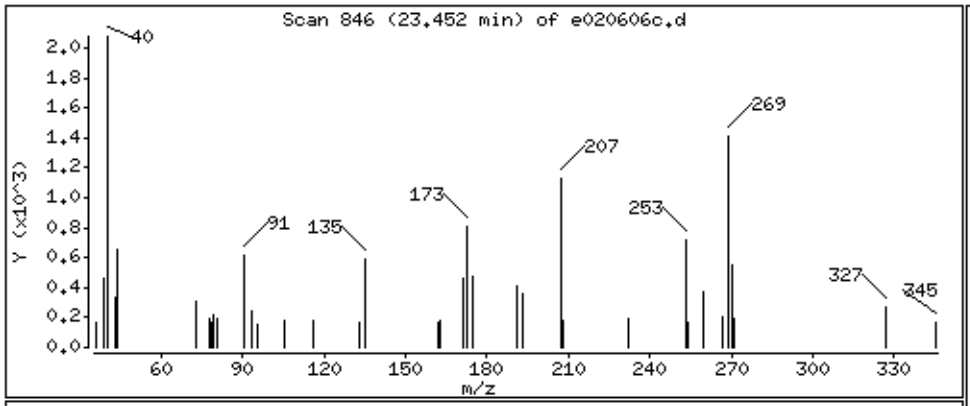
Operator: sab

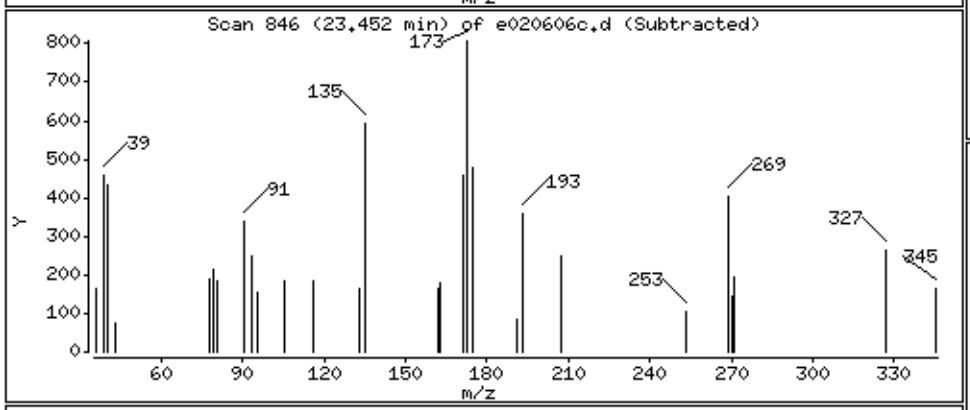
Column phase: RTX-624

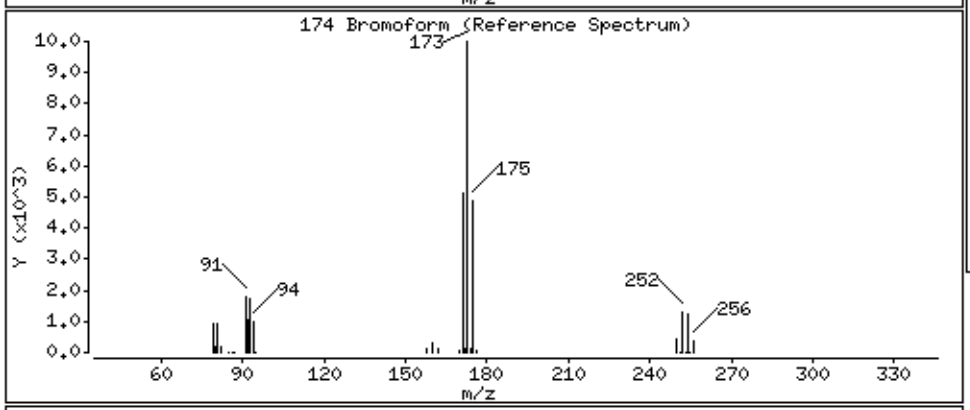
Column diameter: 0.32

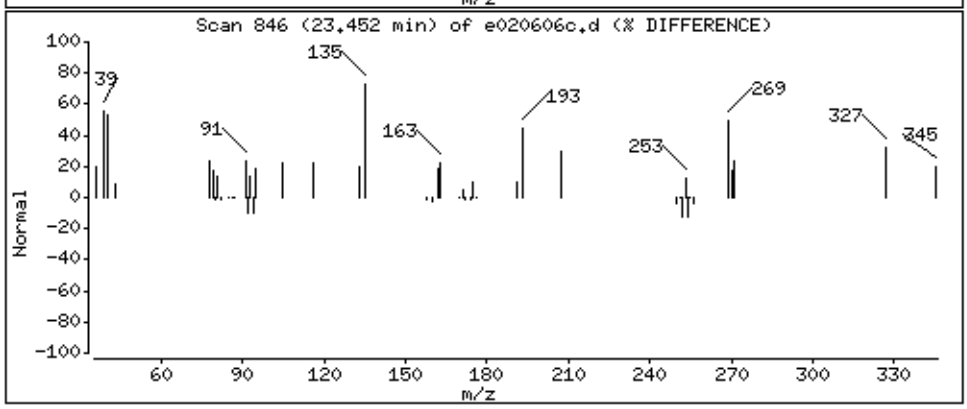
174 Bromoform

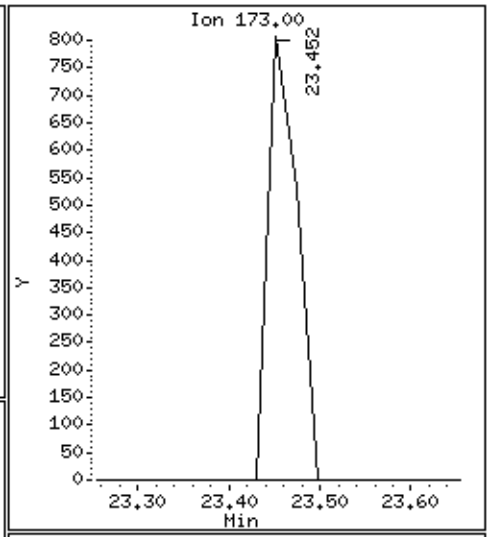
Concentration: 0.01611 PPBV

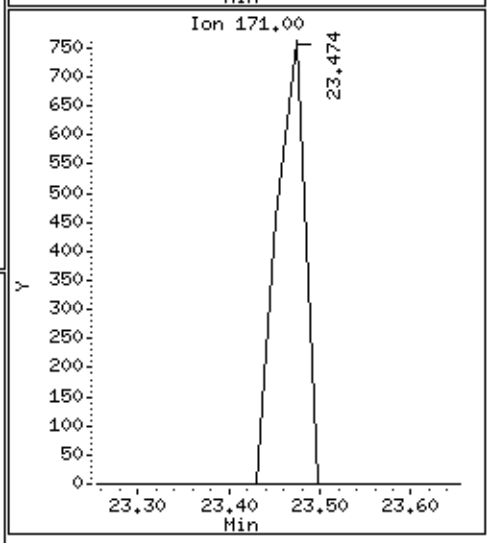












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

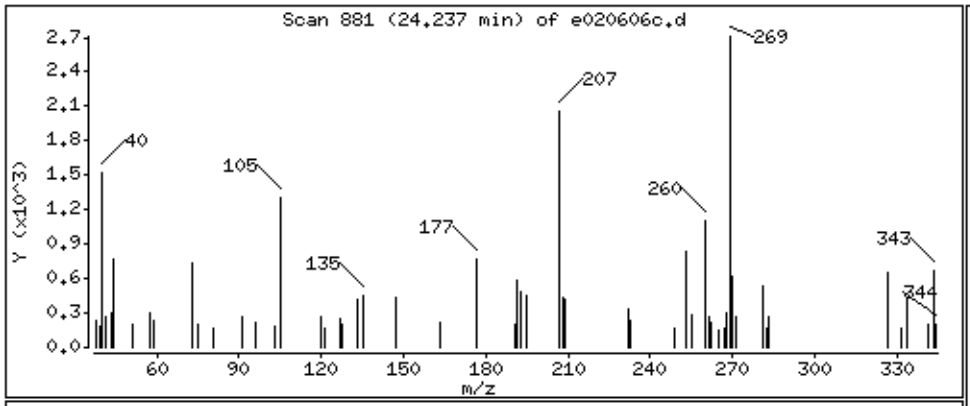
Operator: sab

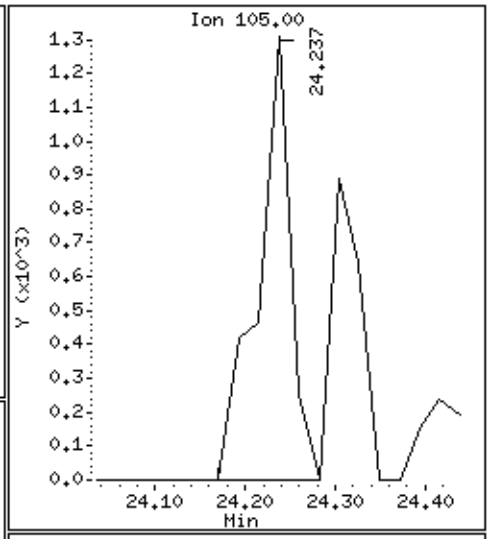
Column phase: RTX-624

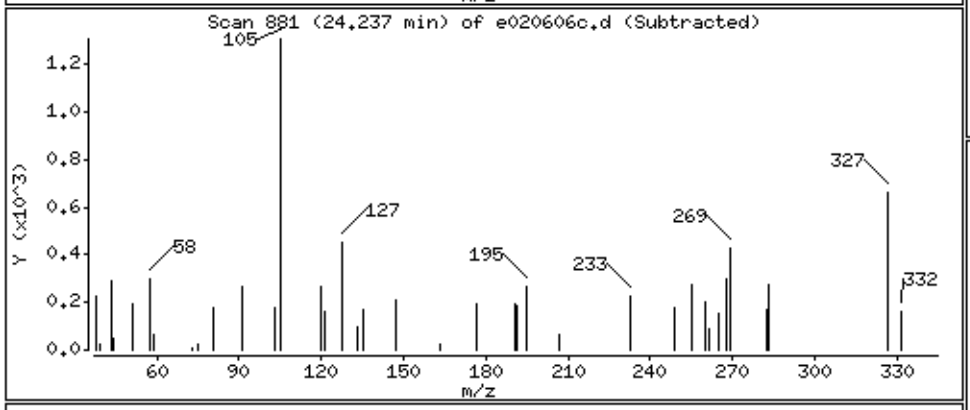
Column diameter: 0.32

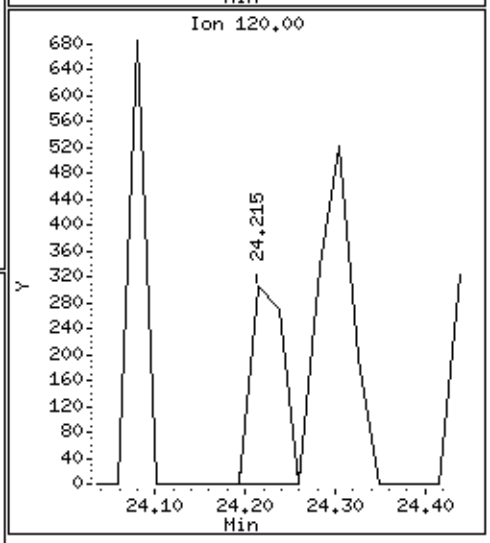
188 4-Ethyltoluene

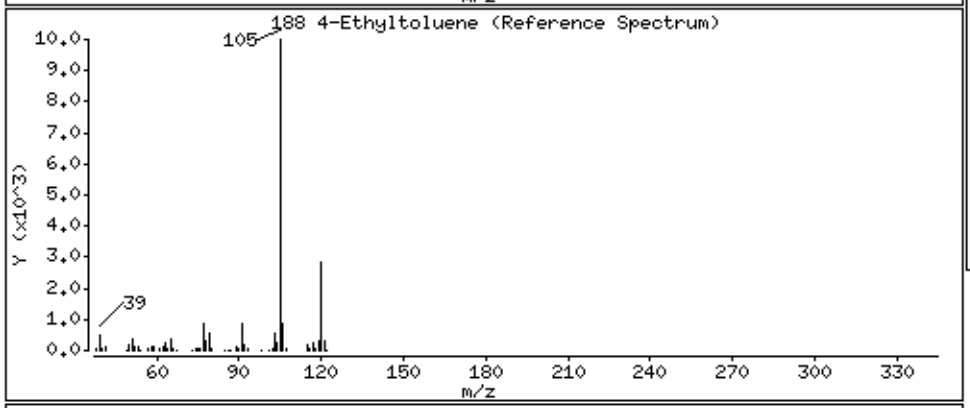
Concentration: 0.02219 PPBV

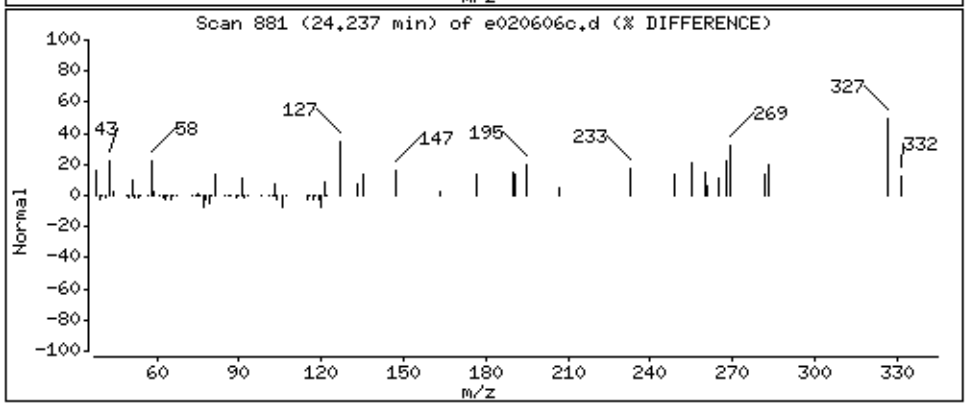












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

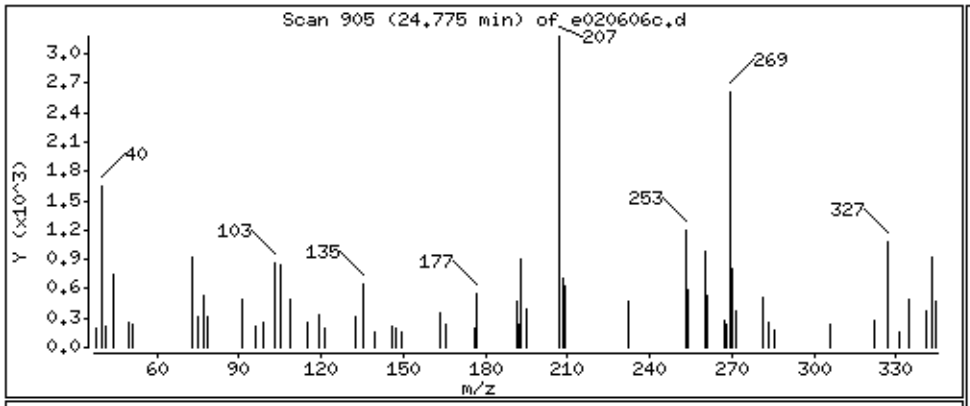
Operator: sab

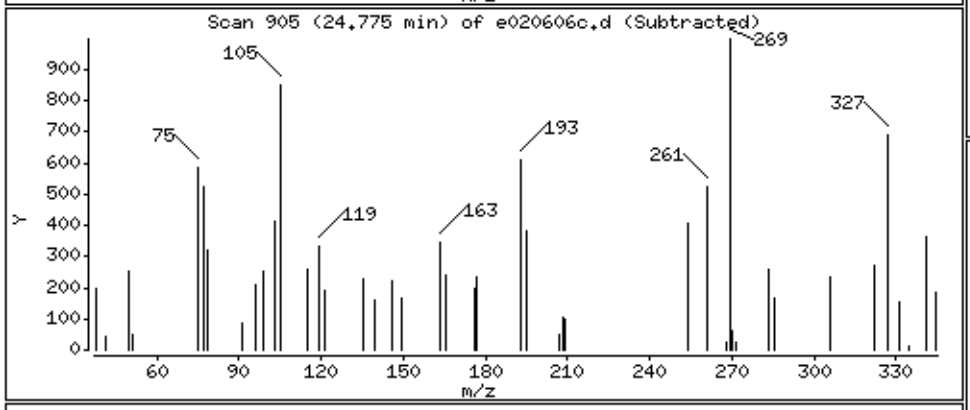
Column phase: RTX-624

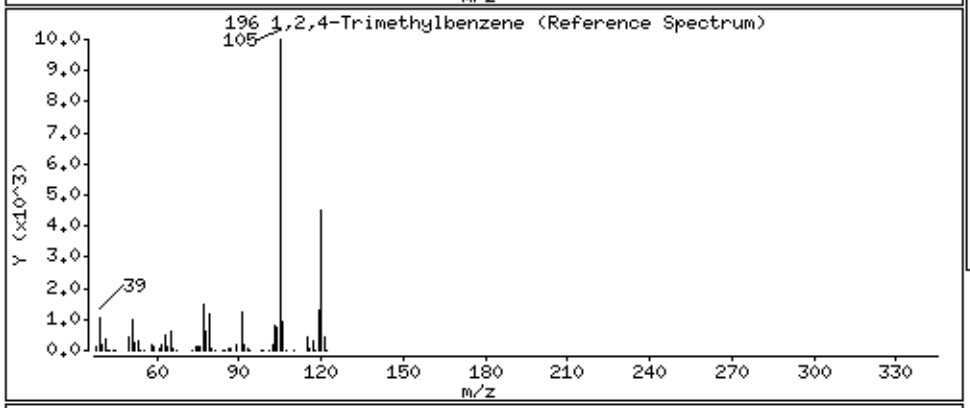
Column diameter: 0.32

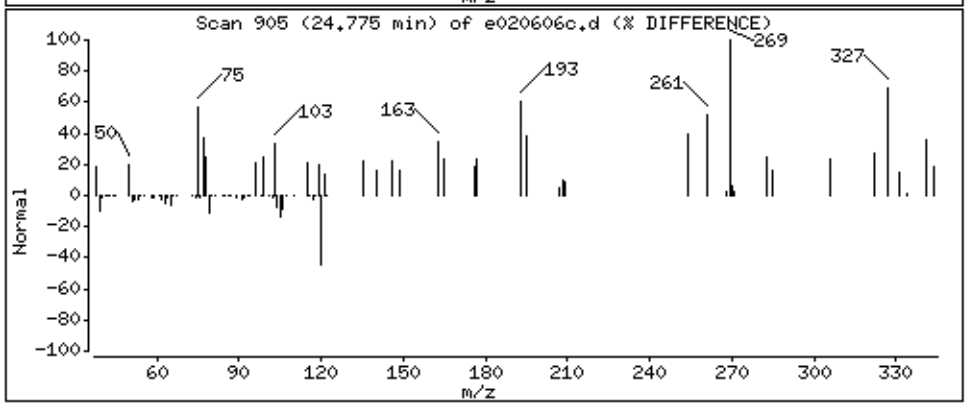
196 1,2,4-Trimethylbenzene

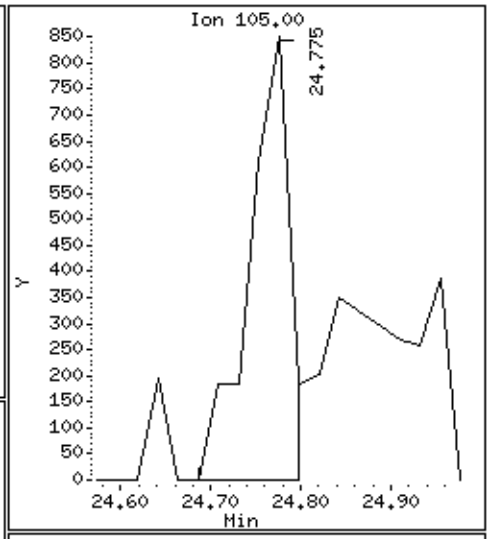
Concentration: 0.02932 PPBV

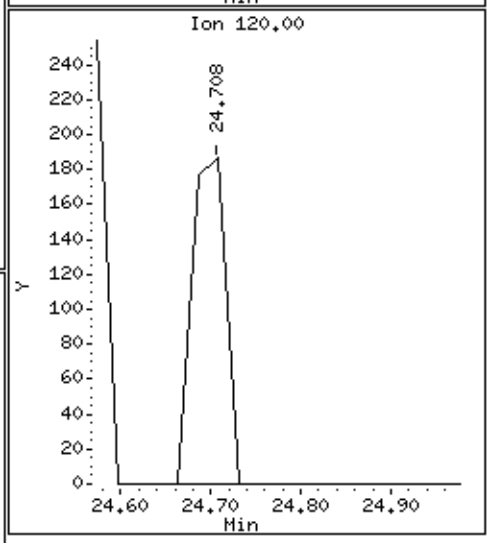












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

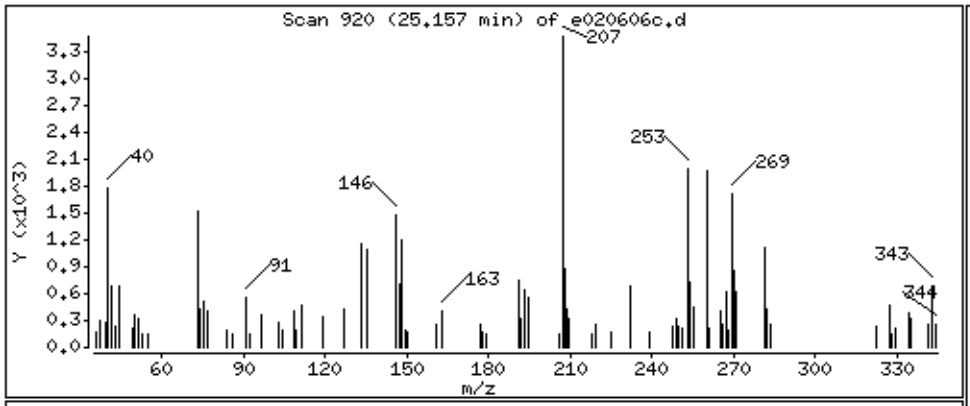
Operator: sab

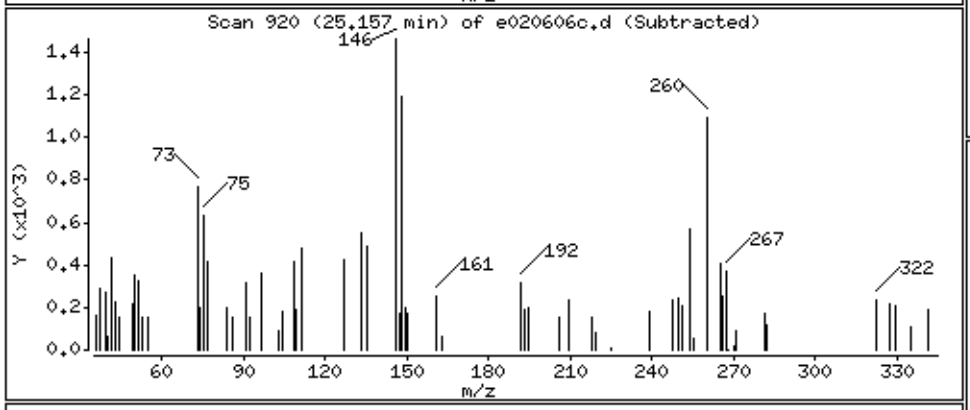
Column phase: RTX-624

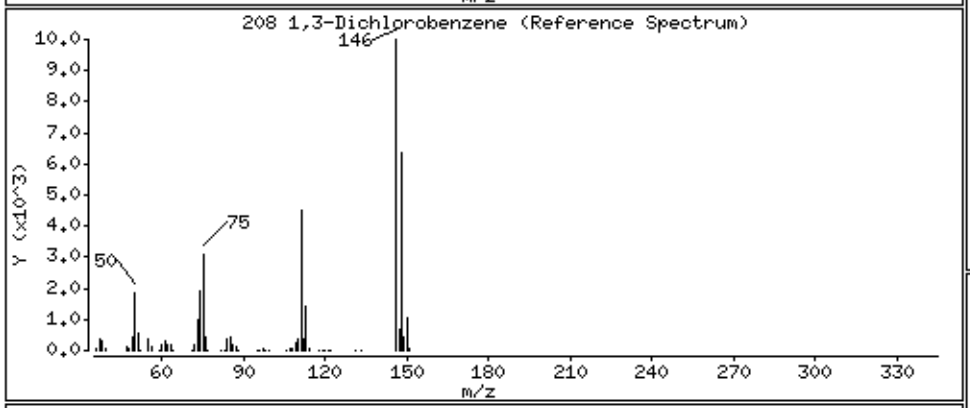
Column diameter: 0.32

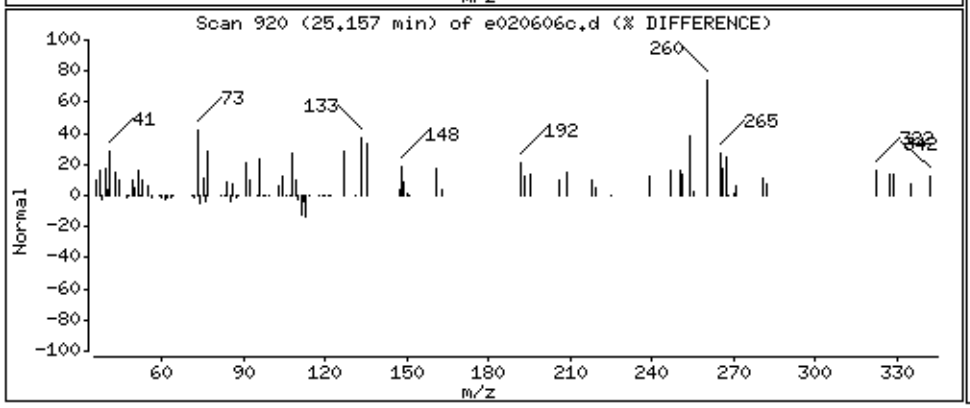
208 1,3-Dichlorobenzene

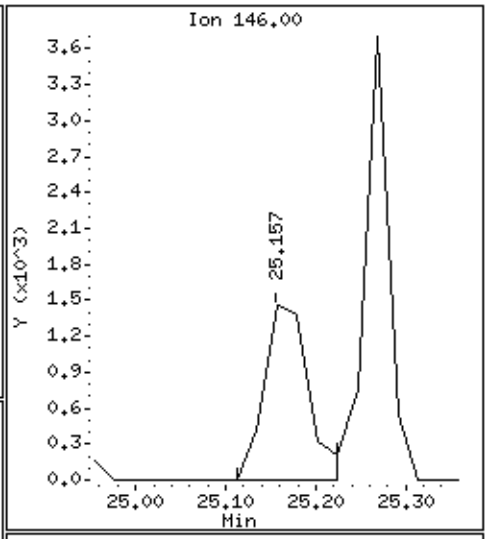
Concentration: 0.05192 PPBV

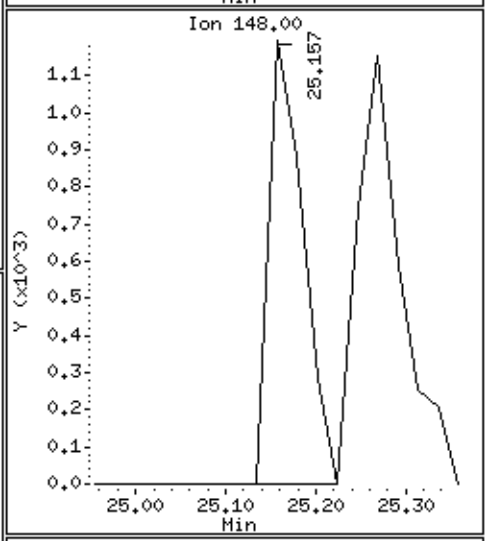


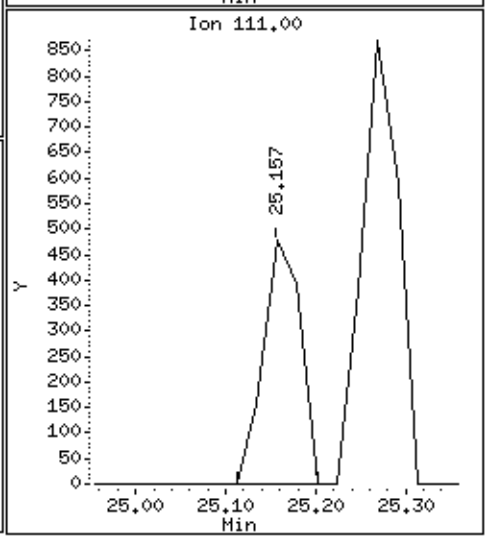












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

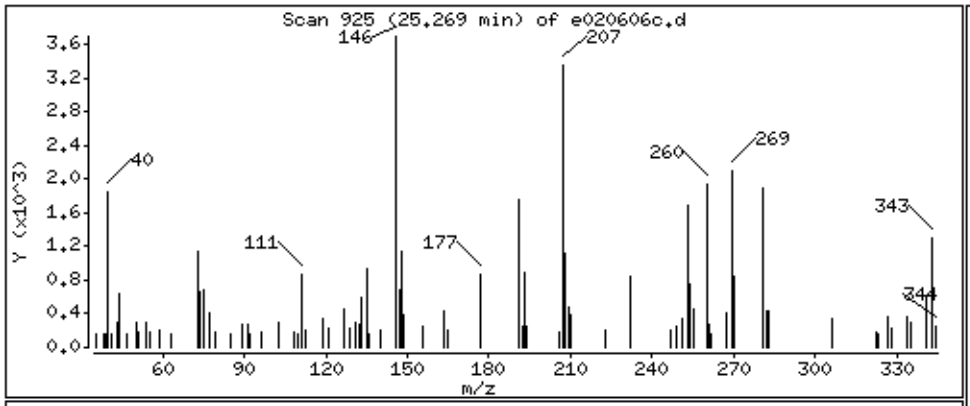
Operator: sab

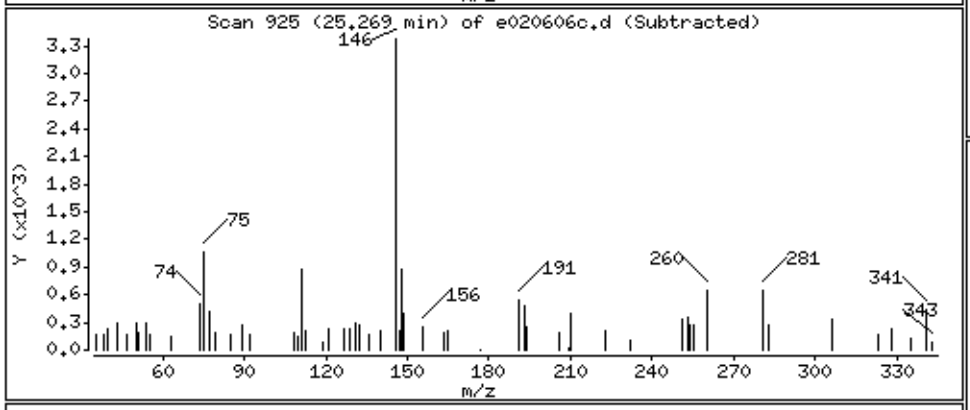
Column phase: RTX-624

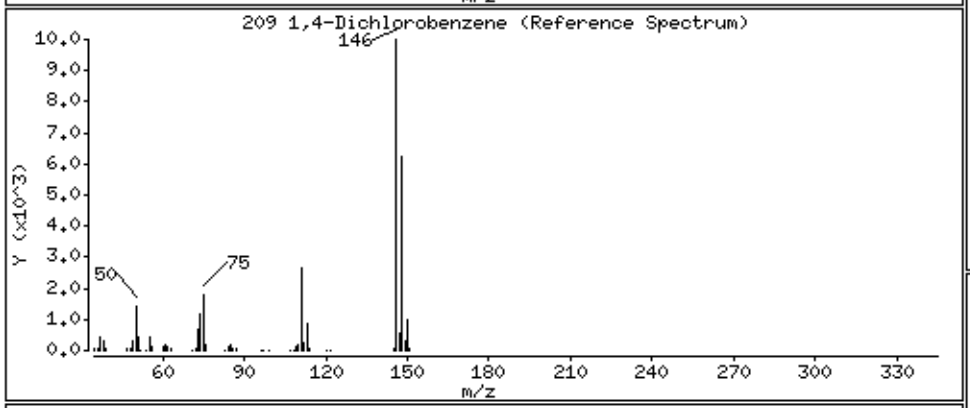
Column diameter: 0.32

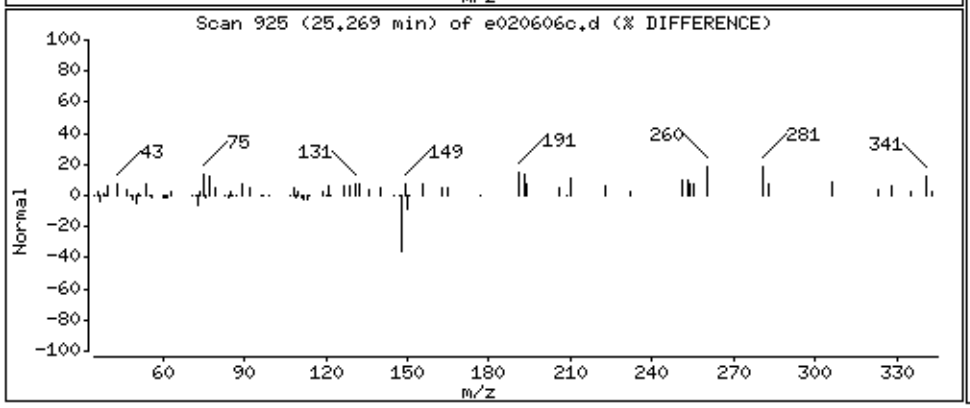
209 1,4-Dichlorobenzene

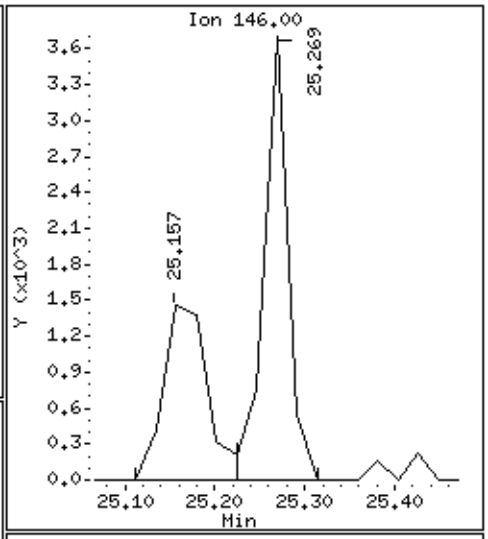
Concentration: 0.06876 PPBV

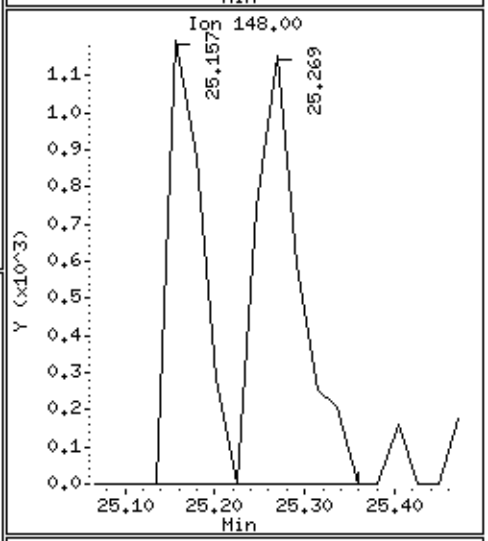


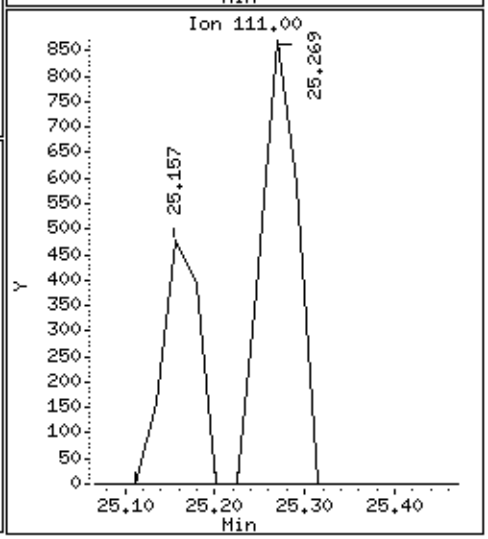












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

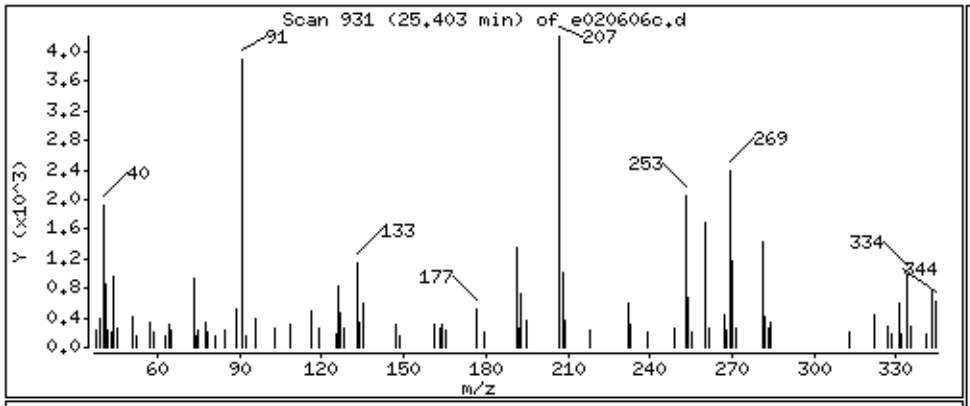
Operator: sab

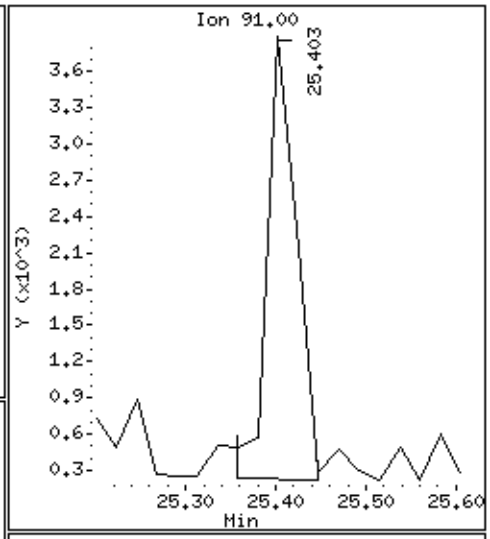
Column phase: RTX-624

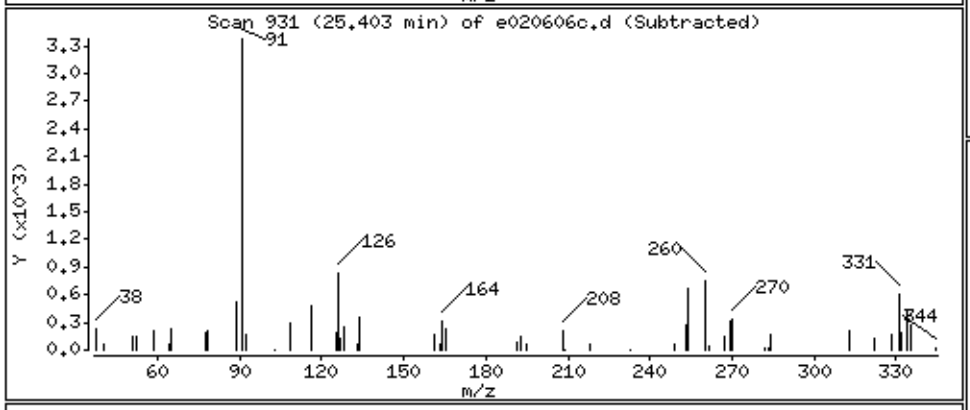
Column diameter: 0.32

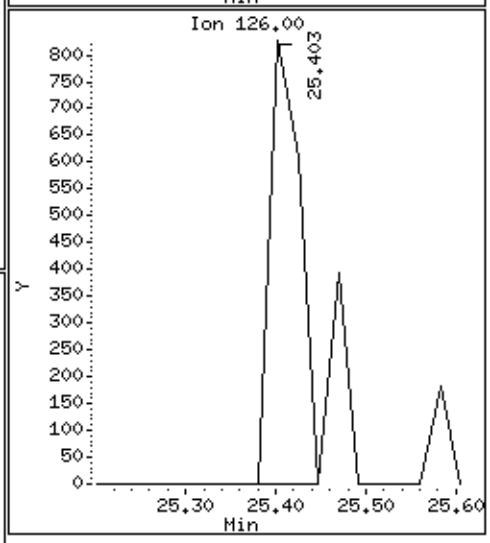
212 alpha-Chlorotoluene

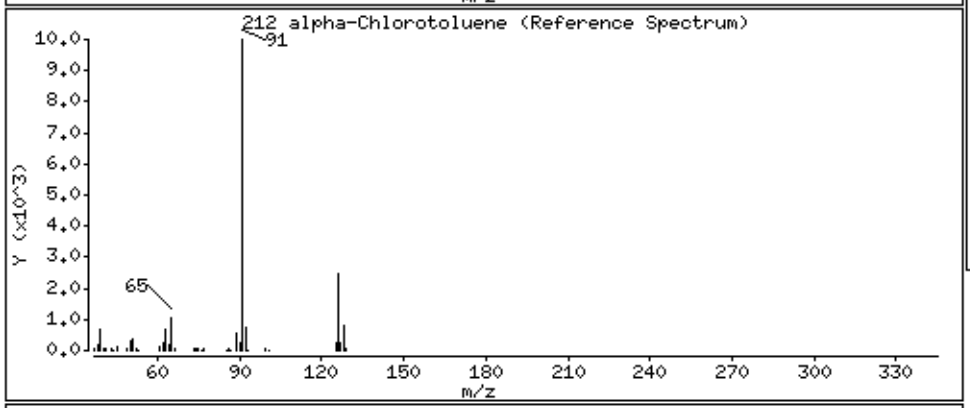
Concentration: 0.07098 PPBV

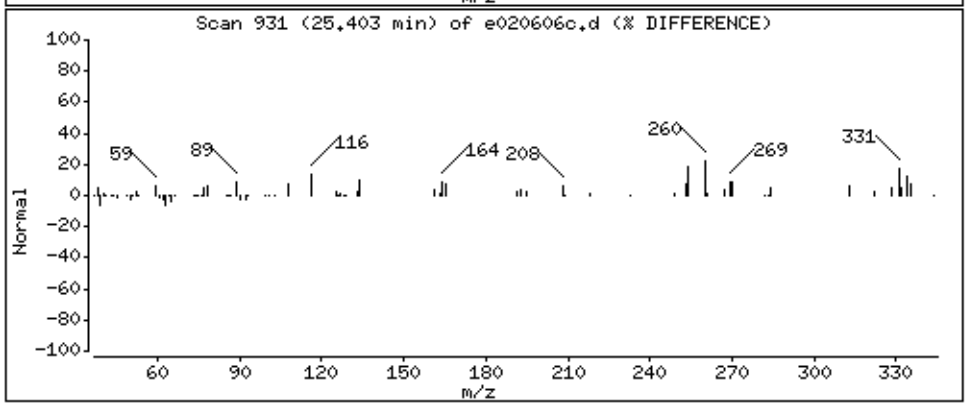












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

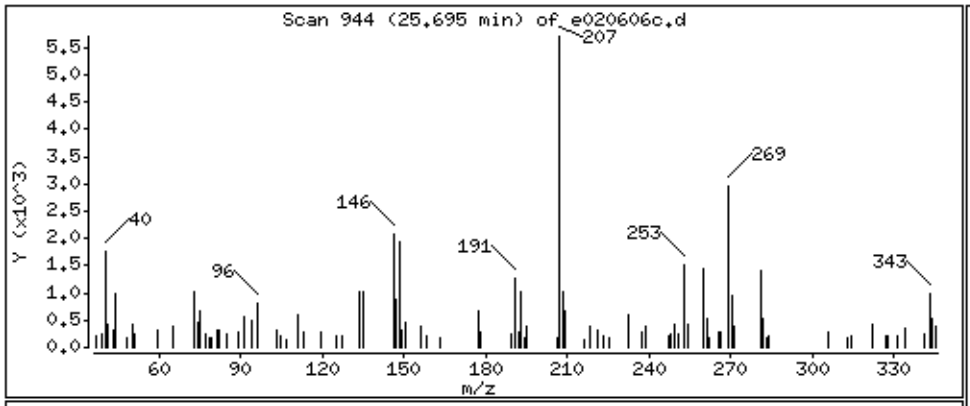
Operator: sab

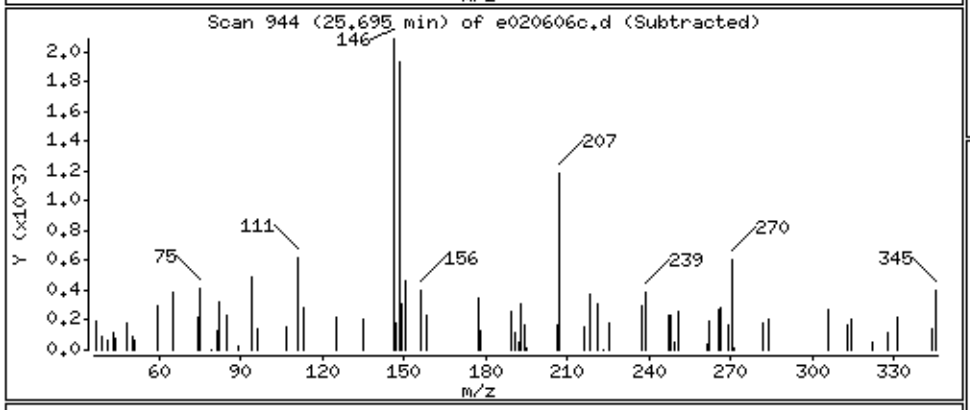
Column phase: RTX-624

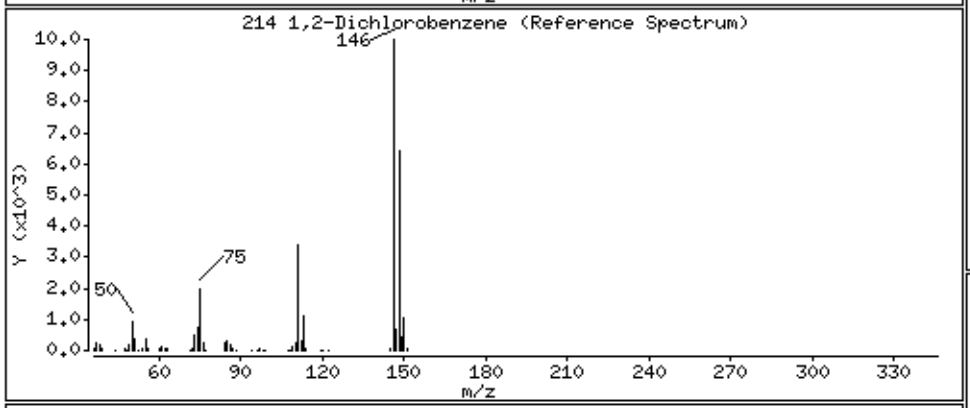
Column diameter: 0.32

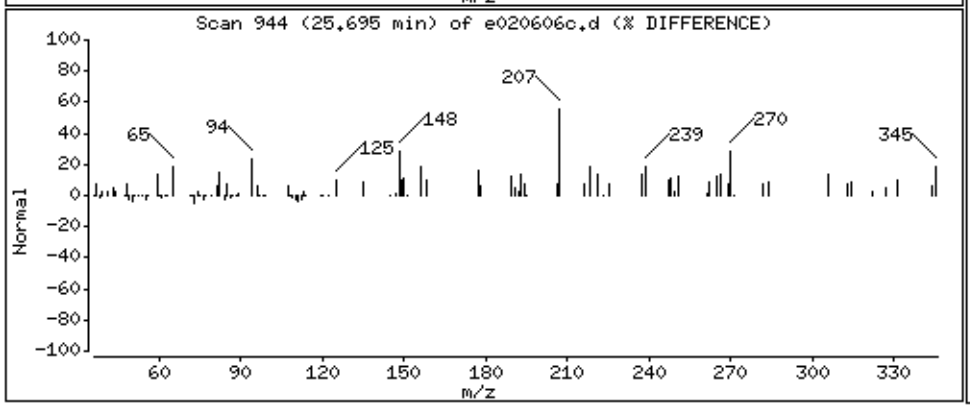
214 1,2-Dichlorobenzene

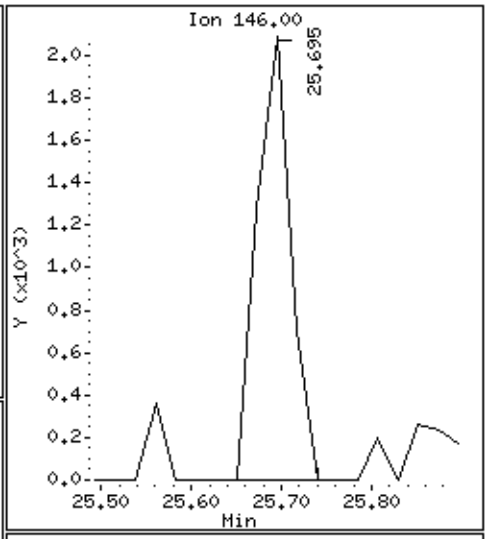
Concentration: 0.05939 PPBV

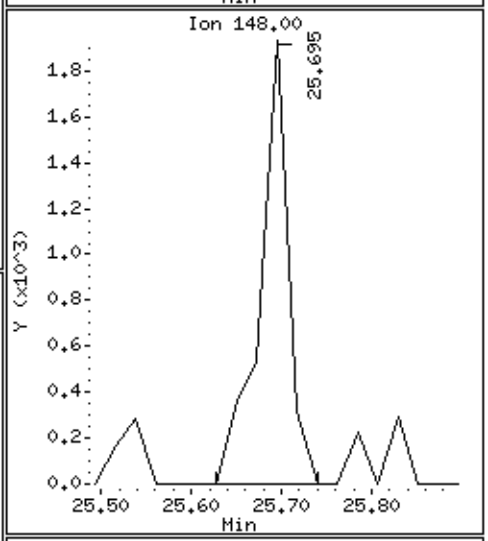


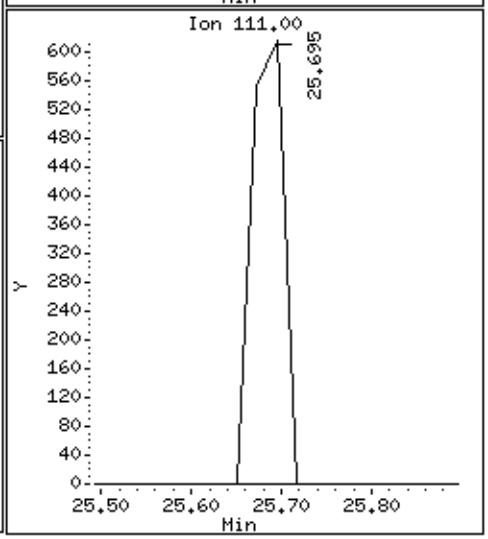












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

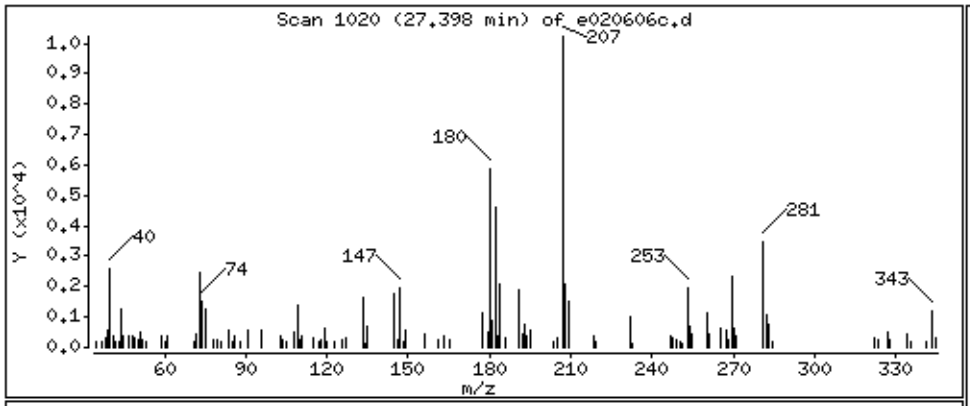
Operator: sab

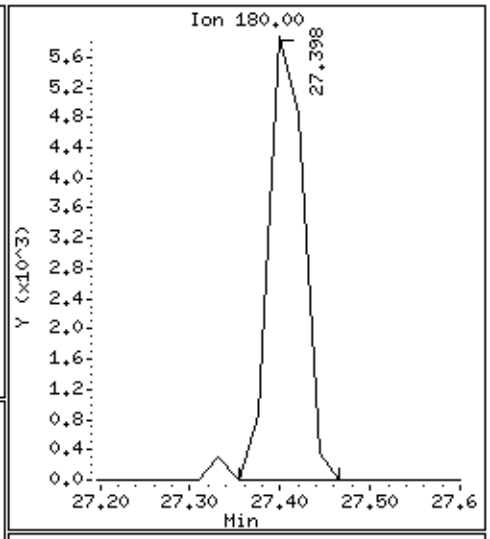
Column phase: RTX-624

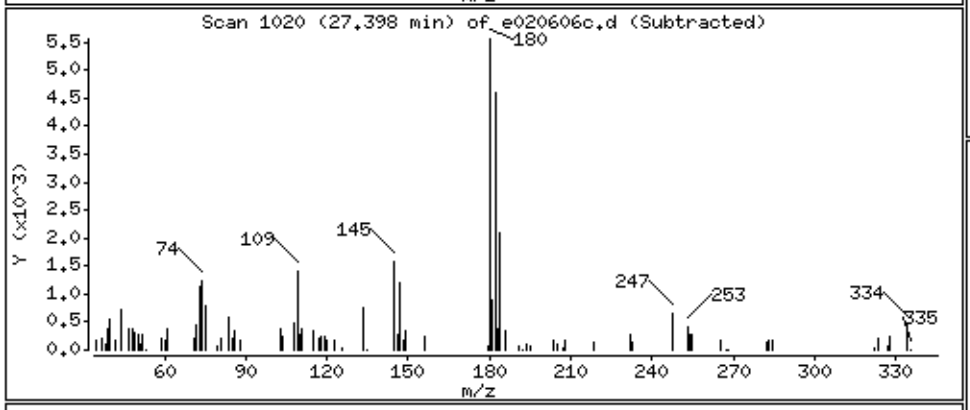
Column diameter: 0.32

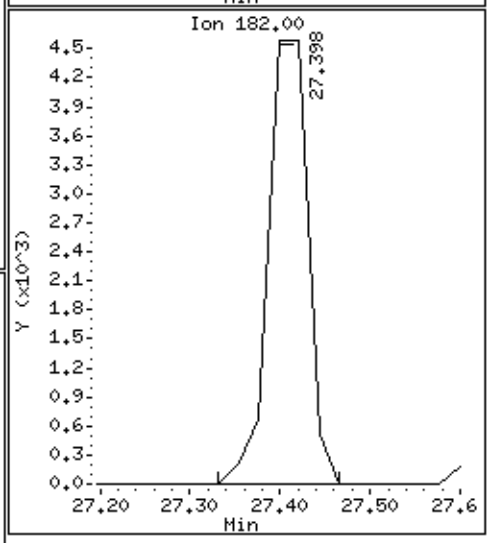
226 1,2,4-Trichlorobenzene

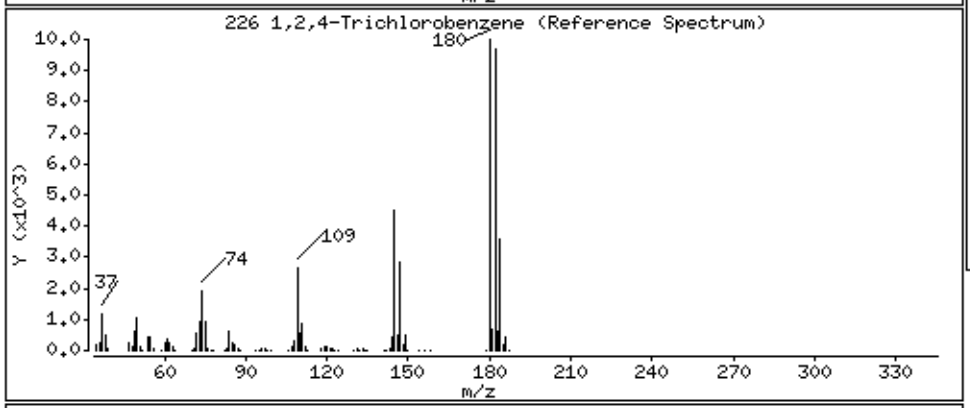
Concentration: 0.2292 PPBV

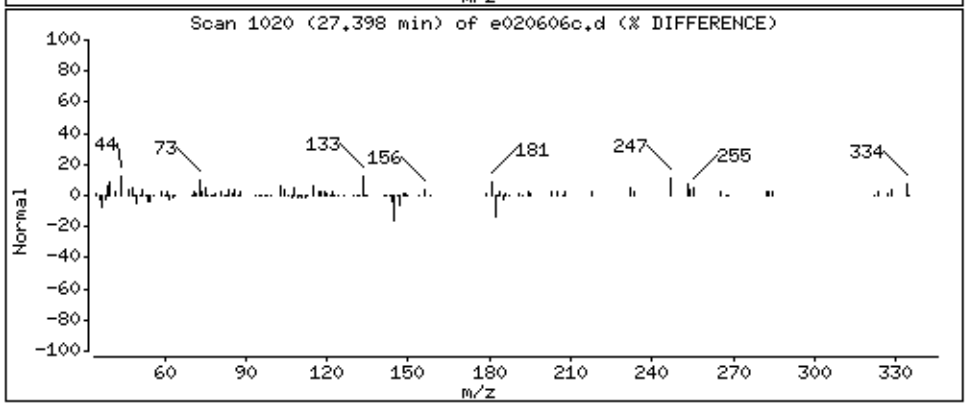












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

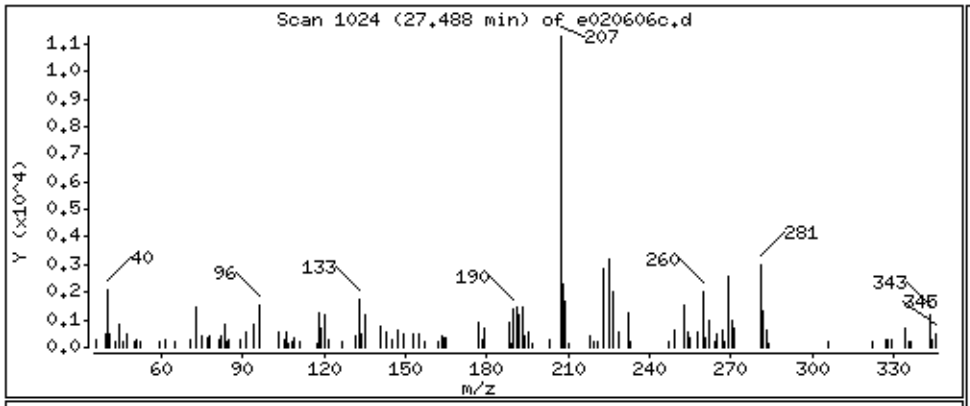
Operator: sab

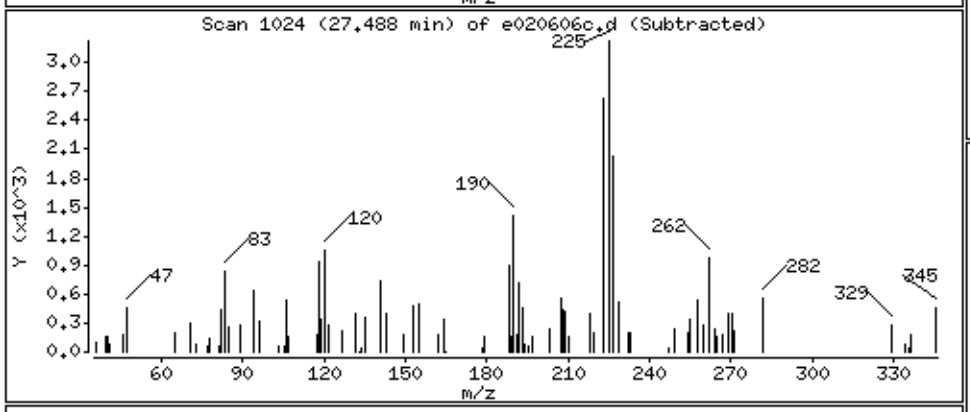
Column phase: RTX-624

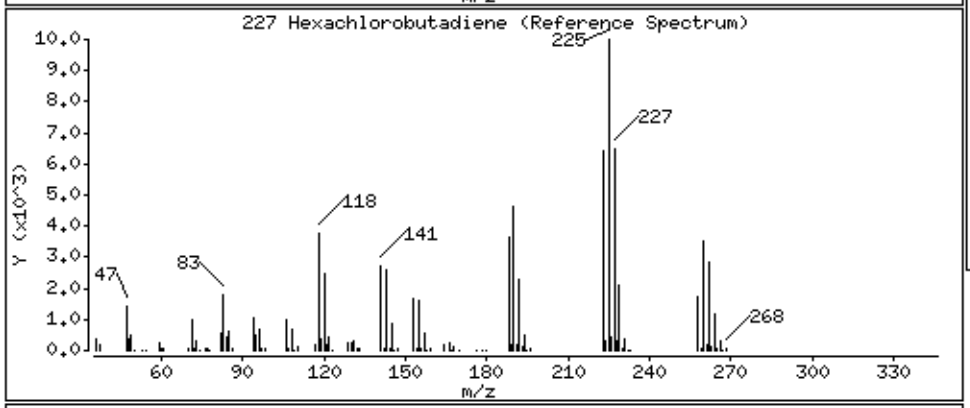
Column diameter: 0.32

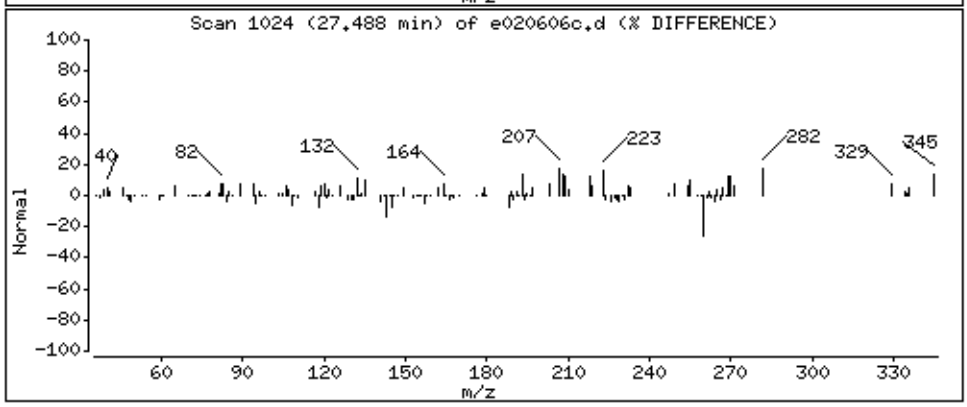
227 Hexachlorobutadiene

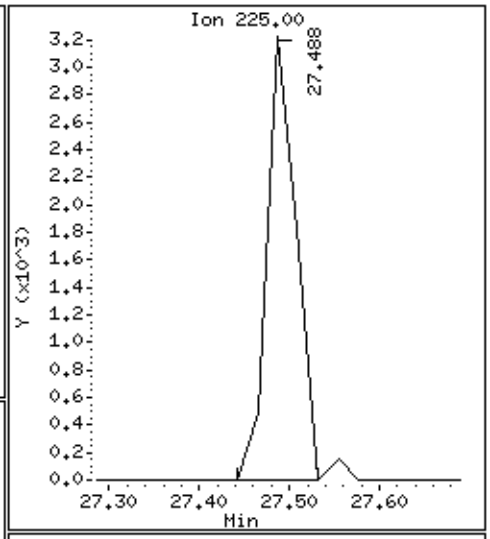
Concentration: 0.07387 PPBV

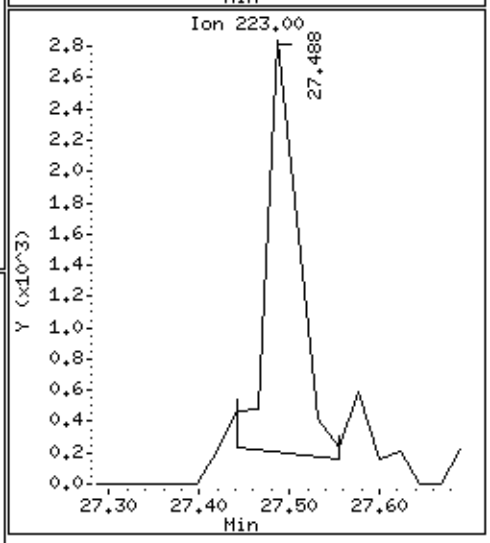












Data File: /chem/msde.i/06Feb2017.b/e020606c.d

Date : 06-FEB-2017 11:09

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

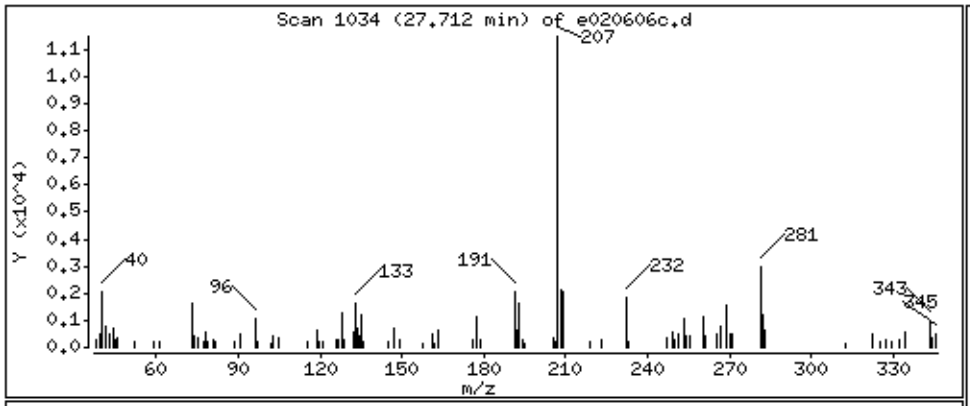
Operator: sab

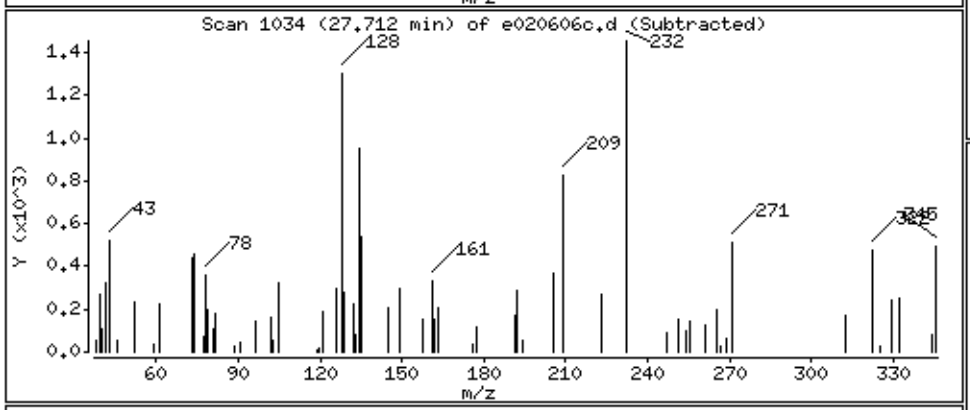
Column phase: RTX-624

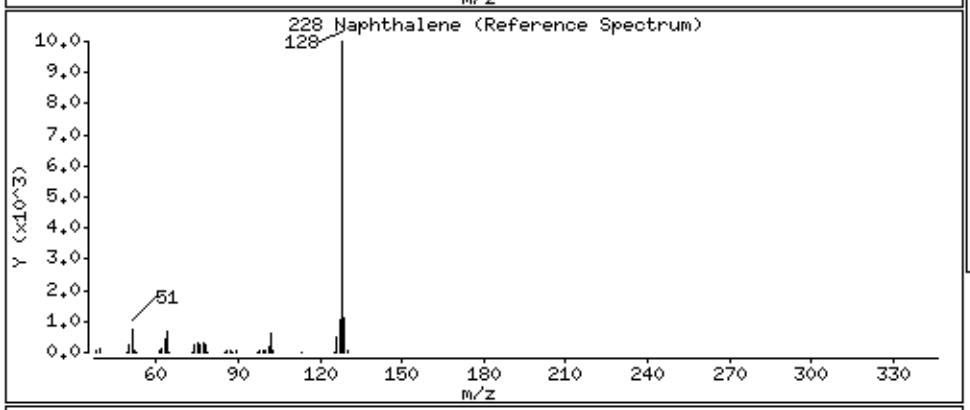
Column diameter: 0.32

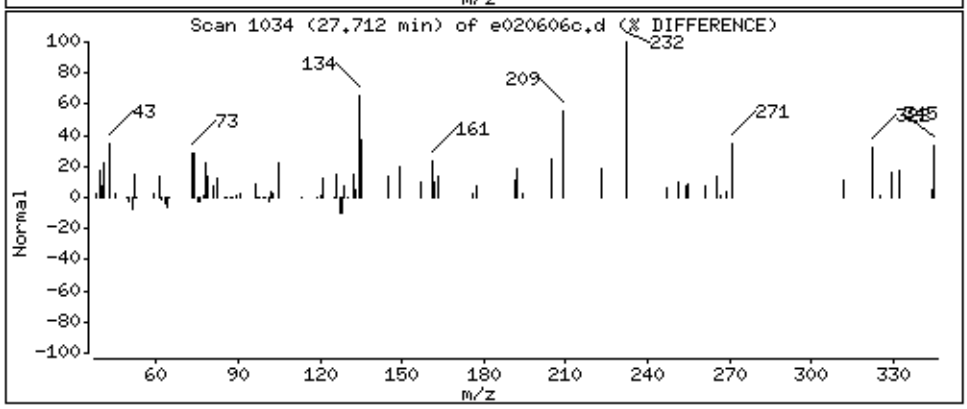
228 Naphthalene

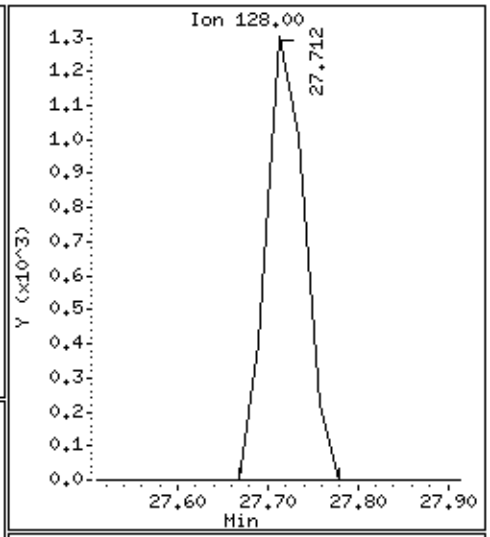
Concentration: 0.04115 PPBV

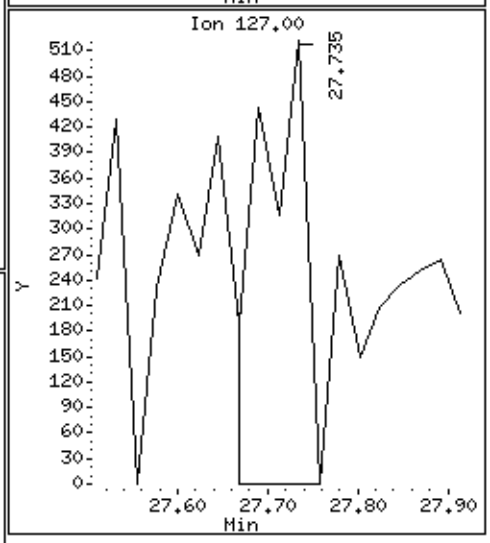












LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1701428A

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B30IA-1-012117	120		98		104				0
02	B30IA-2-012117	115		97		109				0
03	B30IA-3-012117	123		104		97				0
04	B30IA-4-012117	122		97		106				0
05	B30IA-4D-012117	120		96		106				0
06	B30IA-5-012117	128		104		108				0
07	B1830AA-012117	125		98		106				0
08	B18IA-1-012117	122		102		102				0
09	B18IA-1D-012117	122		105		101				0
10	B18IA-2-012117	120		105		95				0
11	B18IA-3-012117	118		97		98				0
12	B18IA-4-012117	111		97		101				0
13	B8IA-2-012317	110		99		106				0
14	B8IA-2D-012317	107		101		97				0
15	B8AA-012317	117		95		96				0
16	Lab Blank	112		100		95				0
17	Lab Blank	106		95		91				0
18	Lab Blank	108		100		101				0
19	CCV	107		103		105				0
20	CCV	112		112		108				0
21	CCV	100		102		105				0
22	LCS	107		108		106				0
23	LCSD	108		106		106				0
24	LCS	109		111		106				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

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1701428A

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								TOTAL OUT
			#		#		#		#	
01	LCSD	110		109		105				0
02	LCS	97		104		105				0
03	LCSD	96		100		101				0
04										0
05										0
06										0
07										0
08										0
09										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

* 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:	1701428A
Lab File ID:	20013104.d	Date Analyzed:	01/31/2017
Instrument ID:	msd20.i	Time Analyzed:	08:53 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	697716		23.76		838424		18.21		223806		16.7	
	UPPER LIMIT	976802		24.09		1173794		18.54		313328		17.03	
	LOWER LIMIT	418630		23.43		503054		17.88		134284		16.37	
	CLIENT SAMPLE NO												
01	B30IA-1-012117	498493		23.76		557797		18.21		160481		16.73	
02	B30IA-2-012117	467359		23.76		504978		18.21		160769		16.73	
03	Lab Blank	542621		23.76		624032		18.21		178372		16.73	
04	CCV	697716		23.76		838424		18.21		223806		16.7	
05													
06													
07													
08													
09													
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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

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:	1701428A
Lab File ID:	20013114.d	Date Analyzed:	01/31/2017
Instrument ID:	msd20.i	Time Analyzed:	03:51 PM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	554897		23.76		617206		18.21		189668		16.73	
	UPPER LIMIT	776856		24.09		864088		18.54		265535		17.06	
	LOWER LIMIT	332938		23.43		370324		17.88		113801		16.40	
	CLIENT SAMPLE NO												
01	B30IA-3-012117	471462		23.76		499116		18.21		150711		16.7	
02	B30IA-4-012117	459358		23.76		495670		18.21		151785		16.73	
03	B30IA-4D-012117	451172		23.76		472444		18.21		151452		16.73	
04	B30IA-5-012117	391699		23.76		394715		18.21		144589		16.73	
05	B1830AA-012117	388221		23.76		376976		18.21		145174		16.73	
06	B18IA-1-012117	476669		23.76		492667		18.21		162482		16.73	
07	B18IA-1D-012117	428341		23.76		420338		18.21		152976		16.7	
08	B18IA-2-012117	422433		23.76		407370		18.21		151462		16.7	
09	Lab Blank	468284		23.76		542687		18.21		172317		16.7	
10	CCV	554897		23.76		617206		18.21		189668		16.73	
11	LCS	624533		23.76		719432		18.21		197397		16.7	
12	LCSD	627110		23.76		739417		18.21		196685		16.73	
13	LCS	559372		23.76		637728		18.21		192648		16.73	
14	LCSD	568394		23.76		654833		18.21		189626		16.73	
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

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:	1701428A
Lab File ID:	e020602.d	Date Analyzed:	02/06/2017
Instrument ID:	msde.i	Time Analyzed:	07:43 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	465931		22.18		497113		16.74		145355		15.39	
	UPPER LIMIT	652303		22.51		695958		17.07		203497		15.72	
	LOWER LIMIT	279559		21.85		298268		16.41		87213		15.06	
	CLIENT SAMPLE NO												
01	B18IA-3-012117	459917		22.18		496785		16.74		133704		15.39	
02	B18IA-4-012117	484310		22.18		511863		16.74		145702		15.39	
03	B8IA-2-012317	449266		22.18		477132		16.74		138124		15.39	
04	B8IA-2D-012317	482848		22.18		470641		16.74		138018		15.39	
05	B8AA-012317	453744		22.18		470980		16.74		130398		15.39	
06	Lab Blank	399307		22.18		428320		16.74		126637		15.39	
07	CCV	465931		22.18		497113		16.74		145355		15.39	
08	LCS	487335		22.18		528120		16.74		154846		15.39	
09	LCSD	498690		22.18		534150		16.74		154419		15.39	
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: 20013106.d & 20013105.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 1/31/17 & 1/31/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	106		106		0	
79-34-5	1,1,2,2-Tetrachloroethane	107		107		0	
79-00-5	1,1,2-Trichloroethane	106		105		0.95	
75-34-3	1,1-Dichloroethane	103		103		0	
75-35-4	1,1-Dichloroethene	97		96		1.0	
120-82-1	1,2,4-Trichlorobenzene	95		89		6.5	
95-63-6	1,2,4-Trimethylbenzene	104		100		3.9	
106-93-4	1,2-Dibromoethane (EDB)	107		106		0.94	
95-50-1	1,2-Dichlorobenzene	99		95		4.1	
107-06-2	1,2-Dichloroethane	116		111		4.4	
78-87-5	1,2-Dichloropropane	114		110		3.6	
108-67-8	1,3,5-Trimethylbenzene	110		108		1.8	
106-99-0	1,3-Butadiene	108		103		4.7	
541-73-1	1,3-Dichlorobenzene	99		96		3.1	
106-46-7	1,4-Dichlorobenzene	96		94		2.1	
123-91-1	1,4-Dioxane	112		109		2.7	
540-84-1	2,2,4-Trimethylpentane	114		111		2.7	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	107		108		0.93	
591-78-6	2-Hexanone	116		113		2.6	
67-63-0	2-Propanol	99		101		2.0	
107-05-1	3-Chloropropene	115		112		2.6	
622-96-8	4-Ethyltoluene	105		106		0.95	
108-10-1	4-Methyl-2-pentanone	131		126		3.9	
67-64-1	Acetone	98		99		1.0	
100-44-7	alpha-Chlorotoluene	127		121		4.8	
71-43-2	Benzene	109		104		4.7	
75-27-4	Bromodichloromethane	113		112		0.89	
75-25-2	Bromoform	114		114		0	
74-83-9	Bromomethane	102		106		3.8	
75-15-0	Carbon Disulfide	113		111		1.8	
56-23-5	Carbon Tetrachloride	105		104		0.96	
108-90-7	Chlorobenzene	103		102		0.98	
75-00-3	Chloroethane	103		126		20	
67-66-3	Chloroform	104		103		0.97	
74-87-3	Chloromethane	107		108		0.93	
156-59-2	cis-1,2-Dichloroethene	92		92		0	
10061-01-5	cis-1,3-Dichloropropene	122		118		3.3	
98-82-8	Cumene	115		113		1.8	
110-82-7	Cyclohexane	106		106		0	
124-48-1	Dibromochloromethane	115		112		2.6	
64-17-5	Ethanol	78		80		2.5	
100-41-4	Ethyl Benzene	114		110		3.6	
75-69-4	Freon 11	106		102		3.8	
76-13-1	Freon 113	99		94		5.2	
76-14-2	Freon 114	103		99		4.0	

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: 20013106.d & 20013105.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 1/31/17 & 1/31/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	107		106		0.94	
142-82-5	Heptane	120		116		3.4	
87-68-3	Hexachlorobutadiene	93		88		5.5	
110-54-3	Hexane	109		108		0.92	
108-38-3	m,p-Xylene	114		112		1.8	
1634-04-4	Methyl tert-butyl ether	106		107		0.94	
75-09-2	Methylene Chloride	92		93		1.1	
91-20-3	Naphthalene	101		97		4.0	
95-47-6	o-Xylene	114		111		2.7	
103-65-1	Propylbenzene	109		108		0.92	
100-42-5	Styrene	116		114		1.7	
127-18-4	Tetrachloroethene	101		99		2.0	
109-99-9	Tetrahydrofuran	114		114		0	
108-88-3	Toluene	110		106		3.7	
156-60-5	trans-1,2-Dichloroethene	111		111		0	
10061-02-6	trans-1,3-Dichloropropene	113		112		0.89	
79-01-6	Trichloroethene	105		101		3.9	
75-01-4	Vinyl Chloride	111		110		0.90	

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: 20013116.d & 20013115.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 1/31/17 & 1/31/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	105		105		0	
79-34-5	1,1,2,2-Tetrachloroethane	117		114		2.6	
79-00-5	1,1,2-Trichloroethane	113		111		1.8	
75-34-3	1,1-Dichloroethane	102		101		0.98	
75-35-4	1,1-Dichloroethene	89		93		4.4	
120-82-1	1,2,4-Trichlorobenzene	98		95		3.1	
95-63-6	1,2,4-Trimethylbenzene	98		97		1.0	
106-93-4	1,2-Dibromoethane (EDB)	111		110		0.90	
95-50-1	1,2-Dichlorobenzene	102		100		2.0	
107-06-2	1,2-Dichloroethane	127		123		3.2	
78-87-5	1,2-Dichloropropane	123		119		3.3	
108-67-8	1,3,5-Trimethylbenzene	109		107		1.8	
106-99-0	1,3-Butadiene	106		104		1.9	
541-73-1	1,3-Dichlorobenzene	101		99		2.0	
106-46-7	1,4-Dichlorobenzene	100		97		3.0	
123-91-1	1,4-Dioxane	118		114		3.4	
540-84-1	2,2,4-Trimethylpentane	109		110		0.91	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	103		104		0.97	
591-78-6	2-Hexanone	118		115		2.6	
67-63-0	2-Propanol	92		94		2.2	
107-05-1	3-Chloropropene	105		107		1.9	
622-96-8	4-Ethyltoluene	109		108		0.92	
108-10-1	4-Methyl-2-pentanone	138		134		2.9	
67-64-1	Acetone	98		98		0	
100-44-7	alpha-Chlorotoluene	126		125		0.80	
71-43-2	Benzene	119		113		5.2	
75-27-4	Bromodichloromethane	122		118		3.3	
75-25-2	Bromoform	119		117		1.7	
74-83-9	Bromomethane	106		102		3.8	
75-15-0	Carbon Disulfide	111		112		0.90	
56-23-5	Carbon Tetrachloride	102		103		0.98	
108-90-7	Chlorobenzene	105		104		0.96	
75-00-3	Chloroethane	133		98		-->30<--	
67-66-3	Chloroform	104		104		0	
74-87-3	Chloromethane	111		116		4.4	
156-59-2	cis-1,2-Dichloroethene	87		88		1.1	
10061-01-5	cis-1,3-Dichloropropene	123		120		2.5	
98-82-8	Cumene	120		117		2.5	
110-82-7	Cyclohexane	102		103		0.98	
124-48-1	Dibromochloromethane	119		117		1.7	
64-17-5	Ethanol	74		74		0	
100-41-4	Ethyl Benzene	115		113		1.8	
75-69-4	Freon 11	103		106		2.9	
76-13-1	Freon 113	93		96		3.2	
76-14-2	Freon 114	98		98		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: 20013116.d & 20013115.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 1/31/17 & 1/31/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	108		107		0.93	
142-82-5	Heptane	130		124		4.7	
87-68-3	Hexachlorobutadiene	99		99		0	
110-54-3	Hexane	105		106		0.95	
108-38-3	m,p-Xylene	116		113		2.6	
1634-04-4	Methyl tert-butyl ether	97		100		3.0	
75-09-2	Methylene Chloride	92		92		0	
91-20-3	Naphthalene	96		95		1.0	
95-47-6	o-Xylene	113		112		0.89	
103-65-1	Propylbenzene	114		113		0.88	
100-42-5	Styrene	122		119		2.5	
127-18-4	Tetrachloroethene	105		102		2.9	
109-99-9	Tetrahydrofuran	112		112		0	
108-88-3	Toluene	115		112		2.6	
156-60-5	trans-1,2-Dichloroethene	110		110		0	
10061-02-6	trans-1,3-Dichloropropene	115		114		0.87	
79-01-6	Trichloroethene	110		107		2.8	
75-01-4	Vinyl Chloride	110		109		0.91	

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: e020605.d & e020604.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 2/6/17 & 2/6/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	89		89		0	
79-34-5	1,1,2,2-Tetrachloroethane	88		85		3.5	
79-00-5	1,1,2-Trichloroethane	95		89		6.5	
75-34-3	1,1-Dichloroethane	88		87		1.1	
75-35-4	1,1-Dichloroethene	83		84		1.2	
120-82-1	1,2,4-Trichlorobenzene	88		86		2.3	
95-63-6	1,2,4-Trimethylbenzene	105		104		0.96	
106-93-4	1,2-Dibromoethane (EDB)	91		87		4.5	
95-50-1	1,2-Dichlorobenzene	98		94		4.2	
107-06-2	1,2-Dichloroethane	88		87		1.1	
78-87-5	1,2-Dichloropropane	89		88		1.1	
108-67-8	1,3,5-Trimethylbenzene	104		102		1.9	
106-99-0	1,3-Butadiene	86		85		1.2	
541-73-1	1,3-Dichlorobenzene	97		95		2.1	
106-46-7	1,4-Dichlorobenzene	92		91		1.1	
123-91-1	1,4-Dioxane	93		91		2.2	
540-84-1	2,2,4-Trimethylpentane	93		91		2.2	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	92		92		0	
591-78-6	2-Hexanone	103		98		5.0	
67-63-0	2-Propanol	93		88		5.5	
107-05-1	3-Chloropropene	90		85		5.7	
622-96-8	4-Ethyltoluene	110		107		2.8	
108-10-1	4-Methyl-2-pentanone	99		96		3.1	
67-64-1	Acetone	81		81		0	
100-44-7	alpha-Chlorotoluene	104		98		5.9	
71-43-2	Benzene	87		84		3.5	
75-27-4	Bromodichloromethane	93		91		2.2	
75-25-2	Bromoform	94		92		2.2	
74-83-9	Bromomethane	92		91		1.1	
75-15-0	Carbon Disulfide	88		86		2.3	
56-23-5	Carbon Tetrachloride	50		51		2.0	
108-90-7	Chlorobenzene	94		90		4.3	
75-00-3	Chloroethane	85		88		3.5	
67-66-3	Chloroform	86		86		0	
74-87-3	Chloromethane	88		88		0	
156-59-2	cis-1,2-Dichloroethene	83		80		3.7	
10061-01-5	cis-1,3-Dichloropropene	103		99		4.0	
98-82-8	Cumene	104		100		3.9	
110-82-7	Cyclohexane	96		95		1.0	
124-48-1	Dibromochloromethane	94		91		3.2	
64-17-5	Ethanol	68		63		7.6	
100-41-4	Ethyl Benzene	101		95		6.1	
75-69-4	Freon 11	94		92		2.2	
76-13-1	Freon 113	85		84		1.2	
76-14-2	Freon 114	87		86		1.2	

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: e020605.d & e020604.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 2/6/17 & 2/6/17

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	92		91		1.1	
142-82-5	Heptane	96		93		3.2	
87-68-3	Hexachlorobutadiene	96		95		1.0	
110-54-3	Hexane	93		90		3.3	
108-38-3	m,p-Xylene	104		101		2.9	
1634-04-4	Methyl tert-butyl ether	93		92		1.1	
75-09-2	Methylene Chloride	74		75		1.3	
91-20-3	Naphthalene	96		90		6.4	
95-47-6	o-Xylene	102		99		3.0	
103-65-1	Propylbenzene	103		98		5.0	
100-42-5	Styrene	108		106		1.9	
127-18-4	Tetrachloroethene	95		90		5.4	
109-99-9	Tetrahydrofuran	93		92		1.1	
108-88-3	Toluene	93		92		1.1	
156-60-5	trans-1,2-Dichloroethene	99		99		0	
10061-02-6	trans-1,3-Dichloropropene	99		97		2.0	
79-01-6	Trichloroethene	94		91		3.2	
75-01-4	Vinyl Chloride	88		85		3.5	

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 : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Calibration File Names:
Level 5: /chem/msd20.i/19Dec2016.b/20121905.d
Level 6: /chem/msd20.i/19Dec2016.b/20121906.d
Level 7: /chem/msd20.i/29Dec2016.b/20122905.d
Level 8: /chem/msd20.i/29Dec2016.b/20122906.d
Level 9: /chem/msd20.i/29Dec2016.b/20122907.d
Level 11: /chem/msd20.i/29Dec2016.b/20122908.d
Level 12: /chem/msd20.i/29Dec2016.b/20122909.d
Level 13: /chem/msd20.i/19Dec2016.b/20121910.d
Level 15: /chem/msd20.i/19Dec2016.b/20121911.d
Level 16: /chem/msd20.i/19Dec2016.b/20121912.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
7 Freon 134a	+++++	+++++	0.92643	0.86106	0.84933	0.82089		
	0.83586	+++++	+++++	+++++			0.85871	4.742
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
9 Propylene	+++++	+++++	0.97982	0.82101	+++++	+++++		
	1.10031	1.00634	0.92847	0.89338			0.95489	10.134
10 1,1-Difluoroethane	+++++	+++++	0.58431	0.48576	0.45703	0.46124		
	0.44741	+++++	+++++	+++++			0.48715	11.521
11 Freon 12	+++++	4.31266	3.83196	4.00688	+++++	+++++		
	4.11431	3.71306	3.39596	3.15647			3.79019	10.716
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
13 Chlorodifluoromethane	+++++	+++++	1.31125	1.31199	1.20886	1.20375		
	1.23295	+++++	+++++	+++++			1.25376	4.304
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
15 Freon 114	3.20200	3.55696	3.03198	3.05871	+++++	+++++		
	3.12328	2.84354	2.65852	2.55133			3.00329	10.626
16 Freon 142b	+++++	+++++	2.05112	1.89299	1.81643	1.90399		
	1.81371	+++++	+++++	+++++			1.89565	5.090

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
17 Chloromethane	+++++	+++++	1.32321	1.25163	+++++	+++++		
	1.24365	1.13709	1.04852	0.98605			1.16503	11.197
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
23 Butane	+++++	+++++	0.27612	0.28521	+++++	+++++		
	0.30258	0.28430	0.27064	0.25998			0.27981	5.200
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
25 Vinyl Chloride	+++++	1.49246	1.37567	1.42810	+++++	+++++		
	1.50769	1.38269	1.28185	1.20462			1.38187	7.908
26 1,3-Butadiene	+++++	1.16304	0.95134	0.96781	+++++	+++++		
	1.08681	1.02287	0.96918	0.92338			1.01206	8.447

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
29 Bromomethane	+++++	+++++	0.86795	0.90270	+++++	+++++		
	1.12260	1.06132	1.01323	0.96390			0.98862	9.744
30 Chloroethane	+++++	+++++	0.55032	0.62702	+++++	+++++		
	0.66037	0.61702	0.58842	0.56284			0.60100	6.917
31 Isopentane	+++++	+++++	1.19996	1.18806	+++++	+++++		
	1.21073	1.03780	0.96208	0.90244			1.08351	12.403
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
35 Freon 11	4.06964	4.19825	3.78895	3.95660	+++++	+++++		
	4.05024	3.69480	3.42756	3.17284			3.79486	9.244
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
37 Dichlorofluoromethane	+++++	+++++	2.80173	2.64970	2.54863	2.54631		
	2.58611	+++++	+++++	+++++			2.62650	4.055
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
42 Ethanol	+++++	+++++	0.63465	0.57493	+++++	+++++		
	0.47164	0.46082	0.45316	0.47114			0.51106	14.741
43 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
48 Freon 123	+++++	+++++	3.33590	3.09019	2.99857	3.05265		
	3.05255	+++++	+++++	+++++			3.10597	4.270
49 Freon 113	2.95518	3.34849	2.76978	2.89108	+++++	+++++		
	2.91899	2.70034	2.57553	2.49850			2.83224	9.353
50 1,1-Dichloroethene	+++++	1.03342	0.85958	0.89455	+++++	+++++		
	0.97951	0.91304	0.88717	0.85765			0.91785	7.128
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
52 Acetone	+++++	+++++	0.79184	0.81325	+++++	+++++		
	0.69349	0.65840	0.64118	0.62895			0.70452	11.252
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
56 Carbon Disulfide	+++++	+++++	3.46694	3.65512	+++++	+++++		
	4.35280	4.09984	3.94661	3.85537			3.89612	8.088

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
57 2-Propanol	+++++	+++++	1.69138	1.82066	+++++	+++++		
	1.94005	1.94744	1.96067	1.99515			1.89256	6.074
58 3-Chloropropene	+++++	+++++	0.44084	0.43321	+++++	+++++		
	0.53741	0.53907	0.52540	0.51836			0.49905	9.761
59 Cyclopentene	+++++	+++++	1.88319	1.74702	1.70961	1.76463		
	1.82384	+++++	+++++	+++++			1.78566	3.828
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
66 Methylene Chloride	+++++	1.96272	1.61805	1.62848	+++++	+++++		
	1.51883	1.40672	1.31755	1.25045			1.52897	15.644

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
72 Methyl tert-butyl ether	+++++	3.11430	3.15590	3.35955	+++++	+++++		
	3.97069	3.81624	3.69551	3.60288			3.53072	9.327
73 trans-1,2-Dichloroethene	+++++	0.95995	0.87213	0.92713	+++++	+++++		
	0.97598	0.89953	0.86191	0.83164			0.90404	5.869
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
78 Hexane	+++++	2.06754	1.74153	1.93659	+++++	+++++		
	2.25858	2.14841	2.03723	1.95021			2.02001	8.218
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
82 1,1-Dichloroethane	+++++	2.81178	2.50498	2.60704	+++++	+++++		
	2.77168	2.55360	2.41175	2.28210			2.56328	7.344
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
84 1-Propanol	+++++	+++++	0.17587	0.18376	0.19298	0.20294		
	0.22188	+++++	+++++	+++++			0.19549	9.155
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
86 Vinyl Acetate	+++++	+++++	0.20782	0.25414	+++++	+++++		
	0.31017	0.33628	0.34393	0.35270			0.30084	19.223

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
90 2,2-Dichloropropane	+++++	+++++	2.38176	2.24708	2.31491	2.35451		
	2.38010	+++++	+++++	+++++			2.33567	2.416
91 cis-1,2-Dichloroethene	+++++	1.17824	0.99642	1.09166	+++++	+++++		
	1.18425	1.11772	1.05613	1.01222			1.09095	6.838
92 2-Butanone	+++++	+++++	0.60767	0.65721	+++++	+++++		
	0.75580	0.71515	0.69822	0.68779			0.68697	7.375
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
99 Tetrahydrofuran	+++++	+++++	1.14430	1.22644	+++++	+++++		
	1.51022	1.45450	1.40571	1.33833			1.34658	10.362
100 Chloroform	+++++	3.48560	2.99654	3.14752	+++++	+++++		
	3.32996	3.09035	2.90662	2.79425			3.10726	7.719
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
102 Cyclohexane	+++++	2.00016	1.77322	1.93678	+++++	+++++		
	2.28192	2.16043	2.07469	1.99568			2.03184	8.015
103 1,1,1-Trichloroethane	3.28332	3.51929	2.85909	3.03478	+++++	+++++		
	3.34403	3.14330	3.01195	2.89373			3.13619	7.360
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
106 Carbon Tetrachloride	2.04593	2.63186	2.43635	2.56590	+++++	+++++		
	3.12430	2.95027	2.85123	2.78204			2.67349	12.539
107 1,1-Dichloropropene	+++++	+++++	0.87609	0.76716	0.77326	0.81573		
	0.81662	+++++	+++++	+++++			0.80977	5.393

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
113 2,2,4-Trimethylpentane	+++++	1.88481	1.73204	1.89021	+++++	+++++		
	2.20917	2.06998	2.00531	1.90709			1.95694	7.846
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
115 Isobutanol	+++++	+++++	0.81634	0.68990	0.62298	0.73400		
	0.57336	+++++	+++++	+++++			0.68732	13.795
116 Benzene	+++++	1.50238	1.09819	1.14729	+++++	+++++		
	1.23111	1.16590	1.11809	1.09998			1.19471	11.995
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
120 1,2-Dichloroethane	0.46486	0.52530	0.43766	0.45129	+++++	+++++		
	0.49312	0.46266	0.44027	0.43021			0.46317	6.906
121 Heptane	+++++	0.34210	0.25587	0.26995	+++++	+++++		
	0.33745	0.31788	0.31526	0.30877			0.30676	10.593
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
124 n-Butanol	+++++	+++++	0.30384	0.29281	0.32437	0.37049		
	0.38834	+++++	+++++	+++++			0.33597	12.419
125 Trichloroethene	0.55558	0.62519	0.53422	0.54409	+++++	+++++		
	0.59859	0.57533	0.55557	0.56300			0.56895	5.273
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
127 Methylcyclohexane	+++++	+++++	0.59130	0.59464	+++++	+++++		
	0.73666	0.71546	0.70207	0.69024			0.67173	9.369
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
132 1,2-Dichloropropane	+++++	0.44764	0.39884	0.38666	+++++	+++++		
	0.45473	0.43624	0.42269	0.42235			0.42417	5.842
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
136 1,4-Dioxane	+++++	0.26277	0.24624	0.25371	+++++	+++++		
	0.30935	0.30242	0.29349	0.29206			0.28001	9.011
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
138 Bromodichloromethane	0.80381	0.89060	0.82666	0.83245	+++++	+++++		
	0.98537	0.92619	0.90063	0.92857			0.88679	6.961
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
140 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
143 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
144 cis-1,3-Dichloropropene	+++++	0.54188	0.48842	0.50342	+++++	+++++		
	0.67214	0.67589	0.68951	0.70398			0.61075	15.553
145 4-Methyl-2-pentanone	+++++	0.56779	0.49598	0.53480	+++++	+++++		
	0.74767	0.74390	0.74019	0.73128			0.65166	17.365
147 Toluene	+++++	1.37647	1.21876	1.24949	+++++	+++++		
	1.40641	1.33529	1.31085	1.30376			1.31443	5.031
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
150 trans-1,3-Dichloropropene	+++++	0.57913	0.48793	0.52752	+++++	+++++		
	0.70758	0.68947	0.68718	0.71061			0.62706	14.923
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

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End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
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Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
152 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
155 1,1,2-Trichloroethane	0.56205	0.65956	0.55670	0.56865	+++++	+++++		
	0.65368	0.60052	0.57604	0.58216			0.59492	6.787
156 Tetrachloroethene	0.87319	1.00032	0.88436	0.90504	+++++	+++++		
	1.01138	0.94402	0.91478	0.95033			0.93543	5.437
157 1,3-Dichloropropane	+++++	+++++	0.71264	0.65817	0.67373	0.67064		
	0.66123	+++++	+++++	+++++			0.67528	3.236
158 2-Hexanone	+++++	+++++	0.26535	0.29062	+++++	+++++		
	0.47436	0.48407	0.50107	0.53238			0.42464	27.217
159 Butyl Acetate	+++++	+++++	0.07572	0.06677	0.06836	0.07398		
	0.08035	+++++	+++++	+++++			0.07304	7.584
160 Dibromochloromethane	0.77144	0.81750	0.82166	0.85777	+++++	+++++		
	1.10470	1.08092	1.07544	1.13502			0.95806	16.022
161 1,2-Dibromoethane (EDB)	0.85335	0.83636	0.81403	0.81174	+++++	+++++		
	1.00374	0.93475	0.92157	0.94939			0.89062	8.005

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162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
165 Chlorobenzene	+++++	1.44638	1.25413	1.23578	+++++	+++++		
	1.40049	1.29693	1.28509	1.29335			1.31602	5.905
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
167 Ethyl Benzene	+++++	0.51815	0.48865	0.52627	+++++	+++++		
	0.65629	0.62681	0.62707	0.64981			0.58472	12.093
168 1,1,1,2-Tetrachloroethane	+++++	+++++	0.70782	0.65004	0.67058	0.68173		
	0.70233	+++++	+++++	+++++			0.68250	3.460
169 m,p-Xylene	+++++	0.54679	0.51009	0.53836	+++++	+++++		
	0.68483	0.66360	0.66589	0.69408			0.61480	12.878
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
171 o-Xylene	+++++	0.47355	0.48058	0.48524	+++++	+++++		
	0.64151	0.63200	0.63381	0.66349			0.57288	15.316
172 Styrene	+++++	0.69799	0.59885	0.65062	+++++	+++++		
	0.93668	0.94009	0.99594	1.06446			0.84066	22.161

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
173 2-Heptanone	+++++	+++++	0.55244	0.48555	0.45682	0.51547		
	0.60249	+++++	+++++	+++++			0.52256	10.920
174 Bromoform	0.79241	0.76558	0.70648	0.73447	+++++	+++++		
	1.06470	1.08545	1.13007	1.21447			0.93670	21.992
175 Cumene	+++++	1.65908	1.42352	1.50587	+++++	+++++		
	2.05806	2.02805	2.04508	2.06939			1.82701	15.709
176 Cyclohexanone	+++++	+++++	0.37846	0.35423	0.38094	0.40716		
	0.42859	+++++	+++++	+++++			0.38987	7.342
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
180 Bromobenzene	+++++	+++++	0.75944	0.70836	0.69321	0.70560		
	0.73129	+++++	+++++	+++++			0.71958	3.639
181 1,1,2,2-Tetrachloroethane	1.26046	1.02672	1.02257	1.02185	+++++	+++++		
	1.19231	1.11318	1.09336	1.08824			1.10233	7.823
182 Propylbenzene	+++++	2.08578	1.55113	1.43990	+++++	+++++		
	1.76814	1.75002	1.77048	1.85728			1.74611	11.936
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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184 trans-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	0.34406	0.32439	0.31547	0.32205		
	0.33060	+++++	+++++	+++++			0.32731	3.304
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
188 4-Ethyltoluene	1.55513	1.59925	1.34094	1.23004	+++++	+++++		
	1.41981	1.38489	1.39463	1.44870			1.42168	8.212
189 2-Chlorotoluene	+++++	+++++	0.46930	0.43746	0.42113	0.43444		
	0.44278	+++++	+++++	+++++			0.44102	4.016
190 1,3,5-Trimethylbenzene	1.32308	1.29025	1.16808	1.17274	+++++	+++++		
	1.40516	1.30236	1.24128	1.24844			1.26892	6.225
191 4-Chlorotoluene	+++++	+++++	0.43175	0.38588	0.36762	0.37482		
	0.38618	+++++	+++++	+++++			0.38925	6.427
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
195 tert-Butylbenzene	+++++	+++++	1.30842	1.12816	1.03725	1.04371		
	1.06289	+++++	+++++	+++++			1.11609	10.159
196 1,2,4-Trimethylbenzene	1.33054	1.36748	1.14681	1.15240	+++++	+++++		
	1.37291	1.20571	1.12432	1.11650			1.22708	9.083
197 Pentachloroethane	+++++	+++++	0.44027	0.44314	0.44200	0.47139		
	0.49158	+++++	+++++	+++++			0.45768	5.003
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
203 sec-Butylbenzene	+++++	+++++	2.24272	1.70555	1.49587	1.49353		
	1.52907	+++++	+++++	+++++			1.69335	18.858

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
206 bis(2-Chloroethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
207 p-Cymene	+++++	+++++	1.73633	1.52408	1.33047	1.20091		
	1.16300	+++++	+++++	+++++			1.39096	17.192
208 1,3-Dichlorobenzene	1.17673	1.23514	0.88893	0.87798	+++++	+++++		
	0.96906	0.92541	0.93756	0.99166			1.00031	13.318
209 1,4-Dichlorobenzene	1.18053	1.27684	0.85075	0.79516	+++++	+++++		
	0.86979	0.84979	0.86142	0.93464			0.95236	18.543
210 1,2,3-Trimethylbenzene	+++++	+++++	0.67299	0.61744	0.57207	0.54028		
	0.52786	+++++	+++++	+++++			0.58613	10.173
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
212 alpha-Chlorotoluene	+++++	0.84114	0.66616	0.70400	+++++	+++++		
	1.01818	1.09370	1.22828	1.38213			0.99051	27.056
213 Butylbenzene	+++++	+++++	0.50015	0.45026	0.41178	0.37215		
	0.36660	+++++	+++++	+++++			0.42019	13.330

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214 1,2-Dichlorobenzene	1.11284	1.16922	0.88483	0.81959	+++++	+++++		
	0.91517	0.86994	0.89047	0.95585			0.95224	12.983
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
216 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
220 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
221 1,2-Dibromo-3-chloropropane	+++++	+++++	0.36416	0.36293	0.36309	0.40510		
	0.43251	+++++	+++++	+++++			0.38556	8.264
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
226 1,2,4-Trichlorobenzene	1.38303	1.06341	1.05104	1.11004	+++++	+++++		
	1.17996	1.04474	1.00391	1.00165			1.10472	11.456
227 Hexachlorobutadiene	+++++	1.03187	0.93943	0.90860	+++++	+++++		
	0.87039	0.80136	0.83678	0.91773			0.90088	8.347
228 Naphthalene	+++++	+++++	1.91852	2.13392	+++++	+++++		
	2.05477	1.93787	1.93594	1.92925			1.98505	4.461
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 237 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
241 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
242 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
243 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
244 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
245 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
246 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
247 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
248 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
249 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
250 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
251 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
252 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
253 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
262 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
263 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
264 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
265 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
267 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
269 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
270 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
$ 117 1,2-Dichloroethane-d4	1.29927	1.24816	1.23841	1.32600	+++++	+++++		
	1.17122	1.20023	1.19422	1.19215			1.23371	4.477
$ 146 Toluene-d8	0.93896	0.94193	0.95262	0.95486	+++++	+++++		
	0.96720	0.97013	0.96514	0.95726			0.95601	1.193

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Cal Date : 29-Dec-2016 19:07 ghehir
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
$ 177 4-Bromofluorobenzene	0.51895	0.51137	0.50870	0.52538	+++++	+++++		
	0.53944	0.54474	0.56246	0.55758			0.53358	3.856

Calibration History

Method : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Start Cal Date: 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 0.05000		
19-DEC-2016 12:36	Level5	/chem/msd20.i/19Dec2016.b/20121905.d
Cal Level: 6 , Cal Amount: 0.10000		
19-DEC-2016 13:18	Level6	/chem/msd20.i/19Dec2016.b/20121906.d
Cal Level: 7 , Cal Amount: 0.50000		
29-DEC-2016 11:56	AT1	/chem/msd20.i/29Dec2016.b/20122905.d
19-DEC-2016 14:02	HILOcrvFULL-Oxy	/chem/msd20.i/19Dec2016.b/20121907.d
Cal Level: 8 , Cal Amount: 1.00000		
29-DEC-2016 12:52	AT1	/chem/msd20.i/29Dec2016.b/20122906.d
19-DEC-2016 14:41	HILOcrvFULL-Oxy	/chem/msd20.i/19Dec2016.b/20121908.d
Cal Level: 9 , Cal Amount: 2.00000		
29-DEC-2016 13:50	AT1	/chem/msd20.i/29Dec2016.b/20122907.d
Cal Level: 11, Cal Amount: 4.00000		
29-DEC-2016 14:30	AT1	/chem/msd20.i/29Dec2016.b/20122908.d
Cal Level: 12, Cal Amount: 5.00000		
29-DEC-2016 15:14	AT1	/chem/msd20.i/29Dec2016.b/20122909.d
19-DEC-2016 15:19	HILOcrvFULL-Oxy	/chem/msd20.i/19Dec2016.b/20121909.d

```
+------------------+-----------------+----------------------------------------+
| Cal Level: 13, Cal Amount: 10.00000                                          |
+==============================================================================+
|19-DEC-2016 15:58 |HILOcrvFULL-Oxy  |/chem/msd20.i/19Dec2016.b/20121910.d    |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 15, Cal Amount: 20.00000                                          |
+==============================================================================+
|19-DEC-2016 16:36 |HILOcrvFULL-Oxy  |/chem/msd20.i/19Dec2016.b/20121911.d    |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 16, Cal Amount: 40.00000                                          |
+==============================================================================+
|19-DEC-2016 17:39 |HILOcrvFULL-Oxy  |/chem/msd20.i/19Dec2016.b/20121912.d    |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 13
+------------------+-----------------+----------------------------------------+
| Ccal Level: 13, Ccal Amount: 10.000                                          |
+==============================================================================+
|29-DEC-2016 08:29 |AT12-Oxy         |/chem/msd20.i/29Dec2016.b/20122902.d    |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 13, Ccal Amount: 10.000                                          |
+==============================================================================+
|29-DEC-2016 12:52 |AT1CCV           |/chem/msd20.i/29Dec2016.b/20122906a.d   |
+------------------+-----------------+----------------------------------------+
```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 29-DEC-2016 15:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/29Dec2016.b/201611219b.m
Cal Date : 29-Dec-2016 16:52 gdelacru
Curve Type : Average

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

Calibration File Names:
Level 5: /chem/msd20.i/19Dec2016.b/20121905.d
Level 6: /chem/msd20.i/19Dec2016.b/20121906.d
Level 7: /chem/msd20.i/29Dec2016.b/20122905.d
Level 8: /chem/msd20.i/29Dec2016.b/20122906.d
Level 9: /chem/msd20.i/29Dec2016.b/20122907.d
Level 11: /chem/msd20.i/29Dec2016.b/20122908.d
Level 12: /chem/msd20.i/29Dec2016.b/20122909.d
Level 13: /chem/msd20.i/19Dec2016.b/20121910.d
Level 15: /chem/msd20.i/19Dec2016.b/20121911.d
Level 16: /chem/msd20.i/19Dec2016.b/20121912.d

gd 12/29/16

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	RRF	% RSD
7 Freon 134a	+++++	+++++	0.92643	0.86106	0.84333	0.82089		
	0.83586	+++++	+++++	+++++			0.85871	4.742
10 1,1-Difluoroethane	+++++	+++++	0.58431	0.48576	0.45703	0.46124		
	0.44741	+++++	+++++	+++++			0.48715	11.521
13 Chlorodifluoromethane	+++++	+++++	1.31125	1.31199	1.20886	1.20375		
	1.23295	+++++	+++++	+++++			1.25376	4.304
16 Freon 142b	+++++	+++++	2.05112	1.89299	1.81643	1.90399		
	1.81371	+++++	+++++	+++++			1.89565	5.090
37 Dichlorofluoromethane	+++++	+++++	2.80173	2.64970	2.54863	2.54631		
	2.58611	+++++	+++++	+++++			2.62650	4.055
48 Freon 123	+++++	+++++	3.33590	3.09019	2.99857	3.05265		
	3.05255	+++++	+++++	+++++			3.10597	4.270

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2016 12:36
End Cal Date : 19-DEC-2016 17:39
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/19Dec2016.b/201611219a.m
Cal Date : 20-Dec-2016 16:34 efinn
Curve Type : Average

12/20/16

12/20/16

Calibration File Names:
Level 5: /chem/msd20.i/19Dec2016.b/20121905.d
Level 6: /chem/msd20.i/19Dec2016.b/20121906.d
Level 7: /chem/msd20.i/19Dec2016.b/20121907.d
Level 8: /chem/msd20.i/19Dec2016.b/20121908.d
Level 12: /chem/msd20.i/19Dec2016.b/20121909.d
Level 13: /chem/msd20.i/19Dec2016.b/20121910.d
Level 15: /chem/msd20.i/19Dec2016.b/20121911.d
Level 16: /chem/msd20.i/19Dec2016.b/20121912.d

Compound	0.05000 Level 5 / 20.000 Level 15	0.10000 Level 6 / 40.000 Level 16	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
9 Propylene	+++++	+++++	0.97982	0.82101	1.10031	1.00634		
	0.92847	0.89338					0.95489	10.134
11 Freon 12	+++++	4.31266	3.83196	4.00688	4.11431	3.71306		
	3.39596	3.15647					3.79019	10.716
15 Freon 114	3.20200	3.55696	3.03198	3.05871	3.12328	2.84354		
	2.65852	2.55133					3.00329	10.626
17 Chloromethane	+++++	+++++	1.32321	1.25163	1.24365	1.13709		
	1.04852	0.98605					1.16503	11.197
23 Butane	+++++	+++++	0.27612	0.28521	0.30258	0.28430		
	0.27064	0.25998					0.27981	5.200
25 Vinyl Chloride	+++++	1.49246	1.37567	1.42810	1.50769	1.38269		
	1.28185	1.20462					1.38187	7.908
26 1,3-Butadiene	+++++	1.16304	0.95134	0.96781	1.08681	1.02287		
	0.96918	0.92338					1.01206	8.447

Curve Name: 2016L1219B

Initial Calibration Narrative

An initial calibration curve was analyzed on 12/19/16 on MSD-20.

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

Tune Files: 20121901. 20122901

ICAL: Zero out.

ICV: Zero (0) out. File 20121915; standard # 2819-157; 10ppbv, 50mL load.

DOD 5.0 ICV: File 20121915a.

DOD 4.2 ICV: Zero (0) out. File 20121915simc.

BTEX R.L. Verification Spike: 20121906x.

Naphthalene was calibrated from 0.05ppbv to 4.0ppbv.

The calibration standards were prepared without the Oxygenates.

No Oxygenates.

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

Freon 114	Bromodichloromethane	4-Ethyltoluene
Freon 11	1,1,2-Trichloroethane	1,3,5-Trimethylbenzene
Freon 113	Tetrachloroethene	1,2,4-Trimethylbenzene
1,1,1-Trichloroethane	Dibromochloromethane	1,3-Dichlorobenzene
Carbon Tetrachloride	1,2-Dibromomethane (EDB)	1,4-Dichlorobenzene
1,2-Dichloroethane	Bromoform	1,2-Dichlorobenzene
Trichloroethene	1,1,2,2-Tetrachloroethane	1,2,4-Trichlorobenzene

A five (5) point initial calibration for AT-1 special was analyzed on 12/29/16 at levels 0.5ppbv, 1.0ppbv, 2.0ppbv, 4.0ppbv and 5.0ppbv. Zero (0) out.

MDL was run on 2/11/16.

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2829**

BFB Verification of 176/174 m/z Ratio: (12760009/13098616)x100: 97.42	
Method Name: 2016E1219A / 2016S1219A	

IS/S Std. #: 2819-83		Exp. Date: 1/17/17	
BCM	u: 224249		SIM: 228544
1,4-DFB	831591		724828
CB-d5	733017		758856

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

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	/	20121901	BFB Tune check	2810-94	80ng	2.0mL	1.00	[illegible]	12/19/16	1012	[illegible]	
2	/	02	ICAL check 2	2819-182	0.005ppbv	25mL	1.00	[illegible]		1033	[illegible]	Exp. 8/1/17
3	/	03	3		0.01ppbv	50mL	1.00	[illegible]		1119	[illegible]	
4	/	04	4		0.02ppbv	100mL	1.00	[illegible]		1158	[illegible]	
5	/	05	5		0.05ppbv	250mL	1.00	[illegible]		1236	[illegible]	
6	/	06	6	2819-183	0.1ppbv	25mL	1.00	[illegible]		1314	[illegible]	Exp. 8/1/17
7	/	07	7		0.5ppbv	125mL	1.00	[illegible]		1402	[illegible]	
8	/	08	8		1.0ppbv	250mL	1.00	[illegible]		1441	[illegible]	
9	/	09	12	2819-148	5.0ppbv	25mL	1.00	[illegible]		1519	[illegible]	Exp. 8/1/17
10	/	10	13		10ppbv	50mL	1.00	[illegible]		1558	[illegible]	
11	/	11	~~14~~ 15 [illegible] 12/20/16		20ppbv	100mL	1.00	[illegible]		1636	[illegible]	
12	/	12	16		40ppbv	200mL	1.00	MB		1739	[illegible]	
13	/	13	System Blank	96107	pluma	250mL	1.00	MB		1912	[illegible]	
14	/	14								2025	[illegible]	
15	/	15	ICV (50ppbv)	2814-157	10ppbv	50mL	1.00	MB		2115	[illegible]	Exp. 3/2/17
16												
17												

[illegible] Reviewed 12/20/15 Date

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2829**

BFB Verification of 176/174 m/z Ratio: 1118208/1145344 x100 = 97.63%	
Method Name: 2016L1219A / 2016S1219A	

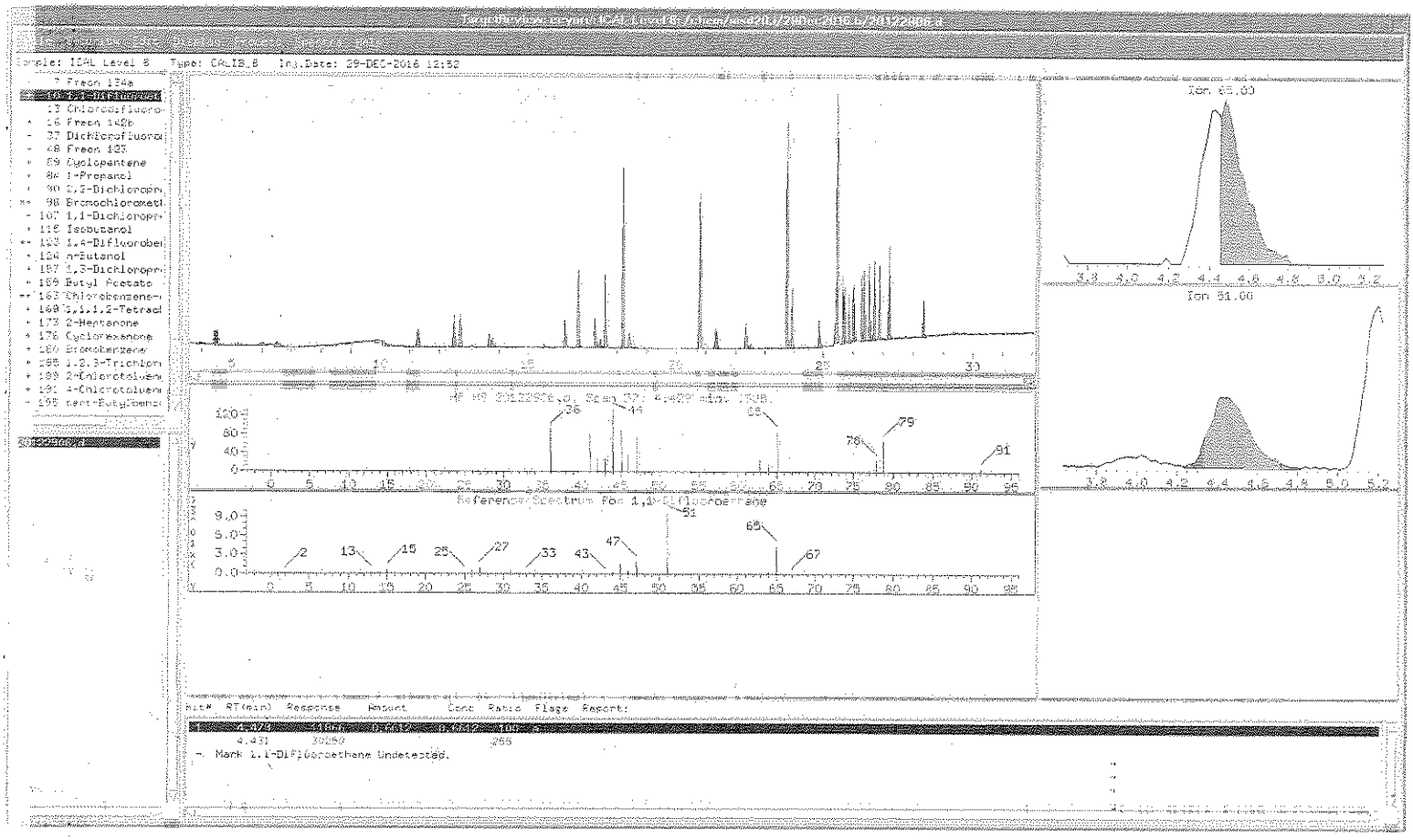
IS/S Std. #: 2819-83		Exp. Date: Exp 1/17/17	
BCM LL	211040	SIM	214187
1,4-DFB	848977		883803
CB-d5	712591		742177

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

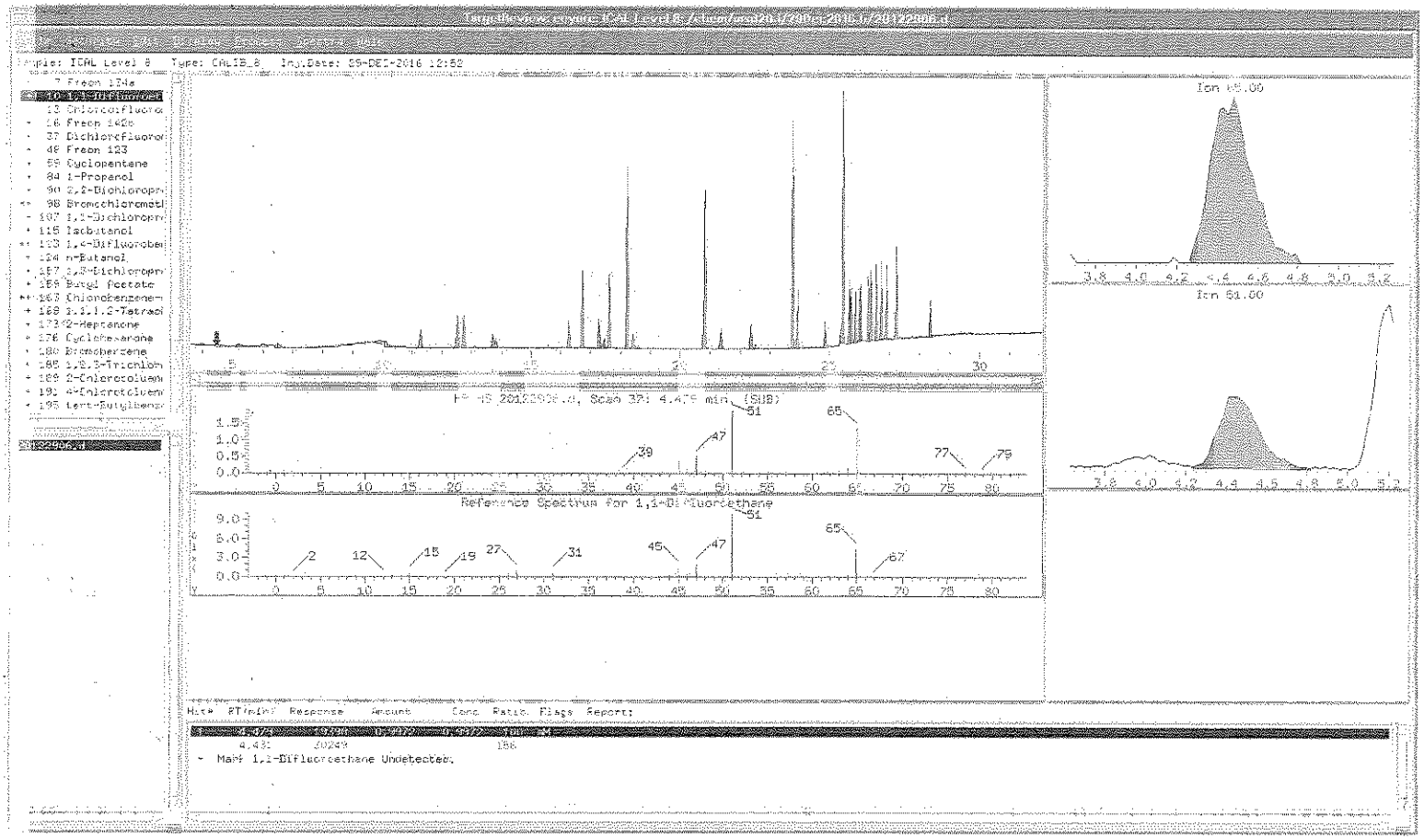
SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one) TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20122901	BFB tune check	2810-94	50ng	2.0ml	1.0	SW	12/29/16	0803	SW/gd	
2	✓	02	CCV (25ppbv)	2819-148A	10ppbv	100mL		SW		0829	gd	Exp 3/1/17 Φ out
3	✓	03	LCS (50ppbv)	2819-157	10ppbv	50mL		gd		0916	gd	Exp. 3/2/17 Φ out
4	✓	04	LCSD ↓	↓	↓	↓				1013	gd	
5	✓	05	ICAL Level 7	2819-142	0.5ppbv (5ppbv)	25mL				1156		Exp. 2/8/17 AT-1
6	✓	06	8		1.0ppbv (5ppbv)	50mL				1252		
7	✓	07	9		2.0ppbv (5ppbv)	100mL				1350		
8	✓	08	11		4.0ppbv (5ppbv)	200mL				1430		
9	✓	09	12		5.0ppbv (5ppbv)	250mL				1514		
10		10	Lab Blank	34737	Humid	250mL						
11		11	1612431-01AB	N1633	5.1"Hg-5.1psi	100mL	4.05	GH				
12												
13												
14												
15												
16												
17										gd 12/29/16		

gd Reviewed 12/29/16 Date


Sample: ICAL Level B
Type: CRLIB_B
Inj.Date: 29-DEC-2016 12:32
Ion 85.00
Ion 91.00
Reference Spectrum For 1,1-Dichloroethene
Hit# RT(min) Response Amount Conc Ratio Flags Report:
4.474
4.431
Mark 1,1-Dichloroethene Undetected.

Before



65 12/30/16

gd 12/29/16

After

Correct Baseline	
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

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
3-Chloropropene
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
2,2,4-Trimethylpentane
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.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121915.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 19-DEC-2016 21:15
Operator : mjs Inst ID: msd20.i
Smp Info : 50mL #2819-157
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:30 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 17:39 Cal File: 20121912.d
Als bottle: 1 QC Sample: ICV
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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	222168	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	172051			46.97- 106.97	77.44
16.695	16.726 (1.000)	49	233632			76.21- 136.21	105.16
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	881114	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	132218			0.00- 45.59	15.01
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	730210	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	384941			23.26- 83.26	52.72
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.621 (1.053)	65	263915	4.81437	4.814	80.00- 120.00	100.00
17.620	17.621 (1.053)	67	159452			31.78- 91.78	60.42
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	848342	5.03553	5.036	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	87393			0.00- 40.33	10.30

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.806	20.806 (1.143)	100	557445			35.56- 95.56	65.71
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	400197	5.13569	5.136	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	436720			79.94- 139.94	109.13
25.466	25.466 (1.072)	176	389970			67.24- 127.24	97.44
9 Propylene					CAS #: 115-07-1		
4.166	4.214 (0.249)	41	420867	9.91928	9.919	70.00- 130.00	100.00
4.166	4.190 (0.249)	42	277391			0.00- 30.00	65.91
4.166	4.214 (0.249)	39	298194			0.00- 30.00	70.85
11 Freon 12					CAS #: 75-71-8		
4.648	4.672 (0.278)	85	1620877	9.62450	9.624	70.00- 130.00	100.00
4.672	4.672 (0.279)	87	524893			0.00- 30.00	32.38
15 Freon 114					CAS #: 76-14-2		
6.215	6.239 (0.372)	135	1261199	9.45094	9.451	70.00- 130.00	100.00
6.215	6.239 (0.372)	137	404172			0.00- 30.00	32.05
6.215	6.215 (0.372)	85	1657103			103.93- 163.93	131.39
17 Chloromethane					CAS #: 74-87-3		
6.552	6.601 (0.392)	50	532671	10.2899	10.290	80.00- 120.00	100.00
6.577	6.601 (0.393)	52	167888			3.24- 63.24	31.52
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	119867	9.64121	9.641	80.00- 120.00	100.00
7.416	7.434 (0.443)	43	807097			637.57- 697.57	673.33
25 Vinyl Chloride					CAS #: 75-01-4		
7.573	7.590 (0.453)	62	609414	9.92508	9.925	80.00- 120.00	100.00
7.573	7.590 (0.453)	64	198489			2.15- 62.15	32.57
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	428556	9.52994	9.530	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	376724			58.46- 118.46	87.91
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	464855	10.5822	10.582	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	446316			64.83- 124.83	96.01
30 Chloroethane					CAS #: 75-00-3		
10.174	10.199 (0.608)	64	274621	10.2837	10.284	80.00- 120.00	100.00
10.174	10.199 (0.608)	49	58781			0.00- 51.98	21.40
10.174	10.199 (0.608)	66	90833			2.87- 62.87	33.08

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	482057	10.0128	10.013	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	637076			95.82- 155.82	132.16
10.367	10.367 (0.620)	42	548977			78.19- 138.19	113.88
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	1610099	9.54873	9.549	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	1039417			34.37- 94.37	64.56
42 Ethanol					CAS #: 64-17-5		
12.269	12.297 (0.734)	45	206521	9.09461	9.095	80.00- 120.00	100.00
12.269	12.297 (0.734)	46	81638			10.33- 70.33	39.53
49 Freon 113					CAS #: 76-13-1		
12.763	12.736 (0.763)	151	1179534	9.37280	9.373	80.00- 120.00	100.00
12.763	12.764 (0.763)	153	757288			33.68- 93.68	64.20
12.763	12.736 (0.763)	101	1361671			86.77- 146.77	115.44
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	400080	9.80992	9.810	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	906780			201.92- 261.92	226.65
12.736	12.736 (0.761)	96	619903			127.04- 187.04	154.94
52 Acetone					CAS #: 67-64-1		
13.066	13.093 (0.781)	58	289198	9.23829	9.238	80.00- 120.00	100.00
13.066	13.093 (0.781)	43	791372			253.28- 313.28	273.64
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.093 (0.784)	76	1831328	10.5785	10.578	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.560 (0.809)	45	867250	10.3130	10.313	80.00- 120.00	100.00
13.532	13.560 (0.809)	43	193562			0.00- 52.74	22.32
13.532	13.560 (0.809)	59	39083			0.00- 34.43	4.51
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	263560	11.8857	11.886	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	600229			199.62- 259.62	227.74
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	609240	8.96763	8.968	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	657496			80.28- 140.28	107.92
14.027	14.027 (0.839)	51	206515			4.61- 64.61	33.90
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	1672696	10.6621	10.662	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether (continued)							
14.439	14.439 (0.863)	57	357133			0.00- 51.40	21.35
14.439	14.439 (0.863)	41	344505			0.00- 51.25	20.60
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	431736	10.7478	10.748	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	869595			175.66- 235.66	201.42
14.494	14.494 (0.866)	96	676271			128.76- 188.76	156.64
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	941464	10.4891	10.489	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	542643			28.29- 88.29	57.64
14.878	14.878 (0.889)	86	176981			0.00- 48.18	18.80
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	1094947	9.61360	9.614	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	354217			2.02- 62.02	32.35
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	148049	11.0754	11.075	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	108119			42.22- 102.22	73.03
15.400	15.400 (0.921)	43	1242552			810.72- 870.72	839.28
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.324 (0.976)	98	449115	9.26493	9.265	80.00- 120.00	100.00
16.323	16.324 (0.976)	61	817939			153.64- 213.64	182.12
16.323	16.324 (0.976)	96	698149			125.91- 185.91	155.45
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	324371	10.6265	10.626	80.00- 120.00	100.00
16.323	16.344 (0.976)	43	1049763			300.25- 360.25	323.63
16.323	16.344 (0.976)	57	90755			0.00- 58.21	27.98
99 Tetrahydrofuran					CAS #: 109-99-9		
16.695	16.696 (0.998)	42	642086	10.7312	10.731	80.00- 120.00	100.00
16.695	16.696 (0.998)	71	307825			16.33- 76.33	47.94
16.695	16.696 (0.998)	72	324508			20.03- 80.03	50.54
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	1324756	9.59504	9.595	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	861110			34.75- 94.75	65.00
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	950555	10.5287	10.529	80.00- 120.00	100.00
17.035	17.035 (1.018)	56	996335			76.62- 136.62	104.82
17.035	17.035 (1.018)	41	483027			21.84- 81.84	50.82

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.035	17.035 (1.018)	97	1360358	9.76202	9.762	80.00- 120.00	100.00
17.035	17.035 (1.018)	99	881138			34.64- 94.64	64.77
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	1098309	9.24560	9.246	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	1146767			73.50- 133.50	104.41
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.559	17.559 (1.050)	56	922059	10.6040	10.604	80.00- 120.00	100.00
17.559	17.559 (1.050)	57	2861850			280.27- 340.27	310.38
17.559	17.559 (1.050)	41	656393			42.11- 102.11	71.19
116 Benzene					CAS #: 71-43-2		
17.620	17.621 (0.968)	78	1992937	9.46608	9.466	80.00- 120.00	100.00
17.620	17.621 (0.968)	77	465089			0.00- 53.26	23.34
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	766688	9.39324	9.393	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	251187			2.82- 62.82	32.76
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	554741	10.2621	10.262	80.00- 120.00	100.00
17.847	17.847 (0.980)	100	217494			8.23- 68.23	39.21
17.847	17.847 (0.980)	43	936131			141.33- 201.33	168.75
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	1002920	10.0031	10.003	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	915573			61.76- 121.76	91.29
18.610	18.610 (1.022)	97	589675			29.47- 89.47	58.80
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.834 (1.034)	83	1253904	10.5928	10.593	80.00- 120.00	100.00
18.833	18.834 (1.034)	55	885019			40.87- 100.87	70.58
18.833	18.834 (1.034)	56	284949			0.00- 53.10	22.72
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.056	19.057 (1.047)	63	737674	9.86884	9.869	80.00- 120.00	100.00
19.056	19.057 (1.047)	62	511813			39.05- 99.05	69.38
19.056	19.057 (1.047)	41	349773			18.49- 78.49	47.42
136 1,4-Dioxane					CAS #: 123-91-1		
19.190	19.213 (1.054)	88	556325	11.2745	11.274	80.00- 120.00	100.00
19.190	19.213 (1.054)	58	344002			32.65- 92.65	61.83
19.190	19.213 (1.054)	57	108389			0.00- 50.00	19.48

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	1325768	10.2370	10.237	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	848992			33.97- 93.97	64.04
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.339 (1.117)	75	1222316	11.3569	11.357	80.00- 120.00	100.00
20.338	20.339 (1.117)	77	384234			1.99- 61.99	31.43
20.338	20.339 (1.117)	39	484546			10.43- 70.43	39.64
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	1388781	12.0935	12.093	80.00- 120.00	100.00
20.557	20.557 (1.129)	58	608691			12.96- 72.96	43.83
20.557	20.557 (1.129)	85	295836			0.00- 50.79	21.30
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	2305415	9.95287	9.953	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	1363331			29.12- 89.12	59.14
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	987721	10.7857	10.786	80.00- 120.00	100.00
21.535	21.535 (0.906)	77	318284			1.76- 61.76	32.22
21.535	21.535 (0.906)	39	383738			8.58- 68.58	38.85
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	870212	10.0159	10.016	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	543924			32.87- 92.87	62.50
21.970	21.970 (0.925)	83	728416			54.32- 114.32	83.71
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	1369056	10.0215	10.022	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	942559			38.71- 98.71	68.85
22.145	22.145 (0.932)	131	910339			36.65- 96.65	66.49
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	800394	12.9064	12.906	80.00- 120.00	100.00
22.377	22.377 (0.942)	43	1296822			137.01- 197.01	162.02
22.377	22.377 (0.942)	100	186737			0.00- 53.27	23.33
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	1546370	11.0521	11.052	80.00- 120.00	100.00
22.755	22.755 (0.958)	127	1184523			46.69- 106.69	76.60
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	1339986	10.3022	10.302	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	1271952			65.40- 125.40	94.92

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	1871357	9.73678	9.737	80.00- 120.00	100.00
23.802	23.802 (1.002)	114	603689			2.27- 62.27	32.26
23.802	23.802 (1.002)	77	1019024			24.92- 84.92	54.45
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.906 (1.006)	106	910851	10.6665	10.666	80.00- 120.00	100.00
23.905	23.906 (1.006)	91	2764686			275.87- 335.87	303.53
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	941878	10.4901	10.490	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	1823139			163.30- 223.30	193.56
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	893252	10.6766	10.676	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	1843135			172.76- 232.76	206.34
172 Styrene					CAS #: 100-42-5		
24.730	24.731 (1.041)	104	1360461	11.0812	11.081	80.00- 120.00	100.00
24.730	24.731 (1.041)	78	661189			18.49- 78.49	48.60
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	1584201	11.5806	11.580	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	810149			21.11- 81.11	51.14
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	2822295	10.5775	10.578	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	782489			0.00- 57.81	27.73
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	1540969	9.57200	9.572	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	990580			34.74- 94.74	64.28
182 Propylbenzene					CAS #: 103-65-1		
25.713	25.732 (1.082)	91	2418273	9.48324	9.483	80.00- 120.00	100.00
25.732	25.732 (1.083)	120	593866			0.00- 54.36	24.56
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	1949202	9.38812	9.388	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	610246			1.16- 61.16	31.31
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	1834809	9.90098	9.901	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	940137			20.44- 80.44	51.24
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	1741618	9.71853	9.718	80.00- 120.00	100.00

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

  196 1,2,4-Trimethylbenzene (continued)
 26.395  26.395 (1.111)   120    825422                    17.83-  77.83    47.39
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  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.794  26.794 (1.128)   146   1303965 8.92595    8.926  80.00- 120.00   100.00
 26.794  26.810 (1.128)   148    830355                    33.66-  93.66    63.68
 26.794  26.794 (1.128)   111    495953                     8.07-  68.07    38.03
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.919  26.919 (1.133)   146   1205784 8.66939    8.669  80.00- 120.00   100.00
 26.919  26.919 (1.133)   148    765305                    33.90-  93.90    63.47
 26.903  26.919 (1.132)   111    438675                     6.77-  66.77    36.38
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  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.075  27.075 (1.139)    91   1583344 10.9455   10.946  80.00- 120.00   100.00
 27.075  27.075 (1.139)   126    350724                     0.00-  52.05    22.15
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 27.371  27.371 (1.152)   146   1228550 8.83424    8.834  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148    788744                    34.41-  94.41    64.20
 27.371  27.371 (1.152)   111    481519                     9.66-  69.66    39.19
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 29.366  29.382 (1.236)   180   1480979 9.17948    9.179  80.00- 120.00   100.00
 29.366  29.382 (1.236)   182   1411399                    66.13- 126.13    95.30
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225   1085902 8.25365    8.254  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223    685267                    32.84-  92.84    63.11
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.756  29.756 (1.252)   128    318892 1.10001    1.100  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127     40154                     0.00-  42.38    12.59
-------------------------------------------------------------------------------
M 239 Total Xylene                                 CAS #: 1330-20-7
                                1835130 21.1667   21.167
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20121915.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	222168	-0.93
123 1,4-Difluorobenze	881591	528955	1234227	881114	-0.05
163 Chlorobenzene-d5	733017	439810	1026224	730210	-0.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 19Dec2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: ICV
SpikeList File: AT12EtOH.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 10ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	10.000	9.919	99.19	60-140
11 Freon 12	10.000	9.624	96.24	70-130
15 Freon 114	10.000	9.451	94.51	70-130
17 Chloromethane	10.000	10.290	102.90	70-130
23 Butane	10.000	9.641	96.41	60-140
25 Vinyl Chloride	10.000	9.925	99.25	70-130
26 1,3-Butadiene	10.000	9.530	95.30	70-130
29 Bromomethane	10.000	10.582	105.82	70-130
30 Chloroethane	10.000	10.284	102.84	70-130
31 Isopentane	10.000	10.013	100.13	60-140
35 Freon 11	10.000	9.549	95.49	70-130
42 Ethanol	11.500	9.095	79.08	70-130
49 Freon 113	10.000	9.373	93.73	70-130
50 1,1-Dichloroethene	10.000	9.810	98.10	70-130
52 Acetone	10.000	9.238	92.38	70-130
56 Carbon Disulfide	10.000	10.578	105.78	70-130
57 2-Propanol	10.000	10.313	103.13	70-130
58 3-Chloropropene	10.000	11.886	118.86	70-130
66 Methylene Chloride	10.000	8.968	89.68	70-130
72 Methyl tert-butyl	10.000	10.662	106.62	70-130
73 trans-1,2-Dichloro	10.000	10.748	107.48	70-130
78 Hexane	10.000	10.489	104.89	70-130
82 1,1-Dichloroethane	10.000	9.614	96.14	70-130
86 Vinyl Acetate	10.000	11.075	110.75	60-140
91 cis-1,2-Dichloroet	10.000	9.265	92.65	70-130
92 2-Butanone	10.000	10.626	106.27	70-130
99 Tetrahydrofuran	10.000	10.731	107.31	70-130
100 Chloroform	10.000	9.595	95.95	70-130
103 1,1,1-Trichloroeth	10.000	9.762	97.62	70-130
106 Carbon Tetrachlori	10.000	9.246	92.46	70-130
102 Cyclohexane	10.000	10.529	105.29	70-130
113 2,2,4-Trimethylpen	10.000	10.604	106.04	70-130
116 Benzene	10.000	9.466	94.66	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	10.000	9.393	93.93	70-130
121 Heptane	10.000	10.262	102.62	70-130
125 Trichloroethene	10.000	10.003	100.03	70-130
127 Methylcyclohexane	10.000	10.593	105.93	60-140
132 1,2-Dichloropropan	10.000	9.869	98.69	70-130
136 1,4-Dioxane	10.000	11.274	112.75	70-130
138 Bromodichlorometha	10.000	10.237	102.37	70-130
144 cis-1,3-Dichloropr	10.000	11.357	113.57	70-130
145 4-Methyl-2-pentano	10.000	12.093	120.93	70-130
147 Toluene	10.000	9.953	99.53	70-130
150 trans-1,3-Dichloro	10.000	10.786	107.86	70-130
155 1,1,2-Trichloroeth	10.000	10.016	100.16	70-130
156 Tetrachloroethene	10.000	10.022	100.22	70-130
158 2-Hexanone	10.000	12.906	129.06	70-130
160 Dibromochlorometha	10.000	11.052	110.52	70-130
161 1,2-Dibromoethane	10.000	10.302	103.02	70-130
165 Chlorobenzene	10.000	9.737	97.37	70-130
167 Ethyl Benzene	10.000	10.666	106.66	70-130
169 m,p-Xylene	10.000	10.490	104.90	70-130
171 o-Xylene	10.000	10.676	106.77	70-130
172 Styrene	10.000	11.081	110.81	70-130
174 Bromoform	10.000	11.580	115.81	70-130
175 Cumene	10.000	10.578	105.78	70-130
181 1,1,2,2-Tetrachlor	10.000	9.572	95.72	70-130
182 Propylbenzene	10.000	9.483	94.83	70-130
188 4-Ethyltoluene	10.000	9.388	93.88	70-130
190 1,3,5-Trimethylben	10.000	9.901	99.01	70-130
196 1,2,4-Trimethylben	10.000	9.718	97.19	70-130
208 1,3-Dichlorobenzen	10.000	8.926	89.26	70-130
209 1,4-Dichlorobenzen	10.000	8.669	86.69	70-130
212 alpha-Chlorotoluen	10.000	10.946	109.46	70-130
214 1,2-Dichlorobenzen	10.000	8.834	88.34	70-130
226 1,2,4-Trichloroben	10.000	9.179	91.79	70-130
227 Hexachlorobutadien	10.000	8.254	82.54	70-130
228 Naphthalene	1.000	1.100	110.00	60-140
M 239 Total Xylene	20.000	21.167	105.83	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.814	96.29	70-130
$ 146 Toluene-d8	5.000	5.036	100.71	70-130
$ 177 4-Bromofluorobenze	5.000	5.136	102.71	70-130

Data File: /chem/msd20.i/19Dec2016.b/20121915.d

Date : 19-DEC-2016 21:15

Client ID: ICV

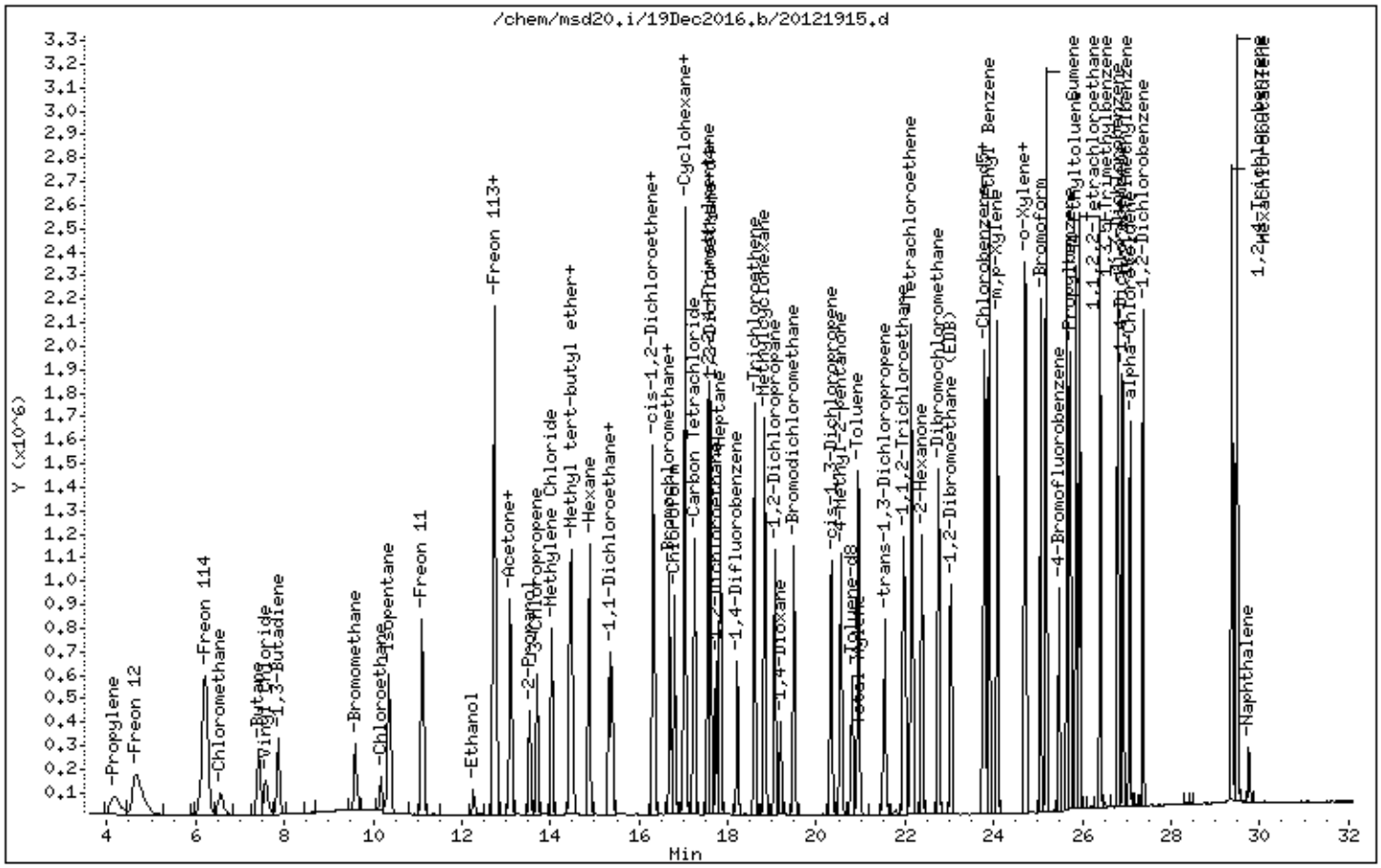
Instrument: msd20.i

Sample Info: 50mL #2819-157

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121905.d
Lab Smp Id: ICAL Level 5
Inj Date : 19-DEC-2016 12:36
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 2819-182
Misc Info : 0.05ppbv (0.05ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:29 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 12:36 Cal File: 20121905.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level5.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
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	6772	0.05000	0.05331	70.00- 130.00	100.00(a)
6.191	6.191 (0.370)	137	908			0.00- 30.00	13.41
6.215	6.215 (0.372)	85	8768			103.93- 163.93	129.47
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	8607	0.05000	0.05362	80.00- 120.00	100.00(a)
11.114	11.114 (0.664)	103	5873			34.37- 94.37	68.24
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	6250	0.05000	0.05217	80.00- 120.00	100.00(a)
12.763	12.763 (0.763)	153	4144			33.68- 93.68	66.30
12.763	12.763 (0.763)	101	7735			86.77- 146.77	123.76
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	211493	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	164861			46.97- 106.97	77.95
16.726	16.726 (1.000)	49	229077			76.21- 136.21	108.31
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.034	17.034 (1.018)	97	6944	0.05000	0.05234	80.00- 120.00	100.00(a)

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

  103 1,1,1-Trichloroethane (continued)
 17.034  17.034 (1.018)    99      3900                    34.64-  94.64    56.16
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119      4327 0.05000  0.03826  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      3996                    73.50- 133.50    92.35
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.620  17.620 (1.053)    65    274787 5.00000    5.266  80.00- 120.00   100.00
 17.620  17.620 (1.053)    67    150129                    31.78-  91.78    54.63
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.974)    62      4007 0.05000  0.05018  80.00- 120.00   100.00(a)
 17.744  17.744 (0.974)    64      2213                     2.82-  62.82    55.23
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.209  18.209 (1.000)   114    861975 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    131737                    0.00-  45.59    15.28
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.022)   130      4789 0.05000  0.04882  80.00- 120.00   100.00(a)
 18.610  18.610 (1.022)    95      4520                    61.76- 121.76    94.38
 18.610  18.610 (1.022)    97      3112                    29.47-  89.47    64.98
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 19.503  19.503 (0.821)    83      5712 0.05000  0.04532  80.00- 120.00   100.00(a)
 19.503  19.503 (0.821)    85      3781                    33.97-  93.97    66.19
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 20.806  20.806 (1.143)    98    809361 5.00000    4.911  80.00- 120.00   100.00
 20.806  20.806 (1.143)    70     88080                    0.00-  40.33    10.88
 20.806  20.806 (1.143)   100    537363                    35.56-  95.56    66.39
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                         CAS #: 79-00-5
 21.999  21.999 (0.926)    97      3994 0.05000  0.04724  80.00- 120.00   100.00(a)
 21.970  21.970 (0.925)    99      3490                    32.87-  92.87    87.38
 21.999  21.999 (0.926)    83      3633                    54.32- 114.32    90.96
-------------------------------------------------------------------------------
  156 Tetrachloroethene                             CAS #: 127-18-4
 22.145  22.145 (0.932)   166      6205 0.05000  0.04667  80.00- 120.00   100.00(a)
 22.145  22.145 (0.932)   129      4820                    38.71-  98.71    77.68
 22.145  22.145 (0.932)   131      4221                    36.65-  96.65    68.03
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.754  22.754 (0.958)   129      5482 0.05000  0.04026  80.00- 120.00   100.00(a)
 22.754  22.754 (0.958)   127      4325                    46.69- 106.69    78.89
-------------------------------------------------------------------------------
```

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

  161 1,2-Dibromoethane (EDB)                          CAS #: 106-93-4
 23.045  23.045 (0.970)   107      6064 0.05000  0.04791  80.00- 120.00   100.00(a)
 23.045  23.045 (0.970)   109      6163                   65.40- 125.40   101.63
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                 CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    710615 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    377030                   23.26-  83.26    53.06
-------------------------------------------------------------------------------
  174 Bromoform                                        CAS #: 75-25-2
 25.068  25.068 (1.055)   173      5631 0.05000  0.04230  80.00- 120.00   100.00(a)
 25.068  25.068 (1.055)   171      2428                   21.11-  81.11    43.12
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                             CAS #: 460-00-4
 25.466  25.466 (1.072)   174    368775 5.00000    4.863  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    405345                   79.94- 139.94   109.92
 25.466  25.466 (1.072)   176    355273                   67.24- 127.24    96.34
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                        CAS #: 79-34-5
 25.656  25.656 (1.080)    83      8957 0.05000  0.05717  80.00- 120.00   100.00(a)
 25.656  25.656 (1.080)    85      5193                   34.74-  94.74    57.98
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                   CAS #: 622-96-8
 25.864  25.864 (1.089)   105     11051 0.05000  0.05469  80.00- 120.00   100.00(a)
 25.864  25.864 (1.089)   120      3498                    1.16-  61.16    31.65
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                           CAS #: 108-67-8
 25.940  25.940 (1.092)   105      9402 0.05000  0.05213  80.00- 120.00   100.00(a)
 25.940  25.940 (1.092)   120      4892                   20.44-  80.44    52.03
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                           CAS #: 95-63-6
 26.395  26.395 (1.111)   105      9455 0.05000  0.05422  80.00- 120.00   100.00(a)
 26.395  26.395 (1.111)   120      5209                   17.83-  77.83    55.09
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                              CAS #: 541-73-1
 26.794  26.794 (1.128)   146      8362 0.05000  0.05882  80.00- 120.00   100.00(a)
 26.794  26.794 (1.128)   148      5971                   33.66-  93.66    71.41
 26.794  26.794 (1.128)   111      3608                    8.07-  68.07    43.15
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                              CAS #: 106-46-7
 26.919  26.919 (1.133)   146      8389 0.05000  0.06198  80.00- 120.00   100.00(a)
 26.919  26.919 (1.133)   148      5668                   33.90-  93.90    67.56
 26.919  26.919 (1.133)   111      2936                    6.77-  66.77    35.00
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                              CAS #: 95-50-1
 27.371  27.371 (1.152)   146      7908 0.05000  0.05843  80.00- 120.00   100.00(a)
 27.371  27.371 (1.152)   148      5003                   34.41-  94.41    63.27
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
27.371	27.371 (1.152)	111	3390			9.66- 69.66	42.87
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.366 (1.236)	180	9828	0.05000	0.06260	80.00- 120.00	100.00(a)
29.366	29.366 (1.236)	182	9460			66.13- 126.13	96.26

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: msd20.i
Lab File ID: 20121905.d
Lab Smp Id: ICAL Level 5
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	211493	-5.69
123 1,4-Difluorobenze	881591	528955	1234227	861975	-2.23
163 Chlorobenzene-d5	733017	439810	1026224	710615	-3.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121905.d

Date : 19-DEC-2016 12:36

Client ID:

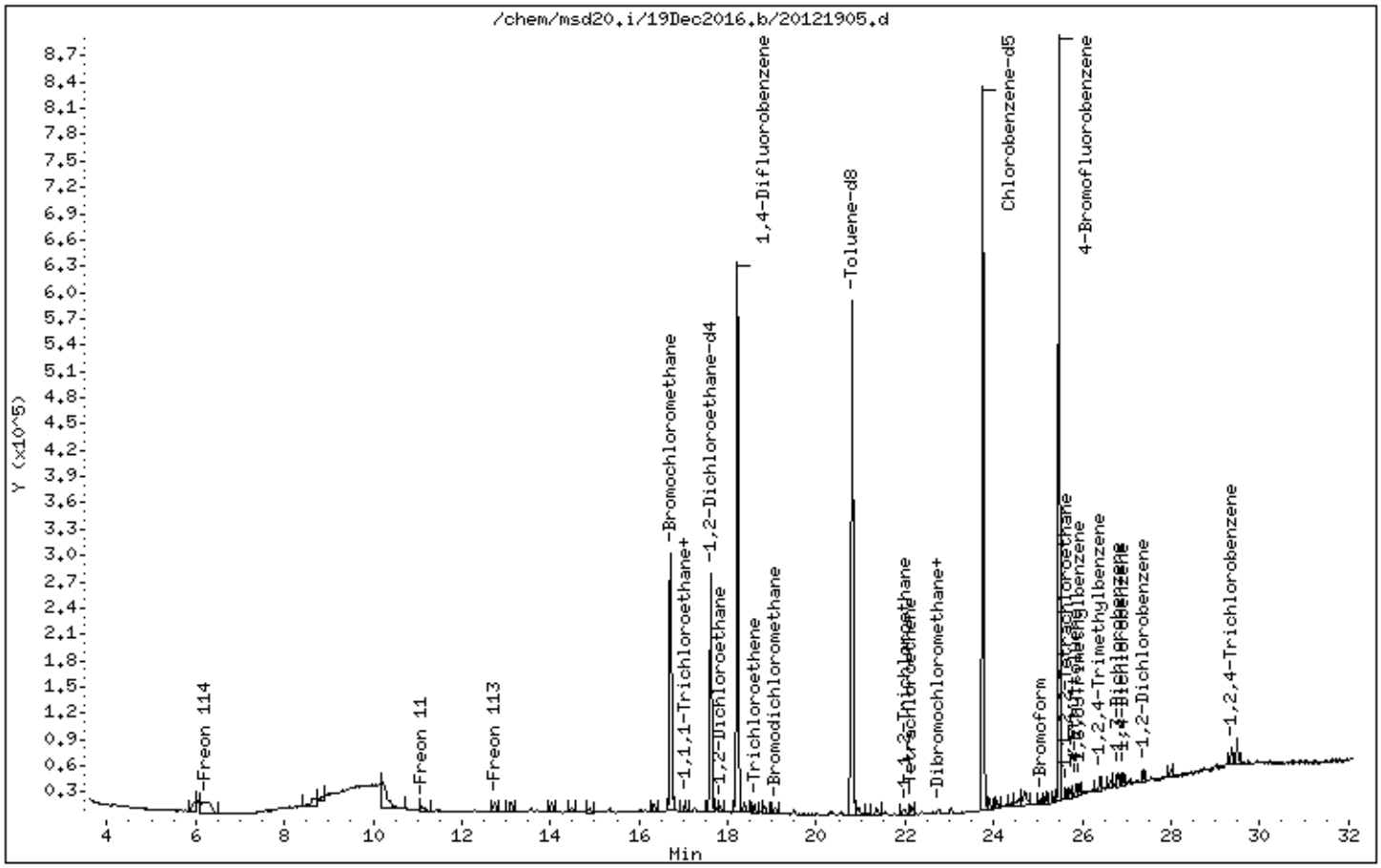
Instrument: msd20.i

Sample Info: 250mL# 2819-182

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121906.d
Lab Smp Id: ICAL Level 6
Inj Date : 19-DEC-2016 13:18
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2819-183
Misc Info : 0.1ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:29 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 13:18 Cal File: 20121906.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level6.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
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	18433	0.10000	0.1138	70.00- 130.00	100.00(a)
4.696	4.696 (0.281)	87	4290			0.00- 30.00	23.27
15 Freon 114					CAS #: 76-14-2		
6.191	6.191 (0.370)	135	15203	0.10000	0.1184	70.00- 130.00	100.00(a)
6.215	6.215 (0.372)	137	4522			0.00- 30.00	29.74
6.191	6.191 (0.370)	85	18608			103.93- 163.93	122.40
25 Vinyl Chloride					CAS #: 75-01-4		
7.538	7.538 (0.451)	62	6379	0.10000	0.1080	80.00- 120.00	100.00(a)
7.555	7.555 (0.452)	64	2501			2.15- 62.15	39.21
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	4971	0.10000	0.1149	80.00- 120.00	100.00(a)
7.868	7.868 (0.470)	39	4653			58.46- 118.46	93.60
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	17944	0.10000	0.1106	80.00- 120.00	100.00(a)
11.114	11.114 (0.664)	103	12036			34.37- 94.37	67.08

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

   49 Freon 113                                      CAS #: 76-13-1
 12.763  12.763 (0.763)   151     14312 0.10000   0.1182  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      8672                   33.68-  93.68    60.59
 12.763  12.763 (0.763)   101     15863                   86.77- 146.77   110.84
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                             CAS #: 75-35-4
 12.736  12.736 (0.761)    98      4417 0.10000   0.1126  80.00- 120.00   100.00(a)
 12.736  12.736 (0.761)    61     10223                  201.92- 261.92   231.45
 12.736  12.736 (0.761)    96      6307                  127.04- 187.04   142.79
-------------------------------------------------------------------------------
   66 Methylene Chloride                             CAS #: 75-09-2
 14.027  14.027 (0.839)    84      8389 0.10000   0.1284  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      9235                   80.28- 140.28   110.08
 14.027  14.027 (0.839)    51      2829                    4.61-  64.61    33.72
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                        CAS #: 1634-04-4
 14.439  14.439 (0.863)    73     13311 0.10000  0.08820  80.00- 120.00   100.00(a)
 14.466  14.466 (0.865)    57      3658                    0.00-  51.40    27.48
 14.439  14.439 (0.863)    41      4844                    0.00-  51.25    36.39
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                       CAS #: 156-60-5
 14.494  14.494 (0.866)    98      4103 0.10000   0.1062  80.00- 120.00   100.00(a)
 14.494  14.494 (0.866)    61      8186                  175.66- 235.66   199.51
 14.494  14.494 (0.866)    96      6461                  128.76- 188.76   157.47
-------------------------------------------------------------------------------
   78 Hexane                                         CAS #: 110-54-3
 14.878  14.878 (0.889)    57      8837 0.10000   0.1024  80.00- 120.00   100.00(a)
 14.878  14.878 (0.889)    43      5728                   28.29-  88.29    64.82
 14.878  14.878 (0.889)    86      1541                    0.00-  48.18    17.44
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                             CAS #: 75-34-3
 15.345  15.345 (0.917)    63     12018 0.10000   0.1097  80.00- 120.00   100.00(a)
 15.345  15.345 (0.917)    65      4362                    2.02-  62.02    36.30
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                         CAS #: 156-59-2
 16.324  16.324 (0.976)    98      5036 0.10000   0.1080  80.00- 120.00   100.00(a)
 16.324  16.324 (0.976)    61      8866                  153.64- 213.64   176.05
 16.324  16.324 (0.976)    96      7808                  125.91- 185.91   155.04
-------------------------------------------------------------------------------
*  98 Bromochloromethane                             CAS #: 74-97-5
 16.726  16.726 (1.000)   130    213708 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    164923                   46.97- 106.97    77.17
 16.696  16.696 (1.000)    49    229749                   76.21- 136.21   107.51
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
 16.819  16.819 (1.006)    83     14898 0.10000   0.1122  80.00- 120.00   100.00(a)
```

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

  100 Chloroform (continued)
 16.819  16.819 (1.006)    85      9470                    34.75-  94.75    63.57
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84      8549 0.10000  0.09844  80.00- 120.00   100.00(a)
 17.035  17.035 (1.018)    56      8954                    76.62- 136.62   104.74
 17.035  17.035 (1.018)    41      5146                    21.84-  81.84    60.19
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97     15042 0.10000   0.1122  80.00- 120.00   100.00(a)
 17.035  17.035 (1.018)    99      9069                    34.64-  94.64    60.29
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119     11249 0.10000  0.09844  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117     11815                    73.50- 133.50   105.03
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 17.579  17.579 (1.051)    56      8056 0.10000  0.09631  80.00- 120.00   100.00(a)
 17.559  17.559 (1.050)    57     26373                   280.27- 340.27   327.37
 17.579  17.579 (1.051)    41      6414                    42.11- 102.11    79.62
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.621  17.621 (0.968)    78     24997 0.10000   0.1258  80.00- 120.00   100.00(a)
 17.621  17.621 (0.968)    77      6206                     0.00-  53.26    24.83
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    266742 5.00000    5.058  80.00- 120.00   100.00
 17.621  17.621 (1.053)    67    142271                    31.78-  91.78    53.34
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.744  17.744 (0.974)    62      8740 0.10000   0.1134  80.00- 120.00   100.00
 17.744  17.744 (0.974)    64      3105                     2.82-  62.82    35.53
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.826  17.826 (0.979)    57      5692 0.10000   0.1115  80.00- 120.00   100.00(a)
 17.826  17.826 (0.979)   100      1714                     8.23-  68.23    30.11
 17.847  17.847 (0.980)    43      7946                   141.33- 201.33   139.60
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.209  18.209 (1.000)   114    831912 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    128569                     0.00-  45.59    15.45
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.610  18.610 (1.022)   130     10402 0.10000   0.1099  80.00- 120.00   100.00(a)
 18.610  18.610 (1.022)    95     10206                    61.76- 121.76    98.12
 18.610  18.610 (1.022)    97      5775                    29.47-  89.47    55.52
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.057	19.057 (1.047)	63	7448	0.10000	0.1055	80.00- 120.00	100.00(a)
19.057	19.057 (1.047)	62	4766			39.05- 99.05	63.99
19.057	19.057 (1.047)	41	4381			18.49- 78.49	58.82
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.055)	88	4372	0.10000	0.09384	80.00- 120.00	100.00(a)
19.213	19.213 (1.055)	58	3070			32.65- 92.65	70.22
19.190	19.190 (1.054)	57	1349			0.00- 50.00	30.86
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	12281	0.10000	0.1004	80.00- 120.00	100.00(a)
19.503	19.503 (0.821)	85	8374			33.97- 93.97	68.19
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.117)	75	9016	0.10000	0.08872	80.00- 120.00	100.00(a)
20.338	20.338 (1.117)	77	3391			1.99- 61.99	37.61
20.338	20.338 (1.117)	39	4470			10.43- 70.43	49.58
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	9447	0.10000	0.08713	80.00- 120.00	100.00(a)
20.557	20.557 (1.129)	58	3708			12.96- 72.96	39.25
20.557	20.557 (1.129)	85	1679			0.00- 50.79	17.77
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	783607	5.00000	4.926	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	84682			0.00- 40.33	10.81
20.806	20.806 (1.143)	100	517500			35.56- 95.56	66.04
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	22902	0.10000	0.1047	80.00- 120.00	100.00(a)
20.962	20.962 (1.151)	92	14107			29.12- 89.12	61.60
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	7986	0.10000	0.09236	80.00- 120.00	100.00(a)
21.535	21.535 (0.906)	77	1925			1.76- 61.76	24.10
21.535	21.535 (0.906)	39	4527			8.58- 68.58	56.69
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	9095	0.10000	0.1109	80.00- 120.00	100.00(a)
21.970	21.970 (0.925)	99	5341			32.87- 92.87	58.72
21.970	21.970 (0.925)	83	8046			54.32- 114.32	88.47
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	13794	0.10000	0.1069	80.00- 120.00	100.00(a)
22.145	22.145 (0.932)	129	9942			38.71- 98.71	72.07

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

  156 Tetrachloroethene (continued)
 22.145  22.145 (0.932)   131      9570                    36.65-  96.65    69.38
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.755  22.755 (0.958)   129     11273 0.10000  0.08533  80.00- 120.00   100.00(a)
 22.755  22.755 (0.958)   127      9189                    46.69- 106.69    81.51
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 23.045  23.045 (0.970)   107     11533 0.10000  0.09391  80.00- 120.00   100.00(a)
 23.045  23.045 (0.970)   109     10903                    65.40- 125.40    94.54
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    689478 5.00000            80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    368042                    23.26-  83.26    53.38
-------------------------------------------------------------------------------
  165 Chlorobenzene                                 CAS #: 108-90-7
 23.802  23.802 (1.002)   112     19945 0.10000   0.1099  80.00- 120.00   100.00(a)
 23.802  23.802 (1.002)   114      6265                     2.27-  62.27    31.41
 23.802  23.802 (1.002)    77     17429                    24.92-  84.92    87.39
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 23.906  23.906 (1.006)   106      7145 0.10000  0.08861  80.00- 120.00   100.00(a)
 23.906  23.906 (1.006)    91     23893                   275.87- 335.87   334.40
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 24.091  24.091 (1.014)   106      7540 0.10000  0.08894  80.00- 120.00   100.00(a)
 24.091  24.091 (1.014)    91     15182                   163.30- 223.30   201.35
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 24.710  24.710 (1.040)   106      6530 0.10000  0.08266  80.00- 120.00   100.00(a)
 24.710  24.710 (1.040)    91     15571                   172.76- 232.76   238.45
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 24.731  24.731 (1.041)   104      9625 0.10000  0.08303  80.00- 120.00   100.00(a)
 24.731  24.731 (1.041)    78      5586                    18.49-  78.49    58.04
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 25.068  25.068 (1.055)   173     10557 0.10000  0.08173  80.00- 120.00   100.00(a)
 25.068  25.068 (1.055)   171      5541                    21.11-  81.11    52.49
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
 25.182  25.182 (1.060)   105     22878 0.10000  0.09081  80.00- 120.00   100.00(a)
 25.182  25.182 (1.060)   120      6652                     0.00-  57.81    29.08
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    352580 5.00000    4.792  80.00- 120.00   100.00
```

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

$ 177 4-Bromofluorobenzene (continued)
 25.466  25.466 (1.072)    95    384935                    79.94- 139.94   109.18
 25.466  25.466 (1.072)   176    340470                    67.24- 127.24    96.57
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83     14158 0.10000  0.09314  80.00- 120.00   100.00(a)
 25.656  25.656 (1.080)    85      9902                    34.74-  94.74    69.94
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.732  25.732 (1.083)    91     28762 0.10000   0.1194  80.00- 120.00   100.00(a)
 25.713  25.713 (1.082)   120      7339                     0.00-  54.36    25.52
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105     22053 0.10000   0.1125  80.00- 120.00   100.00(a)
 25.864  25.864 (1.089)   120      7262                     1.16-  61.16    32.93
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105     17792 0.10000   0.1017  80.00- 120.00   100.00(a)
 25.940  25.940 (1.092)   120      9141                    20.44-  80.44    51.38
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105     18857 0.10000   0.1114  80.00- 120.00   100.00(a)
 26.395  26.395 (1.111)   120      8690                    17.83-  77.83    46.08
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.794  26.794 (1.128)   146     17032 0.10000   0.1235  80.00- 120.00   100.00(a)
 26.810  26.810 (1.128)   148     10718                    33.66-  93.66    62.93
 26.794  26.794 (1.128)   111      6438                     8.07-  68.07    37.80
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.919  26.919 (1.133)   146     17607 0.10000   0.1341  80.00- 120.00   100.00(a)
 26.919  26.919 (1.133)   148     10138                    33.90-  93.90    57.58
 26.919  26.919 (1.133)   111      6470                     6.77-  66.77    36.75
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.075  27.075 (1.139)    91     11599 0.10000  0.08492  80.00- 120.00   100.00(a)
 27.075  27.075 (1.139)   126      2962                     0.00-  52.05    25.54
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 27.371  27.371 (1.152)   146     16123 0.10000   0.1228  80.00- 120.00   100.00(a)
 27.371  27.371 (1.152)   148     10862                    34.41-  94.41    67.37
 27.371  27.371 (1.152)   111      5679                     9.66-  69.66    35.22
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 29.367  29.367 (1.236)   180     14664 0.10000  0.09626  80.00- 120.00   100.00(a)
 29.367  29.367 (1.236)   182     13196                    66.13- 126.13    89.99
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.491	29.491	(1.241)	225	14229	0.10000	0.1145	80.00- 120.00	100.00(a)
29.491	29.491	(1.241)	223	9659			32.84- 92.84	67.88

QC Flag Legend

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

Report Date: 20-Dec-2016 14:29

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20121906.d
Lab Smp Id: ICAL Level 6
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	213708	-4.70
123 1,4-Difluorobenze	881591	528955	1234227	831912	-5.64
163 Chlorobenzene-d5	733017	439810	1026224	689478	-5.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121906.d

Date : 19-DEC-2016 13:18

Client ID:

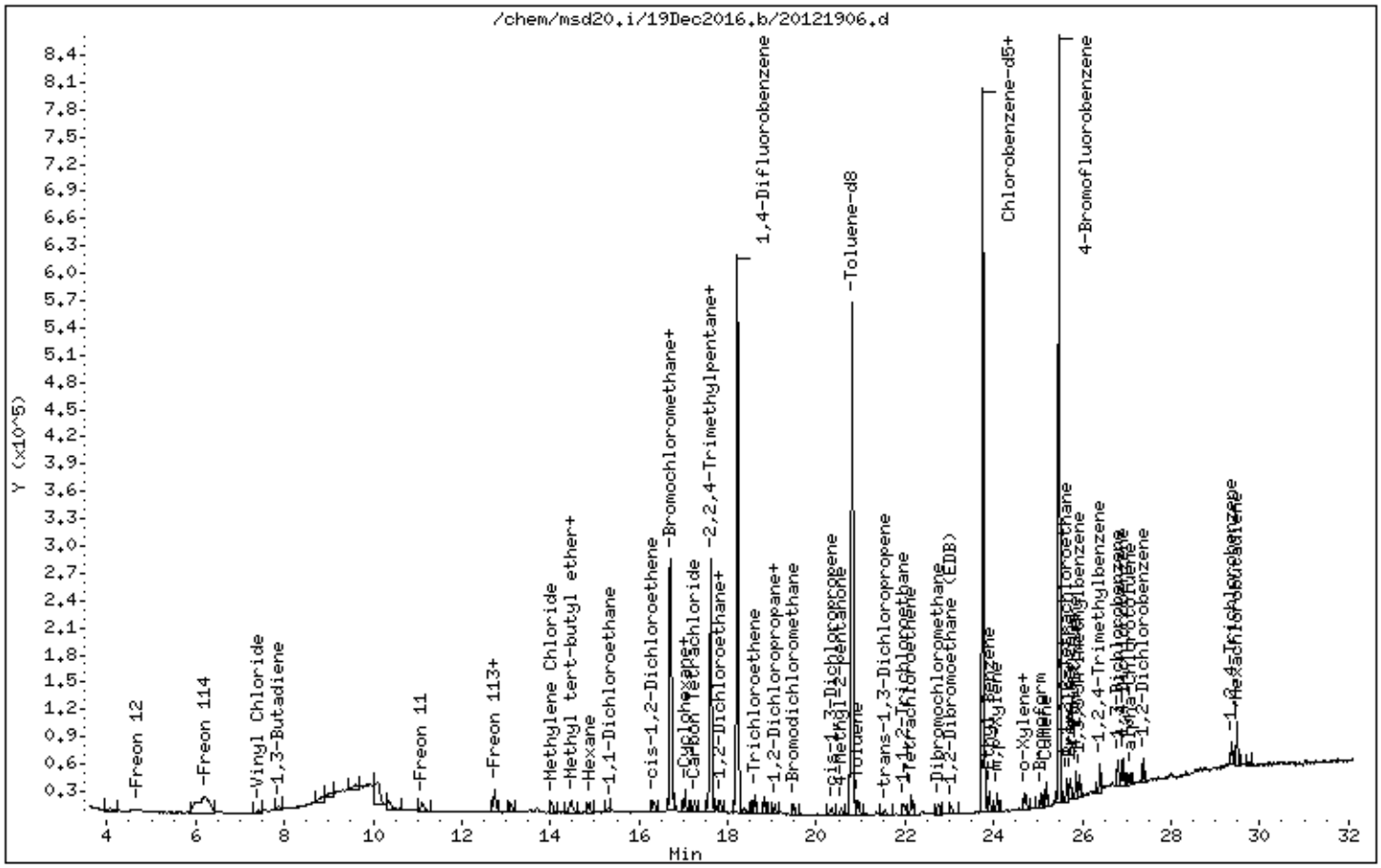
Instrument: msd20.i

Sample Info: 25mL# 2819-183

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/29Dec2016.b/20122905.d
Lab Smp Id: ICAL Level 7
Inj Date : 29-DEC-2016 11:56
Operator : gd Inst ID: msd20.i
Smp Info : 25mL# 2819-142
Misc Info : 0.5ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Meth Date : 29-Dec-2016 18:21 gdelacru Quant Type: ISTD
Cal Date : 29-DEC-2016 11:56 Cal File: 20122905.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 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
7 Freon 134a					CAS #: 811-97-2		
3.973	3.973 (0.238)	83	18790	0.50000	0.5000	0.00- 0.00	100.00(Ta)
3.949	3.949 (0.236)	69	16948			0.00- 0.00	90.20
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
4.407	4.407 (0.263)	65	11851	0.50000	0.5000	0.00- 0.00	100.00(a)
4.431	4.431 (0.265)	51	16863			0.00- 0.00	142.29
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.179	5.179 (0.310)	51	26595	0.50000	0.5000	0.00- 0.00	100.00(a)
5.203	5.203 (0.311)	67	6531			0.00- 0.00	24.56
5.227	5.227 (0.312)	85	397			0.00- 0.00	1.49
16 Freon 142b					CAS #: 75-68-3		
6.504	6.504 (0.389)	65	41601	0.50000	0.5000	0.00- 0.00	100.00(a)
6.480	6.480 (0.387)	45	9180			0.00- 0.00	22.07
6.528	6.528 (0.390)	81	2277			0.00- 0.00	5.47
37 Dichlorofluoromethane					CAS #: 75-43-4		
11.283	11.283 (0.675)	67	56825	0.50000	0.5000	0.00- 0.00	100.00(a)

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

   37 Dichlorofluoromethane (continued)
 11.283  11.283 (0.675)    69     19113                     0.00-   0.00    33.63
 11.283  11.283 (0.675)    47      4356                     0.00-   0.00     7.67
-------------------------------------------------------------------------------
   48 Freon 123                                   CAS #: 306-83-2
 12.736  12.736 (0.761)    83     67659 0.50000   0.5000   0.00-   0.00   100.00(a)
 12.736  12.736 (0.761)   133     14197                     0.00-   0.00    20.98
 12.736  12.736 (0.761)    85     43019                     0.00-   0.00    63.58
-------------------------------------------------------------------------------
   59 Cyclopentene                                CAS #: 142-29-0
 13.697  13.697 (0.819)    67     38195 0.50000   0.5000   0.00-   0.00   100.00(a)
 13.697  13.697 (0.819)    68     14739                     0.00-   0.00    38.59
 13.697  13.697 (0.819)    53      7391                     0.00-   0.00    19.35
-------------------------------------------------------------------------------
   84 1-Propanol                                  CAS #: 71-23-8
 15.537  15.537 (0.929)    59      3567 0.50000   0.5000   0.00-   0.00   100.00(a)
 15.537  15.537 (0.929)    42      3854                     0.00-   0.00   108.05
 15.537  15.537 (0.929)    41      2110                     0.00-   0.00    59.15
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                         CAS #: 594-20-7
 16.261  16.261 (0.972)    77     48307 0.50000   0.5000   0.00-   0.00   100.00(a)
 16.261  16.261 (0.972)    79     16366                     0.00-   0.00    33.88
 16.261  16.261 (0.972)    97     10186                     0.00-   0.00    21.09
-------------------------------------------------------------------------------
*  98 Bromochloromethane                         CAS #: 74-97-5
 16.726  16.726 (1.000)   130    202821 5.00000            80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    155814                    46.97- 106.97    76.82
 16.696  16.696 (1.000)    49    206234                    76.21- 136.21   101.68
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                        CAS #: 563-58-6
 17.281  17.281 (1.033)   110     17769 0.50000   0.5000   0.00-   0.00   100.00(a)
 17.281  17.281 (1.033)    75     41128                     0.00-   0.00   231.46
-------------------------------------------------------------------------------
  115 Isobutanol                                 CAS #: 78-83-1
 17.456  17.456 (1.044)    43     16557 0.50000   0.5000   0.00-   0.00   100.00(a)
 17.456  17.456 (1.044)    41     11114                     0.00-   0.00    67.13
 17.456  17.456 (1.044)    55      2562                     0.00-   0.00    15.47
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                        CAS #: 540-36-3
 18.209  18.209 (1.000)   114    812530 5.00000            80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    123602                     0.00-  45.59    15.21
-------------------------------------------------------------------------------
  124 n-Butanol                                  CAS #: 71-36-3
 18.432  18.432 (1.012)    56     24688 0.50000   0.5000   0.00-   0.00   100.00(a)
 18.432  18.432 (1.012)    41     18574                     0.00-   0.00    75.23
 18.432  18.432 (1.012)    43     11269                     0.00-   0.00    45.65
-------------------------------------------------------------------------------
```

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

  157 1,3-Dichloropropane                          CAS #: 142-28-9
 22.377  22.377 (1.229)    76     57904 0.50000   0.5000   0.00-   0.00   100.00(a)
 22.377  22.377 (1.229)    41     29777                    0.00-   0.00    51.42
 22.377  22.377 (1.229)    78     19124                    0.00-   0.00    33.03
-------------------------------------------------------------------------------
  159 Butyl Acetate                                CAS #: 123-86-4
 22.522  22.522 (0.948)    56      4987 0.50000   0.5000   0.00-   0.00   100.00(a)
 22.522  22.522 (0.948)    73      2525                    0.00-   0.00    50.63
 22.522  22.522 (0.948)    43      8779                    0.00-   0.00   176.04
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    658641 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    343832                   23.26-  83.26    52.20
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 23.926  23.926 (1.007)   131     46620 0.50000   0.5000   0.00-   0.00   100.00(a)
 23.926  23.926 (1.007)   117     32655                    0.00-   0.00    70.05
 23.926  23.926 (1.007)    95     17529                    0.00-   0.00    37.60
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 24.854  24.854 (1.046)    58     36386 0.50000   0.5000   0.00-   0.00   100.00(a)
 24.854  24.854 (1.046)    43     48429                    0.00-   0.00   133.10
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 25.428  25.428 (1.070)    55     24927 0.50000   0.5000   0.00-   0.00   100.00(a)
 25.428  25.428 (1.070)    98     13057                    0.00-   0.00    52.38
 25.428  25.428 (1.070)    42     15024                    0.00-   0.00    60.27
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 25.675  25.675 (1.081)   156     50020 0.50000   0.5000   0.00-   0.00   100.00(a)
 25.675  25.675 (1.081)   158     49460                    0.00-   0.00    98.88
 25.675  25.675 (1.081)    77     71260                    0.00-   0.00   142.46
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 25.751  25.751 (1.084)   110     22661 0.50000   0.5000   0.00-   0.00   100.00(a)
 25.751  25.751 (1.084)    75     60017                    0.00-   0.00   264.85
 25.751  25.751 (1.084)    61     13662                    0.00-   0.00    60.29
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 25.902  25.902 (1.090)   126     30910 0.50000   0.5000   0.00-   0.00   100.00(a)
 25.883  25.883 (1.089)    91     85087                    0.00-   0.00   275.27
 25.883  25.883 (1.089)    65      8029                    0.00-   0.00    25.98
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 26.035  26.035 (1.096)   126     28437 0.50000   0.5000   0.00-   0.00   100.00(a)
 26.035  26.035 (1.096)    91     78878                    0.00-   0.00   277.38
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
191 4-Chlorotoluene (continued)							
26.035	26.035 (1.096)	63	9872			0.00- 0.00	34.72
195 tert-Butylbenzene					CAS #: 98-06-6		
26.320	26.320 (1.108)	119	86178	0.50000	0.5000	0.00- 0.00	100.00(a)
26.320	26.320 (1.108)	134	23123			0.00- 0.00	26.83
26.320	26.320 (1.108)	91	56274			0.00- 0.00	65.30
197 Pentachloroethane					CAS #: 76-01-7		
26.414	26.414 (1.112)	167	28998	0.50000	0.5000	0.00- 0.00	100.00(a)
26.414	26.414 (1.112)	117	26278			0.00- 0.00	90.62
26.414	26.414 (1.112)	169	13662			0.00- 0.00	47.11
203 sec-Butylbenzene					CAS #: 135-98-8		
26.585	26.585 (1.119)	105	147715	0.50000	0.5000	0.00- 0.00	100.00(a)
26.585	26.585 (1.119)	134	29678			0.00- 0.00	20.09
26.585	26.585 (1.119)	91	23859			0.00- 0.00	16.15
207 p-Cymene					CAS #: 99-87-6		
26.748	26.748 (1.126)	119	114362	0.50000	0.5000	0.00- 0.00	100.00(a)
26.748	26.748 (1.126)	134	31951			0.00- 0.00	27.94
26.748	26.748 (1.126)	91	26196			0.00- 0.00	22.91
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
26.919	26.919 (1.133)	120	44326	0.50000	0.5000	0.00- 0.00	100.00(a)
26.919	26.919 (1.133)	105	102294			0.00- 0.00	230.78
26.919	26.919 (1.133)	77	13025			0.00- 0.00	29.38
213 Butylbenzene					CAS #: 104-51-8		
27.231	27.231 (1.146)	134	32942	0.50000	0.5000	0.00- 0.00	100.00(a)
27.231	27.231 (1.146)	91	118004			0.00- 0.00	358.22
27.231	27.231 (1.146)	92	63831			0.00- 0.00	193.77
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
28.338	28.338 (1.193)	157	23985	0.50000	0.5000	0.00- 0.00	100.00(a)
28.338	28.338 (1.193)	75	19819			0.00- 0.00	82.63
28.338	28.338 (1.193)	155	18743			0.00- 0.00	78.14

QC Flag Legend

T - Target compound detected outside RT window.
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: msd20.i
Lab File ID: 20122905.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msd20.i/29Dec2016.b/2016l1219b.m
Misc Info: 0.5ppbv (5.0ppbv)

Calibration Date: 29-DEC-2016
Calibration Time: 08:29

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	211040	126624	295456	202821	-3.89
123 1,4-Difluorobenze	848977	509386	1188568	812530	-4.29
163 Chlorobenzene-d5	712591	427555	997627	658641	-7.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.19
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/29Dec2016.b/20122905.d

Date : 29-DEC-2016 11:56

Client ID:

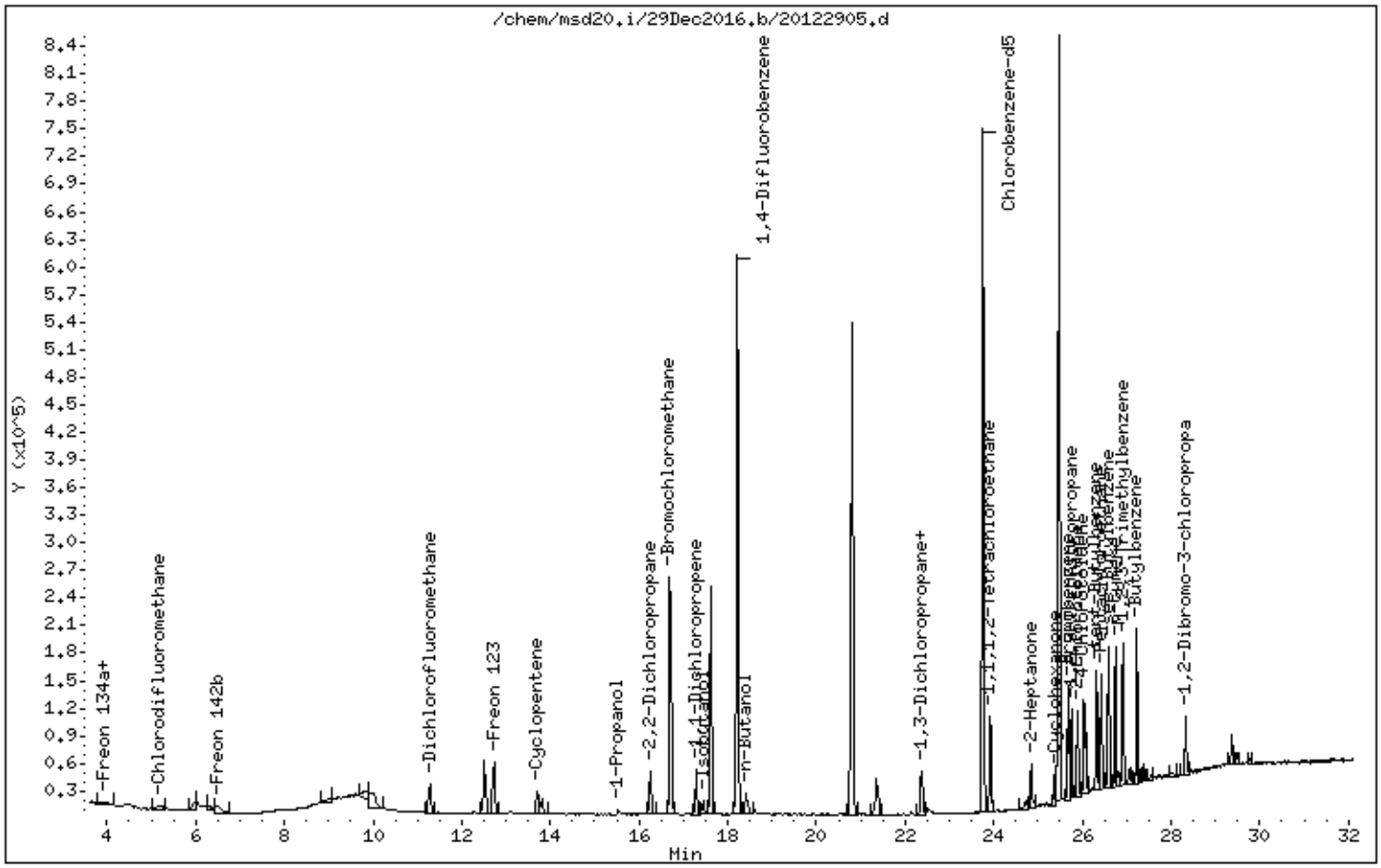
Instrument: msd20.i

Sample Info: 25mL# 2819-142

Operator: gd

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121907.d
Lab Smp Id: ICAL Level 7
Inj Date : 19-DEC-2016 14:02
Operator : ef Inst ID: msd20.i
Smp Info : 125mL# 2819-183
Misc Info : 0.5ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:29 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 14:02 Cal File: 20121907.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL-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
9 Propylene					CAS #: 115-07-1		
4.142	4.142 (0.248)	41	20844	0.50000	0.5130	70.00- 130.00	100.00
4.166	4.166 (0.249)	42	14523			0.00- 30.00	69.67
4.118	4.118 (0.246)	39	13981			0.00- 30.00	67.07
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	81518	0.50000	0.5055	70.00- 130.00	100.00
4.697	4.697 (0.281)	87	24591			0.00- 30.00	30.17
15 Freon 114					CAS #: 76-14-2		
6.191	6.191 (0.370)	135	64500	0.50000	0.5048	70.00- 130.00	100.00
6.215	6.215 (0.372)	137	20560			0.00- 30.00	31.88
6.215	6.215 (0.372)	85	85546			103.93- 163.93	132.63
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	28149	0.50000	0.5679	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	10774			3.24- 63.24	38.27
23 Butane					CAS #: 106-97-8		
7.417	7.417 (0.443)	58	5874	0.50000	0.4934	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.417	7.417 (0.443)	43	39028			637.57- 697.57	664.42
25 Vinyl Chloride					CAS #: 75-01-4		
7.573	7.573 (0.453)	62	29265	0.50000	0.4978	80.00- 120.00	100.00
7.573	7.573 (0.453)	64	9968			2.15- 62.15	34.06
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	20238	0.50000	0.4700	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	19672			58.46- 118.46	97.20
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	18464	0.50000	0.4390	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	16049			64.83- 124.83	86.92
30 Chloroethane					CAS #: 75-00-3		
10.174	10.174 (0.608)	64	11707	0.50000	0.4578	80.00- 120.00	100.00
10.199	10.199 (0.610)	49	2931			0.00- 51.98	25.04
10.174	10.174 (0.608)	66	4557			2.87- 62.87	38.93
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	25527	0.50000	0.5537	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	38693			95.82- 155.82	151.58
10.367	10.367 (0.620)	42	31840			78.19- 138.19	124.73
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	80603	0.50000	0.4992	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	52445			34.37- 94.37	65.07
42 Ethanol					CAS #: 64-17-5		
12.297	12.297 (0.735)	45	13501	0.50000	0.6209	80.00- 120.00	100.00
12.297	12.297 (0.735)	46	4871			10.33- 70.33	36.08
49 Freon 113					CAS #: 76-13-1		
12.764	12.764 (0.763)	151	58922	0.50000	0.4890	80.00- 120.00	100.00
12.764	12.764 (0.763)	153	39011			33.68- 93.68	66.21
12.764	12.764 (0.763)	101	69549			86.77- 146.77	118.04
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	18286	0.50000	0.4682	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	43658			201.92- 261.92	238.75
12.736	12.736 (0.761)	96	28169			127.04- 187.04	154.05
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	16845	0.50000	0.5620	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	46977			253.28- 313.28	278.88

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.121 (0.784)	76	73753	0.50000	0.4449	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.533 (0.809)	45	35981	0.50000	0.4468	80.00- 120.00	100.00
13.560	13.560 (0.811)	43	10650			0.00- 52.74	29.60
13.533	13.533 (0.809)	59	1860			0.00- 34.43	5.17
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	9378	0.50000	0.4417	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	21506			199.62- 259.62	229.32
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	34421	0.50000	0.5291	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	38340			80.28- 140.28	111.39
14.027	14.027 (0.839)	51	11906			4.61- 64.61	34.59
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	67136	0.50000	0.4469	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	14644			0.00- 51.40	21.81
14.439	14.439 (0.863)	41	17500			0.00- 51.25	26.07
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	18553	0.50000	0.4824	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	39140			175.66- 235.66	210.96
14.494	14.494 (0.866)	96	28881			128.76- 188.76	155.67
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	37048	0.50000	0.4311	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	22629			28.29- 88.29	61.08
14.878	14.878 (0.889)	86	7101			0.00- 48.18	19.17
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	53289	0.50000	0.4886	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	18456			2.02- 62.02	34.63
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	4421	0.50000	0.3454	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	4335			42.22- 102.22	98.05
15.400	15.400 (0.921)	43	38637			810.72- 870.72	873.94
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.324	16.324 (0.976)	98	21197	0.50000	0.4567	80.00- 120.00	100.00
16.324	16.324 (0.976)	61	39551			153.64- 213.64	186.59
16.324	16.324 (0.976)	96	33868			125.91- 185.91	159.78

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

   92 2-Butanone                                      CAS #: 78-93-3
 16.344  16.344 (0.977)    72     12927 0.50000   0.4423  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43     43256                  300.25- 360.25   334.62
 16.344  16.344 (0.977)    57      4319                    0.00-  58.21    33.41
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                 CAS #: 109-99-9
 16.696  16.696 (0.998)    42     24343 0.50000   0.4249  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71     11054                   16.33-  76.33    45.41
 16.696  16.696 (0.998)    72     11608                   20.03-  80.03    47.69
-------------------------------------------------------------------------------
*  98 Bromochloromethane                               CAS #: 74-97-5
 16.726  16.726 (1.000)   130    212732 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    163869                   46.97- 106.97    77.03
 16.696  16.696 (1.000)    49    229212                   76.21- 136.21   107.75
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
 16.819  16.819 (1.006)    83     63746 0.50000   0.4822  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85     42947                   34.75-  94.75    67.37
-------------------------------------------------------------------------------
  102 Cyclohexane                                    CAS #: 110-82-7
 17.035  17.035 (1.018)    84     37722 0.50000   0.4364  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56     41054                   76.62- 136.62   108.83
 17.035  17.035 (1.018)    41     20904                   21.84-  81.84    55.42
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                          CAS #: 71-55-6
 17.035  17.035 (1.018)    97     60822 0.50000   0.4558  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99     40067                   34.64-  94.64    65.88
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                           CAS #: 56-23-5
 17.250  17.250 (1.031)   119     51829 0.50000   0.4556  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117     52794                   73.50- 133.50   101.86
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                         CAS #: 540-84-1
 17.579  17.579 (1.051)    56     36846 0.50000   0.4425  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57    112675                  280.27- 340.27   305.80
 17.579  17.579 (1.051)    41     29603                   42.11- 102.11    80.34
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
 17.621  17.621 (0.968)    78     92385 0.50000   0.4596  80.00- 120.00   100.00
 17.621  17.621 (0.968)    77     20909                    0.00-  53.26    22.63
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                          CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    263450 5.00000    5.019  80.00- 120.00   100.00
 17.621  17.621 (1.053)    67    142854                   31.78-  91.78    54.22
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
 17.744  17.744 (0.974)    62     36818 0.50000   0.4724  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-Dichloroethane (continued)
 17.744  17.744 (0.974)    64     13508                     2.82-  62.82    36.69
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
 17.847  17.847 (0.980)    57     21525 0.50000   0.4170  80.00- 120.00   100.00
 17.826  17.826 (0.979)   100      7697                     8.23-  68.23    35.76
 17.847  17.847 (0.980)    43     35512                   141.33- 201.33   164.98
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 18.209  18.209 (1.000)   114    841249 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    131390                    0.00-  45.59    15.62
-------------------------------------------------------------------------------
  125 Trichloroethene                                CAS #: 79-01-6
 18.610  18.610 (1.022)   130     44941 0.50000   0.4695  80.00- 120.00   100.00
 18.610  18.610 (1.022)    95     43443                   61.76- 121.76    96.67
 18.610  18.610 (1.022)    97     27888                   29.47-  89.47    62.05
-------------------------------------------------------------------------------
  127 Methylcyclohexane                              CAS #: 108-87-2
 18.834  18.834 (1.034)    83     49743 0.50000   0.4401  80.00- 120.00   100.00
 18.834  18.834 (1.034)    55     37450                   40.87- 100.87    75.29
 18.834  18.834 (1.034)    56     11518                    0.00-  53.10    23.16
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
 19.057  19.057 (1.047)    63     33552 0.50000   0.4701  80.00- 120.00   100.00
 19.057  19.057 (1.047)    62     21999                   39.05-  99.05    65.57
 19.057  19.057 (1.047)    41     17669                   18.49-  78.49    52.66
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                    CAS #: 123-91-1
 19.213  19.213 (1.055)    88     20715 0.50000   0.4397  80.00- 120.00   100.00
 19.213  19.213 (1.055)    58     13582                   32.65-  92.65    65.57
 19.191  19.191 (1.054)    57      4724                    0.00-  50.00    22.80
-------------------------------------------------------------------------------
  138 Bromodichloromethane                           CAS #: 75-27-4
 19.503  19.503 (0.821)    83     57062 0.50000   0.4661  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85     35841                   33.97-  93.97    62.81
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                        CAS #: 10061-01-5
 20.339  20.339 (1.117)    75     41088 0.50000   0.3998  80.00- 120.00   100.00
 20.339  20.339 (1.117)    77     13302                    1.99-  61.99    32.37
 20.339  20.339 (1.117)    39     17526                   10.43-  70.43    42.65
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                           CAS #: 108-10-1
 20.557  20.557 (1.129)    43     41724 0.50000   0.3805  80.00- 120.00   100.00
 20.557  20.557 (1.129)    58     16965                   12.96-  72.96    40.66
 20.557  20.557 (1.129)    85      8190                    0.00-  50.79    19.63
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	801390	5.00000	4.982	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	86170			0.00- 40.33	10.75
20.806	20.806 (1.143)	100	528409			35.56- 95.56	65.94
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	102528	0.50000	0.4636	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	60951			29.12- 89.12	59.45
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	33680	0.50000	0.3890	80.00- 120.00	100.00
21.535	21.535 (0.906)	77	10482			1.76- 61.76	31.12
21.535	21.535 (0.906)	39	15025			8.58- 68.58	44.61
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	38427	0.50000	0.4679	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	25861			32.87- 92.87	67.30
21.970	21.970 (0.925)	83	31065			54.32- 114.32	80.84
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	61045	0.50000	0.4727	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	44812			38.71- 98.71	73.41
22.145	22.145 (0.932)	131	41008			36.65- 96.65	67.18
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	18316	0.50000	0.3124	80.00- 120.00	100.00
22.377	22.377 (0.942)	43	31386			137.01- 197.01	171.36
22.377	22.377 (0.942)	100	5032			0.00- 53.27	27.47
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	56717	0.50000	0.4288	80.00- 120.00	100.00
22.755	22.755 (0.958)	127	43546			46.69- 106.69	76.78
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	56190	0.50000	0.4570	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	50310			65.40- 125.40	89.54
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	690270	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	369442			23.26- 83.26	53.52
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	86569	0.50000	0.4765	80.00- 120.00	100.00
23.823	23.823 (1.003)	114	28436			2.27- 62.27	32.85
23.802	23.802 (1.002)	77	53469			24.92- 84.92	61.76

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

  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.906 (1.006)   106     33730 0.50000   0.4178  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91    107153                  275.87- 335.87   317.68
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106     35210 0.50000   0.4148  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91     67045                  163.30- 223.30   190.41
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106     33173 0.50000   0.4194  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91     66998                  172.76- 232.76   201.97
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104     41337 0.50000   0.3562  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78     22444                   18.49-  78.49    54.30
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173     48766 0.50000   0.3771  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171     24480                   21.11-  81.11    50.20
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105     98261 0.50000   0.3896  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120     26307                    0.00-  57.81    26.77
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.466  25.466 (1.072)   174    351138 5.00000    4.767  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    382566                   79.94- 139.94   108.95
 25.466  25.466 (1.072)   176    337857                   67.24- 127.24    96.22
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83     70585 0.50000   0.4638  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85     43918                   34.74-  94.74    62.22
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.713  25.713 (1.082)    91    107070 0.50000   0.4442  80.00- 120.00   100.00
 25.732  25.732 (1.083)   120     24789                    0.00-  54.36    23.15
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105     92561 0.50000   0.4716  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120     28512                    1.16-  61.16    30.80
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105     80629 0.50000   0.4603  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120     41321                   20.44-  80.44    51.25
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105     79161 0.50000   0.4673  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	37829			17.83- 77.83	47.79
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	61360	0.50000	0.4443	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	39610			33.66- 93.66	64.55
26.794	26.794 (1.128)	111	22981			8.07- 68.07	37.45
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	58725	0.50000	0.4466	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	36609			33.90- 93.90	62.34
26.904	26.904 (1.132)	111	22716			6.77- 66.77	38.68
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	45983	0.50000	0.3363	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	9743			0.00- 52.05	21.19
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	61077	0.50000	0.4646	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	38178			34.41- 94.41	62.51
27.371	27.371 (1.152)	111	22980			9.66- 69.66	37.62
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.367	29.367 (1.236)	180	72550	0.50000	0.4757	80.00- 120.00	100.00
29.367	29.367 (1.236)	182	70264			66.13- 126.13	96.85
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	64846	0.50000	0.5214	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	41130			32.84- 92.84	63.43
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	13243	0.05000	0.04832	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	2367			0.00- 42.38	17.87

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: msd20.i
Lab File ID: 20121907.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 0.5ppbv (1.0ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	212732	-5.14
123 1,4-Difluorobenze	881591	528955	1234227	841249	-4.58
163 Chlorobenzene-d5	733017	439810	1026224	690270	-5.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121907.d

Date : 19-DEC-2016 14:02

Client ID:

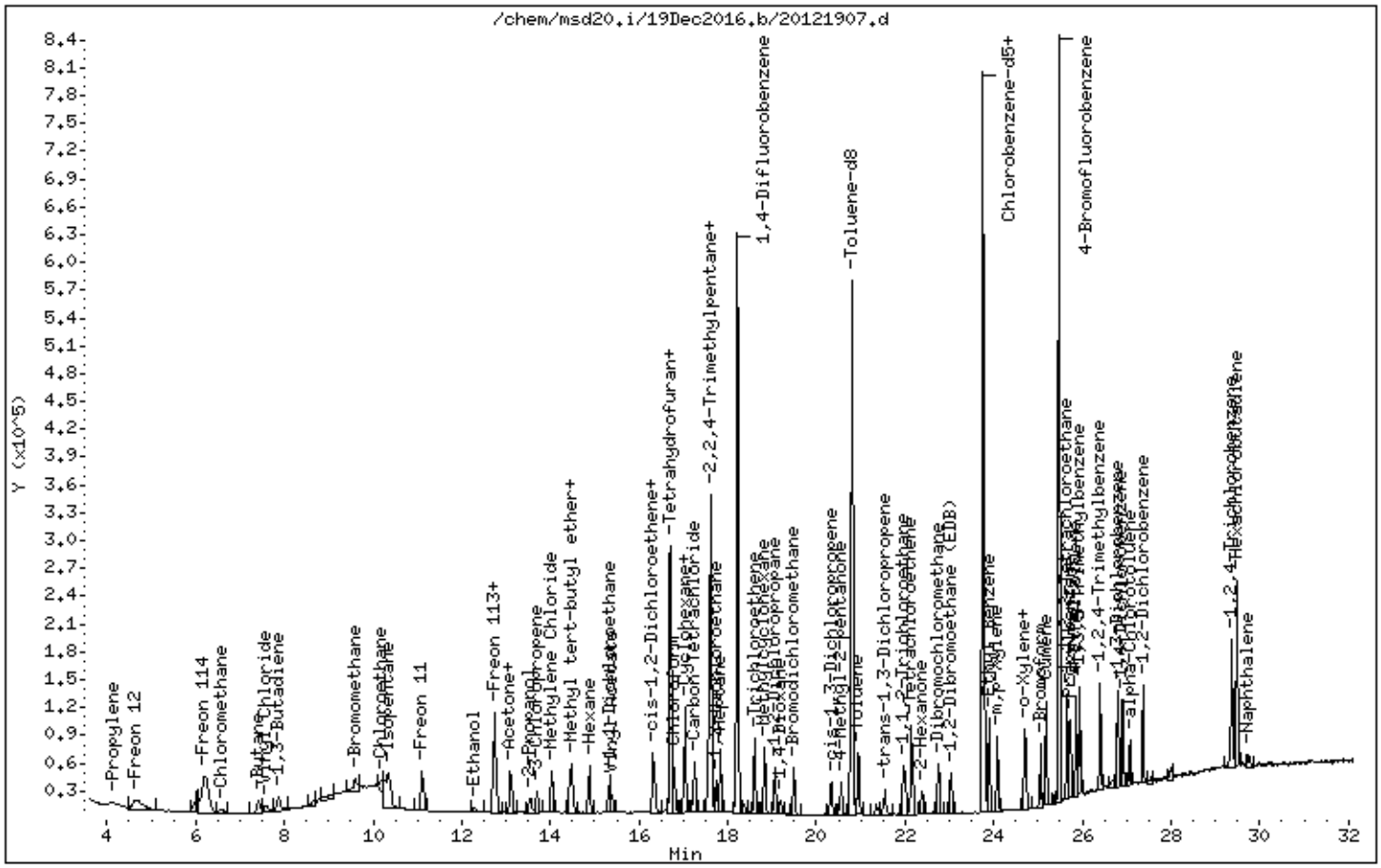
Instrument: msd20.i

Sample Info: 125mL# 2819-183

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/29Dec2016.b/20122906.d
Lab Smp Id: ICAL Level 8
Inj Date : 29-DEC-2016 12:52
Operator : gd Inst ID: msd20.i
Smp Info : 50mL# 2819-142
Misc Info : 1.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Meth Date : 29-Dec-2016 18:21 gdelacru Quant Type: ISTD
Cal Date : 29-DEC-2016 12:52 Cal File: 20122906.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 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
7 Freon 134a					CAS #: 811-97-2			
3.997	3.997 (0.239)	83	34385	1.00000	0.9634	0.00-	0.00	100.00(Ta)
3.997	3.997 (0.239)	69	31158			0.00-	0.00	90.62
0.000	1.000 (0.000)	0	0			0.00-	0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6			
4.479	4.479 (0.268)	65	19398	1.00000	0.9079	0.00-	0.00	100.00(aM)
4.431	4.431 (0.265)	51	30249			0.00-	0.00	155.94
13 Chlorodifluoromethane					CAS #: 75-45-6			
5.202	5.202 (0.311)	51	52392	1.00000	1.000	0.00-	0.00	100.00(a)
5.202	5.202 (0.311)	67	9955			0.00-	0.00	19.00
5.227	5.227 (0.312)	85	332			0.00-	0.00	0.63
16 Freon 142b					CAS #: 75-68-3			
6.504	6.504 (0.389)	65	75593	1.00000	0.9599	0.00-	0.00	100.00(a)
6.480	6.480 (0.387)	45	16843			0.00-	0.00	22.28
6.504	6.504 (0.389)	81	4759			0.00-	0.00	6.30
37 Dichlorofluoromethane					CAS #: 75-43-4			
11.282	11.282 (0.675)	67	105811	1.00000	0.9721	0.00-	0.00	100.00(a)

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

   37 Dichlorofluoromethane (continued)
 11.282  11.282 (0.675)    69     34449                     0.00-   0.00    32.56
 11.282  11.282 (0.675)    47      8904                     0.00-   0.00     8.42
-------------------------------------------------------------------------------
   48 Freon 123                                   CAS #: 306-83-2
 12.736  12.736 (0.761)    83    123401 1.00000   0.9618   0.00-   0.00   100.00(a)
 12.736  12.736 (0.761)   133     25913                     0.00-   0.00    21.00
 12.736  12.736 (0.761)    85     81830                     0.00-   0.00    66.31
-------------------------------------------------------------------------------
   59 Cyclopentene                                CAS #: 142-29-0
 13.697  13.697 (0.819)    67     69764 1.00000   0.9625   0.00-   0.00   100.00(a)
 13.697  13.697 (0.819)    68     26431                     0.00-   0.00    37.89
 13.697  13.697 (0.819)    53     12093                     0.00-   0.00    17.33
-------------------------------------------------------------------------------
   84 1-Propanol                                  CAS #: 71-23-8
 15.537  15.537 (0.929)    59      7338 1.00000    1.022   0.00-   0.00   100.00(a)
 15.537  15.537 (0.929)    42      6208                     0.00-   0.00    84.60
 15.537  15.537 (0.929)    41      5149                     0.00-   0.00    70.17
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                         CAS #: 594-20-7
 16.261  16.261 (0.972)    77     89733 1.00000   0.9709   0.00-   0.00   100.00(a)
 16.261  16.261 (0.972)    79     29952                     0.00-   0.00    33.38
 16.261  16.261 (0.972)    97     20502                     0.00-   0.00    22.85
-------------------------------------------------------------------------------
*  98 Bromochloromethane                         CAS #: 74-97-5
 16.726  16.726 (1.000)   130    199666 5.00000            80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    153378                    46.97- 106.97    76.82
 16.695  16.695 (1.000)    49    204443                    76.21- 136.21   102.39
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                        CAS #: 563-58-6
 17.281  17.281 (1.033)   110     30635 1.00000   0.9337   0.00-   0.00   100.00(a)
 17.281  17.281 (1.033)    75     82022                     0.00-   0.00   267.74
-------------------------------------------------------------------------------
  115 Isobutanol                                 CAS #: 78-83-1
 17.456  17.456 (1.044)    43     27550 1.00000   0.9161   0.00-   0.00   100.00(a)
 17.456  17.456 (1.044)    41     22937                     0.00-   0.00    83.26
 17.456  17.456 (1.044)    55      3291                     0.00-   0.00    11.95
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                        CAS #: 540-36-3
 18.209  18.209 (1.000)   114    806216 5.00000            80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    124410                     0.00-  45.59    15.43
-------------------------------------------------------------------------------
  124 n-Butanol                                  CAS #: 71-36-3
 18.432  18.432 (1.012)    56     47213 1.00000   0.9815   0.00-   0.00   100.00(a)
 18.432  18.432 (1.012)    41     36480                     0.00-   0.00    77.27
 18.432  18.432 (1.012)    43     24297                     0.00-   0.00    51.46
-------------------------------------------------------------------------------
```

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

  157 1,3-Dichloropropane                          CAS #: 142-28-9
 22.377  22.377 (1.229)    76    106126 1.00000   0.9603   0.00-   0.00   100.00(a)
 22.377  22.377 (1.229)    41     54249                    0.00-   0.00    51.12
 22.377  22.377 (1.229)    78     35504                    0.00-   0.00    33.45
-------------------------------------------------------------------------------
  159 Butyl Acetate                                CAS #: 123-86-4
 22.522  22.522 (0.948)    56      8815 1.00000   0.9372   0.00-   0.00   100.00(a)
 22.522  22.522 (0.948)    73      3398                    0.00-   0.00    38.55
 22.522  22.522 (0.948)    43     16880                    0.00-   0.00   191.49
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    660063 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    342004                   23.26-  83.26    51.81
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 23.926  23.926 (1.007)   131     85813 1.00000   0.9574   0.00-   0.00   100.00(a)
 23.926  23.926 (1.007)   117     61930                    0.00-   0.00    72.17
 23.926  23.926 (1.007)    95     32680                    0.00-   0.00    38.08
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 24.854  24.854 (1.046)    58     64099 1.00000   0.9356   0.00-   0.00   100.00(a)
 24.854  24.854 (1.046)    43     95689                    0.00-   0.00   149.28
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 25.428  25.428 (1.070)    55     46763 1.00000   0.9669   0.00-   0.00   100.00(a)
 25.428  25.428 (1.070)    98     25521                    0.00-   0.00    54.58
 25.428  25.428 (1.070)    42     29734                    0.00-   0.00    63.58
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 25.675  25.675 (1.081)   156     93512 1.00000   0.9652   0.00-   0.00   100.00(a)
 25.675  25.675 (1.081)   158     91654                    0.00-   0.00    98.01
 25.675  25.675 (1.081)    77    128718                    0.00-   0.00   137.65
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 25.750  25.750 (1.084)   110     42823 1.00000   0.9706   0.00-   0.00   100.00(a)
 25.750  25.750 (1.084)    75    113034                    0.00-   0.00   263.96
 25.750  25.750 (1.084)    61     25890                    0.00-   0.00    60.46
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 25.902  25.902 (1.090)   126     57750 1.00000   0.9649   0.00-   0.00   100.00(a)
 25.883  25.883 (1.089)    91    156049                    0.00-   0.00   270.21
 25.883  25.883 (1.089)    65     13814                    0.00-   0.00    23.92
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 26.035  26.035 (1.096)   126     50941 1.00000   0.9439   0.00-   0.00   100.00(a)
 26.035  26.035 (1.096)    91    140913                    0.00-   0.00   276.62
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
191 4-Chlorotoluene (continued)							
26.035	26.035 (1.096)	63	16516			0.00- 0.00	32.42
195 tert-Butylbenzene					CAS #: 98-06-6		
26.319	26.319 (1.108)	119	148931	1.00000	0.9260	0.00- 0.00	100.00(a)
26.319	26.319 (1.108)	134	38545			0.00- 0.00	25.88
26.319	26.319 (1.108)	91	92741			0.00- 0.00	62.27
197 Pentachloroethane					CAS #: 76-01-7		
26.414	26.414 (1.112)	167	58500	1.00000	1.003	0.00- 0.00	100.00(a)
26.414	26.414 (1.112)	117	51396			0.00- 0.00	87.86
26.414	26.414 (1.112)	169	28925			0.00- 0.00	49.44
203 sec-Butylbenzene					CAS #: 135-98-8		
26.585	26.585 (1.119)	105	225154	1.00000	0.8639	0.00- 0.00	100.00(a)
26.585	26.585 (1.119)	134	53548			0.00- 0.00	23.78
26.585	26.585 (1.119)	91	34033			0.00- 0.00	15.12
207 p-Cymene					CAS #: 99-87-6		
26.747	26.747 (1.126)	119	201198	1.00000	0.9349	0.00- 0.00	100.00(a)
26.747	26.747 (1.126)	134	54717			0.00- 0.00	27.20
26.747	26.747 (1.126)	91	46089			0.00- 0.00	22.91
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
26.919	26.919 (1.133)	120	81510	1.00000	0.9570	0.00- 0.00	100.00(a)
26.919	26.919 (1.133)	105	188256			0.00- 0.00	230.96
26.919	26.919 (1.133)	77	21531			0.00- 0.00	26.42
213 Butylbenzene					CAS #: 104-51-8		
27.231	27.231 (1.146)	134	59440	1.00000	0.9475	0.00- 0.00	100.00(a)
27.231	27.231 (1.146)	91	213396			0.00- 0.00	359.01
27.231	27.231 (1.146)	92	113310			0.00- 0.00	190.63
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
28.337	28.337 (1.193)	157	47911	1.00000	0.9983	0.00- 0.00	100.00(a)
28.337	28.337 (1.193)	75	38391			0.00- 0.00	80.13
28.337	28.337 (1.193)	155	36116			0.00- 0.00	75.38

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20122906.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msd20.i/29Dec2016.b/2016l1219b.m
Misc Info: 1.0ppbv (5.0ppbv)

Calibration Date: 29-DEC-2016
Calibration Time: 08:29

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	211040	126624	295456	199666	-5.39
123 1,4-Difluorobenze	848977	509386	1188568	806216	-5.04
163 Chlorobenzene-d5	712591	427555	997627	660063	-7.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.18
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/29Dec2016.b/20122906.d

Date : 29-DEC-2016 12:52

Client ID:

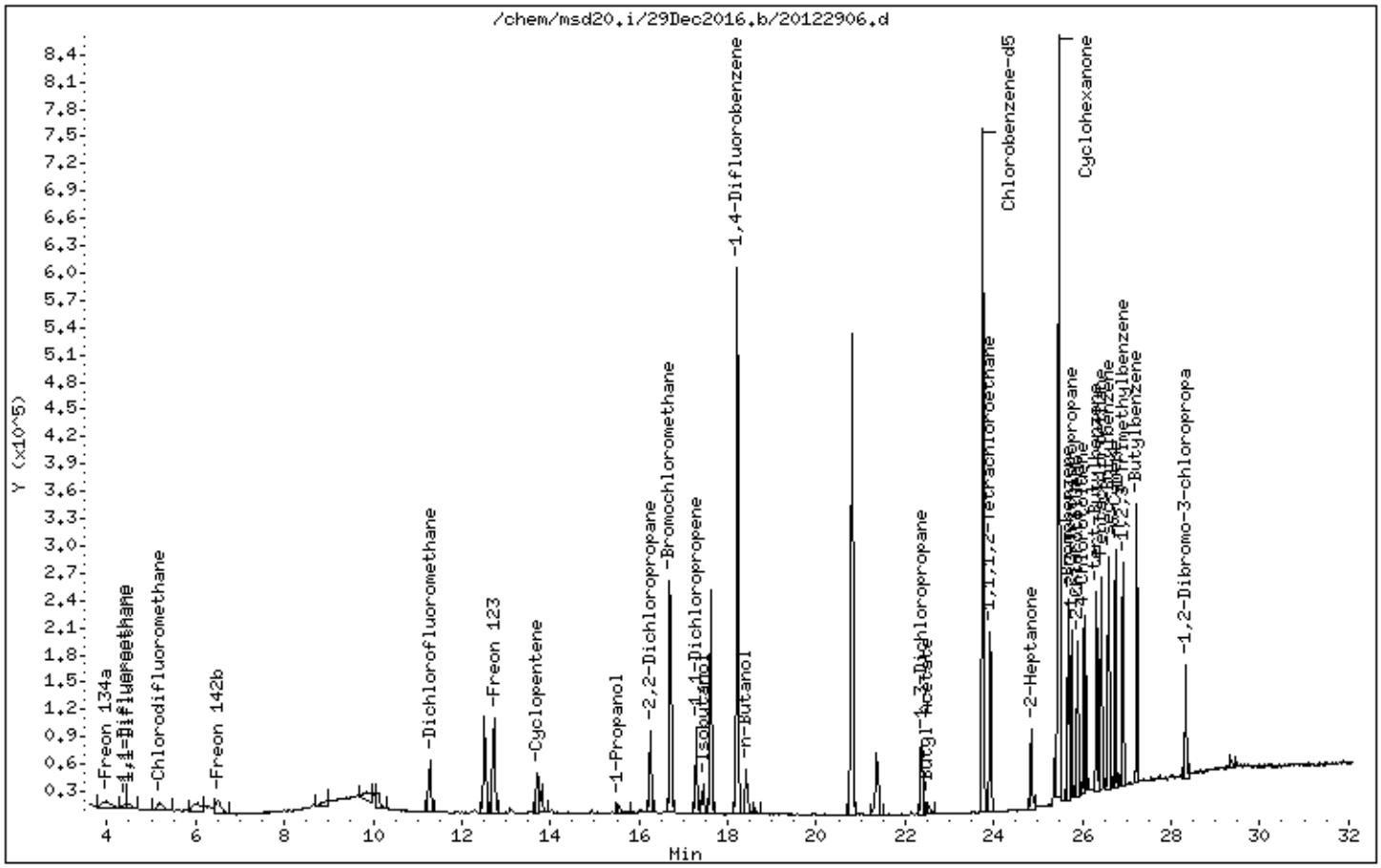
Instrument: msd20.i

Sample Info: 50mL# 2819-142

Operator: gd

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121908.d
Lab Smp Id: ICAL Level 8
Inj Date : 19-DEC-2016 14:41
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 2819-183
Misc Info : 1.0ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:29 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 14:41 Cal File: 20121908.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL-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
9 Propylene					CAS #: 115-07-1		
4.166	4.166 (0.249)	41	33668	1.00000	0.8598	70.00- 130.00	100.00
4.142	4.142 (0.248)	42	25537			0.00- 30.00	75.85
4.190	4.190 (0.251)	39	29649			0.00- 30.00	88.06
11 Freon 12					CAS #: 75-71-8		
4.673	4.673 (0.279)	85	164315	1.00000	1.057	70.00- 130.00	100.00
4.697	4.697 (0.281)	87	51906			0.00- 30.00	31.59
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	125432	1.00000	1.018	70.00- 130.00	100.00
6.215	6.215 (0.372)	137	39210			0.00- 30.00	31.26
6.215	6.215 (0.372)	85	169810			103.93- 163.93	135.38
17 Chloromethane					CAS #: 74-87-3		
6.601	6.601 (0.395)	50	51327	1.00000	1.074	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	17464			3.24- 63.24	34.02
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	11696	1.00000	1.019	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.434	7.434 (0.444)	43	79569			637.57- 697.57	680.31
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	58564	1.00000	1.033	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	19239			2.15- 62.15	32.85
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	39688	1.00000	0.9563	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	36566			58.46- 118.46	92.13
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	37018	1.00000	0.9131	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	35304			64.83- 124.83	95.37
30 Chloroethane					CAS #: 75-00-3		
10.199	10.199 (0.610)	64	25713	1.00000	1.043	80.00- 120.00	100.00
10.199	10.199 (0.610)	49	5455			0.00- 51.98	21.21
10.199	10.199 (0.610)	66	8640			2.87- 62.87	33.60
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	48720	1.00000	1.096	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	66291			95.82- 155.82	136.07
10.367	10.367 (0.620)	42	56857			78.19- 138.19	116.70
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	162253	1.00000	1.043	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	101397			34.37- 94.37	62.49
42 Ethanol					CAS #: 64-17-5		
12.297	12.297 (0.735)	45	23577	1.00000	1.125	80.00- 120.00	100.00
12.297	12.297 (0.735)	46	9882			10.33- 70.33	41.91
49 Freon 113					CAS #: 76-13-1		
12.764	12.764 (0.763)	151	118558	1.00000	1.021	80.00- 120.00	100.00
12.764	12.764 (0.763)	153	74398			33.68- 93.68	62.75
12.764	12.764 (0.763)	101	140421			86.77- 146.77	118.44
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	36684	1.00000	0.9746	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	87550			201.92- 261.92	238.66
12.736	12.736 (0.761)	96	58421			127.04- 187.04	159.25
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	33350	1.00000	1.154	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	96631			253.28- 313.28	289.75

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.121 (0.784)	76	149890	1.00000	0.9381	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.560	13.560 (0.811)	45	74662	1.00000	0.9620	80.00- 120.00	100.00
13.560	13.560 (0.811)	43	21341			0.00- 52.74	28.58
13.533	13.533 (0.809)	59	3334			0.00- 34.43	4.47
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	17765	1.00000	0.8681	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	41153			199.62- 259.62	231.65
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	66781	1.00000	1.065	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	74334			80.28- 140.28	111.31
14.027	14.027 (0.839)	51	23370			4.61- 64.61	34.99
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	137769	1.00000	0.9515	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	30781			0.00- 51.40	22.34
14.439	14.439 (0.863)	41	36235			0.00- 51.25	26.30
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	38020	1.00000	1.026	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	77395			175.66- 235.66	203.56
14.494	14.494 (0.866)	96	60341			128.76- 188.76	158.71
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	79416	1.00000	0.9587	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	48085			28.29- 88.29	60.55
14.878	14.878 (0.889)	86	14952			0.00- 48.18	18.83
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	106910	1.00000	1.017	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	33869			2.02- 62.02	31.68
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	10422	1.00000	0.8448	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	8905			42.22- 102.22	85.44
15.400	15.400 (0.921)	43	85558			810.72- 870.72	820.94
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.324	16.324 (0.976)	98	44767	1.00000	1.001	80.00- 120.00	100.00
16.324	16.324 (0.976)	61	82435			153.64- 213.64	184.14
16.324	16.324 (0.976)	96	69493			125.91- 185.91	155.23

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

   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72     26951 1.00000   0.9567  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43     91610                  300.25- 360.25   339.91
 16.344  16.344 (0.977)    57      7520                    0.00-  58.21    27.90
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.696  16.696 (0.998)    42     50294 1.00000   0.9108  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71     23387                   16.33-  76.33    46.50
 16.696  16.696 (0.998)    72     24740                   20.03-  80.03    49.19
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.727  16.727 (1.000)   130    205041 5.00000           80.00- 120.00   100.00
 16.727  16.727 (1.000)   128    159523                   46.97- 106.97    77.80
 16.727  16.727 (1.000)    49    225780                   76.21- 136.21   110.11
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 16.819  16.819 (1.006)    83    129074 1.00000    1.013  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85     83973                   34.75-  94.75    65.06
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 17.035  17.035 (1.018)    84     79424 1.00000   0.9532  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56     85121                   76.62- 136.62   107.17
 17.035  17.035 (1.018)    41     44858                   21.84-  81.84    56.48
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 17.035  17.035 (1.018)    97    124451 1.00000   0.9677  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99     80672                   34.64-  94.64    64.82
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 17.251  17.251 (1.031)   119    105223 1.00000   0.9598  80.00- 120.00   100.00
 17.251  17.251 (1.031)   117    109397                   73.50- 133.50   103.97
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 17.580  17.580 (1.051)    56     77514 1.00000   0.9659  80.00- 120.00   100.00
 17.580  17.580 (1.051)    57    227508                  280.27- 340.27   293.51
 17.559  17.559 (1.050)    41     56547                   42.11- 102.11    72.95
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 17.621  17.621 (0.968)    78    195289 1.00000   0.9603  80.00- 120.00   100.00
 17.621  17.621 (0.968)    77     46101                    0.00-  53.26    23.61
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    271885 5.00000    5.374  80.00- 120.00   100.00
 17.621  17.621 (1.053)    67    143134                   31.78-  91.78    52.65
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                          CAS #: 107-06-2
 17.744  17.744 (0.974)    62     76817 1.00000   0.9743  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-Dichloroethane (continued)
 17.744  17.744 (0.974)    64     26363                     2.82-  62.82    34.32
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
 17.847  17.847 (0.980)    57     45951 1.00000   0.8800  80.00- 120.00   100.00
 17.847  17.847 (0.980)   100     16120                     8.23-  68.23    35.08
 17.847  17.847 (0.980)    43     70717                   141.33- 201.33   153.90
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 18.209  18.209 (1.000)   114    851087 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    131712                    0.00-  45.59    15.48
-------------------------------------------------------------------------------
  125 Trichloroethene                                CAS #: 79-01-6
 18.611  18.611 (1.022)   130     92613 1.00000   0.9563  80.00- 120.00   100.00
 18.611  18.611 (1.022)    95     84906                   61.76- 121.76    91.68
 18.611  18.611 (1.022)    97     53836                   29.47-  89.47    58.13
-------------------------------------------------------------------------------
  127 Methylcyclohexane                              CAS #: 108-87-2
 18.834  18.834 (1.034)    83    101218 1.00000   0.8852  80.00- 120.00   100.00
 18.834  18.834 (1.034)    55     72549                   40.87- 100.87    71.68
 18.834  18.834 (1.034)    56     23518                    0.00-  53.10    23.23
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
 19.057  19.057 (1.047)    63     65817 1.00000   0.9116  80.00- 120.00   100.00
 19.057  19.057 (1.047)    62     46837                   39.05-  99.05    71.16
 19.057  19.057 (1.047)    41     35460                   18.49-  78.49    53.88
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                    CAS #: 123-91-1
 19.213  19.213 (1.055)    88     43186 1.00000   0.9061  80.00- 120.00   100.00
 19.213  19.213 (1.055)    58     29681                   32.65-  92.65    68.73
 19.213  19.213 (1.055)    57      9642                    0.00-  50.00    22.33
-------------------------------------------------------------------------------
  138 Bromodichloromethane                           CAS #: 75-27-4
 19.503  19.503 (0.821)    83    116192 1.00000   0.9387  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85     74712                   33.97-  93.97    64.30
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                        CAS #: 10061-01-5
 20.339  20.339 (1.117)    75     85690 1.00000   0.8243  80.00- 120.00   100.00
 20.339  20.339 (1.117)    77     27274                    1.99-  61.99    31.83
 20.339  20.339 (1.117)    39     35802                   10.43-  70.43    41.78
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                           CAS #: 108-10-1
 20.557  20.557 (1.129)    43     91033 1.00000   0.8207  80.00- 120.00   100.00
 20.557  20.557 (1.129)    58     36251                   12.96-  72.96    39.82
 20.557  20.557 (1.129)    85     18602                    0.00-  50.79    20.43
-------------------------------------------------------------------------------
```

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

$ 146 Toluene-d8                                      CAS #: 2037-26-5
 20.806  20.806 (1.143)    98    812665 5.00000    4.994  80.00- 120.00   100.00
 20.806  20.806 (1.143)    70     89245                     0.00-  40.33    10.98
 20.806  20.806 (1.143)   100    533647                    35.56-  95.56    65.67
-------------------------------------------------------------------------------
  147 Toluene                                         CAS #: 108-88-3
 20.946  20.946 (1.150)    91    212685 1.00000   0.9506  80.00- 120.00   100.00
 20.946  20.946 (1.150)    92    122640                    29.12-  89.12    57.66
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                       CAS #: 10061-02-6
 21.535  21.535 (0.906)    75     73631 1.00000   0.8413  80.00- 120.00   100.00
 21.535  21.535 (0.906)    77     23327                     1.76-  61.76    31.68
 21.535  21.535 (0.906)    39     29340                     8.58-  68.58    39.85
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                           CAS #: 79-00-5
 21.971  21.971 (0.925)    97     79371 1.00000   0.9558  80.00- 120.00   100.00
 21.971  21.971 (0.925)    99     50664                    32.87-  92.87    63.83
 21.971  21.971 (0.925)    83     67685                    54.32- 114.32    85.28
-------------------------------------------------------------------------------
  156 Tetrachloroethene                               CAS #: 127-18-4
 22.145  22.145 (0.932)   166    126324 1.00000   0.9675  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129     90066                    38.71-  98.71    71.30
 22.145  22.145 (0.932)   131     84876                    36.65-  96.65    67.19
-------------------------------------------------------------------------------
  158 2-Hexanone                                      CAS #: 591-78-6
 22.377  22.377 (0.942)    58     40565 1.00000   0.6844  80.00- 120.00   100.00
 22.377  22.377 (0.942)    43     72892                   137.01- 197.01   179.69
 22.377  22.377 (0.942)   100     10463                     0.00-  53.27    25.79
-------------------------------------------------------------------------------
  160 Dibromochloromethane                            CAS #: 124-48-1
 22.755  22.755 (0.958)   129    119727 1.00000   0.8953  80.00- 120.00   100.00
 22.755  22.755 (0.958)   127     92199                    46.69- 106.69    77.01
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                         CAS #: 106-93-4
 23.045  23.045 (0.970)   107    113302 1.00000   0.9114  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109    107663                    65.40- 125.40    95.02
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    697894 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    371023                    23.26-  83.26    53.16
-------------------------------------------------------------------------------
  165 Chlorobenzene                                   CAS #: 108-90-7
 23.803  23.803 (1.002)   112    172488 1.00000   0.9390  80.00- 120.00   100.00
 23.803  23.803 (1.002)   114     56252                     2.27-  62.27    32.61
 23.803  23.803 (1.002)    77    101522                    24.92-  84.92    58.86
-------------------------------------------------------------------------------
```

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

  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.906 (1.006)   106     73456 1.00000   0.9000  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91    220043                  275.87- 335.87   299.56
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106     75143 1.00000   0.8756  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    144980                  163.30- 223.30   192.94
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106     67729 1.00000   0.8470  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    143027                  172.76- 232.76   211.18
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104     90813 1.00000   0.7739  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78     46285                   18.49-  78.49    50.97
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173    102516 1.00000   0.7841  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171     53636                   21.11-  81.11    52.32
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105    210188 1.00000   0.8242  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120     57403                    0.00-  57.81    27.31
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.466  25.466 (1.072)   174    366658 5.00000    4.923  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    405109                   79.94- 139.94   110.49
 25.466  25.466 (1.072)   176    355653                   67.24- 127.24    97.00
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83    142628 1.00000   0.9270  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85     92145                   34.74-  94.74    64.61
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.713  25.713 (1.082)    91    200980 1.00000   0.8246  80.00- 120.00   100.00
 25.732  25.732 (1.083)   120     50189                    0.00-  54.36    24.97
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105    171688 1.00000   0.8652  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120     54574                    1.16-  61.16    31.79
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105    163689 1.00000   0.9242  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120     81871                   20.44-  80.44    50.02
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105    160850 1.00000   0.9391  80.00- 120.00   100.00
```

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

  196 1,2,4-Trimethylbenzene (continued)
 26.395  26.395 (1.111)   120     73714                    17.83-  77.83    45.83
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.795  26.795 (1.128)   146    122547 1.00000   0.8777  80.00- 120.00   100.00
 26.795  26.795 (1.128)   148     80233                    33.66-  93.66    65.47
 26.795  26.795 (1.128)   111     46437                     8.07-  68.07    37.89
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.919  26.919 (1.133)   146    110987 1.00000   0.8349  80.00- 120.00   100.00
 26.919  26.919 (1.133)   148     70553                    33.90-  93.90    63.57
 26.904  26.904 (1.132)   111     39390                     6.77-  66.77    35.49
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.075  27.075 (1.139)    91     98263 1.00000   0.7107  80.00- 120.00   100.00
 27.075  27.075 (1.139)   126     21774                     0.00-  52.05    22.16
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 27.371  27.371 (1.152)   146    114398 1.00000   0.8607  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148     73151                    34.41-  94.41    63.94
 27.371  27.371 (1.152)   111     44378                     9.66-  69.66    38.79
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 29.367  29.367 (1.236)   180    154938 1.00000    1.005  80.00- 120.00   100.00
 29.367  29.367 (1.236)   182    148760                    66.13- 126.13    96.01
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225    126821 1.00000    1.008  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223     80350                    32.84-  92.84    63.36
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.756  29.756 (1.252)   128     29785 0.10000   0.1075  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127      4683                     0.00-  42.38    15.72
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20121908.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	205041	-8.57
123 1,4-Difluorobenze	881591	528955	1234227	851087	-3.46
163 Chlorobenzene-d5	733017	439810	1026224	697894	-4.79

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121908.d

Date : 19-DEC-2016 14:41

Client ID:

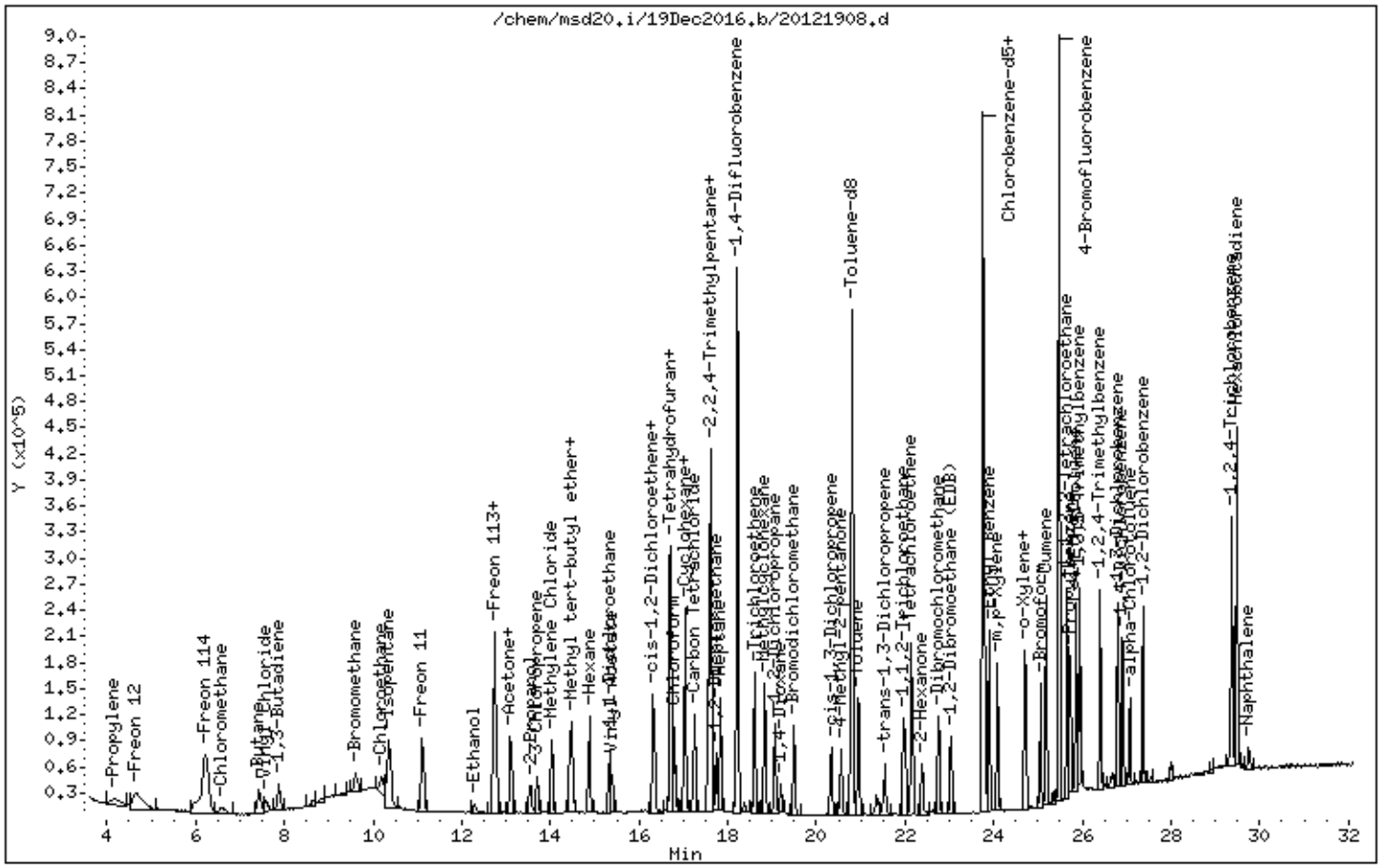
Instrument: msd20.i

Sample Info: 250mL# 2819-183

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/29Dec2016.b/20122907.d
Lab Smp Id: ICAL Level 9
Inj Date : 29-DEC-2016 13:50
Operator : gd Inst ID: msd20.i
Smp Info : 100mL# 2819-142
Misc Info : 2.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Meth Date : 29-Dec-2016 18:21 gdelacru Quant Type: ISTD
Cal Date : 29-DEC-2016 13:50 Cal File: 20122907.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 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
7 Freon 134a					CAS #: 811-97-2		
3.997	3.997 (0.239)	83	67288	2.00000	1.933	0.00- 0.00	100.00(Ta)
3.997	3.997 (0.239)	69	57851			0.00- 0.00	85.98
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
4.480	4.480 (0.268)	65	36208	2.00000	1.796	0.00- 0.00	100.00(a)
4.455	4.455 (0.266)	51	58630			0.00- 0.00	161.93
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.203	5.203 (0.311)	51	95772	2.00000	1.893	0.00- 0.00	100.00(a)
5.179	5.179 (0.310)	67	18626			0.00- 0.00	19.45
5.179	5.179 (0.310)	85	1690			0.00- 0.00	1.76
16 Freon 142b					CAS #: 75-68-3		
6.504	6.504 (0.389)	65	143907	2.00000	1.892	0.00- 0.00	100.00(a)
6.480	6.480 (0.387)	45	32070			0.00- 0.00	22.29
6.528	6.528 (0.390)	81	6975			0.00- 0.00	4.85
37 Dichlorofluoromethane					CAS #: 75-43-4		
11.283	11.283 (0.675)	67	201916	2.00000	1.911	0.00- 0.00	100.00(a)

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

   37 Dichlorofluoromethane (continued)
 11.283  11.283 (0.675)    69     66627                     0.00-   0.00    33.00
 11.283  11.283 (0.675)    47     17038                     0.00-   0.00     8.44
-------------------------------------------------------------------------------
   48 Freon 123                                    CAS #: 306-83-2
 12.736  12.736 (0.761)    83    237562 2.00000    1.909   0.00-   0.00   100.00(a)
 12.736  12.736 (0.761)   133     50359                     0.00-   0.00    21.20
 12.736  12.736 (0.761)    85    157405                     0.00-   0.00    66.26
-------------------------------------------------------------------------------
   59 Cyclopentene                                 CAS #: 142-29-0
 13.697  13.697 (0.819)    67    135444 2.00000    1.921   0.00-   0.00   100.00(a)
 13.697  13.697 (0.819)    68     54545                     0.00-   0.00    40.27
 13.697  13.697 (0.819)    53     24257                     0.00-   0.00    17.91
-------------------------------------------------------------------------------
   84 1-Propanol                                   CAS #: 71-23-8
 15.537  15.537 (0.929)    59     15289 2.00000    2.095   0.00-   0.00   100.00
 15.537  15.537 (0.929)    42     13254                     0.00-   0.00    86.69
 15.537  15.537 (0.929)    41     10138                     0.00-   0.00    66.31
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                          CAS #: 594-20-7
 16.261  16.261 (0.972)    77    183399 2.00000    2.000   0.00-   0.00   100.00
 16.261  16.261 (0.972)    79     58952                     0.00-   0.00    32.14
 16.261  16.261 (0.972)    97     38751                     0.00-   0.00    21.13
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 16.726  16.726 (1.000)   130    198063 5.00000            80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    150531                    46.97- 106.97    76.00
 16.696  16.696 (1.000)    49    202078                    76.21- 136.21   102.03
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                         CAS #: 563-58-6
 17.281  17.281 (1.033)   110     61262 2.00000    1.920   0.00-   0.00   100.00(a)
 17.281  17.281 (1.033)    75    157056                     0.00-   0.00   256.37
-------------------------------------------------------------------------------
  115 Isobutanol                                  CAS #: 78-83-1
 17.456  17.456 (1.044)    43     49356 2.00000    1.756   0.00-   0.00   100.00(a)
 17.456  17.456 (1.044)    41     42430                     0.00-   0.00    85.97
 17.456  17.456 (1.044)    55      5907                     0.00-   0.00    11.97
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 18.209  18.209 (1.000)   114    799640 5.00000            80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    124507                     0.00-  45.59    15.57
-------------------------------------------------------------------------------
  124 n-Butanol                                   CAS #: 71-36-3
 18.432  18.432 (1.012)    56    103752 2.00000    2.113   0.00-   0.00   100.00
 18.432  18.432 (1.012)    41     77099                     0.00-   0.00    74.31
 18.432  18.432 (1.012)    43     56294                     0.00-   0.00    54.26
-------------------------------------------------------------------------------
```

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

  157 1,3-Dichloropropane                          CAS #: 142-28-9
 22.377  22.377 (1.229)    76    215498 2.00000    1.977   0.00-   0.00   100.00(a)
 22.377  22.377 (1.229)    41    108421                    0.00-   0.00    50.31
 22.377  22.377 (1.229)    78     68274                    0.00-   0.00    31.68
-------------------------------------------------------------------------------
  159 Butyl Acetate                                CAS #: 123-86-4
 22.522  22.522 (0.948)    56     18027 2.00000    1.945   0.00-   0.00   100.00(a)
 22.522  22.522 (0.948)    73      7069                    0.00-   0.00    39.21
 22.522  22.522 (0.948)    43     36035                    0.00-   0.00   199.89
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    659263 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    345611                   23.26-  83.26    52.42
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 23.926  23.926 (1.007)   131    176835 2.00000    1.984   0.00-   0.00   100.00(a)
 23.926  23.926 (1.007)   117    121779                    0.00-   0.00    68.87
 23.926  23.926 (1.007)    95     65877                    0.00-   0.00    37.25
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 24.854  24.854 (1.046)    58    120465 2.00000    1.834   0.00-   0.00   100.00(a)
 24.854  24.854 (1.046)    43    176094                    0.00-   0.00   146.18
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 25.428  25.428 (1.070)    55    100455 2.00000    2.052   0.00-   0.00   100.00
 25.428  25.428 (1.070)    98     52163                    0.00-   0.00    51.93
 25.428  25.428 (1.070)    42     62536                    0.00-   0.00    62.25
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 25.675  25.675 (1.081)   156    182802 2.00000    1.925   0.00-   0.00   100.00(a)
 25.675  25.675 (1.081)   158    180271                    0.00-   0.00    98.62
 25.675  25.675 (1.081)    77    254415                    0.00-   0.00   139.18
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 25.751  25.751 (1.084)   110     83190 2.00000    1.924   0.00-   0.00   100.00(a)
 25.751  25.751 (1.084)    75    224734                    0.00-   0.00   270.15
 25.751  25.751 (1.084)    61     53609                    0.00-   0.00    64.44
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 25.883  25.883 (1.089)   126    111053 2.00000    1.903   0.00-   0.00   100.00(a)
 25.883  25.883 (1.089)    91    309150                    0.00-   0.00   278.38
 25.883  25.883 (1.089)    65     27041                    0.00-   0.00    24.35
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 26.035  26.035 (1.096)   126     96942 2.00000    1.861   0.00-   0.00   100.00(a)
 26.035  26.035 (1.096)    91    269073                    0.00-   0.00   277.56
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
191 4-Chlorotoluene (continued)							
26.035	26.035 (1.096)	63	31788			0.00- 0.00	32.79
195 tert-Butylbenzene					CAS #: 98-06-6		
26.319	26.319 (1.108)	119	273528	2.00000	1.792	0.00- 0.00	100.00(a)
26.319	26.319 (1.108)	134	66942			0.00- 0.00	24.47
26.319	26.319 (1.108)	91	172227			0.00- 0.00	62.97
197 Pentachloroethane					CAS #: 76-01-7		
26.414	26.414 (1.112)	167	116559	2.00000	2.001	0.00- 0.00	100.00
26.414	26.414 (1.112)	117	102463			0.00- 0.00	87.91
26.414	26.414 (1.112)	169	56133			0.00- 0.00	48.16
203 sec-Butylbenzene					CAS #: 135-98-8		
26.585	26.585 (1.119)	105	394470	2.00000	1.649	0.00- 0.00	100.00(a)
26.585	26.585 (1.119)	134	81517			0.00- 0.00	20.66
26.585	26.585 (1.119)	91	67255			0.00- 0.00	17.05
207 p-Cymene					CAS #: 99-87-6		
26.748	26.748 (1.126)	119	350851	2.00000	1.739	0.00- 0.00	100.00(a)
26.748	26.748 (1.126)	134	95900			0.00- 0.00	27.33
26.748	26.748 (1.126)	91	76200			0.00- 0.00	21.72
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
26.919	26.919 (1.133)	120	150858	2.00000	1.843	0.00- 0.00	100.00(a)
26.919	26.919 (1.133)	105	346884			0.00- 0.00	229.94
26.919	26.919 (1.133)	77	39924			0.00- 0.00	26.46
213 Butylbenzene					CAS #: 104-51-8		
27.231	27.231 (1.146)	134	108589	2.00000	1.814	0.00- 0.00	100.00(a)
27.231	27.231 (1.146)	91	391013			0.00- 0.00	360.09
27.231	27.231 (1.146)	92	208557			0.00- 0.00	192.06
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
28.338	28.338 (1.193)	157	95748	2.00000	1.998	0.00- 0.00	100.00(a)
28.338	28.338 (1.193)	75	77795			0.00- 0.00	81.25
28.338	28.338 (1.193)	155	73880			0.00- 0.00	77.16

QC Flag Legend

T - Target compound detected outside RT window.
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: msd20.i
Lab File ID: 20122907.d
Lab Smp Id: ICAL Level 9
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msd20.i/29Dec2016.b/2016l1219b.m
Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 29-DEC-2016
Calibration Time: 08:29

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	211040	126624	295456	198063	-6.15
123 1,4-Difluorobenze	848977	509386	1188568	799640	-5.81
163 Chlorobenzene-d5	712591	427555	997627	659263	-7.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.19
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/29Dec2016.b/20122907.d

Date : 29-DEC-2016 13:50

Client ID:

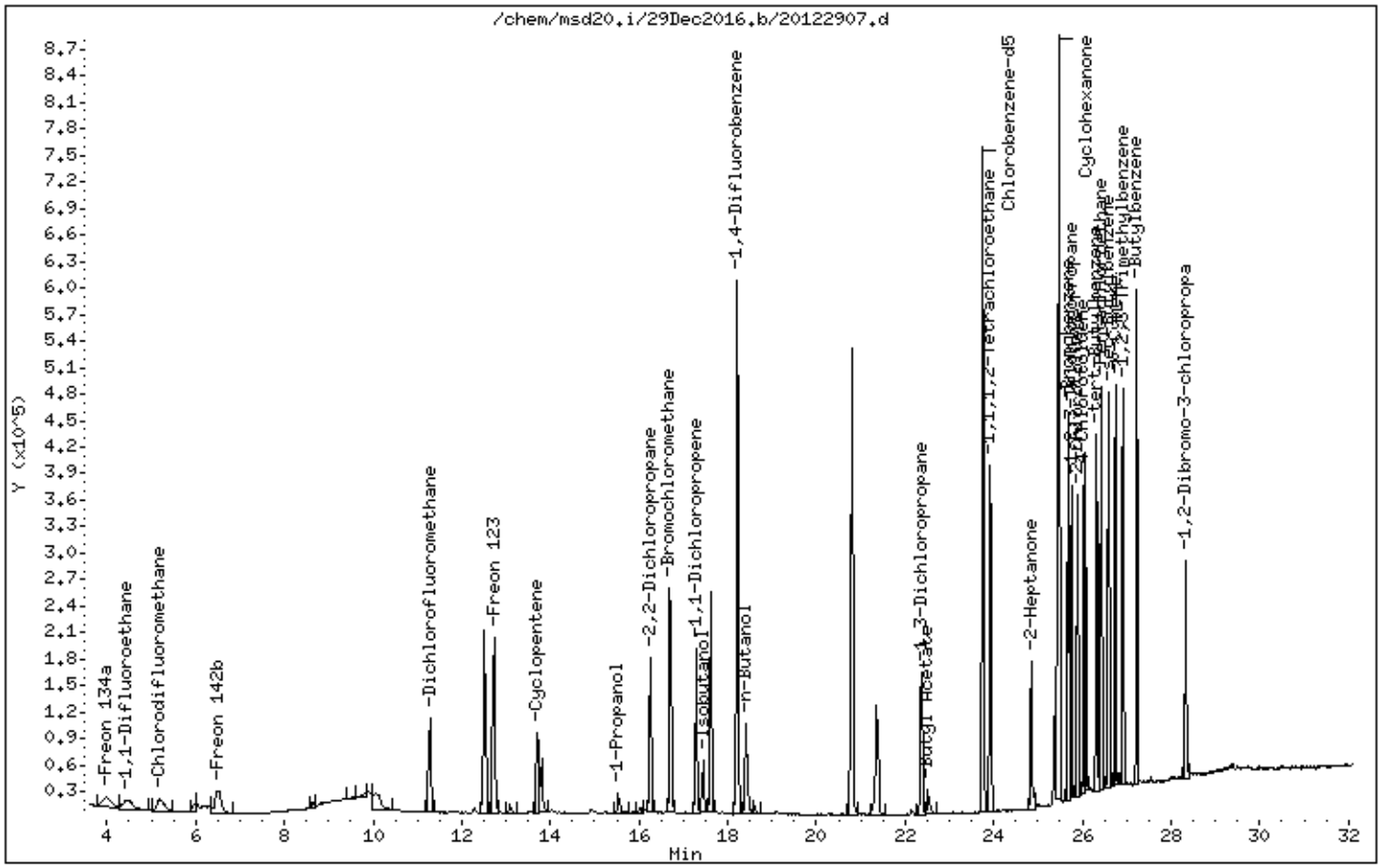
Instrument: msd20.i

Sample Info: 100mL# 2819-142

Operator: gd

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/29Dec2016.b/20122908.d
Lab Smp Id: ICAL Level 11
Inj Date : 29-DEC-2016 14:30
Operator : gd Inst ID: msd20.i
Smp Info : 200mL# 2819-142
Misc Info : 4.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Meth Date : 29-Dec-2016 18:21 gdelacru Quant Type: ISTD
Cal Date : 29-DEC-2016 14:30 Cal File: 20122908.d
Als bottle: 1 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 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
7 Freon 134a					CAS #: 811-97-2		
3.997	3.997 (0.239)	83	126578	4.00000	3.798	0.00- 0.00	100.00(T)
3.997	3.997 (0.239)	69	49157			0.00- 0.00	38.84
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
4.504	4.504 (0.269)	65	71122	4.00000	3.712	0.00- 0.00	100.00
4.504	4.504 (0.269)	51	114763			0.00- 0.00	161.36
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.227	5.227 (0.312)	51	185614	4.00000	3.824	0.00- 0.00	100.00
5.251	5.251 (0.314)	67	33461			0.00- 0.00	18.03
5.251	5.251 (0.314)	85	3932			0.00- 0.00	2.12
16 Freon 142b					CAS #: 75-68-3		
6.528	6.528 (0.390)	65	293589	4.00000	3.975	0.00- 0.00	100.00
6.504	6.504 (0.389)	45	61630			0.00- 0.00	20.99
6.528	6.528 (0.390)	81	13992			0.00- 0.00	4.77
37 Dichlorofluoromethane					CAS #: 75-43-4		
11.283	11.283 (0.675)	67	392633	4.00000	3.863	0.00- 0.00	100.00

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

   37 Dichlorofluoromethane (continued)
 11.283  11.283 (0.675)    69    130072                     0.00-   0.00    33.13
 11.283  11.283 (0.675)    47     32893                     0.00-   0.00     8.38
-------------------------------------------------------------------------------
   48 Freon 123                                    CAS #: 306-83-2
 12.736  12.736 (0.761)    83    470709 4.00000    3.914   0.00-   0.00   100.00
 12.736  12.736 (0.761)   133     97128                     0.00-   0.00    20.63
 12.736  12.736 (0.761)    85    308398                     0.00-   0.00    65.52
-------------------------------------------------------------------------------
   59 Cyclopentene                                 CAS #: 142-29-0
 13.725  13.725 (0.821)    67    272100 4.00000    3.974   0.00-   0.00   100.00
 13.725  13.725 (0.821)    68    105779                     0.00-   0.00    38.88
 13.725  13.725 (0.821)    53     49185                     0.00-   0.00    18.08
-------------------------------------------------------------------------------
   84 1-Propanol                                   CAS #: 71-23-8
 15.537  15.537 (0.929)    59     31293 4.00000    4.298   0.00-   0.00   100.00
 15.537  15.537 (0.929)    42     28148                     0.00-   0.00    89.95
 15.537  15.537 (0.929)    41     19472                     0.00-   0.00    62.22
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                          CAS #: 594-20-7
 16.261  16.261 (0.972)    77    363058 4.00000    4.052   0.00-   0.00   100.00
 16.261  16.261 (0.972)    79    118032                     0.00-   0.00    32.51
 16.261  16.261 (0.972)    97     78981                     0.00-   0.00    21.75
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    192746 5.00000            80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    147561                    46.97- 106.97    76.56
 16.696  16.696 (1.000)    49    197971                    76.21- 136.21   102.71
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                          CAS #: 563-58-6
 17.281  17.281 (1.033)   110    125783 4.00000    4.038   0.00-   0.00   100.00
 17.281  17.281 (1.033)    75    315585                     0.00-   0.00   250.90
-------------------------------------------------------------------------------
  115 Isobutanol                                  CAS #: 78-83-1
 17.456  17.456 (1.044)    43    113181 4.00000    4.102   0.00-   0.00   100.00
 17.456  17.456 (1.044)    41     77858                     0.00-   0.00    68.79
 17.456  17.456 (1.044)    55      9764                     0.00-   0.00     8.63
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 18.209  18.209 (1.000)   114    808898 5.00000            80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    124591                     0.00-  45.59    15.40
-------------------------------------------------------------------------------
  124 n-Butanol                                   CAS #: 71-36-3
 18.432  18.432 (1.012)    56    239749 4.00000    4.590   0.00-   0.00   100.00
 18.410  18.410 (1.011)    41    164848                     0.00-   0.00    68.76
 18.432  18.432 (1.012)    43    122672                     0.00-   0.00    51.17
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
157 1,3-Dichloropropane					CAS #: 142-28-9		
22.377	22.377 (1.229)	76	433981	4.00000	3.952	0.00- 0.00	100.00
22.377	22.377 (1.229)	41	222700			0.00- 0.00	51.32
22.377	22.377 (1.229)	78	140613			0.00- 0.00	32.40
159 Butyl Acetate					CAS #: 123-86-4		
22.522	22.522 (0.948)	56	39193	4.00000	4.156	0.00- 0.00	100.00
22.522	22.522 (0.948)	73	14180			0.00- 0.00	36.18
22.522	22.522 (0.948)	43	77783			0.00- 0.00	198.46
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	662216	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	340740			23.26- 83.26	51.45
168 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6		
23.926	23.926 (1.007)	131	361164	4.00000	4.025	0.00- 0.00	100.00
23.926	23.926 (1.007)	117	248139			0.00- 0.00	68.71
23.926	23.926 (1.007)	95	133854			0.00- 0.00	37.06
173 2-Heptanone					CAS #: 110-43-0		
24.854	24.854 (1.046)	58	273084	4.00000	4.103	0.00- 0.00	100.00
24.854	24.854 (1.046)	43	387335			0.00- 0.00	141.84
176 Cyclohexanone					CAS #: 108-94-1		
25.428	25.428 (1.070)	55	215700	4.00000	4.284	0.00- 0.00	100.00
25.428	25.428 (1.070)	98	115216			0.00- 0.00	53.41
25.428	25.428 (1.070)	42	139028			0.00- 0.00	64.45
180 Bromobenzene					CAS #: 108-86-1		
25.675	25.675 (1.081)	156	373806	4.00000	3.938	0.00- 0.00	100.00
25.675	25.675 (1.081)	158	367307			0.00- 0.00	98.26
25.675	25.675 (1.081)	77	524985			0.00- 0.00	140.44
185 1,2,3-Trichloropropane					CAS #: 96-18-4		
25.751	25.751 (1.084)	110	170611	4.00000	3.946	0.00- 0.00	100.00
25.751	25.751 (1.084)	75	443713			0.00- 0.00	260.07
25.751	25.751 (1.084)	61	108060			0.00- 0.00	63.34
189 2-Chlorotoluene					CAS #: 95-49-8		
25.883	25.883 (1.089)	126	230152	4.00000	3.944	0.00- 0.00	100.00
25.883	25.883 (1.089)	91	631129			0.00- 0.00	274.22
25.883	25.883 (1.089)	65	53643			0.00- 0.00	23.31
191 4-Chlorotoluene					CAS #: 106-43-4		
26.035	26.035 (1.096)	126	198570	4.00000	3.844	0.00- 0.00	100.00
26.035	26.035 (1.096)	91	543712			0.00- 0.00	273.81

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
191 4-Chlorotoluene (continued)							
26.035	26.035 (1.096)	63	62298			0.00- 0.00	31.37
195 tert-Butylbenzene					CAS #: 98-06-6		
26.319	26.319 (1.108)	119	552930	4.00000	3.696	0.00- 0.00	100.00
26.319	26.319 (1.108)	134	137153			0.00- 0.00	24.80
26.319	26.319 (1.108)	91	344554			0.00- 0.00	62.31
197 Pentachloroethane					CAS #: 76-01-7		
26.414	26.414 (1.112)	167	249727	4.00000	4.198	0.00- 0.00	100.00
26.414	26.414 (1.112)	117	222078			0.00- 0.00	88.93
26.414	26.414 (1.112)	169	119591			0.00- 0.00	47.89
203 sec-Butylbenzene					CAS #: 135-98-8		
26.585	26.585 (1.119)	105	791229	4.00000	3.444	0.00- 0.00	100.00
26.585	26.585 (1.119)	134	177331			0.00- 0.00	22.41
26.585	26.585 (1.119)	91	131536			0.00- 0.00	16.62
207 p-Cymene					CAS #: 99-87-6		
26.748	26.748 (1.126)	119	636208	4.00000	3.318	0.00- 0.00	100.00
26.748	26.748 (1.126)	134	175102			0.00- 0.00	27.52
26.748	26.748 (1.126)	91	139480			0.00- 0.00	21.92
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
26.919	26.919 (1.133)	120	286224	4.00000	3.598	0.00- 0.00	100.00
26.919	26.919 (1.133)	105	652613			0.00- 0.00	228.01
26.919	26.919 (1.133)	77	75634			0.00- 0.00	26.42
213 Butylbenzene					CAS #: 104-51-8		
27.231	27.231 (1.146)	134	197154	4.00000	3.433	0.00- 0.00	100.00
27.231	27.231 (1.146)	91	708410			0.00- 0.00	359.32
27.231	27.231 (1.146)	92	381582			0.00- 0.00	193.55
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
28.338	28.338 (1.193)	157	214609	4.00000	4.335	0.00- 0.00	100.00
28.338	28.338 (1.193)	75	175257			0.00- 0.00	81.66
28.338	28.338 (1.193)	155	165097			0.00- 0.00	76.93

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20122908.d
Lab Smp Id: ICAL Level 11
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msd20.i/29Dec2016.b/2016l1219b.m
Misc Info: 4.0ppbv (5.0ppbv)

Calibration Date: 29-DEC-2016
Calibration Time: 08:29

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	211040	126624	295456	192746	-8.67
123 1,4-Difluorobenze	848977	509386	1188568	808898	-4.72
163 Chlorobenzene-d5	712591	427555	997627	662216	-7.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.18
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/29Dec2016.b/20122908.d

Date : 29-DEC-2016 14:30

Client ID:

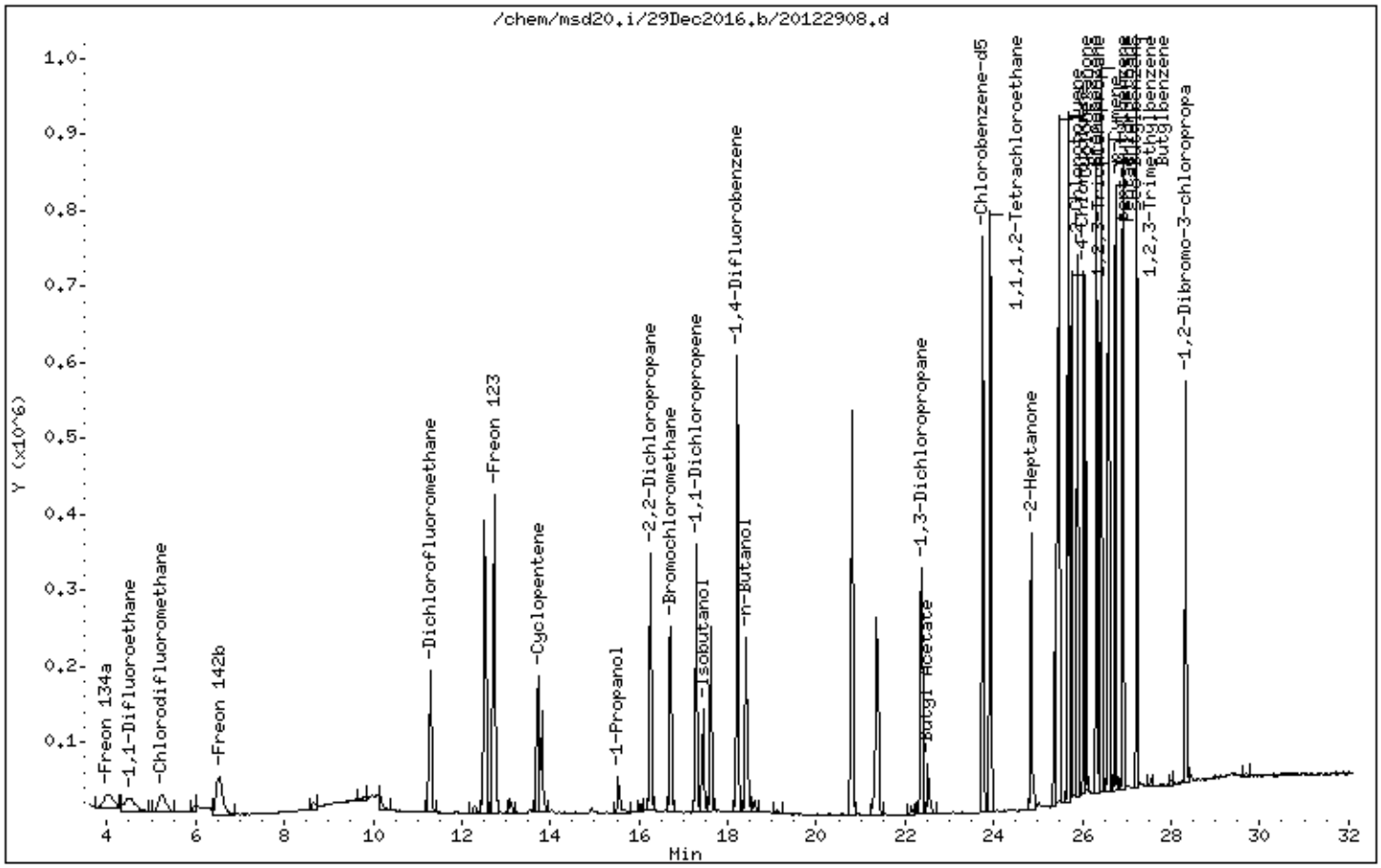
Instrument: msd20.i

Sample Info: 200mL# 2819-142

Operator: gd

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/29Dec2016.b/20122909.d
Lab Smp Id: ICAL Level 12
Inj Date : 29-DEC-2016 15:14
Operator : gd Inst ID: msd20.i
Smp Info : 250mL# 2819-142
Misc Info : 5.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/29Dec2016.b/2016l1219b.m
Meth Date : 29-Dec-2016 18:21 gdelacru Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 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
7 Freon 134a					CAS #: 811-97-2		
4.046	4.046 (0.242)	83	159466	5.00000	4.867	0.00- 0.00	100.00(T)
4.046	4.046 (0.242)	69	137986			0.00- 0.00	86.53
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
4.504	4.504 (0.269)	65	85356	5.00000	4.592	0.00- 0.00	100.00
4.504	4.504 (0.269)	51	143441			0.00- 0.00	168.05
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.275	5.275 (0.315)	51	235223	5.00000	4.917	0.00- 0.00	100.00
5.275	5.275 (0.315)	67	43482			0.00- 0.00	18.49
5.299	5.299 (0.317)	85	4756			0.00- 0.00	2.02
16 Freon 142b					CAS #: 75-68-3		
6.528	6.528 (0.390)	65	346020	5.00000	4.784	0.00- 0.00	100.00
6.504	6.504 (0.389)	45	75639			0.00- 0.00	21.86
6.553	6.553 (0.392)	81	16386			0.00- 0.00	4.74
37 Dichlorofluoromethane					CAS #: 75-43-4		
11.283	11.283 (0.675)	67	493378	5.00000	4.923	0.00- 0.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
37 Dichlorofluoromethane (continued)							
11.283	11.283 (0.675)	69	162485			0.00- 0.00	32.93
11.283	11.283 (0.675)	47	41597			0.00- 0.00	8.43
48 Freon 123					CAS #: 306-83-2		
12.736	12.736 (0.761)	83	582366	5.00000	4.914	0.00- 0.00	100.00
12.736	12.736 (0.761)	133	122052			0.00- 0.00	20.96
12.736	12.736 (0.761)	85	384282			0.00- 0.00	65.99
59 Cyclopentene					CAS #: 142-29-0		
13.725	13.725 (0.821)	67	347953	5.00000	5.107	0.00- 0.00	100.00
13.725	13.725 (0.821)	68	135078			0.00- 0.00	38.82
13.725	13.725 (0.821)	53	60344			0.00- 0.00	17.34
84 1-Propanol					CAS #: 71-23-8		
15.537	15.537 (0.929)	59	42331	5.00000	5.675	0.00- 0.00	100.00
15.537	15.537 (0.929)	42	36343			0.00- 0.00	85.85
15.537	15.537 (0.929)	41	26402			0.00- 0.00	62.37
90 2,2-Dichloropropane					CAS #: 594-20-7		
16.261	16.261 (0.972)	77	454075	5.00000	5.095	0.00- 0.00	100.00
16.261	16.261 (0.972)	79	146814			0.00- 0.00	32.33
16.261	16.261 (0.972)	97	97996			0.00- 0.00	21.58
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	190780	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	147129			46.97- 106.97	77.12
16.696	16.696 (1.000)	49	197173			76.21- 136.21	103.35
107 1,1-Dichloropropene					CAS #: 563-58-6		
17.281	17.281 (1.033)	110	155795	5.00000	5.042	0.00- 0.00	100.00
17.281	17.281 (1.033)	75	395862			0.00- 0.00	254.09
115 Isobutanol					CAS #: 78-83-1		
17.456	17.456 (1.044)	43	109385	5.00000	4.171	0.00- 0.00	100.00
17.456	17.456 (1.044)	41	103971			0.00- 0.00	95.05
17.456	17.456 (1.044)	55	13000			0.00- 0.00	11.88
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	808630	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	118790			0.00- 45.59	14.69
124 n-Butanol					CAS #: 71-36-3		
18.432	18.432 (1.012)	56	314022	5.00000	5.779	0.00- 0.00	100.00
18.410	18.410 (1.011)	41	213419			0.00- 0.00	67.96
18.410	18.410 (1.011)	43	163035			0.00- 0.00	51.92

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

  157 1,3-Dichloropropane                          CAS #: 142-28-9
 22.377  22.377 (1.229)    76    534693 5.00000    4.896   0.00-   0.00   100.00
 22.377  22.377 (1.229)    41    282048                    0.00-   0.00    52.75
 22.377  22.377 (1.229)    78    175681                    0.00-   0.00    32.86
-------------------------------------------------------------------------------
  159 Butyl Acetate                                CAS #: 123-86-4
 22.522  22.522 (0.948)    56     52466 5.00000    5.501   0.00-   0.00   100.00
 22.522  22.522 (0.948)    73     20469                    0.00-   0.00    39.01
 22.522  22.522 (0.948)    43    100040                    0.00-   0.00   190.68
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    652930 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    343619                   23.26-  83.26    52.63
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 23.926  23.926 (1.007)   131    458575 5.00000    5.145   0.00-   0.00   100.00
 23.926  23.926 (1.007)   117    311134                    0.00-   0.00    67.85
 23.926  23.926 (1.007)    95    166223                    0.00-   0.00    36.25
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 24.854  24.854 (1.046)    58    393387 5.00000    5.765   0.00-   0.00   100.00
 24.854  24.854 (1.046)    43    518128                    0.00-   0.00   131.71
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 25.428  25.428 (1.070)    55    279837 5.00000    5.496   0.00-   0.00   100.00
 25.428  25.428 (1.070)    98    150365                    0.00-   0.00    53.73
 25.428  25.428 (1.070)    42    178801                    0.00-   0.00    63.89
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 25.675  25.675 (1.081)   156    477478 5.00000    5.081   0.00-   0.00   100.00
 25.675  25.675 (1.081)   158    464593                    0.00-   0.00    97.30
 25.675  25.675 (1.081)    77    664226                    0.00-   0.00   139.11
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 25.751  25.751 (1.084)   110    215860 5.00000    5.050   0.00-   0.00   100.00
 25.751  25.751 (1.084)    75    557425                    0.00-   0.00   258.23
 25.751  25.751 (1.084)    61    131728                    0.00-   0.00    61.02
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 25.883  25.883 (1.089)   126    289105 5.00000    5.020   0.00-   0.00   100.00
 25.883  25.883 (1.089)    91    804665                    0.00-   0.00   278.33
 25.883  25.883 (1.089)    65     69939                    0.00-   0.00    24.19
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 26.035  26.035 (1.096)   126    252149 5.00000    4.960   0.00-   0.00   100.00
 26.035  26.035 (1.096)    91    702535                    0.00-   0.00   278.62
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
191 4-Chlorotoluene (continued)							
26.035	26.035 (1.096)	63	79029			0.00- 0.00	31.34
195 tert-Butylbenzene					CAS #: 98-06-6		
26.319	26.319 (1.108)	119	693995	5.00000	4.762	0.00- 0.00	100.00
26.319	26.319 (1.108)	134	176592			0.00- 0.00	25.45
26.319	26.319 (1.108)	91	439233			0.00- 0.00	63.29
197 Pentachloroethane					CAS #: 76-01-7		
26.414	26.414 (1.112)	167	320970	5.00000	5.370	0.00- 0.00	100.00
26.414	26.414 (1.112)	117	282500			0.00- 0.00	88.01
26.414	26.414 (1.112)	169	152069			0.00- 0.00	47.38
203 sec-Butylbenzene					CAS #: 135-98-8		
26.585	26.585 (1.119)	105	998378	5.00000	4.515	0.00- 0.00	100.00
26.585	26.585 (1.119)	134	224968			0.00- 0.00	22.53
26.585	26.585 (1.119)	91	151701			0.00- 0.00	15.19
207 p-Cymene					CAS #: 99-87-6		
26.748	26.748 (1.126)	119	759357	5.00000	4.180	0.00- 0.00	100.00
26.748	26.748 (1.126)	134	208019			0.00- 0.00	27.39
26.748	26.748 (1.126)	91	169962			0.00- 0.00	22.38
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
26.919	26.919 (1.133)	120	344658	5.00000	4.503	0.00- 0.00	100.00
26.919	26.919 (1.133)	105	780014			0.00- 0.00	226.32
26.919	26.919 (1.133)	77	90456			0.00- 0.00	26.25
213 Butylbenzene					CAS #: 104-51-8		
27.231	27.231 (1.146)	134	239362	5.00000	4.362	0.00- 0.00	100.00
27.231	27.231 (1.146)	91	839409			0.00- 0.00	350.69
27.231	27.231 (1.146)	92	452260			0.00- 0.00	188.94
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
28.338	28.338 (1.193)	157	282397	5.00000	5.609	0.00- 0.00	100.00
28.338	28.338 (1.193)	75	228175			0.00- 0.00	80.80
28.338	28.338 (1.193)	155	220735			0.00- 0.00	78.16

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20122909.d
Lab Smp Id: ICAL Level 12
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msd20.i/29Dec2016.b/2016l1219b.m
Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 29-DEC-2016
Calibration Time: 08:29

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	211040	126624	295456	190780	-9.60
123 1,4-Difluorobenze	848977	509386	1188568	808630	-4.75
163 Chlorobenzene-d5	712591	427555	997627	652930	-8.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.19
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/29Dec2016.b/20122909.d

Date : 29-DEC-2016 15:14

Client ID:

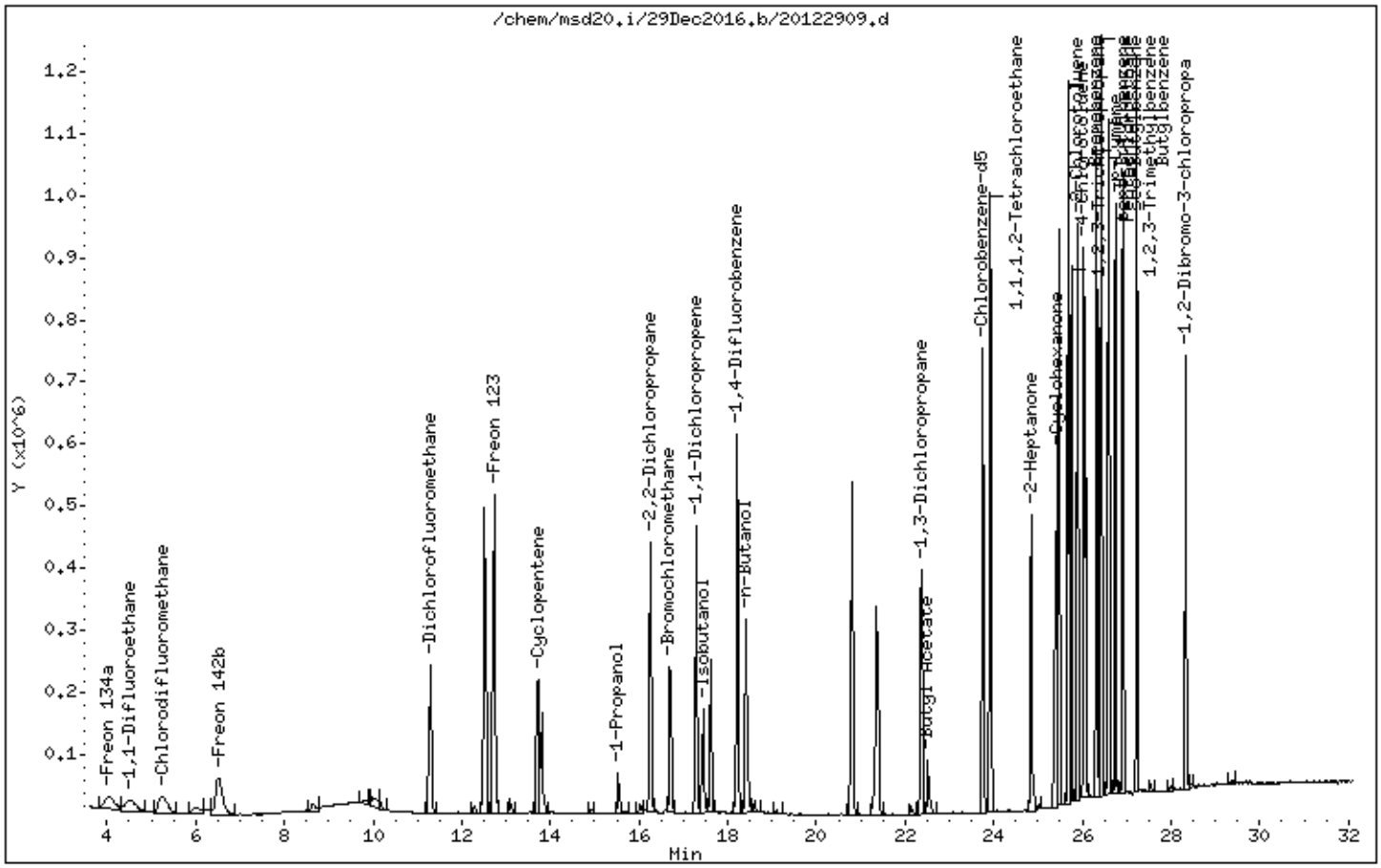
Instrument: msd20.i

Sample Info: 250mL# 2819-142

Operator: gd

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121909.d
Lab Smp Id: ICAL Level 12
Inj Date : 19-DEC-2016 15:19
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2819-183
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:30 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 15:19 Cal File: 20121909.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL-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
9 Propylene					CAS #: 115-07-1		
4.142	4.142 (0.248)	41	241465	5.00000	5.761	70.00- 130.00	100.00
4.166	4.166 (0.249)	42	159035			0.00- 30.00	65.86
4.142	4.142 (0.248)	39	169897			0.00- 30.00	70.36
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	902890	5.00000	5.428	70.00- 130.00	100.00
4.648	4.648 (0.278)	87	291955			0.00- 30.00	32.34
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	685408	5.00000	5.200	70.00- 130.00	100.00
6.215	6.215 (0.372)	137	215655			0.00- 30.00	31.46
6.191	6.191 (0.370)	85	916039			103.93- 163.93	133.65
17 Chloromethane					CAS #: 74-87-3		
6.552	6.552 (0.392)	50	272921	5.00000	5.337	80.00- 120.00	100.00
6.552	6.552 (0.392)	52	90274			3.24- 63.24	33.08
23 Butane					CAS #: 106-97-8		
7.416	7.416 (0.443)	58	66401	5.00000	5.407	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.416	7.416 (0.443)	43	442446			637.57- 697.57	666.32
25 Vinyl Chloride					CAS #: 75-01-4		
7.573	7.573 (0.453)	62	330864	5.00000	5.455	80.00- 120.00	100.00
7.573	7.573 (0.453)	64	107304			2.15- 62.15	32.43
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	238501	5.00000	5.369	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	212709			58.46- 118.46	89.19
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	246356	5.00000	5.678	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	237131			64.83- 124.83	96.26
30 Chloroethane					CAS #: 75-00-3		
10.174	10.174 (0.608)	64	144918	5.00000	5.494	80.00- 120.00	100.00
10.174	10.174 (0.608)	49	32085			0.00- 51.98	22.14
10.174	10.174 (0.608)	66	48814			2.87- 62.87	33.68
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	265697	5.00000	5.587	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	359152			95.82- 155.82	135.17
10.367	10.367 (0.620)	42	312258			78.19- 138.19	117.52
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	888830	5.00000	5.336	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	570590			34.37- 94.37	64.20
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	103502	5.00000	4.614	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	41320			10.33- 70.33	39.92
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	640575	5.00000	5.153	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	410178			33.68- 93.68	64.03
12.763	12.763 (0.763)	101	754404			86.77- 146.77	117.77
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	214955	5.00000	5.336	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	495991			201.92- 261.92	230.74
12.736	12.736 (0.761)	96	329483			127.04- 187.04	153.28
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	152186	5.00000	4.922	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	430871			253.28- 313.28	283.12

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	955227	5.00000	5.586	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.533 (0.809)	45	425747	5.00000	5.125	80.00- 120.00	100.00
13.533	13.533 (0.809)	43	102530			0.00- 52.74	24.08
13.533	13.533 (0.809)	59	18920			0.00- 34.43	4.44
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	117936	5.00000	5.384	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	273566			199.62- 259.62	231.96
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	333309	5.00000	4.967	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	372081			80.28- 140.28	111.63
14.027	14.027 (0.839)	51	113018			4.61- 64.61	33.91
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	871371	5.00000	5.623	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	190040			0.00- 51.40	21.81
14.439	14.439 (0.863)	41	197713			0.00- 51.25	22.69
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	214179	5.00000	5.398	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	438484			175.66- 235.66	204.73
14.494	14.494 (0.866)	96	335753			128.76- 188.76	156.76
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	495648	5.00000	5.590	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	294002			28.29- 88.29	59.32
14.878	14.878 (0.889)	86	89343			0.00- 48.18	18.03
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	608249	5.00000	5.406	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	191972			2.02- 62.02	31.56
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	68067	5.00000	5.155	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	54472			42.22- 102.22	80.03
15.400	15.400 (0.921)	43	612549			810.72- 870.72	899.92
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.323 (0.976)	98	259884	5.00000	5.428	80.00- 120.00	100.00
16.323	16.323 (0.976)	61	487900			153.64- 213.64	187.74
16.323	16.323 (0.976)	96	406582			125.91- 185.91	156.45

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

   92 2-Butanone                                     CAS #: 78-93-3
 16.344  16.344 (0.977)    72    165861 5.00000    5.501  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    550621                  300.25- 360.25   331.98
 16.344  16.344 (0.977)    57     47547                    0.00-  58.21    28.67
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
 16.696  16.696 (0.998)    42    331419 5.00000    5.608  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71    151677                   16.33-  76.33    45.77
 16.696  16.696 (0.998)    72    164163                   20.03-  80.03    49.53
-------------------------------------------------------------------------------
*  98 Bromochloromethane                            CAS #: 74-97-5
 16.726  16.726 (1.000)   130    219451 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    169843                   46.97- 106.97    77.39
 16.696  16.696 (1.000)    49    234272                   76.21- 136.21   106.75
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 16.819  16.819 (1.006)    83    730762 5.00000    5.358  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    474803                   34.75-  94.75    64.97
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
 17.035  17.035 (1.018)    84    500769 5.00000    5.615  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    540421                   76.62- 136.62   107.92
 17.035  17.035 (1.018)    41    267162                   21.84-  81.84    53.35
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                         CAS #: 71-55-6
 17.035  17.035 (1.018)    97    733851 5.00000    5.331  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99    468989                   34.64-  94.64    63.91
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119    685631 5.00000    5.843  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117    713720                   73.50- 133.50   104.10
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56    484805 5.00000    5.644  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   1488157                  280.27- 340.27   306.96
 17.579  17.579 (1.051)    41    351895                   42.11- 102.11    72.58
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.968)    78   1078801 5.00000    5.152  80.00- 120.00   100.00
 17.620  17.620 (0.968)    77    256336                    0.00-  53.26    23.76
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.620  17.620 (1.053)    65    257026 5.00000    4.747  80.00- 120.00   100.00
 17.620  17.620 (1.053)    67    155075                   31.78-  91.78    60.33
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.974)    62    432112 5.00000    5.323  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-Dichloroethane (continued)
 17.744  17.744 (0.974)    64    141275                     2.82-  62.82    32.69
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.847  17.847 (0.980)    57    295703 5.00000    5.500  80.00- 120.00   100.00
 17.847  17.847 (0.980)   100    108762                     8.23-  68.23    36.78
 17.847  17.847 (0.980)    43    490506                   141.33- 201.33   165.88
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.209  18.209 (1.000)   114    876285 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    134321                    0.00-  45.59    15.33
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.610  18.610 (1.022)   130    524537 5.00000    5.260  80.00- 120.00   100.00
 18.610  18.610 (1.022)    95    485845                   61.76- 121.76    92.62
 18.610  18.610 (1.022)    97    311338                   29.47-  89.47    59.35
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 18.833  18.833 (1.034)    83    645525 5.00000    5.483  80.00- 120.00   100.00
 18.833  18.833 (1.034)    55    467679                   40.87- 100.87    72.45
 18.833  18.833 (1.034)    56    151063                    0.00-  53.10    23.40
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 19.057  19.057 (1.047)    63    398473 5.00000    5.360  80.00- 120.00   100.00
 19.057  19.057 (1.047)    62    276755                   39.05-  99.05    69.45
 19.057  19.057 (1.047)    41    198445                   18.49-  78.49    49.80
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.055)    88    271076 5.00000    5.524  80.00- 120.00   100.00
 19.213  19.213 (1.055)    58    174687                   32.65-  92.65    64.44
 19.213  19.213 (1.055)    57     54287                    0.00-  50.00    20.03
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83    701272 5.00000    5.556  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    454204                   33.97-  93.97    64.77
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.117)    75    588983 5.00000    5.502  80.00- 120.00   100.00
 20.338  20.338 (1.117)    77    186755                    1.99-  61.99    31.71
 20.338  20.338 (1.117)    39    240184                   10.43-  70.43    40.78
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.557 (1.129)    43    655175 5.00000    5.737  80.00- 120.00   100.00
 20.557  20.557 (1.129)    58    277491                   12.96-  72.96    42.35
 20.557  20.557 (1.129)    85    136171                    0.00-  50.79    20.78
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	847545	5.00000	5.058	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	88245			0.00- 40.33	10.41
20.806	20.806 (1.143)	100	553277			35.56- 95.56	65.28
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	1232415	5.00000	5.350	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	724112			29.12- 89.12	58.76
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	503574	5.00000	5.642	80.00- 120.00	100.00
21.535	21.535 (0.906)	77	157730			1.76- 61.76	31.32
21.535	21.535 (0.906)	39	202031			8.58- 68.58	40.12
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	465215	5.00000	5.494	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	288848			32.87- 92.87	62.09
21.970	21.970 (0.925)	83	390762			54.32- 114.32	84.00
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	719782	5.00000	5.406	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	496011			38.71- 98.71	68.91
22.145	22.145 (0.932)	131	481343			36.65- 96.65	66.87
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	337598	5.00000	5.585	80.00- 120.00	100.00
22.377	22.377 (0.942)	43	565620			137.01- 197.01	167.54
22.377	22.377 (0.942)	100	76790			0.00- 53.27	22.75
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	786200	5.00000	5.765	80.00- 120.00	100.00
22.755	22.755 (0.958)	127	610721			46.69- 106.69	77.68
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	714350	5.00000	5.635	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	669343			65.40- 125.40	93.70
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	711685	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	385979			23.26- 83.26	54.23
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	996707	5.00000	5.321	80.00- 120.00	100.00
23.802	23.802 (1.002)	114	322514			2.27- 62.27	32.36
23.802	23.802 (1.002)	77	545494			24.92- 84.92	54.73

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

  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.906 (1.006)   106    467074 5.00000    5.612  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91   1424291                  275.87- 335.87   304.94
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106    487385 5.00000    5.570  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    951571                  163.30- 223.30   195.24
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106    456550 5.00000    5.599  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    939682                  172.76- 232.76   205.82
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104    666621 5.00000    5.571  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78    321785                   18.49-  78.49    48.27
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173    757731 5.00000    5.683  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    390286                   21.11-  81.11    51.51
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105   1464691 5.00000    5.632  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    401138                    0.00-  57.81    27.39
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.466  25.466 (1.072)   174    383910 5.00000    5.055  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    424316                   79.94- 139.94   110.52
 25.466  25.466 (1.072)   176    376396                   67.24- 127.24    98.04
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83    848552 5.00000    5.408  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85    548947                   34.74-  94.74    64.69
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.713  25.713 (1.082)    91   1258362 5.00000    5.063  80.00- 120.00   100.00
 25.732  25.732 (1.083)   120    305336                    0.00-  54.36    24.26
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105   1010457 5.00000    4.993  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120    310166                    1.16-  61.16    30.70
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105   1000029 5.00000    5.537  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120    512542                   20.44-  80.44    51.25
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105    977083 5.00000    5.594  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	456206			17.83- 77.83	46.69
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	689665	5.00000	4.844	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	440472			33.66- 93.66	63.87
26.794	26.794 (1.128)	111	263601			8.07- 68.07	38.22
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	619019	5.00000	4.566	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	395064			33.90- 93.90	63.82
26.903	26.903 (1.132)	111	226833			6.77- 66.77	36.64
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	724626	5.00000	5.140	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	155603			0.00- 52.05	21.47
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	651316	5.00000	4.805	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	412088			34.41- 94.41	63.27
27.371	27.371 (1.152)	111	256797			9.66- 69.66	39.43
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.366 (1.236)	180	839760	5.00000	5.340	80.00- 120.00	100.00
29.366	29.366 (1.236)	182	817994			66.13- 126.13	97.41
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	619444	5.00000	4.831	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	391108			32.84- 92.84	63.14
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	146235	0.50000	0.5176	80.00- 120.00	100.00
29.756	29.756 (1.252)	127	18350			0.00- 42.38	12.55

Report Date: 20-Dec-2016 14:30

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20121909.d
Lab Smp Id: ICAL Level 12
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	219451	-2.14
123 1,4-Difluorobenze	881591	528955	1234227	876285	-0.60
163 Chlorobenzene-d5	733017	439810	1026224	711685	-2.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121909.d

Date : 19-DEC-2016 15:19

Client ID:

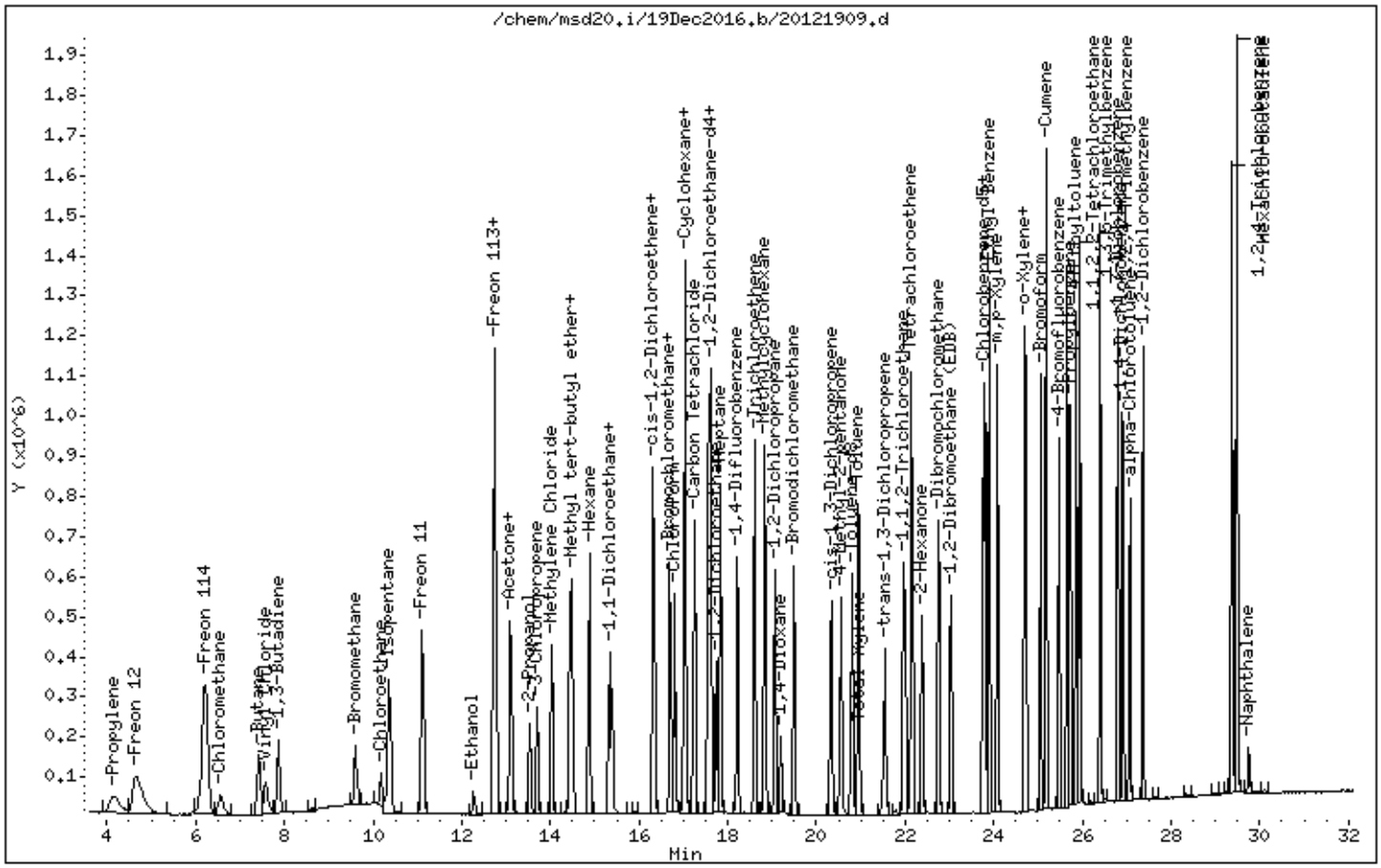
Instrument: msd20.i

Sample Info: 25mL# 2819-183

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121910.d
Lab Smp Id: ICAL Level 13
Inj Date : 19-DEC-2016 15:58
Operator : ef Inst ID: msd20.i
Smp Info : 50mL# 2819-183
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 16:34 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 15:58 Cal File: 20121910.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL-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
9 Propylene					CAS #: 115-07-1		
4.166	4.166 (0.249)	41	451343	10.0000	10.539	70.00- 130.00	100.00
4.166	4.166 (0.249)	42	300134			0.00- 30.00	66.50
4.142	4.142 (0.248)	39	319734			0.00- 30.00	70.84
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	1665301	10.0000	9.796	70.00- 130.00	100.00
4.648	4.648 (0.278)	87	546289			0.00- 30.00	32.80
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	1275320	10.0000	9.468	70.00- 130.00	100.00
6.215	6.215 (0.372)	137	412022			0.00- 30.00	32.31
6.215	6.215 (0.372)	85	1708005			103.93- 163.93	133.93
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	509982	10.0000	9.760	80.00- 120.00	100.00
6.553	6.553 (0.392)	52	169505			3.24- 63.24	33.24
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	127508	10.0000	10.161	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.416	7.416 (0.443)	43	851199			637.57- 697.57	667.57
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	620133	10.0000	10.006	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	199370			2.15- 62.15	32.15
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	458754	10.0000	10.107	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	405813			58.46- 118.46	88.46
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	476000	10.0000	10.735	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	451399			64.83- 124.83	94.83
30 Chloroethane					CAS #: 75-00-3		
10.174	10.174 (0.608)	64	276732	10.0000	10.267	80.00- 120.00	100.00
10.174	10.174 (0.608)	49	60815			0.00- 51.98	21.98
10.174	10.174 (0.608)	66	90957			2.87- 62.87	32.87
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	465449	10.0000	9.578	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	585605			95.82- 155.82	125.82
10.367	10.367 (0.620)	42	503553			78.19- 138.19	108.19
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	1657111	10.0000	9.736	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	1066719			34.37- 94.37	64.37
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	206675	10.0000	9.017	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	83359			10.33- 70.33	40.33
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	1211096	10.0000	9.534	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	771187			33.68- 93.68	63.68
12.763	12.763 (0.763)	101	1414246			86.77- 146.77	116.77
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	409496	10.0000	9.948	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	949686			201.92- 261.92	231.92
12.736	12.736 (0.761)	96	643056			127.04- 187.04	157.04
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	295292	10.0000	9.345	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	836515			253.28- 313.28	283.28

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.121 (0.784)	76	1838770	10.0000	10.523	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.533 (0.809)	45	873423	10.0000	10.290	80.00- 120.00	100.00
13.533	13.533 (0.809)	43	198652			0.00- 52.74	22.74
13.533	13.533 (0.809)	59	38731			0.00- 34.43	4.43
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	241771	10.0000	10.802	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	555153			199.62- 259.62	229.62
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	630909	10.0000	9.200	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	695786			80.28- 140.28	110.28
14.027	14.027 (0.839)	51	218369			4.61- 64.61	34.61
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	1711574	10.0000	10.809	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	366227			0.00- 51.40	21.40
14.439	14.439 (0.863)	41	363760			0.00- 51.25	21.25
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	403437	10.0000	9.950	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	829717			175.66- 235.66	205.66
14.494	14.494 (0.866)	96	640505			128.76- 188.76	158.76
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	963556	10.0000	10.636	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	561617			28.29- 88.29	58.29
14.878	14.878 (0.889)	86	175153			0.00- 48.18	18.18
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	1145283	10.0000	9.962	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	366770			2.02- 62.02	32.02
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	150821	10.0000	11.178	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	108924			42.22- 102.22	72.22
15.400	15.400 (0.921)	43	1267980			810.72- 870.72	840.72
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.324	16.324 (0.976)	98	501294	10.0000	10.245	80.00- 120.00	100.00
16.324	16.324 (0.976)	61	920562			153.64- 213.64	183.64
16.324	16.324 (0.976)	96	781566			125.91- 185.91	155.91

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

   92 2-Butanone                                     CAS #: 78-93-3
 16.344  16.344 (0.977)    72    320743 10.0000   10.410  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43   1059257                  300.25- 360.25   330.25
 16.344  16.344 (0.977)    57     90475                    0.00-  58.21    28.21
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
 16.696  16.696 (0.998)    42    652342 10.0000   10.801  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71    302237                   16.33-  76.33    46.33
 16.696  16.696 (0.998)    72    326376                   20.03-  80.03    50.03
-------------------------------------------------------------------------------
*  98 Bromochloromethane                            CAS #: 74-97-5
 16.726  16.726 (1.000)   130    224249 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    172602                   46.97- 106.97    76.97
 16.696  16.696 (1.000)    49    238174                   76.21- 136.21   106.21
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 16.819  16.819 (1.006)    83   1386018 10.0000    9.946  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    897404                   34.75-  94.75    64.75
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
 17.035  17.035 (1.018)    84    968948 10.0000   10.633  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56   1033061                   76.62- 136.62   106.62
 17.035  17.035 (1.018)    41    502330                   21.84-  81.84    51.84
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                         CAS #: 71-55-6
 17.035  17.035 (1.018)    97   1409762 10.0000   10.023  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99    911299                   34.64-  94.64    64.64
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   1323190 10.0000   11.035  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117   1369536                   73.50- 133.50   103.50
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56    928381 10.0000   10.578  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   2880495                  280.27- 340.27   310.27
 17.579  17.579 (1.051)    41    669460                   42.11- 102.11    72.11
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.621  17.621 (0.968)    78   2055695 10.0000    9.759  80.00- 120.00   100.00
 17.621  17.621 (0.968)    77    478155                    0.00-  53.26    23.26
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    269150 5.00000    4.864  80.00- 120.00   100.00
 17.621  17.621 (1.053)    67    166283                   31.78-  91.78    61.78
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.974)    62    815756 10.0000    9.989  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
120 1,2-Dichloroethane (continued)							
17.744	17.744 (0.974)	64	267771			2.82- 62.82	32.82
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	560478	10.0000	10.363	80.00- 120.00	100.00
17.847	17.847 (0.980)	100	214277			8.23- 68.23	38.23
17.847	17.847 (0.980)	43	960282			141.33- 201.33	171.33
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	881591	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	137409			0.00- 45.59	15.59
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	1014420	10.0000	10.112	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	930797			61.76- 121.76	91.76
18.610	18.610 (1.022)	97	603248			29.47- 89.47	59.47
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.034)	83	1261480	10.0000	10.651	80.00- 120.00	100.00
18.833	18.833 (1.034)	55	894053			40.87- 100.87	70.87
18.833	18.833 (1.034)	56	291393			0.00- 53.10	23.10
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.057	19.057 (1.047)	63	769177	10.0000	10.285	80.00- 120.00	100.00
19.057	19.057 (1.047)	62	531100			39.05- 99.05	69.05
19.057	19.057 (1.047)	41	372959			18.49- 78.49	48.49
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.055)	88	533230	10.0000	10.801	80.00- 120.00	100.00
19.190	19.190 (1.054)	58	334081			32.65- 92.65	62.65
19.190	19.190 (1.054)	57	106670			0.00- 50.00	20.00
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	1357832	10.0000	10.444	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	868629			33.97- 93.97	63.97
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.117)	75	1191718	10.0000	11.067	80.00- 120.00	100.00
20.338	20.338 (1.117)	77	381262			1.99- 61.99	31.99
20.338	20.338 (1.117)	39	481802			10.43- 70.43	40.43
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	1311628	10.0000	11.415	80.00- 120.00	100.00
20.557	20.557 (1.129)	58	563424			12.96- 72.96	42.96
20.557	20.557 (1.129)	85	272669			0.00- 50.79	20.79

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	855259	5.00000	5.074	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	88314			0.00- 40.33	10.33
20.806	20.806 (1.143)	100	560685			35.56- 95.56	65.56
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	2354367	10.0000	10.159	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	1391863			29.12- 89.12	59.12
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	1010784	10.0000	10.995	80.00- 120.00	100.00
21.535	21.535 (0.906)	77	321039			1.76- 61.76	31.76
21.535	21.535 (0.906)	39	389963			8.58- 68.58	38.58
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	880385	10.0000	10.094	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	553470			32.87- 92.87	62.87
21.970	21.970 (0.925)	83	742298			54.32- 114.32	84.32
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	1383960	10.0000	10.092	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	950959			38.71- 98.71	68.71
22.145	22.145 (0.932)	131	922342			36.65- 96.65	66.65
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	709662	10.0000	11.399	80.00- 120.00	100.00
22.377	22.377 (0.942)	43	1185229			137.01- 197.01	167.01
22.377	22.377 (0.942)	100	165169			0.00- 53.27	23.27
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	1584660	10.0000	11.282	80.00- 120.00	100.00
22.755	22.755 (0.958)	127	1215353			46.69- 106.69	76.69
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	1370377	10.0000	10.496	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	1307311			65.40- 125.40	95.40
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	733017	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	390440			23.26- 83.26	53.26
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	1901346	10.0000	9.855	80.00- 120.00	100.00
23.802	23.802 (1.002)	114	613652			2.27- 62.27	32.27
23.802	23.802 (1.002)	77	1044164			24.92- 84.92	54.92

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

  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.906 (1.006)   106    918920 10.0000   10.720  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91   2810665                  275.87- 335.87   305.87
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106    972861 10.0000   10.794  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   1880579                  163.30- 223.30   193.30
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106    926529 10.0000   11.032  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   1878632                  172.76- 232.76   202.76
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104   1378202 10.0000   11.183  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78    668246                   18.49-  78.49    48.49
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173   1591301 10.0000   11.588  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    813382                   21.11-  81.11    51.11
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105   2973188 10.0000   11.100  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    826968                    0.00-  57.81    27.81
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.466  25.466 (1.072)   174    399303 5.00000    5.104  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    439010                   79.94- 139.94   109.94
 25.466  25.466 (1.072)   176    388300                   67.24- 127.24    97.24
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83   1631959 10.0000   10.098  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85   1056519                   34.74-  94.74    64.74
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.713  25.713 (1.082)    91   2565596 10.0000   10.022  80.00- 120.00   100.00
 25.732  25.732 (1.083)   120    624876                    0.00-  54.36    24.36
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105   2030302 10.0000    9.741  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120    632555                    1.16-  61.16    31.16
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105   1909300 10.0000   10.263  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120    962986                   20.44-  80.44    50.44
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105   1767619 10.0000    9.826  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	845449			17.83- 77.83	47.83
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	1356684	10.0000	9.251	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	863718			33.66- 93.66	63.66
26.794	26.794 (1.128)	111	516455			8.07- 68.07	38.07
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	1245817	10.0000	8.923	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	796095			33.90- 93.90	63.90
26.903	26.903 (1.132)	111	458117			6.77- 66.77	36.77
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	1603395	10.0000	11.042	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	353541			0.00- 52.05	22.05
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	1275356	10.0000	9.136	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	821479			34.41- 94.41	64.41
27.371	27.371 (1.152)	111	505856			9.66- 69.66	39.66
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.367	29.367 (1.236)	180	1531618	10.0000	9.457	80.00- 120.00	100.00
29.367	29.367 (1.236)	182	1472368			66.13- 126.13	96.13
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	1174817	10.0000	8.895	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	738286			32.84- 92.84	62.84
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	284098	1.00000	0.9762	80.00- 120.00	100.00
29.756	29.756 (1.252)	127	35164			0.00- 42.38	12.38

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20121910.d
Lab Smp Id: ICAL Level 13
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	224249	0.00
123 1,4-Difluorobenze	881591	528955	1234227	881591	0.00
163 Chlorobenzene-d5	733017	439810	1026224	733017	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121910.d

Date : 19-DEC-2016 15:58

Client ID:

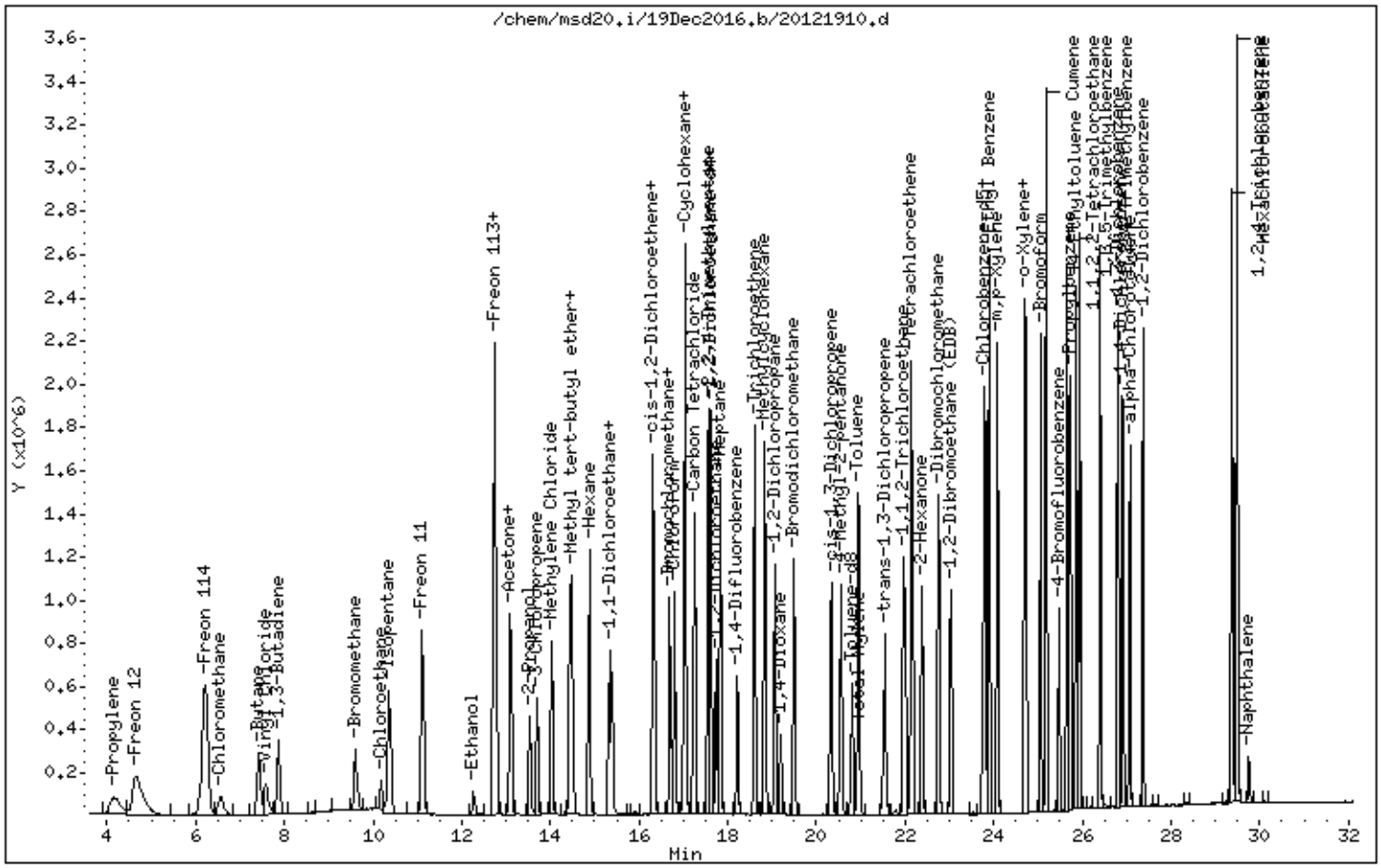
Instrument: msd20.i

Sample Info: 50mL# 2819-183

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121911.d
Lab Smp Id: ICAL Level 15
Inj Date : 19-DEC-2016 16:36
Operator : ef Inst ID: msd20.i
Smp Info : 100mL# 2819-148
Misc Info : 20ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:30 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 16:36 Cal File: 20121911.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL-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
9 Propylene					CAS #: 115-07-1		
4.166	4.166 (0.249)	41	874547	20.0000	19.447	70.00- 130.00	100.00
4.166	4.166 (0.249)	42	594683			0.00- 30.00	68.00
4.166	4.166 (0.249)	39	623144			0.00- 30.00	71.25
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	3198740	20.0000	17.920	70.00- 130.00	100.00
4.648	4.648 (0.278)	87	1046599			0.00- 30.00	32.72
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	2504128	20.0000	17.704	70.00- 130.00	100.00
6.215	6.215 (0.372)	137	801928			0.00- 30.00	32.02
6.215	6.215 (0.372)	85	3328277			103.93- 163.93	132.91
17 Chloromethane					CAS #: 74-87-3		
6.576	6.576 (0.393)	50	987624	20.0000	18.000	80.00- 120.00	100.00
6.576	6.576 (0.393)	52	326100			3.24- 63.24	33.02
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	254923	20.0000	19.345	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.434	7.434 (0.444)	43	1692283			637.57- 697.57	663.84
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	1207408	20.0000	18.552	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	389675			2.15- 62.15	32.27
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	912897	20.0000	19.153	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	792953			58.46- 118.46	86.86
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	954387	20.0000	20.498	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	899504			64.83- 124.83	94.25
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	554249	20.0000	19.582	80.00- 120.00	100.00
10.198	10.198 (0.610)	49	121938			0.00- 51.98	22.00
10.198	10.198 (0.610)	66	178302			2.87- 62.87	32.17
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	906202	20.0000	17.758	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	1127848			95.82- 155.82	124.46
10.367	10.367 (0.620)	42	954585			78.19- 138.19	105.34
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	3228501	20.0000	18.064	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	2089051			34.37- 94.37	64.71
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	426840	20.0000	17.734	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	168977			10.33- 70.33	39.59
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	2425957	20.0000	18.187	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	1553043			33.68- 93.68	64.02
12.763	12.763 (0.763)	101	2803734			86.77- 146.77	115.57
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	835645	20.0000	19.332	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	1886516			201.92- 261.92	225.76
12.736	12.736 (0.761)	96	1298409			127.04- 187.04	155.38
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	603941	20.0000	18.202	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	1675849			253.28- 313.28	277.49

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	3717411	20.0000	20.259	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.532 (0.809)	45	1846799	20.0000	20.720	80.00- 120.00	100.00
13.532	13.532 (0.809)	43	382797			0.00- 52.74	20.73
13.532	13.532 (0.809)	59	80920			0.00- 34.43	4.38
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	494885	20.0000	21.056	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	1132260			199.62- 259.62	228.79
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	1241033	20.0000	17.234	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	1367845			80.28- 140.28	110.22
14.027	14.027 (0.839)	51	425705			4.61- 64.61	34.30
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	3480889	20.0000	20.933	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	743721			0.00- 51.40	21.37
14.439	14.439 (0.863)	41	703341			0.00- 51.25	20.21
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.493	14.493 (0.866)	98	811852	20.0000	19.068	80.00- 120.00	100.00
14.493	14.493 (0.866)	61	1638586			175.66- 235.66	201.83
14.493	14.493 (0.866)	96	1257792			128.76- 188.76	154.93
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	1918916	20.0000	20.170	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	1102507			28.29- 88.29	57.45
14.878	14.878 (0.889)	86	352635			0.00- 48.18	18.38
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	2271684	20.0000	18.818	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	729149			2.02- 62.02	32.10
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	323957	20.0000	22.865	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	226066			42.22- 102.22	69.78
15.400	15.400 (0.921)	43	2717103			810.72- 870.72	838.72
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.323 (0.976)	98	994792	20.0000	19.362	80.00- 120.00	100.00
16.323	16.323 (0.976)	61	1820190			153.64- 213.64	182.97
16.323	16.323 (0.976)	96	1553772			125.91- 185.91	156.19

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

   92 2-Butanone                                     CAS #: 78-93-3
 16.344  16.344 (0.977)    72    657671 20.0000   20.327  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43   2141643                  300.25- 360.25   325.64
 16.344  16.344 (0.977)    57    184402                    0.00-  58.21    28.04
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
 16.695  16.695 (0.998)    42   1324075 20.0000   20.878  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71    623068                   16.33-  76.33    47.06
 16.695  16.695 (0.998)    72    665489                   20.03-  80.03    50.26
-------------------------------------------------------------------------------
*  98 Bromochloromethane                            CAS #: 74-97-5
 16.726  16.726 (1.000)   130    235481 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    184094                   46.97- 106.97    78.18
 16.695  16.695 (1.000)    49    250553                   76.21- 136.21   106.40
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 16.819  16.819 (1.006)    83   2737811 20.0000   18.708  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85   1789958                   34.75-  94.75    65.38
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
 17.035  17.035 (1.018)    84   1954201 20.0000   20.422  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56   2043443                   76.62- 136.62   104.57
 17.035  17.035 (1.018)    41    987316                   21.84-  81.84    50.52
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                         CAS #: 71-55-6
 17.035  17.035 (1.018)    97   2837031 20.0000   19.208  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99   1841815                   34.64-  94.64    64.92
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   2685646 20.0000   21.330  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117   2774639                   73.50- 133.50   103.31
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.559  17.559 (1.050)    56   1888850 20.0000   20.494  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   5880437                  280.27- 340.27   311.32
 17.559  17.559 (1.050)    41   1344821                   42.11- 102.11    71.20
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.968)    78   4061366 20.0000   18.717  80.00- 120.00   100.00
 17.620  17.620 (0.968)    77    952059                    0.00-  53.26    23.44
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.620  17.620 (1.053)    65    281216 5.00000    4.840  80.00- 120.00   100.00
 17.620  17.620 (1.053)    67    192189                   31.78-  91.78    68.34
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.974)    62   1599240 20.0000   19.011  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
120 1,2-Dichloroethane (continued)							
17.744	17.744 (0.974)	64	513329			2.82- 62.82	32.10
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	1145161	20.0000	20.554	80.00- 120.00	100.00
17.847	17.847 (0.980)	100	448616			8.23- 68.23	39.17
17.847	17.847 (0.980)	43	1907411			141.33- 201.33	166.56
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	908105	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	140143			0.00- 45.59	15.43
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	2018054	20.0000	19.530	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	1867762			61.76- 121.76	92.55
18.610	18.610 (1.022)	97	1206633			29.47- 89.47	59.79
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.034)	83	2550222	20.0000	20.903	80.00- 120.00	100.00
18.833	18.833 (1.034)	55	1789093			40.87- 100.87	70.15
18.833	18.833 (1.034)	56	576095			0.00- 53.10	22.59
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.056	19.056 (1.047)	63	1535402	20.0000	19.930	80.00- 120.00	100.00
19.056	19.056 (1.047)	62	1073423			39.05- 99.05	69.91
19.056	19.056 (1.047)	41	725781			18.49- 78.49	47.27
136 1,4-Dioxane					CAS #: 123-91-1		
19.190	19.190 (1.054)	88	1066089	20.0000	20.963	80.00- 120.00	100.00
19.190	19.190 (1.054)	58	666153			32.65- 92.65	62.49
19.190	19.190 (1.054)	57	211553			0.00- 50.00	19.84
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	2746929	20.0000	20.312	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	1765264			33.97- 93.97	64.26
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.117)	75	2504579	20.0000	22.579	80.00- 120.00	100.00
20.338	20.338 (1.117)	77	795682			1.99- 61.99	31.77
20.338	20.338 (1.117)	39	988486			10.43- 70.43	39.47
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.556	20.556 (1.129)	43	2688665	20.0000	22.717	80.00- 120.00	100.00
20.556	20.556 (1.129)	58	1175126			12.96- 72.96	43.71
20.556	20.556 (1.129)	85	576086			0.00- 50.79	21.43

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	876444	5.00000	5.048	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	91023			0.00- 40.33	10.39
20.806	20.806 (1.143)	100	582884			35.56- 95.56	66.51
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	4761560	20.0000	19.945	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	2812065			29.12- 89.12	59.06
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	2095918	20.0000	21.918	80.00- 120.00	100.00
21.535	21.535 (0.906)	77	666645			1.76- 61.76	31.81
21.535	21.535 (0.906)	39	805186			8.58- 68.58	38.42
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	1756934	20.0000	19.365	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	1099793			32.87- 92.87	62.60
21.970	21.970 (0.925)	83	1469200			54.32- 114.32	83.62
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	2790075	20.0000	19.558	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	1926209			38.71- 98.71	69.04
22.145	22.145 (0.932)	131	1870533			36.65- 96.65	67.04
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	1528262	20.0000	23.600	80.00- 120.00	100.00
22.377	22.377 (0.942)	43	2519280			137.01- 197.01	164.85
22.377	22.377 (0.942)	100	364281			0.00- 53.27	23.84
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	3280104	20.0000	22.450	80.00- 120.00	100.00
22.755	22.755 (0.958)	127	2528497			46.69- 106.69	77.09
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	2810810	20.0000	20.695	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	2671935			65.40- 125.40	95.06
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	762502	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	407306			23.26- 83.26	53.42
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	3919544	20.0000	19.530	80.00- 120.00	100.00
23.802	23.802 (1.002)	114	1266474			2.27- 62.27	32.31
23.802	23.802 (1.002)	77	2121425			24.92- 84.92	54.12

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

  167 Ethyl Benzene                                CAS #: 100-41-4
 23.905  23.905 (1.006)   106   1912561 20.0000   21.448  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91   5788568                  275.87- 335.87   302.66
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106   2030955 20.0000   21.662  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   3917718                  163.30- 223.30   192.90
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106   1933116 20.0000   22.127  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   3914474                  172.76- 232.76   202.50
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.730  24.730 (1.041)   104   3037620 20.0000   23.694  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78   1430502                   18.49-  78.49    47.09
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173   3446731 20.0000   24.129  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171   1768847                   21.11-  81.11    51.32
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105   6237502 20.0000   22.387  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120   1737957                    0.00-  57.81    27.86
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.466  25.466 (1.072)   174    428878 5.00000    5.271  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    469693                   79.94- 139.94   109.52
 25.466  25.466 (1.072)   176    420229                   67.24- 127.24    97.98
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83   3334749 20.0000   19.837  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85   2146498                   34.74-  94.74    64.37
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.731  25.731 (1.083)    91   5399971 20.0000   20.279  80.00- 120.00   100.00
 25.731  25.731 (1.083)   120   1340566                    0.00-  54.36    24.83
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105   4253633 20.0000   19.620  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120   1320746                    1.16-  61.16    31.05
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105   3785900 20.0000   19.564  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120   1927825                   20.44-  80.44    50.92
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105   3429185 20.0000   18.325  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  196 1,2,4-Trimethylbenzene (continued)
 26.395  26.395 (1.111)   120   1632714                    17.83-  77.83    47.61
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.794  26.794 (1.128)   146   2859579 20.0000   18.746  80.00- 120.00   100.00
 26.794  26.794 (1.128)   148   1822510                    33.66-  93.66    63.73
 26.794  26.794 (1.128)   111   1079167                     8.07-  68.07    37.74
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.919  26.919 (1.133)   146   2627330 20.0000   18.090  80.00- 120.00   100.00
 26.919  26.919 (1.133)   148   1691373                    33.90-  93.90    64.38
 26.903  26.903 (1.132)   111    963006                     6.77-  66.77    36.65
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.075  27.075 (1.139)    91   3746252 20.0000   24.801  80.00- 120.00   100.00
 27.075  27.075 (1.139)   126    839085                     0.00-  52.05    22.40
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 27.371  27.371 (1.152)   146   2715944 20.0000   18.703  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148   1734213                    34.41-  94.41    63.85
 27.371  27.371 (1.152)   111   1063312                     9.66-  69.66    39.15
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 29.366  29.366 (1.236)   180   3061920 20.0000   18.175  80.00- 120.00   100.00
 29.366  29.366 (1.236)   182   2950119                    66.13- 126.13    96.35
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225   2552189 20.0000   18.577  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223   1582161                    32.84-  92.84    61.99
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.756  29.756 (1.252)   128    590464 2.00000    1.950  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127     73560                     0.00-  42.38    12.46
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Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20121911.d
Lab Smp Id: ICAL Level 15
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	235481	5.01
123 1,4-Difluorobenze	881591	528955	1234227	908105	3.01
163 Chlorobenzene-d5	733017	439810	1026224	762502	4.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121911.d

Date : 19-DEC-2016 16:36

Client ID:

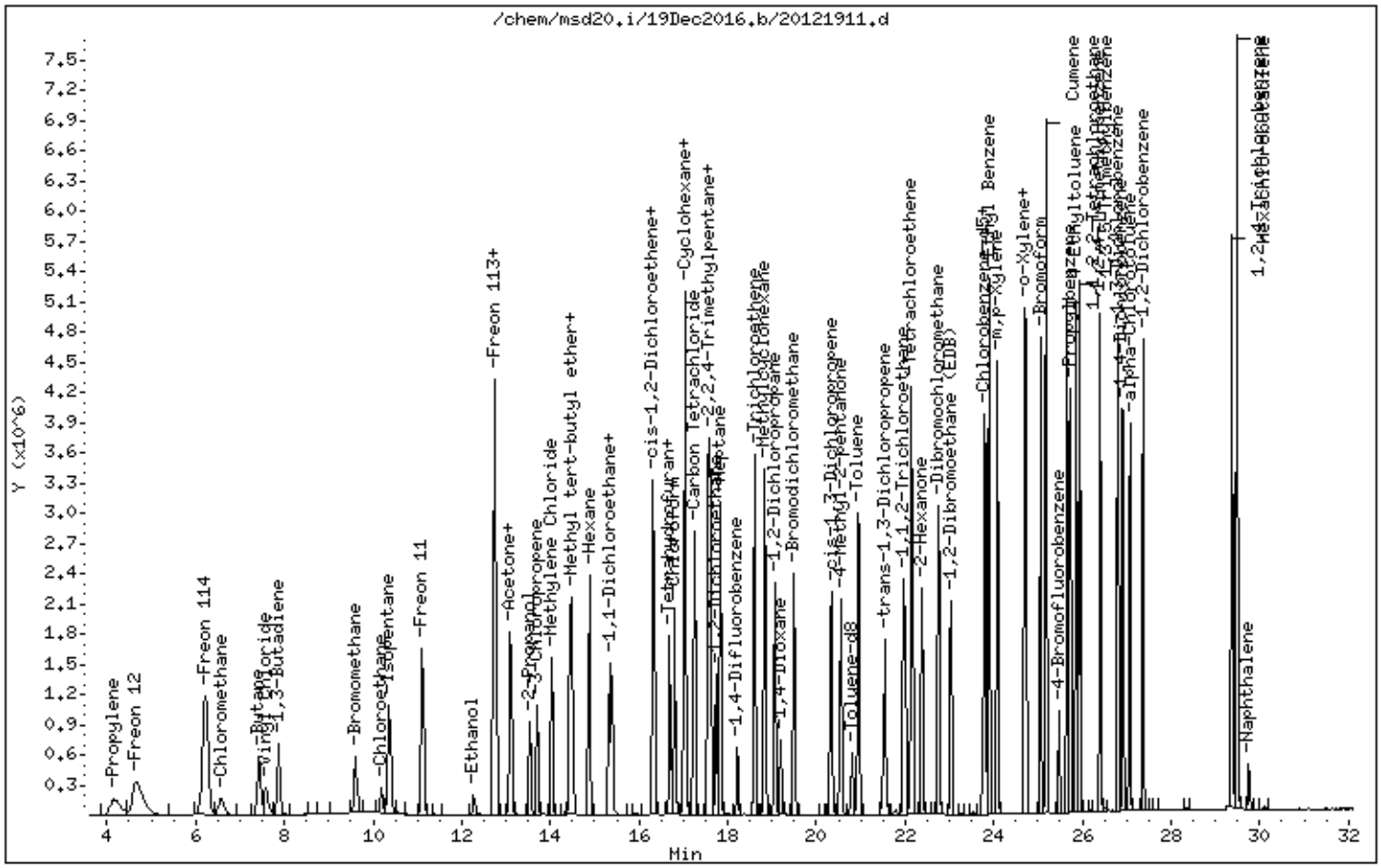
Instrument: msd20.i

Sample Info: 100mL# 2819-148

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19Dec2016.b/20121912.d
Lab Smp Id: ICAL Level 16
Inj Date : 19-DEC-2016 17:39
Operator : mjs Inst ID: msd20.i
Smp Info : 200mL# 2819-148
Misc Info : 40ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19Dec2016.b/2016l1219a.m
Meth Date : 20-Dec-2016 14:30 efinn Quant Type: ISTD
Cal Date : 19-DEC-2016 17:39 Cal File: 20121912.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL-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
9 Propylene					CAS #: 115-07-1		
4.214	4.214 (0.252)	41	1727359	40.0000	37.423	70.00- 130.00	100.00
4.190	4.190 (0.251)	42	1155002			0.00- 30.00	66.87
4.214	4.214 (0.252)	39	1203494			0.00- 30.00	69.67
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	6103069	40.0000	33.312	70.00- 130.00	100.00
4.672	4.672 (0.279)	87	1979775			0.00- 30.00	32.44
15 Freon 114					CAS #: 76-14-2		
6.239	6.239 (0.373)	135	4933036	40.0000	33.980	70.00- 130.00	100.00
6.239	6.239 (0.373)	137	1586000			0.00- 30.00	32.15
6.215	6.215 (0.372)	85	6508253			103.93- 163.93	131.93
17 Chloromethane					CAS #: 74-87-3		
6.601	6.601 (0.395)	50	1906549	40.0000	33.855	80.00- 120.00	100.00
6.601	6.601 (0.395)	52	654090			3.24- 63.24	34.31
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	502678	40.0000	37.166	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.434	7.434 (0.444)	43	3321787			637.57- 697.57	660.82
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	2329141	40.0000	34.869	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	749640			2.15- 62.15	32.19
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	1785359	40.0000	36.495	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	1547685			58.46- 118.46	86.69
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	1863721	40.0000	39.000	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	1770320			64.83- 124.83	94.99
30 Chloroethane					CAS #: 75-00-3		
10.199	10.199 (0.610)	64	1088249	40.0000	37.460	80.00- 120.00	100.00
10.199	10.199 (0.610)	49	236807			0.00- 51.98	21.76
10.199	10.199 (0.610)	66	351981			2.87- 62.87	32.34
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	1744883	40.0000	33.315	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	2127210			95.82- 155.82	121.91
10.367	10.367 (0.620)	42	1819358			78.19- 138.19	104.27
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	6134716	40.0000	33.444	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	4001649			34.37- 94.37	65.23
42 Ethanol					CAS #: 64-17-5		
12.297	12.297 (0.735)	45	910958	40.0000	36.876	80.00- 120.00	100.00
12.297	12.297 (0.735)	46	360108			10.33- 70.33	39.53
49 Freon 113					CAS #: 76-13-1		
12.736	12.736 (0.761)	151	4830882	40.0000	35.287	80.00- 120.00	100.00
12.764	12.764 (0.763)	153	3093362			33.68- 93.68	64.03
12.736	12.736 (0.761)	101	5563381			86.77- 146.77	115.16
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	1658281	40.0000	37.377	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	3748506			201.92- 261.92	226.05
12.736	12.736 (0.761)	96	2593355			127.04- 187.04	156.39
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	1216079	40.0000	35.709	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	3344145			253.28- 313.28	274.99

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
56 Carbon Disulfide					CAS #: 75-15-0		
13.093	13.093 (0.783)	76	7454398	40.0000	39.582	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.560	13.560 (0.811)	45	3857643	40.0000	42.168	80.00- 120.00	100.00(A)
13.560	13.560 (0.811)	43	770163			0.00- 52.74	19.96
13.560	13.560 (0.811)	59	174366			0.00- 34.43	4.52
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	1002257	40.0000	41.548	80.00- 120.00	100.00(A)
13.697	13.697 (0.819)	41	2241202			199.62- 259.62	223.62
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	2417768	40.0000	32.714	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	2642260			80.28- 140.28	109.29
14.027	14.027 (0.839)	51	824964			4.61- 64.61	34.12
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	6966206	40.0000	40.817	80.00- 120.00	100.00(A)
14.439	14.439 (0.863)	57	1480717			0.00- 51.40	21.26
14.439	14.439 (0.863)	41	1312170			0.00- 51.25	18.84
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	1607992	40.0000	36.797	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	3207662			175.66- 235.66	199.48
14.494	14.494 (0.866)	96	2515437			128.76- 188.76	156.43
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	3770764	40.0000	38.618	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	2146319			28.29- 88.29	56.92
14.878	14.878 (0.889)	86	695499			0.00- 48.18	18.44
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	4412464	40.0000	35.612	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	1412339			2.02- 62.02	32.01
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	681943	40.0000	46.895	80.00- 120.00	100.00(A)
15.400	15.400 (0.921)	42	458657			42.22- 102.22	67.26
15.400	15.400 (0.921)	43	5614049			810.72- 870.72	823.24
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.324	16.324 (0.976)	98	1957144	40.0000	37.114	80.00- 120.00	100.00
16.324	16.324 (0.976)	61	3529196			153.64- 213.64	180.32
16.324	16.324 (0.976)	96	3064096			125.91- 185.91	156.56

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

   92 2-Butanone                                     CAS #: 78-93-3
 16.344  16.344 (0.977)    72   1329841 40.0000   40.047  80.00- 120.00   100.00(A)
 16.344  16.344 (0.977)    43   4215554                  300.25- 360.25   317.00
 16.344  16.344 (0.977)    57    373664                    0.00-  58.21    28.10
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
 16.696  16.696 (0.998)    42   2587679 40.0000   39.755  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71   1249741                   16.33-  76.33    48.30
 16.696  16.696 (0.998)    72   1336472                   20.03-  80.03    51.65
-------------------------------------------------------------------------------
*  98 Bromochloromethane                            CAS #: 74-97-5
 16.726  16.726 (1.000)   130    241689 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    190333                   46.97- 106.97    78.75
 16.726  16.726 (1.000)    49    259244                   76.21- 136.21   107.26
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 16.819  16.819 (1.006)    83   5402718 40.0000   35.970  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85   3516201                   34.75-  94.75    65.08
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
 17.035  17.035 (1.018)    84   3858667 40.0000   39.288  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56   3984621                   76.62- 136.62   103.26
 17.035  17.035 (1.018)    41   1871767                   21.84-  81.84    48.51
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                         CAS #: 71-55-6
 17.035  17.035 (1.018)    97   5595069 40.0000   36.908  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99   3624831                   34.64-  94.64    64.79
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   5379113 40.0000   41.624  80.00- 120.00   100.00(A)
 17.250  17.250 (1.031)   117   5542979                   73.50- 133.50   103.05
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.559  17.559 (1.050)    56   3687385 40.0000   38.981  80.00- 120.00   100.00
 17.559  17.559 (1.050)    57  11476153                  280.27- 340.27   311.23
 17.559  17.559 (1.050)    41   2561275                   42.11- 102.11    69.46
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.621  17.621 (0.968)    78   7892620 40.0000   36.829  80.00- 120.00   100.00
 17.621  17.621 (0.968)    77   1846334                    0.00-  53.26    23.39
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    288130 5.00000    4.832  80.00- 120.00   100.00
 17.621  17.621 (1.053)    67    151464                   31.78-  91.78    52.57
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.974)    62   3086877 40.0000   37.154  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  120 1,2-Dichloroethane (continued)
 17.744  17.744 (0.974)    64   1005807                     2.82-  62.82    32.58
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.847  17.847 (0.980)    57   2215471 40.0000   40.262  80.00- 120.00   100.00(A)
 17.847  17.847 (0.980)   100    870663                     8.23-  68.23    39.30
 17.847  17.847 (0.980)    43   3704680                   141.33- 201.33   167.22
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.209  18.209 (1.000)   114    896901 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    138511                    0.00-  45.59    15.44
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.610  18.610 (1.022)   130   4039646 40.0000   39.582  80.00- 120.00   100.00
 18.610  18.610 (1.022)    95   3702912                   61.76- 121.76    91.66
 18.610  18.610 (1.022)    97   2404722                   29.47-  89.47    59.53
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 18.834  18.834 (1.034)    83   4952595 40.0000   41.102  80.00- 120.00   100.00(A)
 18.834  18.834 (1.034)    55   3457586                   40.87- 100.87    69.81
 18.834  18.834 (1.034)    56   1123043                    0.00-  53.10    22.68
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 19.057  19.057 (1.047)    63   3030470 40.0000   39.829  80.00- 120.00   100.00
 19.057  19.057 (1.047)    62   2095545                   39.05-  99.05    69.15
 19.057  19.057 (1.047)    41   1375912                   18.49-  78.49    45.40
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.055)    88   2095624 40.0000   41.722  80.00- 120.00   100.00(A)
 19.213  19.213 (1.055)    58   1307280                   32.65-  92.65    62.38
 19.213  19.213 (1.055)    57    409944                    0.00-  50.00    19.56
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83   5487252 40.0000   41.885  80.00- 120.00   100.00(A)
 19.503  19.503 (0.821)    85   3527215                   33.97-  93.97    64.28
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.339  20.339 (1.117)    75   5051225 40.0000   46.106  80.00- 120.00   100.00(A)
 20.339  20.339 (1.117)    77   1619715                    1.99-  61.99    32.07
 20.339  20.339 (1.117)    39   1953482                   10.43-  70.43    38.67
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.557 (1.129)    43   5247087 40.0000   44.887  80.00- 120.00   100.00(A)
 20.557  20.557 (1.129)    58   2332039                   12.96-  72.96    44.44
 20.557  20.557 (1.129)    85   1148322                    0.00-  50.79    21.88
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	858567	5.00000	5.006	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	89626			0.00- 40.33	10.44
20.806	20.806 (1.143)	100	565818			35.56- 95.56	65.90
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	9354761	40.0000	39.675	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	5573887			29.12- 89.12	59.58
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	4199238	40.0000	45.330	80.00- 120.00	100.00(A)
21.535	21.535 (0.906)	77	1334214			1.76- 61.76	31.77
21.535	21.535 (0.906)	39	1591359			8.58- 68.58	37.90
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	3440177	40.0000	39.142	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	2169769			32.87- 92.87	63.07
21.970	21.970 (0.925)	83	2866771			54.32- 114.32	83.33
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	5615854	40.0000	40.637	80.00- 120.00	100.00(A)
22.145	22.145 (0.932)	129	3826284			38.71- 98.71	68.13
22.145	22.145 (0.932)	131	3709728			36.65- 96.65	66.06
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	3146005	40.0000	50.148	80.00- 120.00	100.00(A)
22.377	22.377 (0.942)	43	5078436			137.01- 197.01	161.42
22.377	22.377 (0.942)	100	758564			0.00- 53.27	24.11
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	6707212	40.0000	47.388	80.00- 120.00	100.00(A)
22.755	22.755 (0.958)	127	5138458			46.69- 106.69	76.61
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	5610283	40.0000	42.640	80.00- 120.00	100.00(A)
23.045	23.045 (0.970)	109	5351531			65.40- 125.40	95.39
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	738669	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	387968			23.26- 83.26	52.52
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	7642877	40.0000	39.311	80.00- 120.00	100.00
23.802	23.802 (1.002)	114	2474756			2.27- 62.27	32.38
23.802	23.802 (1.002)	77	4150208			24.92- 84.92	54.30

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

  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.906 (1.006)   106   3839937 40.0000   44.452  80.00- 120.00   100.00(A)
 23.906  23.906 (1.006)    91  11576907                  275.87- 335.87   301.49
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106   4101536 40.0000   45.157  80.00- 120.00   100.00(A)
 24.091  24.091 (1.014)    91   7861429                  163.30- 223.30   191.67
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106   3920803 40.0000   46.327  80.00- 120.00   100.00(A)
 24.710  24.710 (1.040)    91   7902371                  172.76- 232.76   201.55
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104   6290291 40.0000   50.649  80.00- 120.00   100.00(A)
 24.731  24.731 (1.041)    78   2932710                   18.49-  78.49    46.62
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173   7176751 40.0000   51.862  80.00- 120.00   100.00(A)
 25.068  25.068 (1.055)   171   3687324                   21.11-  81.11    51.38
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105  12228739 40.0000   45.307  80.00- 120.00   100.00(A)
 25.182  25.182 (1.060)   120   3466527                    0.00-  57.81    28.35
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.466  25.466 (1.072)   174    411867 5.00000    5.225  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    444393                   79.94- 139.94   107.90
 25.466  25.466 (1.072)   176    396360                   67.24- 127.24    96.23
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83   6430767 40.0000   39.488  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85   4157886                   34.74-  94.74    64.66
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.732  25.732 (1.083)    91  10975322 40.0000   42.547  80.00- 120.00   100.00(A)
 25.732  25.732 (1.083)   120   2755925                    0.00-  54.36    25.11
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105   8560874 40.0000   40.760  80.00- 120.00   100.00(A)
 25.864  25.864 (1.089)   120   2730185                    1.16-  61.16    31.89
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105   7377467 40.0000   39.354  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120   3803338                   20.44-  80.44    51.55
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105   6597768 40.0000   36.395  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	3189246			17.83- 77.83	48.34
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	5860056	40.0000	39.654	80.00- 120.00	100.00
26.810	26.810 (1.128)	148	3762028			33.66- 93.66	64.20
26.794	26.794 (1.128)	111	2201210			8.07- 68.07	37.56
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	5523143	40.0000	39.256	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	3563055			33.90- 93.90	64.51
26.919	26.919 (1.133)	111	2018833			6.77- 66.77	36.55
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	8167516	40.0000	55.815	80.00- 120.00	100.00(A)
27.075	27.075 (1.139)	126	1853679			0.00- 52.05	22.70
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	5648438	40.0000	40.152	80.00- 120.00	100.00(A)
27.371	27.371 (1.152)	148	3637325			34.41- 94.41	64.40
27.371	27.371 (1.152)	111	2199135			9.66- 69.66	38.93
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	5919117	40.0000	36.268	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	5676031			66.13- 126.13	95.89
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	5423218	40.0000	40.748	80.00- 120.00	100.00(A)
29.491	29.491 (1.241)	223	3381883			32.84- 92.84	62.36
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	1140062	4.00000	3.888	80.00- 120.00	100.00
29.756	29.756 (1.252)	127	144112			0.00- 42.38	12.64

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20121912.d
Lab Smp Id: ICAL Level 16
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/19Dec2016.b/2016l1219a.m
Misc Info: 40ppbv (50ppbv)

Calibration Date: 19-DEC-2016
Calibration Time: 15:58

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	224249	134549	313949	241689	7.78
123 1,4-Difluorobenze	881591	528955	1234227	896901	1.74
163 Chlorobenzene-d5	733017	439810	1026224	738669	0.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19Dec2016.b/20121912.d

Date : 19-DEC-2016 17:39

Client ID:

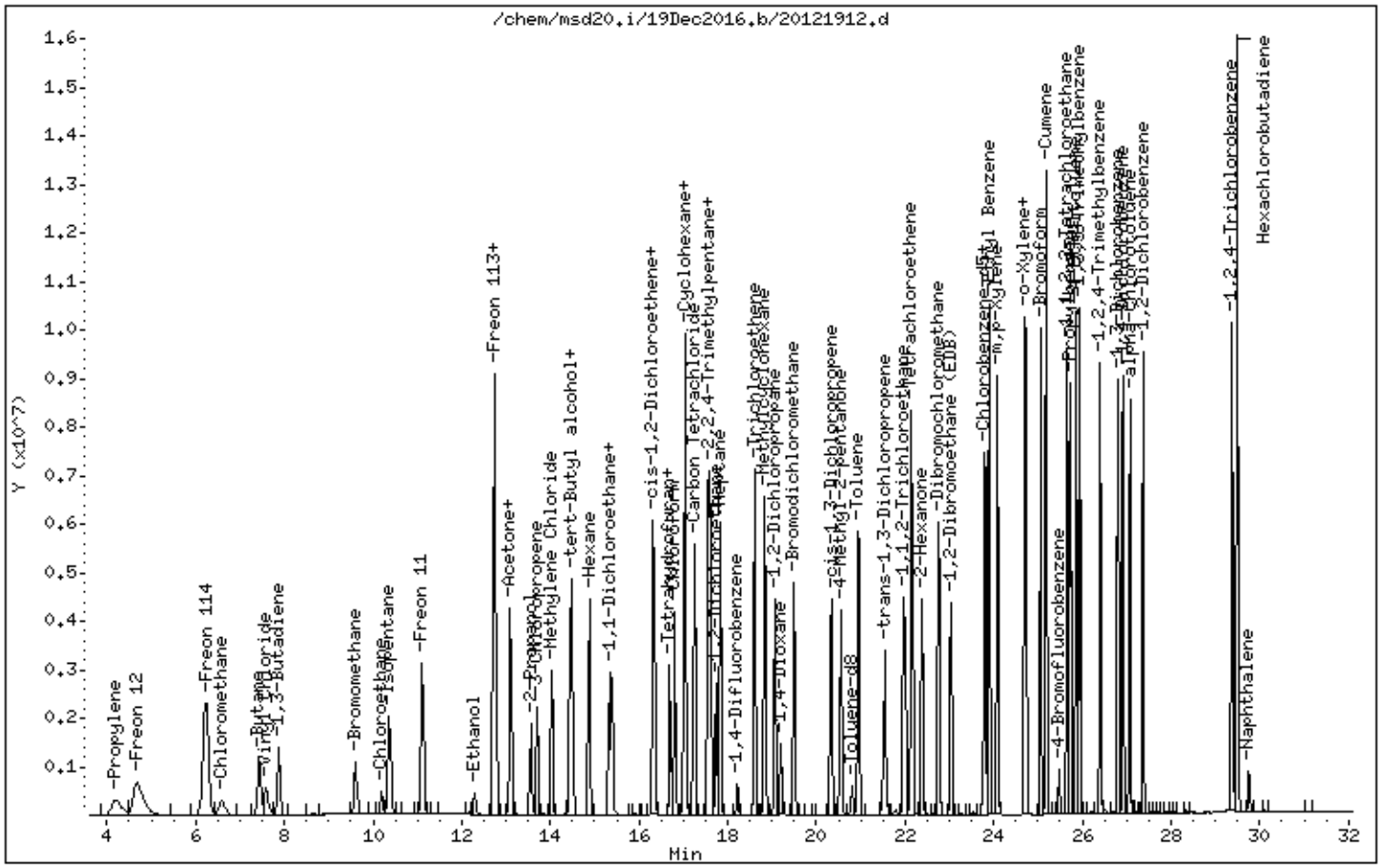
Instrument: msd20.i

Sample Info: 200mL# 2819-148

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-JAN-2017 14:02
End Cal Date : 27-JAN-2017 19:31
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/27Jan2017.b/e17l0126a.m
Cal Date : 30-Jan-2017 10:49 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/26Jan2017.b/e012610.d
Level 6: /chem/msde.i/26Jan2017.b/e012624.d
Level 7: /chem/msde.i/27Jan2017.b/e012705.d
Level 8: /chem/msde.i/27Jan2017.b/e012706.d
Level 9: /chem/msde.i/27Jan2017.b/e012707.d
Level 11: /chem/msde.i/27Jan2017.b/e012708.d
Level 12: /chem/msde.i/27Jan2017.b/e012709.d
Level 13: /chem/msde.i/26Jan2017.b/e012615.d
Level 15: /chem/msde.i/26Jan2017.b/e012616.d
Level 16: /chem/msde.i/26Jan2017.b/e012617.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
36 1-Pentene	+++++	+++++	0.99112	0.84991	0.78838	0.83259		
	0.78388	+++++	+++++	+++++			0.84917	9.920
34 Pentane	+++++	+++++	0.49407	0.45499	0.35030	0.38894		
	0.32480	+++++	+++++	+++++			0.40262	17.601
44 Ethyl Ether	+++++	+++++	0.65042	0.54565	0.58307	0.52534		
	0.49221	+++++	+++++	+++++			0.55934	10.842
53 Iodomethane	+++++	+++++	3.52503	3.14359	3.04851	3.18352		
	3.20895	+++++	+++++	+++++			3.22192	5.589
59 Cyclopentene	+++++	+++++	2.57632	2.15024	2.06279	2.34565		
	2.30070	+++++	+++++	+++++			2.28714	8.643
64 Cyclopentane	+++++	+++++	0.65382	0.60201	0.65037	0.58650		
	0.64585	+++++	+++++	+++++			0.62771	4.963

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-JAN-2017 14:02
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Quant Method : ISTD
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/27Jan2017.b/e17l0126a.m
Cal Date : 30-Jan-2017 10:49 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
74 Acrylonitrile	+++++	+++++	0.80529	0.73128	0.75163	0.81387		
	0.74723	+++++	+++++	+++++			0.76986	4.828
76 1-Hexene	+++++	+++++	0.63198	0.69273	0.60998	0.67600		
	0.66546	+++++	+++++	+++++			0.65523	5.137
84 1-Propanol	+++++	+++++	0.23969	0.28610	0.29243	0.24913		
	0.28301	+++++	+++++	+++++			0.27007	8.852
90 2,2-Dichloropropane	+++++	+++++	3.22279	3.00758	2.82334	2.96100		
	2.82316	+++++	+++++	+++++			2.96757	5.548
93 Methyl Acrylate	+++++	+++++	2.15993	1.90402	1.99192	2.16098		
	2.08511	+++++	+++++	+++++			2.06039	5.414
107 1,1-Dichloropropene	+++++	+++++	0.91435	0.81351	0.75550	0.79505		
	0.72831	+++++	+++++	+++++			0.80134	8.911
115 Isobutanol	+++++	+++++	0.76832	0.73683	0.80935	0.76490		
	0.82345	+++++	+++++	+++++			0.78057	4.518
124 n-Butanol	+++++	+++++	0.44473	0.34961	0.43005	0.39483		
	0.43177	+++++	+++++	+++++			0.41020	9.409
128 Ethyl acrylate	+++++	+++++	0.07429	0.07651	0.05998	0.05973		
	0.04964	+++++	+++++	+++++			0.06403	17.516
131 2-Pentanone	+++++	+++++	0.87806	0.84280	0.79926	0.77743		
	0.80218	+++++	+++++	+++++			0.81995	4.898

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-JAN-2017 14:02
End Cal Date : 27-JAN-2017 19:31
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/27Jan2017.b/e17l0126a.m
Cal Date : 30-Jan-2017 10:49 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
134 Methyl Methacrylate	+++++	+++++	0.45942	0.38444	0.41135	0.40850		
	0.41998	+++++	+++++	+++++			0.41674	6.541
137 Dibromomethane	+++++	+++++	0.82091	0.74586	0.68561	0.64853		
	0.71730	+++++	+++++	+++++			0.72364	9.031
148 Octane	+++++	+++++	0.26514	0.20349	0.23442	0.21640		
	0.21847	+++++	+++++	+++++			0.22758	10.413
157 1,3-Dichloropropane	+++++	+++++	0.73331	0.60050	0.63257	0.65353		
	0.63508	+++++	+++++	+++++			0.65100	7.651
159 Butyl Acetate	+++++	+++++	+++++	0.07670	0.05640	0.07141		
	0.06542	+++++	+++++	+++++			0.06748	12.904
168 1,1,1,2-Tetrachloroethane	+++++	+++++	0.99974	0.92340	0.90742	0.87199		
	0.86139	+++++	+++++	+++++			0.91279	6.003
170 Nonane	+++++	+++++	0.45030	0.44801	0.47110	0.49788		
	0.47598	+++++	+++++	+++++			0.46865	4.369
173 2-Heptanone	+++++	+++++	0.33749	0.36923	0.41668	0.45888		
	0.44796	+++++	+++++	+++++			0.40605	12.747
176 Cyclohexanone	+++++	+++++	0.41329	0.33806	0.35164	0.38362		
	0.37190	+++++	+++++	+++++			0.37170	7.851
180 Bromobenzene	+++++	+++++	1.04513	0.83760	0.85211	0.89903		
	0.82904	+++++	+++++	+++++			0.89258	10.023

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-JAN-2017 14:02
End Cal Date : 27-JAN-2017 19:31
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/27Jan2017.b/e17l0126a.m
Cal Date : 30-Jan-2017 10:49 efinn
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
185 1,2,3-Trichloropropane	+++++	+++++	0.41612	0.34095	0.35926	0.33715		
	0.33268	+++++	+++++	+++++			0.35723	9.639
187 Decane	+++++	+++++	0.35729	0.31944	0.37110	0.40687		
	0.38533	+++++	+++++	+++++			0.36801	8.903
189 2-Chlorotoluene	+++++	+++++	0.62451	0.55661	0.52685	0.53381		
	0.52199	+++++	+++++	+++++			0.55276	7.644
191 4-Chlorotoluene	+++++	+++++	0.53689	0.50104	0.50114	0.51126		
	0.49601	+++++	+++++	+++++			0.50927	3.221
195 tert-Butylbenzene	+++++	+++++	1.62567	1.44349	1.45213	1.50917		
	1.45684	+++++	+++++	+++++			1.49746	5.085
197 Pentachloroethane	+++++	+++++	0.92035	0.81324	0.92576	0.89318		
	0.77296	+++++	+++++	+++++			0.86510	7.904
203 sec-Butylbenzene	+++++	+++++	2.92113	2.60860	2.80175	2.84361		
	2.70163	+++++	+++++	+++++			2.77535	4.407
206 bis(2-Chloroethyl) Ether	+++++	+++++	0.82705	0.74313	0.81442	0.81712		
	0.83396	+++++	+++++	+++++			0.80714	4.538
207 p-Cymene	+++++	+++++	1.67875	1.56239	1.75198	1.79601		
	1.65486	+++++	+++++	+++++			1.68880	5.355
210 1,2,3-Trimethylbenzene	+++++	+++++	0.53514	0.46405	0.50830	0.52322		
	0.52849	+++++	+++++	+++++			0.51184	5.565

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-JAN-2017 14:02
End Cal Date : 27-JAN-2017 19:31
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/27Jan2017.b/e17l0126a.m
Cal Date : 30-Jan-2017 10:49 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
213 Butylbenzene	+++++	+++++	0.41360	0.39547	0.40260	0.44615		
	0.41466	+++++	+++++	+++++			0.41450	4.681
215 Undecane	+++++	+++++	0.27994	0.25274	0.25934	0.26245		
	0.24457	+++++	+++++	+++++			0.25981	5.072
221 1,2-Dibromo-3-chloropropane	+++++	+++++	0.73115	0.61597	0.70263	0.65893		
	0.63597	+++++	+++++	+++++			0.66893	7.090
225 Dodecane	+++++	+++++	0.13925	0.10631	0.11057	0.06189		
	0.06792	+++++	+++++	+++++			0.09719	33.079 <-

Calibration History

Method : /chem/msde.i/27Jan2017.b/e17l0126a.m
Start Cal Date: 26-JAN-2017 14:02
End Cal Date : 27-JAN-2017 19:31

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 0.05000		
26-JAN-2017 14:02	Level5	/chem/msde.i/26Jan2017.b/e012610.d

Injection Date	Sublist	Calibration File
Cal Level: 6 , Cal Amount: 0.10000		
27-JAN-2017 09:14	Level6	/chem/msde.i/26Jan2017.b/e012624.d

Injection Date	Sublist	Calibration File
Cal Level: 7 , Cal Amount: 0.50000		
27-JAN-2017 16:20	ComboICAL-VB	/chem/msde.i/27Jan2017.b/e012705.d
26-JAN-2017 15:22	HILOcrvFULL	/chem/msde.i/26Jan2017.b/e012612.d

Injection Date	Sublist	Calibration File
Cal Level: 8 , Cal Amount: 1.00000		
27-JAN-2017 17:06	ComboICAL-VB	/chem/msde.i/27Jan2017.b/e012706.d
26-JAN-2017 16:19	HILOcrvFULL	/chem/msde.i/26Jan2017.b/e012613.d

Injection Date	Sublist	Calibration File
Cal Level: 9 , Cal Amount: 2.00000		
27-JAN-2017 18:04	ComboICAL-VB	/chem/msde.i/27Jan2017.b/e012707.d

Injection Date	Sublist	Calibration File
Cal Level: 11, Cal Amount: 4.00000		
27-JAN-2017 18:48	ComboICAL-VB	/chem/msde.i/27Jan2017.b/e012708.d

Injection Date	Sublist	Calibration File
Cal Level: 12, Cal Amount: 5.00000		
27-JAN-2017 19:31	ComboICAL-VB	/chem/msde.i/27Jan2017.b/e012709.d
26-JAN-2017 17:08	HILOcrvFULL	/chem/msde.i/26Jan2017.b/e012614.d

```
+------------------+-----------------+----------------------------------------+
| Cal Level: 13, Cal Amount: 10.00000                                          |
+==============================================================================+
|26-JAN-2017 17:51 |HILOcrvFULL      |/chem/msde.i/26Jan2017.b/e012615.d      |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 15, Cal Amount: 20.00000                                          |
+==============================================================================+
|26-JAN-2017 19:09 |HILOcrvFULL      |/chem/msde.i/26Jan2017.b/e012616.d      |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 16, Cal Amount: 40.00000                                          |
+==============================================================================+
|26-JAN-2017 19:53 |HILOcrvFULL      |/chem/msde.i/26Jan2017.b/e012617.d      |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 13
+------------------+-----------------+----------------------------------------+
| Ccal Level: 13, Ccal Amount: 10.000                                          |
+==============================================================================+
|27-JAN-2017 12:13 |AT09-Oxy         |/chem/msde.i/27Jan2017.b/e012702.d      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 8 , Ccal Amount: 1.000                                           |
+==============================================================================+
|27-JAN-2017 17:06 |ComboCCV-VB      |/chem/msde.i/27Jan2017.b/e012706a.d     |
+------------------+-----------------+----------------------------------------+
```

Curve Name: E17$_L$0126A

Initial Calibration Narrative

A TO-15 initial calibration was analyzed on 1/26/17 on MSD-E.

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

Tune Files: E012606, E012701.
ICAL: One (1) out; Ethanol @ 32%.
ICV: One (1) out; Ethanol @ 66%.
DOD 5.0 ICV: File E012625a; One (1) out; Ethanol @ 66%.
DOD 4.2 ICV: File E012625c; zero (0) out.
BTEX RL Spike: Zero (0) out 50-150. File E012624x.

The 0.1ppbv calibration point (global level 6) was rerun due to non-linearity.

Naphthalene was calibrated from 0.1ppbv-4.0ppbv.*

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

Vinyl Chloride	Bromodichloromethane	4-Ethyltoluene
Freon 11	1,1,2-Trichloroethane	1,3,5-Trimethylbenzene
Freon 113	Tetrachloroethane	1,2,4-Trimethylbenzene
1,1,1-Trichloroethane	Dibromochloromethane	1,3-Dichlorobenzene
Carbon Tetrachloride	1,2-Dibromomethane (EDB)	1,4-Dichlorobenzene
1,2-Dichloroethane	Bromoform	1,2-Dichlorobenzene
Trichloroethane	1,1,2,2-Tetrachloroethane	1,2,4-Trichlorobenzene

*The quantitation ion peak (128 amu) is sufficiently resolved for accurate quantification of Naphthalene at the special reporting limit of 0.05ppbv. However, the secondary mass ion peak (127 amu) for Naphthalene is not completely baseline-resolved. Identification of Naphthalene based on the presence and abundance ratio of confirmation ion is reliable at the lowest concentrations even when insufficient baseline resolution of the secondary mass ion peak (127 amu). The spectrum of Naphthalene in this ICAL point will be used as the reference to determine the ion ratio target in the samples for this ICAL.

A five (5) point initial calibration for the Combination special was analyzed on 1/27/17 and included in the "A" curve. Levels 0.5ppbv, 1.0ppbv, 2.0ppbv, 4.0ppbv, and 5.0ppbv. Acetonitrile and trans-1,4-Dichloro-2-butene were not included in the ICAL due to interference from co-eluting compounds. Ethyl Acetate was not included due to poor performance. Butyl Acetate was calibrated from 1.0ppbv 5.0ppbv due to poor peak quality at 0.5ppbv level.

TO-15 MDL was analyzed on 10/18/16.
MDL for AT-1 was analyzed on 2/11/16.
MDL for 1,2,3-TCP at 0.05ppbv was analyzed on 10/12/16.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-JAN-2017 14:02
End Cal Date : 27-JAN-2017 09:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/26Jan2017.b/e1710126a.m
Cal Date : 30-Jan-2017 10:34 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/26Jan2017.b/e012610.d
Level 6: /chem/msde.i/26Jan2017.b/e012624.d
Level 7: /chem/msde.i/26Jan2017.b/e012612.d
Level 8: /chem/msde.i/26Jan2017.b/e012613.d
Level 12: /chem/msde.i/26Jan2017.b/e012614.d
Level 13: /chem/msde.i/26Jan2017.b/e012615.d
Level 15: /chem/msde.i/26Jan2017.b/e012616.d
Level 16: /chem/msde.i/26Jan2017.b/e012617.d

1/30/17

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

Compound	0.05000 Level 5 / 20.000 Level 15	0.10000 Level 6 / 40.000 Level 16	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
9 Propylene	+++++	+++++	+++++	0.85563	0.73376	0.65555		
	0.68311	0.67994					0.72160	11.106
11 Freon 12	+++++	4.97640	4.60943	4.90185	4.47393	3.97662		
	4.01835	4.11773					4.43919	9.321
15 Freon 114	+++++	4.10317	3.85963	3.52778	3.41429	3.03642		
	2.92292	2.98762					3.40740	13.405
17 Chloromethane	+++++	+++++	0.99737	0.89397	0.88340	0.75347		
	0.70881	0.73048					0.82792	13.812
23 Butane	+++++	+++++	0.22435	0.20311	0.19859	0.18233		
	0.20031	0.19728					0.20100	6.743
25 Vinyl Chloride	1.50484	1.37979	1.08643	1.13859	1.10136	1.02599		
	1.03017	1.04009					1.16341	15.432
26 1,3-Butadiene	+++++	0.87685	0.87558	0.81960	0.78634	0.75506		
	0.74417	0.77312					0.80439	6.793

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-JAN-2017 14:02
End Cal Date : 27-JAN-2017 19:31
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/27Jan2017.b/e1710126a.m
Cal Date : 30-Jan-2017 10:49 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/26Jan2017.b/e012610.d
Level 6: /chem/msde.i/26Jan2017.b/e012624.d
Level 7: /chem/msde.i/27Jan2017.b/e012705.d
Level 8: /chem/msde.i/27Jan2017.b/e012706.d
Level 9: /chem/msde.i/27Jan2017.b/e012707.d
Level 11: /chem/msde.i/27Jan2017.b/e012708.d
Level 12: /chem/msde.i/27Jan2017.b/e012709.d
Level 13: /chem/msde.i/26Jan2017.b/e012615.d
Level 15: /chem/msde.i/26Jan2017.b/e012616.d
Level 16: /chem/msde.i/26Jan2017.b/e012617.d

1/30/17

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	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
36 1-Pentene	+++++	+++++	0.99112	0.84991	0.78838	0.83259		
	0.78388	+++++	+++++	+++++			0.84917	9.920
34 Pentane	+++++	+++++	0.49407	0.45499	0.35030	0.38894		
	0.32480	+++++	+++++	+++++			0.40262	17.601
44 Ethyl Ether	+++++	+++++	0.65042	0.54565	0.58307	0.52534		
	0.49221	+++++	+++++	+++++			0.55934	10.842
53 Iodomethane	+++++	+++++	3.52503	3.14359	3.04851	3.18352		
	3.20895	+++++	+++++	+++++			3.22192	5.589
59 Cyclopentene	+++++	+++++	2.57632	2.15024	2.06279	2.34565		
	2.30070	+++++	+++++	+++++			2.28714	8.643
64 Cyclopentane	+++++	+++++	0.65382	0.60201	0.65037	0.58650		
	0.64585	+++++	+++++	+++++			0.62771	4.963

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2806**

BFB Verification of 176/174 m/z Ratio: 611520/636608 × 100 = 96.06%	
Method Name: E17L0126A / E17S0126A	

IS/S Std. #: 2619-179	Exp. Date: 3/14/17
BCM LL: SW 1/27/17 ~~143288~~ 161188	Sum: SW 1/27/17 ~~2419484~~ 1981168
1,4-DFB SW 1/27/17 ~~6018109~~ 598820	SW 1/27/17 ~~7520666~~ 6142668
CB-d5 SW 1/27/17 ~~1600289~~ 6681188	SW 1/27/17 ~~6824101~~ 5586091

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

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E012606	BFB tune Check	2810-94	50ng	2.0ml	SW	1.00	SW	1/26/17	1125	SW/ES	exp: 12/1/17
2	✓	07	ICAL Level 2	2819-239	0.005ppbv	25mL	SW	1.00	SW		1145	SW/ES	exp: 4/5/17
3	✓	08	3		0.01ppbv	50mL	SW	1.00	SW		1233	SW/ES	
4	✓	09	4		0.02ppbv	100mL	SW	1.00	SW		1320	SW/ES	
5	✓	10	5		0.05ppbv	250mL	SW	1.00	SW		1402	ES	
6	✓	11	6	2819-240	0.10ppbv	25mL	SW	1.00	SW		1442	ES	exp: 4/5/17 RERUN
7	✓	12	7		0.50ppbv	125mL	SW	1.00	SW		1522	ES	
8	✓	13	8		1.0ppbv	250mL	TD	1.00	TD		1619	ES	
9	✓	14	12	2819-218	5.0ppbv	25mL	TD	1.00	TA		1708	ES	exp: 4/5/17
10	✓	15	13		10ppbv	50mL	TD	1.00	TA		1751	ES	
11	✓	16	15		20ppbv	100mL	TD	1.00	TA		1909	ES	
12	✓	17	16		40ppbv	200mL	TD	1.00	TA		1953	ES	
13	✓	18	System Blank	34764	Humid	250mL	TD	1.00	TD		2106	ES	
14	✓	19	System Blank				TD	1.00	TD		2154	ES	
15	✓	20	System Blank				TD	1.00	TD		2249	ES	
16	✓	21	ICV (50ppbv)	2819-156	10ppbv	50mL	SW	1.00	SW	1/27/17	0638	ES	
17	✓	22	System Blank	34764	humid	250mL	SW	1.00	SW		0727	ES	

Reviewed 1/27/16 Date

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
18	/	E012623	System Blank	34764	humid	250mL	SW	1.00	SW	1/27/17	0829	[illegible]	
19	/	24	ICAL level 6	2819-240	0.10ppbv	25mL	SW	1.00	SW		0914	[illegible]	
20	/	25	ICV (50ppbv)	2819-156	10ppbv	50mL	SW	1.00	SW		1109	[illegible]	
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39												[illegible]	

[illegible] Reviewed

1/27/17 Date

Eurofins Air Toxics, Inc.

MSD-E

Logbook #2806

BFB Verification of 176/174 m/z Ratio: 703104/725888 x100 = 96.86%	
Method Name: E17L0126A / E17S0126A	

IS/S Std. #: 2619-179		Exp. Date: 3/14/17
BCM	LL: 170744	Std: 191666
1,4-DFB	602830	609849
CB-d5	541524	546001

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

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E012701	BFB tune check	2810-94	50ng	20µl	SW	1.00	SW	1/27/17	1151	SW/EA	exp: 12/1/17
2	✓	02	CCV (50ppbv)	2819-218	10ppbv	50ml	SW	1.00	SW		1213	SW/EA	exp: 4/5/17 ØOut
3	✓	03	LCS (50ppbv)	2819-188	10ppbv	50ml	SW	1.00	SW		1336	EA	20 out on LL grant sing
4	✓	04	LCSD (50ppbv)	2819-188	10ppbv	50ml	ED	1.00	ED		1449	EA	
5	✓	05	ICAL level 7	2819-242	0.5ppbv	25ml	ES	1.00	ES		1620	ES	Exp. 2/19/17 COMBO
6	✓	06	8		1.0ppbv	50ml	ED		ED		1706	ES	
7	✓	07	9		2.0ppbv	100ml	ED		ED		1804	ES	
8	✓	08	11		4.0ppbv	200ml	ED		ED		1848	ES	
9	✓	09	12		5.0ppbv	250ml	ED		EA		1931	ES	
10		10	Lab Blank	3477/04	Humid	250ml	ED		ED		~~2024~~	ES	
11		11	1701369-01A	N1092	7psi-7psi	250mL	GH	1.00	GH		0637		
12		12	-02A	N1671	13psi-13psi	250mL	GH	1.00	GH		0718		
13		13	1701395-01AB	5066	5.9"Hg-5.7psi	250mL	GH	1.69	GH		0800		
14		14	-02AB	14111	6.3"Hg-4.7psi	250mL	GH	1.67	GH		0846		
15		15	-03AB	N0415	5.3"Hg-5.1psi	25mL	GH	16.4	GH		0930		E Acetone, 2prop
16		16	~~-04AB~~	00900	5.3"Hg-4.8psi	100mL	GH	4.02	GH				E Acetone 2prop
17		17	-05AB	N0727	6.9"Hg-4.9psi	125mL	GH	3.44	GH				

Reviewed

1/30/17
Date

0808 of 1210

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
3-Chloropropene
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
2,2,4-Trimethylpentane
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.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012625.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JAN-2017 11:09
Operator : sw Inst ID: msde.i
Smp Info : 50mL #2819-156
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:30 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 19:53 Cal File: e012617.d
Als bottle: 1 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.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
9 Propylene					CAS #: 115-07-1		
4.762	4.786 (0.309)	41	225509	8.77226	8.772	80.00- 120.00	100.00
4.787	4.762 (0.311)	42	149412			35.53- 95.53	66.26
4.762	4.762 (0.309)	39	196012			53.16- 113.16	86.92
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	1439705	9.10359	9.104	80.00- 120.00	100.00
5.245	5.244 (0.341)	87	461184			1.91- 61.91	32.03
15 Freon 114					CAS #: 76-14-2		
6.618	6.642 (0.430)	135	1058080	8.71641	8.716	80.00- 120.00	100.00
6.643	6.618 (0.432)	137	335558			0.98- 60.98	31.71
6.618	6.618 (0.430)	85	1260645			86.82- 146.82	119.14
17 Chloromethane					CAS #: 74-87-3		
6.932	6.956 (0.450)	50	263175	8.92280	8.923	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	90328			3.31- 63.31	34.32
23 Butane					CAS #: 106-97-8		
7.675	7.692 (0.499)	58	69629	9.72402	9.724	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.675	7.692 (0.499)	43	442169			667.48- 727.48	635.04
25 Vinyl Chloride					CAS #: 75-01-4		
7.797	7.814 (0.507)	62	356706	8.60638	8.606	80.00- 120.00	100.00
7.797	7.797 (0.507)	64	119975			1.95- 61.95	33.63
26 1,3-Butadiene					CAS #: 106-99-0		
8.040	8.057 (0.522)	54	249481	8.70591	8.706	80.00- 120.00	100.00
8.057	8.057 (0.523)	39	269274			76.10- 136.10	107.93
29 Bromomethane					CAS #: 74-83-9		
9.510	9.529 (0.618)	94	402408	9.28236	9.282	80.00- 120.00	100.00
9.510	9.529 (0.618)	96	385794			64.26- 124.26	95.87
30 Chloroethane					CAS #: 75-00-3		
10.005	10.005 (0.650)	64	193274	9.01969	9.020	80.00- 120.00	100.00
10.005	10.005 (0.650)	49	56460			0.00- 57.48	29.21
10.005	10.005 (0.650)	66	62241			1.33- 61.33	32.20
31 Isopentane					CAS #: 78-78-4		
10.138	10.138 (0.659)	57	287665	9.29538	9.295	80.00- 120.00	100.00
10.138	10.157 (0.659)	43	353782			96.48- 156.48	122.98
10.138	10.138 (0.659)	42	298715			76.93- 136.93	103.84
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	1683418	9.12462	9.125	80.00- 120.00	100.00
10.766	10.766 (0.700)	103	1083459			33.74- 93.74	64.36
42 Ethanol					CAS #: 64-17-5		
11.662	11.680 (0.758)	45	123000	7.64882	7.649	80.00- 120.00	100.00(R)
11.662	11.680 (0.758)	46	47251			9.60- 69.60	38.42
11.681	11.680 (0.759)	43	33347			0.00- 59.21	27.11
49 Freon 113					CAS #: 76-13-1		
12.081	12.099 (0.785)	151	1093282	8.87505	8.875	80.00- 120.00	100.00
12.081	12.099 (0.785)	153	679443			34.83- 94.83	62.15
12.081	12.080 (0.785)	101	1148426			77.16- 137.16	105.04
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.099 (0.786)	98	293188	8.90873	8.909	80.00- 120.00	100.00
12.100	12.099 (0.786)	61	734143			219.47- 279.47	250.40
12.100	12.099 (0.786)	96	458222			126.81- 186.81	156.29
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	176251	8.71726	8.717	80.00- 120.00	100.00

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43    640832                   344.13- 404.13   363.59
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.462  12.461 (0.810)    76   1271502 9.09121    9.091  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.728  12.728 (0.827)    45    589658 9.05887    9.059  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43    149324                    0.00-  55.65    25.32
 12.728  12.728 (0.827)    59     26569                    0.00-  34.42     4.51
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.900  12.900 (0.838)    76    251775 9.16231    9.162  80.00- 120.00   100.00
 12.900  12.900 (0.838)    41    576006                  198.88- 258.88   228.78
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.176  13.176 (0.856)    84    383486 7.75041    7.750  80.00- 120.00   100.00
 13.176  13.176 (0.856)    49    426298                   83.76- 143.76   111.16
 13.176  13.176 (0.856)    51    133242                    2.61-  62.61    34.74
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.478  13.506 (0.876)    73   1346071 9.40089    9.401  80.00- 120.00   100.00
 13.478  13.478 (0.876)    57    256009                    0.00-  49.77    19.02
 13.478  13.478 (0.876)    41    258853                    0.00-  49.98    19.23
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.561 (0.879)    98    321471 10.2978   10.298  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61    653187                  174.76- 234.76   203.19
 13.533  13.561 (0.879)    96    487472                  123.28- 183.28   151.64
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57    576130 9.77701    9.777  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43    340782                   27.83-  87.83    59.15
 13.835  13.835 (0.899)    86    114960                    0.00-  50.45    19.95
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63    795284 9.25315    9.253  80.00- 120.00   100.00
 14.247  14.247 (0.926)    65    255526                    1.87-  61.87    32.13
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                   CAS #: 108-05-4
 14.275  14.274 (0.927)    86    112510 8.64901    8.649  80.00- 120.00   100.00
 14.275  14.274 (0.927)    42     98746                   71.31- 131.31    87.77
 14.275  14.274 (0.927)    43    950134                  931.28- 991.28   844.49
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                          CAS #: 156-59-2
 15.066  15.066 (0.979)    98    310953 8.20479    8.205  80.00- 120.00   100.00
```

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

   91 cis-1,2-Dichloroethene (continued)
 15.066  15.066 (0.979)    61    601954                  154.54- 214.54   193.58
 15.066  15.066 (0.979)    96    494162                  117.78- 177.78   158.92
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    210685 9.60948    9.609  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    732204                  325.72- 385.72   347.53
 15.047  15.047 (0.978)    57     65317                    1.13-  61.13    31.00
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    379254 9.55624    9.556  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71    198270                   20.32-  80.32    52.28
 15.391  15.391 (1.000)    72    199193                   21.98-  81.98    52.52
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    178126 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    133027                   46.73- 106.73    74.68
 15.391  15.391 (1.000)    49    150946                   55.35- 115.35    84.74
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83   1140509 8.83491    8.835  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    752383                   36.62-  96.62    65.97
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.700  15.699 (1.020)    84    591115 9.55079    9.551  80.00- 120.00   100.00
 15.700  15.699 (1.020)    56    594951                   68.83- 128.83   100.65
 15.669  15.699 (1.018)    41    352171                   29.98-  89.98    59.58
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.700  15.699 (1.020)    97   1365818 8.99525    8.995  80.00- 120.00   100.00
 15.700  15.699 (1.020)    99    880973                   34.65-  94.65    64.50
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.884  15.884 (1.032)   119   1324977 8.96273    8.963  80.00- 120.00   100.00
 15.884  15.884 (1.032)   117   1382964                   74.11- 134.11   104.38
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.111  16.111 (1.047)    56    773965 9.33681    9.337  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57   2488371                  277.67- 337.67   321.51
 16.111  16.111 (1.047)    41    819912                   73.43- 133.43   105.94
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.207  16.207 (0.968)    78   1326665 9.03109    9.031  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77    310653                    0.00-  53.00    23.42
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    237668 4.64627    4.646  80.00- 120.00   100.00
```

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

$ 117 1,2-Dichloroethane-d4 (continued)
 16.207  16.207 (1.053)    67    112780                    22.67-  82.67    47.45
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.303 (0.974)    62    803253 8.87526    8.875  80.00- 120.00   100.00
 16.304  16.303 (0.974)    64    259929                     1.95-  61.95    32.36
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    386687 10.3955   10.396  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    203508                    23.08-  83.08    52.63
 16.352  16.352 (0.977)    43    634425                   136.91- 196.91   164.07
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    595003 5.00000            80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     95725                     0.00-  45.16    16.09
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130    795399 9.70412    9.704  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95    692532                    61.87- 121.87    87.07
 17.147  17.147 (1.024)    97    436777                    29.29-  89.29    54.91
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.364  17.363 (1.037)    83    794583 10.3689   10.369  80.00- 120.00   100.00
 17.364  17.363 (1.037)    55    609062                    45.72- 105.72    76.65
 17.364  17.363 (1.037)    56    173228                     0.00-  52.26    21.80
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.581  17.580 (1.050)    63    433278 9.38861    9.389  80.00- 120.00   100.00
 17.581  17.580 (1.050)    62    305690                    41.22- 101.22    70.55
 17.581  17.580 (1.050)    41    302565                    40.14- 100.14    69.83
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 17.701  17.701 (1.058)    88    332583 9.36553    9.366  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    204581                    30.17-  90.17    61.51
 17.701  17.701 (1.058)    57     68970                     0.00-  51.30    20.74
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 18.014  18.014 (1.076)    83   1228605 9.63258    9.632  80.00- 120.00   100.00
 18.014  18.014 (1.076)    85    825855                    36.87-  96.87    67.22
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 18.827  18.827 (1.125)    75    808144 10.2727   10.273  80.00- 120.00   100.00
 18.827  18.827 (1.125)    77    261206                     1.38-  61.38    32.32
 18.827  18.827 (1.125)    39    457398                    23.65-  83.65    56.60
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.007  19.006 (1.136)    43    893262 10.2217   10.222  80.00- 120.00   100.00
```

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

  145 4-Methyl-2-pentanone (continued)
 19.007  19.006 (1.136)    58    363749                    10.02-  70.02    40.72
 19.007  19.006 (1.136)    85    197253                     0.00-  52.01    22.08
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    591663 5.12633    5.126  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     66240                     0.00-  40.89    11.20
 19.298  19.298 (1.153)   100    400258                    40.09- 100.09    67.65
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91   1694224 9.53352    9.534  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92   1007394                    27.79-  87.79    59.46
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75    794451 9.83427    9.834  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77    254512                     1.55-  61.55    32.04
 20.026  20.026 (0.903)    39    385152                    18.82-  78.82    48.48
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    591110 9.54050    9.540  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    381041                    32.59-  92.59    64.46
 20.438  20.438 (0.922)    83    476859                    50.07- 110.07    80.67
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166   1145653 9.48358    9.484  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129    769545                    37.12-  97.12    67.17
 20.630  20.630 (0.930)   131    750184                    36.18-  96.18    65.48
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.795  20.795 (0.938)    58    450950 10.7279   10.728  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    826051                   162.96- 222.96   183.18
 20.795  20.795 (0.938)   100    121015                     0.00-  59.39    26.84
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129   1437712 9.71395    9.714  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127   1103592                    46.76- 106.76    76.76
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 21.482  21.481 (0.969)   107   1047930 9.49440    9.494  80.00- 120.00   100.00
 21.482  21.481 (0.969)   109    966803                    63.39- 123.39    92.26
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    548531 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    267866                    17.27-  77.27    48.83
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 22.219  22.218 (1.002)   112   1462484 9.59603    9.596  80.00- 120.00   100.00
```

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

  165 Chlorobenzene (continued)
 22.219  22.218 (1.002)   114    472424                     2.22-  62.22    32.30
 22.219  22.218 (1.002)    77    778002                    23.48-  83.48    53.20
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.301 (1.006)   106    742265 10.3310   10.331  80.00- 120.00   100.00
 22.302  22.301 (1.006)    91   2316041                  278.11- 338.11   312.02
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.488  22.488 (1.014)   106    911254 10.7153   10.715  80.00- 120.00   100.00
 22.488  22.488 (1.014)    91   1804888                  170.01- 230.01   198.07
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106    837465 10.6269   10.627  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91   1774319                  175.84- 235.84   211.87
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.110  23.110 (1.042)   104   1422109 10.8176   10.818  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    708648                   20.21-  80.21    49.83
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.452  23.452 (1.057)   173   1525499 9.94357    9.944  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    774720                   21.47-  81.47    50.78
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.564  23.564 (1.063)   105   2629101 10.6361   10.636  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    711480                    0.00-  56.99    27.06
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    386676 5.04656    5.046  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    367847                   66.74- 126.74    95.13
 23.856  23.856 (1.076)   176    381756                   67.47- 127.47    98.73
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.035  24.035 (1.084)    83    947262 8.80139    8.801  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    653842                   39.76-  99.76    69.02
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.102  24.102 (1.087)    91   2510781 10.2038   10.204  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120    633739                    0.00-  55.73    25.24
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.237  24.237 (1.093)   105   2196643 10.7682   10.768  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    686384                    1.00-  61.00    31.25
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.304  24.304 (1.096)   105   1514543 10.0150   10.015  80.00- 120.00   100.00
```

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

  190 1,3,5-Trimethylbenzene (continued)
 24.304  24.304 (1.096)   120    783062                    19.17-  79.17    51.70
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.775  24.775 (1.117)   105   1278321 10.0716   10.072  80.00- 120.00   100.00
 24.775  24.775 (1.117)   120    588043                    16.84-  76.84    46.00
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.156  25.156 (1.134)   146   1299635 9.62715    9.627  80.00- 120.00   100.00
 25.156  25.156 (1.134)   148    836795                    33.96-  93.96    64.39
 25.156  25.156 (1.134)   111    461197                     6.94-  66.94    35.49
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.269  25.268 (1.139)   146   1291092 9.20679    9.207  80.00- 120.00   100.00
 25.269  25.268 (1.139)   148    829427                    35.10-  95.10    64.24
 25.269  25.268 (1.139)   111    451923                     4.80-  64.80    35.00
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.403  25.403 (1.145)    91   1614430 9.98225    9.982  80.00- 120.00   100.00
 25.403  25.403 (1.145)   126    360496                     0.00-  52.64    22.33
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.695  25.694 (1.159)   146   1212840 9.57612    9.576  80.00- 120.00   100.00
 25.695  25.694 (1.159)   148    777483                    33.88-  93.88    64.10
 25.695  25.672 (1.159)   111    447694                     7.58-  67.58    36.91
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.398  27.398 (1.235)   180    782625 8.14388    8.144  80.00- 120.00   100.00
 27.398  27.398 (1.235)   182    769761                    63.70- 123.70    98.36
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                           CAS #: 87-68-3
 27.488  27.488 (1.239)   225   1213102 9.00028    9.000  80.00- 120.00   100.00
 27.488  27.488 (1.239)   223    759653                    34.33-  94.33    62.62
-------------------------------------------------------------------------------
  228 Naphthalene                                   CAS #: 91-20-3
 27.712  27.712 (1.250)   128    128559 0.97669   0.9767  80.00- 120.00   100.00
 27.712  27.712 (1.250)   127     15920                     0.00-  42.30    12.38
-------------------------------------------------------------------------------
M 239 Total Xylene                                  CAS #: 1330-20-7
                                1748719 21.3423   21.342
-------------------------------------------------------------------------------
```

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012625.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	178126	-2.01
123 1,4-Difluorobenze	598820	359292	838348	595003	-0.64
163 Chlorobenzene-d5	568188	340913	795463	548531	-3.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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: 30-Jan-2017 10:33

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 27Jan2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: sw
Data Type: MS DATA
SampleType: ICV
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	10.000	8.772	87.72	60-140
11 Freon 12	10.000	9.104	91.04	70-130
15 Freon 114	10.000	8.716	87.16	70-130
17 Chloromethane	10.000	8.923	89.23	70-130
23 Butane	10.000	9.724	97.24	60-140
25 Vinyl Chloride	10.000	8.606	86.06	70-130
26 1,3-Butadiene	10.000	8.706	87.06	70-130
29 Bromomethane	10.000	9.282	92.82	70-130
30 Chloroethane	10.000	9.020	90.20	70-130
31 Isopentane	10.000	9.295	92.95	60-140
35 Freon 11	10.000	9.125	91.25	70-130
42 Ethanol	11.500	7.649	66.51*	70-130
49 Freon 113	10.000	8.875	88.75	70-130
50 1,1-Dichloroethene	10.000	8.909	89.09	70-130
52 Acetone	10.000	8.717	87.17	70-130
56 Carbon Disulfide	10.000	9.091	90.91	70-130
57 2-Propanol	10.000	9.059	90.59	70-130
58 3-Chloropropene	10.000	9.162	91.62	70-130
66 Methylene Chloride	10.000	7.750	77.50	70-130
72 Methyl tert-butyl	10.000	9.401	94.01	70-130
73 trans-1,2-Dichloro	10.000	10.298	102.98	70-130
78 Hexane	10.000	9.777	97.77	70-130
82 1,1-Dichloroethane	10.000	9.253	92.53	70-130
86 Vinyl Acetate	10.000	8.649	86.49	60-140
91 cis-1,2-Dichloroet	10.000	8.205	82.05	70-130
92 2-Butanone	10.000	9.609	96.09	70-130
99 Tetrahydrofuran	10.000	9.556	95.56	70-130
100 Chloroform	10.000	8.835	88.35	70-130
103 1,1,1-Trichloroeth	10.000	8.995	89.95	70-130
106 Carbon Tetrachlori	10.000	8.963	89.63	70-130
102 Cyclohexane	10.000	9.551	95.51	70-130
113 2,2,4-Trimethylpen	10.000	9.337	93.37	70-130
116 Benzene	10.000	9.031	90.31	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	10.000	8.875	88.75	70-130
121 Heptane	10.000	10.396	103.96	70-130
125 Trichloroethene	10.000	9.704	97.04	70-130
127 Methylcyclohexane	10.000	10.369	103.69	60-140
132 1,2-Dichloropropan	10.000	9.389	93.89	70-130
136 1,4-Dioxane	10.000	9.366	93.66	70-130
138 Bromodichlorometha	10.000	9.632	96.33	70-130
144 cis-1,3-Dichloropr	10.000	10.273	102.73	70-130
145 4-Methyl-2-pentano	10.000	10.222	102.22	70-130
147 Toluene	10.000	9.534	95.34	70-130
150 trans-1,3-Dichloro	10.000	9.834	98.34	70-130
155 1,1,2-Trichloroeth	10.000	9.540	95.40	70-130
156 Tetrachloroethene	10.000	9.484	94.84	70-130
158 2-Hexanone	10.000	10.728	107.28	70-130
160 Dibromochlorometha	10.000	9.714	97.14	70-130
161 1,2-Dibromoethane	10.000	9.494	94.94	70-130
165 Chlorobenzene	10.000	9.596	95.96	70-130
167 Ethyl Benzene	10.000	10.331	103.31	70-130
169 m,p-Xylene	10.000	10.715	107.15	70-130
171 o-Xylene	10.000	10.627	106.27	70-130
172 Styrene	10.000	10.818	108.18	70-130
174 Bromoform	10.000	9.944	99.44	70-130
175 Cumene	10.000	10.636	106.36	70-130
181 1,1,2,2-Tetrachlor	10.000	8.801	88.01	70-130
182 Propylbenzene	10.000	10.204	102.04	70-130
188 4-Ethyltoluene	10.000	10.768	107.68	70-130
190 1,3,5-Trimethylben	10.000	10.015	100.15	70-130
196 1,2,4-Trimethylben	10.000	10.072	100.72	70-130
208 1,3-Dichlorobenzen	10.000	9.627	96.27	70-130
209 1,4-Dichlorobenzen	10.000	9.207	92.07	70-130
212 alpha-Chlorotoluen	10.000	9.982	99.82	70-130
214 1,2-Dichlorobenzen	10.000	9.576	95.76	70-130
226 1,2,4-Trichloroben	10.000	8.144	81.44	70-130
227 Hexachlorobutadien	10.000	9.000	90.00	70-130
228 Naphthalene	1.000	0.9767	97.67	60-140
M 239 Total Xylene	20.000	21.342	106.71	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.646	92.93	70-130
$ 146 Toluene-d8	5.000	5.126	102.53	70-130
$ 177 4-Bromofluorobenze	5.000	5.046	100.93	70-130

Data File: /chem/msde.i/26Jan2017.b/e012625.d

Date : 27-JAN-2017 11:09

Client ID: ICV

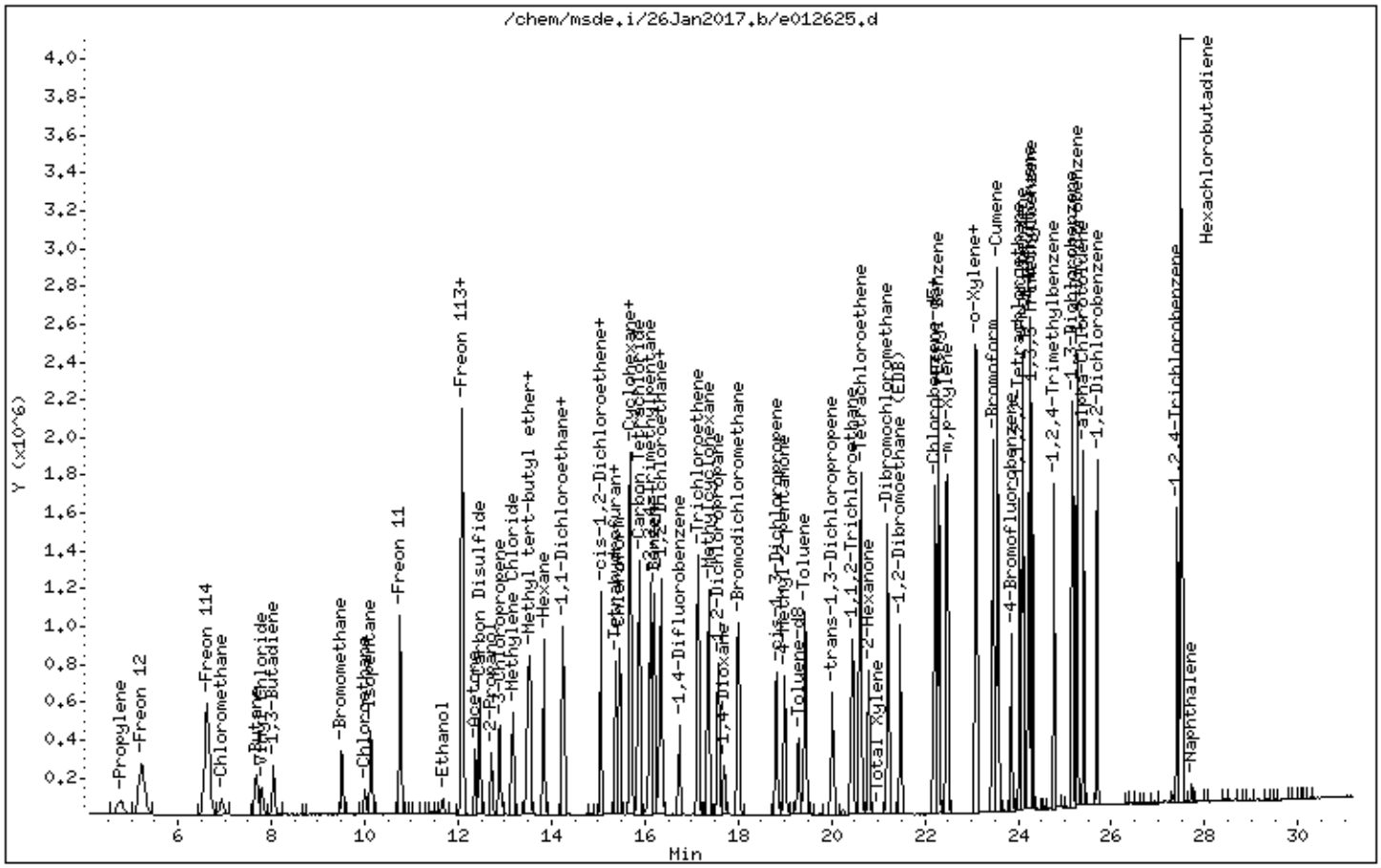
Instrument: msde.i

Sample Info: 50mL #2819-156

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012610.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 26-JAN-2017 14:02
Operator : sw Inst ID: msde.i
Smp Info : 250mL# 2819-239
Misc Info : 0.05ppbv (0.05ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:28 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 14:02 Cal File: e012610.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level5.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
25 Vinyl Chloride					CAS #: 75-01-4		
7.797	7.797 (0.507)	62	2280	0.05000	0.06467	80.00- 120.00	100.00(a)
7.797	7.797 (0.507)	64	1319			1.95- 61.95	57.85
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	7463	0.05000	0.04756	80.00- 120.00	100.00(a)
10.766	10.766 (0.700)	103	6825			33.74- 93.74	91.45
49 Freon 113					CAS #: 76-13-1		
12.100	12.100 (0.786)	151	5477	0.05000	0.05227	80.00- 120.00	100.00(a)
12.100	12.100 (0.786)	153	4077			34.83- 94.83	74.44
12.100	12.100 (0.786)	101	6381			77.16- 137.16	116.51
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	151511	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	119861			46.73- 106.73	79.11
15.391	15.391 (1.000)	49	127465			55.35- 115.35	84.13
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.669	15.669 (1.018)	97	8109	0.05000	0.06279	80.00- 120.00	100.00(a)

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

  103 1,1,1-Trichloroethane (continued)
 15.700  15.700 (1.020)    99      4532                    34.65-  94.65    55.89
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.885  15.885 (1.032)   119      7168 0.05000  0.05700  80.00- 120.00   100.00(a)
 15.885  15.885 (1.032)   117      6648                    74.11- 134.11    92.75
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    233364 5.00000    5.364  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    106748                    22.67-  82.67    45.74
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.304 (0.974)    62      4931 0.05000  0.06348  80.00- 120.00   100.00(a)
 16.328  16.328 (0.976)    64      2197                     1.95-  61.95    44.55
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    510653 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     73699                     0.00-  45.16    14.43
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130      3600 0.05000  0.05118  80.00- 120.00   100.00(a)
 17.147  17.147 (1.024)    95      3543                    61.87- 121.87    98.42
 17.123  17.123 (1.023)    97      2256                    29.29-  89.29    62.67
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 18.014  18.014 (1.076)    83      4643 0.05000  0.04242  80.00- 120.00   100.00(a)
 18.014  18.014 (1.076)    85      4408                    36.87-  96.87    94.94
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    493312 5.00000    4.980  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     59634                     0.00-  40.89    12.09
 19.298  19.298 (1.153)   100    323750                    40.09- 100.09    65.63
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                         CAS #: 79-00-5
 20.438  20.438 (0.922)    97      2350 0.05000  0.04205  80.00- 120.00   100.00(a)
 20.465  20.465 (0.923)    99      2160                    32.59-  92.59    91.91
 20.438  20.438 (0.922)    83      2515                    50.07- 110.07   107.02
-------------------------------------------------------------------------------
  156 Tetrachloroethene                             CAS #: 127-18-4
 20.603  20.603 (0.929)   166      4870 0.05000  0.04470  80.00- 120.00   100.00(a)
 20.630  20.630 (0.930)   129      2396                    37.12-  97.12    49.20
 20.630  20.630 (0.930)   131      4840                    36.18-  96.18    99.38
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 21.207  21.207 (0.956)   129      6403 0.05000  0.04797  80.00- 120.00   100.00(a)
 21.207  21.207 (0.956)   127      6409                    46.76- 106.76   100.09
-------------------------------------------------------------------------------
```

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

  161 1,2-Dibromoethane (EDB)                          CAS #: 106-93-4
 21.482  21.482 (0.969)   107      5516 0.05000  0.05541  80.00- 120.00   100.00(a)
 21.482  21.482 (0.969)   109      5966                   63.39- 123.39   108.16
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                 CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    494732 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    234016                   17.27-  77.27    47.30
-------------------------------------------------------------------------------
  174 Bromoform                                        CAS #: 75-25-2
 23.452  23.452 (1.057)   173      7119 0.05000  0.05145  80.00- 120.00   100.00(a)
 23.452  23.452 (1.057)   171      3210                   21.47-  81.47    45.09
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                             CAS #: 460-00-4
 23.856  23.856 (1.076)   174    329501 5.00000    4.768  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    315834                   66.74- 126.74    95.85
 23.856  23.856 (1.076)   176    322046                   67.47- 127.47    97.74
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                        CAS #: 79-34-5
 24.035  24.035 (1.084)    83      6384 0.05000  0.06577  80.00- 120.00   100.00(a)
 24.035  24.035 (1.084)    85      4482                   39.76-  99.76    70.21
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                   CAS #: 622-96-8
 24.237  24.237 (1.093)   105      7639 0.05000  0.04152  80.00- 120.00   100.00(a)
 24.237  24.237 (1.093)   120      3633                    1.00-  61.00    47.56
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                           CAS #: 108-67-8
 24.304  24.304 (1.096)   105      6132 0.05000  0.04496  80.00- 120.00   100.00(a)
 24.304  24.304 (1.096)   120      4321                   19.17-  79.17    70.47
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                           CAS #: 95-63-6
 24.775  24.775 (1.117)   105      6170 0.05000  0.05390  80.00- 120.00   100.00(a)
 24.775  24.775 (1.117)   120      3018                   16.84-  76.84    48.91
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                              CAS #: 541-73-1
 25.157  25.157 (1.134)   146      6074 0.05000  0.04989  80.00- 120.00   100.00(a)
 25.157  25.157 (1.134)   148      4000                   33.96-  93.96    65.85
 25.157  25.157 (1.134)   111      1928                    6.94-  66.94    31.74
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                              CAS #: 106-46-7
 25.269  25.269 (1.139)   146      7482 0.05000  0.05916  80.00- 120.00   100.00(a)
 25.269  25.269 (1.139)   148      5111                   35.10-  95.10    68.31
 25.269  25.269 (1.139)   111      2224                    4.80-  64.80    29.72
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                              CAS #: 95-50-1
 25.695  25.695 (1.159)   146      5681 0.05000  0.04973  80.00- 120.00   100.00(a)
 25.672  25.672 (1.158)   148      5406                   33.88-  93.88    95.16
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
25.672	25.672 (1.158)	111	1975			7.58- 67.58	34.77
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	5158	0.05000	0.05951	80.00- 120.00	100.00(a)
27.398	27.398 (1.235)	182	5665			63.70- 123.70	109.83

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: msde.i
Lab File ID: e012610.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	151511	-16.66
123 1,4-Difluorobenze	598820	359292	838348	510653	-14.72
163 Chlorobenzene-d5	568188	340913	795463	494732	-12.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012610.d

Date : 26-JAN-2017 14:02

Client ID: Level 5

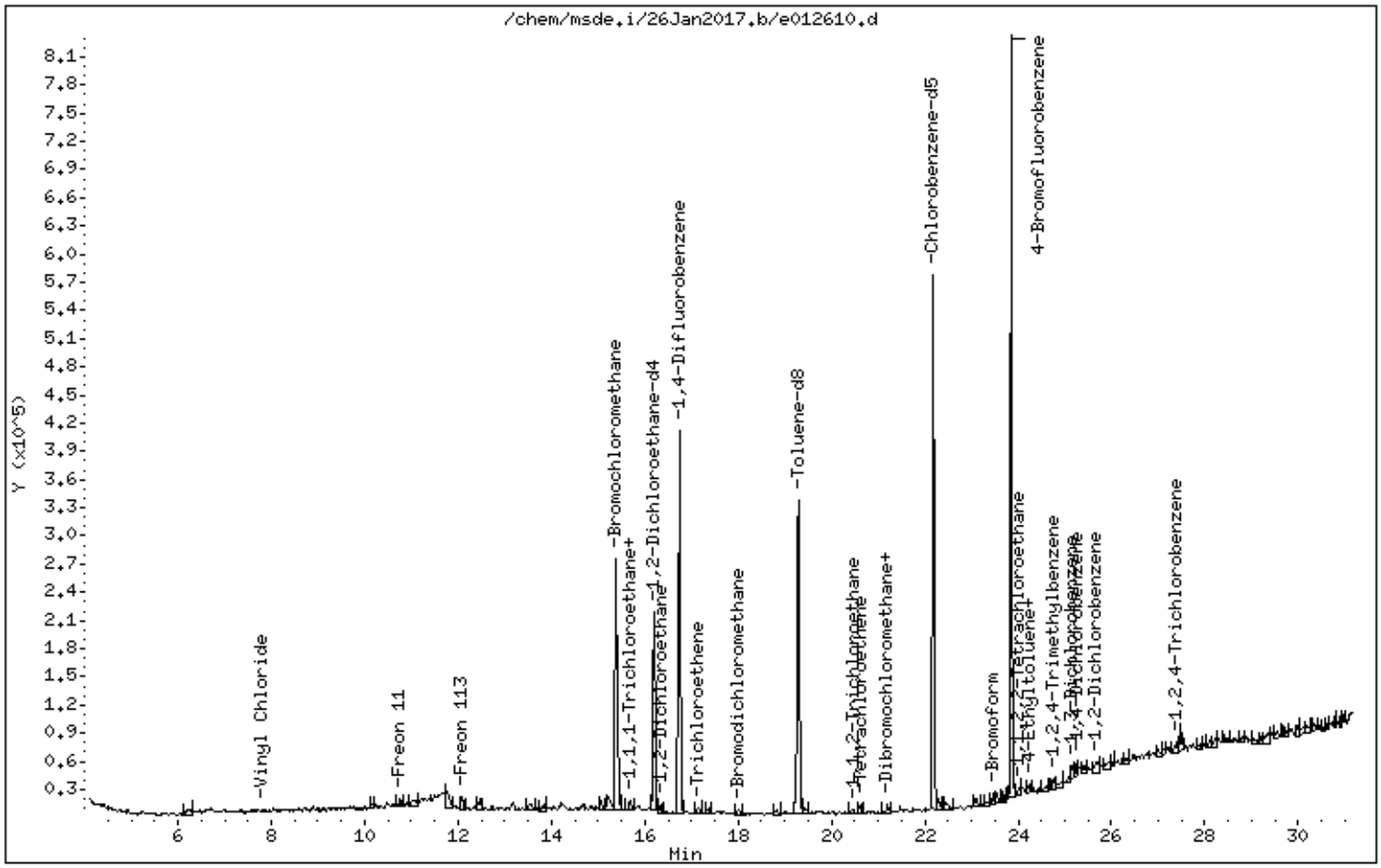
Instrument: msde.i

Sample Info: 250mL# 2819-239

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012624.d
Lab Smp Id: Level 6
Inj Date : 27-JAN-2017 09:14
Operator : sw Inst ID: msde.i
Smp Info : 25mL# 2819-240
Misc Info : 0.10ppbv(1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:28 efinn Quant Type: ISTD
Cal Date : 27-JAN-2017 09:14 Cal File: e012624.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level6.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
11 Freon 12					CAS #: 75-71-8		
5.196	5.196 (0.338)	85	15119	0.10000	0.1121	80.00- 120.00	100.00(a)
5.196	5.196 (0.338)	87	2338			1.91- 61.91	15.46
15 Freon 114					CAS #: 76-14-2		
6.643	6.643 (0.432)	135	12466	0.10000	0.1204	80.00- 120.00	100.00(a)
6.643	6.643 (0.432)	137	2695			0.98- 60.98	21.62
6.643	6.643 (0.432)	85	16106			86.82- 146.82	129.20
25 Vinyl Chloride					CAS #: 75-01-4		
7.814	7.814 (0.508)	62	4192	0.10000	0.1186	80.00- 120.00	100.00(a)
7.831	7.831 (0.509)	64	950			1.95- 61.95	22.66
26 1,3-Butadiene					CAS #: 106-99-0		
8.057	8.057 (0.523)	54	2664	0.10000	0.1090	80.00- 120.00	100.00(a)
8.057	8.057 (0.523)	39	3597			76.10- 136.10	135.02
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	19507	0.10000	0.1240	80.00- 120.00	100.00(a)
10.766	10.766 (0.700)	103	14790			33.74- 93.74	75.82

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

   49 Freon 113                                     CAS #: 76-13-1
 12.081  12.081 (0.785)   151     12016 0.10000   0.1144  80.00- 120.00   100.00(a)
 12.100  12.100 (0.786)   153      7247                   34.83-  94.83    60.31
 12.081  12.081 (0.785)   101     12195                   77.16- 137.16   101.49
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                            CAS #: 75-35-4
 12.119  12.119 (0.787)    98      2810 0.10000   0.1001  80.00- 120.00   100.00(a)
 12.100  12.100 (0.786)    61      8876                  219.47- 279.47   315.87
 12.100  12.100 (0.786)    96      7461                  126.81- 186.81   265.52
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 13.176  13.176 (0.856)    84      5841 0.10000   0.1384  80.00- 120.00   100.00(a)
 13.176  13.176 (0.856)    49      4528                   83.76- 143.76    77.52
 13.149  13.149 (0.854)    51      1947                    2.61-  62.61    33.33
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                       CAS #: 1634-04-4
 13.506  13.506 (0.878)    73     12880 0.10000   0.1055  80.00- 120.00   100.00(a)
 13.506  13.506 (0.878)    57      3315                    0.00-  49.77    25.74
 13.506  13.506 (0.878)    41      3783                    0.00-  49.98    29.37
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 13.561  13.561 (0.881)    98      2601 0.10000  0.09770  80.00- 120.00   100.00(a)
 13.561  13.561 (0.881)    61      6171                  174.76- 234.76   237.25
 13.561  13.561 (0.881)    96      3989                  123.28- 183.28   153.36
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 13.835  13.835 (0.899)    57      5001 0.10000  0.09952  80.00- 120.00   100.00(a)
 13.835  13.835 (0.899)    43      4568                   27.83-  87.83    91.34
 13.835  13.835 (0.899)    86       886                    0.00-  50.45    17.72
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
 14.247  14.247 (0.926)    63      6791 0.10000  0.09265  80.00- 120.00   100.00(a)
 14.247  14.247 (0.926)    65      2614                    1.87-  61.87    38.49
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.066  15.066 (0.979)    98      3495 0.10000   0.1081  80.00- 120.00   100.00(a)
 15.066  15.066 (0.979)    61      5911                  154.54- 214.54   169.13
 15.066  15.066 (0.979)    96      6343                  117.78- 177.78   181.49
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    151907 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    110825                   46.73- 106.73    72.96
 15.391  15.391 (1.000)    49    131004                   55.35- 115.35    86.24
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.453  15.453 (1.004)    83     13149 0.10000   0.1194  80.00- 120.00   100.00(a)
```

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

  100 Chloroform (continued)
 15.453  15.453 (1.004)    85      8027                    36.62-  96.62    61.05
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.700  15.700 (1.020)    84      5646 0.10000   0.1070  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56      4211                   68.83- 128.83    74.58
 15.700  15.700 (1.020)    41      5019                   29.98-  89.98    88.89
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.700  15.700 (1.020)    97     12566 0.10000  0.09704  80.00- 120.00   100.00(a)
 15.700  15.700 (1.020)    99      9806                   34.65-  94.65    78.04
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 15.884  15.884 (1.032)   119     14443 0.10000   0.1146  80.00- 120.00   100.00(a)
 15.884  15.884 (1.032)   117     12950                   74.11- 134.11    89.66
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 16.111  16.111 (1.047)    56      6091 0.10000  0.08616  80.00- 120.00   100.00(a)
 16.111  16.111 (1.047)    57     21609                  277.67- 337.67   354.77
 16.111  16.111 (1.047)    41      5808                   73.43- 133.43    95.35
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 16.207  16.207 (0.968)    78     15718 0.10000   0.1230  80.00- 120.00   100.00(a)
 16.207  16.207 (0.968)    77      5498                    0.00-  53.00    34.98
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    216821 5.00000    4.970  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    101394                   22.67-  82.67    46.76
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 16.303  16.303 (0.974)    62      9193 0.10000   0.1168  80.00- 120.00   100.00
 16.303  16.303 (0.974)    64      3522                    1.95-  61.95    38.31
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 16.352  16.352 (0.977)    57      3684 0.10000   0.1139  80.00- 120.00   100.00(a)
 16.352  16.352 (0.977)   100      2879                   23.08-  83.08    78.15
 16.352  16.352 (0.977)    43      4813                  136.91- 196.91   130.65
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.737  16.737 (1.000)   114    517534 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     74428                    0.00-  45.16    14.38
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 17.147  17.147 (1.024)   130      7923 0.10000   0.1111  80.00- 120.00   100.00(a)
 17.147  17.147 (1.024)    95      7866                   61.87- 121.87    99.28
 17.147  17.147 (1.024)    97      5494                   29.29-  89.29    69.34
-------------------------------------------------------------------------------
```

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

  132 1,2-Dichloropropane                          CAS #: 78-87-5
 17.580  17.580 (1.050)    63      4372 0.10000   0.1089  80.00- 120.00   100.00(a)
 17.605  17.605 (1.052)    62      2564                   41.22- 101.22    58.65
 17.580  17.580 (1.050)    41      4411                   40.14- 100.14   100.89
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.725  17.725 (1.059)    88      3602 0.10000   0.1166  80.00- 120.00   100.00(a)
 17.701  17.701 (1.058)    58      2379                   30.17-  90.17    66.05
 17.725  17.725 (1.059)    57       584                    0.00-  51.30    16.21
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.014  18.014 (1.076)    83     13557 0.10000   0.1222  80.00- 120.00   100.00(a)
 17.990  17.990 (1.075)    85      9007                   36.87-  96.87    66.44
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.827  18.827 (1.125)    75      7211 0.10000   0.1054  80.00- 120.00   100.00(a)
 18.850  18.850 (1.126)    77      2403                    1.38-  61.38    33.32
 18.805  18.805 (1.124)    39      4555                   23.65-  83.65    63.17
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.029  19.029 (1.137)    43      8401 0.10000   0.1105  80.00- 120.00   100.00(a)
 19.007  19.007 (1.136)    58      3693                   10.02-  70.02    43.96
 19.007  19.007 (1.136)    85      1675                    0.00-  52.01    19.94
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    485129 5.00000    4.832  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     53976                    0.00-  40.89    11.13
 19.298  19.298 (1.153)   100    320417                   40.09- 100.09    66.05
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91     16070 0.10000   0.1040  80.00- 120.00   100.00(a)
 19.432  19.432 (1.161)    92      9398                   27.79-  87.79    58.48
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75      7688 0.10000   0.1076  80.00- 120.00   100.00(a)
 20.026  20.026 (0.903)    77      3545                    1.55-  61.55    46.11
 20.026  20.026 (0.903)    39      4812                   18.82-  78.82    62.59
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.465  20.465 (0.923)    97      6321 0.10000   0.1154  80.00- 120.00   100.00(a)
 20.438  20.438 (0.922)    99      4688                   32.59-  92.59    74.17
 20.438  20.438 (0.922)    83      5367                   50.07- 110.07    84.91
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166     12279 0.10000   0.1150  80.00- 120.00   100.00(a)
 20.630  20.630 (0.930)   129      7883                   37.12-  97.12    64.20
```

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

  156 Tetrachloroethene (continued)
 20.630  20.630 (0.930)   131      8852                    36.18-  96.18    72.09
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 21.207  21.207 (0.956)   129     14484 0.10000   0.1107  80.00- 120.00   100.00(a)
 21.207  21.207 (0.956)   127     12540                   46.76- 106.76    86.58
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 21.482  21.482 (0.969)   107     10899 0.10000   0.1117  80.00- 120.00   100.00(a)
 21.482  21.482 (0.969)   109     10741                   63.39- 123.39    98.55
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    484941 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    230169                   17.27-  77.27    47.46
-------------------------------------------------------------------------------
  165 Chlorobenzene                                 CAS #: 108-90-7
 22.219  22.219 (1.002)   112     14465 0.10000   0.1074  80.00- 120.00   100.00(a)
 22.219  22.219 (1.002)   114      6081                    2.22-  62.22    42.04
 22.219  22.219 (1.002)    77     14610                   23.48-  83.48   101.00
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 22.302  22.302 (1.006)   106      5120 0.10000  0.08060  80.00- 120.00   100.00(a)
 22.302  22.302 (1.006)    91     21021                  278.11- 338.11   410.57
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 22.467  22.467 (1.013)   106      7317 0.10000  0.09732  80.00- 120.00   100.00(a)
 22.488  22.488 (1.014)    91     13298                  170.01- 230.01   181.74
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 23.089  23.089 (1.041)   106      6208 0.10000  0.08910  80.00- 120.00   100.00(a)
 23.089  23.089 (1.041)    91     15314                  175.84- 235.84   246.68
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 23.131  23.131 (1.043)   104     10322 0.10000  0.08881  80.00- 120.00   100.00(a)
 23.131  23.131 (1.043)    78      4707                   20.21-  80.21    45.60
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 23.452  23.452 (1.057)   173     13410 0.10000  0.09887  80.00- 120.00   100.00(a)
 23.452  23.452 (1.057)   171      7377                   21.47-  81.47    55.01
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
 23.564  23.564 (1.063)   105     20971 0.10000  0.09596  80.00- 120.00   100.00(a)
 23.564  23.564 (1.063)   120      5305                    0.00-  56.99    25.30
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 23.856  23.856 (1.076)   174    329914 5.00000    4.870  80.00- 120.00   100.00
```

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

$ 177 4-Bromofluorobenzene (continued)
 23.856  23.856 (1.076)    95    311305                    66.74- 126.74    94.36
 23.856  23.856 (1.076)   176    316437                    67.47- 127.47    95.91
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.035  24.035 (1.084)    83     10144 0.10000   0.1066  80.00- 120.00   100.00(a)
 24.035  24.035 (1.084)    85      7083                    39.76-  99.76    69.82
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.102  24.102 (1.087)    91     23044 0.10000   0.1059  80.00- 120.00   100.00(a)
 24.102  24.102 (1.087)   120      5834                     0.00-  55.73    25.32
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.237  24.237 (1.093)   105     19898 0.10000   0.1103  80.00- 120.00   100.00(a)
 24.237  24.237 (1.093)   120      4926                     1.00-  61.00    24.76
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.304  24.304 (1.096)   105     12294 0.10000  0.09195  80.00- 120.00   100.00(a)
 24.304  24.304 (1.096)   120      6661                    19.17-  79.17    54.18
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 24.775  24.775 (1.117)   105     12148 0.10000   0.1083  80.00- 120.00   100.00(a)
 24.775  24.775 (1.117)   120      5792                    16.84-  76.84    47.68
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 25.156  25.156 (1.134)   146     13328 0.10000   0.1117  80.00- 120.00   100.00(a)
 25.156  25.156 (1.134)   148      8392                    33.96-  93.96    62.97
 25.156  25.156 (1.134)   111      4605                     6.94-  66.94    34.55
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 25.269  25.269 (1.139)   146     14366 0.10000   0.1159  80.00- 120.00   100.00(a)
 25.269  25.269 (1.139)   148      8379                    35.10-  95.10    58.33
 25.269  25.269 (1.139)   111      4472                     4.80-  64.80    31.13
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 25.403  25.403 (1.145)    91     14622 0.10000   0.1023  80.00- 120.00   100.00(a)
 25.403  25.403 (1.145)   126      4768                     0.00-  52.64    32.61
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 25.694  25.694 (1.159)   146     11946 0.10000   0.1067  80.00- 120.00   100.00(a)
 25.694  25.694 (1.159)   148      9140                    33.88-  93.88    76.51
 25.694  25.694 (1.159)   111      3810                     7.58-  67.58    31.89
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 27.398  27.398 (1.235)   180      9648 0.10000   0.1136  80.00- 120.00   100.00(a)
 27.398  27.398 (1.235)   182     11832                    63.70- 123.70   122.64
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
227 Hexachlorobutadiene						CAS #: 87-68-3		
27.488	27.488	(1.239)	225	13035	0.10000	0.1094	80.00- 120.00	100.00(a)
27.488	27.488	(1.239)	223	9731			34.33- 94.33	74.65

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: msde.i
Lab File ID: e012624.d
Lab Smp Id: Level 6
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 0.10ppbv(1.0ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	151907	-16.44
123 1,4-Difluorobenze	598820	359292	838348	517534	-13.57
163 Chlorobenzene-d5	568188	340913	795463	484941	-14.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012624.d

Date : 27-JAN-2017 09:14

Client ID:

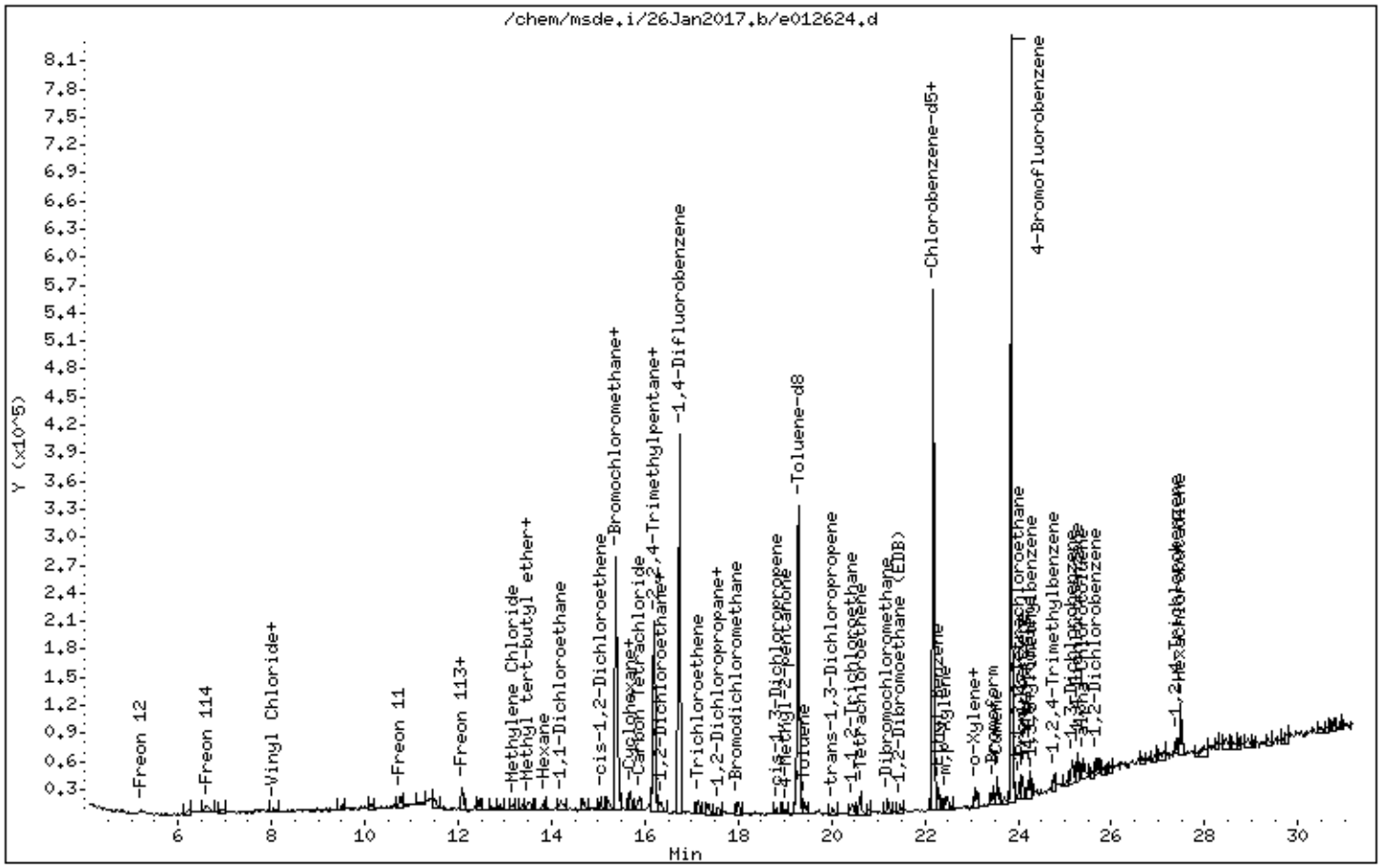
Instrument: msde.i

Sample Info: 25mL# 2819-240

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/27Jan2017.b/e012705.d
Lab Smp Id: Level 7
Inj Date : 27-JAN-2017 16:20
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2819-242
Misc Info : 0.5ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/27Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:45 efinn Quant Type: ISTD
Cal Date : 27-JAN-2017 16:20 Cal File: e012705.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.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
36 1-Pentene					CAS #: 109-67-1		
10.842	10.842 (0.704)	55	14022	0.50000	0.5836	0.00- 0.00	100.00
10.842	10.842 (0.704)	42	16235			0.00- 0.00	115.78
34 Pentane					CAS #: 109-66-0		
10.976	10.976 (0.713)	43	6990	0.50000	0.6136	0.00- 0.00	100.00
10.995	10.995 (0.714)	57	743			0.00- 0.00	10.63
10.976	10.976 (0.713)	72	1317			0.00- 0.00	18.84
44 Ethyl Ether					CAS #: 60-29-7		
11.642	11.642 (0.756)	74	9202	0.50000	0.5814	0.00- 0.00	100.00(T)
11.642	11.642 (0.756)	59	13410			0.00- 0.00	145.73
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.423	12.423 (0.807)	142	49871	0.50000	0.5470	0.00- 0.00	100.00
12.423	12.423 (0.807)	127	27611			0.00- 0.00	55.36
59 Cyclopentene					CAS #: 142-29-0		
12.919	12.919 (0.839)	67	36449	0.50000	0.5632	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
59 Cyclopentene (continued)							
12.919	12.919 (0.839)	68	14898			0.00- 0.00	40.87
12.919	12.919 (0.839)	53	6414			0.00- 0.00	17.60
64 Cyclopentane					CAS #: 287-92-3		
13.094	13.094 (0.851)	70	9250	0.50000	0.5208	0.00- 0.00	100.00
13.094	13.094 (0.851)	55	12100			0.00- 0.00	130.81
74 Acrylonitrile					CAS #: 107-13-1		
13.671	13.671 (0.888)	53	11393	0.50000	0.5230	0.00- 0.00	100.00
13.671	13.671 (0.888)	52	11062			0.00- 0.00	97.09
76 1-Hexene					CAS #: 592-41-6		
13.725	13.725 (0.892)	55	8941	0.50000	0.4822	0.00- 0.00	100.00(a)
13.725	13.725 (0.892)	41	15029			0.00- 0.00	168.09
13.753	13.753 (0.894)	84	5544			0.00- 0.00	62.01
84 1-Propanol					CAS #: 71-23-8		
14.384	14.384 (0.935)	59	3391	0.50000	0.4437	80.00- 120.00	100.00(a)
14.384	14.384 (0.935)	42	4205			0.00- 0.00	124.00
14.384	14.384 (0.935)	41	2699			0.00- 0.00	79.59
90 2,2-Dichloropropane					CAS #: 594-20-7		
15.008	15.008 (0.975)	77	45595	0.50000	0.5430	80.00- 120.00	100.00
15.028	15.028 (0.976)	79	16147			0.00- 0.00	35.41
15.008	15.008 (0.975)	97	8709			0.00- 0.00	19.10
93 Methyl Acrylate					CAS #: 96-33-3		
15.142	15.142 (0.984)	55	30558	0.50000	0.5242	0.00- 0.00	100.00
15.142	15.142 (0.984)	85	5405			0.00- 0.00	17.69
15.142	15.142 (0.984)	58	3240			0.00- 0.00	10.60
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	141477	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	107860			46.73- 106.73	76.24
15.391	15.391 (1.000)	49	116072			55.35- 115.35	82.04
107 1,1-Dichloropropene					CAS #: 563-58-6		
15.915	15.915 (1.034)	110	12936	0.50000	0.5705	80.00- 120.00	100.00
15.915	15.915 (1.034)	75	28560			0.00- 0.00	220.78
115 Isobutanol					CAS #: 78-83-1		
15.977	15.977 (1.038)	43	10870	0.50000	0.4922	80.00- 120.00	100.00(Ta)
15.977	15.977 (1.038)	41	11451			0.00- 0.00	105.34
0.000	1.000 (0.000)	55	0			0.00- 0.00	0.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	476083	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	67410			0.00- 45.16	14.16
124 n-Butanol						CAS #: 71-36-3	
16.906	16.906 (1.010)	56	21173	0.50000	0.5421	80.00- 120.00	100.00
16.906	16.906 (1.010)	41	13677			0.00- 0.00	64.60
16.906	16.906 (1.010)	43	13249			0.00- 0.00	62.57
128 Ethyl acrylate						CAS #: 140-88-5	
17.195	17.195 (1.027)	99	3537	0.50000	0.5802	0.00- 0.00	100.00
17.195	17.195 (1.027)	45	3079			0.00- 0.00	87.05
17.195	17.195 (1.027)	55	30244			0.00- 0.00	855.07
131 2-Pentanone						CAS #: 107-87-9	
17.388	17.388 (1.039)	43	41803	0.50000	0.5354	0.00- 0.00	100.00
17.388	17.388 (1.039)	58	4189			0.00- 0.00	10.02
17.388	17.388 (1.039)	86	10684			0.00- 0.00	25.56
134 Methyl Methacrylate						CAS #: 80-62-6	
17.556	17.556 (1.049)	41	21872	0.50000	0.5512	0.00- 0.00	100.00
17.556	17.556 (1.049)	69	18310			0.00- 0.00	83.71
17.556	17.556 (1.049)	100	7760			0.00- 0.00	35.48
137 Dibromomethane						CAS #: 74-95-3	
17.821	17.821 (1.065)	174	39082	0.50000	0.5672	0.00- 0.00	100.00
17.821	17.821 (1.065)	93	29266			0.00- 0.00	74.88
17.797	17.797 (1.063)	95	24874			0.00- 0.00	63.65
148 Octane						CAS #: 111-65-9	
19.343	19.343 (1.156)	57	12623	0.50000	0.5825	0.00- 0.00	100.00
19.343	19.343 (1.156)	85	15742			0.00- 0.00	124.71
19.343	19.343 (1.156)	43	26120			0.00- 0.00	206.92
157 1,3-Dichloropropane						CAS #: 142-28-9	
20.822	20.822 (0.939)	76	32697	0.50000	0.5632	80.00- 120.00	100.00
20.822	20.822 (0.939)	41	20751			0.00- 0.00	63.46
20.822	20.822 (0.939)	78	14003			0.00- 0.00	42.83
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	445885	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	216685			17.27- 77.27	48.60
168 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6	
22.343	22.343 (1.007)	131	44577	0.50000	0.5476	80.00- 120.00	100.00
22.343	22.343 (1.007)	117	27432			0.00- 0.00	61.54

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

  168 1,1,1,2-Tetrachloroethane (continued)
 22.343  22.343 (1.007)    95     17402                     0.00-   0.00    39.04
-------------------------------------------------------------------------------
  170 Nonane                                        CAS #: 111-84-2
 22.301  22.301 (1.006)    43     20078 0.50000   0.4804   0.00-   0.00   100.00(a)
 22.301  22.301 (1.006)    57     19018                     0.00-   0.00    94.72
 22.301  22.301 (1.006)    85      8512                     0.00-   0.00    42.39
-------------------------------------------------------------------------------
  173 2-Heptanone                                   CAS #: 110-43-0
 23.214  23.214 (1.047)    58     15048 0.50000   0.4156  80.00- 120.00   100.00(a)
 23.214  23.214 (1.047)    43     28547                     0.00-   0.00   189.71
-------------------------------------------------------------------------------
  176 Cyclohexanone                                 CAS #: 108-94-1
 23.811  23.811 (1.074)    55     18428 0.50000   0.5559  80.00- 120.00   100.00
 23.811  23.811 (1.074)    98      8895                     0.00-   0.00    48.27
 23.811  23.811 (1.074)    42     14024                     0.00-   0.00    76.10
-------------------------------------------------------------------------------
  180 Bromobenzene                                  CAS #: 108-86-1
 24.080  24.080 (1.086)   156     46601 0.50000   0.5854  80.00- 120.00   100.00
 24.080  24.080 (1.086)   158     41067                     0.00-   0.00    88.12
 24.080  24.080 (1.086)    77     54541                     0.00-   0.00   117.04
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                        CAS #: 96-18-4
 24.125  24.125 (1.088)   110     18554 0.50000   0.5824  80.00- 120.00   100.00
 24.125  24.125 (1.088)    75     51587                     0.00-   0.00   278.04
 24.125  24.125 (1.088)    61     11307                     0.00-   0.00    60.94
-------------------------------------------------------------------------------
  187 Decane                                        CAS #: 124-18-5
 24.170  24.170 (1.090)    57     15931 0.50000   0.4854   0.00-   0.00   100.00(Ta)
  0.000   1.000 (0.000)    71         0                     0.00-   0.00     0.00
 24.439  24.439 (1.102)   142      5300                     0.00-   0.00    33.27
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                               CAS #: 95-49-8
 24.282  24.282 (1.095)   126     27846 0.50000   0.5649  80.00- 120.00   100.00
 24.282  24.282 (1.095)    91     68062                     0.00-   0.00   244.42
 24.282  24.282 (1.095)    65      5703                     0.00-   0.00    20.48
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                               CAS #: 106-43-4
 24.416  24.416 (1.101)   126     23939 0.50000   0.5271  80.00- 120.00   100.00
 24.416  24.416 (1.101)    91     57603                     0.00-   0.00   240.62
 24.416  24.416 (1.101)    63      8984                     0.00-   0.00    37.53
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                             CAS #: 98-06-6
 24.708  24.708 (1.114)   119     72486 0.50000   0.5428  80.00- 120.00   100.00
 24.685  24.685 (1.113)   134     15883                     0.00-   0.00    21.91
 24.708  24.708 (1.114)    91     41973                     0.00-   0.00    57.90
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
197 Pentachloroethane					CAS #: 76-01-7		
24.798	24.798 (1.118)	167	41037	0.50000	0.5319	80.00- 120.00	100.00
24.798	24.798 (1.118)	117	35016			0.00- 0.00	85.33
24.798	24.798 (1.118)	169	15924			0.00- 0.00	38.80
203 sec-Butylbenzene					CAS #: 135-98-8		
24.955	24.955 (1.125)	105	130249	0.50000	0.5263	80.00- 120.00	100.00
24.955	24.955 (1.125)	134	30822			0.00- 0.00	23.66
24.955	24.955 (1.125)	91	13599			0.00- 0.00	10.44
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4		
25.044	25.044 (1.129)	93	36877	0.50000	0.5123	0.00- 0.00	100.00
25.044	25.044 (1.129)	95	11106			0.00- 0.00	30.12
25.044	25.044 (1.129)	63	23966			0.00- 0.00	64.99
207 p-Cymene					CAS #: 99-87-6		
25.089	25.089 (1.131)	119	74853	0.50000	0.4970	80.00- 120.00	100.00(a)
25.089	25.089 (1.131)	134	22298			0.00- 0.00	29.79
25.089	25.089 (1.131)	91	19749			0.00- 0.00	26.38
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.268	25.268 (1.139)	120	23861	0.50000	0.5228	80.00- 120.00	100.00
25.268	25.268 (1.139)	105	50952			0.00- 0.00	213.54
25.268	25.268 (1.139)	77	8885			0.00- 0.00	37.24
213 Butylbenzene					CAS #: 104-51-8		
25.537	25.537 (1.152)	134	18442	0.50000	0.4989	80.00- 120.00	100.00(a)
25.537	25.537 (1.152)	91	62617			0.00- 0.00	339.53
25.537	25.537 (1.152)	92	31844			0.00- 0.00	172.67
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	12482	0.50000	0.5387	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	11311			0.00- 0.00	90.62
25.515	25.515 (1.151)	85	5268			0.00- 0.00	42.20
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	32601	0.50000	0.5465	80.00- 120.00	100.00
26.546	26.546 (1.197)	75	22938			0.00- 0.00	70.36
26.546	26.546 (1.197)	155	25497			0.00- 0.00	78.21
225 Dodecane					CAS #: 112-40-3		
26.613	26.613 (1.200)	85	6209	0.50000	0.7164	0.00- 0.00	100.00
26.613	26.613 (1.200)	57	13821			0.00- 0.00	222.60
26.613	26.613 (1.200)	43	11525			0.00- 0.00	185.62

QC Flag Legend

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

Report Date: 30-Jan-2017 10:45

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012705.d
Lab Smp Id: Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/27Jan2017.b/e17l0126a.m
Misc Info: 0.5ppbv (5.0ppbv) Combo

Calibration Date: 27-JAN-2017
Calibration Time: 12:13

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	170744	102446	239042	141477	-17.14
123 1,4-Difluorobenze	602830	361698	843962	476083	-21.03
163 Chlorobenzene-d5	541524	324914	758134	445885	-17.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/27Jan2017.b/e012705.d

Date : 27-JAN-2017 16:20

Client ID:

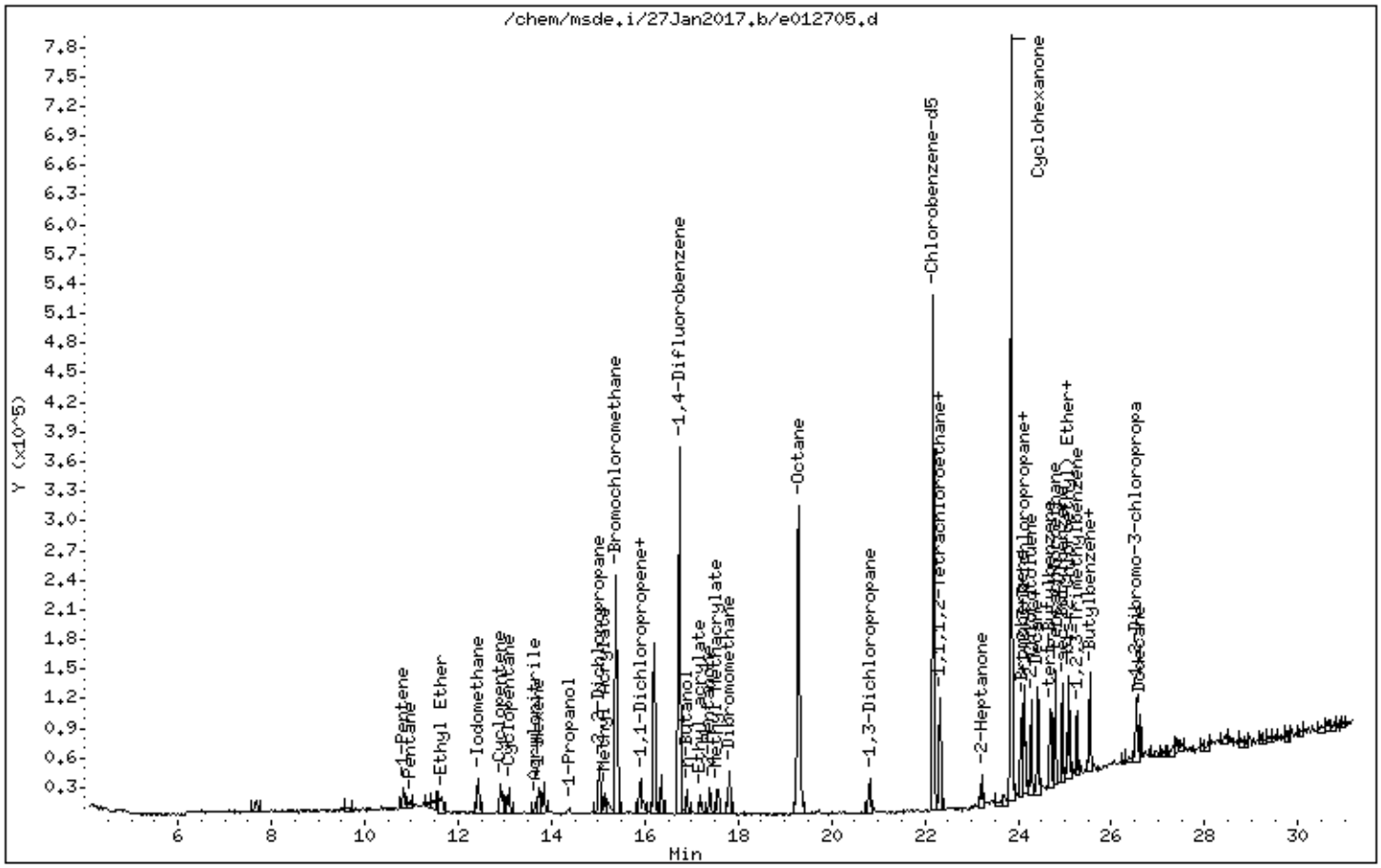
Instrument: msde.i

Sample Info: 50mL# 2819-242

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012612.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 26-JAN-2017 15:22
Operator : sw Inst ID: msde.i
Smp Info : 125mL# 2819-240
Misc Info : 0.50ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:28 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 15:22 Cal File: e012612.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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
11 Freon 12					CAS #: 75-71-8		
5.245	5.245 (0.341)	85	69301	0.50000	0.5192	80.00- 120.00	100.00
5.221	5.221 (0.339)	87	22771			1.91- 61.91	32.86
15 Freon 114					CAS #: 76-14-2		
6.643	6.643 (0.432)	135	58028	0.50000	0.5664	80.00- 120.00	100.00
6.619	6.619 (0.430)	137	9744			0.98- 60.98	16.79
6.643	6.643 (0.432)	85	63193			86.82- 146.82	108.90
17 Chloromethane					CAS #: 74-87-3		
6.956	6.956 (0.452)	50	14995	0.50000	0.6023	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	5504			3.31- 63.31	36.71
23 Butane					CAS #: 106-97-8		
7.693	7.693 (0.500)	58	3373	0.50000	0.5581	80.00- 120.00	100.00
7.693	7.693 (0.500)	43	24356			667.48- 727.48	722.09
25 Vinyl Chloride					CAS #: 75-01-4		
7.814	7.814 (0.508)	62	16334	0.50000	0.4669	80.00- 120.00	100.00
7.832	7.832 (0.509)	64	6649			1.95- 61.95	40.71

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
26 1,3-Butadiene					CAS #: 106-99-0		
8.075	8.075 (0.525)	54	13164	0.50000	0.5442	80.00- 120.00	100.00
8.057	8.057 (0.523)	39	14030			76.10- 136.10	106.58
29 Bromomethane					CAS #: 74-83-9		
9.529	9.529 (0.619)	94	19975	0.50000	0.5459	80.00- 120.00	100.00
9.529	9.529 (0.619)	96	20440			64.26- 124.26	102.33
30 Chloroethane					CAS #: 75-00-3		
10.005	10.005 (0.650)	64	10299	0.50000	0.5694	80.00- 120.00	100.00
10.005	10.005 (0.650)	49	3520			0.00- 57.48	34.18
10.005	10.005 (0.650)	66	3630			1.33- 61.33	35.25
31 Isopentane					CAS #: 78-78-4		
10.157	10.157 (0.660)	57	15786	0.50000	0.6043	80.00- 120.00	100.00
10.157	10.157 (0.660)	43	18391			96.48- 156.48	116.50
10.138	10.138 (0.659)	42	15433			76.93- 136.93	97.76
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	81211	0.50000	0.5215	80.00- 120.00	100.00
10.786	10.786 (0.701)	103	60364			33.74- 93.74	74.33
42 Ethanol					CAS #: 64-17-5		
11.681	11.681 (0.759)	45	10783	0.50000	0.7944	80.00- 120.00	100.00
11.681	11.681 (0.759)	46	4249			9.60- 69.60	39.40
11.681	11.681 (0.759)	43	4760			0.00- 59.21	44.14
49 Freon 113					CAS #: 76-13-1		
12.081	12.081 (0.785)	151	55770	0.50000	0.5364	80.00- 120.00	100.00
12.081	12.081 (0.785)	153	37408			34.83- 94.83	67.08
12.100	12.100 (0.786)	101	60116			77.16- 137.16	107.79
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.100 (0.786)	98	16144	0.50000	0.5812	80.00- 120.00	100.00
12.100	12.100 (0.786)	61	38588			219.47- 279.47	239.02
12.100	12.100 (0.786)	96	25703			126.81- 186.81	159.21
52 Acetone					CAS #: 67-64-1		
12.385	12.385 (0.805)	58	10697	0.50000	0.6268	80.00- 120.00	100.00
12.385	12.385 (0.805)	43	38605			344.13- 404.13	360.90
56 Carbon Disulfide					CAS #: 75-15-0		
12.462	12.462 (0.810)	76	73808	0.50000	0.6252	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.728	12.728 (0.827)	45	28981	0.50000	0.5275	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
57 2-Propanol (continued)							
12.728	12.728 (0.827)	43	9372			0.00- 55.65	32.34
12.728	12.728 (0.827)	59	1477			0.00- 34.42	5.10
58 3-Chloropropene					CAS #: 107-05-1		
12.900	12.900 (0.838)	76	13087	0.50000	0.5642	80.00- 120.00	100.00
12.900	12.900 (0.838)	41	27455			198.88- 258.88	209.79
66 Methylene Chloride					CAS #: 75-09-2		
13.177	13.177 (0.856)	84	25548	0.50000	0.6117	80.00- 120.00	100.00
13.177	13.177 (0.856)	49	27098			83.76- 143.76	106.07
13.177	13.177 (0.856)	51	8386			2.61- 62.61	32.82
71 tert-Butyl alcohol					CAS #: 75-65-0		
13.396	13.396 (0.870)	59	38303	0.50000	0.4826	80.00- 120.00	100.00
13.396	13.396 (0.870)	41	11579			0.00- 51.13	30.23
13.369	13.369 (0.869)	57	4898			0.00- 41.40	12.79
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.506	13.506 (0.878)	73	58779	0.50000	0.4864	80.00- 120.00	100.00
13.506	13.506 (0.878)	57	10692			0.00- 49.77	18.19
13.479	13.479 (0.876)	41	11466			0.00- 49.98	19.51
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.533	13.533 (0.879)	98	14212	0.50000	0.5394	80.00- 120.00	100.00
13.533	13.533 (0.879)	61	28195			174.76- 234.76	198.39
13.533	13.533 (0.879)	96	23155			123.28- 183.28	162.93
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	25958	0.50000	0.5219	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	15205			27.83- 87.83	58.58
13.835	13.835 (0.899)	86	5141			0.00- 50.45	19.81
83 Isopropyl ether					CAS #: 108-20-3		
14.192	14.192 (0.922)	45	48088	0.50000	0.4874	80.00- 120.00	100.00
14.192	14.192 (0.922)	87	15379			6.11- 66.11	31.98
14.192	14.192 (0.922)	59	7792			0.00- 42.83	16.20
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.247	14.247 (0.926)	63	39975	0.50000	0.5510	80.00- 120.00	100.00
14.247	14.247 (0.926)	65	14184			1.87- 61.87	35.48
86 Vinyl Acetate					CAS #: 108-05-4		
14.275	14.275 (0.927)	86	5757	0.50000	0.5243	80.00- 120.00	100.00
14.275	14.275 (0.927)	42	3208			71.31- 131.31	55.72
14.275	14.275 (0.927)	43	41247			931.28- 991.28	716.47

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

   88 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 14.685  14.685 (0.954)    59     55092 0.50000   0.4700  80.00- 120.00   100.00
 14.685  14.685 (0.954)    87     24715                   16.65-  76.65    44.86
 14.704  14.704 (0.955)    41     12053                    0.00-  49.22    21.88
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.066  15.066 (0.979)    98     16252 0.50000   0.5081  80.00- 120.00   100.00
 15.066  15.066 (0.979)    61     28824                  154.54- 214.54   177.36
 15.066  15.066 (0.979)    96     27674                  117.78- 177.78   170.28
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 15.066  15.066 (0.979)    72      9097 0.50000   0.4916  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43     35621                  325.72- 385.72   391.57
 15.066  15.066 (0.979)    57      3105                    1.13-  61.13    34.13
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                               CAS #: 109-99-9
 15.391  15.391 (1.000)    42     15977 0.50000   0.4770  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71      9820                   20.32-  80.32    61.46
 15.391  15.391 (1.000)    72      9855                   21.98-  81.98    61.68
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    150346 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    112724                   46.73- 106.73    74.98
 15.391  15.391 (1.000)    49    141675                   55.35- 115.35    94.23
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.453  15.453 (1.004)    83     55831 0.50000   0.5124  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85     40059                   36.62-  96.62    71.75
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.700  15.700 (1.020)    84     25565 0.50000   0.4894  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56     26708                   68.83- 128.83   104.47
 15.669  15.669 (1.018)    41     16929                   29.98-  89.98    66.22
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.700  15.700 (1.020)    97     67297 0.50000   0.5251  80.00- 120.00   100.00
 15.700  15.700 (1.020)    99     38216                   34.65-  94.65    56.79
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 15.885  15.885 (1.032)   119     65235 0.50000   0.5228  80.00- 120.00   100.00
 15.885  15.885 (1.032)   117     60700                   74.11- 134.11    93.05
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 16.111  16.111 (1.047)    56     36609 0.50000   0.5232  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57    109687                  277.67- 337.67   299.62
 16.111  16.111 (1.047)    41     26200                   73.43- 133.43    71.57
-------------------------------------------------------------------------------
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  116 Benzene                                        CAS #: 71-43-2
 16.207  16.207 (0.968)    78     66621 0.50000   0.5158  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77     15766                    0.00-  53.00    23.67
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                          CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    215933 5.00000    5.001  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    111082                   22.67-  82.67    51.44
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
 16.231  16.231 (0.970)    87     14844 0.50000   0.4402  80.00- 120.00   100.00
 16.231  16.231 (0.970)    73     59736                  335.49- 395.49   402.43
 16.231  16.231 (0.970)    55     15806                   60.31- 120.31   106.48
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
 16.304  16.304 (0.974)    62     39899 0.50000   0.5014  80.00- 120.00   100.00
 16.304  16.304 (0.974)    64     14601                    1.95-  61.95    36.59
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
 16.352  16.352 (0.977)    57     15094 0.50000   0.4615  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100      8817                   23.08-  83.08    58.41
 16.352  16.352 (0.977)    43     21913                  136.91- 196.91   145.18
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 16.737  16.737 (1.000)   114    523120 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     81969                    0.00-  45.16    15.67
-------------------------------------------------------------------------------
  125 Trichloroethene                                CAS #: 79-01-6
 17.147  17.147 (1.024)   130     39228 0.50000   0.5444  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95     35220                   61.87- 121.87    89.78
 17.147  17.147 (1.024)    97     21486                   29.29-  89.29    54.77
-------------------------------------------------------------------------------
  127 Methylcyclohexane                              CAS #: 108-87-2
 17.364  17.364 (1.037)    83     32145 0.50000   0.4771  80.00- 120.00   100.00
 17.364  17.364 (1.037)    55     22998                   45.72- 105.72    71.54
 17.364  17.364 (1.037)    56      8263                    0.00-  52.26    25.71
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
 17.581  17.581 (1.050)    63     21429 0.50000   0.5281  80.00- 120.00   100.00
 17.581  17.581 (1.050)    62     13334                   41.22- 101.22    62.22
 17.581  17.581 (1.050)    41     14300                   40.14- 100.14    66.73
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                    CAS #: 123-91-1
 17.701  17.701 (1.058)    88     15146 0.50000   0.4851  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58      9355                   30.17-  90.17    61.77
 17.701  17.701 (1.058)    57      3647                    0.00-  51.30    24.08
-------------------------------------------------------------------------------
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  138 Bromodichloromethane                         CAS #: 75-27-4
 18.014  18.014 (1.076)    83     60143 0.50000   0.5363  80.00- 120.00   100.00
 18.014  18.014 (1.076)    85     39586                   36.87-  96.87    65.82
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.827  18.827 (1.125)    75     33618 0.50000   0.4860  80.00- 120.00   100.00
 18.805  18.805 (1.124)    77     12780                    1.38-  61.38    38.02
 18.827  18.827 (1.125)    39     20040                   23.65-  83.65    59.61
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.007  19.007 (1.136)    43     35516 0.50000   0.4623  80.00- 120.00   100.00
 19.007  19.007 (1.136)    58     15677                   10.02-  70.02    44.14
 19.007  19.007 (1.136)    85      7935                    0.00-  52.01    22.34
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    482218 5.00000    4.752  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     57459                    0.00-  40.89    11.92
 19.298  19.298 (1.153)   100    341788                   40.09- 100.09    70.88
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91     78726 0.50000   0.5039  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92     42639                   27.79-  87.79    54.16
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75     35513 0.50000   0.5068  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77     13179                    1.55-  61.55    37.11
 20.026  20.026 (0.903)    39     18772                   18.82-  78.82    52.86
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97     28086 0.50000   0.5226  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99     18264                   32.59-  92.59    65.03
 20.438  20.438 (0.922)    83     22988                   50.07- 110.07    81.85
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166     55659 0.50000   0.5312  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129     35989                   37.12-  97.12    64.66
 20.630  20.630 (0.930)   131     36619                   36.18-  96.18    65.79
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.795  20.795 (0.938)    58     15702 0.50000   0.4306  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43     26424                  162.96- 222.96   168.28
 20.795  20.795 (0.938)   100      5056                    0.00-  59.39    32.20
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129     69755 0.50000   0.5433  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127     57448                   46.76- 106.76    82.36
-------------------------------------------------------------------------------
```

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

  161 1,2-Dibromoethane (EDB)                          CAS #: 106-93-4
 21.482  21.482 (0.969)   107     52014 0.50000   0.5433  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109     42654                   63.39- 123.39    82.00
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                 CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    475808 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    232277                   17.27-  77.27    48.82
-------------------------------------------------------------------------------
  165 Chlorobenzene                                    CAS #: 108-90-7
 22.219  22.219 (1.002)   112     70285 0.50000   0.5316  80.00- 120.00   100.00
 22.219  22.219 (1.002)   114     19825                    2.22-  62.22    28.21
 22.219  22.219 (1.002)    77     42256                   23.48-  83.48    60.12
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                    CAS #: 100-41-4
 22.302  22.302 (1.006)   106     32916 0.50000   0.5282  80.00- 120.00   100.00
 22.302  22.302 (1.006)    91     95480                  278.11- 338.11   290.07
-------------------------------------------------------------------------------
  169 m,p-Xylene                                       CAS #: 108-38-3
 22.488  22.488 (1.014)   106     33029 0.50000   0.4477  80.00- 120.00   100.00
 22.488  22.488 (1.014)    91     74849                  170.01- 230.01   226.62
-------------------------------------------------------------------------------
  171 o-Xylene                                         CAS #: 95-47-6
 23.089  23.089 (1.041)   106     33937 0.50000   0.4965  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91     66295                  175.84- 235.84   195.35
-------------------------------------------------------------------------------
  172 Styrene                                          CAS #: 100-42-5
 23.110  23.110 (1.042)   104     48571 0.50000   0.4259  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78     30190                   20.21-  80.21    62.16
-------------------------------------------------------------------------------
  174 Bromoform                                        CAS #: 75-25-2
 23.452  23.452 (1.057)   173     69280 0.50000   0.5206  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171     38708                   21.47-  81.47    55.87
-------------------------------------------------------------------------------
  175 Cumene                                           CAS #: 98-82-8
 23.564  23.564 (1.063)   105     99036 0.50000   0.4619  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120     27335                    0.00-  56.99    27.60
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                             CAS #: 460-00-4
 23.856  23.856 (1.076)   174    341618 5.00000    5.140  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    311781                   66.74- 126.74    91.27
 23.856  23.856 (1.076)   176    329729                   67.47- 127.47    96.52
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                        CAS #: 79-34-5
 24.035  24.035 (1.084)    83     50567 0.50000   0.5416  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85     33143                   39.76-  99.76    65.54
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
182 Propylbenzene					CAS #: 103-65-1		
24.102	24.102 (1.087)	91	108225	0.50000	0.5070	80.00- 120.00	100.00
24.102	24.102 (1.087)	120	25815			0.00- 55.73	23.85
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	85257	0.50000	0.4818	80.00- 120.00	100.00
24.237	24.237 (1.093)	120	25617			1.00- 61.00	30.05
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	65440	0.50000	0.4989	80.00- 120.00	100.00
24.304	24.304 (1.096)	120	31949			19.17- 79.17	48.82
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	47249	0.50000	0.4292	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	21372			16.84- 76.84	45.23
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.157 (1.134)	146	60479	0.50000	0.5165	80.00- 120.00	100.00
25.157	25.157 (1.134)	148	37000			33.96- 93.96	61.18
25.157	25.157 (1.134)	111	21622			6.94- 66.94	35.75
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	63289	0.50000	0.5203	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	40138			35.10- 95.10	63.42
25.269	25.269 (1.139)	111	22299			4.80- 64.80	35.23
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	69048	0.50000	0.4922	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	15246			0.00- 52.64	22.08
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.695 (1.159)	146	57585	0.50000	0.5242	80.00- 120.00	100.00
25.695	25.695 (1.159)	148	38414			33.88- 93.88	66.71
25.672	25.672 (1.158)	111	21450			7.58- 67.58	37.25
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	42852	0.50000	0.5141	80.00- 120.00	100.00
27.398	27.398 (1.235)	182	36995			63.70- 123.70	86.33
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	66464	0.50000	0.5685	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	41313			34.33- 94.33	62.16

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012612.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 0.50ppbv (1.0ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	150346	-17.30
123 1,4-Difluorobenze	598820	359292	838348	523120	-12.64
163 Chlorobenzene-d5	568188	340913	795463	475808	-16.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012612.d

Date : 26-JAN-2017 15:22

Client ID: Level 7

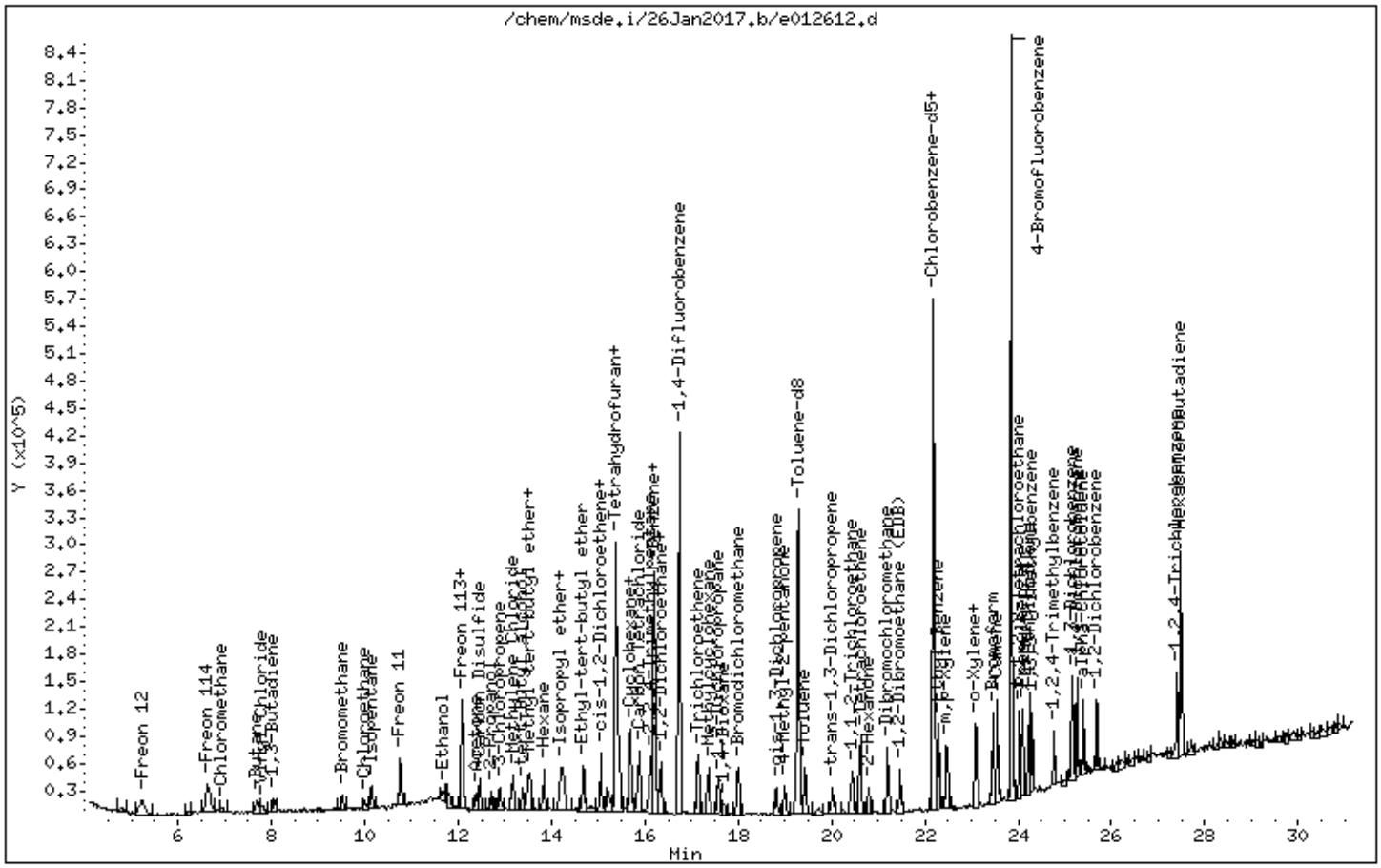
Instrument: msde.i

Sample Info: 125mL# 2819-240

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/27Jan2017.b/e012706.d
Lab Smp Id: Level 8
Inj Date : 27-JAN-2017 17:06
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2819-242
Misc Info : 1.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/27Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:49 efinn Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.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
36 1-Pentene					CAS #: 109-67-1		
10.842	10.842 (0.704)	55	24939	1.00000	1.001	0.00- 0.00	100.00
10.823	10.823 (0.703)	42	25613			0.00- 0.00	102.70
34 Pentane					CAS #: 109-66-0		
10.957	10.957 (0.712)	43	13351	1.00000	1.130	0.00- 0.00	100.00
10.976	10.976 (0.713)	57	3364			0.00- 0.00	25.20
10.976	10.976 (0.713)	72	1876			0.00- 0.00	14.05
44 Ethyl Ether					CAS #: 60-29-7		
11.642	11.642 (0.756)	74	16011	1.00000	0.9755	0.00- 0.00	100.00(T)
11.642	11.642 (0.756)	59	20113			0.00- 0.00	125.62
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.423	12.423 (0.807)	142	92243	1.00000	0.9757	0.00- 0.00	100.00
12.423	12.423 (0.807)	127	46128			0.00- 0.00	50.01
59 Cyclopentene					CAS #: 142-29-0		
12.919	12.919 (0.839)	67	63095	1.00000	0.9401	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
59 Cyclopentene (continued)							
12.919	12.919 (0.839)	68	24829			0.00- 0.00	39.35
12.919	12.919 (0.839)	53	12682			0.00- 0.00	20.10
64 Cyclopentane					CAS #: 287-92-3		
13.094	13.094 (0.851)	70	17665	1.00000	0.9591	0.00- 0.00	100.00
13.094	13.094 (0.851)	55	20395			0.00- 0.00	115.45
74 Acrylonitrile					CAS #: 107-13-1		
13.671	13.671 (0.888)	53	21458	1.00000	0.9499	0.00- 0.00	100.00
13.671	13.671 (0.888)	52	17210			0.00- 0.00	80.20
76 1-Hexene					CAS #: 592-41-6		
13.725	13.725 (0.892)	55	20327	1.00000	1.057	0.00- 0.00	100.00
13.725	13.725 (0.892)	41	28350			0.00- 0.00	139.47
13.753	13.753 (0.894)	84	8265			0.00- 0.00	40.66
84 1-Propanol					CAS #: 71-23-8		
14.384	14.384 (0.935)	59	8395	1.00000	1.059	80.00- 120.00	100.00
14.384	14.384 (0.935)	42	7843			0.00- 0.00	93.42
14.384	14.384 (0.935)	41	3975			0.00- 0.00	47.35
90 2,2-Dichloropropane					CAS #: 594-20-7		
15.008	15.008 (0.975)	77	88252	1.00000	1.013	80.00- 120.00	100.00
15.008	15.008 (0.975)	79	27400			0.00- 0.00	31.05
15.008	15.008 (0.975)	97	16125			0.00- 0.00	18.27
93 Methyl Acrylate					CAS #: 96-33-3		
15.142	15.142 (0.984)	55	55870	1.00000	0.9241	0.00- 0.00	100.00
15.142	15.142 (0.984)	85	12055			0.00- 0.00	21.58
15.142	15.142 (0.984)	58	5053			0.00- 0.00	9.04
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	146716	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	110116			46.73- 106.73	75.05
15.391	15.391 (1.000)	49	118156			55.35- 115.35	80.53
107 1,1-Dichloropropene					CAS #: 563-58-6		
15.915	15.915 (1.034)	110	23871	1.00000	1.015	80.00- 120.00	100.00
15.915	15.915 (1.034)	75	60513			0.00- 0.00	253.50
115 Isobutanol					CAS #: 78-83-1		
15.977	15.977 (1.038)	43	21621	1.00000	0.9440	80.00- 120.00	100.00
15.977	15.977 (1.038)	41	16683			0.00- 0.00	77.16
15.977	15.977 (1.038)	55	2936			0.00- 0.00	13.58

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	491656	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	75950			0.00- 45.16	15.45
124 n-Butanol						CAS #: 71-36-3	
16.906	16.906 (1.010)	56	34378	1.00000	0.8523	80.00- 120.00	100.00
16.906	16.906 (1.010)	41	27884			0.00- 0.00	81.11
16.906	16.906 (1.010)	43	20780			0.00- 0.00	60.45
128 Ethyl acrylate						CAS #: 140-88-5	
17.195	17.195 (1.027)	99	7523	1.00000	1.195	0.00- 0.00	100.00
17.195	17.195 (1.027)	45	4755			0.00- 0.00	63.21
17.195	17.195 (1.027)	55	55303			0.00- 0.00	735.12
131 2-Pentanone						CAS #: 107-87-9	
17.388	17.388 (1.039)	43	82874	1.00000	1.028	0.00- 0.00	100.00
17.388	17.388 (1.039)	58	6420			0.00- 0.00	7.75
17.388	17.388 (1.039)	86	18131			0.00- 0.00	21.88
134 Methyl Methacrylate						CAS #: 80-62-6	
17.556	17.556 (1.049)	41	37802	1.00000	0.9225	0.00- 0.00	100.00
17.580	17.580 (1.050)	69	35130			0.00- 0.00	92.93
17.580	17.580 (1.050)	100	17884			0.00- 0.00	47.31
137 Dibromomethane						CAS #: 74-95-3	
17.821	17.821 (1.065)	174	73341	1.00000	1.031	0.00- 0.00	100.00
17.797	17.797 (1.063)	93	56282			0.00- 0.00	76.74
17.797	17.797 (1.063)	95	44228			0.00- 0.00	60.30
148 Octane						CAS #: 111-65-9	
19.343	19.343 (1.156)	57	20009	1.00000	0.8941	0.00- 0.00	100.00
19.343	19.343 (1.156)	85	30360			0.00- 0.00	151.73
19.343	19.343 (1.156)	43	50764			0.00- 0.00	253.71
157 1,3-Dichloropropane						CAS #: 142-28-9	
20.822	20.822 (0.939)	76	55444	1.00000	0.9224	80.00- 120.00	100.00
20.822	20.822 (0.939)	41	38877			0.00- 0.00	70.12
20.822	20.822 (0.939)	78	18927			0.00- 0.00	34.14
159 Butyl Acetate						CAS #: 123-86-4	
20.905	20.905 (0.943)	56	7082	1.00000	1.137	80.00- 120.00	100.00
20.932	20.932 (0.944)	73	2263			0.00- 0.00	31.95
20.905	20.905 (0.943)	43	12722			0.00- 0.00	179.64
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	461648	5.00000		80.00- 120.00	100.00

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

* 163 Chlorobenzene-d5 (continued)
 22.177  22.177 (1.000)    82    219523                   17.27-  77.27    47.55
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 22.343  22.343 (1.007)   131     85257 1.00000    1.012  80.00- 120.00   100.00
 22.343  22.343 (1.007)   117     57482                    0.00-   0.00    67.42
 22.343  22.343 (1.007)    95     30450                    0.00-   0.00    35.72
-------------------------------------------------------------------------------
  170 Nonane                                       CAS #: 111-84-2
 22.301  22.301 (1.006)    43     41365 1.00000   0.9560   0.00-   0.00   100.00
 22.301  22.301 (1.006)    57     38836                    0.00-   0.00    93.89
 22.301  22.301 (1.006)    85     18674                    0.00-   0.00    45.14
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 23.214  23.214 (1.047)    58     34091 1.00000   0.9093  80.00- 120.00   100.00
 23.214  23.214 (1.047)    43     54510                    0.00-   0.00   159.90
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 23.811  23.811 (1.074)    55     31213 1.00000   0.9095  80.00- 120.00   100.00
 23.811  23.811 (1.074)    98     17555                    0.00-   0.00    56.24
 23.811  23.811 (1.074)    42     22603                    0.00-   0.00    72.42
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 24.080  24.080 (1.086)   156     77335 1.00000   0.9384  80.00- 120.00   100.00
 24.080  24.080 (1.086)   158     80714                    0.00-   0.00   104.37
 24.080  24.080 (1.086)    77     99362                    0.00-   0.00   128.48
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 24.125  24.125 (1.088)   110     31480 1.00000   0.9544  80.00- 120.00   100.00
 24.125  24.125 (1.088)    75    105169                    0.00-   0.00   334.08
 24.125  24.125 (1.088)    61     23467                    0.00-   0.00    74.55
-------------------------------------------------------------------------------
  187 Decane                                       CAS #: 124-18-5
 24.170  24.170 (1.090)    57     29494 1.00000   0.8680   0.00-   0.00   100.00
 24.439  24.439 (1.102)    71       838                    0.00-   0.00     2.84
 24.439  24.439 (1.102)   142      9721                    0.00-   0.00    32.96
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 24.282  24.282 (1.095)   126     51392 1.00000    1.007  80.00- 120.00   100.00
 24.282  24.282 (1.095)    91    133437                    0.00-   0.00   259.65
 24.282  24.282 (1.095)    65     12205                    0.00-   0.00    23.75
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 24.416  24.416 (1.101)   126     46261 1.00000   0.9838  80.00- 120.00   100.00
 24.416  24.416 (1.101)    91    124138                    0.00-   0.00   268.34
 24.416  24.416 (1.101)    63     15325                    0.00-   0.00    33.13
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
195 tert-Butylbenzene					CAS #: 98-06-6		
24.685	24.685 (1.113)	119	133277	1.00000	0.9640	80.00- 120.00	100.00
24.685	24.685 (1.113)	134	31253			0.00- 0.00	23.45
24.685	24.685 (1.113)	91	85509			0.00- 0.00	64.16
197 Pentachloroethane					CAS #: 76-01-7		
24.798	24.798 (1.118)	167	75086	1.00000	0.9400	80.00- 120.00	100.00
24.798	24.798 (1.118)	117	65291			0.00- 0.00	86.95
24.798	24.798 (1.118)	169	26306			0.00- 0.00	35.03
203 sec-Butylbenzene					CAS #: 135-98-8		
24.955	24.955 (1.125)	105	240851	1.00000	0.9399	80.00- 120.00	100.00
24.955	24.955 (1.125)	134	52247			0.00- 0.00	21.69
24.955	24.955 (1.125)	91	38794			0.00- 0.00	16.11
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4		
25.044	25.044 (1.129)	93	68613	1.00000	0.9207	0.00- 0.00	100.00
25.044	25.044 (1.129)	95	22312			0.00- 0.00	32.52
25.044	25.044 (1.129)	63	45775			0.00- 0.00	66.71
207 p-Cymene					CAS #: 99-87-6		
25.089	25.089 (1.131)	119	144255	1.00000	0.9251	80.00- 120.00	100.00
25.089	25.089 (1.131)	134	40933			0.00- 0.00	28.38
25.089	25.089 (1.131)	91	35146			0.00- 0.00	24.36
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.268	25.268 (1.139)	120	42846	1.00000	0.9066	80.00- 120.00	100.00
25.268	25.268 (1.139)	105	103033			0.00- 0.00	240.47
25.246	25.246 (1.138)	77	11814			0.00- 0.00	27.57
213 Butylbenzene					CAS #: 104-51-8		
25.537	25.537 (1.152)	134	36514	1.00000	0.9541	80.00- 120.00	100.00
25.537	25.537 (1.152)	91	118787			0.00- 0.00	325.32
25.537	25.537 (1.152)	92	60457			0.00- 0.00	165.57
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	23335	1.00000	0.9728	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	18509			0.00- 0.00	79.32
25.515	25.515 (1.151)	85	5507			0.00- 0.00	23.60
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	56872	1.00000	0.9208	80.00- 120.00	100.00
26.546	26.546 (1.197)	75	47855			0.00- 0.00	84.15
26.546	26.546 (1.197)	155	49713			0.00- 0.00	87.41
225 Dodecane					CAS #: 112-40-3		
26.614	26.614 (1.200)	85	9816	1.00000	1.094	0.00- 0.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
225 Dodecane (continued)								
26.614	26.614	(1.200)	57	25713			0.00- 0.00	261.95
26.614	26.614	(1.200)	43	21412			0.00- 0.00	218.13

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012706.d
Lab Smp Id: Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/27Jan2017.b/e17l0126a.m
Misc Info: 1.0ppbv (5.0ppbv) Combo

Calibration Date: 27-JAN-2017
Calibration Time: 12:13

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	170744	102446	239042	146716	-14.07
123 1,4-Difluorobenze	602830	361698	843962	491656	-18.44
163 Chlorobenzene-d5	541524	324914	758134	461648	-14.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/27Jan2017.b/e012706.d

Date : 27-JAN-2017 17:06

Client ID:

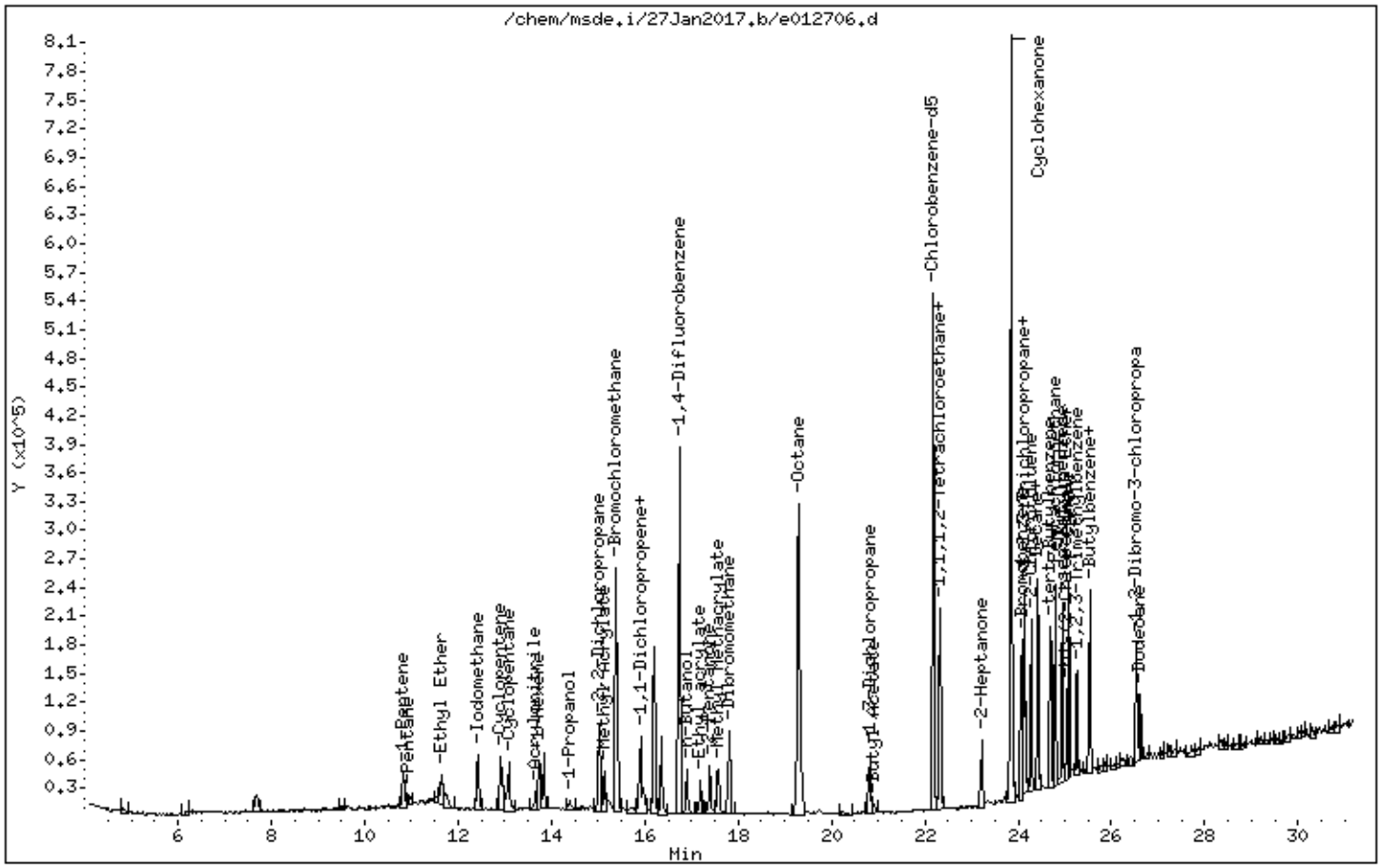
Instrument: msde.i

Sample Info: 50mL# 2819-242

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012613.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 26-JAN-2017 16:19
Operator : ea Inst ID: msde.i
Smp Info : 250mL# 2819-240
Misc Info : 1.0ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:28 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 16:19 Cal File: e012613.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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
9 Propylene					CAS #: 115-07-1		
4.811	4.811 (0.313)	41	25149	1.00000	1.186	80.00- 120.00	100.00
4.787	4.787 (0.311)	42	13941			35.53- 95.53	55.43
4.787	4.787 (0.311)	39	23923			53.16- 113.16	95.13
11 Freon 12					CAS #: 75-71-8		
5.221	5.221 (0.339)	85	144077	1.00000	1.104	80.00- 120.00	100.00
5.221	5.221 (0.339)	87	27859			1.91- 61.91	19.34
15 Freon 114					CAS #: 76-14-2		
6.619	6.619 (0.430)	135	103690	1.00000	1.035	80.00- 120.00	100.00
6.643	6.643 (0.432)	137	32620			0.98- 60.98	31.46
6.619	6.619 (0.430)	85	123098			86.82- 146.82	118.72
17 Chloromethane					CAS #: 74-87-3		
6.956	6.956 (0.452)	50	26276	1.00000	1.080	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	9897			3.31- 63.31	37.67
23 Butane					CAS #: 106-97-8		
7.675	7.675 (0.499)	58	5970	1.00000	1.010	80.00- 120.00	100.00

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

   23 Butane (continued)
  7.675   7.675 (0.499)    43     43064                   667.48- 727.48   721.34
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.797   7.797 (0.507)    62     33466 1.00000   0.9787  80.00- 120.00   100.00
  7.797   7.797 (0.507)    64     10800                     1.95-  61.95    32.27
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  8.057   8.057 (0.523)    54     24090 1.00000    1.019  80.00- 120.00   100.00
  8.057   8.057 (0.523)    39     26444                    76.10- 136.10   109.77
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.510   9.510 (0.618)    94     37731 1.00000    1.055  80.00- 120.00   100.00
  9.510   9.510 (0.618)    96     39425                    64.26- 124.26   104.49
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.005  10.005 (0.650)    64     20910 1.00000    1.183  80.00- 120.00   100.00
 10.005  10.005 (0.650)    49      6399                     0.00-  57.48    30.60
  9.986   9.986 (0.649)    66      6899                     1.33-  61.33    32.99
-------------------------------------------------------------------------------
   31 Isopentane                                    CAS #: 78-78-4
 10.138  10.138 (0.659)    57     26590 1.00000    1.041  80.00- 120.00   100.00
 10.138  10.138 (0.659)    43     39317                    96.48- 156.48   147.86
 10.138  10.138 (0.659)    42     31735                    76.93- 136.93   119.35
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 10.767  10.767 (0.700)   101    162139 1.00000    1.065  80.00- 120.00   100.00
 10.767  10.767 (0.700)   103    102066                    33.74-  93.74    62.95
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 11.681  11.681 (0.759)    45     15409 1.00000    1.161  80.00- 120.00   100.00
 11.681  11.681 (0.759)    46      6160                     9.60-  69.60    39.98
 11.662  11.662 (0.758)    43      6039                     0.00-  59.21    39.19
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.081  12.081 (0.785)   151    107791 1.00000    1.060  80.00- 120.00   100.00
 12.081  12.081 (0.785)   153     66881                    34.83-  94.83    62.05
 12.081  12.081 (0.785)   101    118663                    77.16- 137.16   110.09
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                            CAS #: 75-35-4
 12.100  12.100 (0.786)    98     28214 1.00000    1.039  80.00- 120.00   100.00
 12.100  12.100 (0.786)    61     71777                   219.47- 279.47   254.40
 12.100  12.100 (0.786)    96     45586                   126.81- 186.81   161.57
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 12.385  12.385 (0.805)    58     18636 1.00000    1.117  80.00- 120.00   100.00
```

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43     71478                   344.13- 404.13   383.55
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.462  12.462 (0.810)    76    131648 1.00000    1.141  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.728  12.728 (0.827)    45     54282 1.00000    1.011  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43     17481                    0.00-  55.65    32.20
 12.728  12.728 (0.827)    59      2386                    0.00-  34.42     4.40
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.900  12.900 (0.838)    76     23250 1.00000    1.026  80.00- 120.00   100.00
 12.881  12.881 (0.837)    41     49847                  198.88- 258.88   214.40
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.177  13.177 (0.856)    84     46910 1.00000    1.149  80.00- 120.00   100.00
 13.177  13.177 (0.856)    49     51759                   83.76- 143.76   110.34
 13.177  13.177 (0.856)    51     14842                    2.61-  62.61    31.64
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.369  13.369 (0.869)    59     76404 1.00000   0.9848  80.00- 120.00   100.00
 13.369  13.369 (0.869)    41     15470                    0.00-  51.13    20.25
 13.396  13.396 (0.870)    57     10028                    0.00-  41.40    13.12
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.479  13.479 (0.876)    73    115975 1.00000   0.9817  80.00- 120.00   100.00
 13.479  13.479 (0.876)    57     22391                    0.00-  49.77    19.31
 13.506  13.506 (0.878)    41     21057                    0.00-  49.98    18.16
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.533 (0.879)    98     29025 1.00000    1.127  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61     56337                  174.76- 234.76   194.10
 13.533  13.533 (0.879)    96     44146                  123.28- 183.28   152.10
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57     44823 1.00000   0.9220  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43     29366                   27.83-  87.83    65.52
 13.835  13.835 (0.899)    86      9687                    0.00-  50.45    21.61
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.192  14.192 (0.922)    45     88264 1.00000   0.9152  80.00- 120.00   100.00
 14.192  14.192 (0.922)    87     34132                    6.11-  66.11    38.67
 14.192  14.192 (0.922)    59     11963                    0.00-  42.83    13.55
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63     75387 1.00000    1.063  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 14.247  14.247 (0.926)    65     23021                     1.87-  61.87    30.54
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.275  14.275 (0.927)    86     10733 1.00000    1.000  80.00- 120.00   100.00
 14.275  14.275 (0.927)    42     11538                    71.31- 131.31   107.50
 14.275  14.275 (0.927)    43     91395                   931.28- 991.28   851.53
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.685  14.685 (0.954)    59    109087 1.00000   0.9520  80.00- 120.00   100.00
 14.685  14.685 (0.954)    87     51315                    16.65-  76.65    47.04
 14.685  14.685 (0.954)    41     26515                     0.00-  49.22    24.31
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.066  15.066 (0.979)    98     32915 1.00000    1.053  80.00- 120.00   100.00
 15.066  15.066 (0.979)    61     60282                   154.54- 214.54   183.14
 15.066  15.066 (0.979)    96     49994                   117.78- 177.78   151.89
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72     18466 1.00000    1.021  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43     65261                   325.72- 385.72   353.41
 15.047  15.047 (0.978)    57      6988                     1.13-  61.13    37.84
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42     35185 1.00000    1.074  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71     15523                    20.32-  80.32    44.12
 15.391  15.391 (1.000)    72     16831                    21.98-  81.98    47.84
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    146962 5.00000            80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    111409                    46.73- 106.73    75.81
 15.391  15.391 (1.000)    49    140279                    55.35- 115.35    95.45
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83    118200 1.00000    1.110  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85     73770                    36.62-  96.62    62.41
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.669 (1.018)    84     49996 1.00000   0.9791  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56     46795                    68.83- 128.83    93.60
 15.669  15.669 (1.018)    41     29952                    29.98-  89.98    59.91
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.700  15.700 (1.020)    97    129833 1.00000    1.036  80.00- 120.00   100.00
 15.700  15.700 (1.020)    99     82658                    34.65-  94.65    63.66
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.885  15.885 (1.032)   119    121637 1.00000   0.9973  80.00- 120.00   100.00
 15.885  15.885 (1.032)   117    129433                   74.11- 134.11   106.41
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.111  16.111 (1.047)    56     66963 1.00000   0.9791  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57    205345                  277.67- 337.67   306.65
 16.111  16.111 (1.047)    41     77314                   73.43- 133.43   115.46
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78    126730 1.00000   0.9772  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77     28791                    0.00-  53.00    22.72
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    228583 5.00000    5.416  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    109213                   22.67-  82.67    47.78
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.231  16.231 (0.970)    87     30924 1.00000   0.9133  80.00- 120.00   100.00
 16.231  16.231 (0.970)    73    116628                  335.49- 395.49   377.14
 16.231  16.231 (0.970)    55     30635                   60.31- 120.31    99.07
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.304 (0.974)    62     71161 1.00000   0.8906  80.00- 120.00   100.00
 16.304  16.304 (0.974)    64     26858                    1.95-  61.95    37.74
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57     29323 1.00000   0.8929  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100     17505                   23.08-  83.08    59.70
 16.352  16.352 (0.977)    43     50999                  136.91- 196.91   173.92
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    525275 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     73786                    0.00-  45.16    14.05
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130     72305 1.00000   0.9992  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95     60609                   61.87- 121.87    83.82
 17.147  17.147 (1.024)    97     44027                   29.29-  89.29    60.89
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.364  17.364 (1.037)    83     57740 1.00000   0.8535  80.00- 120.00   100.00
 17.364  17.364 (1.037)    55     48274                   45.72- 105.72    83.61
 17.364  17.364 (1.037)    56     14268                    0.00-  52.26    24.71
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.581  17.581 (1.050)    63     39890 1.00000   0.9791  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.581  17.581 (1.050)    62     31792                    41.22- 101.22    79.70
 17.581  17.581 (1.050)    41     33624                    40.14- 100.14    84.29
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.701  17.701 (1.058)    88     27649 1.00000   0.8820  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58     17941                    30.17-  90.17    64.89
 17.701  17.701 (1.058)    57      6564                     0.00-  51.30    23.74
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.014  18.014 (1.076)    83    114934 1.00000    1.021  80.00- 120.00   100.00
 18.014  18.014 (1.076)    85     73435                    36.87-  96.87    63.89
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.827  18.827 (1.125)    75     63815 1.00000   0.9189  80.00- 120.00   100.00
 18.827  18.827 (1.125)    77     21837                     1.38-  61.38    34.22
 18.805  18.805 (1.124)    39     37839                    23.65-  83.65    59.29
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.007  19.007 (1.136)    43     62869 1.00000   0.8149  80.00- 120.00   100.00
 19.007  19.007 (1.136)    58     27962                    10.02-  70.02    44.48
 19.007  19.007 (1.136)    85     13996                     0.00-  52.01    22.26
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    496018 5.00000    4.868  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     57288                     0.00-  40.89    11.55
 19.298  19.298 (1.153)   100    326437                    40.09- 100.09    65.81
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91    147167 1.00000   0.9380  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92     83830                    27.79-  87.79    56.96
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75     65372 1.00000   0.9187  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77     23518                     1.55-  61.55    35.98
 20.026  20.026 (0.903)    39     31755                    18.82-  78.82    48.58
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97     60133 1.00000    1.102  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99     34590                    32.59-  92.59    57.52
 20.438  20.438 (0.922)    83     46077                    50.07- 110.07    76.63
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166    113458 1.00000    1.066  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129     70636                    37.12-  97.12    62.26
 20.630  20.630 (0.930)   131     78670                    36.18-  96.18    69.34
-------------------------------------------------------------------------------
```

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

  158 2-Hexanone                                     CAS #: 591-78-6
 20.795  20.795 (0.938)    58     28922 1.00000   0.7811  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43     60677                  162.96- 222.96   209.80
 20.795  20.795 (0.938)   100      7649                    0.00-  59.39    26.45
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 21.207  21.207 (0.956)   129    126703 1.00000   0.9719  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127     97212                   46.76- 106.76    76.72
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 21.482  21.482 (0.969)   107     93174 1.00000   0.9584  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109     87799                   63.39- 123.39    94.23
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    483167 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    231634                   17.27-  77.27    47.94
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 22.219  22.219 (1.002)   112    137855 1.00000    1.027  80.00- 120.00   100.00
 22.219  22.219 (1.002)   114     45897                    2.22-  62.22    33.29
 22.219  22.219 (1.002)    77     79910                   23.48-  83.48    57.97
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 22.302  22.302 (1.006)   106     63478 1.00000    1.003  80.00- 120.00   100.00
 22.302  22.302 (1.006)    91    177083                  278.11- 338.11   278.97
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 22.488  22.488 (1.014)   106     68104 1.00000   0.9092  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91    144374                  170.01- 230.01   211.99
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 23.089  23.089 (1.041)   106     64528 1.00000   0.9296  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91    134790                  175.84- 235.84   208.89
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 23.110  23.110 (1.042)   104    106301 1.00000   0.9180  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78     53146                   20.21-  80.21    50.00
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 23.452  23.452 (1.057)   173    134180 1.00000   0.9929  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171     64911                   21.47-  81.47    48.38
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 23.564  23.564 (1.063)   105    204313 1.00000   0.9384  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120     55222                    0.00-  56.99    27.03
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	345790	5.00000	5.123	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	310917			66.74- 126.74	89.91
23.856	23.856 (1.076)	176	323271			67.47- 127.47	93.49
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.035	24.035 (1.084)	83	94830	1.00000	1.000	80.00- 120.00	100.00
24.035	24.035 (1.084)	85	60307			39.76- 99.76	63.59
182 Propylbenzene					CAS #: 103-65-1		
24.103	24.103 (1.087)	91	198206	1.00000	0.9145	80.00- 120.00	100.00
24.103	24.103 (1.087)	120	54973			0.00- 55.73	27.74
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	177333	1.00000	0.9869	80.00- 120.00	100.00
24.237	24.237 (1.093)	120	59618			1.00- 61.00	33.62
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	127313	1.00000	0.9558	80.00- 120.00	100.00
24.304	24.304 (1.096)	120	60468			19.17- 79.17	47.50
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	102319	1.00000	0.9152	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	47280			16.84- 76.84	46.21
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.157 (1.134)	146	126409	1.00000	1.063	80.00- 120.00	100.00
25.157	25.157 (1.134)	148	78555			33.96- 93.96	62.14
25.157	25.157 (1.134)	111	41591			6.94- 66.94	32.90
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	120841	1.00000	0.9783	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	72246			35.10- 95.10	59.79
25.269	25.269 (1.139)	111	40736			4.80- 64.80	33.71
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	142005	1.00000	0.9968	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	30359			0.00- 52.64	21.38
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.695 (1.159)	146	111671	1.00000	1.001	80.00- 120.00	100.00
25.695	25.695 (1.159)	148	74400			33.88- 93.88	66.62
25.672	25.672 (1.158)	111	44992			7.58- 67.58	40.29
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	77260	1.00000	0.9127	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.398	27.398 (1.235)	182	79207			63.70- 123.70	102.52
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	120610	1.00000	1.016	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	77544			34.33- 94.33	64.29
228 Naphthalene					CAS #: 91-20-3		
27.712	27.712 (1.250)	128	12847	0.10000	0.1108	80.00- 120.00	100.00
27.712	27.712 (1.250)	127	2033			0.00- 42.30	15.82

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012613.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	146962	-19.16
123 1,4-Difluorobenze	598820	359292	838348	525275	-12.28
163 Chlorobenzene-d5	568188	340913	795463	483167	-14.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012613.d

Date : 26-JAN-2017 16:19

Client ID: Level 8

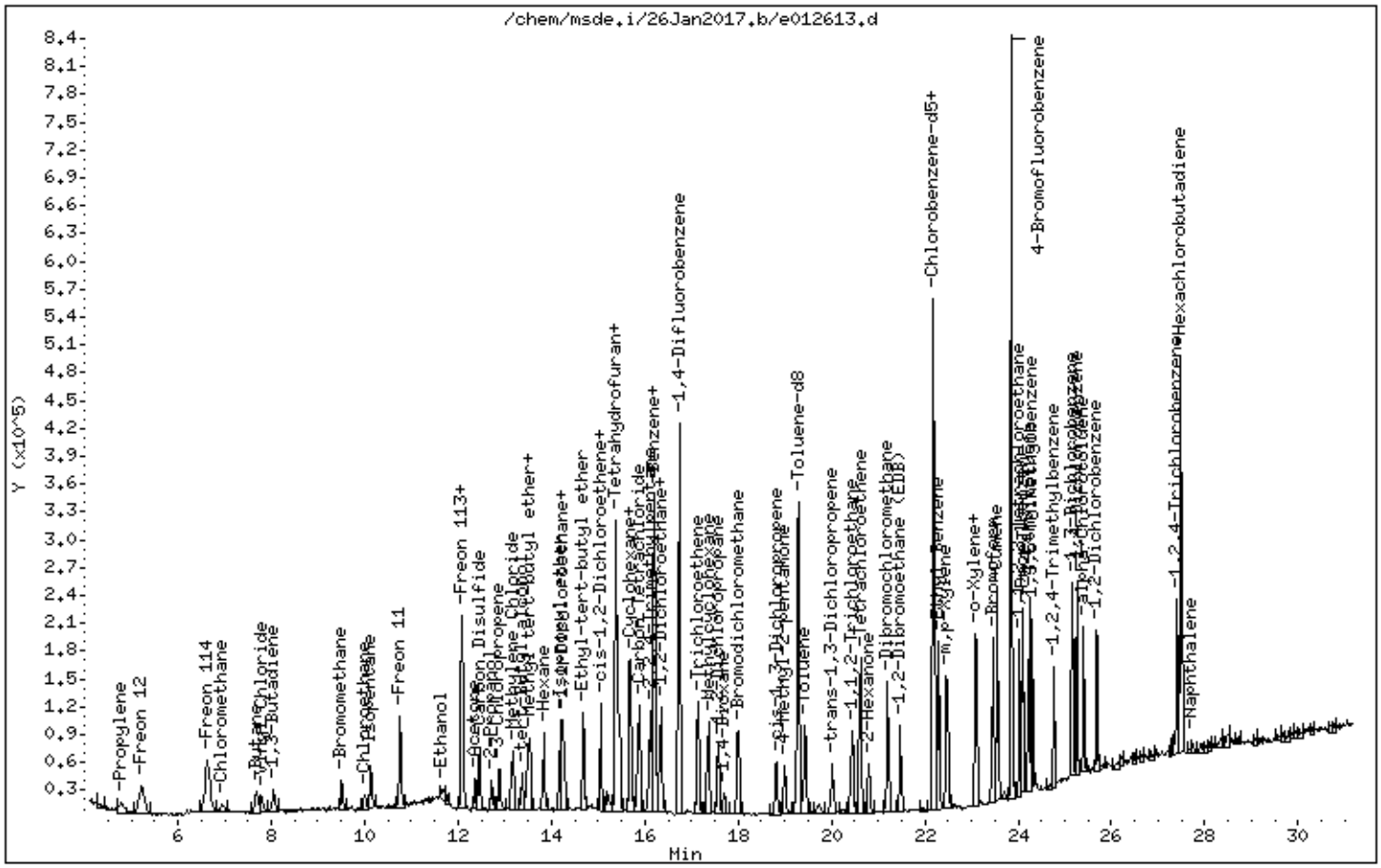
Instrument: msde.i

Sample Info: 250mL# 2819-240

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/27Jan2017.b/e012707.d
Lab Smp Id: Level 9
Inj Date : 27-JAN-2017 18:04
Operator : ea Inst ID: msde.i
Smp Info : 100mL# 2819-242
Misc Info : 2.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/27Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:45 efinn Quant Type: ISTD
Cal Date : 27-JAN-2017 18:04 Cal File: e012707.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.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
36 1-Pentene					CAS #: 109-67-1		
10.843	10.843 (0.704)	55	44620	2.00000	1.857	0.00- 0.00	100.00
10.843	10.843 (0.704)	42	53344			0.00- 0.00	119.55
34 Pentane					CAS #: 109-66-0		
10.976	10.976 (0.713)	43	19826	2.00000	1.740	0.00- 0.00	100.00
10.976	10.976 (0.713)	57	3879			0.00- 0.00	19.57
10.976	10.976 (0.713)	72	3154			0.00- 0.00	15.91
44 Ethyl Ether					CAS #: 60-29-7		
11.643	11.643 (0.756)	74	33000	2.00000	2.085	0.00- 0.00	100.00(T)
11.643	11.643 (0.756)	59	41386			0.00- 0.00	125.41
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.424	12.424 (0.807)	142	172537	2.00000	1.892	0.00- 0.00	100.00
12.424	12.424 (0.807)	127	87063			0.00- 0.00	50.46
59 Cyclopentene					CAS #: 142-29-0		
12.919	12.919 (0.839)	67	116748	2.00000	1.804	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
59 Cyclopentene (continued)							
12.919	12.919 (0.839)	68	49146			0.00- 0.00	42.10
12.919	12.919 (0.839)	53	25554			0.00- 0.00	21.89
64 Cyclopentane					CAS #: 287-92-3		
13.094	13.094 (0.851)	70	36809	2.00000	2.072	0.00- 0.00	100.00
13.094	13.094 (0.851)	55	39052			0.00- 0.00	106.09
74 Acrylonitrile					CAS #: 107-13-1		
13.671	13.671 (0.888)	53	42540	2.00000	1.953	0.00- 0.00	100.00
13.671	13.671 (0.888)	52	37699			0.00- 0.00	88.62
76 1-Hexene					CAS #: 592-41-6		
13.726	13.726 (0.892)	55	34523	2.00000	1.862	0.00- 0.00	100.00
13.726	13.726 (0.892)	41	55261			0.00- 0.00	160.07
13.726	13.726 (0.892)	84	18328			0.00- 0.00	53.09
84 1-Propanol					CAS #: 71-23-8		
14.384	14.384 (0.935)	59	16551	2.00000	2.166	80.00- 120.00	100.00
14.384	14.384 (0.935)	42	14522			0.00- 0.00	87.74
14.384	14.384 (0.935)	41	9527			0.00- 0.00	57.56
90 2,2-Dichloropropane					CAS #: 594-20-7		
15.009	15.009 (0.975)	77	159793	2.00000	1.903	80.00- 120.00	100.00
15.028	15.028 (0.976)	79	51140			0.00- 0.00	32.00
15.009	15.009 (0.975)	97	32964			0.00- 0.00	20.63
93 Methyl Acrylate					CAS #: 96-33-3		
15.142	15.142 (0.984)	55	112737	2.00000	1.934	0.00- 0.00	100.00
15.142	15.142 (0.984)	85	24224			0.00- 0.00	21.49
15.142	15.142 (0.984)	58	12773			0.00- 0.00	11.33
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	141493	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	110603			46.73- 106.73	78.17
15.391	15.391 (1.000)	49	115519			55.35- 115.35	81.64
107 1,1-Dichloropropene					CAS #: 563-58-6		
15.915	15.915 (1.034)	110	42759	2.00000	1.886	80.00- 120.00	100.00
15.915	15.915 (1.034)	75	107163			0.00- 0.00	250.62
115 Isobutanol					CAS #: 78-83-1		
15.977	15.977 (1.038)	43	45807	2.00000	2.074	80.00- 120.00	100.00
15.977	15.977 (1.038)	41	46033			0.00- 0.00	100.49
15.977	15.977 (1.038)	55	3890			0.00- 0.00	8.49

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	500927	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	74833			0.00- 45.16	14.94
124 n-Butanol						CAS #: 71-36-3	
16.906	16.906 (1.010)	56	86170	2.00000	2.097	80.00- 120.00	100.00
16.906	16.906 (1.010)	41	60582			0.00- 0.00	70.31
16.906	16.906 (1.010)	43	43908			0.00- 0.00	50.96
128 Ethyl acrylate						CAS #: 140-88-5	
17.195	17.195 (1.027)	99	12018	2.00000	1.873	0.00- 0.00	100.00
17.195	17.195 (1.027)	45	9454			0.00- 0.00	78.67
17.195	17.195 (1.027)	55	113112			0.00- 0.00	941.19
131 2-Pentanone						CAS #: 107-87-9	
17.388	17.388 (1.039)	43	160148	2.00000	1.950	0.00- 0.00	100.00
17.388	17.388 (1.039)	58	15429			0.00- 0.00	9.63
17.388	17.388 (1.039)	86	36319			0.00- 0.00	22.68
134 Methyl Methacrylate						CAS #: 80-62-6	
17.556	17.556 (1.049)	41	82422	2.00000	1.974	0.00- 0.00	100.00
17.556	17.556 (1.049)	69	66738			0.00- 0.00	80.97
17.581	17.581 (1.050)	100	30876			0.00- 0.00	37.46
137 Dibromomethane						CAS #: 74-95-3	
17.822	17.822 (1.065)	174	137376	2.00000	1.895	0.00- 0.00	100.00
17.797	17.797 (1.063)	93	106138			0.00- 0.00	77.26
17.822	17.822 (1.065)	95	84699			0.00- 0.00	61.65
148 Octane						CAS #: 111-65-9	
19.343	19.343 (1.156)	57	46971	2.00000	2.060	0.00- 0.00	100.00
19.343	19.343 (1.156)	85	59327			0.00- 0.00	126.31
19.343	19.343 (1.156)	43	97017			0.00- 0.00	206.55
157 1,3-Dichloropropane						CAS #: 142-28-9	
20.822	20.822 (0.939)	76	115620	2.00000	1.943	80.00- 120.00	100.00
20.822	20.822 (0.939)	41	71976			0.00- 0.00	62.25
20.822	20.822 (0.939)	78	36604			0.00- 0.00	31.66
159 Butyl Acetate						CAS #: 123-86-4	
20.932	20.932 (0.944)	56	10309	2.00000	1.672	80.00- 120.00	100.00
20.905	20.905 (0.943)	73	5616			0.00- 0.00	54.48
20.932	20.932 (0.944)	43	31209			0.00- 0.00	302.74
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	456942	5.00000		80.00- 120.00	100.00

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

* 163 Chlorobenzene-d5 (continued)
 22.177  22.177 (1.000)    82    227853                   17.27-  77.27    49.86
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 22.343  22.343 (1.007)   131    165855 2.00000    1.988  80.00- 120.00   100.00
 22.343  22.343 (1.007)   117     97711                    0.00-   0.00    58.91
 22.343  22.343 (1.007)    95     61852                    0.00-   0.00    37.29
-------------------------------------------------------------------------------
  170 Nonane                                       CAS #: 111-84-2
 22.302  22.302 (1.006)    43     86106 2.00000    2.010   0.00-   0.00   100.00
 22.302  22.302 (1.006)    57     81023                    0.00-   0.00    94.10
 22.302  22.302 (1.006)    85     40841                    0.00-   0.00    47.43
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 23.214  23.214 (1.047)    58     76160 2.00000    2.052  80.00- 120.00   100.00
 23.214  23.214 (1.047)    43    122973                    0.00-   0.00   161.47
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 23.811  23.811 (1.074)    55     64271 2.00000    1.892  80.00- 120.00   100.00
 23.811  23.811 (1.074)    98     40018                    0.00-   0.00    62.26
 23.811  23.811 (1.074)    42     48692                    0.00-   0.00    75.76
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 24.080  24.080 (1.086)   156    155746 2.00000    1.909  80.00- 120.00   100.00
 24.080  24.080 (1.086)   158    161851                    0.00-   0.00   103.92
 24.080  24.080 (1.086)    77    196514                    0.00-   0.00   126.18
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 24.125  24.125 (1.088)   110     65664 2.00000    2.011  80.00- 120.00   100.00
 24.125  24.125 (1.088)    75    201090                    0.00-   0.00   306.24
 24.125  24.125 (1.088)    61     42750                    0.00-   0.00    65.10
-------------------------------------------------------------------------------
  187 Decane                                       CAS #: 124-18-5
 24.170  24.170 (1.090)    57     67829 2.00000    2.017   0.00-   0.00   100.00
 24.237  24.237 (1.093)    71       597                    0.00-   0.00     0.88
 24.439  24.439 (1.102)   142     24300                    0.00-   0.00    35.83
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 24.282  24.282 (1.095)   126     96296 2.00000    1.906  80.00- 120.00   100.00
 24.282  24.282 (1.095)    91    268408                    0.00-   0.00   278.73
 24.282  24.282 (1.095)    65     25482                    0.00-   0.00    26.46
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 24.416  24.416 (1.101)   126     91596 2.00000    1.968  80.00- 120.00   100.00
 24.416  24.416 (1.101)    91    253821                    0.00-   0.00   277.11
 24.416  24.416 (1.101)    63     37129                    0.00-   0.00    40.54
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
195 tert-Butylbenzene					CAS #: 98-06-6		
24.708	24.708 (1.114)	119	265415	2.00000	1.939	80.00- 120.00	100.00
24.708	24.708 (1.114)	134	65317			0.00- 0.00	24.61
24.686	24.686 (1.113)	91	175478			0.00- 0.00	66.11
197 Pentachloroethane					CAS #: 76-01-7		
24.798	24.798 (1.118)	167	169207	2.00000	2.140	80.00- 120.00	100.00
24.798	24.798 (1.118)	117	135077			0.00- 0.00	79.83
24.798	24.798 (1.118)	169	76415			0.00- 0.00	45.16
203 sec-Butylbenzene					CAS #: 135-98-8		
24.955	24.955 (1.125)	105	512094	2.00000	2.019	80.00- 120.00	100.00
24.955	24.955 (1.125)	134	115375			0.00- 0.00	22.53
24.955	24.955 (1.125)	91	85272			0.00- 0.00	16.65
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4		
25.044	25.044 (1.129)	93	148857	2.00000	2.018	0.00- 0.00	100.00
25.044	25.044 (1.129)	95	50594			0.00- 0.00	33.99
25.044	25.044 (1.129)	63	100082			0.00- 0.00	67.23
207 p-Cymene					CAS #: 99-87-6		
25.089	25.089 (1.131)	119	320221	2.00000	2.075	80.00- 120.00	100.00
25.089	25.089 (1.131)	134	83481			0.00- 0.00	26.07
25.089	25.089 (1.131)	91	74113			0.00- 0.00	23.14
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.269	25.269 (1.139)	120	92906	2.00000	1.986	80.00- 120.00	100.00
25.269	25.269 (1.139)	105	218839			0.00- 0.00	235.55
25.246	25.246 (1.138)	77	32004			0.00- 0.00	34.45
213 Butylbenzene					CAS #: 104-51-8		
25.538	25.538 (1.152)	134	73586	2.00000	1.942	80.00- 120.00	100.00
25.538	25.538 (1.152)	91	251246			0.00- 0.00	341.43
25.538	25.538 (1.152)	92	135327			0.00- 0.00	183.90
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	47401	2.00000	1.996	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	37685			0.00- 0.00	79.50
25.515	25.515 (1.151)	85	15064			0.00- 0.00	31.78
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	128424	2.00000	2.101	80.00- 120.00	100.00
26.546	26.546 (1.197)	75	98320			0.00- 0.00	76.56
26.546	26.546 (1.197)	155	96207			0.00- 0.00	74.91
225 Dodecane					CAS #: 112-40-3		
26.614	26.614 (1.200)	85	20209	2.00000	2.275	0.00- 0.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
225 Dodecane (continued)								
26.614	26.614	(1.200)	57	47818			0.00- 0.00	236.62
26.614	26.614	(1.200)	43	35961			0.00- 0.00	177.95

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 30-Jan-2017 10:45

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012707.d
Lab Smp Id: Level 9
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/27Jan2017.b/e17l0126a.m
Misc Info: 2.0ppbv (5.0ppbv) Combo

Calibration Date: 27-JAN-2017
Calibration Time: 12:13

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	170744	102446	239042	141493	-17.13
123 1,4-Difluorobenze	602830	361698	843962	500927	-16.90
163 Chlorobenzene-d5	541524	324914	758134	456942	-15.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/27Jan2017.b/e012707.d

Date : 27-JAN-2017 18:04

Client ID:

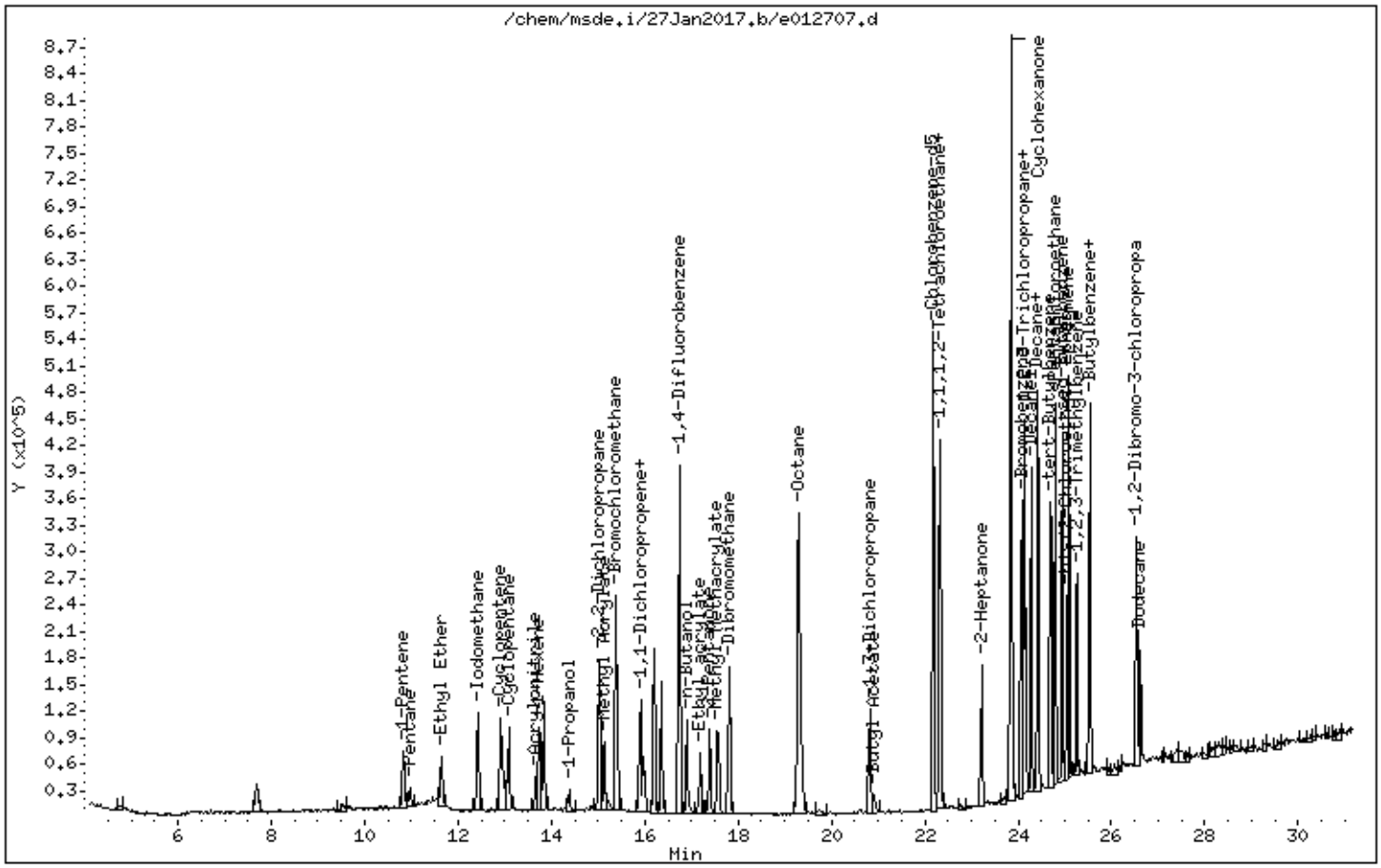
Instrument: msde.i

Sample Info: 100mL# 2819-242

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/27Jan2017.b/e012708.d
Lab Smp Id: Level 11
Inj Date : 27-JAN-2017 18:48
Operator : ea Inst ID: msde.i
Smp Info : 200mL# 2819-242
Misc Info : 4.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/27Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:45 efinn Quant Type: ISTD
Cal Date : 27-JAN-2017 18:48 Cal File: e012708.d
Als bottle: 1 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.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
36 1-Pentene					CAS #: 109-67-1		
10.843	10.843 (0.704)	55	92858	4.00000	3.922	0.00- 0.00	100.00
10.824	10.824 (0.703)	42	103124			0.00- 0.00	111.06
34 Pentane					CAS #: 109-66-0		
10.976	10.976 (0.713)	43	43378	4.00000	3.864	0.00- 0.00	100.00
10.976	10.976 (0.713)	57	7639			0.00- 0.00	17.61
10.976	10.976 (0.713)	72	7224			0.00- 0.00	16.65
44 Ethyl Ether					CAS #: 60-29-7		
11.643	11.643 (0.756)	74	58590	4.00000	3.757	0.00- 0.00	100.00(T)
11.643	11.643 (0.756)	59	77138			0.00- 0.00	131.66
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.424	12.424 (0.807)	142	355054	4.00000	3.952	0.00- 0.00	100.00
12.424	12.424 (0.807)	127	179676			0.00- 0.00	50.61
59 Cyclopentene					CAS #: 142-29-0		
12.919	12.919 (0.839)	67	261608	4.00000	4.102	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
59 Cyclopentene (continued)							
12.919	12.919 (0.839)	68	95885			0.00- 0.00	36.65
12.919	12.919 (0.839)	53	51596			0.00- 0.00	19.72
64 Cyclopentane					CAS #: 287-92-3		
13.094	13.094 (0.851)	70	65412	4.00000	3.737	0.00- 0.00	100.00
13.094	13.094 (0.851)	55	76019			0.00- 0.00	116.22
74 Acrylonitrile					CAS #: 107-13-1		
13.671	13.671 (0.888)	53	90770	4.00000	4.229	0.00- 0.00	100.00
13.671	13.671 (0.888)	52	72596			0.00- 0.00	79.98
76 1-Hexene					CAS #: 592-41-6		
13.726	13.726 (0.892)	55	75394	4.00000	4.127	0.00- 0.00	100.00
13.726	13.726 (0.892)	41	118941			0.00- 0.00	157.76
13.726	13.726 (0.892)	84	36539			0.00- 0.00	48.46
84 1-Propanol					CAS #: 71-23-8		
14.384	14.384 (0.935)	59	27785	4.00000	3.690	80.00- 120.00	100.00
14.384	14.384 (0.935)	42	24874			0.00- 0.00	89.52
14.384	14.384 (0.935)	41	14699			0.00- 0.00	52.90
90 2,2-Dichloropropane					CAS #: 594-20-7		
15.009	15.009 (0.975)	77	330237	4.00000	3.991	80.00- 120.00	100.00
15.009	15.009 (0.975)	79	101017			0.00- 0.00	30.59
15.009	15.009 (0.975)	97	63493			0.00- 0.00	19.23
93 Methyl Acrylate					CAS #: 96-33-3		
15.142	15.142 (0.984)	55	241012	4.00000	4.195	0.00- 0.00	100.00
15.142	15.142 (0.984)	85	48277			0.00- 0.00	20.03
15.142	15.142 (0.984)	58	22008			0.00- 0.00	9.13
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	139411	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	110268			46.73- 106.73	79.10
15.391	15.391 (1.000)	49	112739			55.35- 115.35	80.87
107 1,1-Dichloropropene					CAS #: 563-58-6		
15.915	15.915 (1.034)	110	88671	4.00000	3.968	80.00- 120.00	100.00
15.915	15.915 (1.034)	75	214421			0.00- 0.00	241.82
115 Isobutanol					CAS #: 78-83-1		
15.977	15.977 (1.038)	43	85308	4.00000	3.920	80.00- 120.00	100.00
15.977	15.977 (1.038)	41	75336			0.00- 0.00	88.31
15.977	15.977 (1.038)	55	10594			0.00- 0.00	12.42

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	511284	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	77667			0.00- 45.16	15.19
124 n-Butanol						CAS #: 71-36-3	
16.906	16.906 (1.010)	56	161498	4.00000	3.850	80.00- 120.00	100.00
16.906	16.906 (1.010)	41	123971			0.00- 0.00	76.76
16.906	16.906 (1.010)	43	88483			0.00- 0.00	54.79
128 Ethyl acrylate						CAS #: 140-88-5	
17.195	17.195 (1.027)	99	24431	4.00000	3.731	0.00- 0.00	100.00
17.195	17.195 (1.027)	45	20667			0.00- 0.00	84.59
17.195	17.195 (1.027)	55	229320			0.00- 0.00	938.64
131 2-Pentanone						CAS #: 107-87-9	
17.388	17.388 (1.039)	43	317991	4.00000	3.792	0.00- 0.00	100.00
17.388	17.388 (1.039)	58	28769			0.00- 0.00	9.05
17.388	17.388 (1.039)	86	78734			0.00- 0.00	24.76
134 Methyl Methacrylate						CAS #: 80-62-6	
17.556	17.556 (1.049)	41	167086	4.00000	3.921	0.00- 0.00	100.00
17.556	17.556 (1.049)	69	141236			0.00- 0.00	84.53
17.581	17.581 (1.050)	100	64114			0.00- 0.00	38.37
137 Dibromomethane						CAS #: 74-95-3	
17.822	17.822 (1.065)	174	265266	4.00000	3.585	0.00- 0.00	100.00
17.797	17.797 (1.063)	93	212434			0.00- 0.00	80.08
17.797	17.797 (1.063)	95	174914			0.00- 0.00	65.94
148 Octane						CAS #: 111-65-9	
19.343	19.343 (1.156)	57	88512	4.00000	3.803	0.00- 0.00	100.00
19.343	19.343 (1.156)	85	120290			0.00- 0.00	135.90
19.343	19.343 (1.156)	43	209985			0.00- 0.00	237.24
157 1,3-Dichloropropane						CAS #: 142-28-9	
20.822	20.822 (0.939)	76	240335	4.00000	4.016	80.00- 120.00	100.00
20.822	20.822 (0.939)	41	152170			0.00- 0.00	63.32
20.822	20.822 (0.939)	78	81959			0.00- 0.00	34.10
159 Butyl Acetate						CAS #: 123-86-4	
20.905	20.905 (0.943)	56	26260	4.00000	4.233	80.00- 120.00	100.00
20.905	20.905 (0.943)	73	9162			0.00- 0.00	34.89
20.905	20.905 (0.943)	43	56798			0.00- 0.00	216.29
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	459686	5.00000		80.00- 120.00	100.00

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

* 163 Chlorobenzene-d5 (continued)
 22.177  22.177 (1.000)    82    231715                   17.27-  77.27    50.41
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 22.343  22.343 (1.007)   131    320674 4.00000    3.821  80.00- 120.00   100.00
 22.343  22.343 (1.007)   117    196958                    0.00-   0.00    61.42
 22.343  22.343 (1.007)    95    125352                    0.00-   0.00    39.09
-------------------------------------------------------------------------------
  170 Nonane                                       CAS #: 111-84-2
 22.302  22.302 (1.006)    43    183095 4.00000    4.249   0.00-   0.00   100.00
 22.302  22.302 (1.006)    57    171283                    0.00-   0.00    93.55
 22.302  22.302 (1.006)    85     84650                    0.00-   0.00    46.23
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 23.214  23.214 (1.047)    58    168751 4.00000    4.520  80.00- 120.00   100.00
 23.214  23.214 (1.047)    43    258825                    0.00-   0.00   153.38
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 23.811  23.811 (1.074)    55    141076 4.00000    4.128  80.00- 120.00   100.00
 23.811  23.811 (1.074)    98     74445                    0.00-   0.00    52.77
 23.811  23.811 (1.074)    42    101958                    0.00-   0.00    72.27
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 24.080  24.080 (1.086)   156    330617 4.00000    4.029  80.00- 120.00   100.00
 24.080  24.080 (1.086)   158    303966                    0.00-   0.00    91.94
 24.058  24.058 (1.085)    77    397255                    0.00-   0.00   120.16
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 24.125  24.125 (1.088)   110    123987 4.00000    3.775  80.00- 120.00   100.00
 24.125  24.125 (1.088)    75    404878                    0.00-   0.00   326.55
 24.125  24.125 (1.088)    61     81052                    0.00-   0.00    65.37
-------------------------------------------------------------------------------
  187 Decane                                       CAS #: 124-18-5
 24.170  24.170 (1.090)    57    149627 4.00000    4.422   0.00-   0.00   100.00
 24.282  24.282 (1.095)    71      1904                    0.00-   0.00     1.27
 24.439  24.439 (1.102)   142     55226                    0.00-   0.00    36.91
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 24.282  24.282 (1.095)   126    196307 4.00000    3.863  80.00- 120.00   100.00
 24.282  24.282 (1.095)    91    547204                    0.00-   0.00   278.75
 24.282  24.282 (1.095)    65     52315                    0.00-   0.00    26.65
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 24.416  24.416 (1.101)   126    188015 4.00000    4.016  80.00- 120.00   100.00
 24.416  24.416 (1.101)    91    492494                    0.00-   0.00   261.94
 24.416  24.416 (1.101)    63     70611                    0.00-   0.00    37.56
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
195 tert-Butylbenzene					CAS #: 98-06-6		
24.686	24.686 (1.113)	119	554994	4.00000	4.031	80.00- 120.00	100.00
24.686	24.686 (1.113)	134	129896			0.00- 0.00	23.40
24.686	24.686 (1.113)	91	352045			0.00- 0.00	63.43
197 Pentachloroethane					CAS #: 76-01-7		
24.798	24.798 (1.118)	167	328465	4.00000	4.130	80.00- 120.00	100.00
24.798	24.798 (1.118)	117	255764			0.00- 0.00	77.87
24.798	24.798 (1.118)	169	148747			0.00- 0.00	45.29
203 sec-Butylbenzene					CAS #: 135-98-8		
24.955	24.955 (1.125)	105	1045735	4.00000	4.098	80.00- 120.00	100.00
24.955	24.955 (1.125)	134	220259			0.00- 0.00	21.06
24.955	24.955 (1.125)	91	160868			0.00- 0.00	15.38
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4		
25.044	25.044 (1.129)	93	300496	4.00000	4.049	0.00- 0.00	100.00
25.044	25.044 (1.129)	95	99758			0.00- 0.00	33.20
25.044	25.044 (1.129)	63	187858			0.00- 0.00	62.52
207 p-Cymene					CAS #: 99-87-6		
25.089	25.089 (1.131)	119	660482	4.00000	4.254	80.00- 120.00	100.00
25.089	25.089 (1.131)	134	176683			0.00- 0.00	26.75
25.089	25.089 (1.131)	91	147864			0.00- 0.00	22.39
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.246	25.246 (1.138)	120	192413	4.00000	4.089	80.00- 120.00	100.00
25.246	25.246 (1.138)	105	452737			0.00- 0.00	235.29
25.246	25.246 (1.138)	77	51961			0.00- 0.00	27.00
213 Butylbenzene					CAS #: 104-51-8		
25.538	25.538 (1.152)	134	164071	4.00000	4.305	80.00- 120.00	100.00
25.538	25.538 (1.152)	91	528537			0.00- 0.00	322.14
25.538	25.538 (1.152)	92	277337			0.00- 0.00	169.03
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	96516	4.00000	4.041	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	88841			0.00- 0.00	92.05
25.515	25.515 (1.151)	85	33261			0.00- 0.00	34.46
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	242320	4.00000	3.940	80.00- 120.00	100.00
26.524	26.524 (1.196)	75	194512			0.00- 0.00	80.27
26.546	26.546 (1.197)	155	188651			0.00- 0.00	77.85
225 Dodecane					CAS #: 112-40-3		
26.614	26.614 (1.200)	85	22761	4.00000	2.547	0.00- 0.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
225 Dodecane (continued)								
26.614	26.614	(1.200)	57	69228			0.00- 0.00	304.15
26.614	26.614	(1.200)	43	54698			0.00- 0.00	240.31

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 30-Jan-2017 10:45

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012708.d
Lab Smp Id: Level 11
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/27Jan2017.b/e17l0126a.m
Misc Info: 4.0ppbv (5.0ppbv) Combo

Calibration Date: 27-JAN-2017
Calibration Time: 12:13

Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	170744	102446	239042	139411	-18.35
123 1,4-Difluorobenze	602830	361698	843962	511284	-15.19
163 Chlorobenzene-d5	541524	324914	758134	459686	-15.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/27Jan2017.b/e012708.d

Date : 27-JAN-2017 18:48

Client ID:

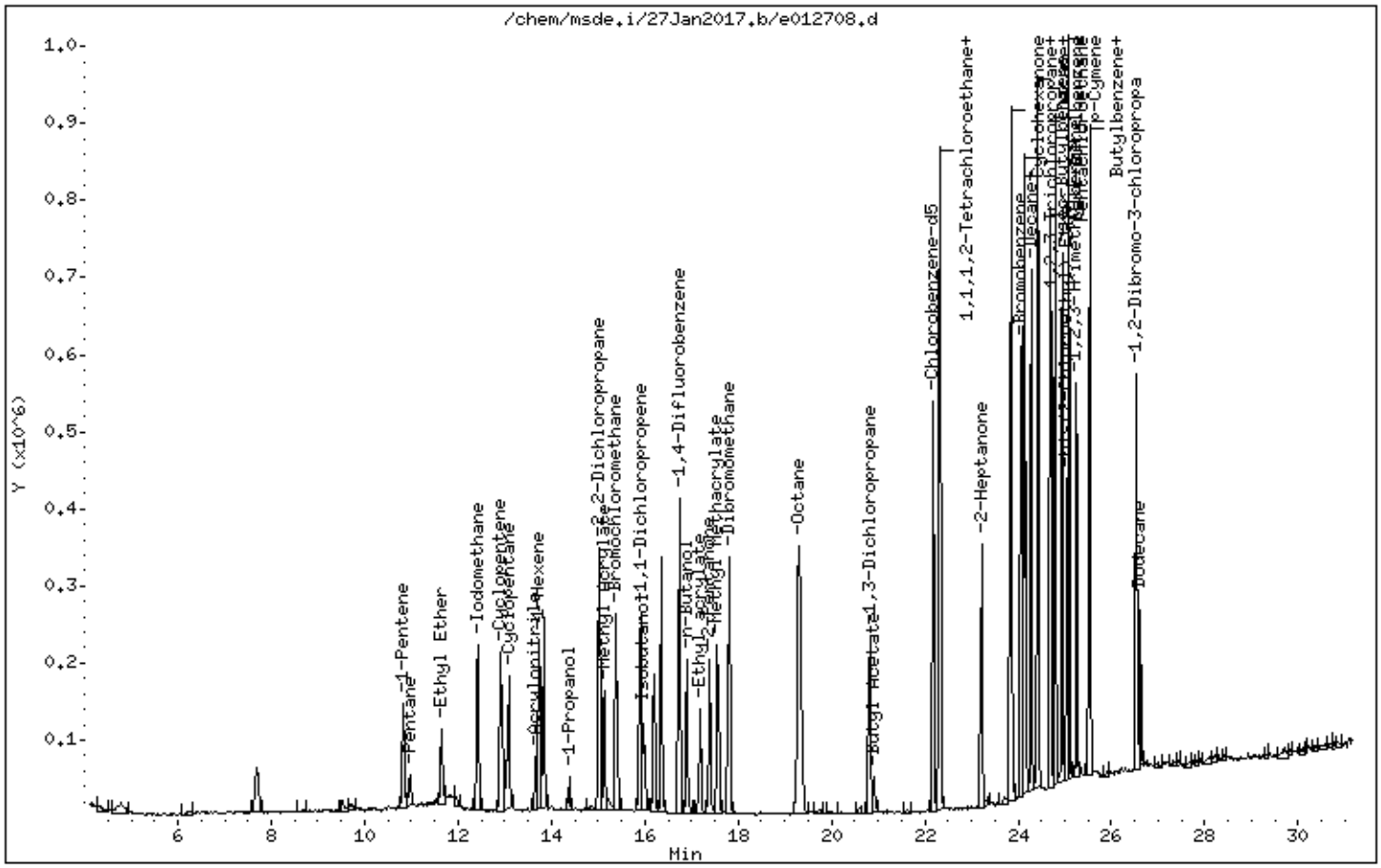
Instrument: msde.i

Sample Info: 200mL# 2819-242

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/27Jan2017.b/e012709.d
Lab Smp Id: Level 12
Inj Date : 27-JAN-2017 19:31
Operator : ea Inst ID: msde.i
Smp Info : 250mL# 2819-242
Misc Info : 5.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/27Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:45 efinn Quant Type: ISTD
Cal Date : 27-JAN-2017 19:31 Cal File: e012709.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.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
36 1-Pentene					CAS #: 109-67-1		
10.843	10.843 (0.704)	55	112029	5.00000	4.616	0.00- 0.00	100.00
10.843	10.843 (0.704)	42	126310			0.00- 0.00	112.75
34 Pentane					CAS #: 109-66-0		
10.976	10.976 (0.713)	43	46419	5.00000	4.034	0.00- 0.00	100.00
10.976	10.976 (0.713)	57	11195			0.00- 0.00	24.12
10.976	10.976 (0.713)	72	6617			0.00- 0.00	14.25
44 Ethyl Ether					CAS #: 60-29-7		
11.642	11.642 (0.756)	74	70345	5.00000	4.400	0.00- 0.00	100.00(T)
11.642	11.642 (0.756)	59	96350			0.00- 0.00	136.97
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.423	12.423 (0.807)	142	458610	5.00000	4.980	0.00- 0.00	100.00
12.423	12.423 (0.807)	127	231379			0.00- 0.00	50.45
59 Cyclopentene					CAS #: 142-29-0		
12.919	12.919 (0.839)	67	328807	5.00000	5.030	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
59 Cyclopentene (continued)							
12.919	12.919 (0.839)	68	129043			0.00- 0.00	39.25
12.919	12.919 (0.839)	53	59727			0.00- 0.00	18.16
64 Cyclopentane					CAS #: 287-92-3		
13.094	13.094 (0.851)	70	92302	5.00000	5.144	0.00- 0.00	100.00
13.094	13.094 (0.851)	55	106082			0.00- 0.00	114.93
74 Acrylonitrile					CAS #: 107-13-1		
13.671	13.671 (0.888)	53	106791	5.00000	4.853	0.00- 0.00	100.00
13.671	13.671 (0.888)	52	90911			0.00- 0.00	85.13
76 1-Hexene					CAS #: 592-41-6		
13.726	13.726 (0.892)	55	95105	5.00000	5.078	0.00- 0.00	100.00
13.726	13.726 (0.892)	41	150616			0.00- 0.00	158.37
13.726	13.726 (0.892)	84	47647			0.00- 0.00	50.10
84 1-Propanol					CAS #: 71-23-8		
14.384	14.384 (0.935)	59	40447	5.00000	5.240	80.00- 120.00	100.00
14.384	14.384 (0.935)	42	34914			0.00- 0.00	86.32
14.384	14.384 (0.935)	41	23313			0.00- 0.00	57.64
90 2,2-Dichloropropane					CAS #: 594-20-7		
15.009	15.009 (0.975)	77	403475	5.00000	4.757	80.00- 120.00	100.00
15.009	15.009 (0.975)	79	123853			0.00- 0.00	30.70
15.009	15.009 (0.975)	97	78711			0.00- 0.00	19.51
93 Methyl Acrylate					CAS #: 96-33-3		
15.142	15.142 (0.984)	55	297996	5.00000	5.060	0.00- 0.00	100.00
15.142	15.142 (0.984)	85	63445			0.00- 0.00	21.29
15.142	15.142 (0.984)	58	28477			0.00- 0.00	9.56
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	142916	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	112064			46.73- 106.73	78.41
15.391	15.391 (1.000)	49	122136			55.35- 115.35	85.46
107 1,1-Dichloropropene					CAS #: 563-58-6		
15.915	15.915 (1.034)	110	104087	5.00000	4.544	80.00- 120.00	100.00
15.915	15.915 (1.034)	75	271197			0.00- 0.00	260.55
115 Isobutanol					CAS #: 78-83-1		
15.977	15.977 (1.038)	43	117684	5.00000	5.275	80.00- 120.00	100.00
15.977	15.977 (1.038)	41	104337			0.00- 0.00	88.66
15.977	15.977 (1.038)	55	12742			0.00- 0.00	10.83

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	506234	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	80856			0.00- 45.16	15.97
124 n-Butanol						CAS #: 71-36-3	
16.906	16.906 (1.010)	56	218578	5.00000	5.263	80.00- 120.00	100.00
16.906	16.906 (1.010)	41	163221			0.00- 0.00	74.67
16.906	16.906 (1.010)	43	111923			0.00- 0.00	51.21
128 Ethyl acrylate						CAS #: 140-88-5	
17.195	17.195 (1.027)	99	25127	5.00000	3.876	0.00- 0.00	100.00
17.195	17.195 (1.027)	45	25404			0.00- 0.00	101.10
17.195	17.195 (1.027)	55	289022			0.00- 0.00	1150.24
131 2-Pentanone						CAS #: 107-87-9	
17.388	17.388 (1.039)	43	406092	5.00000	4.892	0.00- 0.00	100.00
17.388	17.388 (1.039)	58	35458			0.00- 0.00	8.73
17.388	17.388 (1.039)	86	90406			0.00- 0.00	22.26
134 Methyl Methacrylate						CAS #: 80-62-6	
17.556	17.556 (1.049)	41	212610	5.00000	5.039	0.00- 0.00	100.00
17.556	17.556 (1.049)	69	176692			0.00- 0.00	83.11
17.556	17.556 (1.049)	100	90432			0.00- 0.00	42.53
137 Dibromomethane						CAS #: 74-95-3	
17.797	17.797 (1.063)	174	363121	5.00000	4.956	0.00- 0.00	100.00
17.797	17.797 (1.063)	93	263451			0.00- 0.00	72.55
17.797	17.797 (1.063)	95	215126			0.00- 0.00	59.24
148 Octane						CAS #: 111-65-9	
19.343	19.343 (1.156)	57	110599	5.00000	4.800	0.00- 0.00	100.00
19.343	19.343 (1.156)	85	155393			0.00- 0.00	140.50
19.343	19.343 (1.156)	43	246993			0.00- 0.00	223.32
157 1,3-Dichloropropane						CAS #: 142-28-9	
20.822	20.822 (0.939)	76	305059	5.00000	4.878	80.00- 120.00	100.00
20.822	20.822 (0.939)	41	184173			0.00- 0.00	60.37
20.822	20.822 (0.939)	78	101060			0.00- 0.00	33.13
159 Butyl Acetate						CAS #: 123-86-4	
20.905	20.905 (0.943)	56	31422	5.00000	4.847	80.00- 120.00	100.00
20.905	20.905 (0.943)	73	12559			0.00- 0.00	39.97
20.905	20.905 (0.943)	43	73514			0.00- 0.00	233.96
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	480346	5.00000		80.00- 120.00	100.00

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

* 163 Chlorobenzene-d5 (continued)
 22.177  22.177 (1.000)    82    231651                   17.27-  77.27    48.23
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 22.343  22.343 (1.007)   131    413764 5.00000    4.718  80.00- 120.00   100.00
 22.343  22.343 (1.007)   117    247052                    0.00-   0.00    59.71
 22.343  22.343 (1.007)    95    148630                    0.00-   0.00    35.92
-------------------------------------------------------------------------------
  170 Nonane                                       CAS #: 111-84-2
 22.301  22.301 (1.006)    43    228636 5.00000    5.078   0.00-   0.00   100.00
 22.301  22.301 (1.006)    57    220745                    0.00-   0.00    96.55
 22.301  22.301 (1.006)    85    105967                    0.00-   0.00    46.35
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 23.214  23.214 (1.047)    58    215174 5.00000    5.516  80.00- 120.00   100.00
 23.214  23.214 (1.047)    43    341789                    0.00-   0.00   158.84
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 23.811  23.811 (1.074)    55    178640 5.00000    5.003  80.00- 120.00   100.00
 23.811  23.811 (1.074)    98    100549                    0.00-   0.00    56.29
 23.811  23.811 (1.074)    42    127993                    0.00-   0.00    71.65
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 24.080  24.080 (1.086)   156    398224 5.00000    4.644  80.00- 120.00   100.00
 24.080  24.080 (1.086)   158    404157                    0.00-   0.00   101.49
 24.058  24.058 (1.085)    77    616718                    0.00-   0.00   154.87
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 24.125  24.125 (1.088)   110    159802 5.00000    4.656  80.00- 120.00   100.00
 24.125  24.125 (1.088)    75    505421                    0.00-   0.00   316.28
 24.125  24.125 (1.088)    61    103656                    0.00-   0.00    64.87
-------------------------------------------------------------------------------
  187 Decane                                       CAS #: 124-18-5
 24.170  24.170 (1.090)    57    185094 5.00000    5.235   0.00-   0.00   100.00
 24.282  24.282 (1.095)    71       530                    0.00-   0.00     0.29
 24.439  24.439 (1.102)   142     63862                    0.00-   0.00    34.50
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 24.282  24.282 (1.095)   126    250737 5.00000    4.722  80.00- 120.00   100.00
 24.282  24.282 (1.095)    91    665835                    0.00-   0.00   265.55
 24.282  24.282 (1.095)    65     64734                    0.00-   0.00    25.82
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 24.416  24.416 (1.101)   126    238257 5.00000    4.870  80.00- 120.00   100.00
 24.416  24.416 (1.101)    91    646238                    0.00-   0.00   271.24
 24.416  24.416 (1.101)    63     81640                    0.00-   0.00    34.27
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
195 tert-Butylbenzene					CAS #: 98-06-6		
24.686	24.686 (1.113)	119	699785	5.00000	4.864	80.00- 120.00	100.00
24.686	24.686 (1.113)	134	164588			0.00- 0.00	23.52
24.686	24.686 (1.113)	91	436235			0.00- 0.00	62.34
197 Pentachloroethane					CAS #: 76-01-7		
24.798	24.798 (1.118)	167	371288	5.00000	4.467	80.00- 120.00	100.00
24.798	24.798 (1.118)	117	320598			0.00- 0.00	86.35
24.798	24.798 (1.118)	169	179619			0.00- 0.00	48.38
203 sec-Butylbenzene					CAS #: 135-98-8		
24.955	24.955 (1.125)	105	1297719	5.00000	4.867	80.00- 120.00	100.00
24.955	24.955 (1.125)	134	280764			0.00- 0.00	21.64
24.955	24.955 (1.125)	91	210343			0.00- 0.00	16.21
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4		
25.044	25.044 (1.129)	93	400589	5.00000	5.166	0.00- 0.00	100.00
25.044	25.044 (1.129)	95	129565			0.00- 0.00	32.34
25.044	25.044 (1.129)	63	246323			0.00- 0.00	61.49
207 p-Cymene					CAS #: 99-87-6		
25.089	25.089 (1.131)	119	794904	5.00000	4.900	80.00- 120.00	100.00
25.089	25.089 (1.131)	134	219189			0.00- 0.00	27.57
25.089	25.089 (1.131)	91	198348			0.00- 0.00	24.95
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.246	25.246 (1.138)	120	253859	5.00000	5.163	80.00- 120.00	100.00
25.246	25.246 (1.138)	105	570121			0.00- 0.00	224.58
25.246	25.246 (1.138)	77	73307			0.00- 0.00	28.88
213 Butylbenzene					CAS #: 104-51-8		
25.538	25.538 (1.152)	134	199180	5.00000	5.002	80.00- 120.00	100.00
25.538	25.538 (1.152)	91	670017			0.00- 0.00	336.39
25.538	25.538 (1.152)	92	346792			0.00- 0.00	174.11
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	117477	5.00000	4.707	0.00- 0.00	100.00
25.493	25.493 (1.149)	43	106408			0.00- 0.00	90.58
25.515	25.515 (1.151)	85	40749			0.00- 0.00	34.69
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	305488	5.00000	4.754	80.00- 120.00	100.00
26.524	26.524 (1.196)	75	243415			0.00- 0.00	79.68
26.546	26.546 (1.197)	155	239385			0.00- 0.00	78.36
225 Dodecane					CAS #: 112-40-3		
26.614	26.614 (1.200)	85	32623	5.00000	3.494	0.00- 0.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
225 Dodecane (continued)								
26.614	26.614	(1.200)	57	84872			0.00- 0.00	260.16
26.614	26.614	(1.200)	43	71430			0.00- 0.00	218.96

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 30-Jan-2017 10:45

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012709.d
Lab Smp Id: Level 12
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/27Jan2017.b/e17l0126a.m
Misc Info: 5.0ppbv (5.0ppbv) Combo

Calibration Date: 27-JAN-2017
Calibration Time: 12:13

Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	170744	102446	239042	142916	-16.30
123 1,4-Difluorobenze	602830	361698	843962	506234	-16.02
163 Chlorobenzene-d5	541524	324914	758134	480346	-11.30

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/27Jan2017.b/e012709.d

Date : 27-JAN-2017 19:31

Client ID:

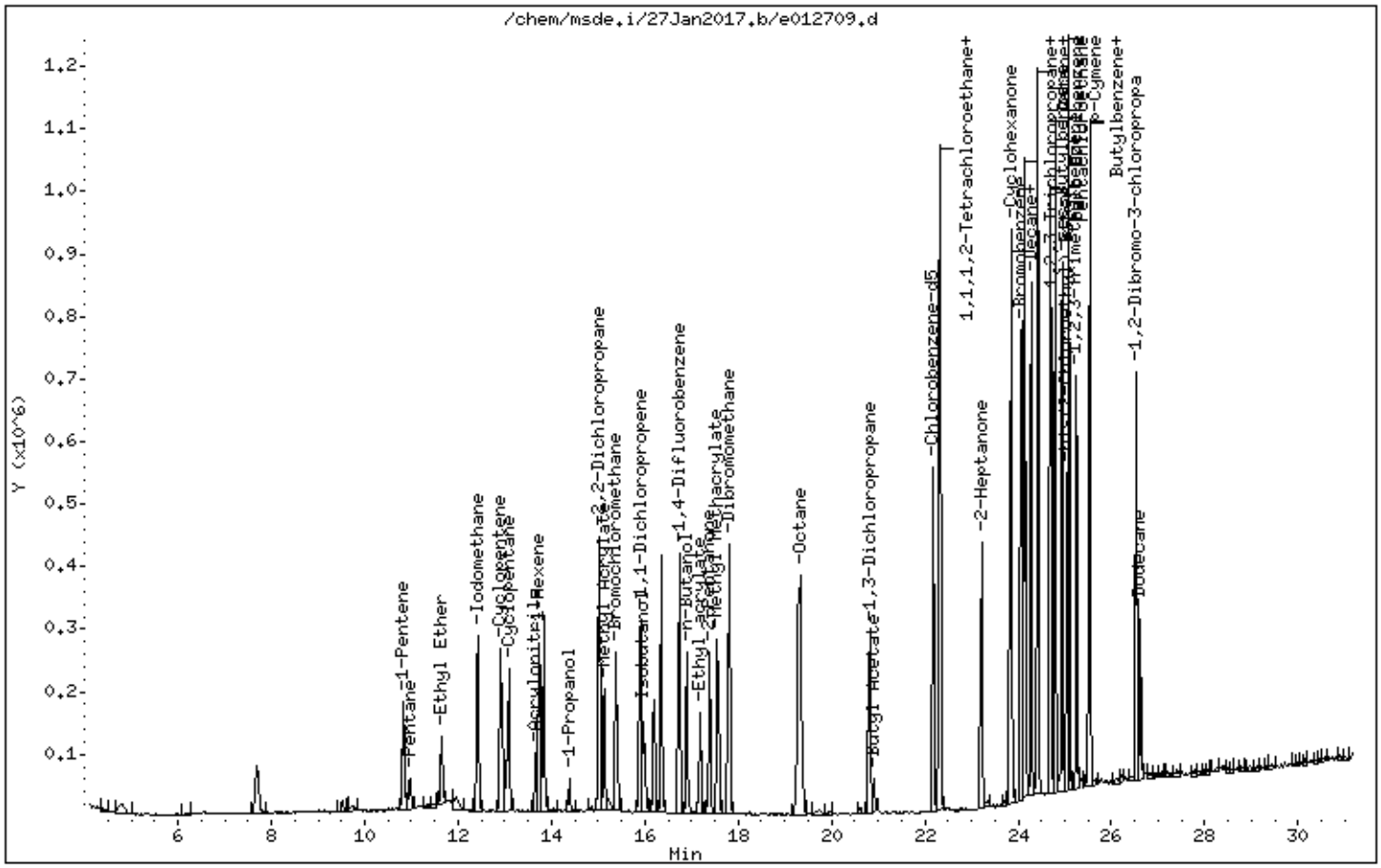
Instrument: msde.i

Sample Info: 250mL# 2819-242

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012614.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 26-JAN-2017 17:08
Operator : ea Inst ID: msde.i
Smp Info : 25mL# 2819-240
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:28 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 17:08 Cal File: e012614.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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
9 Propylene					CAS #: 115-07-1		
4.787	4.787 (0.311)	41	127208	5.00000	5.084	80.00- 120.00	100.00
4.738	4.738 (0.308)	42	79767			35.53- 95.53	62.71
4.738	4.738 (0.308)	39	107098			53.16- 113.16	84.19
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	775619	5.00000	5.039	80.00- 120.00	100.00
5.245	5.245 (0.341)	87	252628			1.91- 61.91	32.57
15 Freon 114					CAS #: 76-14-2		
6.618	6.618 (0.430)	135	591915	5.00000	5.010	80.00- 120.00	100.00
6.618	6.618 (0.430)	137	184960			0.98- 60.98	31.25
6.618	6.618 (0.430)	85	691803			86.82- 146.82	116.88
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	153150	5.00000	5.335	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	53288			3.31- 63.31	34.79
23 Butane					CAS #: 106-97-8		
7.675	7.675 (0.499)	58	34429	5.00000	4.940	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.675	7.675 (0.499)	43	238568			667.48- 727.48	692.93
25 Vinyl Chloride					CAS #: 75-01-4		
7.797	7.797 (0.507)	62	190937	5.00000	4.733	80.00- 120.00	100.00
7.797	7.797 (0.507)	64	61921			1.95- 61.95	32.43
26 1,3-Butadiene					CAS #: 106-99-0		
8.040	8.040 (0.522)	54	136323	5.00000	4.888	80.00- 120.00	100.00
8.040	8.040 (0.522)	39	143912			76.10- 136.10	105.57
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	215519	5.00000	5.108	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	211038			64.26- 124.26	97.92
30 Chloroethane					CAS #: 75-00-3		
10.005	10.005 (0.650)	64	107333	5.00000	5.146	80.00- 120.00	100.00
10.005	10.005 (0.650)	49	30596			0.00- 57.48	28.51
10.005	10.005 (0.650)	66	35417			1.33- 61.33	33.00
31 Isopentane					CAS #: 78-78-4		
10.138	10.138 (0.659)	57	149407	5.00000	4.960	80.00- 120.00	100.00
10.138	10.138 (0.659)	43	197402			96.48- 156.48	132.12
10.138	10.138 (0.659)	42	164071			76.93- 136.93	109.81
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	895948	5.00000	4.990	80.00- 120.00	100.00
10.766	10.766 (0.700)	103	590649			33.74- 93.74	65.92
42 Ethanol					CAS #: 64-17-5		
11.661	11.661 (0.758)	45	69233	5.00000	4.424	80.00- 120.00	100.00
11.661	11.661 (0.758)	46	24400			9.60- 69.60	35.24
11.681	11.681 (0.759)	43	22512			0.00- 59.21	32.52
49 Freon 113					CAS #: 76-13-1		
12.081	12.081 (0.785)	151	588729	5.00000	4.910	80.00- 120.00	100.00
12.081	12.081 (0.785)	153	382391			34.83- 94.83	64.95
12.081	12.081 (0.785)	101	632671			77.16- 137.16	107.46
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.100 (0.786)	98	165339	5.00000	5.162	80.00- 120.00	100.00
12.100	12.100 (0.786)	61	395263			219.47- 279.47	239.06
12.100	12.100 (0.786)	96	254296			126.81- 186.81	153.80
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	95865	5.00000	4.872	80.00- 120.00	100.00

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43    351319                   344.13- 404.13   366.47
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.462  12.462 (0.810)    76    665617 5.00000    4.890  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.728  12.728 (0.827)    45    318023 5.00000    5.020  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43     87547                    0.00-  55.65    27.53
 12.728  12.728 (0.827)    59     14695                    0.00-  34.42     4.62
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.900  12.900 (0.838)    76    134727 5.00000    5.038  80.00- 120.00   100.00
 12.900  12.900 (0.838)    41    306131                   198.88- 258.88   227.22
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.176  13.176 (0.856)    84    210452 5.00000    4.370  80.00- 120.00   100.00
 13.176  13.176 (0.856)    49    237546                   83.76- 143.76   112.87
 13.176  13.176 (0.856)    51     76960                    2.61-  62.61    36.57
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.369  13.369 (0.869)    59    468202 5.00000    5.116  80.00- 120.00   100.00
 13.369  13.369 (0.869)    41    103605                    0.00-  51.13    22.13
 13.369  13.369 (0.869)    57     49852                    0.00-  41.40    10.65
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.478  13.478 (0.876)    73    731114 5.00000    5.246  80.00- 120.00   100.00
 13.478  13.478 (0.876)    57    130166                    0.00-  49.77    17.80
 13.478  13.478 (0.876)    41    152825                    0.00-  49.98    20.90
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.533 (0.879)    98    152504 5.00000    5.019  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61    328344                   174.76- 234.76   215.30
 13.533  13.533 (0.879)    96    256836                   123.28- 183.28   168.41
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57    305735 5.00000    5.331  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43    173146                   27.83-  87.83    56.63
 13.835  13.835 (0.899)    86     61795                    0.00-  50.45    20.21
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.192  14.192 (0.922)    45    614651 5.00000    5.403  80.00- 120.00   100.00
 14.192  14.192 (0.922)    87    221122                    6.11-  66.11    35.98
 14.192  14.192 (0.922)    59     80304                    0.00-  42.83    13.06
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63    446213 5.00000    5.334  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 14.247  14.247 (0.926)    65    144492                     1.87-  61.87    32.38
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.275  14.275 (0.927)    86     66469 5.00000    5.250  80.00- 120.00   100.00
 14.275  14.275 (0.927)    42     64110                    71.31- 131.31    96.45
 14.275  14.275 (0.927)    43    594037                   931.28- 991.28   893.71
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.685  14.685 (0.954)    59    710545 5.00000    5.256  80.00- 120.00   100.00
 14.685  14.685 (0.954)    87    341713                    16.65-  76.65    48.09
 14.685  14.685 (0.954)    41    140140                     0.00-  49.22    19.72
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.066  15.066 (0.979)    98    183164 5.00000    4.966  80.00- 120.00   100.00
 15.066  15.066 (0.979)    61    359003                   154.54- 214.54   196.00
 15.066  15.066 (0.979)    96    296567                   117.78- 177.78   161.91
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    112870 5.00000    5.289  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    376883                   325.72- 385.72   333.91
 15.047  15.047 (0.978)    57     36555                     1.13-  61.13    32.39
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    193327 5.00000    5.005  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71     97254                    20.32-  80.32    50.31
 15.391  15.391 (1.000)    72    111339                    21.98-  81.98    57.59
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    173364 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    132339                    46.73- 106.73    76.34
 15.391  15.391 (1.000)    49    202494                    55.35- 115.35   116.80
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.453  15.453 (1.004)    83    624005 5.00000    4.967  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    427616                    36.62-  96.62    68.53
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.700  15.700 (1.020)    84    314530 5.00000    5.222  80.00- 120.00   100.00
 15.700  15.700 (1.020)    56    307066                    68.83- 128.83    97.63
 15.669  15.669 (1.018)    41    191224                    29.98-  89.98    60.80
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.700  15.700 (1.020)    97    736839 5.00000    4.986  80.00- 120.00   100.00
 15.700  15.700 (1.020)    99    472639                    34.65-  94.65    64.14
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.884  15.884 (1.032)   119    721858 5.00000    5.017  80.00- 120.00   100.00
 15.884  15.884 (1.032)   117    731392                   74.11- 134.11   101.32
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.111  16.111 (1.047)    56    441191 5.00000    5.468  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57   1342957                  277.67- 337.67   304.39
 16.111  16.111 (1.047)    41    456141                   73.43- 133.43   103.39
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78    750161 5.00000    5.059  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77    186136                    0.00-  53.00    24.81
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    241760 5.00000    4.856  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    125610                   22.67-  82.67    51.96
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.231  16.231 (0.970)    87    208824 5.00000    5.394  80.00- 120.00   100.00
 16.231  16.231 (0.970)    73    745578                  335.49- 395.49   357.04
 16.231  16.231 (0.970)    55    199071                   60.31- 120.31    95.33
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.303  16.303 (0.974)    62    444890 5.00000    4.870  80.00- 120.00   100.00
 16.303  16.303 (0.974)    64    144079                    1.95-  61.95    32.39
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    197295 5.00000    5.255  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    109833                   23.08-  83.08    55.67
 16.352  16.352 (0.977)    43    331433                  136.91- 196.91   167.99
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    600563 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     90128                    0.00-  45.16    15.01
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130    410779 5.00000    4.965  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95    359636                   61.87- 121.87    87.55
 17.147  17.147 (1.024)    97    232528                   29.29-  89.29    56.61
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.364  17.364 (1.037)    83    412403 5.00000    5.332  80.00- 120.00   100.00
 17.364  17.364 (1.037)    55    313172                   45.72- 105.72    75.94
 17.364  17.364 (1.037)    56     91958                    0.00-  52.26    22.30
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.580  17.580 (1.050)    63    234875 5.00000    5.042  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.580  17.580 (1.050)    62    169114                   41.22- 101.22    72.00
 17.580  17.580 (1.050)    41    172231                   40.14- 100.14    73.33
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.701  17.701 (1.058)    88    181653 5.00000    5.068  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    110667                   30.17-  90.17    60.92
 17.701  17.701 (1.058)    57     37471                    0.00-  51.30    20.63
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.014  18.014 (1.076)    83    647502 5.00000    5.030  80.00- 120.00   100.00
 18.014  18.014 (1.076)    85    431182                   36.87-  96.87    66.59
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.827  18.827 (1.125)    75    405463 5.00000    5.106  80.00- 120.00   100.00
 18.827  18.827 (1.125)    77    124331                    1.38-  61.38    30.66
 18.827  18.827 (1.125)    39    211134                   23.65-  83.65    52.07
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.006  19.006 (1.136)    43    459154 5.00000    5.206  80.00- 120.00   100.00
 19.006  19.006 (1.136)    58    181622                   10.02-  70.02    39.56
 19.006  19.006 (1.136)    85     99640                    0.00-  52.01    21.70
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    575438 5.00000    4.940  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     67449                    0.00-  40.89    11.72
 19.298  19.298 (1.153)   100    388573                   40.09- 100.09    67.53
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91    944995 5.00000    5.268  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92    536836                   27.79-  87.79    56.81
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75    415036 5.00000    5.094  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77    134199                    1.55-  61.55    32.33
 20.026  20.026 (0.903)    39    205903                   18.82-  78.82    49.61
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    324624 5.00000    5.195  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    215054                   32.59-  92.59    66.25
 20.438  20.438 (0.922)    83    259050                   50.07- 110.07    79.80
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166    630728 5.00000    5.177  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129    440665                   37.12-  97.12    69.87
 20.630  20.630 (0.930)   131    411024                   36.18-  96.18    65.17
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 20.795  20.795 (0.938)    58    229698 5.00000    5.418  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    419312                  162.96- 222.96   182.55
 20.795  20.795 (0.938)   100     64115                    0.00-  59.39    27.91
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 21.207  21.207 (0.956)   129    778593 5.00000    5.216  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    597254                   46.76- 106.76    76.71
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 21.482  21.482 (0.969)   107    560375 5.00000    5.034  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109    520385                   63.39- 123.39    92.86
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    553178 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    269833                   17.27-  77.27    48.78
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 22.219  22.219 (1.002)   112    792870 5.00000    5.159  80.00- 120.00   100.00
 22.219  22.219 (1.002)   114    246578                    2.22-  62.22    31.10
 22.219  22.219 (1.002)    77    418717                   23.48-  83.48    52.81
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 22.301  22.301 (1.006)   106    390331 5.00000    5.387  80.00- 120.00   100.00
 22.301  22.301 (1.006)    91   1210315                  278.11- 338.11   310.07
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 22.488  22.488 (1.014)   106    472907 5.00000    5.514  80.00- 120.00   100.00
 22.488  22.488 (1.014)    91    913711                  170.01- 230.01   193.21
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 23.089  23.089 (1.041)   106    430115 5.00000    5.412  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91    915106                  175.84- 235.84   212.76
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 23.110  23.110 (1.042)   104    748693 5.00000    5.647  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    375134                   20.21-  80.21    50.11
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 23.452  23.452 (1.057)   173    817430 5.00000    5.283  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    424264                   21.47-  81.47    51.90
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 23.564  23.564 (1.063)   105   1357118 5.00000    5.444  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    374830                    0.00-  56.99    27.62
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	389033	5.00000	5.035	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	372786			66.74- 126.74	95.82
23.856	23.856 (1.076)	176	373148			67.47- 127.47	95.92
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.035	24.035 (1.084)	83	531644	5.00000	4.898	80.00- 120.00	100.00
24.035	24.035 (1.084)	85	365870			39.76- 99.76	68.82
182 Propylbenzene					CAS #: 103-65-1		
24.102	24.102 (1.087)	91	1323956	5.00000	5.335	80.00- 120.00	100.00
24.102	24.102 (1.087)	120	324372			0.00- 55.73	24.50
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	1157412	5.00000	5.626	80.00- 120.00	100.00
24.237	24.237 (1.093)	120	364201			1.00- 61.00	31.47
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	833348	5.00000	5.464	80.00- 120.00	100.00
24.304	24.304 (1.096)	120	408242			19.17- 79.17	48.99
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	678483	5.00000	5.301	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	308905			16.84- 76.84	45.53
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.156	25.156 (1.134)	146	696661	5.00000	5.117	80.00- 120.00	100.00
25.156	25.156 (1.134)	148	452775			33.96- 93.96	64.99
25.156	25.156 (1.134)	111	250946			6.94- 66.94	36.02
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	684315	5.00000	4.839	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	445149			35.10- 95.10	65.05
25.269	25.269 (1.139)	111	240529			4.80- 64.80	35.15
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	838898	5.00000	5.143	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	185019			0.00- 52.64	22.06
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.694	25.694 (1.159)	146	659995	5.00000	5.167	80.00- 120.00	100.00
25.694	25.694 (1.159)	148	427472			33.88- 93.88	64.77
25.672	25.672 (1.158)	111	247695			7.58- 67.58	37.53
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	459434	5.00000	4.741	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.398	27.398 (1.235)	182	428759			63.70- 123.70	93.32
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	656498	5.00000	4.830	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	422156			34.33- 94.33	64.30
228 Naphthalene					CAS #: 91-20-3		
27.712	27.712 (1.250)	128	63882	0.50000	0.4812	80.00- 120.00	100.00
27.712	27.712 (1.250)	127	11140			0.00- 42.30	17.44

Report Date: 30-Jan-2017 10:28

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012614.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	173364	-4.63
123 1,4-Difluorobenze	598820	359292	838348	600563	0.29
163 Chlorobenzene-d5	568188	340913	795463	553178	-2.64

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012614.d

Date : 26-JAN-2017 17:08

Client ID: Level 12

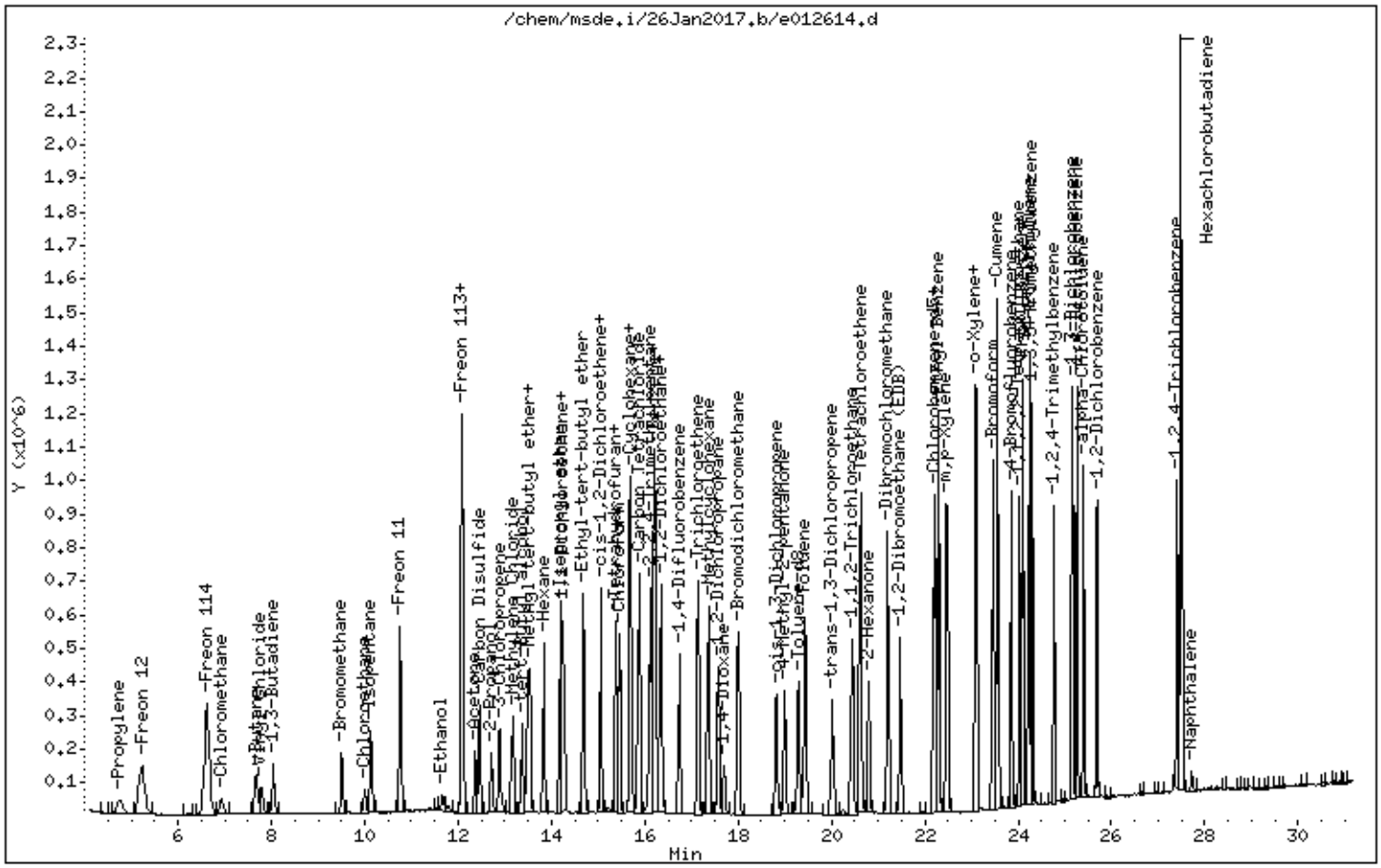
Instrument: msde.i

Sample Info: 25mL# 2819-240

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012615.d
Lab Smp Id: ICAL Client Smp ID: Level 13
Inj Date : 26-JAN-2017 17:51
Operator : ea Inst ID: msde.i
Smp Info : 50mL# 2819-240
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:34 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 17:51 Cal File: e012615.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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
9 Propylene					CAS #: 115-07-1		
4.786	4.786 (0.311)	41	238341	10.0000	9.085	80.00- 120.00	100.00
4.762	4.762 (0.309)	42	156187			35.53- 95.53	65.53
4.762	4.762 (0.309)	39	198201			53.16- 113.16	83.16
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	1445805	10.0000	8.958	80.00- 120.00	100.00
5.244	5.244 (0.341)	87	461336			1.91- 61.91	31.91
15 Freon 114					CAS #: 76-14-2		
6.642	6.642 (0.432)	135	1103969	10.0000	8.911	80.00- 120.00	100.00
6.618	6.618 (0.430)	137	342043			0.98- 60.98	30.98
6.618	6.618 (0.430)	85	1289635			86.82- 146.82	116.82
17 Chloromethane					CAS #: 74-87-3		
6.956	6.956 (0.452)	50	273943	10.0000	9.101	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	91246			3.31- 63.31	33.31
23 Butane					CAS #: 106-97-8		
7.692	7.692 (0.500)	58	66290	10.0000	9.071	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.692	7.692 (0.500)	43	462362			667.48- 727.48	697.48
25 Vinyl Chloride					CAS #: 75-01-4		
7.814	7.814 (0.508)	62	373027	10.0000	8.819	80.00- 120.00	100.00
7.797	7.797 (0.507)	64	119187			1.95- 61.95	31.95
26 1,3-Butadiene					CAS #: 106-99-0		
8.057	8.057 (0.523)	54	274523	10.0000	9.387	80.00- 120.00	100.00
8.057	8.057 (0.523)	39	291256			76.10- 136.10	106.10
29 Bromomethane					CAS #: 74-83-9		
9.529	9.529 (0.619)	94	419648	10.0000	9.485	80.00- 120.00	100.00
9.529	9.529 (0.619)	96	395563			64.26- 124.26	94.26
30 Chloroethane					CAS #: 75-00-3		
10.005	10.005 (0.650)	64	194412	10.0000	8.890	80.00- 120.00	100.00
10.005	10.005 (0.650)	49	53422			0.00- 57.48	27.48
10.005	10.005 (0.650)	66	60911			1.33- 61.33	31.33
31 Isopentane					CAS #: 78-78-4		
10.138	10.138 (0.659)	57	291669	10.0000	9.235	80.00- 120.00	100.00
10.157	10.157 (0.660)	43	368908			96.48- 156.48	126.48
10.138	10.138 (0.659)	42	311879			76.93- 136.93	106.93
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	1727774	10.0000	9.176	80.00- 120.00	100.00
10.766	10.766 (0.700)	103	1101309			33.74- 93.74	63.74
42 Ethanol					CAS #: 64-17-5		
11.680	11.680 (0.759)	45	124572	10.0000	7.590	80.00- 120.00	100.00
11.680	11.680 (0.759)	46	49336			9.60- 69.60	39.60
11.680	11.680 (0.759)	43	36386			0.00- 59.21	29.21
49 Freon 113					CAS #: 76-13-1		
12.099	12.099 (0.786)	151	1122194	10.0000	8.926	80.00- 120.00	100.00
12.099	12.099 (0.786)	153	727543			34.83- 94.83	64.83
12.080	12.080 (0.785)	101	1202577			77.16- 137.16	107.16
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.099	12.099 (0.786)	98	306982	10.0000	9.140	80.00- 120.00	100.00
12.099	12.099 (0.786)	61	765838			219.47- 279.47	249.47
12.099	12.099 (0.786)	96	481377			126.81- 186.81	156.81
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	174449	10.0000	8.454	80.00- 120.00	100.00

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43    652664                   344.13- 404.13   374.13
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.461  12.461 (0.810)    76   1261952 10.0000    8.841  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.728  12.728 (0.827)    45    616400 10.0000    9.279  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43    158091                    0.00-  55.65    25.65
 12.728  12.728 (0.827)    59     27241                    0.00-  34.42     4.42
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.900  12.900 (0.838)    76    262239 10.0000    9.351  80.00- 120.00   100.00
 12.900  12.900 (0.838)    41    600214                  198.88- 258.88   228.88
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.176  13.176 (0.856)    84    405924 10.0000    8.039  80.00- 120.00   100.00
 13.176  13.176 (0.856)    49    461759                   83.76- 143.76   113.76
 13.176  13.176 (0.856)    51    132368                    2.61-  62.61    32.61
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.368  13.368 (0.869)    59    910028 10.0000    9.482  80.00- 120.00   100.00
 13.368  13.368 (0.869)    41    192330                    0.00-  51.13    21.13
 13.368  13.368 (0.869)    57    103720                    0.00-  41.40    11.40
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.506  13.506 (0.878)    73   1403976 10.0000    9.608  80.00- 120.00   100.00
 13.478  13.478 (0.876)    57    277621                    0.00-  49.77    19.77
 13.478  13.478 (0.876)    41    280540                    0.00-  49.98    19.98
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.561  13.561 (0.881)    98    303116 10.0000    9.514  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61    620660                  174.76- 234.76   204.76
 13.561  13.561 (0.881)    96    464612                  123.28- 183.28   153.28
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57    583297 10.0000    9.699  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43    337295                   27.83-  87.83    57.83
 13.835  13.835 (0.899)    86    119306                    0.00-  50.45    20.45
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.192  14.192 (0.922)    45   1190035 10.0000    9.976  80.00- 120.00   100.00
 14.192  14.192 (0.922)    87    429678                    6.11-  66.11    36.11
 14.192  14.192 (0.922)    59    152641                    0.00-  42.83    12.83
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63    842054 10.0000    9.600  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 14.247  14.247 (0.926)    65    268348                     1.87-  61.87    31.87
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.274  14.274 (0.927)    86    123958 10.0000    9.337  80.00- 120.00   100.00
 14.274  14.274 (0.927)    42    125576                   71.31- 131.31   101.31
 14.274  14.274 (0.927)    43   1191582                  931.28- 991.28   961.28
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.685  14.685 (0.954)    59   1406259 10.0000    9.921  80.00- 120.00   100.00
 14.685  14.685 (0.954)    87    656000                   16.65-  76.65    46.65
 14.685  14.685 (0.954)    41    270247                    0.00-  49.22    19.22
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.066  15.066 (0.979)    98    369682 10.0000    9.558  80.00- 120.00   100.00
 15.066  15.066 (0.979)    61    682222                  154.54- 214.54   184.54
 15.066  15.066 (0.979)    96    546299                  117.78- 177.78   147.78
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    213555 10.0000    9.544  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    759661                  325.72- 385.72   355.72
 15.047  15.047 (0.978)    57     66472                    1.13-  61.13    31.13
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    396330 10.0000    9.785  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71    199422                   20.32-  80.32    50.32
 15.391  15.391 (1.000)    72    206020                   21.98-  81.98    51.98
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    181788 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    139489                   46.73- 106.73    76.73
 15.391  15.391 (1.000)    49    155157                   55.35- 115.35    85.35
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.453  15.453 (1.004)    83   1180353 10.0000    8.959  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    786338                   36.62-  96.62    66.62
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.699  15.699 (1.020)    84    606532 10.0000    9.602  80.00- 120.00   100.00
 15.699  15.699 (1.020)    56    599412                   68.83- 128.83    98.83
 15.699  15.699 (1.020)    41    363786                   29.98-  89.98    59.98
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.699  15.699 (1.020)    97   1373850 10.0000    8.866  80.00- 120.00   100.00
 15.699  15.699 (1.020)    99    888157                   34.65-  94.65    64.65
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.884  15.884 (1.032)   119   1332064 10.0000    8.829  80.00- 120.00   100.00
 15.884  15.884 (1.032)   117   1386793                   74.11- 134.11   104.11
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.111  16.111 (1.047)    56    850727 10.0000   10.056  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57   2617455                  277.67- 337.67   307.67
 16.111  16.111 (1.047)    41    879899                   73.43- 133.43   103.43
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78   1403324 10.0000    9.492  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77    322827                    0.00-  53.00    23.00
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    241973 5.00000    4.635  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    127456                   22.67-  82.67    52.67
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.231  16.231 (0.970)    87    402094 10.0000   10.416  80.00- 120.00   100.00
 16.231  16.231 (0.970)    73   1469622                  335.49- 395.49   365.49
 16.231  16.231 (0.970)    55    363147                   60.31- 120.31    90.31
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.303  16.303 (0.974)    62    851963 10.0000    9.353  80.00- 120.00   100.00
 16.303  16.303 (0.974)    64    272191                    1.95-  61.95    31.95
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    384242 10.0000   10.264  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    203957                   23.08-  83.08    53.08
 16.352  16.352 (0.977)    43    641350                  136.91- 196.91   166.91
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    598820 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     90793                    0.00-  45.16    15.16
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130    771373 10.0000    9.351  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95    708630                   61.87- 121.87    91.87
 17.147  17.147 (1.024)    97    457313                   29.29-  89.29    59.29
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.363  17.363 (1.037)    83    804415 10.0000   10.430  80.00- 120.00   100.00
 17.363  17.363 (1.037)    55    609091                   45.72- 105.72    75.72
 17.363  17.363 (1.037)    56    179076                    0.00-  52.26    22.26
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.580  17.580 (1.050)    63    454217 10.0000    9.780  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.580  17.580 (1.050)    62    323513                    41.22- 101.22    71.22
 17.580  17.580 (1.050)    41    318574                    40.14- 100.14    70.14
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.701  17.701 (1.058)    88    356919 10.0000    9.987  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    214753                    30.17-  90.17    60.17
 17.701  17.701 (1.058)    57     76016                     0.00-  51.30    21.30
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.014  18.014 (1.076)    83   1238457 10.0000    9.648  80.00- 120.00   100.00
 18.014  18.014 (1.076)    85    828188                    36.87-  96.87    66.87
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.827  18.827 (1.125)    75    790723 10.0000    9.987  80.00- 120.00   100.00
 18.827  18.827 (1.125)    77    248095                     1.38-  61.38    31.38
 18.827  18.827 (1.125)    39    424201                    23.65-  83.65    53.65
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.006  19.006 (1.136)    43    917543 10.0000   10.433  80.00- 120.00   100.00
 19.006  19.006 (1.136)    58    367177                    10.02-  70.02    40.02
 19.006  19.006 (1.136)    85    201943                     0.00-  52.01    22.01
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    586622 5.00000    5.050  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     63878                     0.00-  40.89    10.89
 19.298  19.298 (1.153)   100    411181                    40.09- 100.09    70.09
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91   1807347 10.0000   10.105  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92   1044511                    27.79-  87.79    57.79
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75    831496 10.0000    9.937  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77    262349                     1.55-  61.55    31.55
 20.026  20.026 (0.903)    39    405962                    18.82-  78.82    48.82
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    628458 10.0000    9.792  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    393372                    32.59-  92.59    62.59
 20.438  20.438 (0.922)    83    503210                    50.07- 110.07    80.07
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166   1185277 10.0000    9.472  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129    795528                    37.12-  97.12    67.12
 20.630  20.630 (0.930)   131    784425                    36.18-  96.18    66.18
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
20.795	20.795 (0.938)	58	457920	10.0000	10.517	80.00- 120.00	100.00
20.795	20.795 (0.938)	43	883590			162.96- 222.96	192.96
20.795	20.795 (0.938)	100	134589			0.00- 59.39	29.39
160 Dibromochloromethane					CAS #: 124-48-1		
21.207	21.207 (0.956)	129	1494839	10.0000	9.750	80.00- 120.00	100.00
21.207	21.207 (0.956)	127	1147393			46.76- 106.76	76.76
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.481	21.481 (0.969)	107	1071748	10.0000	9.374	80.00- 120.00	100.00
21.481	21.481 (0.969)	109	1000874			63.39- 123.39	93.39
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	568188	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	268569			17.27- 77.27	47.27
165 Chlorobenzene					CAS #: 108-90-7		
22.218	22.218 (1.002)	112	1499855	10.0000	9.501	80.00- 120.00	100.00
22.218	22.218 (1.002)	114	483303			2.22- 62.22	32.22
22.218	22.218 (1.002)	77	802137			23.48- 83.48	53.48
167 Ethyl Benzene					CAS #: 100-41-4		
22.301	22.301 (1.006)	106	768043	10.0000	10.320	80.00- 120.00	100.00
22.301	22.301 (1.006)	91	2366402			278.11- 338.11	308.11
169 m,p-Xylene					CAS #: 108-38-3		
22.488	22.488 (1.014)	106	926756	10.0000	10.520	80.00- 120.00	100.00
22.488	22.488 (1.014)	91	1853611			170.01- 230.01	200.01
171 o-Xylene					CAS #: 95-47-6		
23.089	23.089 (1.041)	106	866273	10.0000	10.612	80.00- 120.00	100.00
23.089	23.089 (1.041)	91	1783140			175.84- 235.84	205.84
172 Styrene					CAS #: 100-42-5		
23.110	23.110 (1.042)	104	1485006	10.0000	10.905	80.00- 120.00	100.00
23.110	23.110 (1.042)	78	745556			20.21- 80.21	50.21
174 Bromoform					CAS #: 75-25-2		
23.452	23.452 (1.057)	173	1573385	10.0000	9.901	80.00- 120.00	100.00
23.452	23.452 (1.057)	171	809890			21.47- 81.47	51.47
175 Cumene					CAS #: 98-82-8		
23.564	23.564 (1.063)	105	2689711	10.0000	10.505	80.00- 120.00	100.00
23.564	23.564 (1.063)	120	725868			0.00- 56.99	26.99

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	389816	5.00000	4.912	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	377117			66.74- 126.74	96.74
23.856	23.856 (1.076)	176	379971			67.47- 127.47	97.47
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.035	24.035 (1.084)	83	993035	10.0000	8.907	80.00- 120.00	100.00
24.035	24.035 (1.084)	85	692715			39.76- 99.76	69.76
182 Propylbenzene					CAS #: 103-65-1		
24.102	24.102 (1.087)	91	2560410	10.0000	10.046	80.00- 120.00	100.00
24.102	24.102 (1.087)	120	658898			0.00- 55.73	25.73
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	2254585	10.0000	10.670	80.00- 120.00	100.00
24.237	24.237 (1.093)	120	698900			1.00- 61.00	31.00
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	1599540	10.0000	10.211	80.00- 120.00	100.00
24.304	24.304 (1.096)	120	786503			19.17- 79.17	49.17
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	1301610	10.0000	9.900	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	609620			16.84- 76.84	46.84
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.156	25.156 (1.134)	146	1330771	10.0000	9.517	80.00- 120.00	100.00
25.156	25.156 (1.134)	148	851116			33.96- 93.96	63.96
25.156	25.156 (1.134)	111	491526			6.94- 66.94	36.94
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.268	25.268 (1.139)	146	1311302	10.0000	9.027	80.00- 120.00	100.00
25.268	25.268 (1.139)	148	853629			35.10- 95.10	65.10
25.268	25.268 (1.139)	111	456351			4.80- 64.80	34.80
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	1653825	10.0000	9.872	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	374351			0.00- 52.64	22.64
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.694	25.694 (1.159)	146	1261982	10.0000	9.619	80.00- 120.00	100.00
25.694	25.694 (1.159)	148	806127			33.88- 93.88	63.88
25.672	25.672 (1.158)	111	474298			7.58- 67.58	37.58
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	888626	10.0000	8.927	80.00- 120.00	100.00

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

  226 1,2,4-Trichlorobenzene (continued)
 27.398  27.398 (1.235)   182    832643                    63.70- 123.70    93.70
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 27.488  27.488 (1.239)   225   1276821 10.0000    9.145  80.00- 120.00   100.00
 27.488  27.488 (1.239)   223    821394                    34.33-  94.33    64.33
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 27.712  27.712 (1.250)   128    132913 1.00000   0.9748  80.00- 120.00   100.00
 27.712  27.712 (1.250)   127     16350                     0.00-  42.30    12.30
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012615.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: Level 13
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	181788	0.00
123 1,4-Difluorobenze	598820	359292	838348	598820	0.00
163 Chlorobenzene-d5	568188	340913	795463	568188	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012615.d

Date : 26-JAN-2017 17:51

Client ID: Level 13

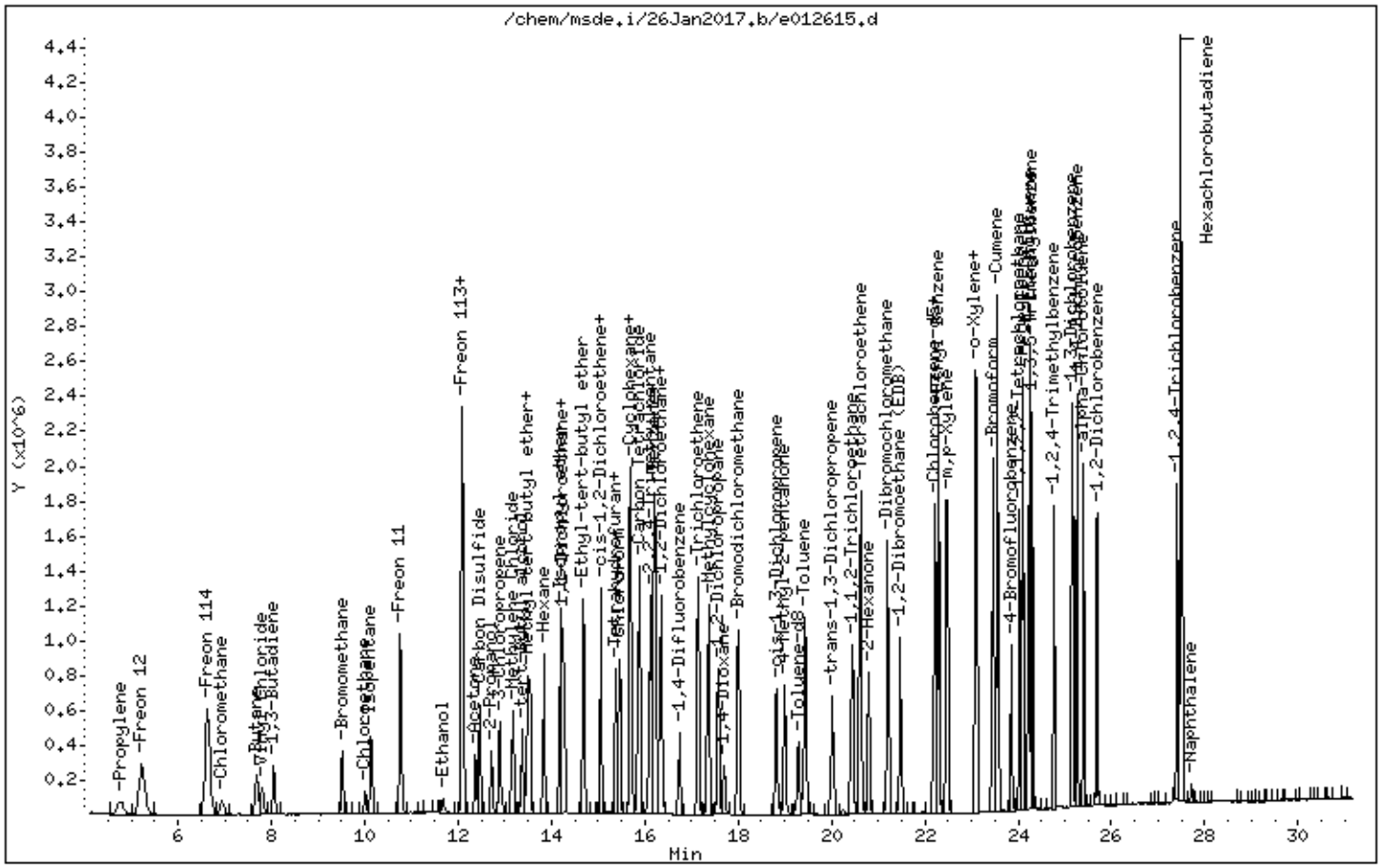
Instrument: msde.i

Sample Info: 50mL# 2819-240

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012616.d
Lab Smp Id: ICAL Client Smp ID: Level 15
Inj Date : 26-JAN-2017 19:09
Operator : ea Inst ID: msde.i
Smp Info : 100mL# 2819-240
Misc Info : 20ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:28 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 19:09 Cal File: e012616.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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
9 Propylene					CAS #: 115-07-1		
4.787	4.787 (0.311)	41	480943	20.0000	18.933	80.00- 120.00	100.00
4.763	4.763 (0.309)	42	298917			35.53- 95.53	62.15
4.763	4.763 (0.309)	39	408583			53.16- 113.16	84.95
11 Freon 12					CAS #: 75-71-8		
5.221	5.221 (0.339)	85	2829094	20.0000	18.104	80.00- 120.00	100.00
5.221	5.221 (0.339)	87	908013			1.91- 61.91	32.10
15 Freon 114					CAS #: 76-14-2		
6.619	6.619 (0.430)	135	2057865	20.0000	17.156	80.00- 120.00	100.00
6.619	6.619 (0.430)	137	649782			0.98- 60.98	31.58
6.619	6.619 (0.430)	85	2405661			86.82- 146.82	116.90
17 Chloromethane					CAS #: 74-87-3		
6.956	6.956 (0.452)	50	499032	20.0000	17.123	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	180026			3.31- 63.31	36.08
23 Butane					CAS #: 106-97-8		
7.675	7.675 (0.499)	58	141024	20.0000	19.931	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.675	7.675 (0.499)	43	901377			667.48- 727.48	639.17
25 Vinyl Chloride					CAS #: 75-01-4		
7.797	7.797 (0.507)	62	725288	20.0000	17.710	80.00- 120.00	100.00
7.797	7.797 (0.507)	64	227942			1.95- 61.95	31.43
26 1,3-Butadiene					CAS #: 106-99-0		
8.040	8.040 (0.522)	54	523929	20.0000	18.503	80.00- 120.00	100.00
8.040	8.040 (0.522)	39	548790			76.10- 136.10	104.75
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	804736	20.0000	18.786	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	756490			64.26- 124.26	94.00
30 Chloroethane					CAS #: 75-00-3		
9.986	9.986 (0.649)	64	368567	20.0000	17.407	80.00- 120.00	100.00
9.986	9.986 (0.649)	49	106639			0.00- 57.48	28.93
9.986	9.986 (0.649)	66	115317			1.33- 61.33	31.29
31 Isopentane					CAS #: 78-78-4		
10.138	10.138 (0.659)	57	559010	20.0000	18.280	80.00- 120.00	100.00
10.138	10.138 (0.659)	43	693247			96.48- 156.48	124.01
10.138	10.138 (0.659)	42	598341			76.93- 136.93	107.04
35 Freon 11					CAS #: 75-69-4		
10.767	10.767 (0.700)	101	3227862	20.0000	17.706	80.00- 120.00	100.00
10.767	10.767 (0.700)	103	2099117			33.74- 93.74	65.03
42 Ethanol					CAS #: 64-17-5		
11.662	11.662 (0.758)	45	248242	20.0000	15.622	80.00- 120.00	100.00
11.662	11.662 (0.758)	46	92961			9.60- 69.60	37.45
11.662	11.662 (0.758)	43	69288			0.00- 59.21	27.91
49 Freon 113					CAS #: 76-13-1		
12.081	12.081 (0.785)	151	2193483	20.0000	18.020	80.00- 120.00	100.00
12.081	12.081 (0.785)	153	1417760			34.83- 94.83	64.64
12.081	12.081 (0.785)	101	2326012			77.16- 137.16	106.04
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.100 (0.786)	98	603093	20.0000	18.546	80.00- 120.00	100.00
12.100	12.100 (0.786)	61	1533665			219.47- 279.47	254.30
12.100	12.100 (0.786)	96	925497			126.81- 186.81	153.46
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	356585	20.0000	17.848	80.00- 120.00	100.00

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43   1297683                   344.13- 404.13   363.92
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.462  12.462 (0.810)    76   2408299 20.0000   17.426  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.728  12.728 (0.827)    45   1259861 20.0000   19.588  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43    311667                    0.00-  55.65    24.74
 12.728  12.728 (0.827)    59     50309                    0.00-  34.42     3.99
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.881  12.881 (0.837)    76    505858 20.0000   18.630  80.00- 120.00   100.00
 12.881  12.881 (0.837)    41   1186373                  198.88- 258.88   234.53
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.177  13.177 (0.856)    84    749227 20.0000   15.324  80.00- 120.00   100.00
 13.177  13.177 (0.856)    49    845368                   83.76- 143.76   112.83
 13.177  13.177 (0.856)    51    271712                    2.61-  62.61    36.27
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.369  13.369 (0.869)    59   1873892 20.0000   20.167  80.00- 120.00   100.00
 13.369  13.369 (0.869)    41    379865                    0.00-  51.13    20.27
 13.369  13.369 (0.869)    57    210489                    0.00-  41.40    11.23
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.479  13.479 (0.876)    73   2767979 20.0000   19.564  80.00- 120.00   100.00
 13.479  13.479 (0.876)    57    535542                    0.00-  49.77    19.35
 13.479  13.479 (0.876)    41    526940                    0.00-  49.98    19.04
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.533 (0.879)    98    568186 20.0000   18.420  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61   1204314                  174.76- 234.76   211.96
 13.533  13.533 (0.879)    96    905221                  123.28- 183.28   159.32
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57   1160936 20.0000   19.938  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43    658923                   27.83-  87.83    56.76
 13.835  13.835 (0.899)    86    226766                    0.00-  50.45    19.53
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.192  14.192 (0.922)    45   2313084 20.0000   20.026  80.00- 120.00   100.00
 14.192  14.192 (0.922)    87    835362                    6.11-  66.11    36.11
 14.192  14.192 (0.922)    59    291803                    0.00-  42.83    12.62
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63   1596676 20.0000   18.801  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 14.247  14.247 (0.926)    65    505706                     1.87-  61.87    31.67
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.247  14.247 (0.926)    86    246126 20.0000   19.148  80.00- 120.00   100.00
 14.247  14.247 (0.926)    42    245368                   71.31- 131.31    99.69
 14.247  14.247 (0.926)    43   2290368                  931.28- 991.28   930.57
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.685  14.685 (0.954)    59   2772863 20.0000   20.205  80.00- 120.00   100.00
 14.685  14.685 (0.954)    87   1297957                   16.65-  76.65    46.81
 14.685  14.685 (0.954)    41    514384                    0.00-  49.22    18.55
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.066  15.066 (0.979)    98    705866 20.0000   18.849  80.00- 120.00   100.00
 15.066  15.066 (0.979)    61   1327177                  154.54- 214.54   188.02
 15.066  15.066 (0.979)    96   1094069                  117.78- 177.78   155.00
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    426301 20.0000   19.678  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43   1446929                  325.72- 385.72   339.41
 15.047  15.047 (0.978)    57    132123                    1.13-  61.13    30.99
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    758303 20.0000   19.337  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71    392727                   20.32-  80.32    51.79
 15.391  15.391 (1.000)    72    412608                   21.98-  81.98    54.41
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    176011 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    141265                   46.73- 106.73    80.26
 15.453  15.453 (1.000)    49    318417                   55.35- 115.35   180.91
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.453  15.453 (1.004)    83   2261477 20.0000   17.729  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85   1525349                   36.62-  96.62    67.45
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.669  15.669 (1.018)    84   1179386 20.0000   19.285  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56   1206115                   68.83- 128.83   102.27
 15.669  15.669 (1.018)    41    703972                   29.98-  89.98    59.69
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.669  15.669 (1.018)    97   2693314 20.0000   17.951  80.00- 120.00   100.00
 15.669  15.669 (1.018)    99   1714567                   34.65-  94.65    63.66
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.885  15.885 (1.032)   119   2587748 20.0000   17.715  80.00- 120.00   100.00
 15.885  15.885 (1.032)   117   2615003                   74.11- 134.11   101.05
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.111  16.111 (1.047)    56   1616902 20.0000   19.740  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57   5221227                  277.67- 337.67   322.92
 16.111  16.111 (1.047)    41   1683105                   73.43- 133.43   104.09
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78   2651647 20.0000   18.205  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77    638787                    0.00-  53.00    24.09
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    245305 5.00000    4.853  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    125433                   22.67-  82.67    51.13
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.231  16.231 (0.970)    87    798788 20.0000   21.004  80.00- 120.00   100.00
 16.231  16.231 (0.970)    73   2872500                  335.49- 395.49   359.61
 16.231  16.231 (0.970)    55    664541                   60.31- 120.31    83.19
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.304 (0.974)    62   1588893 20.0000   17.706  80.00- 120.00   100.00
 16.304  16.304 (0.974)    64    499431                    1.95-  61.95    31.43
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    719637 20.0000   19.511  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    411080                   23.08-  83.08    57.12
 16.352  16.352 (0.977)    43   1254391                  136.91- 196.91   174.31
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    589970 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     88953                    0.00-  45.16    15.08
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130   1527850 20.0000   18.799  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95   1332700                   61.87- 121.87    87.23
 17.147  17.147 (1.024)    97    899602                   29.29-  89.29    58.88
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.364  17.364 (1.037)    83   1588500 20.0000   20.906  80.00- 120.00   100.00
 17.364  17.364 (1.037)    55   1196210                   45.72- 105.72    75.30
 17.364  17.364 (1.037)    56    351203                    0.00-  52.26    22.11
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.581  17.581 (1.050)    63    887118 20.0000   19.387  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 17.581  17.581 (1.050)    62    602968                    41.22- 101.22    67.97
 17.581  17.581 (1.050)    41    612758                    40.14- 100.14    69.07
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.701  17.701 (1.058)    88    699686 20.0000   19.871  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    400867                    30.17-  90.17    57.29
 17.701  17.701 (1.058)    57    149213                     0.00-  51.30    21.33
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 17.990  17.990 (1.075)    83   2396058 20.0000   18.946  80.00- 120.00   100.00
 17.990  17.990 (1.075)    85   1606970                    36.87-  96.87    67.07
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.805  18.805 (1.124)    75   1580581 20.0000   20.263  80.00- 120.00   100.00
 18.805  18.805 (1.124)    77    508560                     1.38-  61.38    32.18
 18.805  18.805 (1.124)    39    864553                    23.65-  83.65    54.70
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.007  19.007 (1.136)    43   1802078 20.0000   20.797  80.00- 120.00   100.00
 19.007  19.007 (1.136)    58    730999                    10.02-  70.02    40.56
 19.007  19.007 (1.136)    85    395085                     0.00-  52.01    21.92
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.276  19.276 (1.152)    98    600962 5.00000    5.251  80.00- 120.00   100.00
 19.276  19.276 (1.152)    70     69240                     0.00-  40.89    11.52
 19.276  19.276 (1.152)   100    382807                    40.09- 100.09    63.70
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91   3452915 20.0000   19.596  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92   2022202                    27.79-  87.79    58.57
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75   1656254 20.0000   19.960  80.00- 120.00   100.00
 19.998  19.998 (0.902)    77    521738                     1.55-  61.55    31.50
 19.998  19.998 (0.902)    39    813621                    18.82-  78.82    49.12
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97   1190624 20.0000   18.709  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    729646                    32.59-  92.59    61.28
 20.438  20.438 (0.922)    83    933645                    50.07- 110.07    78.42
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166   2335572 20.0000   18.822  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129   1558242                    37.12-  97.12    66.72
 20.630  20.630 (0.930)   131   1551714                    36.18-  96.18    66.44
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 20.795  20.795 (0.938)    58    955848 20.0000   22.138  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43   1750932                  162.96- 222.96   183.18
 20.795  20.795 (0.938)   100    267646                    0.00-  59.39    28.00
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 21.207  21.207 (0.956)   129   2864858 20.0000   18.845  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127   2204846                   46.76- 106.76    76.96
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 21.482  21.482 (0.969)   107   2049261 20.0000   18.076  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109   1924824                   63.39- 123.39    93.93
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    563426 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    268304                   17.27-  77.27    47.62
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 22.219  22.219 (1.002)   112   2910527 20.0000   18.592  80.00- 120.00   100.00
 22.219  22.219 (1.002)   114    954123                    2.22-  62.22    32.78
 22.219  22.219 (1.002)    77   1547466                   23.48-  83.48    53.17
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 22.302  22.302 (1.006)   106   1498957 20.0000   20.311  80.00- 120.00   100.00
 22.302  22.302 (1.006)    91   4626635                  278.11- 338.11   308.66
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 22.467  22.467 (1.013)   106   1824768 20.0000   20.890  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91   3616707                  170.01- 230.01   198.20
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 23.089  23.089 (1.041)   106   1641547 20.0000   20.280  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91   3532566                  175.84- 235.84   215.20
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 23.110  23.110 (1.042)   104   2899179 20.0000   21.470  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78   1482959                   20.21-  80.21    51.15
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 23.452  23.452 (1.057)   173   3026734 20.0000   19.207  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171   1552241                   21.47-  81.47    51.28
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 23.564  23.564 (1.063)   105   5226749 20.0000   20.586  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120   1428771                    0.00-  56.99    27.34
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	401680	5.00000	5.104	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	377892			66.74- 126.74	94.08
23.856	23.856 (1.076)	176	379971			67.47- 127.47	94.60
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.035	24.035 (1.084)	83	1902331	20.0000	17.208	80.00- 120.00	100.00
24.035	24.035 (1.084)	85	1317589			39.76- 99.76	69.26
182 Propylbenzene					CAS #: 103-65-1		
24.103	24.103 (1.087)	91	5026254	20.0000	19.887	80.00- 120.00	100.00
24.103	24.103 (1.087)	120	1282769			0.00- 55.73	25.52
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	4150729	20.0000	19.810	80.00- 120.00	100.00
24.237	24.237 (1.093)	120	1258829			1.00- 61.00	30.33
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	3387283	20.0000	21.806	80.00- 120.00	100.00
24.304	24.304 (1.096)	120	1640702			19.17- 79.17	48.44
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	2693092	20.0000	20.657	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	1232859			16.84- 76.84	45.78
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.157 (1.134)	146	2577111	20.0000	18.585	80.00- 120.00	100.00
25.157	25.157 (1.134)	148	1691045			33.96- 93.96	65.62
25.157	25.157 (1.134)	111	949910			6.94- 66.94	36.86
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	2612842	20.0000	18.140	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	1672473			35.10- 95.10	64.01
25.269	25.269 (1.139)	111	911505			4.80- 64.80	34.89
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	3314822	20.0000	19.954	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	721351			0.00- 52.64	21.76
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.672	25.672 (1.158)	146	2518839	20.0000	19.362	80.00- 120.00	100.00
25.672	25.672 (1.158)	148	1611877			33.88- 93.88	63.99
25.672	25.672 (1.158)	111	964932			7.58- 67.58	38.31
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	1891221	20.0000	19.159	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.398	27.398 (1.235)	182	1787971			63.70- 123.70	94.54
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	2608732	20.0000	18.843	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	1630965			34.33- 94.33	62.52
228 Naphthalene					CAS #: 91-20-3		
27.712	27.712 (1.250)	128	264846	2.00000	1.959	80.00- 120.00	100.00
27.712	27.712 (1.250)	127	34982			0.00- 42.30	13.21

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012616.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: Level 15
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	176011	-3.18
123 1,4-Difluorobenze	598820	359292	838348	589970	-1.48
163 Chlorobenzene-d5	568188	340913	795463	563426	-0.84

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012616.d

Date : 26-JAN-2017 19:09

Client ID: Level 15

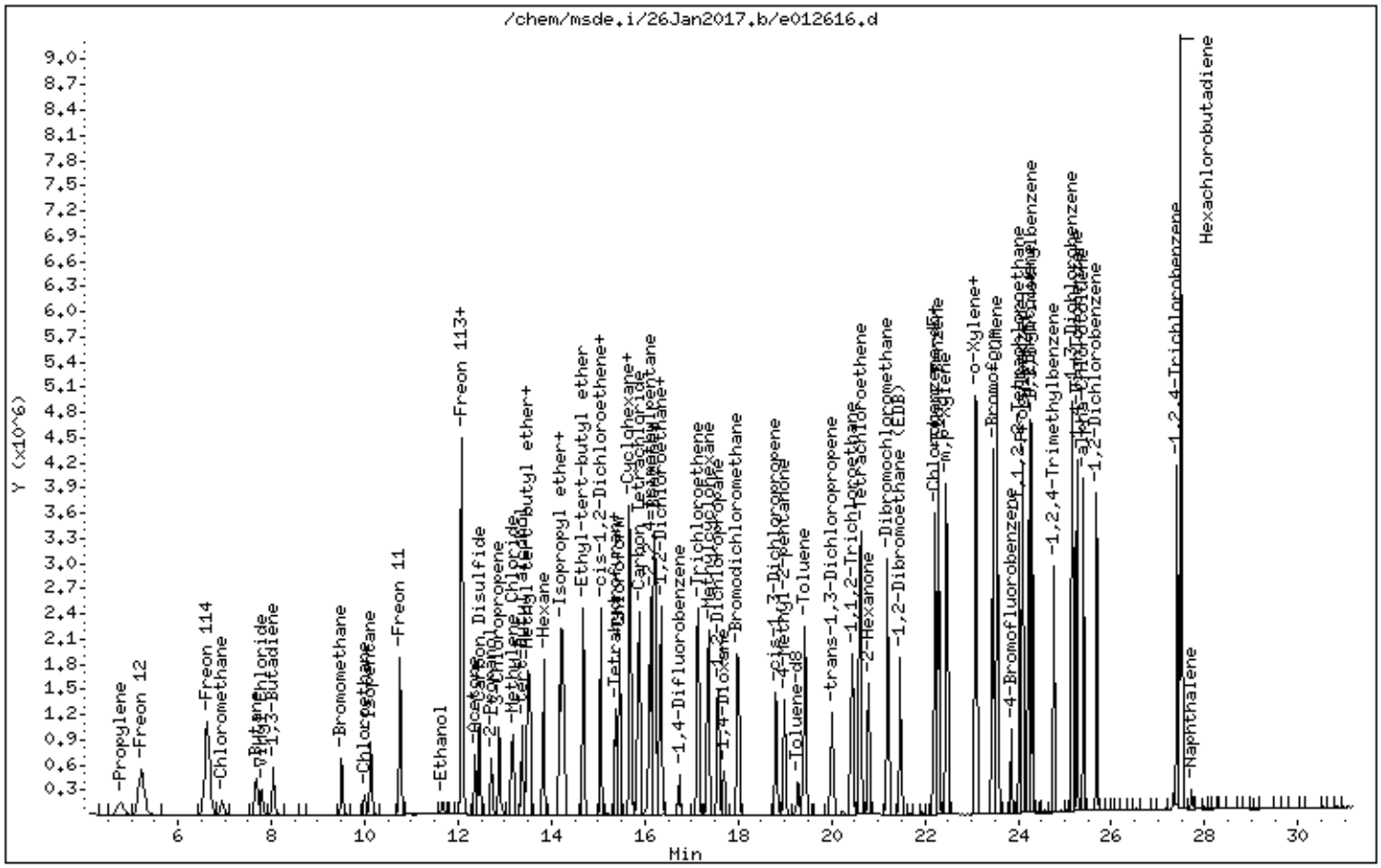
Instrument: msde.i

Sample Info: 100mL# 2819-240

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/26Jan2017.b/e012617.d
Lab Smp Id: ICAL Client Smp ID: Level 16
Inj Date : 26-JAN-2017 19:53
Operator : ea Inst ID: msde.i
Smp Info : 200mL# 2819-240
Misc Info : 40ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/26Jan2017.b/e17l0126a.m
Meth Date : 30-Jan-2017 10:28 efinn Quant Type: ISTD
Cal Date : 26-JAN-2017 19:53 Cal File: e012617.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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
9 Propylene					CAS #: 115-07-1		
4.786	4.786 (0.311)	41	906022	40.0000	37.690	80.00- 120.00	100.00
4.786	4.786 (0.311)	42	579014			35.53- 95.53	63.91
4.811	4.811 (0.313)	39	749001			53.16- 113.16	82.67
11 Freon 12					CAS #: 75-71-8		
5.244	5.244 (0.341)	85	5486922	40.0000	37.103	80.00- 120.00	100.00
5.244	5.244 (0.341)	87	1770020			1.91- 61.91	32.26
15 Freon 114					CAS #: 76-14-2		
6.642	6.642 (0.432)	135	3981038	40.0000	35.072	80.00- 120.00	100.00
6.642	6.642 (0.432)	137	1304512			0.98- 60.98	32.77
6.642	6.642 (0.432)	85	4661716			86.82- 146.82	117.10
17 Chloromethane					CAS #: 74-87-3		
6.956	6.956 (0.452)	50	973369	40.0000	35.292	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	322559			3.31- 63.31	33.14
23 Butane					CAS #: 106-97-8		
7.692	7.692 (0.500)	58	262884	40.0000	39.261	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.692	7.692 (0.500)	43	1764252			667.48- 727.48	671.11
25 Vinyl Chloride					CAS #: 75-01-4		
7.797	7.797 (0.507)	62	1385928	40.0000	35.760	80.00- 120.00	100.00
7.797	7.797 (0.507)	64	451324			1.95- 61.95	32.56
26 1,3-Butadiene					CAS #: 106-99-0		
8.057	8.057 (0.523)	54	1030186	40.0000	38.445	80.00- 120.00	100.00
8.057	8.057 (0.523)	39	1061006			76.10- 136.10	102.99
29 Bromomethane					CAS #: 74-83-9		
9.529	9.529 (0.619)	94	1530563	40.0000	37.756	80.00- 120.00	100.00
9.529	9.529 (0.619)	96	1464946			64.26- 124.26	95.71
30 Chloroethane					CAS #: 75-00-3		
10.005	10.005 (0.650)	64	713078	40.0000	35.588	80.00- 120.00	100.00
10.005	10.005 (0.650)	49	204136			0.00- 57.48	28.63
10.005	10.005 (0.650)	66	232916			1.33- 61.33	32.66
31 Isopentane					CAS #: 78-78-4		
10.138	10.138 (0.659)	57	1065273	40.0000	36.812	80.00- 120.00	100.00
10.138	10.138 (0.659)	43	1358068			96.48- 156.48	127.49
10.138	10.138 (0.659)	42	1146523			76.93- 136.93	107.63
35 Freon 11					CAS #: 75-69-4		
10.766	10.766 (0.700)	101	6209791	40.0000	35.995	80.00- 120.00	100.00
10.766	10.766 (0.700)	103	4000126			33.74- 93.74	64.42
42 Ethanol					CAS #: 64-17-5		
11.680	11.680 (0.759)	45	496109	40.0000	32.992	80.00- 120.00	100.00
11.680	11.680 (0.759)	46	180127			9.60- 69.60	36.31
11.680	11.680 (0.759)	43	126273			0.00- 59.21	25.45
49 Freon 113					CAS #: 76-13-1		
12.080	12.080 (0.785)	151	4154688	40.0000	36.068	80.00- 120.00	100.00
12.080	12.080 (0.785)	153	2680874			34.83- 94.83	64.53
12.080	12.080 (0.785)	101	4403231			77.16- 137.16	105.98
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.100 (0.786)	98	1136976	40.0000	36.946	80.00- 120.00	100.00
12.100	12.100 (0.786)	61	2918725			219.47- 279.47	256.71
12.100	12.100 (0.786)	96	1809196			126.81- 186.81	159.12
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	693474	40.0000	36.680	80.00- 120.00	100.00

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43   2491321                   344.13- 404.13   359.25
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.461  12.461 (0.810)    76   4578651 40.0000   35.010  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.728  12.728 (0.827)    45   2490568 40.0000   40.918  80.00- 120.00   100.00(A)
 12.728  12.728 (0.827)    43    584637                    0.00-  55.65    23.47
 12.728  12.728 (0.827)    59    103767                    0.00-  34.42     4.17
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.900  12.900 (0.838)    76    998979 40.0000   38.877  80.00- 120.00   100.00
 12.880  12.880 (0.837)    41   2311697                   198.88- 258.88   231.41
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.176  13.176 (0.856)    84   1478839 40.0000   31.962  80.00- 120.00   100.00
 13.176  13.176 (0.856)    49   1680055                   83.76- 143.76   113.61
 13.176  13.176 (0.856)    51    510475                    2.61-  62.61    34.52
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.369  13.369 (0.869)    59   3764757 40.0000   42.814  80.00- 120.00   100.00(A)
 13.369  13.369 (0.869)    41    766102                    0.00-  51.13    20.35
 13.369  13.369 (0.869)    57    427066                    0.00-  41.40    11.34
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.478  13.478 (0.876)    73   5369249 40.0000   40.102  80.00- 120.00   100.00(A)
 13.478  13.478 (0.876)    57   1044367                    0.00-  49.77    19.45
 13.478  13.478 (0.876)    41   1040428                    0.00-  49.98    19.38
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.533 (0.879)    98   1098791 40.0000   37.641  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61   2337342                   174.76- 234.76   212.72
 13.533  13.533 (0.879)    96   1734911                   123.28- 183.28   157.89
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57   2217478 40.0000   40.243  80.00- 120.00   100.00(A)
 13.835  13.835 (0.899)    43   1301531                   27.83-  87.83    58.69
 13.835  13.835 (0.899)    86    439500                    0.00-  50.45    19.82
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.192  14.192 (0.922)    45   4505257 40.0000   41.218  80.00- 120.00   100.00(A)
 14.192  14.192 (0.922)    87   1613427                    6.11-  66.11    35.81
 14.192  14.192 (0.922)    59    562440                    0.00-  42.83    12.48
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63   3026261 40.0000   37.655  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 14.247  14.247 (0.926)    65    966662                     1.87-  61.87    31.94
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.247  14.247 (0.926)    86    491516 40.0000   40.407  80.00- 120.00   100.00(A)
 14.247  14.247 (0.926)    42    464979                    71.31- 131.31    94.60
 14.247  14.247 (0.926)    43   4465126                   931.28- 991.28   908.44
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.685  14.685 (0.954)    59   5477826 40.0000   42.178  80.00- 120.00   100.00(A)
 14.685  14.685 (0.954)    87   2525876                    16.65-  76.65    46.11
 14.685  14.685 (0.954)    41    978475                     0.00-  49.22    17.86
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.066  15.066 (0.979)    98   1358710 40.0000   38.339  80.00- 120.00   100.00
 15.066  15.066 (0.979)    61   2574218                   154.54- 214.54   189.46
 15.066  15.066 (0.979)    96   2101115                   117.78- 177.78   154.64
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    819890 40.0000   39.992  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43   2874005                   325.72- 385.72   350.54
 15.047  15.047 (0.978)    57    253364                     1.13-  61.13    30.90
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42   1521656 40.0000   41.003  80.00- 120.00   100.00(A)
 15.391  15.391 (1.000)    71    746001                    20.32-  80.32    49.03
 15.391  15.391 (1.000)    72    800429                    21.98-  81.98    52.60
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    166564 5.00000            80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    121720                    46.73- 106.73    73.08
 15.453  15.453 (1.000)    49    489019                    55.35- 115.35   293.59
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83   4322905 40.0000   35.812  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85   2885160                    36.62-  96.62    66.74
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.669 (1.018)    84   2323458 40.0000   40.146  80.00- 120.00   100.00(A)
 15.669  15.669 (1.018)    56   2326563                    68.83- 128.83   100.13
 15.669  15.669 (1.018)    41   1379053                    29.98-  89.98    59.35
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.699  15.699 (1.020)    97   5144457 40.0000   36.233  80.00- 120.00   100.00
 15.699  15.699 (1.020)    99   3341875                    34.65-  94.65    64.96
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.884  15.884 (1.032)   119   4972558 40.0000   35.971  80.00- 120.00   100.00
 15.884  15.884 (1.032)   117   5135458                   74.11- 134.11   103.28
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.111  16.111 (1.047)    56   3182591 40.0000   41.058  80.00- 120.00   100.00(A)
 16.111  16.111 (1.047)    57   9716104                  277.67- 337.67   305.29
 16.111  16.111 (1.047)    41   3342582                   73.43- 133.43   105.03
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78   5166613 40.0000   35.587  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77   1221130                    0.00-  53.00    23.64
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    234572 5.00000    4.904  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    138969                   22.67-  82.67    59.24
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.231  16.231 (0.970)    87   1570382 40.0000   41.427  80.00- 120.00   100.00(A)
 16.231  16.231 (0.970)    73   5656884                  335.49- 395.49   360.22
 16.231  16.231 (0.970)    55   1347774                   60.31- 120.31    85.82
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.303  16.303 (0.974)    62   3128466 40.0000   34.975  80.00- 120.00   100.00
 16.303  16.303 (0.974)    64    997412                    1.95-  61.95    31.88
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57   1459335 40.0000   39.696  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    800983                   23.08-  83.08    54.89
 16.352  16.352 (0.977)    43   2506040                  136.91- 196.91   171.72
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    588052 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     90480                    0.00-  45.16    15.39
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130   2945693 40.0000   36.363  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95   2635532                   61.87- 121.87    89.47
 17.147  17.147 (1.024)    97   1722198                   29.29-  89.29    58.46
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.363  17.363 (1.037)    83   3143247 40.0000   41.503  80.00- 120.00   100.00(A)
 17.363  17.363 (1.037)    55   2307210                   45.72- 105.72    73.40
 17.363  17.363 (1.037)    56    716785                    0.00-  52.26    22.80
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.580  17.580 (1.050)    63   1677839 40.0000   36.786  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 17.580  17.580 (1.050)    62   1150824                    41.22- 101.22    68.59
 17.580  17.580 (1.050)    41   1165675                    40.14- 100.14    69.47
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.701  17.701 (1.058)    88   1369914 40.0000   39.033  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    808600                    30.17-  90.17    59.03
 17.701  17.701 (1.058)    57    279690                     0.00-  51.30    20.42
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 17.990  17.990 (1.075)    83   4630231 40.0000   36.731  80.00- 120.00   100.00
 17.990  17.990 (1.075)    85   3080268                    36.87-  96.87    66.53
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.805  18.805 (1.124)    75   3178669 40.0000   40.883  80.00- 120.00   100.00(A)
 18.805  18.805 (1.124)    77   1009821                     1.38-  61.38    31.77
 18.805  18.805 (1.124)    39   1725172                    23.65-  83.65    54.27
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.006  19.006 (1.136)    43   3562071 40.0000   41.243  80.00- 120.00   100.00(A)
 19.006  19.006 (1.136)    58   1417817                    10.02-  70.02    39.80
 19.006  19.006 (1.136)    85    782386                     0.00-  52.01    21.96
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    607506 5.00000    5.326  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     64376                     0.00-  40.89    10.60
 19.298  19.298 (1.153)   100    391113                    40.09- 100.09    64.38
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91   6819019 40.0000   38.825  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92   3936225                    27.79-  87.79    57.72
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75   3268212 40.0000   39.227  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77   1036561                     1.55-  61.55    31.72
 19.998  19.998 (0.902)    39   1609510                    18.82-  78.82    49.25
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97   2311039 40.0000   36.167  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99   1467184                    32.59-  92.59    63.49
 20.438  20.438 (0.922)    83   1809312                    50.07- 110.07    78.29
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166   4505048 40.0000   36.159  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129   3024145                    37.12-  97.12    67.13
 20.630  20.630 (0.930)   131   2993061                    36.18-  96.18    66.44
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                    CAS #: 591-78-6
 20.795  20.795 (0.938)    58   1934092 40.0000   44.613  80.00- 120.00   100.00(A)
 20.795  20.795 (0.938)    43   3519116                  162.96- 222.96   181.95
 20.795  20.795 (0.938)   100    545703                    0.00-  59.39    28.21
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 21.207  21.207 (0.956)   129   5584249 40.0000   36.584  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127   4355954                   46.76- 106.76    78.00
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 21.481  21.481 (0.969)   107   4015097 40.0000   35.272  80.00- 120.00   100.00
 21.481  21.481 (0.969)   109   3793433                   63.39- 123.39    94.48
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    565719 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    278767                   17.27-  77.27    49.28
-------------------------------------------------------------------------------
  165 Chlorobenzene                                 CAS #: 108-90-7
 22.218  22.218 (1.002)   112   5814286 40.0000   36.991  80.00- 120.00   100.00
 22.218  22.218 (1.002)   114   1870383                    2.22-  62.22    32.17
 22.218  22.218 (1.002)    77   3039248                   23.48-  83.48    52.27
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 22.301  22.301 (1.006)   106   2992596 40.0000   40.386  80.00- 120.00   100.00(A)
 22.301  22.301 (1.006)    91   9212704                  278.11- 338.11   307.85
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 22.467  22.467 (1.013)   106   3588046 40.0000   40.910  80.00- 120.00   100.00(A)
 22.467  22.467 (1.013)    91   7234076                  170.01- 230.01   201.62
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 23.089  23.089 (1.041)   106   3344690 40.0000   41.153  80.00- 120.00   100.00(A)
 23.089  23.089 (1.041)    91   7084033                  175.84- 235.84   211.80
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 23.110  23.110 (1.042)   104   5686296 40.0000   41.940  80.00- 120.00   100.00(A)
 23.110  23.110 (1.042)    78   2907333                   20.21-  80.21    51.13
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 23.452  23.452 (1.057)   173   5955484 40.0000   37.640  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171   3036758                   21.47-  81.47    50.99
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
 23.564  23.564 (1.063)   105  10295464 40.0000   40.385  80.00- 120.00   100.00(A)
 23.564  23.564 (1.063)   120   2811803                    0.00-  56.99    27.31
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 23.856  23.856 (1.076)   174    398925 5.00000    5.048  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    372418                   66.74- 126.74    93.36
 23.856  23.856 (1.076)   176    361513                   67.47- 127.47    90.62
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.035  24.035 (1.084)    83   3570449 40.0000   32.166  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85   2428239                   39.76-  99.76    68.01
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 24.102  24.102 (1.087)    91   9604137 40.0000   37.845  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120   2435116                    0.00-  55.73    25.35
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.237  24.237 (1.093)   105   7851767 40.0000   37.321  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120   2371335                    1.00-  61.00    30.20
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.304  24.304 (1.096)   105   6385543 40.0000   40.942  80.00- 120.00   100.00(A)
 24.304  24.304 (1.096)   120   3108975                   19.17-  79.17    48.69
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.775  24.775 (1.117)   105   5146215 40.0000   39.314  80.00- 120.00   100.00
 24.775  24.775 (1.117)   120   2348184                   16.84-  76.84    45.63
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.156  25.156 (1.134)   146   4929325 40.0000   35.405  80.00- 120.00   100.00
 25.156  25.156 (1.134)   148   3164819                   33.96-  93.96    64.20
 25.156  25.156 (1.134)   111   1830689                    6.94-  66.94    37.14
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.268  25.268 (1.139)   146   4985124 40.0000   34.469  80.00- 120.00   100.00
 25.268  25.268 (1.139)   148   3169866                   35.10-  95.10    63.59
 25.268  25.268 (1.139)   111   1760763                    4.80-  64.80    35.32
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.403  25.403 (1.145)    91   6555460 40.0000   39.302  80.00- 120.00   100.00
 25.403  25.403 (1.145)   126   1481100                    0.00-  52.64    22.59
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.672  25.672 (1.158)   146   4836320 40.0000   37.026  80.00- 120.00   100.00
 25.672  25.672 (1.158)   148   3129102                   33.88-  93.88    64.70
 25.672  25.672 (1.158)   111   1825101                    7.58-  67.58    37.74
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.398  27.398 (1.235)   180   3704950 40.0000   37.382  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.398	27.398 (1.235)	182	3534031			63.70- 123.70	95.39
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	5174435	40.0000	37.224	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	3238215			34.33- 94.33	62.58
228 Naphthalene					CAS #: 91-20-3		
27.712	27.712 (1.250)	128	529513	4.00000	3.901	80.00- 120.00	100.00
27.712	27.712 (1.250)	127	70872			0.00- 42.30	13.38

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e012617.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/26Jan2017.b/e17l0126a.m
Misc Info: 40ppbv (50ppbv)

Calibration Date: 26-JAN-2017
Calibration Time: 17:51
Client Smp ID: Level 16
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	181788	109073	254503	166564	-8.37
123 1,4-Difluorobenze	598820	359292	838348	588052	-1.80
163 Chlorobenzene-d5	568188	340913	795463	565719	-0.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/26Jan2017.b/e012617.d

Date : 26-JAN-2017 19:53

Client ID: Level 16

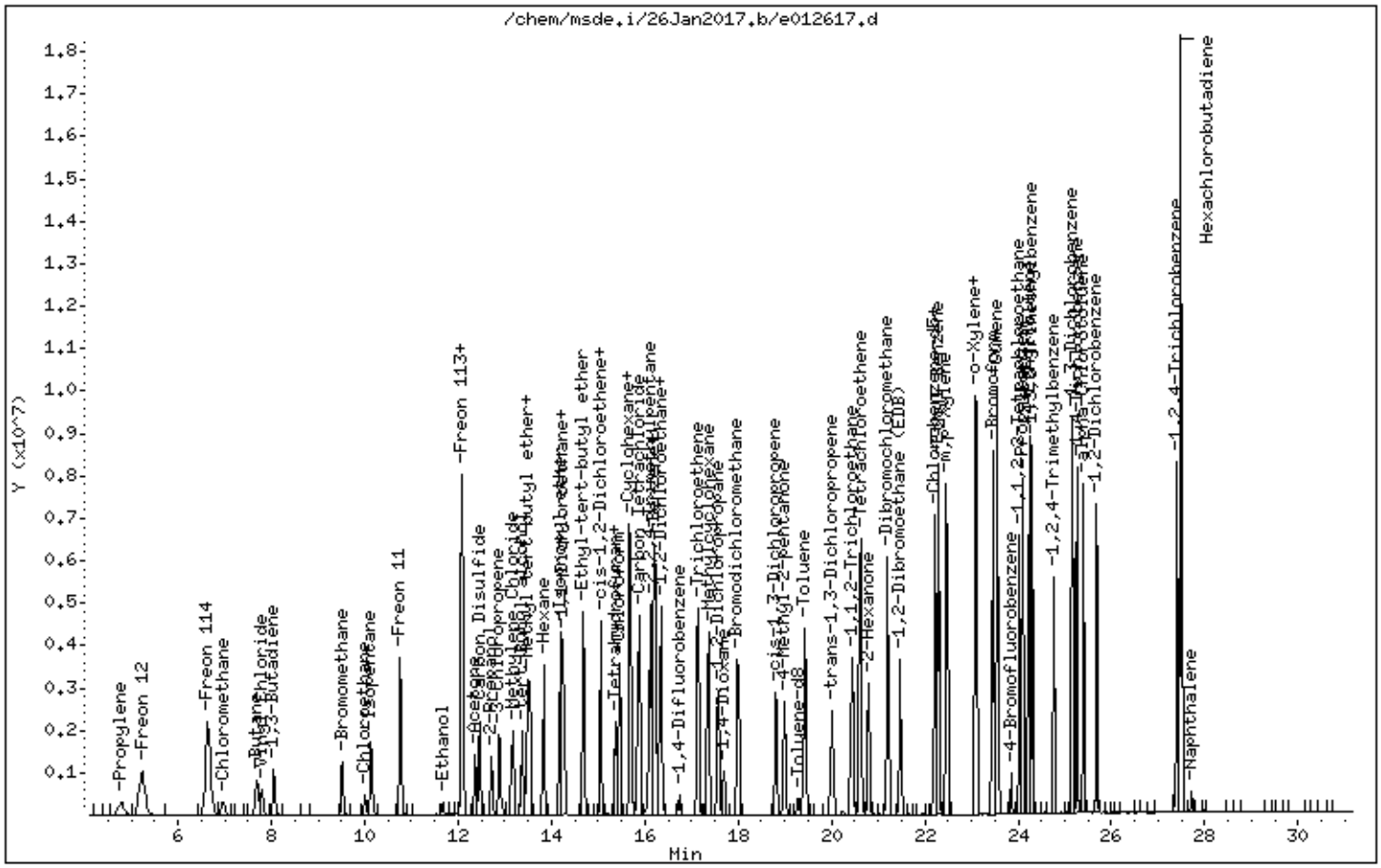
Instrument: msde.i

Sample Info: 200mL# 2819-240

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Report Date : 12-Feb-2016 08:50

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT 0.1 ppbv LL MDL

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Spike for 1,2,4-TCB, Hexachlorobutadiene
2759-243 (1.0 ppbv) = 25 mL load.

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021106	20021107	20021108	20021109	20021110	20021111	20021112	20021113
INJ.DATE:	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016
INJ.TIME:	14:19	15:03	15:42	16:22	17:07	17:54	18:34	19:18

ppbv (v/v)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	111.01	107.23	106.24	101.96	98.83	112.28	106.19	113.44	107.15	5.05	15.14	100
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	108.58	121.58	107.97	104.59	105.84	116.86	116.24	115.37	112.13	6.16	18.47	100
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

MDL VERIFICATION:
2759-243 (0.08 ppbv)
20 mL LOAD, File 20021124

Reviewer 1 [signature] Date: 2/15/16
Reviewer 2 [signature] Date: 2/16/16

$\bar{x}$ = ~~0.~~ 0.021
2σ = 0.042
3σ = 0.063
4σ = 0.084

All 0.1 ppbv compounds:
The ratio of the mean recovered concentration and the MDL is between 1 and 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	103.90	109.95	111.90	110.22	113.99	127.37	110.41	103.52	111.41	7.41	22.23	100
26 1,3-Butadiene	114.10	110.22	119.21	110.53	122.77	108.93	112.94	117.14	114.48	4.86	14.56	100
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	109.50	105.03	104.01	109.11	107.49	112.61	117.22	111.56	109.57	4.27	12.81	100
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
41 trans-2-Pentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
42 Ethanol	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
43 1,2-Dichloro-1-fluoroe	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
44 Ethyl Ether	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
45 cis-2-Pentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
46 Acrolein	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
47 Freon 123a	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
48 Freon 123	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
49 Freon 113	128.84	124.16	110.13	104.31	113.03	109.97	128.47	121.48	117.55	9.37	28.08	100
50 1,1-Dichloroethene	102.88	96.62	107.84	118.61	109.35	113.37	111.55	106.83	108.38	6.68	20.02	100
51 2,2-Dimethylbutane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
52 Acetone	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
53 Iodomethane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
54 Bromoethane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
55 4-Methyl-1-pentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
56 Carbon Disulfide	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
57 2-Propanol	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
58 3-Chloropropene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
59 Cyclopentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
60 2-Methylpentane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
61 Methyl Acetate	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
62 3-Methylpentane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
63 Acetonitrile	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	116.19	125.61	120.64	109.85	111.95	120.60	117.89	118.53	117.66	5.03	15.09	200
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
72 Methyl tert-butyl ethe	107.99	103.76	95.41	99.20	96.16	105.54	101.83	99.83	101.21	4.42	13.26	100
73 trans-1,2-Dichloroethe	106.44	104.20	86.74	98.47	114.90	118.39	104.84	98.74	104.09	9.92	29.74	100
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	109.38	91.58	112.13	101.46	96.92	106.90	104.95	99.35	102.83	6.82	20.46	100
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	109.17	108.82	104.47	107.02	114.78	109.10	117.84	109.88	110.14	4.25	12.75	100
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	105.39	97.62	96.68	102.22	115.26	123.52	115.14	98.17	106.50	9.57	28.70	100
92 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
100 Chloroform	103.34	102.64	94.51	99.27	105.94	115.22	112.50	103.48	104.61	6.70	20.08	100
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	105.26	91.17	93.47	92.54	87.30	100.23	92.26	95.80	94.77	5.63	16.89	100
103 1,1,1-Trichloroethane	105.93	93.98	99.04	95.06	103.28	119.04	99.38	101.17	102.11	7.89	23.67	100
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	97.59	95.93	96.04	95.89	93.50	98.50	103.90	95.78	97.14	3.10	9.29	100
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	112.76	109.42	119.18	126.14	138.97	115.60	128.97	108.48	119.94	10.66	31.96	100
$ 117 1,2-Dichloroethane-d4	4728.49	4675.54	4814.38	4679.41	4638.74	4844.78	4834.94	4759.16	4746.93	79.03	236.94	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
120 1,2-Dichloroethane	127.97	118.06	111.61	114.51	104.90	123.96	130.55	138.79	121.29	11.10	33.28	100
121 Heptane	106.06	97.82	111.00	114.26	95.21	96.16	97.31	96.30	101.77	7.55	22.65	100
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 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	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	123.68	105.13	120.84	107.89	108.57	100.50	118.55	96.11	110.16	9.93	29.78	100
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	99.24	108.17	114.44	116.84	113.84	111.82	106.18	123.37	111.74	7.30	21.88	100
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	93.45	75.95	95.17	83.10	82.87	106.83	97.63	95.87	91.36	9.97	29.89	100
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	103.06	105.04	100.90	101.79	94.78	111.84	104.75	97.83	102.90	5.12	15.35	100
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	97.73	97.19	95.50	98.16	80.85	84.77	99.49	97.80	93.94	7.03	21.09	100
145 4-Methyl-2-pentanone	80.17	79.46	84.98	80.40	69.40	68.24	71.29	73.94	75.98	6.09	18.26	100
$ 146 Toluene-d8	4859.37	4871.03	4922.01	4805.76	4896.52	4721.80	4926.35	4964.93	4870.97	77.27	231.64	
147 Toluene	106.64	108.90	113.27	109.30	109.50	114.78	115.71	103.98	110.26	4.05	12.16	100
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	107.54	89.01	83.31	94.38	88.18	92.37	92.36	96.16	92.91	7.14	21.42	100
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	96.16	74.38	112.51	105.70	126.14	121.35	113.90	118.47	108.58	16.67	49.97	100
156 Tetrachloroethene	109.23	104.05	112.34	101.41	112.00	127.65	124.36	109.90	112.62	9.12	27.34	100
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 Dibromochloromethane	98.26	87.06	93.66	94.23	81.79	94.02	97.01	89.34	91.92	5.50	16.49	100
161 1,2-Dibromoethane (EDB	101.36	91.94	97.00	97.97	103.19	100.76	95.11	110.69	99.75	5.71	17.13	100
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Chlorobenzene	113.62	100.67	108.76	99.89	99.57	123.38	106.20	113.31	108.18	8.37	25.09	100
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Ethyl Benzene	121.85	98.66	91.01	93.09	103.78	100.91	104.16	98.55	101.49	9.45	28.33	100
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 m,p-Xylene	93.44	95.21	83.15	96.86	93.71	100.60	101.21	99.45	95.45	5.81	17.41	100
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 o-Xylene	104.77	108.45	99.61	97.43	81.93	103.92	103.24	103.25	100.32	8.13	24.38	100
172 Styrene	93.67	98.83	90.89	93.62	89.29	94.81	90.53	88.38	92.25	3.39	10.17	100
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 Bromoform	88.70	85.62	75.97	76.26	73.14	79.46	86.90	78.03	80.26	6.18	18.53	100
175 Cumene	99.13	97.33	92.79	92.12	92.86	100.17	90.09	83.91	93.55	5.31	15.91	100
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 177 4-Bromofluorobenzene	4636.83	4760.03	4887.01	4937.95	4720.67	4706.05	4723.13	4825.24	4774.61	100.95	302.64	
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 1,1,2,2-Tetrachloroeth	101.69	99.11	93.02	95.55	101.07	93.70	94.35	98.33	97.10	3.39	10.17	100
182 Propylbenzene	132.57	128.88	112.85	125.64	114.04	122.41	122.63	113.51	120.32	6.07	18.20	100

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
188 4-Ethyltoluene	114.67	118.55	110.37	108.15	107.18	127.28	122.10	118.08	115.80	7.05	21.13	100
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
190 1,3,5-Trimethylbenzene	123.80	127.61	117.24	115.64	117.20	114.39	108.64	119.99	118.06	5.82	17.46	100
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
196 1,2,4-Trimethylbenzene	129.73	132.28	120.32	116.55	113.01	122.84	119.94	117.77	121.53	6.55	19.64	100
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	115.36	120.46	109.73	105.54	113.00	113.53	112.22	110.78	112.58	4.34	13.02	100
209 1,4-Dichlorobenzene	136.32	132.41	126.01	131.10	137.41	124.67	131.84	127.11	130.86	4.66	13.97	100
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	82.56	93.39	82.28	84.05	85.63	85.28	101.54	80.90	86.95	7.02	21.05	100
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	119.38	136.88	114.68	104.17	121.55	120.98	133.03	116.16	120.85	10.33	30.95	100
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	118.79	106.23	120.38	105.87	103.37	103.39	107.28	112.30	109.70	6.72	20.14	500
227 Hexachlorobutadiene	128.18	132.89	136.75	119.47	124.32	113.68	131.44	137.42	128.02	8.39	25.15	500
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M 237 1,2-Dichloroethene (To	211.83	201.82	183.42	200.69	230.17	239.91	219.98	196.92	210.59	18.64	55.89	N/A
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M 239 Total Xylene	198.22	203.66	182.76	194.29	175.64	204.51	204.45	202.70	195.78	10.98	32.93	N/A
M 240 3 and 4-Ethyltoluene	114.67	118.55	110.37	108.15	107.38	127.28	122.10	118.08	115.80	7.05	21.13	
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
245 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C9-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 12-Feb-2016 16:06 Page 1

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT 0.5ppbv LL MDL

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

* 2759-243 (1.0ppbv) = 125ml LOAD

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021114	20021115	20021116	20021117	20021118	20021119	20021120	20021121
INJ.DATE:	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	12-FEB-2016	12-FEB-2016	12-FEB-2016	12-FEB-2016
INJ.TIME:	19:58	21:31	22:11	22:50	05:50	06:30	07:10	07:49

RL (ppbv)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	444.09	435.06	349.89	420.81	440.65	368.73	485.61	392.20	417.13	44.39	133.07	500
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
16 Freon 143b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	595.27	650.20	612.19	561.59	618.02	566.36	564.73	520.68	586.13	40.74	122.14	500

MDL VERIFICATION:
2759-243 (0.3ppbv)
75ml LOAD, FILE 20021206

Reviewer 1 [signature] Date: 2/12/16
Reviewer 2 [signature] Date: 2/16/16

$\bar{x}$ = 0.075
$2\bar{x}$ = 0.15
$3\bar{x}$ = 0.23
$4\bar{x}$ = 0.30

ETHYL TERT BUTYL ETHER: THE RATIO OF THE MEAN RECOVERED CONCENTRATION AND THE MDL IS GREATER THAN 20. ALL OTHER COMPOUNDS — THE RATIOS BETWEEN 1 AND 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	520.92	536.05	303.94	489.96	551.65	475.09	539.89	515.83	491.54	79.96	239.72	500
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
26 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	436.36	503.99	497.46	587.69	514.13	561.89	588.81	527.98	527.29	51.42	154.14	500
30 Chloroethane	450.31	514.10	471.14	482.20	437.12	473.98	437.40	447.61	464.23	26.40	79.14	500
31 Isopentane	487.57	500.04	462.29	487.56	530.32	486.12	504.22	482.75	492.61	19.72	59.11	500
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	487.00	488.50	589.46	545.04	561.45	507.58	541.70	537.30	532.25	35.81	107.35	500
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
50 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
51 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	498.60	514.82	499.84	499.34	525.38	462.08	524.07	473.00	499.64	22.71	68.09	500
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	474.24	490.22	493.49	500.93	508.62	515.62	482.40	496.39	495.24	13.43	40.26	500
57 2-Propanol	428.31	424.69	422.25	422.47	441.27	428.25	446.26	456.50	433.75	12.72	38.13	500
58 3-Chloropropene	419.36	425.22	418.43	431.76	437.81	411.14	401.14	427.69	421.57	11.70	35.09	500
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	404.45	419.08	404.34	416.44	410.26	437.99	430.63	417.34	417.57	11.90	35.69	600
72 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
73 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
83 Isopropyl ether	448.49	449.87	455.87	454.31	431.63	445.98	437.22	433.20	444.57	9.40	28.19	500
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	326.12	330.98	361.56	267.09	337.68	314.86	333.68	323.84	324.48	26.90	80.65	500

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	426.90	420.08	421.49	432.49	423.78	427.55	427.58	414.50	424.29	5.57	16.70	500
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
92 2-Butanone	453.26	435.68	430.80	430.51	423.37	455.50	426.29	439.22	436.83	11.92	35.73	500
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	471.00	464.84	480.61	435.99	416.22	449.73	417.17	402.95	442.31	28.67	85.96	500
100 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
103 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	457.74	466.60	488.45	444.05	440.76	419.00	434.83	444.38	449.47	21.23	63.65	500
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 117 1,2-Dichloroethane-d4	4977.05	4973.12	4813.91	4938.69	5001.68	5118.96	4990.34	5001.47	4976.93	84.18	252.37	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	423.29	420.44	426.35	540.00	470.20	439.50	432.44	449.39	450.20	39.77	119.24	500
120 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
121 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 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	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	415.46	463.53	468.95	451.43	442.73	457.33	467.94	440.78	451.02	17.90	53.65	500
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 146 Toluene-d8	4854.55	4956.89	4838.33	4970.56	5009.99	5037.26	4980.08	4931.05	4947.34	70.18	210.39
147 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 2-Hexanone	329.07	309.29	314.15	324.98	307.23	285.49	291.30	335.05	312.07	17.55	52.63

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1,2-Dibromoethane (EDB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 177 4-Bromofluorobenzene	4738.57	4505.93	4660.80	4603.63	4668.90	4505.76	4599.59	4709.37	4624.07	86.78	260.17
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Batch File: /chem/msd20.i/11Feb2016.b
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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 Naphthalene	54.46	49.85	47.97	57.59	51.24	52.99	58.34	50.51	52.87	3.70	11.10 600
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference MineralS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 19-Oct-2016 09:39

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

0.1ppbv LL MDL
 # 2819-82 (1.0ppbv); 25mL load.
Includes special RLs for 1,2,4-Trichlorobenzene and Hexachlorobutadiene.

0.5ppbv LL MDL
 # 2819-82 (1.0ppbv); 125mL load.
Includes 0.05ppbv Naphthalene MDL.

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	e101805	e101806	e101807	e101808	e101809	e101810	e101811	e101812
INJ.DATE:	18-OCT-2016	18-OCT-2016	18-OCT-2016	18-OCT-2016	18-OCT-2016	18-OCT-2016	18-OCT-2016	18-OCT-2016
INJ.TIME:	12:42	13:25	14:08	15:03	15:49	16:34	18:01	18:47

pulled

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	111.71	111.16	110.97	98.58	100.65	110.46	99.95	96.40	104.98	6.63	19.89	100
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	116.56	100.46	107.92	93.62	97.31	106.53	112.25	97.67	104.04	8.04	24.11	100
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

MDL Verification
0.1ppbv: 2819-82 (1.0ppbv); 20mL load (0.08ppbv).
0.5ppbv: 2819-82 (1.0ppbv); 75mL load (0.3ppbv).

Reviewer 1 _____ Date: 10/19/16
Reviewer 2 _____ Date: 10/20/16

$\bar{x} = 0.024$
$2\bar{x} = 0.048$
$3\bar{x} = 0.073$
$4\bar{x} = 0.097$

All 0.1ppbv compounds: The ratio of the mean recovered concentration and the MDL value is between 1 and 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	101.74	122.18	95.36	91.52	106.92	108.44	85.22	103.81	101.90	11.41	34.21	100
26 1,3-Butadiene	128.18	112.17	114.12	112.38	107.45	93.40	102.07	96.83	108.33	11.04	33.11	100
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	111.13	106.07	114.46	99.30	96.86	102.42	102.53	103.95	104.59	5.85	17.54	100
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e16l1011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	101.48	102.50	107.60	95.32	98.55	107.33	96.43	93.10	100.29	5.39	16.17	100
50 1,1-Dichloroethene	121.93	110.28	108.74	114.95	92.09	97.84	117.58	93.11	107.06	11.40	34.19	100
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
57 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
58 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	113.86	133.69	109.62	101.52	110.30	99.78	113.72	119.20	112.71	10.64	31.89	200
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
72 Methyl tert-butyl ethe	108.35	102.25	90.51	97.15	105.09	109.47	98.98	110.01	102.73	6.87	20.60	100
73 trans-1,2-Dichloroethe	127.71	115.24	114.16	103.94	107.96	76.18	110.58	123.81	109.95	15.74	47.19	100
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	117.18	111.42	111.37	95.21	113.72	108.36	105.95	98.64	107.73	7.51	22.52	100
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	102.97	118.28	98.66	96.12	109.88	107.20	106.64	85.97	103.22	9.77	29.28	100
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e16l1011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	125.26	116.65	93.56	107.07	103.49	101.47	95.90	88.16	103.94	12.27	36.78	100
92 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
100 Chloroform	101.68	105.75	88.89	111.01	106.50	100.63	101.48	98.40	101.79	6.57	19.70	100
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	100.19	120.25	93.77	104.43	106.64	100.24	89.05	80.04	99.33	12.12	36.32	100
103 1,1,1-Trichloroethane	103.14	120.01	109.26	98.02	93.19	101.23	102.63	87.59	101.89	9.86	29.56	100
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	116.85	110.08	103.73	93.28	104.38	129.29	89.89	105.38	106.61	12.56	37.64	100
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	121.51	121.31	119.53	116.97	118.53	125.25	113.31	131.74	121.02	5.57	16.71	100
$ 117 1,2-Dichloroethane-d4	5207.66	5058.27	5048.13	4844.68	5058.80	5054.78	5055.09	5067.42	5049.35	98.21	294.42	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
120 1,2-Dichloroethane	111.64	116.33	100.86	107.56	97.77	104.08	91.12	119.57	106.12	9.59	28.76	100
121 Heptane	94.27	111.47	112.06	103.22	95.34	108.87	111.66	94.06	103.87	8.21	24.62	100
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 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	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	97.68	108.05	100.99	105.97	108.45	109.56	104.00	108.23	105.37	4.19	12.56	100
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	97.58	108.67	117.53	105.28	110.67	101.32	94.03	100.63	104.46	7.64	22.90	100
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
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Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
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Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	86.38	108.38	107.72	109.43	96.32	91.78	101.81	97.70	99.94	8.40	25.18	ice
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	102.47	106.73	88.03	97.75	94.47	99.52	102.34	97.50	98.60	5.69	17.06	ice
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	106.86	109.46	98.38	108.01	110.84	97.72	86.14	95.99	101.67	8.55	25.63	ice
145 4-Methyl-2-pentanone	96.79	95.23	98.37	105.33	98.83	107.01	97.43	89.45	98.56	5.55	16.65	ice
$ 146 Toluene-d8	4850.65	4972.96	4873.65	4998.87	5019.98	4914.23	4887.96	5008.87	4940.89	67.02	200.93	
147 Toluene	109.10	103.89	106.01	116.22	107.03	107.49	101.03	115.64	108.30	5.30	15.90	ice
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	104.28	110.58	99.92	93.91	108.50	100.96	104.59	84.22	100.87	8.49	25.46	ice
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	94.83	101.64	109.50	113.72	110.96	105.38	125.49	108.36	108.73	8.99	26.96	ice
156 Tetrachloroethene	134.01	114.41	110.76	104.48	82.35	109.12	95.86	90.24	105.15	16.01	48.00	ice
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
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Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 Dibromochloromethane	100.01	101.68	110.94	92.93	93.41	98.47	89.39	88.93	96.97	7.37	22.08	100
161 1,2-Dibromoethane (EDB	102.43	99.91	114.57	104.54	105.77	101.43	85.78	98.88	101.66	8.07	24.18	100
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Chlorobenzene	106.19	110.20	98.92	105.93	100.60	109.66	103.46	96.19	103.89	5.04	15.10	100
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Ethyl Benzene	120.04	108.35	103.90	109.87	99.98	101.94	98.34	87.49	103.74	9.53	28.56	100
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 m,p-Xylene	95.62	111.53	113.60	96.27	89.43	88.66	95.98	91.32	97.80	9.59	28.76	100
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 o-Xylene	99.18	97.39	94.07	104.33	89.87	100.40	97.55	95.42	97.28	4.34	13.01	100
172 Styrene	100.91	109.58	96.46	83.78	90.86	94.51	89.46	90.29	94.48	7.96	23.86	100
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 Bromoform	98.04	101.99	99.98	100.01	92.72	102.08	98.18	95.81	98.60	3.17	9.50	100
175 Cumene	106.73	107.16	98.56	103.04	90.85	95.14	100.07	100.88	100.30	5.55	16.63	100
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 177 4-Bromofluorobenzene	5022.36	5159.73	5040.11	5013.85	4979.62	4944.43	5120.45	4974.48	5031.88	74.01	221.89	
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 1,1,2,2-Tetrachloroeth	95.81	109.82	99.30	111.79	98.62	116.50	112.03	112.11	107.00	7.81	23.42	100
182 Propylbenzene	102.76	98.69	93.96	98.78	94.13	92.58	104.41	97.42	97.84	4.24	12.70	100

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Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
188 4-Ethyltoluene	102.70	99.50	97.21	103.50	97.08	90.30	87.63	103.46	97.67	6.00	17.98	100
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
190 1,3,5-Trimethylbenzene	102.47	104.83	105.51	109.94	99.60	108.63	119.57	101.28	106.48	6.35	19.04	100
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
196 1,2,4-Trimethylbenzene	112.47	105.53	103.63	111.74	93.55	110.67	102.84	100.90	105.17	6.41	19.23	100
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e16l1011a.m
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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	99.75	108.05	100.09	86.75	100.04	91.92	104.39	105.22	99.52	7.07	21.21	100
209 1,4-Dichlorobenzene	104.38	109.23	105.96	90.58	95.99	111.69	104.49	97.50	102.48	7.16	21.46	100
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	95.54	98.00	92.84	87.45	92.56	101.50	84.48	94.70	93.38	5.46	16.38	100
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	105.11	106.32	98.22	98.03	107.49	91.03	112.03	97.76	102.00	6.84	20.50	100
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	99.81	114.33	98.39	92.80	91.30	98.16	120.86	96.46	101.51	10.48	31.41	500
227 Hexachlorobutadiene	109.25	117.18	89.41	110.63	96.19	96.25	110.72	113.08	105.34	9.94	29.82	500
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e16l1011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 ~~1,2-Dichloroethene (To~~	~~252.97~~	~~231.89~~	~~207.72~~	~~211.01~~	~~211.65~~	~~177.55~~	~~206.48~~	~~213.87~~	213.89	21.63	~~84.95~~
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M ~~239 Total Xylene~~	~~194.80~~	~~208.92~~	~~207.67~~	~~200.60~~	~~179.30~~	~~189.06~~	~~193.53~~	~~186.74~~	195.08	10.27	30.78
M 240 3 and 4-Ethyltoluene	102.70	99.50	97.21	103.50	97.08	90.30	87.63	103.46	97.67	6.00	17.98
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

N/A

ES 10/20/16

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 19-Oct-2016 09:45

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e161101la.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	e101813	e101814	e101815	e101816	e101817	e101818	e101819	e101820
INJ.DATE:	18-OCT-2016	18-OCT-2016	18-OCT-2016	18-OCT-2016	18-OCT-2016	19-OCT-2016	19-OCT-2016	19-OCT-2016
INJ.TIME:	19:40	20:36	21:21	22:07	22:52	06:03	06:44	07:25

ug (ppbv)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	493.25	467.87	381.45	421.09	416.80	450.41	418.76	424.17	434.23	34.80	104.34	1000
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	473.02	463.16	413.00	432.75	466.04	429.47	459.43	429.83	445.84	22.06	66.13	500

Reviewer 1 [signature] Date: 10/19/16
Reviewer 2 [signature] Date: 10/20/16

$\bar{x}$ = 0.080
2$\bar{x}$ = 0.16
3$\bar{x}$ = 0.24
4$\bar{x}$ = 0.32

All 0.5ppbv compounds: The ratio of the mean recovered concentration and the MDL value is between 1 and 20.

Report Date : 19-Oct-2016 09:45

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e16l1011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

ug(ppm)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	511.21	516.75	403.36	437.19	441.55	450.98	388.55	427.13	447.09	46.05	138.06	500
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
26 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	501.35	470.84	471.73	480.40	441.51	440.74	440.98	444.35	461.49	22.94	68.77	500
30 Chloroethane	487.18	521.05	415.82	467.04	454.42	431.81	448.76	433.43	457.44	33.96	101.82	500
31 Isopentane	523.63	502.04	463.66	447.03	475.71	454.87	436.60	424.56	466.01	33.35	99.98	500
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e16l1011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	497.93	553.06	495.20	455.36	499.78	463.87	505.74	428.46	487.42	37.85	113.46	500
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
50 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	498.58	439.54	468.15	470.49	458.37	479.49	438.91	472.85	465.80	20.02	60.03	500
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	587.10	557.84	495.14	521.15	557.44	548.28	571.48	543.99	547.80	28.78	86.27	500
57 2-Propanol	451.20	450.47	417.19	451.12	435.93	427.23	391.81	395.00	427.49	24.36	73.04	500
58 3-Chloropropene	438.70	434.69	401.01	409.08	406.90	402.78	434.00	422.54	418.71	15.60	46.76	500
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	413.84	420.06	410.50	393.50	402.67	383.66	376.72	384.28	398.15	15.96	47.84	500
72 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
73 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
83 Isopropyl ether	419.92	428.80	406.42	390.99	410.52	388.25	417.20	399.37	407.68	14.25	42.72	500
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	420.61	520.65	331.45	411.88	418.79	348.27	366.42	400.85	402.37	58.47	175.30	500

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	453.78	412.83	395.77	387.71	406.90	380.44	393.19	376.76	400.92	24.60	73.74	500
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
92 2-Butanone	456.37	372.54	376.93	367.88	417.01	402.63	364.74	425.72	397.98	33.09	99.20	500
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	483.01	411.55	435.73	400.43	407.91	427.72	440.93	394.36	425.20	28.68	85.98	500
100 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
103 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e1611011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	419.47	422.77	396.93	385.44	403.43	366.10	405.95	379.72	397.48	19.55	58.62	500
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 117 1,2-Dichloroethane-d4	5261.78	5161.08	4937.82	5076.46	5146.15	5000.63	5025.68	5053.28	5082.86	102.90	308.49	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	447.55	403.74	452.93	415.20	421.14	385.35	401.23	429.56	419.59	23.22	69.62	500
120 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
121 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 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	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	423.95	428.84	396.39	384.03	397.74	408.25	385.21	411.07	404.43	16.61	49.79	500
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 146 Toluene-d8	4993.55	4984.89	4937.84	4999.36	4942.94	4883.37	4885.73	5034.79	4957.81	54.80	164.28
147 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 2-Hexanone	423.66	411.11	391.25	379.95	376.90	361.60	347.98	357.88	381.29	26.32	78.91

500

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1,2-Dibromoethane (EDB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 177 4-Bromofluorobenzene	5040.96	4942.23	5008.24	4863.04	5122.93	4932.87	4965.54	5031.28	4988.39	79.77	239.16
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/18Oct2016.b/e16l1011a.m
Batch File: /chem/msde.i/18Oct2016.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 Naphthalene	53.33	40.05	41.20	53.92	43.87	41.92	46.50	42.49	45.41	5.43	16.26
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference MinералS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1701428A-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013104**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 08:53 AM**

Compound	%Recovery
Freon 12	90
Freon 114	86
Chloromethane	89
Vinyl Chloride	90
1,3-Butadiene	88
Bromomethane	83
Chloroethane	83
Freon 11	89
Ethanol	74
Freon 113	84
1,1-Dichloroethene	82
Acetone	82
2-Propanol	83
Carbon Disulfide	93
3-Chloropropene	100
Methylene Chloride	80
Methyl tert-butyl ether	96
trans-1,2-Dichloroethene	88
Hexane	91
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	87
Tetrahydrofuran	93
Chloroform	90
1,1,1-Trichloroethane	92
Cyclohexane	91
Carbon Tetrachloride	105
2,2,4-Trimethylpentane	93
Benzene	92
1,2-Dichloroethane	98
Heptane	100
Trichloroethene	89
1,2-Dichloropropane	95
1,4-Dioxane	96
Bromodichloromethane	99
cis-1,3-Dichloropropene	95
4-Methyl-2-pentanone	106
Toluene	92
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	92
Tetrachloroethene	87
2-Hexanone	101

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Client Sample ID: CCV

Lab ID#: 1701428A-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013104**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 08:53 AM**

Compound	%Recovery
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	92
Chlorobenzene	90
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	101
Styrene	102
Bromoform	99
Cumene	103
1,1,2,2-Tetrachloroethane	95
Propylbenzene	98
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	94
1,3-Dichlorobenzene	89
1,4-Dichlorobenzene	87
alpha-Chlorotoluene	109
1,2-Dichlorobenzene	90
1,2,4-Trichlorobenzene	88
Hexachlorobutadiene	87
Naphthalene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	105	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 31-JAN-2017 08:53
Lab File ID: 20013104.d Init. Cal. Date(s): 19-DEC-2016 29-DEC-2016
Analysis Type: AIR Init. Cal. Times: 12:36 15:14
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/31Jan2017.b/2016l1219b.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	1.23371	1.31535	0.010	-6.61745	30.00000	Averaged
$ 146 Toluene-d8	0.95601	0.98603	0.010	-3.13948	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.53358	0.56287	0.010	-5.48925	30.00000	Averaged
9 Propylene	0.95489	0.89519	0.010	6.25145	40.00000	Averaged
11 Freon 12	3.79019	3.42553	0.010	9.62103	30.00000	Averaged
15 Freon 114	3.00329	2.58750	0.010	13.84450	30.00000	Averaged
17 Chloromethane	1.16503	1.04068	0.010	10.67341	30.00000	Averaged
23 Butane	0.27981	0.25173	0.010	10.03427	40.00000	Averaged
25 Vinyl Chloride	1.38187	1.24761	0.010	9.71564	30.00000	Averaged
26 1,3-Butadiene	1.01206	0.89271	0.010	11.79309	30.00000	Averaged
29 Bromomethane	0.98862	0.82368	0.010	16.68407	30.00000	Averaged
30 Chloroethane	0.60100	0.49851	0.010	17.05283	30.00000	Averaged
31 Isopentane	1.08351	0.97852	0.010	9.68950	40.00000	Averaged
35 Freon 11	3.79486	3.37116	0.010	11.16519	30.00000	Averaged
42 Ethanol	0.51106	0.37693	0.010	26.24421	30.00000	Averaged
49 Freon 113	2.83224	2.37889	0.010	16.00680	30.00000	Averaged
50 1,1-Dichloroethene	0.91785	0.75448	0.010	17.79893	30.00000	Averaged
52 Acetone	0.70452	0.57664	0.010	18.15174	30.00000	Averaged
56 Carbon Disulfide	3.89612	3.62401	0.010	6.98403	30.00000	Averaged
57 2-Propanol	1.89256	1.56923	0.010	17.08408	30.00000	Averaged
58 3-Chloropropene	0.49905	0.50004	0.010	-0.19853	30.00000	Averaged
66 Methylene Chloride	1.52897	1.21744	0.010	20.37520	30.00000	Averaged
72 Methyl tert-butyl ether	3.53072	3.38366	0.010	4.16517	30.00000	Averaged
73 trans-1,2-Dichloroethene	0.90404	0.79430	0.010	12.13831	30.00000	Averaged
78 Hexane	2.02001	1.83104	0.010	9.35501	30.00000	Averaged
82 1,1-Dichloroethane	2.56328	2.34070	0.010	8.68329	30.00000	Averaged
86 Vinyl Acetate	0.30084	0.28186	0.010	6.31052	40.00000	Averaged
91 cis-1,2-Dichloroethene	1.09095	0.95317	0.010	12.62945	30.00000	Averaged
92 2-Butanone	0.68697	0.62082	0.010	9.62932	30.00000	Averaged
99 Tetrahydrofuran	1.34658	1.24820	0.010	7.30628	30.00000	Averaged
100 Chloroform	3.10726	2.79977	0.010	9.89581	30.00000	Averaged
102 Cyclohexane	2.03184	1.84269	0.010	9.30927	30.00000	Averaged
103 1,1,1-Trichloroethane	3.13619	2.89437	0.010	7.71047	30.00000	Averaged
106 Carbon Tetrachloride	2.67349	2.81807	0.010	-5.40813	30.00000	Averaged
113 2,2,4-Trimethylpentane	1.95694	1.82482	0.010	6.75173	30.00000	Averaged
116 Benzene	1.19471	1.10096	0.010	7.84648	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 31-JAN-2017 08:53
Lab File ID: 20013104.d Init. Cal. Date(s): 19-DEC-2016 29-DEC-2016
Analysis Type: AIR Init. Cal. Times: 12:36 15:14
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/31Jan2017.b/2016l1219b.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
120 1,2-Dichloroethane	0.46317	0.45471	0.010	1.82629	30.00000	Averaged
121 Heptane	0.30676	0.30609	0.010	0.21710	30.00000	Averaged
125 Trichloroethene	0.56895	0.50898	0.010	10.53946	30.00000	Averaged
127 Methylcyclohexane	0.67173	0.64896	0.010	3.38909	40.00000	Averaged
132 1,2-Dichloropropane	0.42417	0.40393	0.010	4.77030	30.00000	Averaged
136 1,4-Dioxane	0.28001	0.26880	0.010	4.00192	30.00000	Averaged
138 Bromodichloromethane	0.88679	0.87520	0.010	1.30616	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.61075	0.58246	0.010	4.63220	30.00000	Averaged
145 4-Methyl-2-pentanone	0.65166	0.68965	0.010	-5.82964	30.00000	Averaged
147 Toluene	1.31443	1.20740	0.010	8.14302	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.62706	0.62622	0.010	0.13374	30.00000	Averaged
155 1,1,2-Trichloroethane	0.59492	0.54856	0.010	7.79223	30.00000	Averaged
156 Tetrachloroethene	0.93543	0.81769	0.010	12.58640	30.00000	Averaged
158 2-Hexanone	0.42464	0.42957	0.010	-1.15966	30.00000	Averaged
160 Dibromochloromethane	0.95806	0.93346	0.010	2.56729	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	0.89062	0.81560	0.010	8.42346	30.00000	Averaged
165 Chlorobenzene	1.31602	1.18220	0.010	10.16870	30.00000	Averaged
167 Ethyl Benzene	0.58472	0.57458	0.010	1.73441	30.00000	Averaged
169 m,p-Xylene	0.61480	0.61585	0.010	-0.17047	30.00000	Averaged
171 o-Xylene	0.57288	0.57837	0.010	-0.95892	30.00000	Averaged
172 Styrene	0.84066	0.85672	0.010	-1.91058	30.00000	Averaged
174 Bromoform	0.93670	0.92970	0.010	0.74722	30.00000	Averaged
175 Cumene	1.82701	1.88073	0.010	-2.94026	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	1.10233	1.05150	0.010	4.61201	30.00000	Averaged
182 Propylbenzene	1.74611	1.71409	0.010	1.83342	30.00000	Averaged
188 4-Ethyltoluene	1.42168	1.35063	0.010	4.99709	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.26892	1.26335	0.010	0.43887	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.22708	1.15415	0.010	5.94341	30.00000	Averaged
208 1,3-Dichlorobenzene	1.00031	0.89020	0.010	11.00771	30.00000	Averaged
209 1,4-Dichlorobenzene	0.95236	0.82970	0.010	12.88006	30.00000	Averaged
212 alpha-Chlorotoluene	0.99051	1.07714	0.010	-8.74537	30.00000	Averaged
214 1,2-Dichlorobenzene	0.95224	0.85241	0.010	10.48372	30.00000	Averaged
226 1,2,4-Trichlorobenzene	1.10472	0.97842	0.010	11.43260	30.00000	Averaged
227 Hexachlorobutadiene	0.90088	0.78114	0.010	13.29197	30.00000	Averaged
228 Naphthalene	1.98505	1.61796	0.010	18.49269	40.00000	Averaged
M 239 Total Xylene	++++	1.19423	0.010	++++	30.00000	Averaged <-

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017a.b/20013104.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 31-JAN-2017 08:53
Operator : sw Inst ID: msd20.i
Smp Info : 50mL# 2819-214
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 11:54 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.696	16.696 (1.000)	130	223806	5.00000		80.00- 120.00	100.00
16.696	16.696 (1.000)	128	175489			46.97- 106.97	78.41
16.696	16.696 (1.000)	49	255055			76.21- 136.21	113.96
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	838424	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	133289			0.00- 45.59	15.90
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	697716	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	388590			23.26- 83.26	55.69
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.620 (1.055)	65	294383	5.00000	5.331	80.00- 120.00	100.00
17.620	17.620 (1.055)	67	185776			31.78- 91.78	63.11
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	826708	5.00000	5.157	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	92104			0.00- 40.33	11.14

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.806	20.806 (1.143)	100	536320			35.56- 95.56	64.87
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	392721	5.00000	5.274	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	448716			79.94- 139.94	114.26
25.466	25.466 (1.072)	176	383588			67.24- 127.24	97.67
9 Propylene					CAS #: 115-07-1		
4.142	4.142 (0.248)	41	400700	10.0000	9.375	70.00- 130.00	100.00
4.166	4.166 (0.250)	42	270781			0.00- 30.00	67.58
4.142	4.142 (0.248)	39	289941			0.00- 30.00	72.36
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	1533309	10.0000	9.038	70.00- 130.00	100.00
4.648	4.648 (0.278)	87	500988			0.00- 30.00	32.67
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	1158196	10.0000	8.616	70.00- 130.00	100.00
6.215	6.215 (0.372)	137	369390			0.00- 30.00	31.89
6.191	6.191 (0.371)	85	1564784			103.93- 163.93	135.11
17 Chloromethane					CAS #: 74-87-3		
6.552	6.552 (0.392)	50	465820	10.0000	8.933	80.00- 120.00	100.00
6.552	6.552 (0.392)	52	153687			3.24- 63.24	32.99
23 Butane					CAS #: 106-97-8		
7.416	7.416 (0.444)	58	112677	10.0000	8.996	80.00- 120.00	100.00
7.416	7.416 (0.444)	43	761337			637.57- 697.57	675.68
25 Vinyl Chloride					CAS #: 75-01-4		
7.573	7.573 (0.454)	62	558446	10.0000	9.028	80.00- 120.00	100.00
7.573	7.573 (0.454)	64	178362			2.15- 62.15	31.94
26 1,3-Butadiene					CAS #: 106-99-0		
7.850	7.850 (0.470)	54	399586	10.0000	8.821	80.00- 120.00	100.00
7.850	7.850 (0.470)	39	353425			58.46- 118.46	88.45
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.575)	94	368687	10.0000	8.332	80.00- 120.00	100.00
9.596	9.596 (0.575)	96	349505			64.83- 124.83	94.80
30 Chloroethane					CAS #: 75-00-3		
10.174	10.174 (0.609)	64	223139	10.0000	8.295	80.00- 120.00	100.00
10.174	10.174 (0.609)	49	50727			0.00- 51.98	22.73
10.174	10.174 (0.609)	66	73600			2.87- 62.87	32.98

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.621)	57	437999	10.0000	9.031	80.00- 120.00	100.00
10.367	10.367 (0.621)	43	603833			95.82- 155.82	137.86
10.367	10.367 (0.621)	42	529493			78.19- 138.19	120.89
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.666)	101	1508970	10.0000	8.883	80.00- 120.00	100.00
11.114	11.114 (0.666)	103	977731			34.37- 94.37	64.79
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.735)	45	168720	10.0000	7.376	80.00- 120.00	100.00
12.269	12.269 (0.735)	46	66339			10.33- 70.33	39.32
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.764)	151	1064818	10.0000	8.399	80.00- 120.00	100.00
12.763	12.763 (0.764)	153	683737			33.68- 93.68	64.21
12.736	12.736 (0.763)	101	1249012			86.77- 146.77	117.30
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.763)	98	337714	10.0000	8.220	80.00- 120.00	100.00
12.736	12.736 (0.763)	61	800099			201.92- 261.92	236.92
12.736	12.736 (0.763)	96	532059			127.04- 187.04	157.55
52 Acetone					CAS #: 67-64-1		
13.066	13.066 (0.783)	58	258109	10.0000	8.185	80.00- 120.00	100.00
13.066	13.066 (0.783)	43	727870			253.28- 313.28	282.00
56 Carbon Disulfide					CAS #: 75-15-0		
13.093	13.093 (0.784)	76	1622150	10.0000	9.302	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.533 (0.811)	45	702407	10.0000	8.292	80.00- 120.00	100.00
13.533	13.533 (0.811)	43	171392			0.00- 52.74	24.40
13.533	13.533 (0.811)	59	31398			0.00- 34.43	4.47
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.820)	76	223823	10.0000	10.020	80.00- 120.00	100.00
13.697	13.697 (0.820)	41	535482			199.62- 259.62	239.24
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.840)	84	544941	10.0000	7.962	80.00- 120.00	100.00
14.027	14.027 (0.840)	49	619265			80.28- 140.28	113.64
14.027	14.027 (0.840)	51	192619			4.61- 64.61	35.35
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.865)	73	1514567	10.0000	9.583	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether (continued)							
14.439	14.439 (0.865)	57	329255			0.00- 51.40	21.74
14.439	14.439 (0.865)	41	335630			0.00- 51.25	22.16
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.868)	98	355540	10.0000	8.786	80.00- 120.00	100.00
14.494	14.494 (0.868)	61	749406			175.66- 235.66	210.78
14.494	14.494 (0.868)	96	558409			128.76- 188.76	157.06
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.891)	57	819596	10.0000	9.064	80.00- 120.00	100.00
14.878	14.878 (0.891)	43	489549			28.29- 88.29	59.73
14.878	14.878 (0.891)	86	147156			0.00- 48.18	17.95
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.919)	63	1047725	10.0000	9.132	80.00- 120.00	100.00
15.345	15.345 (0.919)	65	335682			2.02- 62.02	32.04
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.922)	86	126162	10.0000	9.369	80.00- 120.00	100.00
15.400	15.400 (0.922)	42	113009			42.22- 102.22	89.57
15.400	15.400 (0.922)	43	1284903			810.72- 870.72	1018.45
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.323 (0.978)	98	426649	10.0000	8.737	80.00- 120.00	100.00
16.323	16.323 (0.978)	61	810269			153.64- 213.64	189.91
16.323	16.323 (0.978)	96	667593			125.91- 185.91	156.47
92 2-Butanone					CAS #: 78-93-3		
16.323	16.323 (0.978)	72	277887	10.0000	9.037	80.00- 120.00	100.00
16.323	16.323 (0.978)	43	930069			300.25- 360.25	334.69
16.323	16.323 (0.978)	57	80743			0.00- 58.21	29.06
99 Tetrahydrofuran					CAS #: 109-99-9		
16.696	16.696 (1.000)	42	558709	10.0000	9.269	80.00- 120.00	100.00
16.696	16.696 (1.000)	71	257021			16.33- 76.33	46.00
16.696	16.696 (1.000)	72	270733			20.03- 80.03	48.46
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.007)	83	1253212	10.0000	9.010	80.00- 120.00	100.00
16.819	16.819 (1.007)	85	812332			34.75- 94.75	64.82
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.020)	84	824810	10.0000	9.069	80.00- 120.00	100.00
17.035	17.035 (1.020)	56	891559			76.62- 136.62	108.09
17.035	17.035 (1.020)	41	445781			21.84- 81.84	54.05

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.035	17.035 (1.020)	97	1295556	10.0000	9.229	80.00- 120.00	100.00
17.035	17.035 (1.020)	99	827880			34.64- 94.64	63.90
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.033)	119	1261403	10.0000	10.541	80.00- 120.00	100.00
17.250	17.250 (1.033)	117	1299534			73.50- 133.50	103.02
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.559	17.559 (1.052)	56	816810	10.0000	9.325	80.00- 120.00	100.00
17.559	17.559 (1.052)	57	2534332			280.27- 340.27	310.27
17.559	17.559 (1.052)	41	620416			42.11- 102.11	75.96
116 Benzene					CAS #: 71-43-2		
17.620	17.620 (0.968)	78	1846149	10.0000	9.215	80.00- 120.00	100.00
17.620	17.620 (0.968)	77	431768			0.00- 53.26	23.39
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	762483	10.0000	9.817	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	245464			2.82- 62.82	32.19
121 Heptane					CAS #: 142-82-5		
17.826	17.826 (0.979)	57	513265	10.0000	9.978	80.00- 120.00	100.00
17.847	17.847 (0.980)	100	186362			8.23- 68.23	36.31
17.826	17.826 (0.979)	43	884218			141.33- 201.33	172.27
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	853486	10.0000	8.946	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	801806			61.76- 121.76	93.94
18.610	18.610 (1.022)	97	520496			29.47- 89.47	60.98
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.034)	83	1088211	10.0000	9.661	80.00- 120.00	100.00
18.833	18.833 (1.034)	55	801880			40.87- 100.87	73.69
18.833	18.833 (1.034)	56	258886			0.00- 53.10	23.79
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.057	19.057 (1.047)	63	677333	10.0000	9.523	80.00- 120.00	100.00
19.057	19.057 (1.047)	62	467623			39.05- 99.05	69.04
19.057	19.057 (1.047)	41	348157			18.49- 78.49	51.40
136 1,4-Dioxane					CAS #: 123-91-1		
19.190	19.190 (1.054)	88	450739	10.0000	9.600	80.00- 120.00	100.00
19.190	19.190 (1.054)	58	306779			32.65- 92.65	68.06
19.190	19.190 (1.054)	57	95454			0.00- 50.00	21.18

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

  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83   1221286 10.0000    9.869  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    776714                   33.97-  93.97    63.60
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.117)    75    976691 10.0000    9.537  80.00- 120.00   100.00
 20.338  20.338 (1.117)    77    311260                    1.99-  61.99    31.87
 20.338  20.338 (1.117)    39    437539                   10.43-  70.43    44.80
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.541  20.541 (1.128)    43   1156434 10.0000   10.583  80.00- 120.00   100.00
 20.557  20.557 (1.129)    58    474355                   12.96-  72.96    41.02
 20.557  20.557 (1.129)    85    221186                    0.00-  50.79    19.13
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.946  20.946 (1.150)    91   2024624 10.0000    9.186  80.00- 120.00   100.00
 20.946  20.946 (1.150)    92   1179525                   29.12-  89.12    58.26
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.535  21.535 (0.906)    75    873850 10.0000    9.987  80.00- 120.00   100.00
 21.535  21.535 (0.906)    77    278441                    1.76-  61.76    31.86
 21.535  21.535 (0.906)    39    380725                    8.58-  68.58    43.57
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.970  21.970 (0.925)    97    765480 10.0000    9.221  80.00- 120.00   100.00
 21.970  21.970 (0.925)    99    477235                   32.87-  92.87    62.34
 21.970  21.970 (0.925)    83    652097                   54.32- 114.32    85.19
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.145  22.145 (0.932)   166   1141031 10.0000    8.741  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129    794252                   38.71-  98.71    69.61
 22.145  22.145 (0.932)   131    768202                   36.65-  96.65    67.33
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.377  22.377 (0.942)    58    599430 10.0000   10.116  80.00- 120.00   100.00
 22.377  22.377 (0.942)    43   1054919                  137.01- 197.01   175.99
 22.377  22.377 (0.942)   100    130719                    0.00-  53.27    21.81
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 22.755  22.755 (0.958)   129   1302582 10.0000    9.743  80.00- 120.00   100.00
 22.755  22.755 (0.958)   127    999983                   46.69- 106.69    76.77
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 23.045  23.045 (0.970)   107   1138109 10.0000    9.158  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109   1065969                   65.40- 125.40    93.66
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	1649680	10.0000	8.983	80.00- 120.00	100.00
23.802	23.802 (1.002)	114	531131			2.27- 62.27	32.20
23.802	23.802 (1.002)	77	936429			24.92- 84.92	56.76
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.905 (1.006)	106	801785	10.0000	9.826	80.00- 120.00	100.00
23.905	23.905 (1.006)	91	2479957			275.87- 335.87	309.30
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	859380	10.0000	10.017	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	1696557			163.30- 223.30	197.42
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	807082	10.0000	10.096	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	1687709			172.76- 232.76	209.11
172 Styrene					CAS #: 100-42-5		
24.731	24.731 (1.041)	104	1195500	10.0000	10.191	80.00- 120.00	100.00
24.731	24.731 (1.041)	78	598380			18.49- 78.49	50.05
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	1297339	10.0000	9.925	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	669015			21.11- 81.11	51.57
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	2624424	10.0000	10.294	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	711089			0.00- 57.81	27.10
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	1467290	10.0000	9.539	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	945306			34.74- 94.74	64.43
182 Propylbenzene					CAS #: 103-65-1		
25.713	25.713 (1.082)	91	2391900	10.0000	9.817	80.00- 120.00	100.00
25.713	25.713 (1.082)	120	564511			0.00- 54.36	23.60
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	1884716	10.0000	9.500	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	575887			1.16- 61.16	30.56
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	1762923	10.0000	9.956	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	889761			20.44- 80.44	50.47
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	1610543	10.0000	9.406	80.00- 120.00	100.00

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

  196 1,2,4-Trimethylbenzene (continued)
 26.395  26.395 (1.111)   120    759225                    17.83-  77.83    47.14
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.794  26.794 (1.128)   146   1242209 10.0000    8.899  80.00- 120.00   100.00
 26.794  26.794 (1.128)   148    799227                    33.66-  93.66    64.34
 26.794  26.794 (1.128)   111    482151                     8.07-  68.07    38.81
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.903  26.903 (1.132)   146   1157789 10.0000    8.712  80.00- 120.00   100.00
 26.903  26.903 (1.132)   148    736121                    33.90-  93.90    63.58
 26.903  26.903 (1.132)   111    430292                     6.77-  66.77    37.16
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.075  27.075 (1.139)    91   1503071 10.0000   10.874  80.00- 120.00   100.00
 27.075  27.075 (1.139)   126    319437                     0.00-  52.05    21.25
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 27.371  27.371 (1.152)   146   1189478 10.0000    8.952  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148    766530                    34.41-  94.41    64.44
 27.371  27.371 (1.152)   111    479170                     9.66-  69.66    40.28
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 29.366  29.366 (1.236)   180   1365323 10.0000    8.857  80.00- 120.00   100.00
 29.366  29.366 (1.236)   182   1302856                    66.13- 126.13    95.42
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225   1090021 10.0000    8.671  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223    680259                    32.84-  92.84    62.41
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.756  29.756 (1.252)   128    225775 1.00000   0.8151  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127     28078                     0.00-  42.38    12.44
-------------------------------------------------------------------------------
M 239 Total Xylene                                 CAS #: 1330-20-7
                                1666462 10.0000   20.113
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20013104.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 31-JAN-2017
Calibration Time: 15:51
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	223806	18.00
123 1,4-Difluorobenze	617206	370324	864088	838424	35.84
163 Chlorobenzene-d5	554897	332938	776856	697716	25.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.70	-0.18
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/31Jan2017a.b/20013104.d

Date : 31-JAN-2017 08:53

Client ID: CCV

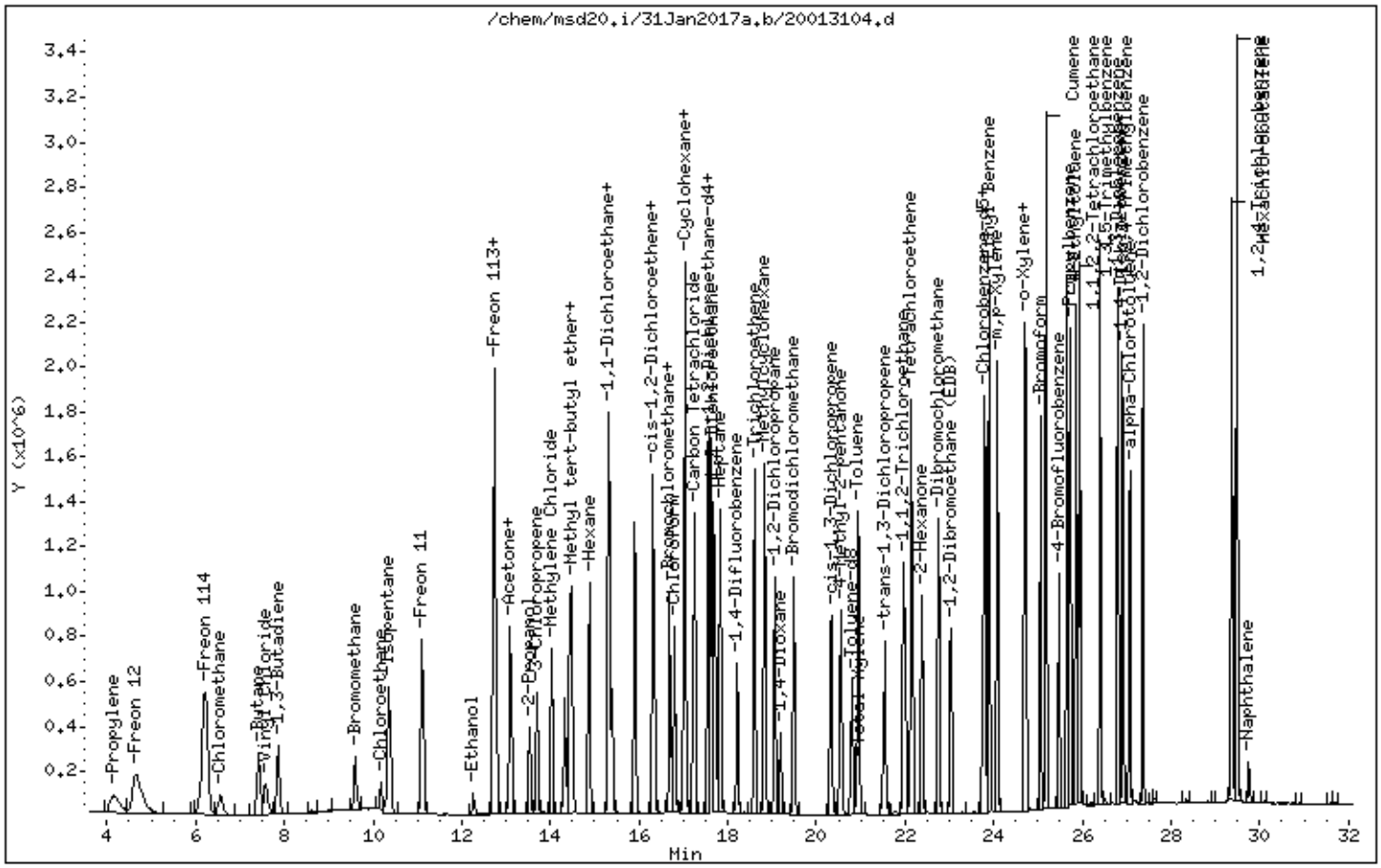
Instrument: msd20.i

Sample Info: 50mL# 2819-214

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: CCV

Lab ID#: 1701428A-17B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013114**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 03:51 PM**	

Compound	%Recovery
Freon 12	105
Freon 114	94
Chloromethane	108
Vinyl Chloride	103
1,3-Butadiene	102
Bromomethane	113
Chloroethane	126
Freon 11	100
Ethanol	77
Freon 113	92
1,1-Dichloroethene	83
Acetone	91
2-Propanol	86
Carbon Disulfide	107
3-Chloropropene	102
Methylene Chloride	90
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	98
Hexane	99
1,1-Dichloroethane	106
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	93
Tetrahydrofuran	107
Chloroform	103
1,1,1-Trichloroethane	102
Cyclohexane	98
Carbon Tetrachloride	114
2,2,4-Trimethylpentane	106
Benzene	120
1,2-Dichloroethane	134 Q
Heptane	129
Trichloroethene	106
1,2-Dichloropropane	121
1,4-Dioxane	116
Bromodichloromethane	115
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	132 Q
Toluene	115
trans-1,3-Dichloropropene	111
1,1,2-Trichloroethane	108
Tetrachloroethene	101
2-Hexanone	113

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Client Sample ID: CCV

Lab ID#: 1701428A-17B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013114**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 03:51 PM**	

Compound	**%Recovery**
Dibromochloromethane	115
1,2-Dibromoethane (EDB)	108
Chlorobenzene	104
Ethyl Benzene	113
m,p-Xylene	114
o-Xylene	113
Styrene	119
Bromoform	115
Cumene	120
1,1,2,2-Tetrachloroethane	115
Propylbenzene	115
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	121
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	108
Naphthalene	86

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	112	70-130
4-Bromofluorobenzene	108	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 31-JAN-2017 15:51
Lab File ID: 20013114.d Init. Cal. Date(s): 19-DEC-2016 29-DEC-2016
Analysis Type: AIR Init. Cal. Times: 12:36 15:14
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/31Jan2017.b/2016l1219b.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	1.23371	1.37813	0.010	-11.70661	30.00000	Averaged
$ 146 Toluene-d8	0.95601	1.07114	0.010	-12.04298	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.53358	0.57811	0.010	-8.34559	30.00000	Averaged
9 Propylene	0.95489	1.04440	0.010	-9.37379	40.00000	Averaged
11 Freon 12	3.79019	3.99765	0.010	-5.47380	30.00000	Averaged
15 Freon 114	3.00329	2.83945	0.010	5.45524	30.00000	Averaged
17 Chloromethane	1.16503	1.26428	0.010	-8.51970	30.00000	Averaged
23 Butane	0.27981	0.27426	0.010	1.98261	40.00000	Averaged
25 Vinyl Chloride	1.38187	1.42757	0.010	-3.30724	30.00000	Averaged
26 1,3-Butadiene	1.01206	1.03627	0.010	-2.39210	30.00000	Averaged
29 Bromomethane	0.98862	1.12060	0.010	-13.35056	30.00000	Averaged
30 Chloroethane	0.60100	0.76013	0.010	-26.47791	30.00000	Averaged
31 Isopentane	1.08351	1.06198	0.010	1.98741	40.00000	Averaged
35 Freon 11	3.79486	3.79023	0.010	0.12204	30.00000	Averaged
42 Ethanol	0.51106	0.39599	0.010	22.51552	30.00000	Averaged
49 Freon 113	2.83224	2.61184	0.010	7.78161	30.00000	Averaged
50 1,1-Dichloroethene	0.91785	0.76524	0.010	16.62686	30.00000	Averaged
52 Acetone	0.70452	0.64313	0.010	8.71321	30.00000	Averaged
56 Carbon Disulfide	3.89612	4.17754	0.010	-7.22319	30.00000	Averaged
57 2-Propanol	1.89256	1.62266	0.010	14.26120	30.00000	Averaged
58 3-Chloropropene	0.49905	0.50814	0.010	-1.82161	30.00000	Averaged
66 Methylene Chloride	1.52897	1.37570	0.010	10.02458	30.00000	Averaged
72 Methyl tert-butyl ether	3.53072	3.52621	0.010	0.12772	30.00000	Averaged
73 trans-1,2-Dichloroethene	0.90404	0.88991	0.010	1.56256	30.00000	Averaged
78 Hexane	2.02001	1.99322	0.010	1.32656	30.00000	Averaged
82 1,1-Dichloroethane	2.56328	2.72978	0.010	-6.49588	30.00000	Averaged
86 Vinyl Acetate	0.30084	0.29731	0.010	1.17207	40.00000	Averaged
91 cis-1,2-Dichloroethene	1.09095	1.01925	0.010	6.57236	30.00000	Averaged
92 2-Butanone	0.68697	0.67607	0.010	1.58721	30.00000	Averaged
99 Tetrahydrofuran	1.34658	1.44676	0.010	-7.43919	30.00000	Averaged
100 Chloroform	3.10726	3.18992	0.010	-2.66013	30.00000	Averaged
102 Cyclohexane	2.03184	1.98401	0.010	2.35378	30.00000	Averaged
103 1,1,1-Trichloroethane	3.13619	3.20071	0.010	-2.05731	30.00000	Averaged
106 Carbon Tetrachloride	2.67349	3.05348	0.010	-14.21351	30.00000	Averaged
113 2,2,4-Trimethylpentane	1.95694	2.08600	0.010	-6.59448	30.00000	Averaged
116 Benzene	1.19471	1.43725	0.010	-20.30129	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 31-JAN-2017 15:51
Lab File ID: 20013114.d Init. Cal. Date(s): 19-DEC-2016 29-DEC-2016
Analysis Type: AIR Init. Cal. Times: 12:36 15:14
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/31Jan2017.b/2016l1219b.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
120 1,2-Dichloroethane	0.46317	0.61911	0.010	-33.66846	30.00000	Averaged	<-
121 Heptane	0.30676	0.39703	0.010	-29.42934	30.00000	Averaged	
125 Trichloroethene	0.56895	0.60300	0.010	-5.98536	30.00000	Averaged	
127 Methylcyclohexane	0.67173	0.79183	0.010	-17.87992	40.00000	Averaged	
132 1,2-Dichloropropane	0.42417	0.51482	0.010	-21.37107	30.00000	Averaged	
136 1,4-Dioxane	0.28001	0.32624	0.010	-16.51121	30.00000	Averaged	
138 Bromodichloromethane	0.88679	1.02287	0.010	-15.34540	30.00000	Averaged	
144 cis-1,3-Dichloropropene	0.61075	0.66820	0.010	-9.40623	30.00000	Averaged	
145 4-Methyl-2-pentanone	0.65166	0.85905	0.010	-31.82505	30.00000	Averaged	<-
147 Toluene	1.31443	1.51427	0.010	-15.20351	30.00000	Averaged	
150 trans-1,3-Dichloropropene	0.62706	0.69516	0.010	-10.86036	30.00000	Averaged	
155 1,1,2-Trichloroethane	0.59492	0.64606	0.010	-8.59656	30.00000	Averaged	
156 Tetrachloroethene	0.93543	0.94439	0.010	-0.95827	30.00000	Averaged	
158 2-Hexanone	0.42464	0.48076	0.010	-13.21453	30.00000	Averaged	
160 Dibromochloromethane	0.95806	1.10076	0.010	-14.89489	30.00000	Averaged	
161 1,2-Dibromoethane (EDB)	0.89062	0.95938	0.010	-7.72123	30.00000	Averaged	
165 Chlorobenzene	1.31602	1.37452	0.010	-4.44501	30.00000	Averaged	
167 Ethyl Benzene	0.58472	0.66040	0.010	-12.94377	30.00000	Averaged	
169 m,p-Xylene	0.61480	0.70017	0.010	-13.88423	30.00000	Averaged	
171 o-Xylene	0.57288	0.64574	0.010	-12.71766	30.00000	Averaged	
172 Styrene	0.84066	0.99868	0.010	-18.79722	30.00000	Averaged	
174 Bromoform	0.93670	1.07808	0.010	-15.09292	30.00000	Averaged	
175 Cumene	1.82701	2.18895	0.010	-19.81072	30.00000	Averaged	
181 1,1,2,2-Tetrachloroethane	1.10233	1.26982	0.010	-15.19361	30.00000	Averaged	
182 Propylbenzene	1.74611	2.01128	0.010	-15.18671	30.00000	Averaged	
188 4-Ethyltoluene	1.42168	1.53099	0.010	-7.68951	30.00000	Averaged	
190 1,3,5-Trimethylbenzene	1.26892	1.45115	0.010	-14.36105	30.00000	Averaged	
196 1,2,4-Trimethylbenzene	1.22708	1.26673	0.010	-3.23107	30.00000	Averaged	
208 1,3-Dichlorobenzene	1.00031	1.02607	0.010	-2.57522	30.00000	Averaged	
209 1,4-Dichlorobenzene	0.95236	0.94862	0.010	0.39363	30.00000	Averaged	
212 alpha-Chlorotoluene	0.99051	1.19541	0.010	-20.68636	30.00000	Averaged	
214 1,2-Dichlorobenzene	0.95224	0.98819	0.010	-3.77497	30.00000	Averaged	
226 1,2,4-Trichlorobenzene	1.10472	1.17740	0.010	-6.57886	30.00000	Averaged	
227 Hexachlorobutadiene	0.90088	0.97240	0.010	-7.93866	30.00000	Averaged	
228 Naphthalene	1.98505	1.70825	0.010	13.94387	40.00000	Averaged	
M 239 Total Xylene	++++	1.34590	0.010	++++	30.00000	Averaged	<-

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013114.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 31-JAN-2017 15:51
Operator : ef Inst ID: msd20.i
Smp Info : 50mL# 2819-214
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 09-Feb-2017 12:26 dbailey Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	189668	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	144881			46.97- 106.97	76.39
16.696	16.696 (1.000)	49	236633			76.21- 136.21	124.76
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	617206	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	99035			0.00- 45.59	16.05
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	554897	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	307066			23.26- 83.26	55.34
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.621	17.621 (1.053)	65	261388	5.00000	5.585	80.00- 120.00	100.00
17.621	17.621 (1.053)	67	170724			31.78- 91.78	65.31
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	661117	5.00000	5.602	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	76135			0.00- 40.33	11.52

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    430091                    35.56-  95.56    65.06
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    320790 5.00000    5.417  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    363454                   79.94- 139.94   113.30
 25.466  25.466 (1.072)   176    305333                   67.24- 127.24    95.18
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.142   4.142 (0.248)    41    396178 10.0000   10.937  70.00- 130.00   100.00
  4.142   4.142 (0.248)    42    270039                    0.00-  30.00    68.16
  4.166   4.166 (0.249)    39    303731                    0.00-  30.00    76.67
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.648   4.648 (0.278)    85   1516454 10.0000   10.547  70.00- 130.00   100.00
  4.648   4.648 (0.278)    87    489914                    0.00-  30.00    32.31
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135   1077107 10.0000    9.454  70.00- 130.00   100.00
  6.215   6.215 (0.372)   137    342771                    0.00-  30.00    31.82
  6.191   6.191 (0.370)    85   1520173                  103.93- 163.93   141.13
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.553   6.553 (0.392)    50    479588 10.0000   10.852  80.00- 120.00   100.00
  6.553   6.553 (0.392)    52    155043                    3.24-  63.24    32.33
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.416   7.416 (0.443)    58    104036 10.0000    9.802  80.00- 120.00   100.00
  7.416   7.416 (0.443)    43    735371                  637.57- 697.57   706.84
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.573   7.573 (0.453)    62    541529 10.0000   10.331  80.00- 120.00   100.00
  7.573   7.573 (0.453)    64    173353                    2.15-  62.15    32.01
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    393094 10.0000   10.239  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    374683                   58.46- 118.46    95.32
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    425085 10.0000   11.335  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    404221                   64.83- 124.83    95.09
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.174  10.174 (0.608)    64    288344 10.0000   12.648  80.00- 120.00   100.00
 10.174  10.174 (0.608)    49     66475                    0.00-  51.98    23.05
 10.174  10.174 (0.608)    66     93798                    2.87-  62.87    32.53
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	402846	10.0000	9.801	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	577423			95.82- 155.82	143.34
10.367	10.367 (0.620)	42	529005			78.19- 138.19	131.32
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	1437770	10.0000	9.988	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	932065			34.37- 94.37	64.83
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	150213	10.0000	7.748	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	60479			10.33- 70.33	40.26
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	990766	10.0000	9.222	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	629087			33.68- 93.68	63.50
12.736	12.736 (0.761)	101	1207758			86.77- 146.77	121.90
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	290282	10.0000	8.337	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	723290			201.92- 261.92	249.17
12.736	12.736 (0.761)	96	456702			127.04- 187.04	157.33
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	243963	10.0000	9.129	80.00- 120.00	100.00
13.066	13.066 (0.781)	43	731248			253.28- 313.28	299.74
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.121 (0.784)	76	1584691	10.0000	10.722	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.533 (0.809)	45	615532	10.0000	8.574	80.00- 120.00	100.00
13.533	13.533 (0.809)	43	195825			0.00- 52.74	31.81
13.533	13.533 (0.809)	59	27251			0.00- 34.43	4.43
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	192755	10.0000	10.182	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	499856			199.62- 259.62	259.32
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	521852	10.0000	8.998	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	636316			80.28- 140.28	121.93
14.027	14.027 (0.839)	51	194891			4.61- 64.61	37.35
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	1337619	10.0000	9.987	80.00- 120.00	100.00

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

   72 Methyl tert-butyl ether (continued)
 14.439  14.439 (0.863)    57    306040                     0.00-  51.40    22.88
 14.439  14.439 (0.863)    41    373805                     0.00-  51.25    27.95
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.494  14.494 (0.866)    98    337576 10.0000    9.844  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61    742354                  175.66- 235.66   219.91
 14.494  14.494 (0.866)    96    532610                  128.76- 188.76   157.77
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57    756099 10.0000    9.867  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    471992                   28.29-  88.29    62.42
 14.878  14.878 (0.889)    86    126691                    0.00-  48.18    16.76
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
 15.345  15.345 (0.917)    63   1035505 10.0000   10.650  80.00- 120.00   100.00
 15.345  15.345 (0.917)    65    332204                    2.02-  62.02    32.08
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                 CAS #: 108-05-4
 15.400  15.400 (0.921)    86    112782 10.0000    9.883  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42    100582                   42.22- 102.22    89.18
 15.400  15.400 (0.921)    43   1284229                  810.72- 870.72  1138.68
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.324  16.324 (0.976)    98    386637 10.0000    9.343  80.00- 120.00   100.00
 16.324  16.324 (0.976)    61    775169                  153.64- 213.64   200.49
 16.324  16.324 (0.976)    96    609589                  125.91- 185.91   157.66
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.324  16.324 (0.976)    72    256457 10.0000    9.841  80.00- 120.00   100.00
 16.324  16.324 (0.976)    43    934558                  300.25- 360.25   364.41
 16.324  16.324 (0.976)    57     76999                    0.00-  58.21    30.02
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                               CAS #: 109-99-9
 16.696  16.696 (0.998)    42    548808 10.0000   10.744  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71    233354                   16.33-  76.33    42.52
 16.696  16.696 (0.998)    72    242524                   20.03-  80.03    44.19
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 16.819  16.819 (1.006)    83   1210051 10.0000   10.266  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    780722                   34.75-  94.75    64.52
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
 17.035  17.035 (1.018)    84    752608 10.0000    9.765  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    845727                   76.62- 136.62   112.37
 17.035  17.035 (1.018)    41    464667                   21.84-  81.84    61.74
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.035	17.035 (1.018)	97	1214144	10.0000	10.206	80.00- 120.00	100.00
17.035	17.035 (1.018)	99	786560			34.64- 94.64	64.78
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	1158296	10.0000	11.421	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	1203779			73.50- 133.50	103.93
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.559	17.559 (1.050)	56	791293	10.0000	10.659	80.00- 120.00	100.00
17.559	17.559 (1.050)	57	2331984			280.27- 340.27	294.71
17.559	17.559 (1.050)	41	643460			42.11- 102.11	81.32
116 Benzene					CAS #: 71-43-2		
17.621	17.621 (0.968)	78	1774155	10.0000	12.030	80.00- 120.00	100.00
17.621	17.621 (0.968)	77	411608			0.00- 53.26	23.20
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	764241	10.0000	13.367	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	244614			2.82- 62.82	32.01
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	490100	10.0000	12.943	80.00- 120.00	100.00
17.847	17.847 (0.980)	100	165024			8.23- 68.23	33.67
17.847	17.847 (0.980)	43	873194			141.33- 201.33	178.17
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	744350	10.0000	10.598	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	721455			61.76- 121.76	96.92
18.610	18.610 (1.022)	97	455930			29.47- 89.47	61.25
127 Methylcyclohexane					CAS #: 108-87-2		
18.834	18.834 (1.034)	83	977447	10.0000	11.788	80.00- 120.00	100.00
18.834	18.834 (1.034)	55	767851			40.87- 100.87	78.56
18.834	18.834 (1.034)	56	247098			0.00- 53.10	25.28
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.057	19.057 (1.047)	63	635494	10.0000	12.137	80.00- 120.00	100.00
19.057	19.057 (1.047)	62	442615			39.05- 99.05	69.65
19.057	19.057 (1.047)	41	369947			18.49- 78.49	58.21
136 1,4-Dioxane					CAS #: 123-91-1		
19.190	19.190 (1.054)	88	402714	10.0000	11.651	80.00- 120.00	100.00
19.190	19.190 (1.054)	58	276065			32.65- 92.65	68.55
19.190	19.190 (1.054)	57	87115			0.00- 50.00	21.63

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

  138 Bromodichloromethane                          CAS #: 75-27-4
 19.503  19.503 (0.821)    83   1135171 10.0000   11.534  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    727226                   33.97-  93.97    64.06
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 20.339  20.339 (1.117)    75    824829 10.0000   10.941  80.00- 120.00   100.00
 20.339  20.339 (1.117)    77    260177                    1.99-  61.99    31.54
 20.339  20.339 (1.117)    39    384295                   10.43-  70.43    46.59
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 20.557  20.557 (1.129)    43   1060420 10.0000   13.182  80.00- 120.00   100.00
 20.557  20.557 (1.129)    58    418565                   12.96-  72.96    39.47
 20.557  20.557 (1.129)    85    195227                    0.00-  50.79    18.41
-------------------------------------------------------------------------------
  147 Toluene                                       CAS #: 108-88-3
 20.946  20.946 (1.150)    91   1869237 10.0000   11.520  80.00- 120.00   100.00
 20.946  20.946 (1.150)    92   1096251                   29.12-  89.12    58.65
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                     CAS #: 10061-02-6
 21.535  21.535 (0.906)    75    771486 10.0000   11.086  80.00- 120.00   100.00
 21.535  21.535 (0.906)    77    245907                    1.76-  61.76    31.87
 21.535  21.535 (0.906)    39    345650                    8.58-  68.58    44.80
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                         CAS #: 79-00-5
 21.970  21.970 (0.925)    97    716995 10.0000   10.860  80.00- 120.00   100.00
 21.970  21.970 (0.925)    99    447630                   32.87-  92.87    62.43
 21.970  21.970 (0.925)    83    617722                   54.32- 114.32    86.15
-------------------------------------------------------------------------------
  156 Tetrachloroethene                             CAS #: 127-18-4
 22.145  22.145 (0.932)   166   1048079 10.0000   10.096  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129    750634                   38.71-  98.71    71.62
 22.145  22.145 (0.932)   131    719749                   36.65-  96.65    68.67
-------------------------------------------------------------------------------
  158 2-Hexanone                                    CAS #: 591-78-6
 22.377  22.377 (0.942)    58    533540 10.0000   11.321  80.00- 120.00   100.00
 22.377  22.377 (0.942)    43    966418                  137.01- 197.01   181.13
 22.377  22.377 (0.942)   100    115056                    0.00-  53.27    21.56
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.755  22.755 (0.958)   129   1221616 10.0000   11.489  80.00- 120.00   100.00
 22.755  22.755 (0.958)   127    939569                   46.69- 106.69    76.91
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 23.045  23.045 (0.970)   107   1064718 10.0000   10.772  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109   1001402                   65.40- 125.40    94.05
-------------------------------------------------------------------------------
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene                                CAS #: 108-90-7
 23.802  23.802 (1.002)   112   1525434 10.0000   10.444  80.00- 120.00   100.00
 23.802  23.802 (1.002)   114    489757                    2.27-  62.27    32.11
 23.802  23.802 (1.002)    77    877883                   24.92-  84.92    57.55
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.906 (1.006)   106    732913 10.0000   11.294  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91   2295249                  275.87- 335.87   313.17
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106    777039 10.0000   11.388  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   1545118                  163.30- 223.30   198.85
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106    716636 10.0000   11.272  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   1497676                  172.76- 232.76   208.99
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104   1108333 10.0000   11.880  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78    563945                   18.49-  78.49    50.88
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173   1196446 10.0000   11.509  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    616957                   21.11-  81.11    51.57
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105   2429283 10.0000   11.981  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    655092                    0.00-  57.81    26.97
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83   1409238 10.0000   11.519  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85    907670                   34.74-  94.74    64.41
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.713  25.713 (1.082)    91   2232109 10.0000   11.519  80.00- 120.00   100.00
 25.713  25.713 (1.082)   120    524712                    0.00-  54.36    23.51
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105   1699089 10.0000   10.769  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120    517076                    1.16-  61.16    30.43
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105   1610480 10.0000   11.436  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120    796528                   20.44-  80.44    49.46
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105   1405812 10.0000   10.323  80.00- 120.00   100.00
```

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

  196 1,2,4-Trimethylbenzene (continued)
 26.395  26.395 (1.111)   120    655387                    17.83-  77.83    46.62
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.794  26.794 (1.128)   146   1138724 10.0000   10.258  80.00- 120.00   100.00
 26.794  26.794 (1.128)   148    730012                   33.66-  93.66    64.11
 26.794  26.794 (1.128)   111    446325                    8.07-  68.07    39.20
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.904  26.904 (1.132)   146   1052768 10.0000    9.961  80.00- 120.00   100.00
 26.904  26.904 (1.132)   148    676145                   33.90-  93.90    64.23
 26.904  26.904 (1.132)   111    394465                    6.77-  66.77    37.47
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.075  27.075 (1.139)    91   1326663 10.0000   12.069  80.00- 120.00   100.00
 27.075  27.075 (1.139)   126    277359                    0.00-  52.05    20.91
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 27.371  27.371 (1.152)   146   1096682 10.0000   10.377  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148    697758                   34.41-  94.41    63.62
 27.371  27.371 (1.152)   111    442764                    9.66-  69.66    40.37
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 29.367  29.367 (1.236)   180   1306671 10.0000   10.658  80.00- 120.00   100.00
 29.367  29.367 (1.236)   182   1241796                   66.13- 126.13    95.04
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225   1079161 10.0000   10.794  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223    676428                   32.84-  92.84    62.68
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.756  29.756 (1.252)   128    189581 1.00000   0.8606  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127     24556                    0.00-  42.38    12.95
-------------------------------------------------------------------------------
M 239 Total Xylene                                 CAS #: 1330-20-7
                                1493675 10.0000   22.660
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20013114.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 31-JAN-2017
Calibration Time: 08:53
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	223806	134284	313328	189668	-15.25
123 1,4-Difluorobenze	838424	503054	1173794	617206	-26.38
163 Chlorobenzene-d5	697716	418630	976802	554897	-20.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.70	16.37	17.03	16.73	0.19
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/31Jan2017.b/20013114.d

Date : 31-JAN-2017 15:51

Client ID: CCV

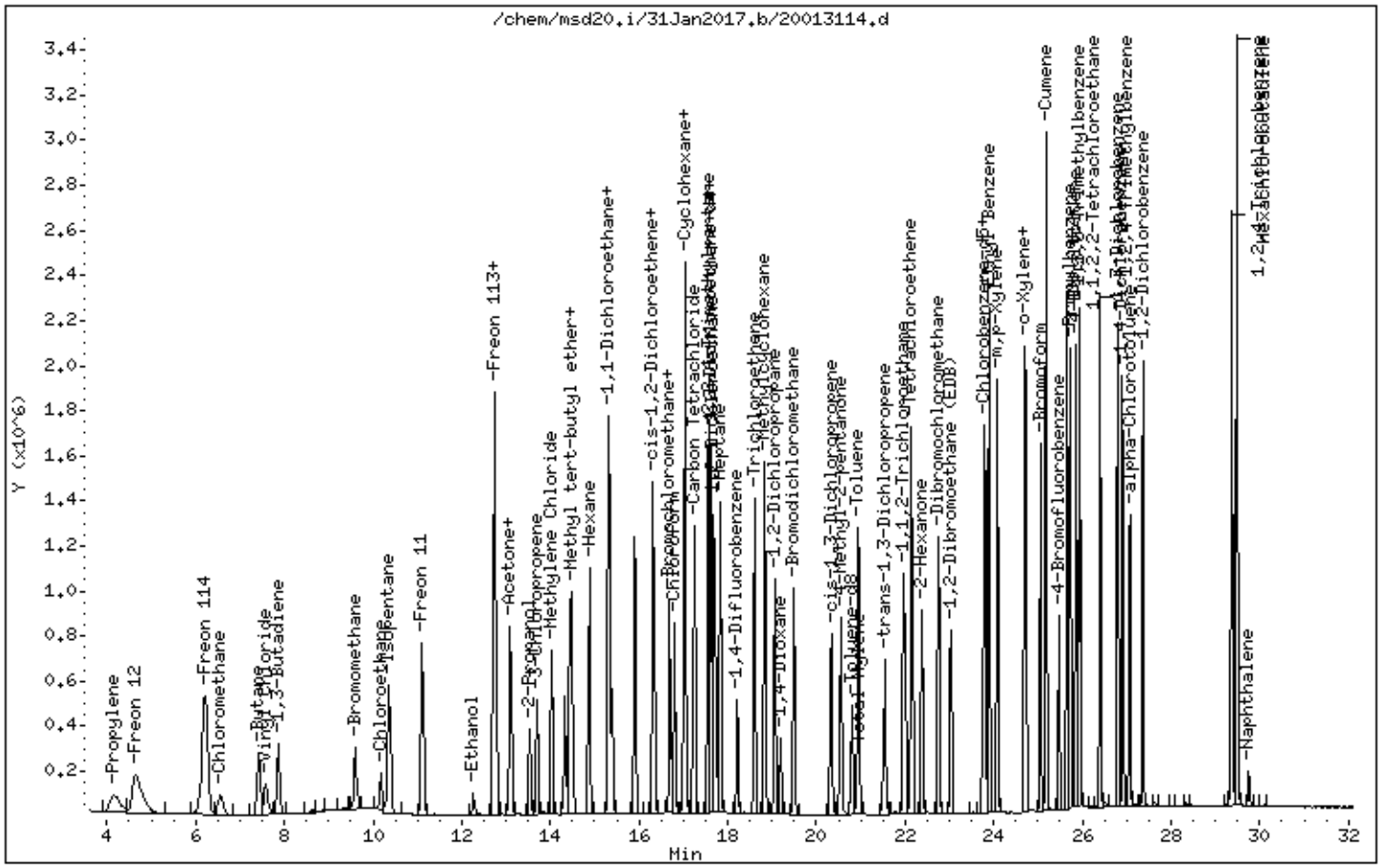
Instrument: msd20.i

Sample Info: 50mL# 2819-214

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: CCV

Lab ID#: 1701428A-17C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020602**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 07:43 AM**

Compound	%Recovery
Freon 12	99
Freon 114	93
Chloromethane	98
Vinyl Chloride	91
1,3-Butadiene	97
Bromomethane	94
Chloroethane	96
Freon 11	100
Ethanol	85
Freon 113	93
1,1-Dichloroethene	95
Acetone	95
2-Propanol	95
Carbon Disulfide	112
3-Chloropropene	95
Methylene Chloride	81
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	98
Hexane	98
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	95
Tetrahydrofuran	97
Chloroform	93
1,1,1-Trichloroethane	95
Cyclohexane	100
Carbon Tetrachloride	106
2,2,4-Trimethylpentane	104
Benzene	95
1,2-Dichloroethane	96
Heptane	99
Trichloroethene	97
1,2-Dichloropropane	98
1,4-Dioxane	94
Bromodichloromethane	100
cis-1,3-Dichloropropene	103
4-Methyl-2-pentanone	104
Toluene	100
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	98
Tetrachloroethene	100
2-Hexanone	102

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Client Sample ID: CCV

Lab ID#: 1701428A-17C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020602**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 07:43 AM**

Compound	**%Recovery**
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	94
Chlorobenzene	97
Ethyl Benzene	106
m,p-Xylene	105
o-Xylene	105
Styrene	111
Bromoform	105
Cumene	109
1,1,2,2-Tetrachloroethane	93
Propylbenzene	103
4-Ethyltoluene	114
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	104
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	91
Hexachlorobutadiene	91
Naphthalene	86

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 06-FEB-2017 07:43
Lab File ID: e020602.d Init. Cal. Date(s): 26-JAN-2017 27-JAN-2017
Analysis Type: AIR Init. Cal. Times: 14:02 19:31
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/06Feb2017.b/e17l0126a.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	%D / %DRIFT	MAX	CURVE TYPE
9 Propylene	0.72160	0.71165	0.010	1.37846	40.00000		Averaged
11 Freon 12	4.43919	4.38255	0.010	1.27586	30.00000		Averaged
15 Freon 114	3.40740	3.16220	0.010	7.19614	30.00000		Averaged
17 Chloromethane	0.82792	0.81353	0.010	1.73810	30.00000		Averaged
23 Butane	0.20100	0.19710	0.010	1.93642	40.00000		Averaged
25 Vinyl Chloride	1.16341	1.06188	0.010	8.72721	30.00000		Averaged
26 1,3-Butadiene	0.80439	0.77824	0.010	3.25041	30.00000		Averaged
29 Bromomethane	1.21689	1.15002	0.010	5.49487	30.00000		Averaged
30 Chloroethane	0.60148	0.57560	0.010	4.30383	30.00000		Averaged
31 Isopentane	0.86869	0.85300	0.010	1.80592	40.00000		Averaged
35 Freon 11	5.17869	5.17344	0.010	0.10138	30.00000		Averaged
42 Ethanol	0.45139	0.38355	0.010	15.02853	30.00000		Averaged
49 Freon 113	3.45783	3.21419	0.010	7.04624	30.00000		Averaged
50 1,1-Dichloroethene	0.92379	0.87555	0.010	5.22234	30.00000		Averaged
52 Acetone	0.56754	0.54099	0.010	4.67717	30.00000		Averaged
56 Carbon Disulfide	3.92589	4.41961	0.010	-12.57601	30.00000		Averaged
57 2-Propanol	1.82713	1.73888	0.010	4.82986	30.00000		Averaged
58 3-Chloropropene	0.77135	0.73294	0.010	4.97981	30.00000		Averaged
66 Methylene Chloride	1.38889	1.12135	0.010	19.26299	30.00000		Averaged
71 tert-Butyl alcohol	2.63962	2.64596	0.010	-0.24041	40.00000		Averaged
72 Methyl tert-butyl ether	4.01922	4.03964	0.010	-0.50823	30.00000		Averaged
73 trans-1,2-Dichloroethene	0.87627	0.85824	0.010	2.05801	30.00000		Averaged
78 Hexane	1.65408	1.62356	0.010	1.84549	30.00000		Averaged
83 Isopropyl ether	3.28108	3.35319	0.010	-2.19793	40.00000		Averaged
82 1,1-Dichloroethane	2.41254	2.36658	0.010	1.90526	30.00000		Averaged
86 Vinyl Acetate	0.36515	0.38562	0.010	-5.60818	40.00000		Averaged
88 Ethyl-tert-butyl ether	3.89859	4.10515	0.010	-5.29814	40.00000		Averaged
91 cis-1,2-Dichloroethene	1.06382	1.01443	0.010	4.64270	30.00000		Averaged
92 2-Butanone	0.61543	0.61552	0.010	-0.01582	30.00000		Averaged
99 Tetrahydrofuran	1.11400	1.07750	0.010	3.27667	30.00000		Averaged
100 Chloroform	3.62359	3.36811	0.010	7.05039	30.00000		Averaged
102 Cyclohexane	1.73730	1.73908	0.010	-0.10238	30.00000		Averaged
103 1,1,1-Trichloroethane	4.26209	4.04207	0.010	5.16233	30.00000		Averaged
106 Carbon Tetrachloride	4.14964	4.41969	0.010	-6.50775	30.00000		Averaged
113 2,2,4-Trimethylpentane	2.32684	2.40995	0.010	-3.57192	30.00000		Averaged
116 Benzene	1.23445	1.17618	0.010	4.71974	30.00000		Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 06-FEB-2017 07:43
Lab File ID: e020602.d Init. Cal. Date(s): 26-JAN-2017 27-JAN-2017
Analysis Type: AIR Init. Cal. Times: 14:02 19:31
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/06Feb2017.b/e17l0126a.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	1.43585	1.43804	0.010	-0.15297	30.00000	Averaged
119 tert-Amyl methyl ether	0.32231	0.33393	0.010	-3.60325	40.00000	Averaged
120 1,2-Dichloroethane	0.76054	0.72930	0.010	4.10706	30.00000	Averaged
121 Heptane	0.31258	0.30869	0.010	1.24454	30.00000	Averaged
125 Trichloroethene	0.68878	0.66881	0.010	2.89977	30.00000	Averaged
127 Methylcyclohexane	0.64396	0.68064	0.010	-5.69673	40.00000	Averaged
132 1,2-Dichloropropane	0.38781	0.37943	0.010	2.16050	30.00000	Averaged
136 1,4-Dioxane	0.29841	0.28015	0.010	6.11964	30.00000	Averaged
138 Bromodichloromethane	1.07182	1.07193	0.010	-0.01015	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.66108	0.68343	0.010	-3.38043	30.00000	Averaged
145 4-Methyl-2-pentanone	0.73435	0.76038	0.010	-3.54377	30.00000	Averaged
$ 146 Toluene-d8	0.96988	0.99050	0.010	-2.12543	30.00000	Averaged
147 Toluene	1.49337	1.49870	0.010	-0.35696	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.73637	0.75441	0.010	-2.45049	30.00000	Averaged
155 1,1,2-Trichloroethane	0.56476	0.55578	0.010	1.59023	30.00000	Averaged
156 Tetrachloroethene	1.10116	1.09718	0.010	0.36097	30.00000	Averaged
158 2-Hexanone	0.38316	0.38989	0.010	-1.75492	30.00000	Averaged
160 Dibromochloromethane	1.34910	1.36104	0.010	-0.88519	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	1.00608	0.94774	0.010	5.79881	30.00000	Averaged
165 Chlorobenzene	1.38921	1.35418	0.010	2.52150	30.00000	Averaged
167 Ethyl Benzene	0.65492	0.69460	0.010	-6.05906	30.00000	Averaged
169 m,p-Xylene	0.77518	0.81745	0.010	-5.45304	30.00000	Averaged
171 o-Xylene	0.71834	0.75710	0.010	-5.39649	30.00000	Averaged
172 Styrene	1.19831	1.33493	0.010	-11.40057	30.00000	Averaged
174 Bromoform	1.39842	1.47180	0.010	-5.24716	30.00000	Averaged
175 Cumene	2.25318	2.45957	0.010	-9.16031	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.69843	0.73076	0.010	-4.63018	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	0.98104	0.91051	0.010	7.18969	30.00000	Averaged
182 Propylbenzene	2.24292	2.31997	0.010	-3.43514	30.00000	Averaged
188 4-Ethyltoluene	1.85944	2.11890	0.010	-13.95357	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.37848	1.51532	0.010	-9.92719	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.15694	1.24320	0.010	-7.45575	30.00000	Averaged
208 1,3-Dichlorobenzene	1.23053	1.24352	0.010	-1.05536	30.00000	Averaged
209 1,4-Dichlorobenzene	1.27826	1.24064	0.010	2.94282	30.00000	Averaged
212 alpha-Chlorotoluene	1.47421	1.53621	0.010	-4.20579	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 06-FEB-2017 07:43
Lab File ID: e020602.d Init. Cal. Date(s): 26-JAN-2017 27-JAN-2017
Analysis Type: AIR Init. Cal. Times: 14:02 19:31
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/06Feb2017.b/e17l0126a.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
214 1,2-Dichlorobenzene	1.15447	1.14917	0.010	0.45882	30.00000	Averaged
226 1,2,4-Trichlorobenzene	0.87597	0.80068	0.010	8.59563	30.00000	Averaged
227 Hexachlorobutadiene	1.22860	1.12114	0.010	8.74651	30.00000	Averaged
228 Naphthalene	1.19981	1.03246	0.010	13.94815	40.00000	Averaged
M 239 Total Xylene	++++	1.57455	0.010	++++	30.00000	Averaged <-

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020602.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 06-FEB-2017 07:43
Operator : sw Inst ID: msde.i
Smp Info : 50mL# 2819-215
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 06-Feb-2017 08:44 sblack Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.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
9 Propylene					CAS #: 115-07-1		
4.762	4.762 (0.309)	41	206884	10.0000	9.862	80.00- 120.00	100.00
4.762	4.762 (0.309)	42	126721			35.53- 95.53	61.25
4.762	4.762 (0.309)	39	168019			53.16- 113.16	81.21
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	1274051	10.0000	9.872	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	410196			1.91- 61.91	32.20
15 Freon 114					CAS #: 76-14-2		
6.618	6.618 (0.430)	135	919284	10.0000	9.280	80.00- 120.00	100.00
6.618	6.618 (0.430)	137	298316			0.98- 60.98	32.45
6.618	6.618 (0.430)	85	1081351			86.82- 146.82	117.63
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	236500	10.0000	9.826	80.00- 120.00	100.00
6.932	6.932 (0.450)	52	81463			3.31- 63.31	34.45
23 Butane					CAS #: 106-97-8		
7.675	7.675 (0.499)	58	57300	10.0000	9.806	80.00- 120.00	100.00

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

   23 Butane (continued)
  7.675   7.675 (0.499)    43    388798                   667.48- 727.48   678.53
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.779   7.779 (0.505)    62    308698 10.0000    9.127  80.00- 120.00   100.00
  7.779   7.779 (0.505)    64    106346                     1.95-  61.95    34.45
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  8.040   8.040 (0.522)    54    226243 10.0000    9.675  80.00- 120.00   100.00
  8.040   8.040 (0.522)    39    232450                    76.10- 136.10   102.74
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.510   9.510 (0.618)    94    334323 10.0000    9.450  80.00- 120.00   100.00
  9.510   9.510 (0.618)    96    319256                    64.26- 124.26    95.49
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
  9.986   9.986 (0.649)    64    167332 10.0000    9.570  80.00- 120.00   100.00
 10.005  10.005 (0.650)    49     48100                     0.00-  57.48    28.75
  9.986   9.986 (0.649)    66     56511                     1.33-  61.33    33.77
-------------------------------------------------------------------------------
   31 Isopentane                                    CAS #: 78-78-4
 10.138  10.138 (0.659)    57    247975 10.0000    9.819  80.00- 120.00   100.00
 10.138  10.138 (0.659)    43    309208                    96.48- 156.48   124.69
 10.119  10.119 (0.657)    42    258729                    76.93- 136.93   104.34
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 10.766  10.766 (0.700)   101   1503971 10.0000    9.990  80.00- 120.00   100.00
 10.766  10.766 (0.700)   103    963773                    33.74-  93.74    64.08
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 11.661  11.661 (0.758)    45    111503 10.0000    8.497  80.00- 120.00   100.00
 11.661  11.661 (0.758)    46     41885                     9.60-  69.60    37.56
 11.661  11.661 (0.758)    43     32753                     0.00-  59.21    29.37
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.081  12.081 (0.785)   151    934396 10.0000    9.295  80.00- 120.00   100.00
 12.081  12.081 (0.785)   153    603540                    34.83-  94.83    64.59
 12.081  12.081 (0.785)   101   1003046                    77.16- 137.16   107.35
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                            CAS #: 75-35-4
 12.100  12.100 (0.786)    98    254530 10.0000    9.478  80.00- 120.00   100.00
 12.100  12.100 (0.786)    61    636885                   219.47- 279.47   250.22
 12.100  12.100 (0.786)    96    392785                   126.81- 186.81   154.32
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 12.366  12.366 (0.803)    58    157272 10.0000    9.532  80.00- 120.00   100.00
```

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43    577693                   344.13- 404.13   367.32
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.462  12.462 (0.810)    76   1284824 10.0000   11.258  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.728  12.728 (0.827)    45    505510 10.0000    9.517  80.00- 120.00   100.00
 12.728  12.728 (0.827)    43    140974                    0.00-  55.65    27.89
 12.728  12.728 (0.827)    59     20865                    0.00-  34.42     4.13
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.881  12.881 (0.837)    76    213072 10.0000    9.502  80.00- 120.00   100.00
 12.881  12.881 (0.837)    41    490247                  198.88- 258.88   230.09
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.176  13.176 (0.856)    84    325987 10.0000    8.074  80.00- 120.00   100.00
 13.176  13.176 (0.856)    49    375943                   83.76- 143.76   115.32
 13.176  13.176 (0.856)    51    119349                    2.61-  62.61    36.61
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.369  13.369 (0.869)    59    769208 10.0000   10.024  80.00- 120.00   100.00
 13.369  13.369 (0.869)    41    156764                    0.00-  51.13    20.38
 13.369  13.369 (0.869)    57     85188                    0.00-  41.40    11.07
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.478  13.478 (0.876)    73   1174365 10.0000   10.051  80.00- 120.00   100.00
 13.478  13.478 (0.876)    57    230556                    0.00-  49.77    19.63
 13.478  13.478 (0.876)    41    248469                    0.00-  49.98    21.16
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.533 (0.879)    98    249499 10.0000    9.794  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61    520610                  174.76- 234.76   208.66
 13.533  13.533 (0.879)    96    387406                  123.28- 183.28   155.27
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57    471984 10.0000    9.815  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43    277246                   27.83-  87.83    58.74
 13.835  13.835 (0.899)    86     93005                    0.00-  50.45    19.71
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.192  14.192 (0.922)    45    974807 10.0000   10.220  80.00- 120.00   100.00
 14.192  14.192 (0.922)    87    358359                    6.11-  66.11    36.76
 14.192  14.192 (0.922)    59    125841                    0.00-  42.83    12.91
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63    687988 10.0000    9.809  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 14.247  14.247 (0.926)    65    221731                     1.87-  61.87    32.23
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.275  14.275 (0.927)    86    112105 10.0000   10.561  80.00- 120.00   100.00
 14.247  14.247 (0.926)    42    105123                   71.31- 131.31    93.77
 14.247  14.247 (0.926)    43    973313                  931.28- 991.28   868.22
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.685  14.685 (0.954)    59   1193407 10.0000   10.530  80.00- 120.00   100.00
 14.685  14.685 (0.954)    87    552920                   16.65-  76.65    46.33
 14.685  14.685 (0.954)    41    233615                    0.00-  49.22    19.58
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.066  15.066 (0.979)    98    294906 10.0000    9.536  80.00- 120.00   100.00
 15.066  15.066 (0.979)    61    581569                  154.54- 214.54   197.20
 15.066  15.066 (0.979)    96    469688                  117.78- 177.78   159.27
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    178939 10.0000   10.002  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    622508                  325.72- 385.72   347.89
 15.047  15.047 (0.978)    57     54547                    1.13-  61.13    30.48
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    313240 10.0000    9.672  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71    164340                   20.32-  80.32    52.46
 15.391  15.391 (1.000)    72    165805                   21.98-  81.98    52.93
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    145355 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    118777                   46.73- 106.73    81.72
 15.391  15.391 (1.000)    49    127309                   55.35- 115.35    87.58
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.453  15.453 (1.004)    83    979144 10.0000    9.295  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    661461                   36.62-  96.62    67.56
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.699  15.699 (1.020)    84    505568 10.0000   10.010  80.00- 120.00   100.00
 15.699  15.699 (1.020)    56    505846                   68.83- 128.83   100.05
 15.669  15.669 (1.018)    41    305707                   29.98-  89.98    60.47
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.699  15.699 (1.020)    97   1175069 10.0000    9.484  80.00- 120.00   100.00
 15.699  15.699 (1.020)    99    762738                   34.65-  94.65    64.91
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.884  15.884 (1.032)   119   1284849 10.0000   10.651  80.00- 120.00   100.00
 15.884  15.884 (1.032)   117   1330894                   74.11- 134.11   103.58
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.111  16.111 (1.047)    56    700596 10.0000   10.357  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57   2113423                  277.67- 337.67   301.66
 16.111  16.111 (1.047)    41    737064                   73.43- 133.43   105.21
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.207  16.207 (0.968)    78   1169392 10.0000    9.528  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77    274612                    0.00-  53.00    23.48
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    209027 5.00000    5.008  80.00- 120.00   100.00
 16.207  16.207 (1.053)    67    105774                   22.67-  82.67    50.60
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.231  16.231 (0.970)    87    331997 10.0000   10.360  80.00- 120.00   100.00
 16.231  16.231 (0.970)    73   1230245                  335.49- 395.49   370.56
 16.231  16.231 (0.970)    55    315863                   60.31- 120.31    95.14
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.303  16.303 (0.974)    62    725093 10.0000    9.589  80.00- 120.00   100.00
 16.303  16.303 (0.974)    64    237121                    1.95-  61.95    32.70
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    306910 10.0000    9.876  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    173158                   23.08-  83.08    56.42
 16.352  16.352 (0.977)    43    527120                  136.91- 196.91   171.75
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    497113 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     73286                    0.00-  45.16    14.74
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130    664944 10.0000    9.710  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95    588904                   61.87- 121.87    88.56
 17.147  17.147 (1.024)    97    376293                   29.29-  89.29    56.59
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.364  17.364 (1.037)    83    676711 10.0000   10.570  80.00- 120.00   100.00
 17.364  17.364 (1.037)    55    503300                   45.72- 105.72    74.37
 17.364  17.364 (1.037)    56    155644                    0.00-  52.26    23.00
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.580  17.580 (1.050)    63    377238 10.0000    9.784  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.580  17.580 (1.050)    62    262488                    41.22- 101.22    69.58
 17.580  17.580 (1.050)    41    272619                    40.14- 100.14    72.27
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.701  17.701 (1.058)    88    278534 10.0000    9.388  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    172068                    30.17-  90.17    61.78
 17.701  17.701 (1.058)    57     60219                     0.00-  51.30    21.62
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.014  18.014 (1.076)    83   1065736 10.0000   10.001  80.00- 120.00   100.00
 18.014  18.014 (1.076)    85    709946                    36.87-  96.87    66.62
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.827  18.827 (1.125)    75    679484 10.0000   10.338  80.00- 120.00   100.00
 18.827  18.827 (1.125)    77    211439                     1.38-  61.38    31.12
 18.827  18.827 (1.125)    39    378372                    23.65-  83.65    55.69
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.006  19.006 (1.136)    43    755987 10.0000   10.354  80.00- 120.00   100.00
 19.006  19.006 (1.136)    58    290913                    10.02-  70.02    38.48
 19.006  19.006 (1.136)    85    165220                     0.00-  52.01    21.85
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    492388 5.00000    5.106  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     60491                     0.00-  40.89    12.29
 19.298  19.298 (1.153)   100    338500                    40.09- 100.09    68.75
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91   1490051 10.0000   10.036  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92    860473                    27.79-  87.79    57.75
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75    703007 10.0000   10.245  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77    216658                     1.55-  61.55    30.82
 20.026  20.026 (0.903)    39    337808                    18.82-  78.82    48.05
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    517912 10.0000    9.841  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    335982                    32.59-  92.59    64.87
 20.438  20.438 (0.922)    83    401301                    50.07- 110.07    77.48
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166   1022423 10.0000    9.964  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129    675679                    37.12-  97.12    66.09
 20.630  20.630 (0.930)   131    674199                    36.18-  96.18    65.94
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 20.795  20.795 (0.938)    58    363321 10.0000   10.175  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    695008                  162.96- 222.96   191.29
 20.795  20.795 (0.938)   100    101970                    0.00-  59.39    28.07
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 21.207  21.207 (0.956)   129   1268305 10.0000   10.088  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    968893                   46.76- 106.76    76.39
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 21.482  21.482 (0.969)   107    883164 10.0000    9.420  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109    840010                   63.39- 123.39    95.11
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    465931 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    218991                   17.27-  77.27    47.00
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 22.219  22.219 (1.002)   112   1261911 10.0000    9.748  80.00- 120.00   100.00
 22.219  22.219 (1.002)   114    403967                    2.22-  62.22    32.01
 22.219  22.219 (1.002)    77    679302                   23.48-  83.48    53.83
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 22.301  22.301 (1.006)   106    647270 10.0000   10.606  80.00- 120.00   100.00
 22.301  22.301 (1.006)    91   1977212                  278.11- 338.11   305.47
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 22.488  22.488 (1.014)   106    761752 10.0000   10.545  80.00- 120.00   100.00
 22.488  22.488 (1.014)    91   1536556                  170.01- 230.01   201.71
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 23.089  23.089 (1.041)   106    705513 10.0000   10.540  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91   1488104                  175.84- 235.84   210.93
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 23.110  23.110 (1.042)   104   1243966 10.0000   11.140  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    633026                   20.21-  80.21    50.89
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 23.452  23.452 (1.057)   173   1371514 10.0000   10.525  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    706754                   21.47-  81.47    51.53
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 23.564  23.564 (1.063)   105   2291984 10.0000   10.916  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    616768                    0.00-  56.99    26.91
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 23.856  23.856 (1.076)   174    340486 5.00000    5.232  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    327723                   66.74- 126.74    96.25
 23.856  23.856 (1.076)   176    320946                   67.47- 127.47    94.26
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.035  24.035 (1.084)    83    848468 10.0000    9.281  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    583051                   39.76-  99.76    68.72
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 24.102  24.102 (1.087)    91   2161891 10.0000   10.344  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120    559877                    0.00-  55.73    25.90
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.237  24.237 (1.093)   105   1974526 10.0000   11.395  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    557373                    1.00-  61.00    28.23
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.304  24.304 (1.096)   105   1412073 10.0000   10.993  80.00- 120.00   100.00
 24.304  24.304 (1.096)   120    757603                   19.17-  79.17    53.65
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.775  24.775 (1.117)   105   1158488 10.0000   10.746  80.00- 120.00   100.00
 24.775  24.775 (1.117)   120    536081                   16.84-  76.84    46.27
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.156  25.156 (1.134)   146   1158787 10.0000   10.106  80.00- 120.00   100.00
 25.156  25.156 (1.134)   148    745412                   33.96-  93.96    64.33
 25.156  25.156 (1.134)   111    435126                    6.94-  66.94    37.55
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.269  25.269 (1.139)   146   1156104 10.0000    9.706  80.00- 120.00   100.00
 25.269  25.269 (1.139)   148    722326                   35.10-  95.10    62.48
 25.269  25.269 (1.139)   111    401499                    4.80-  64.80    34.73
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.403  25.403 (1.145)    91   1431538 10.0000   10.420  80.00- 120.00   100.00
 25.403  25.403 (1.145)   126    327679                    0.00-  52.64    22.89
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.694  25.694 (1.159)   146   1070871 10.0000    9.954  80.00- 120.00   100.00
 25.694  25.694 (1.159)   148    689363                   33.88-  93.88    64.37
 25.672  25.672 (1.158)   111    402577                    7.58-  67.58    37.59
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.398  27.398 (1.235)   180    746122 10.0000    9.140  80.00- 120.00   100.00
```

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

  226 1,2,4-Trichlorobenzene (continued)
 27.398  27.398 (1.235)   182    691245                    63.70- 123.70    92.65
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 27.488  27.488 (1.239)   225   1044747 10.0000    9.125  80.00- 120.00   100.00
 27.488  27.488 (1.239)   223    673955                    34.33-  94.33    64.51
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 27.712  27.712 (1.250)   128     96211 1.00000   0.8605  80.00- 120.00   100.00
 27.712  27.712 (1.250)   127     13713                    0.00-  42.30    14.25
-------------------------------------------------------------------------------
M 239 Total Xylene                                 CAS #: 1330-20-7
                                 1467265 10.0000   21.085
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e020602.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: sw
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 06-FEB-2017
Calibration Time: 07:43
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	145355	0.00
123 1,4-Difluorobenze	497113	298268	695958	497113	0.00
163 Chlorobenzene-d5	465931	279559	652303	465931	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/06Feb2017.b/e020602.d

Date : 06-FEB-2017 07:43

Client ID: CCV

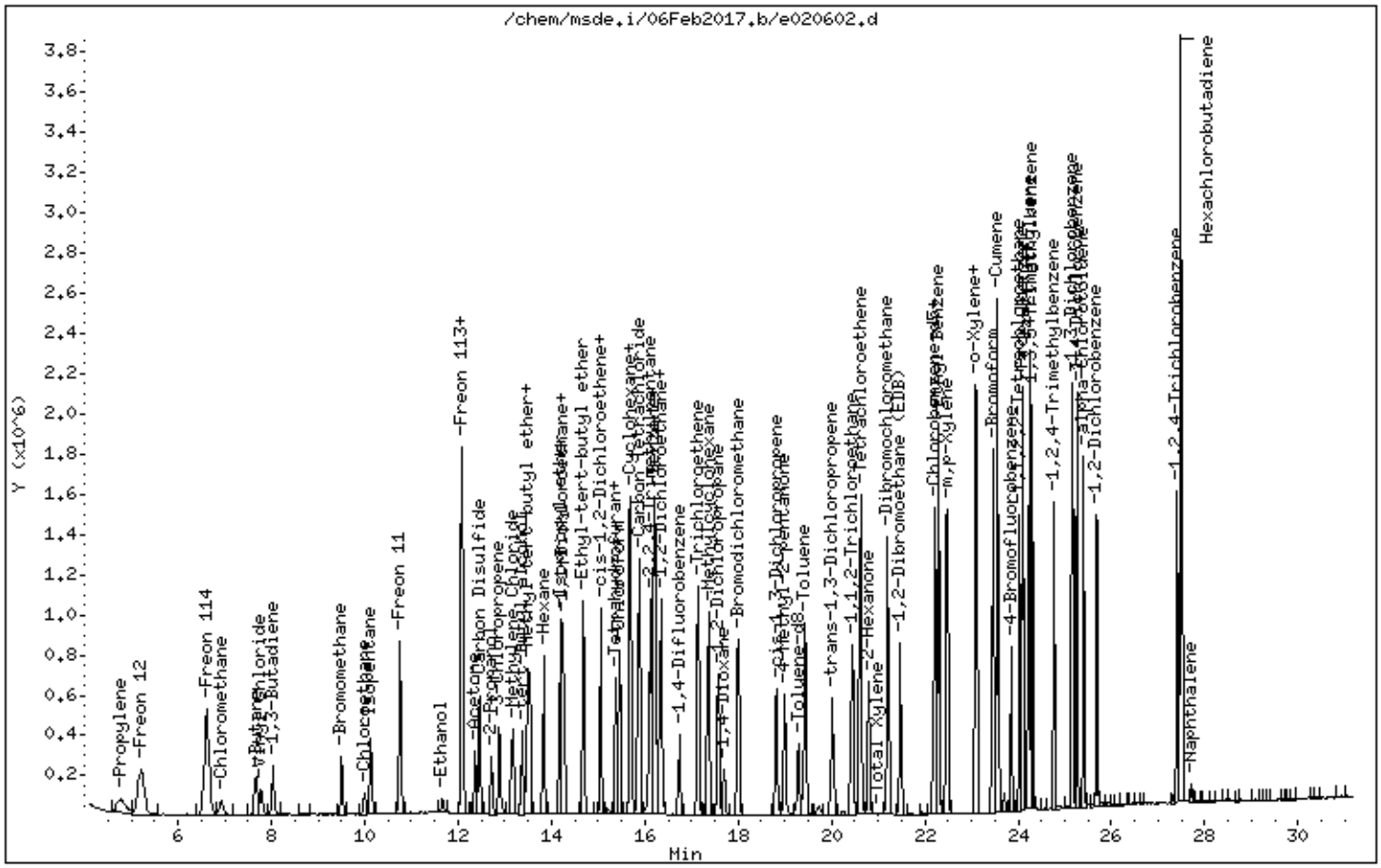
Instrument: msde.i

Sample Info: 50mL# 2819-215

Operator: sw

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCS

Lab ID#: 1701428A-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013105**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 09:40 AM**	

Compound	%Recovery	Method Limits
Freon 12	107	70-130
Freon 114	103	70-130
Chloromethane	107	70-130
Vinyl Chloride	111	70-130
1,3-Butadiene	108	70-130
Bromomethane	102	70-130
Chloroethane	103	70-130
Freon 11	106	70-130
Ethanol	78	70-130
Freon 113	99	70-130
1,1-Dichloroethene	97	70-130
Acetone	98	70-130
2-Propanol	99	70-130
Carbon Disulfide	113	70-130
3-Chloropropene	115	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	111	70-130
Hexane	109	70-130
1,1-Dichloroethane	103	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
cis-1,2-Dichloroethene	92	70-130
Tetrahydrofuran	114	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	106	70-130
Cyclohexane	106	70-130
Carbon Tetrachloride	105	70-130
2,2,4-Trimethylpentane	114	70-130
Benzene	109	70-130
1,2-Dichloroethane	116	70-130
Heptane	120	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	114	70-130
1,4-Dioxane	112	70-130
Bromodichloromethane	113	70-130
cis-1,3-Dichloropropene	122	70-130
4-Methyl-2-pentanone	131 Q	70-130
Toluene	110	70-130
trans-1,3-Dichloropropene	113	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	101	70-130
2-Hexanone	116	70-130

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Client Sample ID: LCS

Lab ID#: 1701428A-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013105**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 09:40 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	115	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	114	70-130
m,p-Xylene	114	70-130
o-Xylene	114	70-130
Styrene	116	70-130
Bromoform	114	70-130
Cumene	115	70-130
1,1,2,2-Tetrachloroethane	107	70-130
Propylbenzene	109	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	127	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	95	70-130
Hexachlorobutadiene	93	70-130
Naphthalene	101	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1701428A-18AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013106**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 10:19 AM**	

Compound	%Recovery	Method Limits
Freon 12	106	70-130
Freon 114	99	70-130
Chloromethane	108	70-130
Vinyl Chloride	110	70-130
1,3-Butadiene	103	70-130
Bromomethane	106	70-130
Chloroethane	126	70-130
Freon 11	102	70-130
Ethanol	80	70-130
Freon 113	94	70-130
1,1-Dichloroethene	96	70-130
Acetone	99	70-130
2-Propanol	101	70-130
Carbon Disulfide	111	70-130
3-Chloropropene	112	70-130
Methylene Chloride	93	70-130
Methyl tert-butyl ether	107	70-130
trans-1,2-Dichloroethene	111	70-130
Hexane	108	70-130
1,1-Dichloroethane	103	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	92	70-130
Tetrahydrofuran	114	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	106	70-130
Cyclohexane	106	70-130
Carbon Tetrachloride	104	70-130
2,2,4-Trimethylpentane	111	70-130
Benzene	104	70-130
1,2-Dichloroethane	111	70-130
Heptane	116	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	110	70-130
1,4-Dioxane	109	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	118	70-130
4-Methyl-2-pentanone	126	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	112	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	99	70-130
2-Hexanone	113	70-130

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Client Sample ID: LCSD

Lab ID#: 1701428A-18AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013106**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 10:19 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	110	70-130
m,p-Xylene	112	70-130
o-Xylene	111	70-130
Styrene	114	70-130
Bromoform	114	70-130
Cumene	113	70-130
1,1,2,2-Tetrachloroethane	107	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	108	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	94	70-130
alpha-Chlorotoluene	121	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	89	70-130
Hexachlorobutadiene	88	70-130
Naphthalene	97	60-140

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCS

Lab ID#: 1701428A-18B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013115**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 04:30 PM**	

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	98	70-130
Chloromethane	111	70-130
Vinyl Chloride	110	70-130
1,3-Butadiene	106	70-130
Bromomethane	106	70-130
Chloroethane	133 Q	70-130
Freon 11	103	70-130
Ethanol	74	70-130
Freon 113	93	70-130
1,1-Dichloroethene	89	70-130
Acetone	98	70-130
2-Propanol	92	70-130
Carbon Disulfide	111	70-130
3-Chloropropene	105	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	97	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	105	70-130
1,1-Dichloroethane	102	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	87	70-130
Tetrahydrofuran	112	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	105	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	109	70-130
Benzene	119	70-130
1,2-Dichloroethane	127	70-130
Heptane	130	70-130
Trichloroethene	110	70-130
1,2-Dichloropropane	123	70-130
1,4-Dioxane	118	70-130
Bromodichloromethane	122	70-130
cis-1,3-Dichloropropene	123	70-130
4-Methyl-2-pentanone	138 Q	70-130
Toluene	115	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	113	70-130
Tetrachloroethene	105	70-130
2-Hexanone	118	70-130

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Client Sample ID: LCS

Lab ID#: 1701428A-18B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013115**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 04:30 PM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	119	70-130
1,2-Dibromoethane (EDB)	111	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	115	70-130
m,p-Xylene	116	70-130
o-Xylene	113	70-130
Styrene	122	70-130
Bromoform	119	70-130
Cumene	120	70-130
1,1,2,2-Tetrachloroethane	117	70-130
Propylbenzene	114	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	109	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	126	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	99	70-130
Naphthalene	96	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	106	70-130

Report Date: 31-Jan-2017 17:43

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31Jan2017
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: AT12EtOH.spk
Quant Type: ISTD
Sublist File: AT12-Oxy.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 10ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	10.000	11.129	111.29	60-140
11 Freon 12	10.000	10.753	107.53	70-130
15 Freon 114	10.000	9.794	97.94	70-130
17 Chloromethane	10.000	11.079	110.79	70-130
23 Butane	10.000	10.055	100.55	60-140
25 Vinyl Chloride	10.000	10.972	109.72	70-130
26 1,3-Butadiene	10.000	10.564	105.64	70-130
29 Bromomethane	10.000	10.610	106.10	70-130
30 Chloroethane	10.000	13.322	133.22*	70-130
31 Isopentane	10.000	10.120	101.20	60-140
35 Freon 11	10.000	10.265	102.65	70-130
42 Ethanol	11.500	8.492	73.84	70-130
49 Freon 113	10.000	9.339	93.39	70-130
50 1,1-Dichloroethene	10.000	8.869	88.69	70-130
52 Acetone	10.000	9.770	97.70	70-130
56 Carbon Disulfide	10.000	11.073	110.73	70-130
57 2-Propanol	10.000	9.186	91.86	70-130
58 3-Chloropropene	10.000	10.472	104.72	70-130
66 Methylene Chloride	10.000	9.215	92.15	70-130
72 Methyl tert-butyl	10.000	9.723	97.23	70-130
73 trans-1,2-Dichloro	10.000	11.034	110.34	70-130
78 Hexane	10.000	10.467	104.67	70-130
82 1,1-Dichloroethane	10.000	10.218	102.18	70-130
86 Vinyl Acetate	10.000	8.918	89.18	60-140
91 cis-1,2-Dichloroet	10.000	8.721	87.21	70-130
92 2-Butanone	10.000	10.266	102.66	70-130
99 Tetrahydrofuran	10.000	11.166	111.66	70-130
100 Chloroform	10.000	10.405	104.05	70-130
103 1,1,1-Trichloroeth	10.000	10.495	104.95	70-130
106 Carbon Tetrachlori	10.000	10.220	102.20	70-130
102 Cyclohexane	10.000	10.173	101.73	70-130
113 2,2,4-Trimethylpen	10.000	10.908	109.08	70-130
116 Benzene	10.000	11.926	119.26	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	10.000	12.681	126.81	70-130
121 Heptane	10.000	12.969	129.69	70-130
125 Trichloroethene	10.000	11.035	110.35	70-130
127 Methylcyclohexane	10.000	12.148	121.48	60-140
132 1,2-Dichloropropan	10.000	12.268	122.68	70-130
136 1,4-Dioxane	10.000	11.792	117.92	70-130
138 Bromodichlorometha	10.000	12.166	121.66	70-130
144 cis-1,3-Dichloropr	10.000	12.290	122.90	70-130
145 4-Methyl-2-pentano	10.000	13.838	138.38*	70-130
147 Toluene	10.000	11.547	115.47	70-130
150 trans-1,3-Dichloro	10.000	11.543	115.43	70-130
155 1,1,2-Trichloroeth	10.000	11.339	113.39	70-130
156 Tetrachloroethene	10.000	10.472	104.72	70-130
158 2-Hexanone	10.000	11.803	118.03	70-130
160 Dibromochlorometha	10.000	11.924	119.24	70-130
161 1,2-Dibromoethane	10.000	11.088	110.88	70-130
165 Chlorobenzene	10.000	10.546	105.46	70-130
167 Ethyl Benzene	10.000	11.478	114.78	70-130
169 m,p-Xylene	10.000	11.627	116.27	70-130
171 o-Xylene	10.000	11.315	113.15	70-130
172 Styrene	10.000	12.202	122.02	70-130
174 Bromoform	10.000	11.921	119.21	70-130
175 Cumene	10.000	11.969	119.69	70-130
181 1,1,2,2-Tetrachlor	10.000	11.734	117.34	70-130
182 Propylbenzene	10.000	11.371	113.71	70-130
188 4-Ethyltoluene	10.000	10.908	109.09	70-130
190 1,3,5-Trimethylben	10.000	10.895	108.95	70-130
196 1,2,4-Trimethylben	10.000	9.793	97.93	70-130
208 1,3-Dichlorobenzen	10.000	10.065	100.65	70-130
209 1,4-Dichlorobenzen	10.000	10.027	100.27	70-130
212 alpha-Chlorotoluen	10.000	12.584	125.84	70-130
214 1,2-Dichlorobenzen	10.000	10.157	101.57	70-130
226 1,2,4-Trichloroben	10.000	9.790	97.91	70-130
227 Hexachlorobutadien	10.000	9.940	99.40	70-130
228 Naphthalene	1.000	0.9659	96.59	60-140
M 239 Total Xylene	20.000	22.942	114.71	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.441	108.82	70-130
$ 146 Toluene-d8	5.000	5.538	110.77	70-130
$ 177 4-Bromofluorobenze	5.000	5.325	106.51	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013115.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 31-JAN-2017 16:30
Operator : ef Inst ID: msd20.i
Smp Info : 50mL# 2819-156
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 31-Jan-2017 16:34 efinn Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	192648	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	150174			46.97- 106.97	77.95
16.695	16.696 (1.000)	49	240458			76.21- 136.21	124.82
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	637728	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	100611			0.00- 45.59	15.78
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	559372	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	314362			23.26- 83.26	56.20
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.621 (1.053)	65	258640	5.44112	5.441	80.00- 120.00	100.00
17.620	17.621 (1.053)	67	158680			31.78- 91.78	61.35
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	675346	5.53857	5.538	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	77263			0.00- 40.33	11.44

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    434399                    35.56-  95.56    64.32
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    317894 5.32543    5.325  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    363587                   79.94- 139.94   114.37
 25.466  25.466 (1.072)   176    299707                   67.24- 127.24    94.28
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.166   4.142 (0.249)    41    409469 11.1294   11.129  70.00- 130.00   100.00
  4.142   4.142 (0.248)    42    268586                    0.00-  30.00    65.59
  4.142   4.166 (0.248)    39    297304                    0.00-  30.00    72.61
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.648 (0.279)    85   1570281 10.7528   10.753  70.00- 130.00   100.00
  4.648   4.648 (0.278)    87    505477                    0.00-  30.00    32.19
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135   1133363 9.79439    9.794  70.00- 130.00   100.00
  6.215   6.215 (0.372)   137    362380                    0.00-  30.00    31.97
  6.215   6.191 (0.372)    85   1592172                  103.93- 163.93   140.48
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.552   6.553 (0.392)    50    497314 11.0790   11.079  80.00- 120.00   100.00
  6.577   6.553 (0.393)    52    165177                    3.24-  63.24    33.21
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.434   7.416 (0.444)    58    108405 10.0554   10.055  80.00- 120.00   100.00
  7.434   7.416 (0.444)    43    769697                  637.57- 697.57   710.02
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.590   7.573 (0.454)    62    584180 10.9720   10.972  80.00- 120.00   100.00
  7.573   7.573 (0.453)    64    190328                    2.15-  62.15    32.58
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    411929 10.5638   10.564  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    389158                   58.46- 118.46    94.47
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    404132 10.6096   10.610  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    389007                   64.83- 124.83    96.26
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.174  10.174 (0.608)    64    308496 13.3224   13.322  80.00- 120.00   100.00(R)
 10.174  10.174 (0.608)    49     73152                    0.00-  51.98    23.71
 10.174  10.174 (0.608)    66    100612                    2.87-  62.87    32.61
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RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	422473	10.1198	10.120	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	604926			95.82- 155.82	143.19
10.367	10.367 (0.620)	42	543007			78.19- 138.19	128.53
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	1500925	10.2652	10.265	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	967174			34.37- 94.37	64.44
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	167205	8.49153	8.492	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	64086			10.33- 70.33	38.33
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	1019162	9.33940	9.339	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	654517			33.68- 93.68	64.22
12.736	12.736 (0.761)	101	1236178			86.77- 146.77	121.29
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	313642	8.86890	8.869	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	781778			201.92- 261.92	249.26
12.736	12.736 (0.761)	96	493116			127.04- 187.04	157.22
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	265210	9.77020	9.770	80.00- 120.00	100.00
13.066	13.066 (0.781)	43	797512			253.28- 313.28	300.71
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.121 (0.784)	76	1662294	11.0734	11.073	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.533 (0.809)	45	669862	9.18632	9.186	80.00- 120.00	100.00
13.532	13.533 (0.809)	43	200441			0.00- 52.74	29.92
13.532	13.533 (0.809)	59	28169			0.00- 34.43	4.21
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	201347	10.4715	10.472	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	512519			199.62- 259.62	254.55
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	542865	9.21506	9.215	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	658002			80.28- 140.28	121.21
14.027	14.027 (0.839)	51	201806			4.61- 64.61	37.17
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	1322663	9.72280	9.723	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether (continued)							
14.439	14.439 (0.863)	57	299830			0.00- 51.40	22.67
14.439	14.439 (0.863)	41	365479			0.00- 51.25	27.63
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	384344	11.0341	11.034	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	842414			175.66- 235.66	219.18
14.494	14.494 (0.866)	96	603729			128.76- 188.76	157.08
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	814683	10.4674	10.467	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	506166			28.29- 88.29	62.13
14.878	14.878 (0.889)	86	137586			0.00- 48.18	16.89
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	1009123	10.2177	10.218	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	317467			2.02- 62.02	31.46
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	103375	8.91836	8.918	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	93079			42.22- 102.22	90.04
15.400	15.400 (0.921)	43	980828			810.72- 870.72	948.81
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.324 (0.976)	98	366586	8.72122	8.721	80.00- 120.00	100.00
16.323	16.324 (0.976)	61	724723			153.64- 213.64	197.70
16.323	16.324 (0.976)	96	573562			125.91- 185.91	156.46
92 2-Butanone					CAS #: 78-93-3		
16.344	16.324 (0.977)	72	271726	10.2659	10.266	80.00- 120.00	100.00
16.323	16.324 (0.976)	43	976620			300.25- 360.25	359.41
16.323	16.324 (0.976)	57	81908			0.00- 58.21	30.14
99 Tetrahydrofuran					CAS #: 109-99-9		
16.695	16.696 (0.998)	42	579316	11.1657	11.166	80.00- 120.00	100.00
16.695	16.696 (0.998)	71	249898			16.33- 76.33	43.14
16.695	16.696 (0.998)	72	260861			20.03- 80.03	45.03
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	1245687	10.4049	10.405	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	803061			34.75- 94.75	64.47
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	796402	10.1730	10.173	80.00- 120.00	100.00
17.035	17.035 (1.018)	56	902826			76.62- 136.62	113.36
17.035	17.035 (1.018)	41	484377			21.84- 81.84	60.82

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.035	17.035 (1.018)	97	1268165	10.4949	10.495	80.00- 120.00	100.00
17.035	17.035 (1.018)	99	817952			34.64- 94.64	64.50
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	1052757	10.2201	10.220	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	1100610			73.50- 133.50	104.55
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.559	17.559 (1.050)	56	822491	10.9083	10.908	80.00- 120.00	100.00
17.559	17.559 (1.050)	57	2477779			280.27- 340.27	301.25
17.559	17.559 (1.050)	41	658792			42.11- 102.11	80.10
116 Benzene					CAS #: 71-43-2		
17.620	17.621 (0.968)	78	1817318	11.9263	11.926	80.00- 120.00	100.00
17.620	17.621 (0.968)	77	432603			0.00- 53.26	23.80
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	749126	12.6808	12.681	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	244620			2.82- 62.82	32.65
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	507410	12.9689	12.969	80.00- 120.00	100.00
17.847	17.847 (0.980)	100	174541			8.23- 68.23	34.40
17.847	17.847 (0.980)	43	898551			141.33- 201.33	177.09
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	800744	11.0346	11.035	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	765444			61.76- 121.76	95.59
18.610	18.610 (1.022)	97	491380			29.47- 89.47	61.37
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.834 (1.034)	83	1040807	12.1482	12.148	80.00- 120.00	100.00
18.833	18.834 (1.034)	55	812125			40.87- 100.87	78.03
18.833	18.834 (1.034)	56	258115			0.00- 53.10	24.80
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.056	19.057 (1.047)	63	663726	12.2684	12.268	80.00- 120.00	100.00
19.056	19.057 (1.047)	62	464767			39.05- 99.05	70.02
19.056	19.057 (1.047)	41	373622			18.49- 78.49	56.29
136 1,4-Dioxane					CAS #: 123-91-1		
19.190	19.190 (1.054)	88	421129	11.7918	11.792	80.00- 120.00	100.00
19.190	19.190 (1.054)	58	287851			32.65- 92.65	68.35
19.190	19.190 (1.054)	57	90599			0.00- 50.00	21.51

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	1207011	12.1664	12.166	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	773195			33.97- 93.97	64.06
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.339 (1.117)	75	957354	12.2898	12.290	80.00- 120.00	100.00
20.338	20.339 (1.117)	77	303877			1.99- 61.99	31.74
20.338	20.339 (1.117)	39	437496			10.43- 70.43	45.70
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.129)	43	1150184	13.8383	13.838	80.00- 120.00	100.00(R)
20.557	20.557 (1.129)	58	460366			12.96- 72.96	40.03
20.557	20.557 (1.129)	85	212949			0.00- 50.79	18.51
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	1935819	11.5468	11.547	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	1136112			29.12- 89.12	58.69
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	809786	11.5433	11.543	80.00- 120.00	100.00
21.535	21.535 (0.906)	77	263169			1.76- 61.76	32.50
21.535	21.535 (0.906)	39	357333			8.58- 68.58	44.13
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	754701	11.3393	11.339	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	469814			32.87- 92.87	62.25
21.970	21.970 (0.925)	83	644666			54.32- 114.32	85.42
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	1095931	10.4723	10.472	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	769817			38.71- 98.71	70.24
22.145	22.145 (0.932)	131	745802			36.65- 96.65	68.05
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	560701	11.8026	11.803	80.00- 120.00	100.00
22.377	22.377 (0.942)	43	1006006			137.01- 197.01	179.42
22.377	22.377 (0.942)	100	119445			0.00- 53.27	21.30
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	1278070	11.9243	11.924	80.00- 120.00	100.00
22.755	22.755 (0.958)	127	986321			46.69- 106.69	77.17
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	1104769	11.0879	11.088	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	1038325			65.40- 125.40	93.99

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
165 Chlorobenzene					CAS #: 108-90-7		
23.802	23.802 (1.002)	112	1552731	10.5463	10.546	80.00- 120.00	100.00
23.802	23.802 (1.002)	114	497558			2.27- 62.27	32.04
23.802	23.802 (1.002)	77	900168			24.92- 84.92	57.97
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.906 (1.006)	106	750850	11.4782	11.478	80.00- 120.00	100.00
23.905	23.906 (1.006)	91	2368971			275.87- 335.87	315.51
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	799741	11.6274	11.627	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	1593529			163.30- 223.30	199.26
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	725162	11.3146	11.315	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	1536614			172.76- 232.76	211.90
172 Styrene					CAS #: 100-42-5		
24.730	24.731 (1.041)	104	1147599	12.2022	12.202	80.00- 120.00	100.00
24.730	24.731 (1.041)	78	573757			18.49- 78.49	50.00
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	1249198	11.9206	11.921	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	638562			21.11- 81.11	51.12
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	2446419	11.9691	11.969	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	668020			0.00- 57.81	27.31
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	1447081	11.7341	11.734	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	925340			34.74- 94.74	63.95
182 Propylbenzene					CAS #: 103-65-1		
25.713	25.713 (1.082)	91	2221346	11.3714	11.371	80.00- 120.00	100.00
25.713	25.713 (1.082)	120	516577			0.00- 54.36	23.26
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	1734991	10.9085	10.908	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	531125			1.16- 61.16	30.61
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	1546698	10.8953	10.895	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	771865			20.44- 80.44	49.90
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	1344400	9.79317	9.793	80.00- 120.00	100.00

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

  196 1,2,4-Trimethylbenzene (continued)
 26.395  26.395 (1.111)   120    627102                    17.83-  77.83    46.65
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.794  26.794 (1.128)   146   1126350 10.0649   10.065  80.00- 120.00   100.00
 26.794  26.794 (1.128)   148    724854                   33.66-  93.66    64.35
 26.794  26.794 (1.128)   111    438938                    8.07-  68.07    38.97
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.903  26.904 (1.132)   146   1068377 10.0275   10.027  80.00- 120.00   100.00
 26.903  26.904 (1.132)   148    678000                   33.90-  93.90    63.46
 26.903  26.904 (1.132)   111    395218                    6.77-  66.77    36.99
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                          CAS #: 100-44-7
 27.075  27.075 (1.139)    91   1394486 12.5841   12.584  80.00- 120.00   100.00
 27.075  27.075 (1.139)   126    289193                    0.00-  52.05    20.74
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                          CAS #: 95-50-1
 27.371  27.371 (1.152)   146   1082073 10.1573   10.157  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148    684494                   34.41-  94.41    63.26
 27.371  27.371 (1.152)   111    432268                    9.66-  69.66    39.95
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 29.366  29.367 (1.236)   180   1210018 9.79058    9.790  80.00- 120.00   100.00
 29.366  29.367 (1.236)   182   1141087                   66.13- 126.13    94.30
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225   1001829 9.94022    9.940  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223    634464                   32.84-  92.84    63.33
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.756  29.756 (1.252)   128    214512 0.96594   0.9659  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127     27344                    0.00-  42.38    12.75
-------------------------------------------------------------------------------
M 239 Total Xylene                                 CAS #: 1330-20-7
                                1524903 22.9420   22.942
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QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20013115.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 31-JAN-2017
Calibration Time: 15:51
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	192648	1.57
123 1,4-Difluorobenze	617206	370324	864088	637728	3.32
163 Chlorobenzene-d5	554897	332938	776856	559372	0.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/31Jan2017.b/20013115.d

Date : 31-JAN-2017 16:30

Client ID: LCS

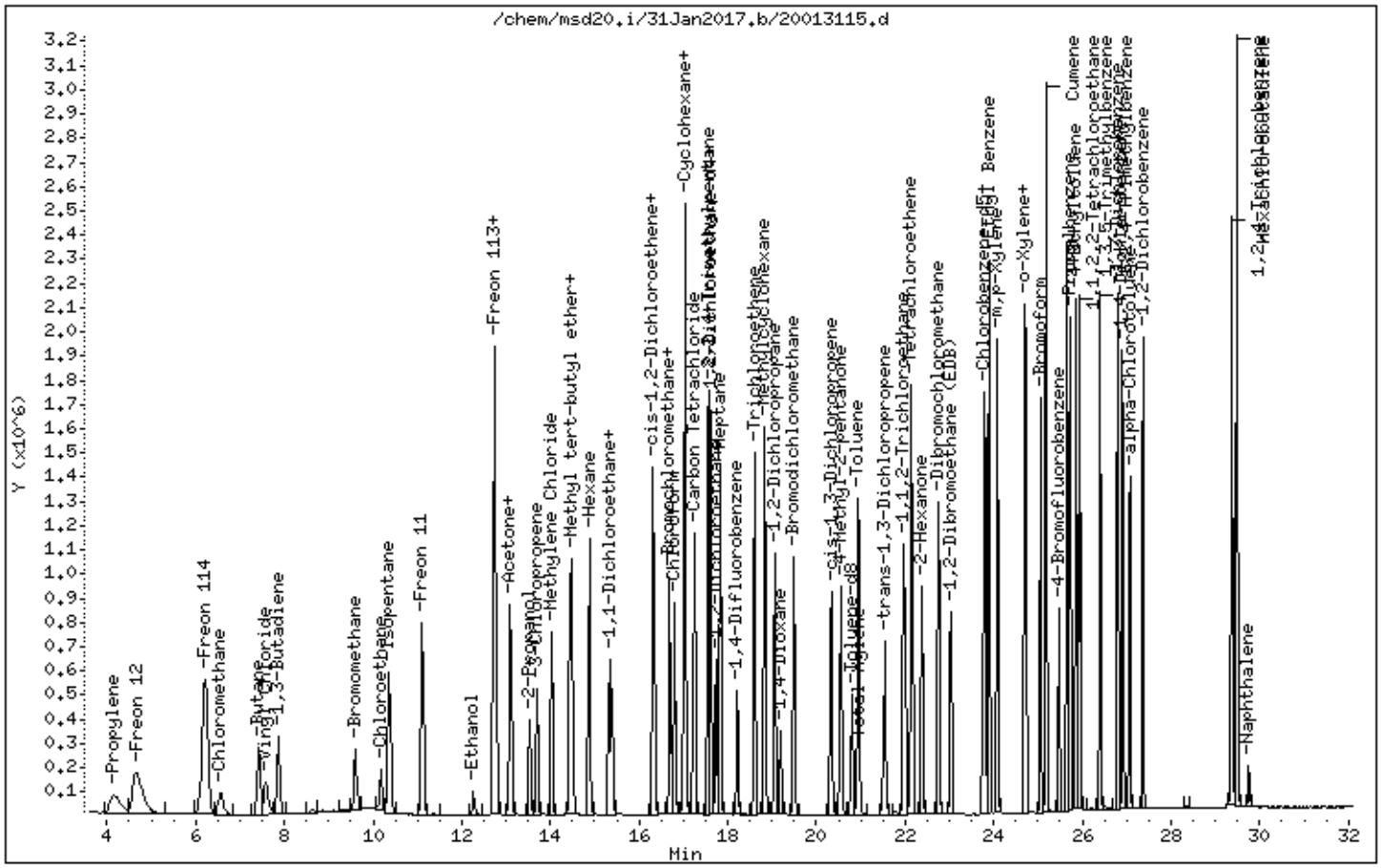
Instrument: msd20.i

Sample Info: 50mL# 2819-156

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCSD

Lab ID#: 1701428A-18BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013116**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 05:09 PM**	

Compound	%Recovery	Method Limits
Freon 12	107	70-130
Freon 114	98	70-130
Chloromethane	116	70-130
Vinyl Chloride	109	70-130
1,3-Butadiene	104	70-130
Bromomethane	102	70-130
Chloroethane	98	70-130
Freon 11	106	70-130
Ethanol	74	70-130
Freon 113	96	70-130
1,1-Dichloroethene	93	70-130
Acetone	98	70-130
2-Propanol	94	70-130
Carbon Disulfide	112	70-130
3-Chloropropene	107	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	100	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	106	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	104	70-130
cis-1,2-Dichloroethene	88	70-130
Tetrahydrofuran	112	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	105	70-130
Cyclohexane	103	70-130
Carbon Tetrachloride	103	70-130
2,2,4-Trimethylpentane	110	70-130
Benzene	113	70-130
1,2-Dichloroethane	123	70-130
Heptane	124	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	119	70-130
1,4-Dioxane	114	70-130
Bromodichloromethane	118	70-130
cis-1,3-Dichloropropene	120	70-130
4-Methyl-2-pentanone	134 Q	70-130
Toluene	112	70-130
trans-1,3-Dichloropropene	114	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	102	70-130
2-Hexanone	115	70-130

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Client Sample ID: LCSD

Lab ID#: 1701428A-18BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013116**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/31/17 05:09 PM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	117	70-130
1,2-Dibromoethane (EDB)	110	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	113	70-130
o-Xylene	112	70-130
Styrene	119	70-130
Bromoform	117	70-130
Cumene	117	70-130
1,1,2,2-Tetrachloroethane	114	70-130
Propylbenzene	113	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	107	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	125	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	95	70-130
Hexachlorobutadiene	99	70-130
Naphthalene	95	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	105	70-130

Report Date: 31-Jan-2017 17:54

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31Jan2017
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: AT12EtOH.spk
Quant Type: ISTD
Sublist File: AT12-Oxy.sub
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 10ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	10.000	11.004	110.04	60-140
11 Freon 12	10.000	10.686	106.86	70-130
15 Freon 114	10.000	9.768	97.68	70-130
17 Chloromethane	10.000	11.558	115.58	70-130
23 Butane	10.000	10.044	100.44	60-140
25 Vinyl Chloride	10.000	10.918	109.18	70-130
26 1,3-Butadiene	10.000	10.447	104.47	70-130
29 Bromomethane	10.000	10.159	101.59	70-130
30 Chloroethane	10.000	9.835	98.35	70-130
31 Isopentane	10.000	9.991	99.91	60-140
35 Freon 11	10.000	10.580	105.80	70-130
42 Ethanol	11.500	8.453	73.51	70-130
49 Freon 113	10.000	9.625	96.25	70-130
50 1,1-Dichloroethene	10.000	9.314	93.14	70-130
52 Acetone	10.000	9.817	98.17	70-130
56 Carbon Disulfide	10.000	11.179	111.79	70-130
57 2-Propanol	10.000	9.421	94.21	70-130
58 3-Chloropropene	10.000	10.724	107.24	70-130
66 Methylene Chloride	10.000	9.256	92.56	70-130
72 Methyl tert-butyl	10.000	9.959	99.59	70-130
73 trans-1,2-Dichloro	10.000	11.039	110.39	70-130
78 Hexane	10.000	10.610	106.10	70-130
82 1,1-Dichloroethane	10.000	10.131	101.31	70-130
86 Vinyl Acetate	10.000	9.103	91.03	60-140
91 cis-1,2-Dichloroet	10.000	8.830	88.30	70-130
92 2-Butanone	10.000	10.395	103.95	70-130
99 Tetrahydrofuran	10.000	11.213	112.13	70-130
100 Chloroform	10.000	10.427	104.27	70-130
103 1,1,1-Trichloroeth	10.000	10.518	105.18	70-130
106 Carbon Tetrachlori	10.000	10.295	102.95	70-130
102 Cyclohexane	10.000	10.305	103.05	70-130
113 2,2,4-Trimethylpen	10.000	10.970	109.71	70-130
116 Benzene	10.000	11.339	113.39	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	10.000	12.286	122.86	70-130
121 Heptane	10.000	12.350	123.50	70-130
125 Trichloroethene	10.000	10.686	106.86	70-130
127 Methylcyclohexane	10.000	11.856	118.56	60-140
132 1,2-Dichloropropan	10.000	11.922	119.22	70-130
136 1,4-Dioxane	10.000	11.397	113.97	70-130
138 Bromodichlorometha	10.000	11.848	118.48	70-130
144 cis-1,3-Dichloropr	10.000	12.044	120.44	70-130
145 4-Methyl-2-pentano	10.000	13.396	133.96*	70-130
147 Toluene	10.000	11.208	112.08	70-130
150 trans-1,3-Dichloro	10.000	11.357	113.57	70-130
155 1,1,2-Trichloroeth	10.000	11.136	111.36	70-130
156 Tetrachloroethene	10.000	10.166	101.66	70-130
158 2-Hexanone	10.000	11.492	114.92	70-130
160 Dibromochlorometha	10.000	11.673	116.73	70-130
161 1,2-Dibromoethane	10.000	10.952	109.52	70-130
165 Chlorobenzene	10.000	10.410	104.10	70-130
167 Ethyl Benzene	10.000	11.337	113.37	70-130
169 m,p-Xylene	10.000	11.338	113.38	70-130
171 o-Xylene	10.000	11.168	111.68	70-130
172 Styrene	10.000	11.862	118.62	70-130
174 Bromoform	10.000	11.732	117.32	70-130
175 Cumene	10.000	11.710	117.10	70-130
181 1,1,2,2-Tetrachlor	10.000	11.459	114.59	70-130
182 Propylbenzene	10.000	11.287	112.87	70-130
188 4-Ethyltoluene	10.000	10.823	108.23	70-130
190 1,3,5-Trimethylben	10.000	10.724	107.24	70-130
196 1,2,4-Trimethylben	10.000	9.742	97.42	70-130
208 1,3-Dichlorobenzen	10.000	9.909	99.09	70-130
209 1,4-Dichlorobenzen	10.000	9.734	97.34	70-130
212 alpha-Chlorotoluen	10.000	12.473	124.73	70-130
214 1,2-Dichlorobenzen	10.000	10.018	100.18	70-130
226 1,2,4-Trichloroben	10.000	9.531	95.31	70-130
227 Hexachlorobutadien	10.000	9.922	99.22	70-130
228 Naphthalene	1.000	0.9545	95.45	60-140
M 239 Total Xylene	20.000	22.506	112.53	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.495	109.89	70-130
$ 146 Toluene-d8	5.000	5.435	108.70	70-130
$ 177 4-Bromofluorobenze	5.000	5.258	105.16	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/31Jan2017.b/20013116.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 31-JAN-2017 17:09
Operator : ef Inst ID: msd20.i
Smp Info : 50mL# 2819-156
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/31Jan2017.b/2016l1219b.m
Meth Date : 31-Jan-2017 16:34 efinn Quant Type: ISTD
Cal Date : 29-DEC-2016 15:14 Cal File: 20122909.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	189626	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	146834			46.97- 106.97	77.43
16.695	16.696 (1.000)	49	236447			76.21- 136.21	124.69
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.209	18.209 (1.000)	114	654833	5.00000		80.00- 120.00	100.00
18.209	18.209 (1.000)	88	103067			0.00- 45.59	15.74
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	568394	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	311644			23.26- 83.26	54.83
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.620	17.621 (1.053)	65	257086	5.49462	5.495	80.00- 120.00	100.00
17.620	17.621 (1.053)	67	153991			31.78- 91.78	59.90
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.806	20.806 (1.143)	98	680488	5.43496	5.435	80.00- 120.00	100.00
20.806	20.806 (1.143)	70	75873			0.00- 40.33	11.15

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

$ 146 Toluene-d8 (continued)
 20.806  20.806 (1.143)   100    447504                    35.56-  95.56    65.76
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    318917 5.25776    5.258  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    368491                   79.94- 139.94   115.54
 25.466  25.466 (1.072)   176    309610                   67.24- 127.24    97.08
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.142   4.142 (0.248)    41    398509 11.0042   11.004  70.00- 130.00   100.00
  4.142   4.142 (0.248)    42    262770                    0.00-  30.00    65.94
  4.166   4.166 (0.249)    39    290049                    0.00-  30.00    72.78
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.648 (0.279)    85   1536109 10.6865   10.686  70.00- 130.00   100.00
  4.648   4.648 (0.278)    87    495132                    0.00-  30.00    32.23
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135   1112599 9.76818    9.768  70.00- 130.00   100.00
  6.215   6.215 (0.372)   137    356617                    0.00-  30.00    32.05
  6.215   6.191 (0.372)    85   1545177                  103.93- 163.93   138.88
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.552   6.553 (0.392)    50    510669 11.5578   11.558  80.00- 120.00   100.00
  6.552   6.553 (0.392)    52    160781                    3.24-  63.24    31.48
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.434   7.416 (0.444)    58    106587 10.0443   10.044  80.00- 120.00   100.00
  7.416   7.416 (0.443)    43    750853                  637.57- 697.57   704.45
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.572   7.573 (0.453)    62    572192 10.9181   10.918  80.00- 120.00   100.00
  7.590   7.573 (0.454)    64    184035                    2.15-  62.15    32.16
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    400976 10.4468   10.447  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    375266                   58.46- 118.46    93.59
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    380890 10.1588   10.159  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    364054                   64.83- 124.83    95.58
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.174  10.174 (0.608)    64    224175 9.83529    9.835  80.00- 120.00   100.00
 10.174  10.174 (0.608)    49     49629                    0.00-  51.98    22.14
 10.174  10.174 (0.608)    66     73476                    2.87-  62.87    32.78
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	410558	9.99110	9.991	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	557749			95.82- 155.82	135.85
10.367	10.367 (0.620)	42	497143			78.19- 138.19	121.09
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	1522747	10.5805	10.580	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	982749			34.37- 94.37	64.54
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	163843	8.45340	8.453	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	64064			10.33- 70.33	39.10
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	1033888	9.62534	9.625	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	664187			33.68- 93.68	64.24
12.763	12.736 (0.763)	101	1246585			86.77- 146.77	120.57
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	324199	9.31352	9.314	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	779681			201.92- 261.92	240.49
12.736	12.736 (0.761)	96	511135			127.04- 187.04	157.66
52 Acetone					CAS #: 67-64-1		
13.065	13.093 (0.781)	58	262298	9.81692	9.817	80.00- 120.00	100.00
13.065	13.066 (0.781)	43	783696			253.28- 313.28	298.78
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.121 (0.784)	76	1651780	11.1787	11.179	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.533 (0.809)	45	676230	9.42144	9.421	80.00- 120.00	100.00
13.532	13.533 (0.809)	43	194312			0.00- 52.74	28.73
13.532	13.533 (0.809)	59	29640			0.00- 34.43	4.38
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	202972	10.7242	10.724	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	510921			199.62- 259.62	251.72
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	536742	9.25632	9.256	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	645921			80.28- 140.28	120.34
14.027	14.027 (0.839)	51	197319			4.61- 64.61	36.76
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	1333497	9.95866	9.959	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether (continued)							
14.439	14.439 (0.863)	57	300087			0.00- 51.40	22.50
14.439	14.439 (0.863)	41	360943			0.00- 51.25	27.07
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.493	14.494 (0.866)	98	378478	11.0389	11.039	80.00- 120.00	100.00
14.493	14.494 (0.866)	61	819683			175.66- 235.66	216.57
14.493	14.494 (0.866)	96	591326			128.76- 188.76	156.24
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	812818	10.6099	10.610	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	501041			28.29- 88.29	61.64
14.878	14.878 (0.889)	86	138016			0.00- 48.18	16.98
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	984843	10.1308	10.131	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	313698			2.02- 62.02	31.85
86 Vinyl Acetate					CAS #: 108-05-4		
15.399	15.400 (0.921)	86	103861	9.10309	9.103	80.00- 120.00	100.00
15.399	15.400 (0.921)	42	94075			42.22- 102.22	90.58
15.399	15.400 (0.921)	43	982319			810.72- 870.72	945.80
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.324 (0.976)	98	365336	8.83000	8.830	80.00- 120.00	100.00
16.323	16.324 (0.976)	61	718233			153.64- 213.64	196.60
16.323	16.324 (0.976)	96	572576			125.91- 185.91	156.73
92 2-Butanone					CAS #: 78-93-3		
16.323	16.324 (0.976)	72	270831	10.3952	10.395	80.00- 120.00	100.00
16.323	16.324 (0.976)	43	966306			300.25- 360.25	356.79
16.323	16.324 (0.976)	57	79171			0.00- 58.21	29.23
99 Tetrahydrofuran					CAS #: 109-99-9		
16.695	16.696 (0.998)	42	572651	11.2132	11.213	80.00- 120.00	100.00
16.695	16.696 (0.998)	71	248903			16.33- 76.33	43.47
16.695	16.696 (0.998)	72	259775			20.03- 80.03	45.36
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	1228726	10.4268	10.427	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	795858			34.75- 94.75	64.77
102 Cyclohexane					CAS #: 110-82-7		
17.034	17.035 (1.018)	84	794105	10.3053	10.305	80.00- 120.00	100.00
17.034	17.035 (1.018)	56	893627			76.62- 136.62	112.53
17.034	17.035 (1.018)	41	480767			21.84- 81.84	60.54

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.034	17.035 (1.018)	97	1251037	10.5182	10.518	80.00- 120.00	100.00
17.034	17.035 (1.018)	99	805275			34.64- 94.64	64.37
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	1043837	10.2950	10.295	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	1083136			73.50- 133.50	103.76
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.559	17.559 (1.050)	56	814208	10.9706	10.970	80.00- 120.00	100.00
17.559	17.559 (1.050)	57	2445482			280.27- 340.27	300.35
17.559	17.559 (1.050)	41	652038			42.11- 102.11	80.08
116 Benzene					CAS #: 71-43-2		
17.620	17.621 (0.968)	78	1774170	11.3390	11.339	80.00- 120.00	100.00
17.620	17.621 (0.968)	77	421829			0.00- 53.26	23.78
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.974)	62	745273	12.2861	12.286	80.00- 120.00	100.00
17.744	17.744 (0.974)	64	240942			2.82- 62.82	32.33
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.980)	57	496163	12.3501	12.350	80.00- 120.00	100.00
17.847	17.847 (0.980)	100	170111			8.23- 68.23	34.29
17.847	17.847 (0.980)	43	871643			141.33- 201.33	175.68
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.022)	130	796234	10.6858	10.686	80.00- 120.00	100.00
18.610	18.610 (1.022)	95	764752			61.76- 121.76	96.05
18.610	18.610 (1.022)	97	486258			29.47- 89.47	61.07
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.834 (1.034)	83	1043033	11.8562	11.856	80.00- 120.00	100.00
18.833	18.834 (1.034)	55	799303			40.87- 100.87	76.63
18.833	18.834 (1.034)	56	253599			0.00- 53.10	24.31
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.056	19.057 (1.047)	63	662310	11.9224	11.922	80.00- 120.00	100.00
19.056	19.057 (1.047)	62	457062			39.05- 99.05	69.01
19.056	19.057 (1.047)	41	372141			18.49- 78.49	56.19
136 1,4-Dioxane					CAS #: 123-91-1		
19.190	19.190 (1.054)	88	417963	11.3975	11.397	80.00- 120.00	100.00
19.190	19.190 (1.054)	58	282704			32.65- 92.65	67.64
19.190	19.190 (1.054)	57	94038			0.00- 50.00	22.50

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	1194390	11.8481	11.848	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	765613			33.97- 93.97	64.10
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.339 (1.117)	75	963351	12.0438	12.044	80.00- 120.00	100.00
20.338	20.339 (1.117)	77	306301			1.99- 61.99	31.80
20.338	20.339 (1.117)	39	439955			10.43- 70.43	45.67
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.556	20.557 (1.129)	43	1143256	13.3956	13.396	80.00- 120.00	100.00(R)
20.556	20.557 (1.129)	58	463573			12.96- 72.96	40.55
20.556	20.557 (1.129)	85	211968			0.00- 50.79	18.54
147 Toluene					CAS #: 108-88-3		
20.946	20.946 (1.150)	91	1929465	11.2083	11.208	80.00- 120.00	100.00
20.946	20.946 (1.150)	92	1116464			29.12- 89.12	57.86
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	809577	11.3571	11.357	80.00- 120.00	100.00
21.535	21.535 (0.906)	77	256700			1.76- 61.76	31.71
21.535	21.535 (0.906)	39	355326			8.58- 68.58	43.89
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.970	21.970 (0.925)	97	753155	11.1365	11.136	80.00- 120.00	100.00
21.970	21.970 (0.925)	99	468490			32.87- 92.87	62.20
21.970	21.970 (0.925)	83	638483			54.32- 114.32	84.77
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	1081070	10.1663	10.166	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	765466			38.71- 98.71	70.81
22.145	22.145 (0.932)	131	736569			36.65- 96.65	68.13
158 2-Hexanone					CAS #: 591-78-6		
22.377	22.377 (0.942)	58	554730	11.4916	11.492	80.00- 120.00	100.00
22.377	22.377 (0.942)	43	995900			137.01- 197.01	179.53
22.377	22.377 (0.942)	100	120214			0.00- 53.27	21.67
160 Dibromochloromethane					CAS #: 124-48-1		
22.755	22.755 (0.958)	129	1271297	11.6728	11.673	80.00- 120.00	100.00
22.755	22.755 (0.958)	127	990689			46.69- 106.69	77.93
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	1108778	10.9515	10.952	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	1044925			65.40- 125.40	94.24

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

  165 Chlorobenzene                                CAS #: 108-90-7
 23.802  23.802 (1.002)   112   1557304 10.4095   10.410  80.00- 120.00   100.00
 23.802  23.802 (1.002)   114    504108                    2.27-  62.27    32.37
 23.802  23.802 (1.002)    77    898548                   24.92-  84.92    57.70
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.905  23.906 (1.006)   106    753583 11.3371   11.337  80.00- 120.00   100.00
 23.905  23.906 (1.006)    91   2363889                  275.87- 335.87   313.69
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106    792446 11.3384   11.338  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   1581736                  163.30- 223.30   199.60
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106    727284 11.1676   11.168  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   1519991                  172.76- 232.76   209.00
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.730  24.731 (1.041)   104   1133630 11.8623   11.862  80.00- 120.00   100.00
 24.730  24.731 (1.041)    78    571934                   18.49-  78.49    50.45
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173   1249296 11.7323   11.732  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    645661                   21.11-  81.11    51.68
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.181  25.182 (1.060)   105   2432156 11.7104   11.710  80.00- 120.00   100.00
 25.181  25.182 (1.060)   120    657385                    0.00-  57.81    27.03
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83   1435994 11.4593   11.459  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85    915897                   34.74-  94.74    63.78
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.712  25.713 (1.082)    91   2240393 11.2869   11.287  80.00- 120.00   100.00
 25.712  25.713 (1.082)   120    525697                    0.00-  54.36    23.46
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105   1749159 10.8230   10.823  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120    534860                    1.16-  61.16    30.58
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105   1546981 10.7243   10.724  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120    767016                   20.44-  80.44    49.58
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105   1358918 9.74180    9.742  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	635787			17.83- 77.83	46.79
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	1126835	9.90940	9.909	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	721238			33.66- 93.66	64.01
26.794	26.794 (1.128)	111	434773			8.07- 68.07	38.58
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.904 (1.132)	146	1053796	9.73361	9.734	80.00- 120.00	100.00
26.903	26.904 (1.132)	148	678288			33.90- 93.90	64.37
26.903	26.904 (1.132)	111	398885			6.77- 66.77	37.85
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	1404499	12.4733	12.473	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	299703			0.00- 52.05	21.34
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	1084428	10.0179	10.018	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	689690			34.41- 94.41	63.60
27.371	27.371 (1.152)	111	432149			9.66- 69.66	39.85
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.367 (1.236)	180	1196928	9.53094	9.531	80.00- 120.00	100.00
29.366	29.367 (1.236)	182	1151680			66.13- 126.13	96.22
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	1016093	9.92172	9.922	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	638905			32.84- 92.84	62.88
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	215386	0.95448	0.9545	80.00- 120.00	100.00
29.756	29.756 (1.252)	127	27296			0.00- 42.38	12.67
M 239 Total Xylene					CAS #: 1330-20-7		
			1519730	22.5061	22.506		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20013116.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/31Jan2017.b/2016l1219b.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 31-JAN-2017
Calibration Time: 15:51
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	189668	113801	265535	189626	-0.02
123 1,4-Difluorobenze	617206	370324	864088	654833	6.10
163 Chlorobenzene-d5	554897	332938	776856	568394	2.43

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.21	17.88	18.54	18.21	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/31Jan2017.b/20013116.d

Date : 31-JAN-2017 17:09

Client ID: LCSD

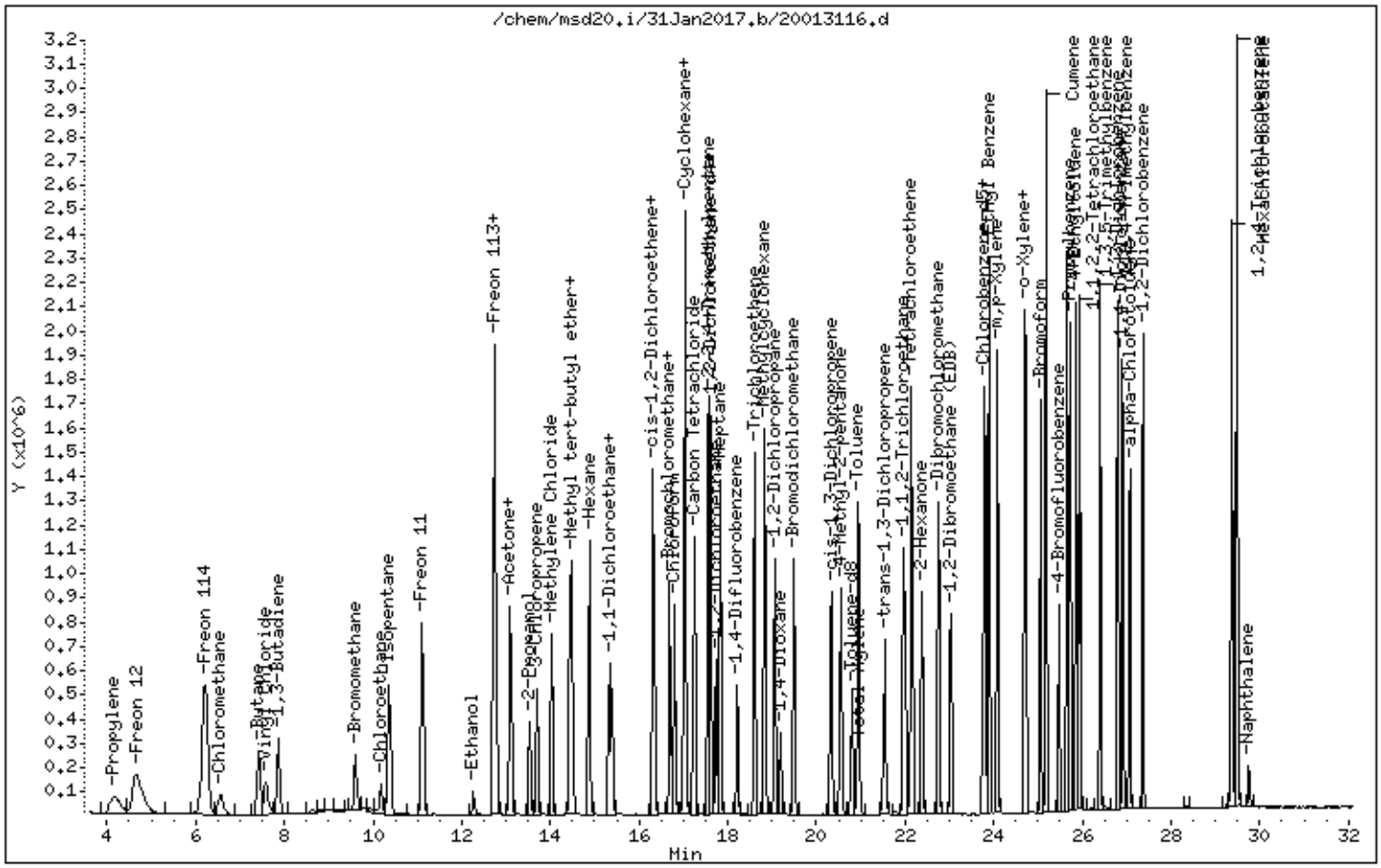
Instrument: msd20.i

Sample Info: 50mL# 2819-156

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCS

Lab ID#: 1701428A-18C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 09:38 AM**	

Compound	%Recovery	Method Limits
Freon 12	92	70-130
Freon 114	87	70-130
Chloromethane	88	70-130
Vinyl Chloride	88	70-130
1,3-Butadiene	86	70-130
Bromomethane	92	70-130
Chloroethane	85	70-130
Freon 11	94	70-130
Ethanol	68 Q	70-130
Freon 113	85	70-130
1,1-Dichloroethene	83	70-130
Acetone	81	70-130
2-Propanol	93	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	90	70-130
Methylene Chloride	74	70-130
Methyl tert-butyl ether	93	70-130
trans-1,2-Dichloroethene	99	70-130
Hexane	93	70-130
1,1-Dichloroethane	88	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	83	70-130
Tetrahydrofuran	93	70-130
Chloroform	86	70-130
1,1,1-Trichloroethane	89	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	50 Q	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	87	70-130
1,2-Dichloroethane	88	70-130
Heptane	96	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	89	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	99	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	99	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	95	70-130
2-Hexanone	103	70-130

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Client Sample ID: LCS

Lab ID#: 1701428A-18C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 09:38 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	94	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	104	70-130
o-Xylene	102	70-130
Styrene	108	70-130
Bromoform	94	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	88	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	92	70-130
alpha-Chlorotoluene	104	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	88	70-130
Hexachlorobutadiene	96	70-130
Naphthalene	96	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	105	70-130

Report Date: 06-Feb-2017 10:20

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: sab
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	10.000	8.374	83.75	60-140
11 Freon 12	10.000	9.172	91.72	70-130
15 Freon 114	10.000	8.665	86.65	70-130
17 Chloromethane	10.000	8.826	88.26	70-130
23 Butane	10.000	9.281	92.81	60-140
25 Vinyl Chloride	10.000	8.850	88.50	70-130
26 1,3-Butadiene	10.000	8.626	86.26	70-130
29 Bromomethane	10.000	9.243	92.43	70-130
30 Chloroethane	10.000	8.546	85.47	70-130
31 Isopentane	10.000	8.997	89.97	60-140
35 Freon 11	10.000	9.367	93.67	70-130
42 Ethanol	11.500	7.851	68.27*	70-130
49 Freon 113	10.000	8.528	85.28	70-130
50 1,1-Dichloroethene	10.000	8.282	82.82	70-130
52 Acetone	10.000	8.073	80.73	70-130
56 Carbon Disulfide	10.000	8.763	87.63	70-130
57 2-Propanol	10.000	9.336	93.36	70-130
58 3-Chloropropene	10.000	8.995	89.95	70-130
66 Methylene Chloride	10.000	7.446	74.46	70-130
72 Methyl tert-butyl	10.000	9.331	93.31	70-130
73 trans-1,2-Dichloro	10.000	9.914	99.14	70-130
78 Hexane	10.000	9.288	92.88	70-130
82 1,1-Dichloroethane	10.000	8.826	88.26	70-130
86 Vinyl Acetate	10.000	8.764	87.64	60-140
91 cis-1,2-Dichloroet	10.000	8.342	83.42	70-130
92 2-Butanone	10.000	9.154	91.54	70-130
99 Tetrahydrofuran	10.000	9.292	92.92	70-130
100 Chloroform	10.000	8.606	86.06	70-130
103 1,1,1-Trichloroeth	10.000	8.941	89.41	70-130
106 Carbon Tetrachlori	10.000	4.964	49.64*	70-130
102 Cyclohexane	10.000	9.643	96.43	70-130
113 2,2,4-Trimethylpen	10.000	9.260	92.60	70-130
116 Benzene	10.000	8.730	87.30	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	10.000	8.828	88.28	70-130
121 Heptane	10.000	9.583	95.83	70-130
125 Trichloroethene	10.000	9.443	94.43	70-130
127 Methylcyclohexane	10.000	9.926	99.26	60-140
132 1,2-Dichloropropan	10.000	8.870	88.70	70-130
136 1,4-Dioxane	10.000	9.292	92.93	70-130
138 Bromodichlorometha	10.000	9.343	93.43	70-130
144 cis-1,3-Dichloropr	10.000	10.295	102.95	70-130
145 4-Methyl-2-pentano	10.000	9.873	98.73	70-130
147 Toluene	10.000	9.293	92.93	70-130
150 trans-1,3-Dichloro	10.000	9.869	98.69	70-130
155 1,1,2-Trichloroeth	10.000	9.544	95.44	70-130
156 Tetrachloroethene	10.000	9.480	94.80	70-130
158 2-Hexanone	10.000	10.337	103.37	70-130
160 Dibromochlorometha	10.000	9.458	94.58	70-130
161 1,2-Dibromoethane	10.000	9.124	91.24	70-130
165 Chlorobenzene	10.000	9.418	94.18	70-130
167 Ethyl Benzene	10.000	10.095	100.95	70-130
169 m,p-Xylene	10.000	10.350	103.50	70-130
171 o-Xylene	10.000	10.168	101.68	70-130
172 Styrene	10.000	10.790	107.91	70-130
174 Bromoform	10.000	9.406	94.06	70-130
175 Cumene	10.000	10.412	104.12	70-130
181 1,1,2,2-Tetrachlor	10.000	8.754	87.54	70-130
182 Propylbenzene	10.000	10.265	102.65	70-130
188 4-Ethyltoluene	10.000	11.022	110.22	70-130
190 1,3,5-Trimethylben	10.000	10.416	104.17	70-130
196 1,2,4-Trimethylben	10.000	10.494	104.94	70-130
208 1,3-Dichlorobenzen	10.000	9.684	96.84	70-130
209 1,4-Dichlorobenzen	10.000	9.220	92.21	70-130
212 alpha-Chlorotoluen	10.000	10.388	103.88	70-130
214 1,2-Dichlorobenzen	10.000	9.824	98.24	70-130
226 1,2,4-Trichloroben	10.000	8.812	88.12	70-130
227 Hexachlorobutadien	10.000	9.654	96.54	70-130
228 Naphthalene	1.000	0.9613	96.13	60-140
M 239 Total Xylene	20.000	20.518	102.59	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.860	97.19	70-130
$ 146 Toluene-d8	5.000	5.190	103.80	70-130
$ 177 4-Bromofluorobenze	5.000	5.232	104.65	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020604.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 06-FEB-2017 09:38
Operator : sab Inst ID: msde.i
Smp Info : 50mL# 2819-188
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 06-Feb-2017 08:44 sblack Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.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
9 Propylene					CAS #: 115-07-1		
4.738	4.762 (0.308)	41	187148	8.37452	8.374	80.00- 120.00	100.00
4.763	4.762 (0.309)	42	128386			35.53- 95.53	68.60
4.763	4.762 (0.309)	39	162999			53.16- 113.16	87.10
11 Freon 12					CAS #: 75-71-8		
5.196	5.220 (0.338)	85	1260885	9.17153	9.172	80.00- 120.00	100.00
5.196	5.220 (0.338)	87	403933			1.91- 61.91	32.04
15 Freon 114					CAS #: 76-14-2		
6.619	6.618 (0.430)	135	914388	8.66517	8.665	80.00- 120.00	100.00
6.619	6.618 (0.430)	137	301252			0.98- 60.98	32.95
6.619	6.618 (0.430)	85	1074469			86.82- 146.82	117.51
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	226287	8.82559	8.826	80.00- 120.00	100.00
6.932	6.932 (0.450)	52	77280			3.31- 63.31	34.15
23 Butane					CAS #: 106-97-8		
7.658	7.675 (0.498)	58	57772	9.28112	9.281	80.00- 120.00	100.00

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

   23 Butane (continued)
  7.658   7.675 (0.498)    43    378051                  667.48- 727.48   654.38
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.779   7.779 (0.505)    62    318868 8.85011    8.850  80.00- 120.00   100.00
  7.779   7.779 (0.505)    64    100582                    1.95-  61.95    31.54
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  8.023   8.040 (0.521)    54    214896 8.62645    8.626  80.00- 120.00   100.00
  8.023   8.040 (0.521)    39    227361                   76.10- 136.10   105.80
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.510   9.510 (0.618)    94    348319 9.24265    9.243  80.00- 120.00   100.00
  9.510   9.510 (0.618)    96    332506                   64.26- 124.26    95.46
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
  9.986   9.986 (0.649)    64    159201 8.54656    8.546  80.00- 120.00   100.00
  9.986  10.005 (0.649)    49     50031                    0.00-  57.48    31.43
  9.986   9.986 (0.649)    66     50800                    1.33-  61.33    31.91
-------------------------------------------------------------------------------
   31 Isopentane                                    CAS #: 78-78-4
 10.119  10.138 (0.657)    57    242050 8.99731    8.997  80.00- 120.00   100.00
 10.119  10.138 (0.657)    43    295522                   96.48- 156.48   122.09
 10.119  10.119 (0.657)    42    256340                   76.93- 136.93   105.90
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 10.747  10.766 (0.698)   101   1502255 9.36685    9.367  80.00- 120.00   100.00
 10.747  10.766 (0.698)   103    962595                   33.74-  93.74    64.08
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 11.662  11.661 (0.758)    45    109750 7.85093    7.851  80.00- 120.00   100.00(R)
 11.662  11.661 (0.758)    46     40778                    9.60-  69.60    37.16
 11.662  11.661 (0.758)    43     29166                    0.00-  59.21    26.57
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.081  12.081 (0.785)   151    913249 8.52816    8.528  80.00- 120.00   100.00
 12.081  12.081 (0.785)   153    590828                   34.83-  94.83    64.70
 12.081  12.081 (0.785)   101    969457                   77.16- 137.16   106.15
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                            CAS #: 75-35-4
 12.100  12.100 (0.786)    98    236933 8.28176    8.282  80.00- 120.00   100.00
 12.100  12.100 (0.786)    61    622081                  219.47- 279.47   262.56
 12.100  12.100 (0.786)    96    375709                  126.81- 186.81   158.57
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 12.366  12.366 (0.803)    58    141900 8.07343    8.073  80.00- 120.00   100.00
```

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

   52 Acetone (continued)
 12.366  12.366 (0.803)    43    540613                   344.13- 404.13   380.98
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.462  12.462 (0.810)    76   1065444 8.76320    8.763  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.709  12.728 (0.826)    45    528284 9.33616    9.336  80.00- 120.00   100.00
 12.709  12.728 (0.826)    43    140814                    0.00-  55.65    26.65
 12.709  12.728 (0.826)    59     22932                    0.00-  34.42     4.34
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.881  12.881 (0.837)    76    214864 8.99463    8.995  80.00- 120.00   100.00
 12.881  12.881 (0.837)    41    471505                   198.88- 258.88   219.44
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.177  13.176 (0.856)    84    320260 7.44569    7.446  80.00- 120.00   100.00
 13.177  13.176 (0.856)    49    356437                   83.76- 143.76   111.30
 13.177  13.176 (0.856)    51    108894                    2.61-  62.61    34.00
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.479  13.478 (0.876)    73   1161420 9.33078    9.331  80.00- 120.00   100.00
 13.479  13.478 (0.876)    57    219101                    0.00-  49.77    18.86
 13.479  13.478 (0.876)    41    220074                    0.00-  49.98    18.95
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.533 (0.879)    98    269033 9.91370    9.914  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61    567168                   174.76- 234.76   210.82
 13.533  13.533 (0.879)    96    405235                   123.28- 183.28   150.63
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57    475800 9.28833    9.288  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43    277936                   27.83-  87.83    58.41
 13.835  13.835 (0.899)    86     96207                    0.00-  50.45    20.22
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63    659465 8.82646    8.826  80.00- 120.00   100.00
 14.247  14.247 (0.926)    65    208771                    1.87-  61.87    31.66
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                   CAS #: 108-05-4
 14.247  14.275 (0.926)    86     99108 8.76418    8.764  80.00- 120.00   100.00
 14.247  14.247 (0.926)    42     96176                   71.31- 131.31    97.04
 14.247  14.247 (0.926)    43    792212                   931.28- 991.28   799.34
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                          CAS #: 156-59-2
 15.066  15.066 (0.979)    98    274829 8.34186    8.342  80.00- 120.00   100.00
```

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

   91 cis-1,2-Dichloroethene (continued)
 15.066  15.066 (0.979)    61    524659                  154.54- 214.54   190.90
 15.066  15.066 (0.979)    96    426186                  117.78- 177.78   155.07
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    174461 9.15360    9.154  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    603894                  325.72- 385.72   346.15
 15.047  15.047 (0.978)    57     49866                    1.13-  61.13    28.58
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    320567 9.29186    9.292  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71    159777                   20.32-  80.32    49.84
 15.391  15.391 (1.000)    72    174398                   21.98-  81.98    54.40
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    154846 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    121803                   46.73- 106.73    78.66
 15.391  15.391 (1.000)    49    139785                   55.35- 115.35    90.27
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83    965759 8.60597    8.606  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    651897                   36.62-  96.62    67.50
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.699 (1.018)    84    518833 9.64323    9.643  80.00- 120.00   100.00
 15.669  15.699 (1.018)    56    502771                   68.83- 128.83    96.90
 15.669  15.669 (1.018)    41    309369                   29.98-  89.98    59.63
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.700  15.699 (1.020)    97   1180198 8.94134    8.941  80.00- 120.00   100.00
 15.700  15.699 (1.020)    99    775437                   34.65-  94.65    65.70
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.885  15.884 (1.032)   119    637870 4.96354    4.964  80.00- 120.00   100.00(R)
 15.885  15.884 (1.032)   117    656161                   74.11- 134.11   102.87
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.111  16.111 (1.047)    56    667283 9.26007    9.260  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57   2114301                  277.67- 337.67   316.85
 16.111  16.111 (1.047)    41    702410                   73.43- 133.43   105.26
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.207  16.207 (0.968)    78   1138343 8.73049    8.730  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77    277285                    0.00-  53.00    24.36
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    216096 4.85969    4.860  80.00- 120.00   100.00
```

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

$ 117 1,2-Dichloroethane-d4 (continued)
 16.207  16.207 (1.053)    67    105865                    22.67-  82.67    48.99
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.303 (0.974)    62    709152 8.82785    8.828  80.00- 120.00   100.00
 16.304  16.303 (0.974)    64    235676                     1.95-  61.95    33.23
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    316394 9.58299    9.583  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    169429                    23.08-  83.08    53.55
 16.352  16.352 (0.977)    43    516456                   136.91- 196.91   163.23
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    528120 5.00000            80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     84406                     0.00-  45.16    15.98
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130    686999 9.44308    9.443  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95    607535                    61.87- 121.87    88.43
 17.147  17.147 (1.024)    97    390835                    29.29-  89.29    56.89
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.364  17.364 (1.037)    83    675162 9.92633    9.926  80.00- 120.00   100.00
 17.364  17.364 (1.037)    55    499962                    45.72- 105.72    74.05
 17.364  17.364 (1.037)    56    154536                     0.00-  52.26    22.89
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.581  17.580 (1.050)    63    363313 8.86956    8.870  80.00- 120.00   100.00
 17.581  17.580 (1.050)    62    262202                    41.22- 101.22    72.17
 17.581  17.580 (1.050)    41    267952                    40.14- 100.14    73.75
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 17.701  17.701 (1.058)    88    292898 9.29256    9.292  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    174900                    30.17-  90.17    59.71
 17.701  17.701 (1.058)    57     61450                     0.00-  51.30    20.98
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 18.014  18.014 (1.076)    83   1057706 9.34290    9.343  80.00- 120.00   100.00
 18.014  18.014 (1.076)    85    709683                    36.87-  96.87    67.10
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 18.827  18.827 (1.125)    75    718870 10.2951   10.295  80.00- 120.00   100.00
 18.827  18.827 (1.125)    77    227922                     1.38-  61.38    31.71
 18.827  18.827 (1.125)    39    393174                    23.65-  83.65    54.69
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.007  19.006 (1.136)    43    765840 9.87348    9.873  80.00- 120.00   100.00
```

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

  145 4-Methyl-2-pentanone (continued)
 19.007  19.006 (1.136)    58    295269                    10.02-  70.02    38.55
 19.007  19.006 (1.136)    85    168157                     0.00-  52.01    21.96
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    531690 5.19012    5.190  80.00- 120.00   100.00
 19.298  19.298 (1.153)    70     61018                     0.00-  40.89    11.48
 19.298  19.298 (1.153)   100    348180                    40.09- 100.09    65.49
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91   1465849 9.29305    9.293  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92    849417                    27.79-  87.79    57.95
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75    708332 9.86928    9.869  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77    233398                     1.55-  61.55    32.95
 20.026  20.026 (0.903)    39    343585                    18.82-  78.82    48.51
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    525330 9.54352    9.544  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    319816                    32.59-  92.59    60.88
 20.438  20.438 (0.922)    83    398800                    50.07- 110.07    75.91
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166   1017406 9.47954    9.480  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129    670162                    37.12-  97.12    65.87
 20.630  20.630 (0.930)   131    682110                    36.18-  96.18    67.04
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.795  20.795 (0.938)    58    386045 10.3371   10.337  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    745586                   162.96- 222.96   193.13
 20.795  20.795 (0.938)   100    116403                     0.00-  59.39    30.15
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129   1243658 9.45799    9.458  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    960551                    46.76- 106.76    77.24
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 21.482  21.482 (0.969)   107    894723 9.12426    9.124  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109    827473                    63.39- 123.39    92.48
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    487335 5.00000            80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    240276                    17.27-  77.27    49.30
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 22.219  22.219 (1.002)   112   1275260 9.41831    9.418  80.00- 120.00   100.00
```

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

  165 Chlorobenzene (continued)
 22.219  22.219 (1.002)   114    403864                     2.22-  62.22    31.67
 22.219  22.219 (1.002)    77    670778                    23.48-  83.48    52.60
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.301 (1.006)   106    644415 10.0954   10.095  80.00- 120.00   100.00
 22.302  22.301 (1.006)    91   2002447                  278.11- 338.11   310.74
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.488  22.488 (1.014)   106    782004 10.3502   10.350  80.00- 120.00   100.00
 22.488  22.488 (1.014)    91   1550965                  170.01- 230.01   198.33
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106    711871 10.1676   10.168  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91   1545461                  175.84- 235.84   217.10
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.110  23.110 (1.042)   104   1260291 10.7906   10.790  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    634542                    20.21-  80.21    50.35
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.452  23.452 (1.057)   173   1282015 9.40583    9.406  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    652949                    21.47-  81.47    50.93
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.564  23.564 (1.063)   105   2286634 10.4122   10.412  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    628377                     0.00-  56.99    27.48
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    356198 5.23255    5.232  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    338497                    66.74- 126.74    95.03
 23.856  23.856 (1.076)   176    354377                    67.47- 127.47    99.49
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.035  24.035 (1.084)    83    837062 8.75412    8.754  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    568882                    39.76-  99.76    67.96
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.103  24.102 (1.087)    91   2244133 10.2654   10.265  80.00- 120.00   100.00
 24.103  24.102 (1.087)   120    568233                     0.00-  55.73    25.32
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.237  24.237 (1.093)   105   1997521 11.0217   11.022  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    624561                     1.00-  61.00    31.27
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.304  24.304 (1.096)   105   1399535 10.4166   10.416  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
24.304	24.304 (1.096)	120	680023			19.17- 79.17	48.59
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	1183325	10.4939	10.494	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	525830			16.84- 76.84	44.44
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.156 (1.134)	146	1161496	9.68428	9.684	80.00- 120.00	100.00
25.157	25.156 (1.134)	148	736053			33.96- 93.96	63.37
25.157	25.156 (1.134)	111	433085			6.94- 66.94	37.29
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	1148762	9.22051	9.220	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	738923			35.10- 95.10	64.32
25.269	25.269 (1.139)	111	403304			4.80- 64.80	35.11
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	1492620	10.3880	10.388	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	333465			0.00- 52.64	22.34
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.694 (1.159)	146	1105391	9.82371	9.824	80.00- 120.00	100.00
25.695	25.694 (1.159)	148	702632			33.88- 93.88	63.56
25.672	25.672 (1.158)	111	409781			7.58- 67.58	37.07
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	752358	8.81202	8.812	80.00- 120.00	100.00
27.398	27.398 (1.235)	182	723705			63.70- 123.70	96.19
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	1156066	9.65417	9.654	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	715016			34.33- 94.33	61.85
228 Naphthalene					CAS #: 91-20-3		
27.712	27.712 (1.250)	128	112416	0.96130	0.9613	80.00- 120.00	100.00
27.712	27.712 (1.250)	127	12979			0.00- 42.30	11.55
M 239 Total Xylene					CAS #: 1330-20-7		
			1493875	20.5177	20.518		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e020604.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 06-FEB-2017
Calibration Time: 07:43
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	154846	6.53
123 1,4-Difluorobenze	497113	298268	695958	528120	6.24
163 Chlorobenzene-d5	465931	279559	652303	487335	4.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/06Feb2017.b/e020604.d

Date : 06-FEB-2017 09:38

Client ID: LCS

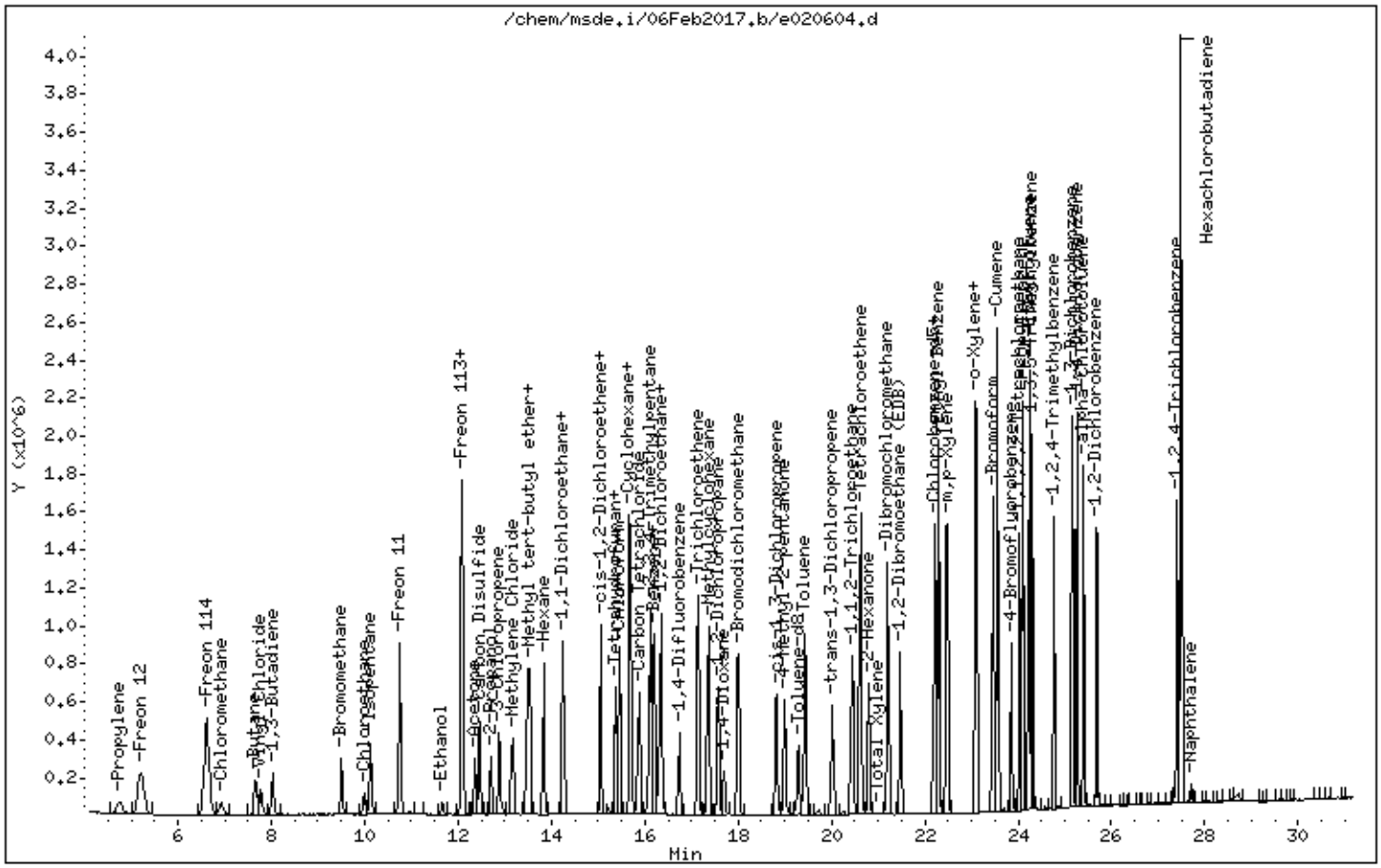
Instrument: msde.i

Sample Info: 50mL# 2819-188

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCSD

Lab ID#: 1701428A-18CC

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 10:24 AM**	

Compound	%Recovery	Method Limits
Freon 12	91	70-130
Freon 114	86	70-130
Chloromethane	88	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	85	70-130
Bromomethane	91	70-130
Chloroethane	88	70-130
Freon 11	92	70-130
Ethanol	63 Q	70-130
Freon 113	84	70-130
1,1-Dichloroethene	84	70-130
Acetone	81	70-130
2-Propanol	88	70-130
Carbon Disulfide	86	70-130
3-Chloropropene	85	70-130
Methylene Chloride	75	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	99	70-130
Hexane	90	70-130
1,1-Dichloroethane	87	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	80	70-130
Tetrahydrofuran	92	70-130
Chloroform	86	70-130
1,1,1-Trichloroethane	89	70-130
Cyclohexane	95	70-130
Carbon Tetrachloride	51 Q	70-130
2,2,4-Trimethylpentane	91	70-130
Benzene	84	70-130
1,2-Dichloroethane	87	70-130
Heptane	93	70-130
Trichloroethene	91	70-130
1,2-Dichloropropane	88	70-130
1,4-Dioxane	91	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	96	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	97	70-130
1,1,2-Trichloroethane	89	70-130
Tetrachloroethene	90	70-130
2-Hexanone	98	70-130

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Client Sample ID: LCSD

Lab ID#: 1701428A-18CC

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/6/17 10:24 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	91	70-130
1,2-Dibromoethane (EDB)	87	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	95	70-130
m,p-Xylene	101	70-130
o-Xylene	99	70-130
Styrene	106	70-130
Bromoform	92	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	85	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	107	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	91	70-130
alpha-Chlorotoluene	98	70-130
1,2-Dichlorobenzene	94	70-130
1,2,4-Trichlorobenzene	86	70-130
Hexachlorobutadiene	95	70-130
Naphthalene	90	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Report Date: 06-Feb-2017 11:06

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Feb2017
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: sab
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT09EtOH.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	10.000	8.561	85.61	60-140
11 Freon 12	10.000	9.065	90.65	70-130
15 Freon 114	10.000	8.642	86.42	70-130
17 Chloromethane	10.000	8.795	87.95	70-130
23 Butane	10.000	9.574	95.74	60-140
25 Vinyl Chloride	10.000	8.520	85.20	70-130
26 1,3-Butadiene	10.000	8.478	84.79	70-130
29 Bromomethane	10.000	9.092	90.92	70-130
30 Chloroethane	10.000	8.833	88.33	70-130
31 Isopentane	10.000	8.733	87.33	60-140
35 Freon 11	10.000	9.214	92.14	70-130
42 Ethanol	11.500	7.212	62.71*	70-130
49 Freon 113	10.000	8.423	84.23	70-130
50 1,1-Dichloroethene	10.000	8.398	83.98	70-130
52 Acetone	10.000	8.141	81.41	70-130
56 Carbon Disulfide	10.000	8.580	85.80	70-130
57 2-Propanol	10.000	8.782	87.82	70-130
58 3-Chloropropene	10.000	8.534	85.34	70-130
66 Methylene Chloride	10.000	7.488	74.88	70-130
72 Methyl tert-butyl	10.000	9.150	91.50	70-130
73 trans-1,2-Dichloro	10.000	9.915	99.15	70-130
78 Hexane	10.000	9.011	90.11	70-130
82 1,1-Dichloroethane	10.000	8.737	87.37	70-130
86 Vinyl Acetate	10.000	8.419	84.19	60-140
91 cis-1,2-Dichloroet	10.000	8.014	80.15	70-130
92 2-Butanone	10.000	9.167	91.67	70-130
99 Tetrahydrofuran	10.000	9.215	92.15	70-130
100 Chloroform	10.000	8.657	86.57	70-130
103 1,1,1-Trichloroeth	10.000	8.892	88.92	70-130
106 Carbon Tetrachlori	10.000	5.077	50.77*	70-130
102 Cyclohexane	10.000	9.514	95.14	70-130
113 2,2,4-Trimethylpen	10.000	9.123	91.23	70-130
116 Benzene	10.000	8.413	84.13	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	10.000	8.748	87.48	70-130
121 Heptane	10.000	9.336	93.36	70-130
125 Trichloroethene	10.000	9.065	90.65	70-130
127 Methylcyclohexane	10.000	9.605	96.05	60-140
132 1,2-Dichloropropan	10.000	8.846	88.46	70-130
136 1,4-Dioxane	10.000	9.064	90.64	70-130
138 Bromodichlorometha	10.000	9.105	91.05	70-130
144 cis-1,3-Dichloropr	10.000	9.919	99.19	70-130
145 4-Methyl-2-pentano	10.000	9.623	96.23	70-130
147 Toluene	10.000	9.257	92.57	70-130
150 trans-1,3-Dichloro	10.000	9.734	97.35	70-130
155 1,1,2-Trichloroeth	10.000	8.892	88.92	70-130
156 Tetrachloroethene	10.000	8.971	89.71	70-130
158 2-Hexanone	10.000	9.768	97.68	70-130
160 Dibromochlorometha	10.000	9.090	90.90	70-130
161 1,2-Dibromoethane	10.000	8.724	87.24	70-130
165 Chlorobenzene	10.000	9.007	90.07	70-130
167 Ethyl Benzene	10.000	9.539	95.39	70-130
169 m,p-Xylene	10.000	10.121	101.21	70-130
171 o-Xylene	10.000	9.927	99.27	70-130
172 Styrene	10.000	10.637	106.37	70-130
174 Bromoform	10.000	9.158	91.58	70-130
175 Cumene	10.000	10.023	100.23	70-130
181 1,1,2,2-Tetrachlor	10.000	8.520	85.20	70-130
182 Propylbenzene	10.000	9.851	98.51	70-130
188 4-Ethyltoluene	10.000	10.719	107.19	70-130
190 1,3,5-Trimethylben	10.000	10.203	102.03	70-130
196 1,2,4-Trimethylben	10.000	10.354	103.54	70-130
208 1,3-Dichlorobenzen	10.000	9.509	95.09	70-130
209 1,4-Dichlorobenzen	10.000	9.088	90.88	70-130
212 alpha-Chlorotoluen	10.000	9.832	98.32	70-130
214 1,2-Dichlorobenzen	10.000	9.406	94.06	70-130
226 1,2,4-Trichloroben	10.000	8.583	85.83	70-130
227 Hexachlorobutadien	10.000	9.510	95.11	70-130
228 Naphthalene	1.000	0.9025	90.25	60-140
M 239 Total Xylene	20.000	20.048	100.24	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.801	96.02	70-130
$ 146 Toluene-d8	5.000	5.009	100.17	70-130
$ 177 4-Bromofluorobenze	5.000	5.038	100.77	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/06Feb2017.b/e020605.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 06-FEB-2017 10:24
Operator : sab Inst ID: msde.i
Smp Info : 50mL# 2819-188
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/06Feb2017.b/e17l0126a.m
Meth Date : 06-Feb-2017 08:44 sblack Quant Type: ISTD
Cal Date : 27-JAN-2017 17:06 Cal File: e012706.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.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
9 Propylene					CAS #: 115-07-1		
4.762	4.762 (0.309)	41	190785	8.56088	8.561	80.00- 120.00	100.00
4.762	4.762 (0.309)	42	123173			35.53- 95.53	64.56
4.738	4.762 (0.308)	39	167119			53.16- 113.16	87.60
11 Freon 12					CAS #: 75-71-8		
5.196	5.220 (0.338)	85	1242748	9.06460	9.065	80.00- 120.00	100.00
5.196	5.220 (0.338)	87	404277			1.91- 61.91	32.53
15 Freon 114					CAS #: 76-14-2		
6.618	6.618 (0.430)	135	909436	8.64207	8.642	80.00- 120.00	100.00
6.618	6.618 (0.430)	137	294549			0.98- 60.98	32.39
6.618	6.618 (0.430)	85	1072306			86.82- 146.82	117.91
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	224893	8.79547	8.795	80.00- 120.00	100.00
6.932	6.932 (0.450)	52	72362			3.31- 63.31	32.18
23 Butane					CAS #: 106-97-8		
7.658	7.675 (0.498)	58	59429	9.57372	9.574	80.00- 120.00	100.00

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

   23 Butane (continued)
  7.658   7.675 (0.498)    43    371145                  667.48- 727.48   624.52
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.779   7.779 (0.505)    62    306118 8.51973    8.520  80.00- 120.00   100.00
  7.779   7.779 (0.505)    64     97663                    1.95-  61.95    31.90
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  8.022   8.040 (0.521)    54    210630 8.47859    8.478  80.00- 120.00   100.00
  8.022   8.040 (0.521)    39    226802                   76.10- 136.10   107.68
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.491   9.510 (0.617)    94    341715 9.09248    9.092  80.00- 120.00   100.00
  9.510   9.510 (0.618)    96    319408                   64.26- 124.26    93.47
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
  9.986   9.986 (0.649)    64    164076 8.83263    8.833  80.00- 120.00   100.00
  9.986  10.005 (0.649)    49     48188                    0.00-  57.48    29.37
  9.986   9.986 (0.649)    66     53800                    1.33-  61.33    32.79
-------------------------------------------------------------------------------
   31 Isopentane                                    CAS #: 78-78-4
 10.119  10.138 (0.657)    57    234300 8.73331    8.733  80.00- 120.00   100.00
 10.119  10.138 (0.657)    43    288396                   96.48- 156.48   123.09
 10.119  10.119 (0.657)    42    250366                   76.93- 136.93   106.86
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 10.747  10.766 (0.698)   101   1473588 9.21352    9.214  80.00- 120.00   100.00
 10.747  10.766 (0.698)   103    949550                   33.74-  93.74    64.44
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 11.662  11.661 (0.758)    45    100541 7.21206    7.212  80.00- 120.00   100.00(R)
 11.662  11.661 (0.758)    46     39725                    9.60-  69.60    39.51
 11.662  11.661 (0.758)    43     27268                    0.00-  59.21    27.12
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.081  12.081 (0.785)   151    899554 8.42350    8.423  80.00- 120.00   100.00
 12.081  12.081 (0.785)   153    563422                   34.83-  94.83    62.63
 12.081  12.081 (0.785)   101    942744                   77.16- 137.16   104.80
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                            CAS #: 75-35-4
 12.100  12.100 (0.786)    98    239583 8.39754    8.398  80.00- 120.00   100.00
 12.100  12.100 (0.786)    61    603368                  219.47- 279.47   251.84
 12.100  12.100 (0.786)    96    368013                  126.81- 186.81   153.61
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 12.366  12.366 (0.803)    58    142699 8.14134    8.141  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.366	12.366 (0.803)	43	532027			344.13- 404.13	372.83
56 Carbon Disulfide					CAS #: 75-15-0		
12.462	12.462 (0.810)	76	1040319	8.58021	8.580	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.709	12.728 (0.826)	45	495555	8.78197	8.782	80.00- 120.00	100.00
12.709	12.728 (0.826)	43	139109			0.00- 55.65	28.07
12.709	12.728 (0.826)	59	21676			0.00- 34.42	4.37
58 3-Chloropropene					CAS #: 107-05-1		
12.881	12.881 (0.837)	76	203307	8.53436	8.534	80.00- 120.00	100.00
12.881	12.881 (0.837)	41	456645			198.88- 258.88	224.61
66 Methylene Chloride					CAS #: 75-09-2		
13.176	13.176 (0.856)	84	321195	7.48808	7.488	80.00- 120.00	100.00
13.149	13.176 (0.854)	49	363114			83.76- 143.76	113.05
13.149	13.176 (0.854)	51	111003			2.61- 62.61	34.56
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.478	13.478 (0.876)	73	1135744	9.14973	9.150	80.00- 120.00	100.00
13.478	13.478 (0.876)	57	209591			0.00- 49.77	18.45
13.478	13.478 (0.876)	41	222594			0.00- 49.98	19.60
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.533	13.533 (0.879)	98	268339	9.91547	9.915	80.00- 120.00	100.00
13.533	13.533 (0.879)	61	549654			174.76- 234.76	204.84
13.533	13.533 (0.879)	96	403631			123.28- 183.28	150.42
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	460325	9.01108	9.011	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	274744			27.83- 87.83	59.68
13.835	13.835 (0.899)	86	96889			0.00- 50.45	21.05
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.247	14.247 (0.926)	63	650978	8.73696	8.737	80.00- 120.00	100.00
14.247	14.247 (0.926)	65	216538			1.87- 61.87	33.26
86 Vinyl Acetate					CAS #: 108-05-4		
14.247	14.275 (0.926)	86	94944	8.41917	8.419	80.00- 120.00	100.00
14.247	14.247 (0.926)	42	84348			71.31- 131.31	88.84
14.247	14.247 (0.926)	43	820471			931.28- 991.28	864.16
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.066	15.066 (0.979)	98	263316	8.01451	8.014	80.00- 120.00	100.00

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

   91 cis-1,2-Dichloroethene (continued)
 15.047  15.066 (0.978)    61    513908                  154.54- 214.54   195.17
 15.066  15.066 (0.979)    96    410167                  117.78- 177.78   155.77
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72    174234 9.16697    9.167  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    598785                  325.72- 385.72   343.67
 15.047  15.047 (0.978)    57     49971                    1.13-  61.13    28.68
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    317051 9.21536    9.215  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71    150272                   20.32-  80.32    47.40
 15.391  15.391 (1.000)    72    170490                   21.98-  81.98    53.77
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    154419 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    122415                   46.73- 106.73    79.27
 15.391  15.391 (1.000)    49    142108                   55.35- 115.35    92.03
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83    968810 8.65703    8.657  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    649829                   36.62-  96.62    67.07
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.699 (1.018)    84    510447 9.51360    9.514  80.00- 120.00   100.00
 15.669  15.699 (1.018)    56    491082                   68.83- 128.83    96.21
 15.669  15.669 (1.018)    41    315659                   29.98-  89.98    61.84
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.669  15.699 (1.018)    97   1170390 8.89155    8.892  80.00- 120.00   100.00
 15.669  15.699 (1.018)    99    759008                   34.65-  94.65    64.85
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.884  15.884 (1.032)   119    650659 5.07705    5.077  80.00- 120.00   100.00(R)
 15.884  15.884 (1.032)   117    650875                   74.11- 134.11   100.03
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.111  16.111 (1.047)    56    655608 9.12321    9.123  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57   2054319                  277.67- 337.67   313.35
 16.111  16.111 (1.047)    41    710714                   73.43- 133.43   108.41
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.207  16.207 (0.968)    78   1109468 8.41297    8.413  80.00- 120.00   100.00
 16.207  16.207 (0.968)    77    265499                    0.00-  53.00    23.93
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.207  16.207 (1.053)    65    212888 4.80078    4.801  80.00- 120.00   100.00
```

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

$ 117 1,2-Dichloroethane-d4 (continued)
 16.207  16.207 (1.053)    67    113310                    22.67-  82.67    53.23
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.303 (0.974)    62    710756 8.74793    8.748  80.00- 120.00   100.00
 16.304  16.303 (0.974)    64    222991                     1.95-  61.95    31.37
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    311775 9.33648    9.336  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100    175003                    23.08-  83.08    56.13
 16.352  16.352 (0.977)    43    522429                   136.91- 196.91   167.57
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    534150 5.00000            80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     82202                     0.00-  45.16    15.39
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.147  17.147 (1.024)   130    667037 9.06519    9.065  80.00- 120.00   100.00
 17.147  17.147 (1.024)    95    609154                    61.87- 121.87    91.32
 17.147  17.147 (1.024)    97    390820                    29.29-  89.29    58.59
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.364  17.364 (1.037)    83    660761 9.60494    9.605  80.00- 120.00   100.00
 17.364  17.364 (1.037)    55    502228                    45.72- 105.72    76.01
 17.364  17.364 (1.037)    56    154287                     0.00-  52.26    23.35
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.581  17.580 (1.050)    63    366468 8.84559    8.846  80.00- 120.00   100.00
 17.581  17.580 (1.050)    62    250656                    41.22- 101.22    68.40
 17.581  17.580 (1.050)    41    267655                    40.14- 100.14    73.04
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 17.701  17.701 (1.058)    88    288966 9.06432    9.064  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58    167208                    30.17-  90.17    57.86
 17.701  17.701 (1.058)    57     62625                     0.00-  51.30    21.67
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 17.990  18.014 (1.075)    83   1042590 9.10542    9.105  80.00- 120.00   100.00
 17.990  18.014 (1.075)    85    692261                    36.87-  96.87    66.40
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 18.805  18.827 (1.124)    75    700509 9.91893    9.919  80.00- 120.00   100.00
 18.827  18.827 (1.125)    77    226077                     1.38-  61.38    32.27
 18.805  18.827 (1.124)    39    401283                    23.65-  83.65    57.28
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.007  19.006 (1.136)    43    754952 9.62323    9.623  80.00- 120.00   100.00
```

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

  145 4-Methyl-2-pentanone (continued)
 19.007  19.006 (1.136)    58    294640                    10.02-  70.02    39.03
 19.007  19.006 (1.136)    85    170325                     0.00-  52.01    22.56
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.298  19.298 (1.153)    98    518955 5.00862    5.009  80.00- 120.00   100.00
 19.275  19.298 (1.152)    70     61946                     0.00-  40.89    11.94
 19.298  19.298 (1.153)   100    352541                    40.09- 100.09    67.93
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91   1476807 9.25682    9.257  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92    842641                    27.79-  87.79    57.06
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.026  20.026 (0.903)    75    714943 9.73457    9.734  80.00- 120.00   100.00
 20.026  20.026 (0.903)    77    221456                     1.55-  61.55    30.98
 20.026  20.026 (0.903)    39    338666                    18.82-  78.82    47.37
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    500872 8.89201    8.892  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    327063                    32.59-  92.59    65.30
 20.438  20.438 (0.922)    83    393206                    50.07- 110.07    78.50
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.630  20.630 (0.930)   166    985279 8.97117    8.971  80.00- 120.00   100.00
 20.630  20.630 (0.930)   129    666838                    37.12-  97.12    67.68
 20.630  20.630 (0.930)   131    652962                    36.18-  96.18    66.27
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.795  20.795 (0.938)    58    373293 9.76800    9.768  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    718073                   162.96- 222.96   192.36
 20.795  20.795 (0.938)   100    110750                     0.00-  59.39    29.67
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129   1223127 9.09005    9.090  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    916311                    46.76- 106.76    74.92
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 21.482  21.482 (0.969)   107    875402 8.72396    8.724  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109    843200                    63.39- 123.39    96.32
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    498690 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    239071                    17.27-  77.27    47.94
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 22.219  22.219 (1.002)   112   1248037 9.00738    9.007  80.00- 120.00   100.00
```

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

  165 Chlorobenzene (continued)
 22.219  22.219 (1.002)   114    403896                     2.22-  62.22    32.36
 22.219  22.219 (1.002)    77    660715                    23.48-  83.48    52.94
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 22.302  22.301 (1.006)   106    623083 9.53892    9.539  80.00- 120.00   100.00
 22.302  22.301 (1.006)    91   1957378                  278.11- 338.11   314.14
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 22.467  22.488 (1.013)   106    782541 10.1215   10.121  80.00- 120.00   100.00
 22.467  22.488 (1.013)    91   1537253                  170.01- 230.01   196.44
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 23.089  23.089 (1.041)   106    711201 9.92669    9.927  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91   1501855                  175.84- 235.84   211.17
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 23.110  23.110 (1.042)   104   1271282 10.6368   10.637  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    626085                   20.21-  80.21    49.25
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 23.452  23.452 (1.057)   173   1277259 9.15757    9.158  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    652270                   21.47-  81.47    51.07
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
 23.564  23.564 (1.063)   105   2252397 10.0228   10.023  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    621084                    0.00-  56.99    27.57
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 23.856  23.856 (1.076)   174    350986 5.03858    5.038  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    340773                   66.74- 126.74    97.09
 23.856  23.856 (1.076)   176    337080                   67.47- 127.47    96.04
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.035  24.035 (1.084)    83    833662 8.52004    8.520  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    570698                   39.76-  99.76    68.46
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 24.102  24.102 (1.087)    91   2203730 9.85108    9.851  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120    569270                    0.00-  55.73    25.83
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.237  24.237 (1.093)   105   1987844 10.7186   10.719  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    573235                    1.00-  61.00    28.84
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.304  24.304 (1.096)   105   1402846 10.2035   10.203  80.00- 120.00   100.00
```

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

  190 1,3,5-Trimethylbenzene (continued)
 24.304  24.304 (1.096)   120    741916                    19.17-  79.17    52.89
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.775  24.775 (1.117)   105   1194701 10.3535   10.354  80.00- 120.00   100.00
 24.775  24.775 (1.117)   120    541652                    16.84-  76.84    45.34
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.156  25.156 (1.134)   146   1167026 9.50883    9.509  80.00- 120.00   100.00
 25.156  25.156 (1.134)   148    739930                    33.96-  93.96    63.40
 25.156  25.156 (1.134)   111    430046                     6.94-  66.94    36.85
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.269  25.269 (1.139)   146   1158683 9.08838    9.088  80.00- 120.00   100.00
 25.269  25.269 (1.139)   148    733351                    35.10-  95.10    63.29
 25.269  25.269 (1.139)   111    403313                     4.80-  64.80    34.81
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.403  25.403 (1.145)    91   1445701 9.83237    9.832  80.00- 120.00   100.00
 25.403  25.403 (1.145)   126    325370                     0.00-  52.64    22.51
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.695  25.694 (1.159)   146   1083046 9.40597    9.406  80.00- 120.00   100.00
 25.695  25.694 (1.159)   148    695406                    33.88-  93.88    64.21
 25.672  25.672 (1.158)   111    409619                     7.58-  67.58    37.82
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.398  27.398 (1.235)   180    749846 8.58262    8.583  80.00- 120.00   100.00
 27.398  27.398 (1.235)   182    695863                    63.70- 123.70    92.80
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                           CAS #: 87-68-3
 27.488  27.488 (1.239)   225   1165402 9.51054    9.510  80.00- 120.00   100.00
 27.488  27.488 (1.239)   223    723627                    34.33-  94.33    62.09
-------------------------------------------------------------------------------
  228 Naphthalene                                   CAS #: 91-20-3
 27.712  27.712 (1.250)   128    108000 0.90251   0.9025  80.00- 120.00   100.00
 27.712  27.712 (1.250)   127     15341                     0.00-  42.30    14.20
-------------------------------------------------------------------------------
M 239 Total Xylene                                  CAS #: 1330-20-7
                                1493742 20.0482   20.048
-------------------------------------------------------------------------------
```

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e020605.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msde.i/06Feb2017.b/e17l0126a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 06-FEB-2017
Calibration Time: 07:43
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	145355	87213	203497	154419	6.24
123 1,4-Difluorobenze	497113	298268	695958	534150	7.45
163 Chlorobenzene-d5	465931	279559	652303	498690	7.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	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/msde.i/06Feb2017.b/e020605.d

Date : 06-FEB-2017 10:24

Client ID: LCSD

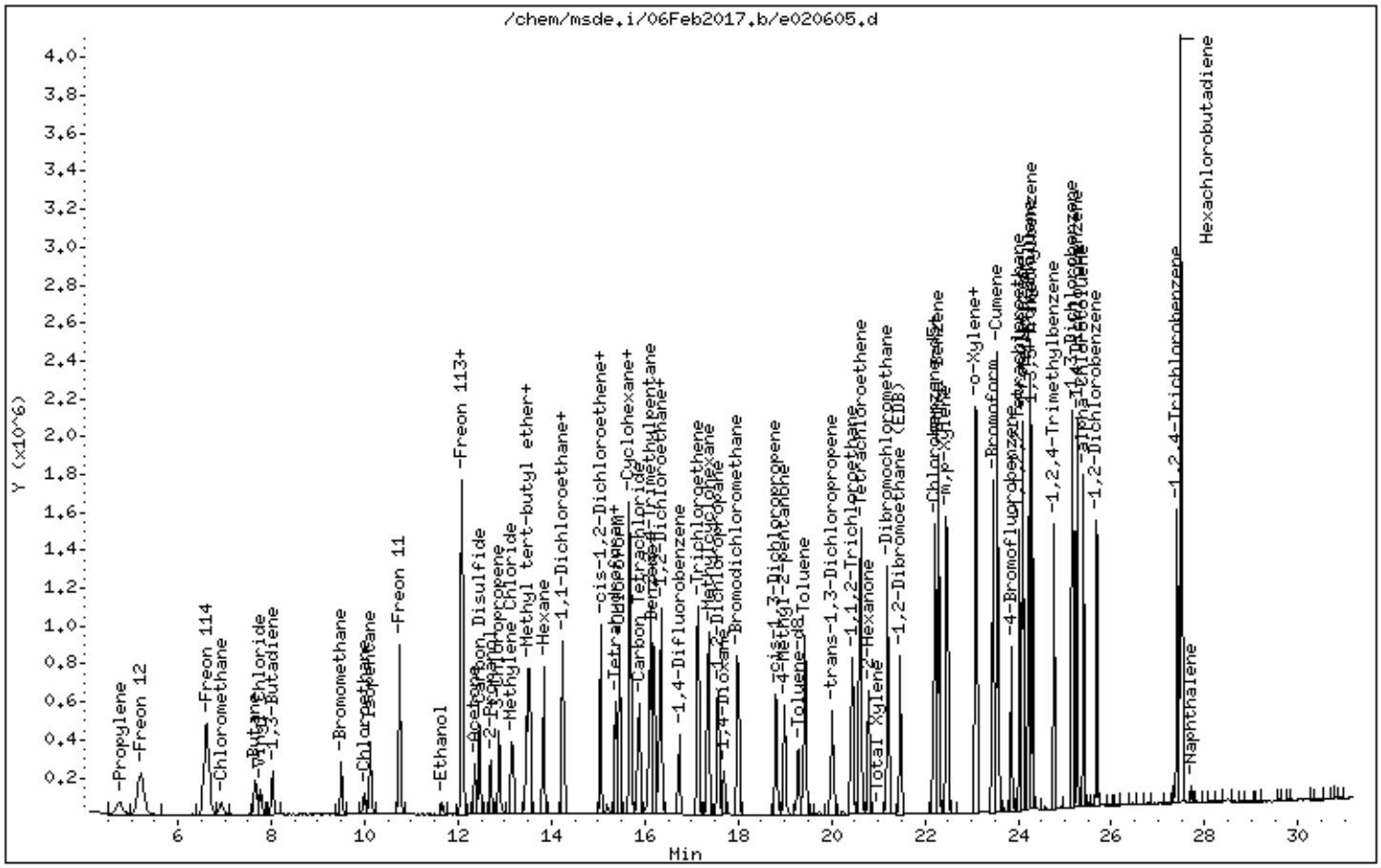
Instrument: msde.i

Sample Info: 50mL# 2819-188

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics, Inc.

MSD-20

Logbook #2829

BFB Verification of 176/174 m/z Ratio: 1032128 / 1061888 x100 = 97.20%	
Method Name: 2016L1219B / 2016S1219A	

IS/S Std. #: 2819 - 227	Exp. Date: 4/17/17
BCM #: 223806	SIM: 2287667
1,4-DFB 3384724	8729560
CB-d5 6977116 /	7295601

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

SOP# (Circle one): 6 / (83 / 38) / 91 / 109 / 132 Method (Circle one): (TO-14A/TO-15)/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20013103	BFB tune check	2810-94	50ng	20µl	1.00	SW	1/31/17	0833	SW / ES	exp: 12/1/17
2	/	04	CCV (50ppbv)	2819-214	10ppbv	50mL	1.00	SW		0853	ES	Exp. 4/5/17 ¢ out
3	/	05	LCS (50ppbv)	2819-156	10ppbv	50mL	1.00	ES		0940	ES	Exp. 3/2/17 ¢ out
4	/	06	LCSD (50ppbv)	2819-156	10ppbv	50mL	1.00	ES		1019	ES	Exp. 3/2/17
5	X	07	LAB BLANK	34737	Humid	250mL	1.00	ES		1058	ES	
6	/	08	LAB BLANK /	34737	Humid	250mL	1.00	ES		1136	ES	" a "
7	/	09	1701428A - 01A	252360	5.0"Hg; 5.0psi	250mL	1.61	ES		1215	ES	
8	/	10	- 02A	N1755	5.5"Hg; 5.0psi	250mL	1.64	ES		1254	ES	
9	X	11	- 03A	9551	9.0"Hg; 5.0psi	250mL	1.91	ES		1349	ES	IS out
10	✓	12	- 04A	00895	5.0"Hg; 5.0psi	250mL	1.61	ES		1429	ES	1
11	N/A	13	- 05A	00898	6.0"Hg; 5.0psi	250mL	1.68	ES		N/A	N/A	Not Run
12												
13												
14												
15												
16												
17										ES	1/31/17	

Reviewed

1/31/17
Date

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2829**

BFB Verification of 176/174 m/z Ratio: (563328 / 581248) x100 = 96.92	
Method Name: 2016L1219A / 2016S1219A	

IS/S Std. #: 2819-227		Exp. Date: 4/17/17	
BCM	u: 187668		s.m: 175783
1,4-DFB	617206		641273
CB-d5	584877	*	576001

Verified CCV IS vs ICAL mid-point (-40%D): ~~87~~

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20013113	BFB Tune check	~~2295~~ 2810-24	50psig	2.0mL	1.00	~~EF~~	1/31/17	1535	~~EF~~	
2	✓	14	CCV (50ppbv)	2819-214	10 ppbv	50mL	1.00	~~EF~~		1155	~~EF~~	Exp. 4/5/17 u: 2 out sm: ~~0~~ out
3	✓	15	LCS (50ppbv)	2819-156	10ppbv	50mL	1.00	~~EF~~		1630	GH	Exp. 8/2/17 u: 3 out sm: 10 out
4	✓	16	LCSD (50ppbv)	2819-156	10 ppbv	50mL	1.00	~~EF~~		1709	GH	
5	X ✓	17	lab blank	34737	humid	250mL	1.00	GH		1804	GH	7 RL
6	✓	18	Lab blank	34737	humid	250mL	1.08	GH		1902	GH	<RL "a"
7	✓	19	1701428A-03A	9551	9.0"Hg-5psi	25mL	1.91	GH		1957	GH	
8	✓	20	-04A	00895	5.0"Hg-5psi	250mL	1.61	GH		2057	GH	
9	✓	21	-05A	00898	6.0"Hg-5psi	250mL	1.68	GH		2136	GH	Needs contamination
10	✓	22	-06A	33787	5.5"Hg-5psi	250mL	1.64	GH		2215	GH	
11	✓	23	-07A	33585	5.5"Hg-5psi	250mL	1.64	GH	~~2/1/17~~	2255	SW	IS out
12	✓	24	-08A	N1735	7.5"Hg → 5psi	250mL	~~1.75~~ 1.77	SW	~~2/2/17~~ 2/1/17	0725	SW	"E" Acetone
13	✓	25	-09AA	00898	6.0"Hg → 5psi	250mL	1.68	SW	2/1/17	0803	SW	Confirmation only
14	✓	26	-07A	33585	5.5"Hg → 5psi	250mL	1.64	SW		0911	~~EF~~	
15	✓	27	-09A	00138	6.0"Hg-5.0psi	250mL	1.68	~~EF~~		1005	~~EF~~	"E" Ethyl, Acetone
16	✓	28	-10A	61216	7.0"Hg-5.0psi	250mL	1.75	~~EF~~		1111	~~EF~~	"E" Acetone
17	X	29	11A	34320	4.5"Hg-5.0psi	250mL	1.58	~~EF~~		1212	~~EF~~	16 out

Reviewed: [signature] Date: 2/1/17

Eurofins Air Toxics, Inc.

MSD-E

Logbook #2806

BFB Verification of 176/174 m/z Ratio: SW 2/6/17 66644608/673152 x100 = 99.76%	
Method Name: E17L0126A / E17S0126A	

IS/S Std. #: 2819-179	Exp. Date: 3/14/17
BCM ul: 145355	Sim: 165640
1,4-DFB 497113	511807
CB-d5 465931	467958

Verified CCV IS vs ICAL mid-point (-40%D): 83

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
	✓												
1	✓	E020601	BFB tune check	2810-99	50ng	2.0ml	SW	1.00	SW	2/6/17	0711	SW/83	exp: 12/1/17
2	✓	02	CW (50ppbv)	2819-215	10ppbv	50mL	SW		SW		0743	83	exp: 4/5/17
3	X	03	LCS (50ppbv)	2819-258	10ppbv	50mL	83		83		0847	83	too many out exp: 5/2/17
4	✓	04	LCS (50ppbv)	2819-188	10ppbv	50mL	83		83		0938	83	exp: 3/15/17 ul: 200 sim: 100
5	✓	05	LCSD (50ppbv)	↓	10ppbv	50mL	83		83		1024	83	✓ "C"
6	✓	06	Lab Blank ✓	34764	humid	250mL	83		83		1109	83	sh list sim only
7	X	07	1701428A-11A	34320	4.5"Hg-5psi	250ml	83	1.58	83		NA	83	Cryo-shutdown
8	X	08	1701450A-02A	60352	3.46"Hg-52psi	250mL	83	1.53	83		NA	83	Front inlet shutdo
9	✓	09	Dry Blank	House line	Dry	250mL	83	1.000	83		1356	83	
10	✓	10	1701450A-02A	60352	3.5"Hg-52psi	250mL	83	1.53	83		1449	EA	post 3psi
11	✓	11	1701428A-11A	34320	4.5"Hg-5psi	250ml	EA	1.58	EA		1543	EA	"c" EA04
12	✓	12	-12A	N1591	1.5"Hg-5psi		EA	1.41	EA		1628	EA	
13	X	13	-13A	N1726	7.0"Hg-5psi		EA	1.75	EA		1729	EA	IS out
14	✓	14	-14A	64318	8.5"Hg-5psi		EA	1.67	EA		1817	EA	
15	✓	15	-15A	00314	2.5"Hg-5psi		EA	1.46	EA		1923	EA	
16	✓	16	-13A	N1726	7.0"Hg-5psi		EA	1.75	EA		2019	EA	
17	✓	17	1701465-01AB	00390	4.5"Hg-5psi	50ml	EA	~~1.58~~ 7.90 EA 2/6/17	EA		2105	EA	

Reviewed

2/6/17
Date

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
18	C	F020618	1701428A-14A	1613/B	0.5"Hg-5psig	250mL	EA	1.87	EA	2/6/17	2152	EA	
19		19	1701445-01A	1572.1	2.0"Hg-14.9psig	200mL		2.21	EA				
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													

EA 2/6/17

Reviewed

2/6/17
Date

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/19Dec2016.b/20121901.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 19-DEC-2016 10:12
Operator : ef Inst ID: msd20.i
Smp Info : 2.0uL #2810-94 ; BFB;BFB
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/19Dec2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 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		
6.362	6.640	-0.278	95	1486069		100.00-	100.00	100.00
6.362	6.640	-0.278	50	248571		8.00-	40.00	16.73
6.362	6.640	-0.278	75	703204		30.00-	66.00	47.32
6.362	6.640	-0.278	96	101964		5.00-	9.00	6.86
6.362	6.640	-0.278	173	7432		0.00-	1.99	0.57
6.362	6.640	-0.278	174	1309866		50.00-	120.00	88.14
6.362	6.640	-0.278	175	94112		4.00-	9.00	7.18
6.362	6.640	-0.278	176	1276009		93.00-	101.00	97.42
6.362	6.640	-0.278	177	85139		5.00-	9.00	6.67

Data File: /chem/msd20.i/19Dec2016.b/20121901.d

Date : 19-DEC-2016 10:12

Client ID: BFB

Instrument: msd20.i

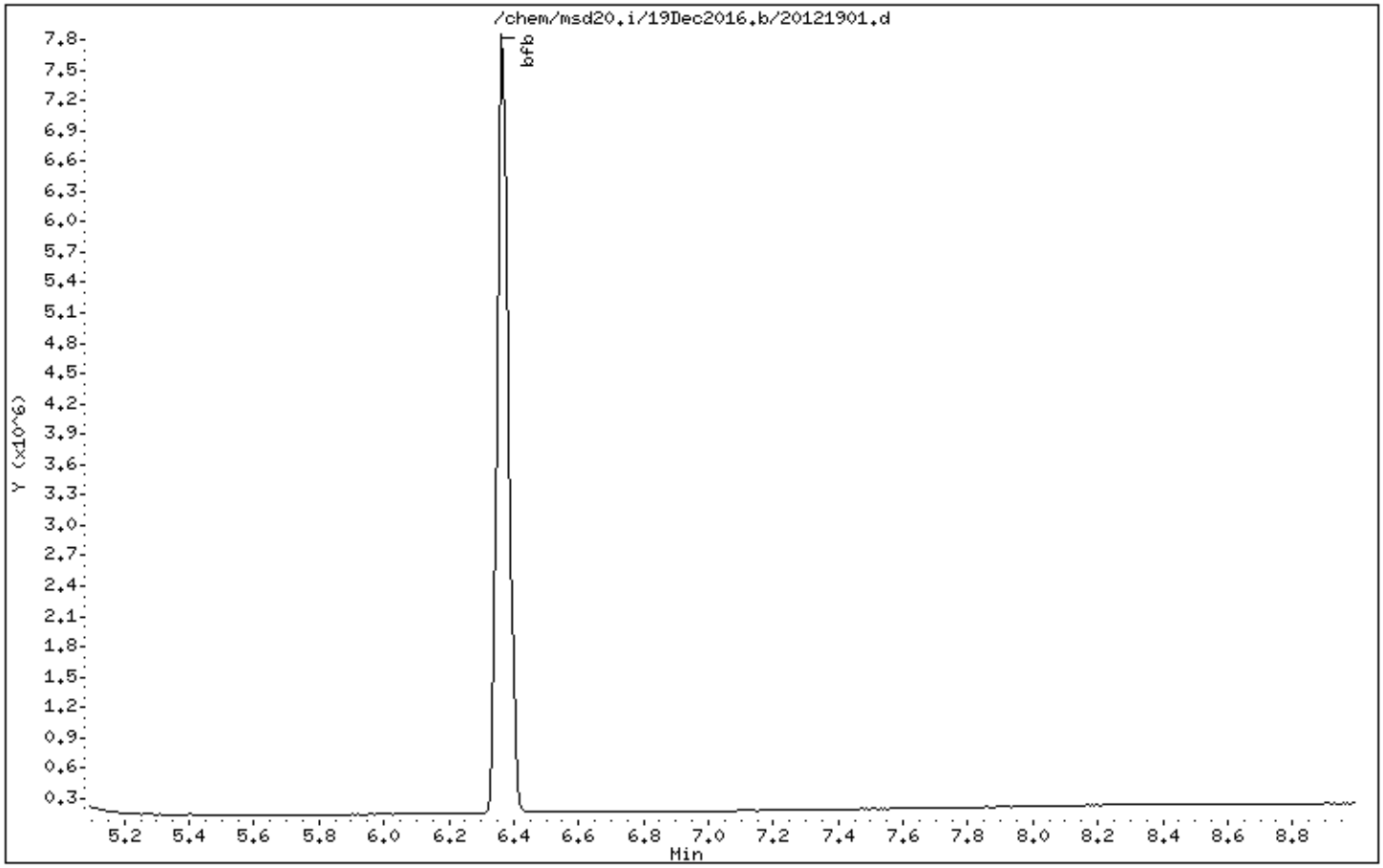
Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/19Dec2016.b/20121901.d

Date : 19-DEC-2016 10:12

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

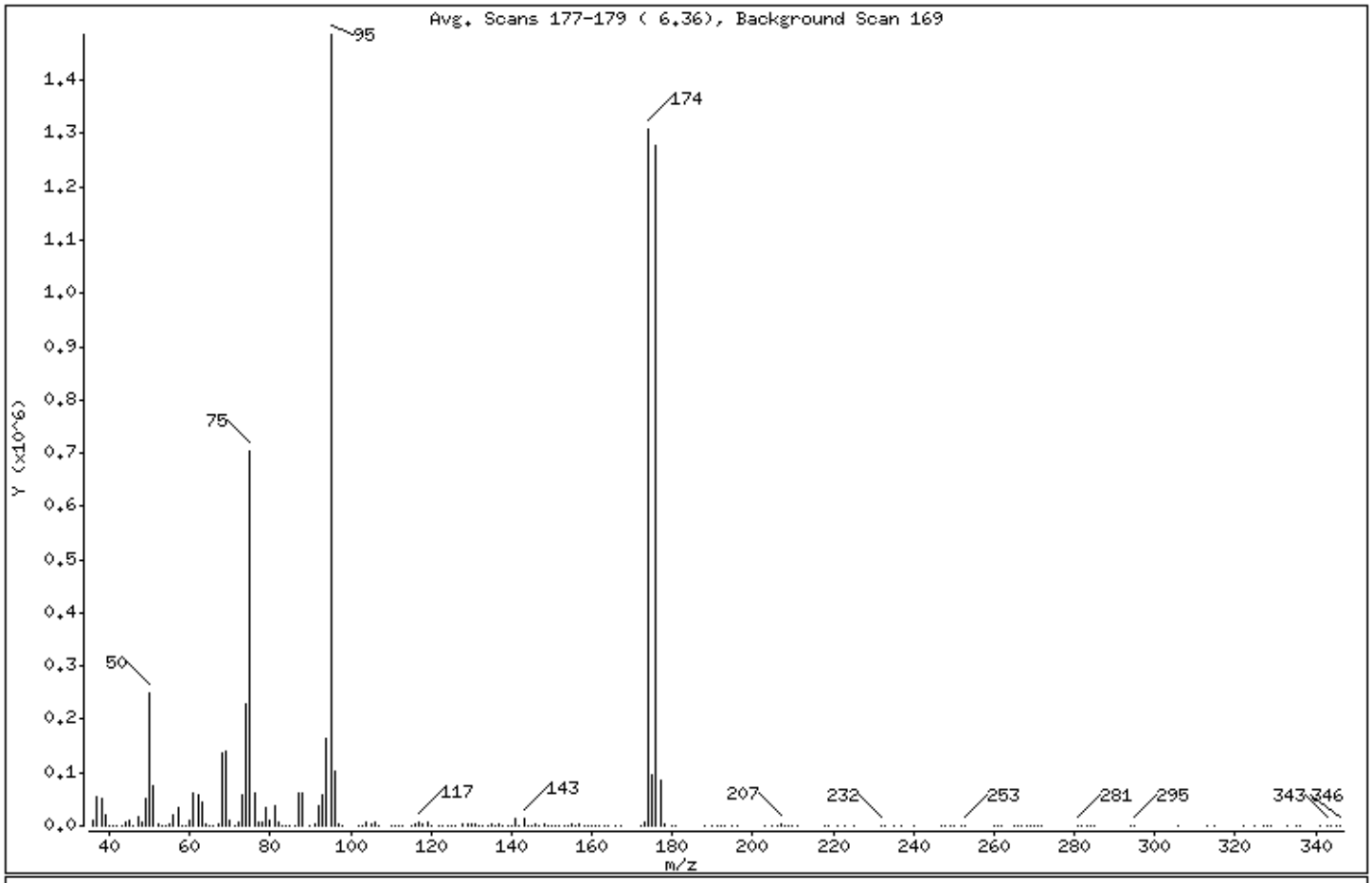
Volume Injected (uL): 1.0

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	16.73
75	30.00 - 66.00% of mass 95	47.32
96	5.00 - 9.00% of mass 95	6.86
173	Less than 1.99% of mass 174	0.50 (0.57)
174	50.00 - 120.00% of mass 95	88.14
175	4.00 - 9.00% of mass 174	6.33 (7.18)
176	93.00 - 101.00% of mass 174	85.86 (97.42)
177	5.00 - 9.00% of mass 176	5.73 (6.67)

Data File: /chem/msd20.i/19Dec2016.b/20121901.d

Date : 19-DEC-2016 10:12

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20121901.d
Spectrum: Avg. Scans 177-179 (6.36), Background Scan 169
Location of Maximum: 95.00
Number of points: 196

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	9524	86.00	1351	145.00	1440	225.00	52
37.00	56176	87.00	61480	146.00	2207	232.00	505
38.00	49688	88.00	60792	147.00	1185	233.00	47
39.00	19728	90.00	40	148.00	3297	235.00	39
40.00	865	91.00	4348	149.00	1144	237.00	106
41.00	442	92.00	39192	150.00	1505	240.00	52
42.00	133	93.00	59168	151.00	272	247.00	188
43.00	563	94.00	165120	152.00	678	248.00	50
44.00	6264	95.00	1485824	153.00	1182	249.00	76
45.00	10533	96.00	101960	154.00	972	250.00	22
46.00	811	97.00	2935	155.00	3723	252.00	206
47.00	15589	98.00	296	156.00	942	253.00	463
48.00	6977	102.00	33	157.00	2336	260.00	262
49.00	49976	103.00	400	158.00	377	261.00	79
50.00	248512	104.00	5774	159.00	1635	262.00	186
51.00	75960	105.00	1994	160.00	136	265.00	261
52.00	3052	106.00	5751	161.00	1640	266.00	1
53.00	79	107.00	1350	162.00	10	267.00	171
54.00	77	110.00	802	163.00	140	268.00	101
55.00	3129	111.00	1111	164.00	133	269.00	1217
56.00	19016	112.00	872	166.00	78	270.00	412
57.00	34936	113.00	1290	167.00	158	271.00	306
58.00	1570	115.00	1409	172.00	1156	272.00	57
59.00	210	116.00	4614	173.00	7432	281.00	1672
60.00	11662	117.00	8178	174.00	1309696	282.00	276
61.00	60424	118.00	4748	175.00	94112	283.00	96
62.00	59504	119.00	6867	176.00	1275904	284.00	139
63.00	45440	120.00	322	177.00	85136	285.00	72
64.00	4345	122.00	346	178.00	2335	294.00	123
65.00	727	123.00	490	180.00	39	295.00	171
66.00	108	124.00	796	181.00	135	306.00	55
67.00	3259	125.00	581	188.00	50	313.00	4
68.00	137536	126.00	485	190.00	170	315.00	54
69.00	139136	128.00	4840	191.00	385	322.00	12
70.00	10870	129.00	2596	192.00	160	325.00	17

Data File: /chem/msd20.i/19Dec2016.b/20121901.d

Date : 19-DEC-2016 10:12

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20121901.d
Spectrum: Avg. Scans 177-179 (6.36), Background Scan 169
Location of Maximum: 95.00
Number of points: 196

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.00	409	130.00	5095	193.00	368	327.00	172
72.00	7058	131.00	1892	195.00	261	328.00	68
73.00	59480	132.00	187	196.00	195	329.00	83
74.00	228288	133.00	547	203.00	144	333.00	50
75.00	703168	134.00	442	205.00	43	335.00	62
76.00	60144	135.00	2334	206.00	149	336.00	101
77.00	7769	136.00	583	207.00	3706	341.00	196
78.00	5305	137.00	2613	208.00	1025	343.00	814
79.00	35584	138.00	134	209.00	226	344.00	31
80.00	10623	139.00	423	210.00	9	345.00	122
81.00	37232	140.00	850	211.00	64	346.00	42
82.00	7884	141.00	12982	218.00	133		
83.00	895	142.00	1639	219.00	17		
84.00	21	143.00	13820	221.00	26		
85.00	128	144.00	806	223.00	2		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/29Dec2016.b/20122901.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 29-DEC-2016 08:03
Operator : sw Inst ID: msd20.i
Smp Info : 2.0uL #2810-94 ; BFB;BFB
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/29Dec2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 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		
6.376	6.640	-0.264	95	1217854		100.00-	100.00	100.00
6.376	6.640	-0.264	50	195126		8.00-	40.00	16.02
6.376	6.640	-0.264	75	569503		30.00-	66.00	46.76
6.376	6.640	-0.264	96	83635		5.00-	9.00	6.87
6.376	6.640	-0.264	173	6419		0.00-	1.99	0.56
6.376	6.640	-0.264	174	1145514		50.00-	120.00	94.06
6.376	6.640	-0.264	175	81325		4.00-	9.00	7.10
6.376	6.640	-0.264	176	1118577		93.00-	101.00	97.65
6.376	6.640	-0.264	177	73722		5.00-	9.00	6.59

Data File: /chem/msd20.i/29Dec2016.b/20122901.d

Date : 29-DEC-2016 08:03

Client ID: BFB

Instrument: msd20.i

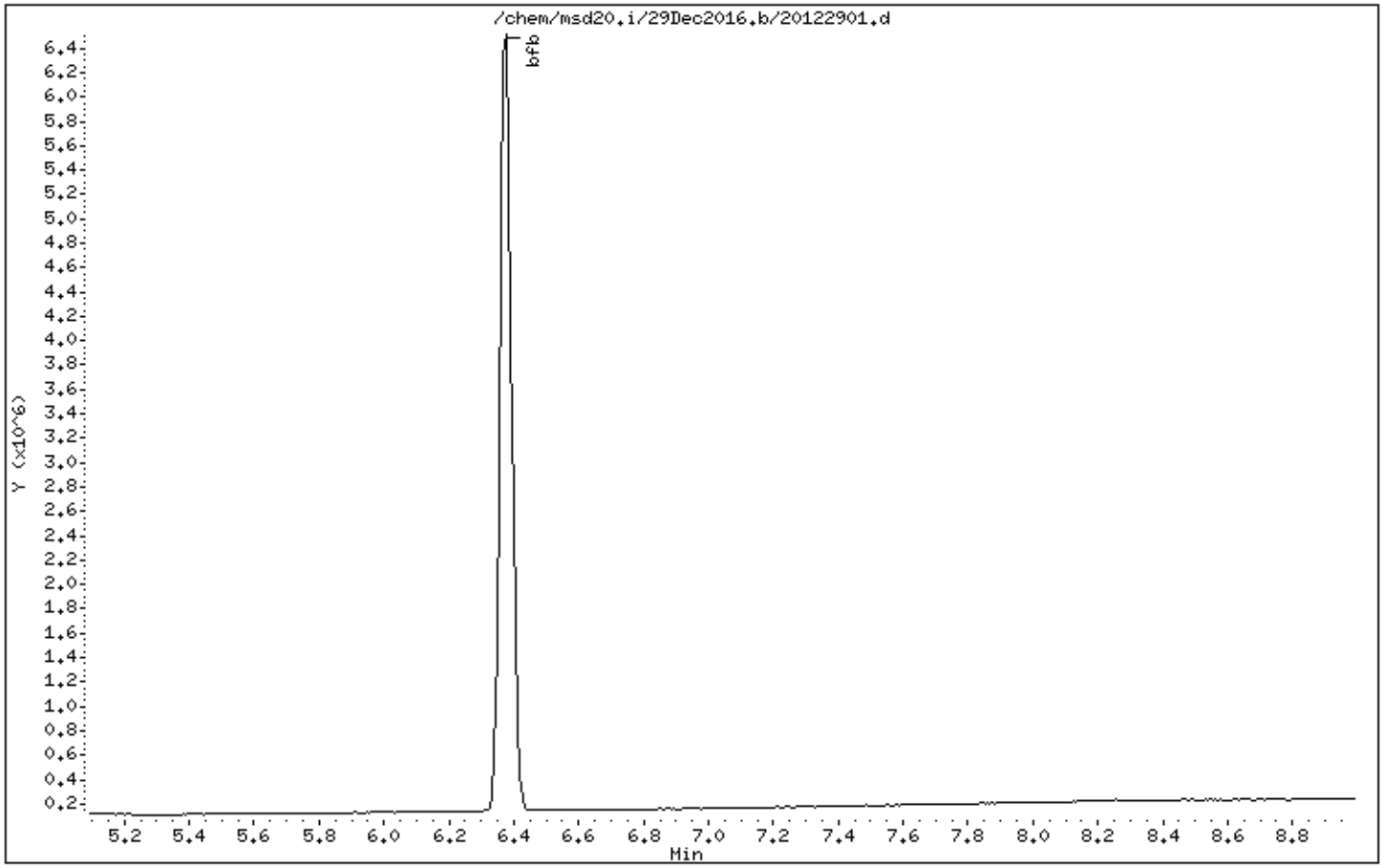
Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/29Dec2016.b/20122901.d

Date : 29-DEC-2016 08:03

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

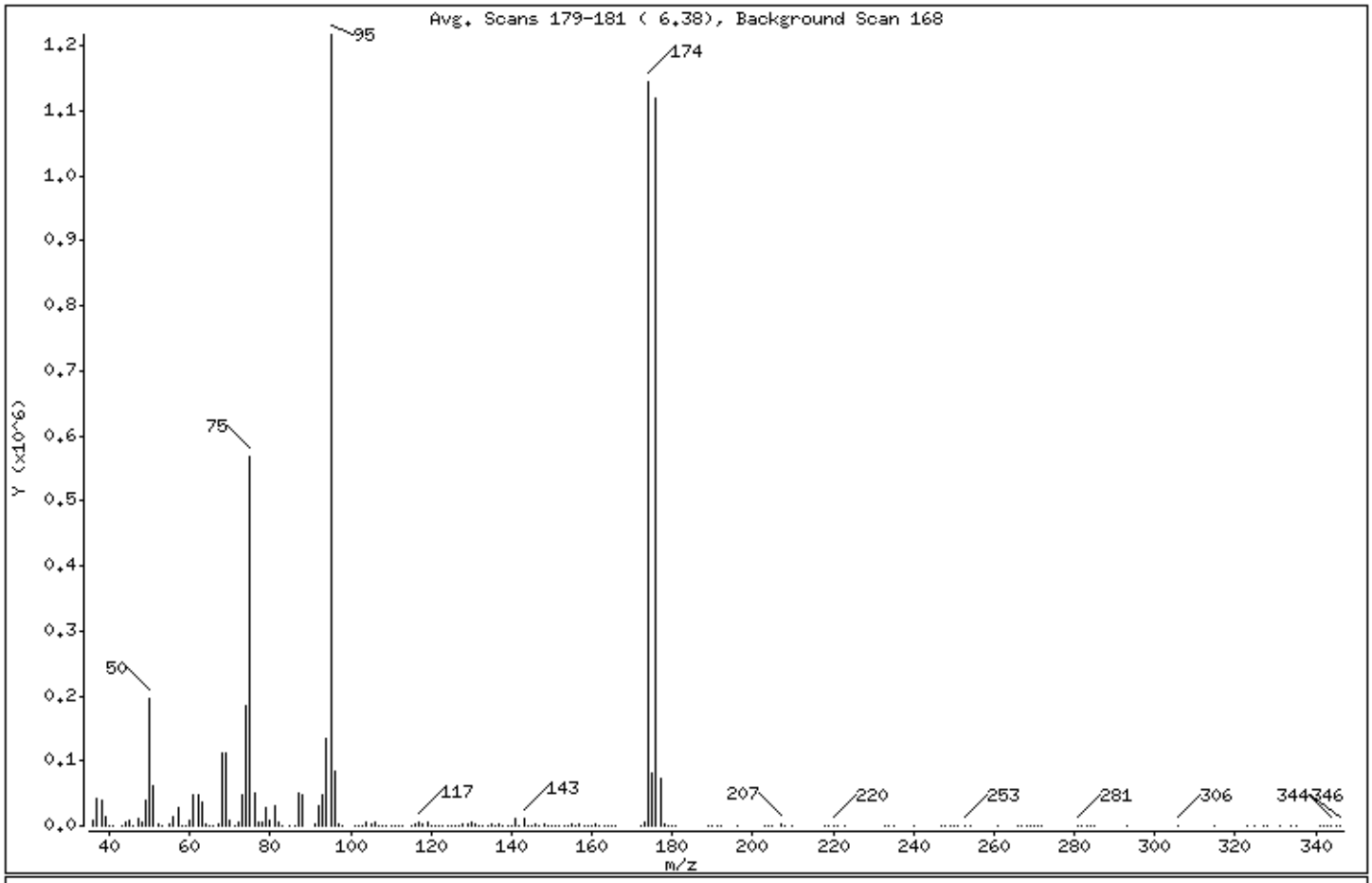
Volume Injected (uL): 1.0

Operator: sw

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	16.02
75	30.00 - 66.00% of mass 95	46.76
96	5.00 - 9.00% of mass 95	6.87
173	Less than 1.99% of mass 174	0.53 (0.56)
174	50.00 - 120.00% of mass 95	94.06
175	4.00 - 9.00% of mass 174	6.68 (7.10)
176	93.00 - 101.00% of mass 174	91.85 (97.65)
177	5.00 - 9.00% of mass 176	6.05 (6.59)

Data File: /chem/msd20.i/29Dec2016.b/20122901.d

Date : 29-DEC-2016 08:03

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase:

Column diameter: 2.00

Data File: 20122901.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 168
Location of Maximum: 95.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	7559	87.00	49152	140.00	830	218.00	124
37.00	42736	88.00	46928	141.00	10635	219.00	15
38.00	39136	91.00	3927	142.00	1306	220.00	165
39.00	15373	92.00	31592	143.00	11501	221.00	12
40.00	360	93.00	48160	144.00	725	223.00	45
41.00	187	94.00	134400	145.00	700	233.00	51
43.00	368	95.00	1217536	146.00	1824	234.00	37
44.00	4638	96.00	83632	147.00	891	235.00	9
45.00	8380	97.00	2545	148.00	2742	240.00	56
46.00	584	98.00	120	149.00	884	247.00	31
47.00	12115	101.00	149	150.00	1288	248.00	57
48.00	5656	102.00	20	151.00	213	249.00	92
49.00	40456	103.00	578	152.00	556	250.00	85
50.00	195072	104.00	4749	153.00	1021	251.00	97
51.00	61048	105.00	1665	154.00	739	253.00	587
52.00	2576	106.00	4592	155.00	3080	254.00	131
53.00	83	107.00	979	156.00	731	261.00	210
55.00	2635	108.00	44	157.00	2361	266.00	53
56.00	14410	109.00	90	158.00	637	267.00	227
57.00	27824	110.00	756	159.00	1358	268.00	94
58.00	1218	111.00	913	160.00	138	269.00	913
59.00	175	112.00	634	161.00	1431	270.00	198
60.00	9048	113.00	946	162.00	288	271.00	144
61.00	48824	115.00	1254	163.00	224	272.00	8
62.00	48024	116.00	4035	164.00	71	281.00	1000
63.00	36352	117.00	6964	165.00	150	282.00	202
64.00	3413	118.00	4198	166.00	126	283.00	301
65.00	659	119.00	5523	172.00	758	284.00	57
66.00	244	120.00	190	173.00	6419	285.00	226
67.00	2497	121.00	116	174.00	1145344	293.00	273
68.00	111040	122.00	308	175.00	81320	306.00	71
69.00	112088	123.00	398	176.00	1118208	315.00	67
70.00	8923	124.00	618	177.00	73720	323.00	52
71.00	501	125.00	318	178.00	1978	325.00	113
72.00	5475	126.00	416	179.00	112	327.00	99

Data File: /chem/msd20.i/29Dec2016.b/20122901.d

Date : 29-DEC-2016 08:03

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase:

Column diameter: 2.00

Data File: 20122901.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 168
Location of Maximum: 95.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	47568	127.00	727	180.00	55	328.00	56
74.00	185536	128.00	3973	181.00	117	331.00	58
75.00	569472	129.00	2103	189.00	56	334.00	50
76.00	49152	130.00	4347	190.00	118	335.00	116
77.00	6960	131.00	1513	191.00	449	341.00	135
78.00	4599	132.00	222	192.00	199	342.00	62
79.00	28640	133.00	191	196.00	130	343.00	111
80.00	8890	134.00	430	203.00	33	344.00	220
81.00	30296	135.00	1986	204.00	123	345.00	120
82.00	6203	136.00	333	205.00	25	346.00	108
83.00	630	137.00	1944	207.00	2882		
85.00	253	138.00	52	208.00	712		
86.00	1168	139.00	367	210.00	39		

Eurofins Air Toxics Inc.

Data file : /chem/msde.i/26Jan2017.b/e012606.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 26-JAN-2017 11:25
Operator : sw Inst ID: msde.i
Smp Info : 2.0uL# 2810-94; BFB; BFB
Misc Info : 50ng
Comment :
Method : /chem/msde.i/26Jan2017.b/bfb60.m
Meth Date : 03-Oct-2014 15:46 ejakob 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	
6.047	6.235	-0.188	95	561664			100.00- 100.00	88.23
6.047	6.235	-0.188	50	101688			8.00- 40.00	18.10
6.047	6.235	-0.188	75	290576			30.00- 66.00	51.73
6.047	6.235	-0.188	96	36654			5.00- 9.00	6.53
6.047	6.235	-0.188	173	2126			0.00- 1.99	0.33
6.047	6.235	-0.188	174	636608			50.00- 120.00	113.34
6.047	6.235	-0.188	175	50141			4.00- 9.00	7.88
6.047	6.235	-0.188	176	611571			93.00- 101.00	96.07
6.047	6.235	-0.188	177	40220			5.00- 9.00	6.58

Data File: /chem/msde.i/26Jan2017.b/e012606.d

Date : 26-JAN-2017 11:25

Client ID: BFB

Instrument: msde.i

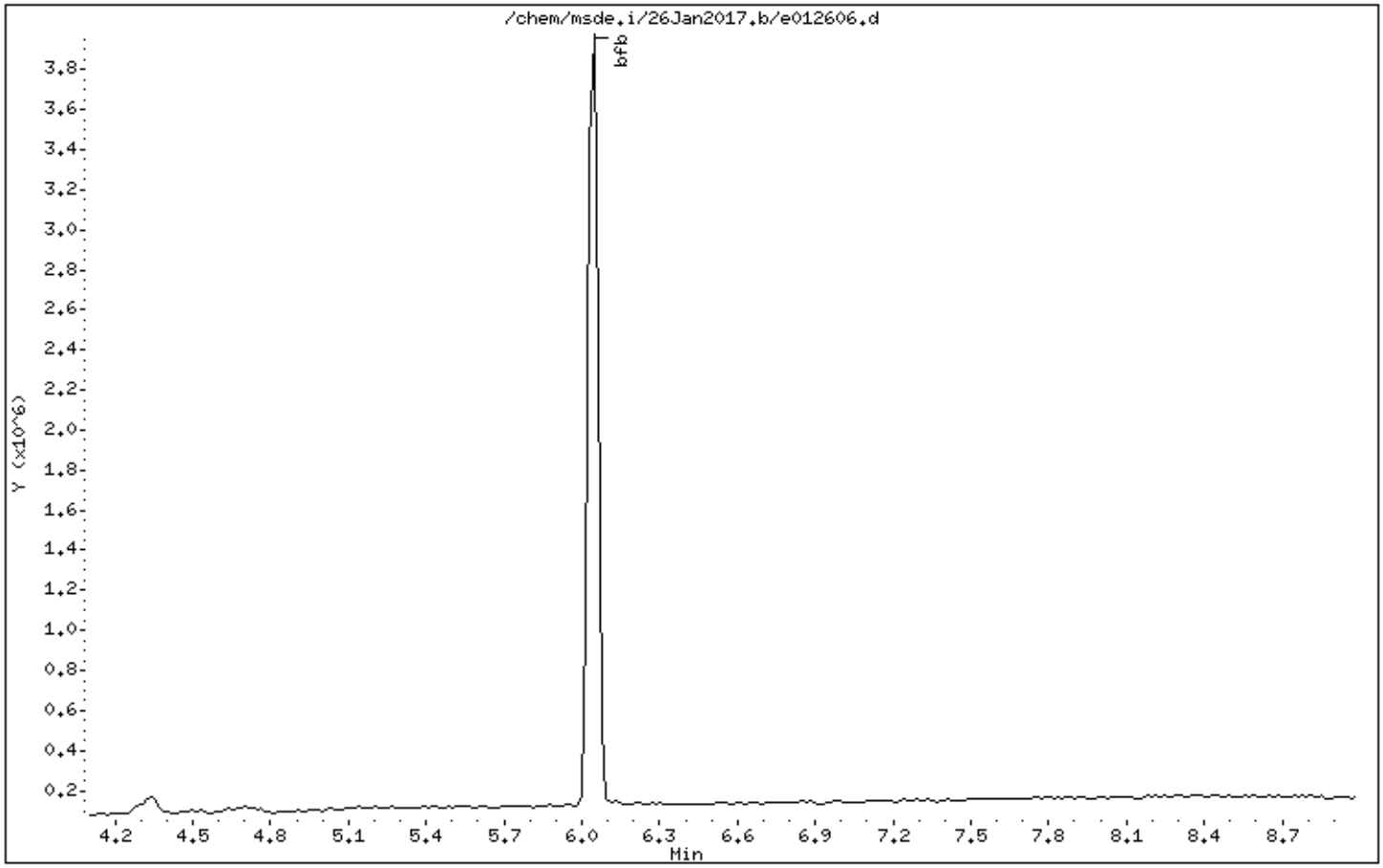
Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/26Jan2017.b/e012606.d

Date : 26-JAN-2017 11:25

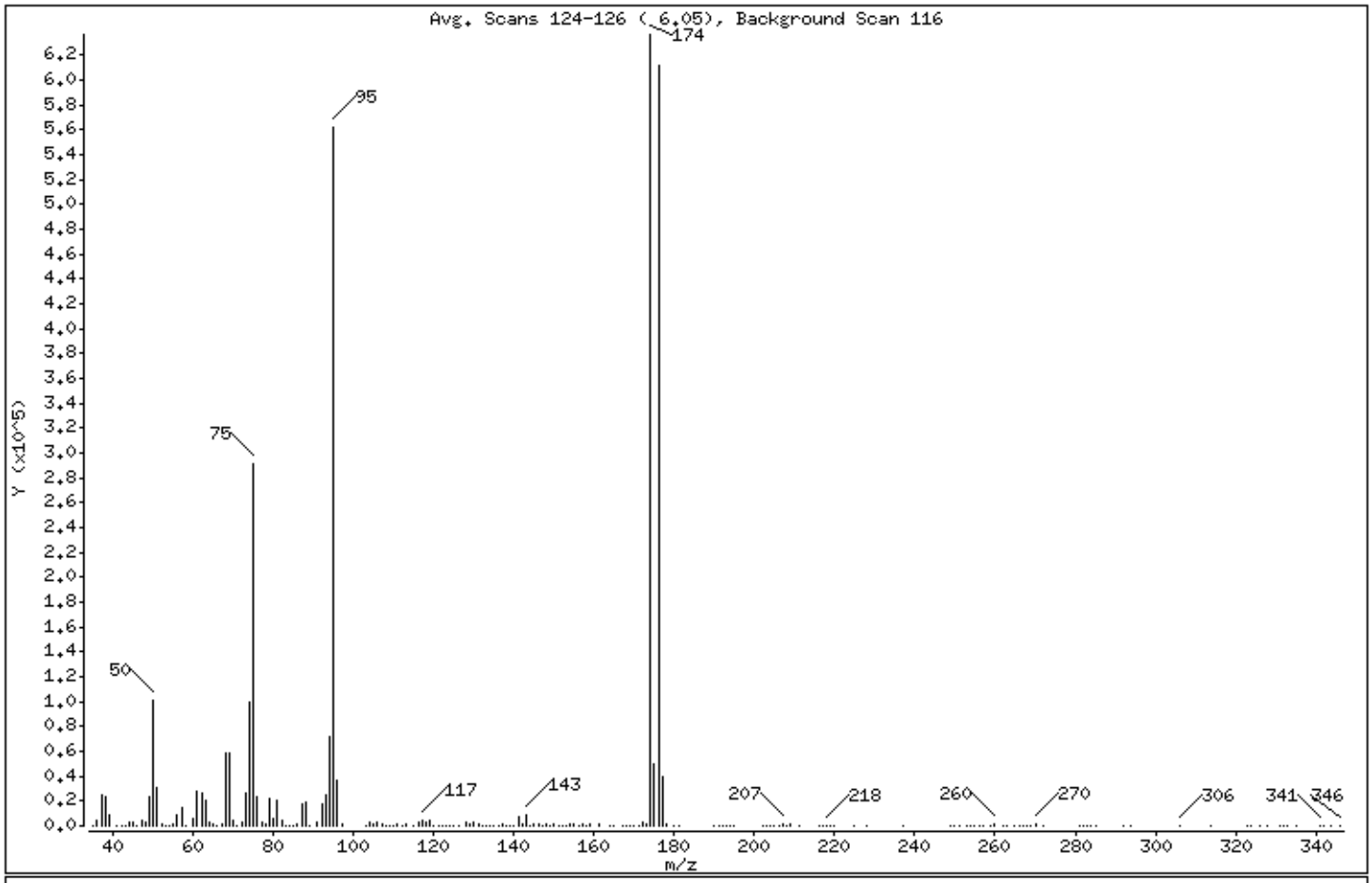
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0 Operator: sw

Column phase: Rtx-624 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	18.10
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	0.38 (0.33)
174	50.00 - 120.00% of mass 95	113.34
175	4.00 - 9.00% of mass 174	8.93 (7.88)
176	93.00 - 101.00% of mass 174	108.89 (96.07)
177	5.00 - 9.00% of mass 176	7.16 (6.58)

Data File: /chem/msde.i/26Jan2017.b/e012606.d

Date : 26-JAN-2017 11:25

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00

Data File: e012606.d
Spectrum: Avg. Scans 124-126 (6.05), Background Scan 116
Location of Maximum: 174.00
Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	94	86.00	869	143.00	9041	216.00	161
36.00	5107	87.00	17232	144.00	726	217.00	179
37.00	25280	88.00	18448	145.00	1487	218.00	506
38.00	22760	89.00	8	146.00	1270	219.00	204
39.00	8319	91.00	2917	147.00	531	220.00	227
41.00	427	92.00	17944	148.00	1479	225.00	47
42.00	12	93.00	25552	149.00	251	228.00	40
43.00	150	94.00	72376	150.00	772	237.00	97
44.00	2237	95.00	561664	151.00	223	249.00	148
45.00	3592	96.00	36648	152.00	480	250.00	61
46.00	456	97.00	991	153.00	690	251.00	282
47.00	3962	103.00	81	154.00	775	253.00	392
48.00	3231	104.00	3237	155.00	2100	254.00	4
49.00	23616	105.00	968	156.00	52	255.00	170
50.00	101688	106.00	3080	157.00	1344	256.00	33
51.00	30392	107.00	838	158.00	383	257.00	59
52.00	1463	108.00	401	159.00	1285	259.00	138
53.00	154	109.00	285	161.00	1232	260.00	736
54.00	264	110.00	361	164.00	203	262.00	158
55.00	1508	111.00	910	165.00	219	263.00	140
56.00	8389	112.00	270	167.00	262	265.00	109
57.00	14564	113.00	771	168.00	110	266.00	212
58.00	491	115.00	551	169.00	428	267.00	129
60.00	5439	116.00	2742	170.00	305	268.00	91
61.00	27944	117.00	4604	171.00	288	269.00	239
62.00	26720	118.00	2382	172.00	3046	270.00	919
63.00	20368	119.00	3669	173.00	2126	272.00	229
64.00	2275	120.00	187	174.00	636608	281.00	285
65.00	1088	121.00	17	175.00	50136	282.00	300
66.00	266	122.00	221	176.00	611520	283.00	47
67.00	1880	123.00	487	177.00	40216	284.00	42
68.00	58416	124.00	438	178.00	1044	285.00	137
69.00	57920	125.00	394	180.00	60	292.00	99
70.00	4320	126.00	274	181.00	145	294.00	55
71.00	189	128.00	3057	190.00	177	306.00	249

Data File: /chem/msde.i/26Jan2017.b/e012606.d

Date : 26-JAN-2017 11:25

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00

Data File: e012606.d
Spectrum: Avg. Scans 124-126 (6.05), Background Scan 116
Location of Maximum: 174.00
Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	2800	129.00	1144	191.00	198	314.00	41
73.00	26504	130.00	2531	192.00	278	323.00	99
74.00	99640	131.00	1225	193.00	309	324.00	92
75.00	290560	132.00	235	194.00	167	326.00	186
76.00	24008	133.00	616	195.00	278	328.00	191
77.00	2594	134.00	486	202.00	7	331.00	73
78.00	1661	135.00	359	203.00	80	332.00	222
79.00	21600	136.00	271	204.00	181	333.00	123
80.00	6086	137.00	962	205.00	406	335.00	64
81.00	20976	138.00	208	206.00	40	341.00	418
82.00	4889	139.00	332	207.00	2090	342.00	289
83.00	441	140.00	614	208.00	180	344.00	410
84.00	55	141.00	8039	209.00	827	346.00	214
85.00	37	142.00	931	211.00	35		

Eurofins Air Toxics Inc.

Data file : /chem/msde.i/27Jan2017.b/e012701.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 27-JAN-2017 11:51
Operator : sw Inst ID: msde.i
Smp Info : 2.0uL# 2810-94; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/27Jan2017.b/bfb60.m
Meth Date : 27-Jan-2017 12:08 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	
6.032	6.235	-0.203	95	666009			100.00- 100.00	91.75
6.032	6.235	-0.203	50	127694			8.00- 40.00	19.17
6.032	6.235	-0.203	75	357189			30.00- 66.00	53.63
6.032	6.235	-0.203	96	44547			5.00- 9.00	6.69
6.032	6.235	-0.203	173	0			0.00- 1.99	0.00
6.032	6.235	-0.203	174	725930			50.00- 120.00	109.00
6.032	6.235	-0.203	175	56975			4.00- 9.00	7.85
6.032	6.235	-0.203	176	703155			93.00- 101.00	96.86
6.032	6.235	-0.203	177	45352			5.00- 9.00	6.45

Data File: /chem/msde.i/27Jan2017.b/e012701.d

Date : 27-JAN-2017 11:51

Client ID: BFB

Instrument: msde.i

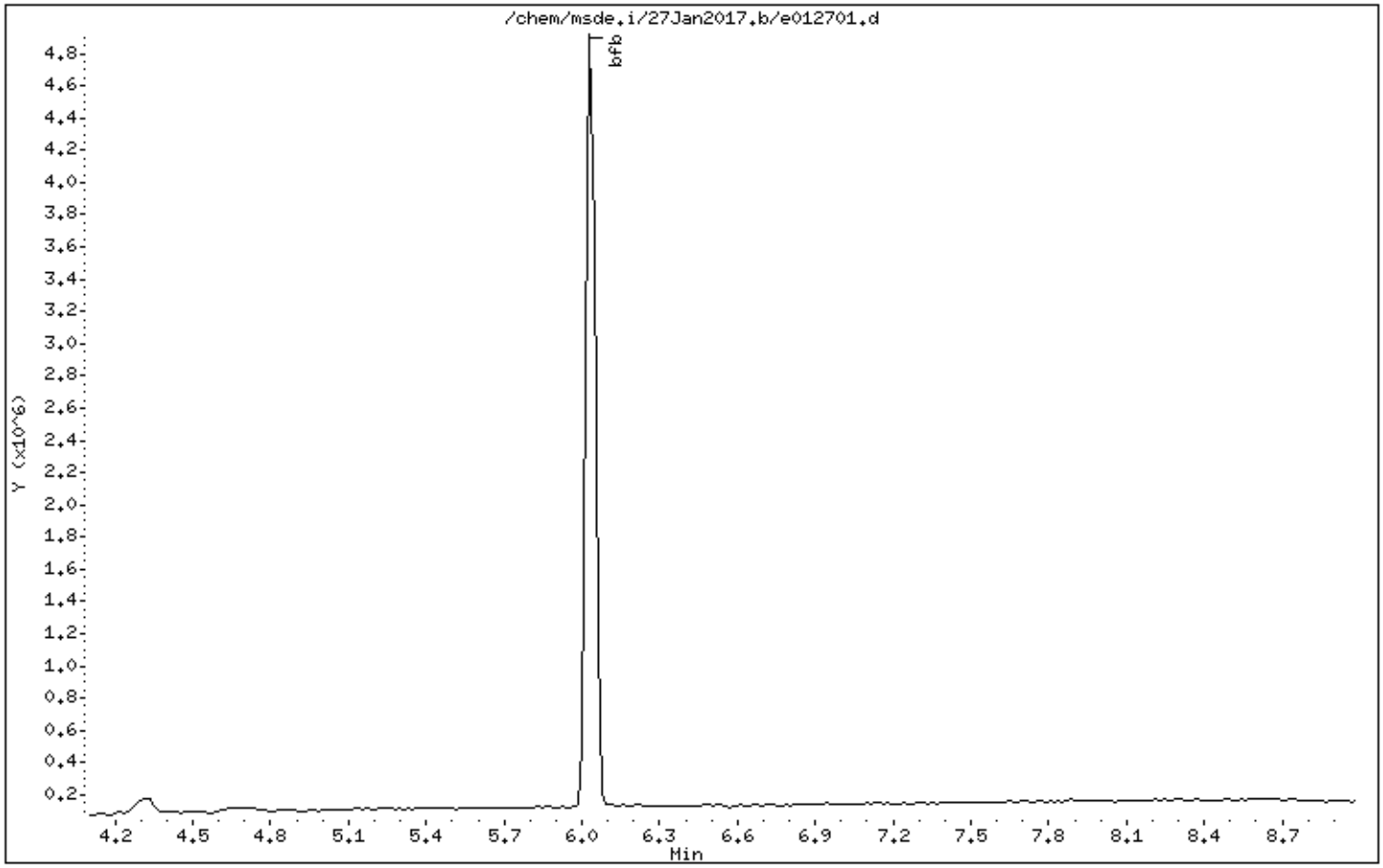
Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/27Jan2017.b/e012701.d

Date : 27-JAN-2017 11:51

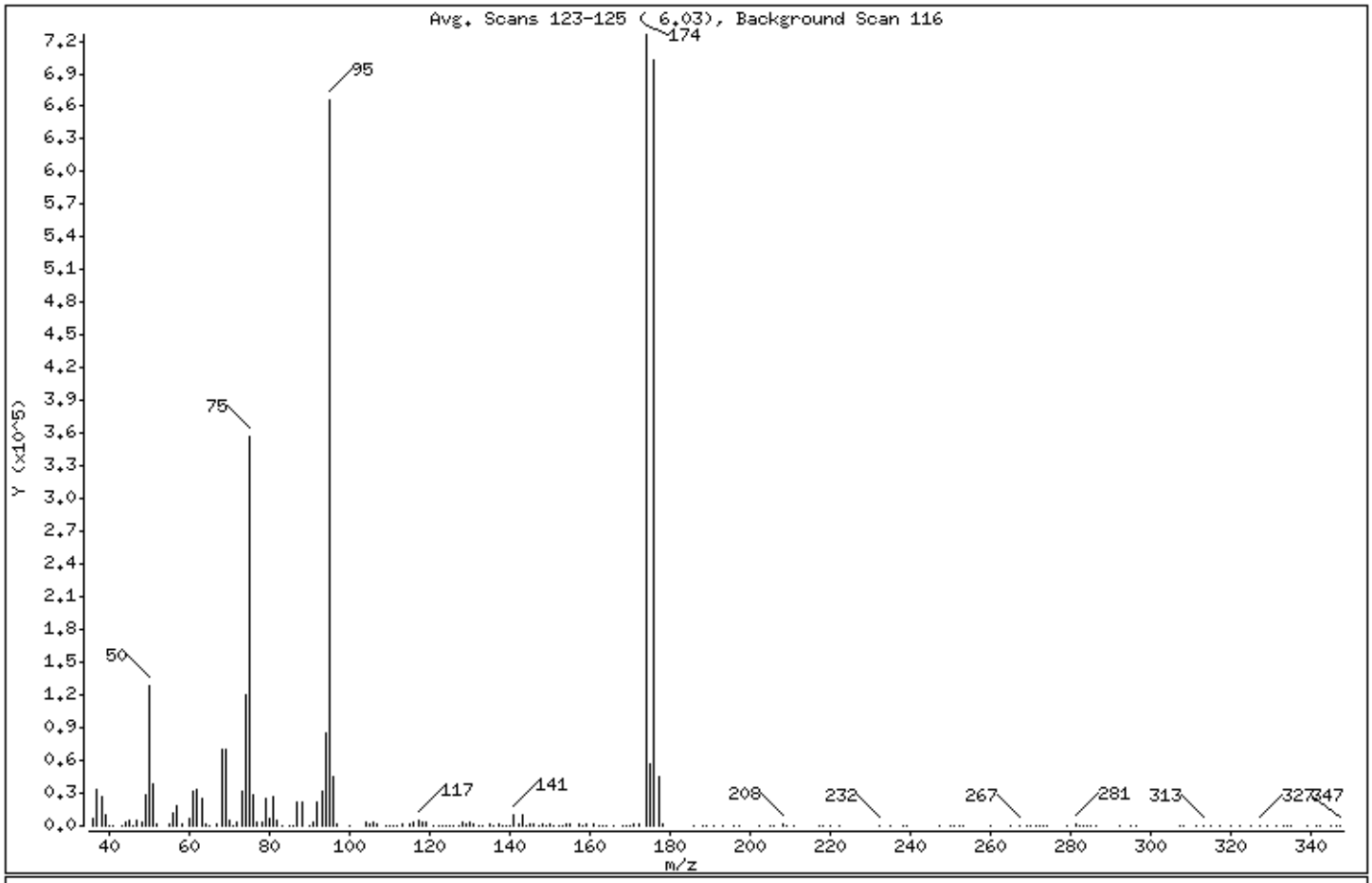
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0 Operator: sw

Column phase: Rtx-624 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	19.17
75	30.00 - 66.00% of mass 95	53.63
96	5.00 - 9.00% of mass 95	6.69
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	109.00
175	4.00 - 9.00% of mass 174	8.55 (7.85)
176	93.00 - 101.00% of mass 174	105.58 (96.86)
177	5.00 - 9.00% of mass 176	6.81 (6.45)

Data File: /chem/msde.i/27Jan2017.b/e012701.d

Date : 27-JAN-2017 11:51

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00

Data File: e012701.d
Spectrum: Avg. Scans 123-125 (6.03), Background Scan 116
Location of Maximum: 174.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5935	91.00	2553	148.00	1792	250.00	1
37.00	32800	92.00	22296	149.00	467	251.00	109
38.00	26632	93.00	32000	150.00	1083	252.00	78
39.00	9205	94.00	85688	151.00	250	253.00	482
40.00	82	95.00	665984	152.00	342	260.00	235
41.00	14	96.00	44544	153.00	684	265.00	169
43.00	360	97.00	1246	154.00	836	267.00	523
44.00	3740	100.00	41	155.00	2194	269.00	145
45.00	4508	104.00	3761	157.00	1384	270.00	415
46.00	322	105.00	1117	158.00	270	271.00	352
47.00	4686	106.00	3572	159.00	1279	272.00	85
48.00	3778	107.00	905	161.00	916	273.00	36
49.00	28288	109.00	193	162.00	63	274.00	37
50.00	127688	110.00	722	163.00	102	279.00	89
51.00	39152	111.00	536	164.00	232	281.00	1051
52.00	1667	112.00	766	166.00	192	282.00	222
55.00	1893	113.00	985	168.00	82	283.00	554
56.00	11396	115.00	1027	169.00	333	284.00	61
57.00	18280	116.00	3025	170.00	485	285.00	29
58.00	891	117.00	4892	171.00	1222	286.00	57
60.00	7036	118.00	2767	172.00	2271	292.00	59
61.00	32496	119.00	3384	174.00	725888	295.00	46
62.00	34048	121.00	98	175.00	56968	296.00	41
63.00	25368	122.00	429	176.00	703104	307.00	41
64.00	2367	123.00	365	177.00	45352	308.00	56
65.00	792	124.00	552	178.00	1168	311.00	81
67.00	1995	125.00	111	186.00	35	313.00	233
68.00	70400	126.00	391	188.00	101	315.00	207
69.00	70016	127.00	13	189.00	139	317.00	38
70.00	5247	128.00	3235	191.00	43	320.00	37
71.00	125	129.00	1861	193.00	503	322.00	10
72.00	3723	130.00	3082	196.00	158	325.00	159
73.00	31712	131.00	967	197.00	180	327.00	478
74.00	120384	132.00	408	202.00	6	329.00	97
75.00	357184	133.00	385	205.00	94	331.00	347

Data File: /chem/msde.i/27Jan2017.b/e012701.d

Date : 27-JAN-2017 11:51

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00

Data File: e012701.d
Spectrum: Avg. Scans 123-125 (6.03), Background Scan 116
Location of Maximum: 174.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	28728	135.00	1734	206.00	234	333.00	51
77.00	3840	136.00	12	208.00	1258	334.00	60
78.00	2506	137.00	1509	209.00	108	335.00	113
79.00	25000	138.00	143	211.00	147	339.00	33
80.00	6945	139.00	493	217.00	246	341.00	232
81.00	26704	140.00	724	218.00	137	342.00	306
82.00	4967	141.00	10575	220.00	37	345.00	232
83.00	581	142.00	871	222.00	74	346.00	48
85.00	267	143.00	9717	232.00	162	347.00	82
86.00	620	144.00	696	235.00	51		
87.00	22096	145.00	1003	238.00	44		
88.00	21304	146.00	1269	239.00	67		
90.00	125	147.00	789	247.00	72		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/31Jan2017.b/20013103.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 31-JAN-2017 08:33
Operator : sw Inst ID: msd20.i
Smp Info : 2.0uL #2810-94 ; BFB;BFB
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/31Jan2017.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 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		
6.369	6.640	-0.271	95	1245866			100.00- 100.00	100.00
6.369	6.640	-0.271	50	207496			8.00- 40.00	16.65
6.369	6.640	-0.271	75	593396			30.00- 66.00	47.63
6.369	6.640	-0.271	96	85660			5.00- 9.00	6.88
6.369	6.640	-0.271	173	6038			0.00- 1.99	0.57
6.369	6.640	-0.271	174	1062144			50.00- 120.00	85.25
6.369	6.640	-0.271	175	75570			4.00- 9.00	7.11
6.369	6.640	-0.271	176	1032163			93.00- 101.00	97.18
6.369	6.640	-0.271	177	67901			5.00- 9.00	6.58

Data File: /chem/msd20.i/31Jan2017.b/20013103.d

Date : 31-JAN-2017 08:33

Client ID: BFB

Instrument: msd20.i

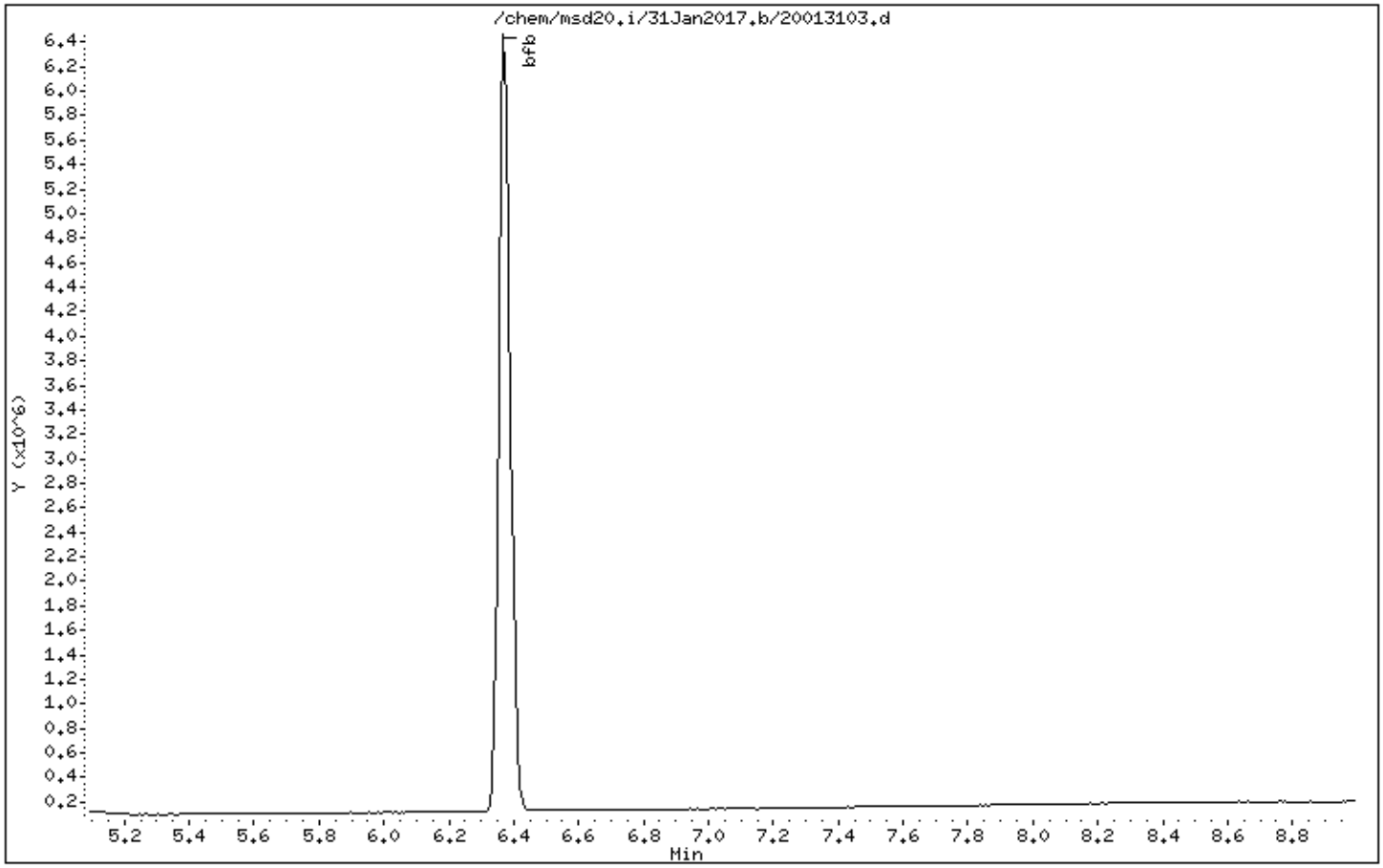
Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/31Jan2017.b/20013103.d

Date : 31-JAN-2017 08:33

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

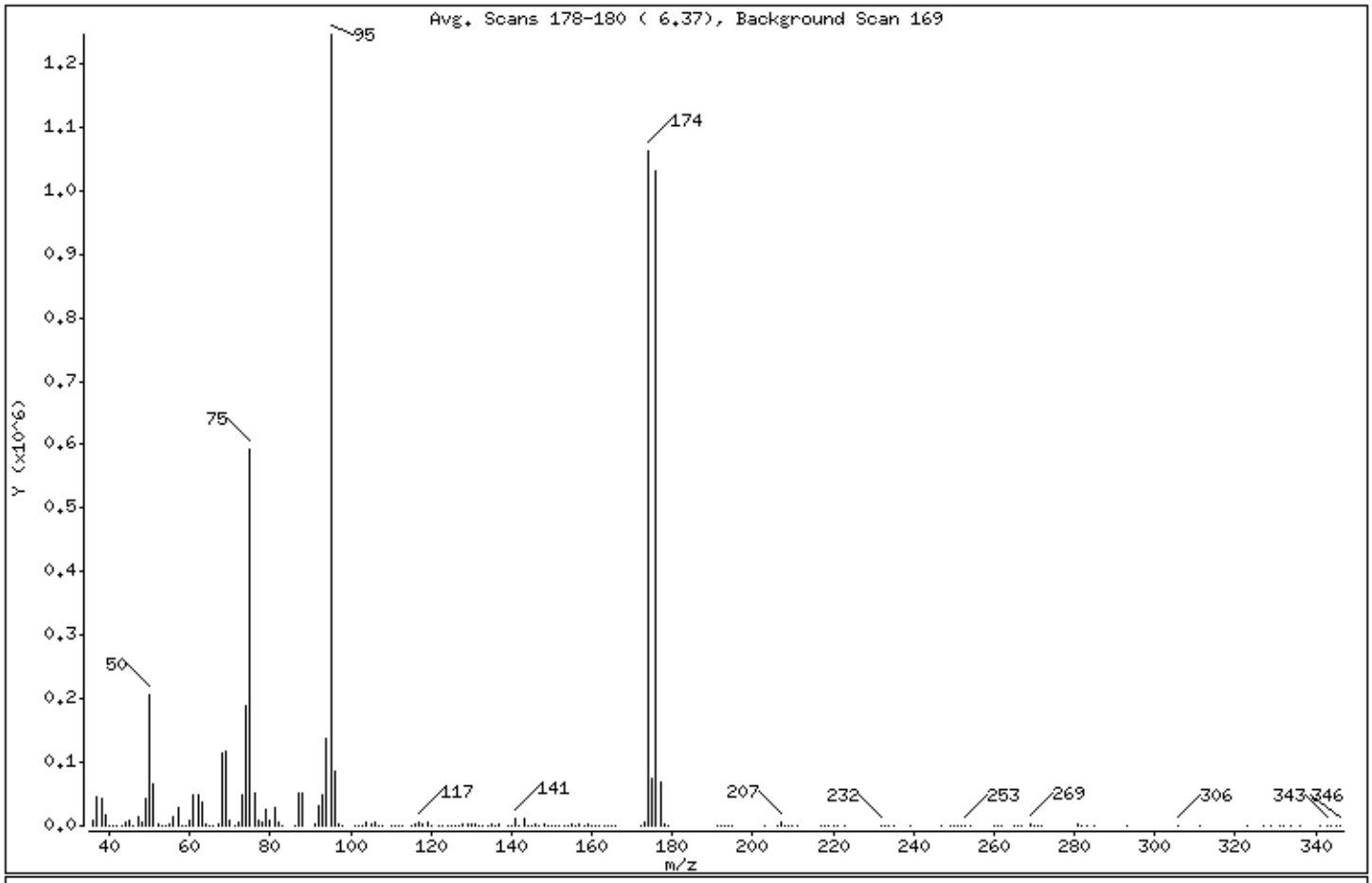
Volume Injected (uL): 1.0

Operator: sw

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	16.65
75	30.00 - 66.00% of mass 95	47.63
96	5.00 - 9.00% of mass 95	6.88
173	Less than 1.99% of mass 174	0.48 (0.57)
174	50.00 - 120.00% of mass 95	85.25
175	4.00 - 9.00% of mass 174	6.07 (7.11)
176	93.00 - 101.00% of mass 174	82.85 (97.18)
177	5.00 - 9.00% of mass 176	5.45 (6.58)

Data File: /chem/msd20.i/31Jan2017.b/20013103.d

Date : 31-JAN-2017 08:33

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase:

Column diameter: 2.00

Data File: 20013103.d
Spectrum: Avg. Scans 178-180 (6.37), Background Scan 169
Location of Maximum: 95.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	7955	86.00	1347	142.00	1182	220.00	14
37.00	46048	87.00	52592	143.00	10865	221.00	122
38.00	41544	88.00	50872	144.00	690	223.00	91
39.00	16432	91.00	3762	145.00	1134	232.00	352
40.00	620	92.00	31608	146.00	1834	233.00	88
41.00	154	93.00	48552	147.00	1180	234.00	15
42.00	135	94.00	136896	148.00	2635	235.00	68
43.00	358	95.00	1245696	149.00	834	239.00	54
44.00	4389	96.00	85656	150.00	1248	247.00	71
45.00	8794	97.00	3281	151.00	205	249.00	441
46.00	683	98.00	122	152.00	594	250.00	20
47.00	14684	101.00	111	153.00	899	251.00	28
48.00	6168	102.00	231	154.00	830	252.00	126
49.00	42624	103.00	616	155.00	2807	253.00	1197
50.00	207488	104.00	4391	156.00	832	254.00	247
51.00	64624	105.00	1678	157.00	2106	260.00	122
52.00	2795	106.00	4610	158.00	817	261.00	210
53.00	153	107.00	1190	159.00	1437	262.00	6
54.00	57	108.00	241	160.00	53	265.00	153
55.00	2754	110.00	615	161.00	1348	266.00	115
56.00	14851	111.00	974	162.00	127	267.00	137
57.00	28160	112.00	637	163.00	45	269.00	1725
58.00	1096	113.00	900	164.00	104	270.00	384
59.00	178	115.00	1058	165.00	372	271.00	406
60.00	9587	116.00	3716	166.00	57	272.00	58
61.00	48976	117.00	6700	172.00	1410	281.00	1585
62.00	49440	118.00	4087	173.00	6038	282.00	331
63.00	36904	119.00	5690	174.00	1061888	283.00	382
64.00	3262	120.00	109	175.00	75568	285.00	56
65.00	1190	122.00	320	176.00	1032128	293.00	109
66.00	163	123.00	430	177.00	67896	306.00	118
67.00	2516	124.00	610	178.00	1807	311.00	52
68.00	113576	125.00	299	179.00	60	323.00	132
69.00	116392	126.00	412	191.00	504	327.00	127
70.00	9181	127.00	528	192.00	221	329.00	245

Data File: /chem/msd20.i/31Jan2017.b/20013103.d

Date : 31-JAN-2017 08:33

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase:

Column diameter: 2.00

Data File: 20013103.d
Spectrum: Avg. Scans 178-180 (6.37), Background Scan 169
Location of Maximum: 95.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.00	422	128.00	4219	193.00	442	331.00	61
72.00	5935	129.00	1970	194.00	159	332.00	64
73.00	48624	130.00	4046	195.00	169	334.00	64
74.00	190144	131.00	1846	203.00	209	336.00	117
75.00	593344	132.00	73	206.00	2	341.00	29
76.00	51176	133.00	379	207.00	6005	343.00	466
77.00	7356	134.00	240	208.00	1081	344.00	158
78.00	4625	135.00	2269	209.00	495	345.00	157
79.00	26576	136.00	527	210.00	242	346.00	63
80.00	8315	137.00	1820	211.00	20		
81.00	27680	139.00	372	217.00	121		
82.00	5967	140.00	810	218.00	9		
83.00	806	141.00	10999	219.00	21		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/31Jan2017.b/20013113.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 31-JAN-2017 15:35
Operator : ef Inst ID: msd20.i
Smp Info : 2.0uL #2810-94 ; BFB;BFB
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/31Jan2017.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 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	
6.376	6.640	-0.264	95	661397			100.00- 100.00	100.00
6.376	6.640	-0.264	50	121092			8.00- 40.00	18.31
6.376	6.640	-0.264	75	326227			30.00- 66.00	49.32
6.376	6.640	-0.264	96	45306			5.00- 9.00	6.85
6.376	6.640	-0.264	173	3444			0.00- 1.99	0.59
6.376	6.640	-0.264	174	581248			50.00- 120.00	87.88
6.376	6.640	-0.264	175	40773			4.00- 9.00	7.01
6.376	6.640	-0.264	176	563370			93.00- 101.00	96.92
6.376	6.640	-0.264	177	37021			5.00- 9.00	6.57

Data File: /chem/msd20.i/31Jan2017.b/20013113.d

Date : 31-JAN-2017 15:35

Client ID: BFB

Instrument: msd20.i

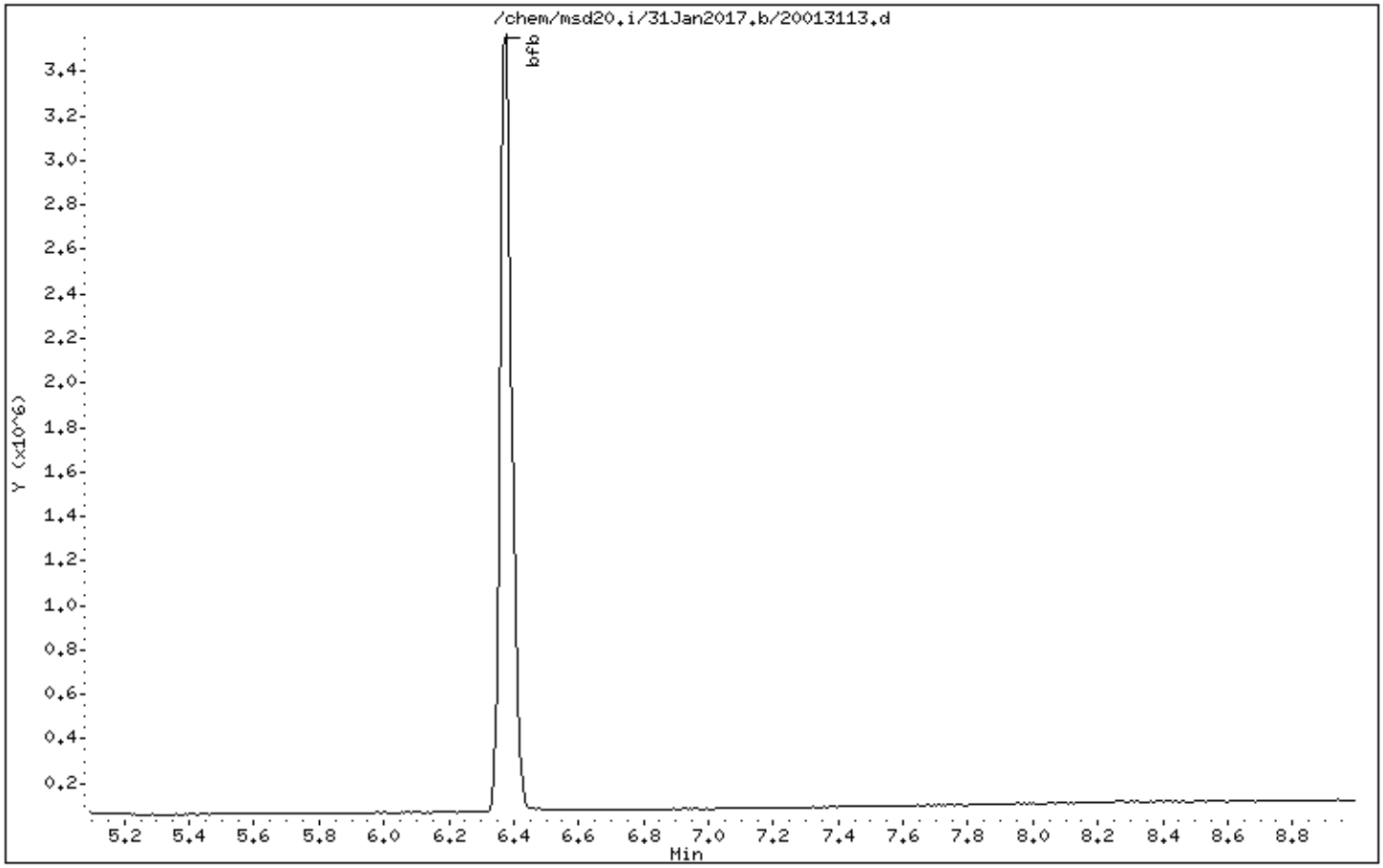
Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/31Jan2017.b/20013113.d

Date : 31-JAN-2017 15:35

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

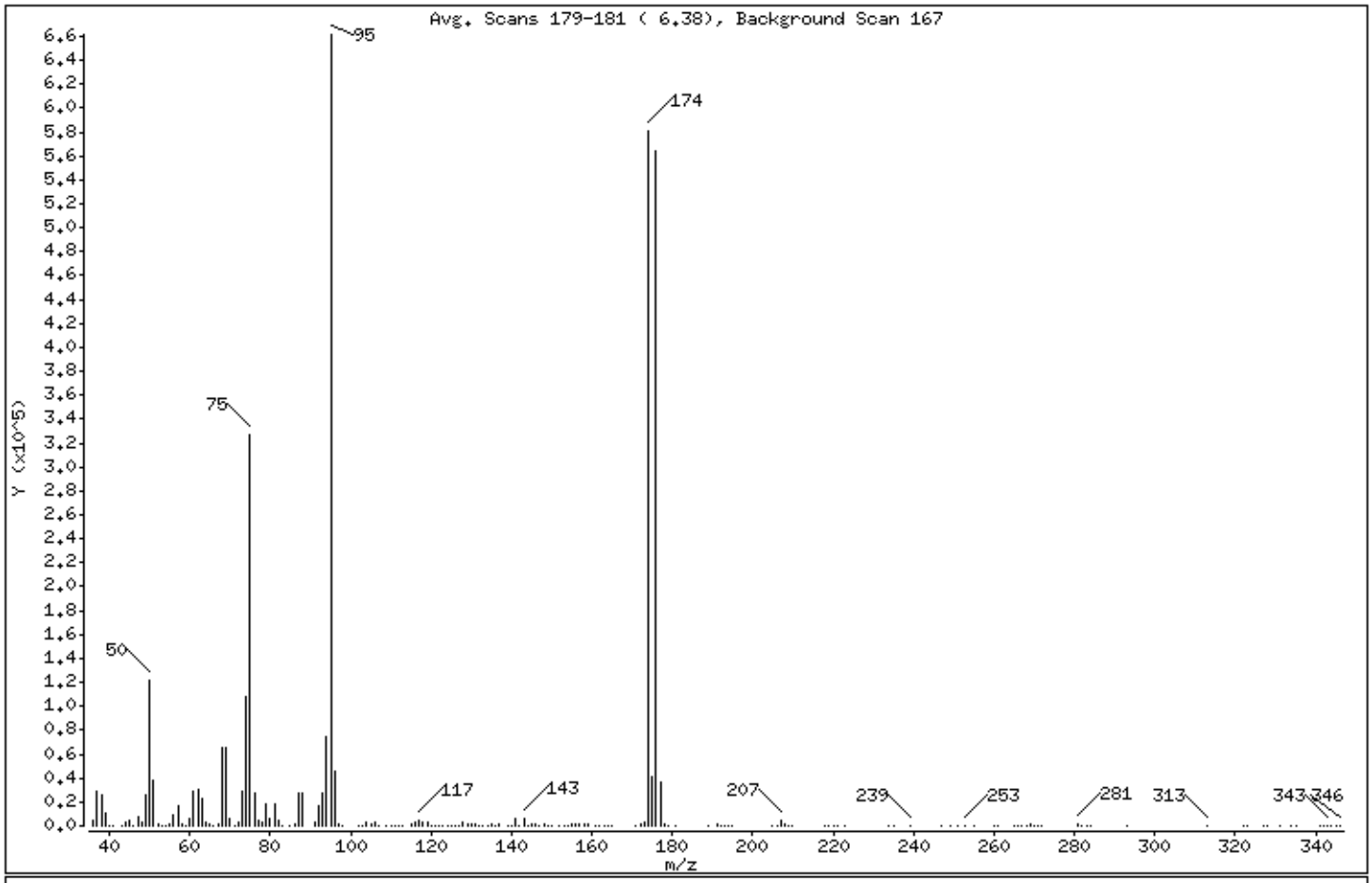
Volume Injected (uL): 1.0

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	18.31
75	30.00 - 66.00% of mass 95	49.32
96	5.00 - 9.00% of mass 95	6.85
173	Less than 1.99% of mass 174	0.52 (0.59)
174	50.00 - 120.00% of mass 95	87.88
175	4.00 - 9.00% of mass 174	6.16 (7.01)
176	93.00 - 101.00% of mass 174	85.18 (96.92)
177	5.00 - 9.00% of mass 176	5.60 (6.57)

Data File: /chem/msd20.i/31Jan2017.b/20013113.d

Date : 31-JAN-2017 15:35

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20013113.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 167
Location of Maximum: 95.00
Number of points: 182

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5036	83.00	556	137.00	1244	209.00	675
37.00	28960	85.00	158	139.00	217	210.00	11
38.00	25624	86.00	850	140.00	441	218.00	200
39.00	10583	87.00	27704	141.00	6333	219.00	233
40.00	330	88.00	27416	142.00	707	220.00	120
41.00	452	91.00	2428	143.00	6776	221.00	60
43.00	234	92.00	17432	144.00	370	223.00	104
44.00	2797	93.00	27608	145.00	766	234.00	55
45.00	5079	94.00	75184	146.00	1041	235.00	61
46.00	468	95.00	661376	147.00	504	239.00	237
47.00	7183	96.00	45304	148.00	1614	247.00	76
48.00	3686	97.00	1911	149.00	441	249.00	358
49.00	25464	98.00	67	150.00	719	251.00	19
50.00	121088	102.00	132	152.00	300	253.00	482
51.00	37256	103.00	535	153.00	491	255.00	123
52.00	1705	104.00	2704	154.00	457	260.00	362
53.00	189	105.00	858	155.00	1778	261.00	50
54.00	79	106.00	2900	156.00	989	265.00	69
55.00	1898	107.00	700	157.00	1354	266.00	138
56.00	9224	109.00	120	158.00	794	267.00	242
57.00	17128	110.00	381	159.00	824	268.00	183
58.00	846	111.00	613	161.00	734	269.00	1001
59.00	168	112.00	417	162.00	134	270.00	365
60.00	5474	113.00	596	163.00	208	271.00	151
61.00	29336	115.00	776	164.00	183	272.00	67
62.00	29664	116.00	2296	165.00	170	281.00	1679
63.00	22736	117.00	4209	171.00	63	282.00	533
64.00	2617	118.00	2333	172.00	2099	283.00	61
65.00	1566	119.00	3335	173.00	3444	284.00	174
66.00	152	120.00	212	174.00	581248	293.00	135
67.00	1645	121.00	11	175.00	40768	313.00	67
68.00	64880	122.00	115	176.00	563328	322.00	51
69.00	65408	123.00	267	177.00	37016	323.00	51
70.00	5709	124.00	372	178.00	1059	327.00	212
71.00	330	125.00	341	179.00	102	328.00	74

Data File: /chem/msd20.i/31Jan2017.b/20013113.d

Date : 31-JAN-2017 15:35

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL #2810-94 ; BFB;BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20013113.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 167
Location of Maximum: 95.00
Number of points: 182

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	3468	126.00	408	181.00	124	331.00	172
73.00	28632	127.00	291	189.00	214	334.00	68
74.00	107976	128.00	2341	191.00	861	335.00	54
75.00	326208	129.00	1115	192.00	102	341.00	36
76.00	28064	130.00	2110	193.00	51	342.00	110
77.00	4534	131.00	1047	194.00	311	343.00	513
78.00	2612	132.00	259	195.00	62	344.00	192
79.00	17960	133.00	737	205.00	77	345.00	155
80.00	5403	134.00	173	206.00	207	346.00	81
81.00	19000	135.00	1278	207.00	5156		
82.00	4152	136.00	368	208.00	1050		

Eurofins Air Toxics Inc.

Data file : /chem/msde.i/06Feb2017.b/e020601.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 06-FEB-2017 07:17
Operator : sw Inst ID: msde.i
Smp Info : 2.0uL# 2810-94; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/06Feb2017.b/bfb60.m
Meth Date : 06-Feb-2017 07:35 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	
6.078	6.235	-0.157	95	617130			100.00- 100.00	91.67
6.078	6.235	-0.157	50	119176			8.00- 40.00	19.31
6.078	6.235	-0.157	75	334081			30.00- 66.00	54.13
6.078	6.235	-0.157	96	40410			5.00- 9.00	6.55
6.078	6.235	-0.157	173	0			0.00- 1.99	0.00
6.078	6.235	-0.157	174	673194			50.00- 120.00	109.08
6.078	6.235	-0.157	175	51954			4.00- 9.00	7.72
6.078	6.235	-0.157	176	644608			93.00- 101.00	95.75
6.078	6.235	-0.157	177	42645			5.00- 9.00	6.62

Data File: /chem/msde.i/06Feb2017.b/e020601.d

Date : 06-FEB-2017 07:17

Client ID: BFB

Instrument: msde.i

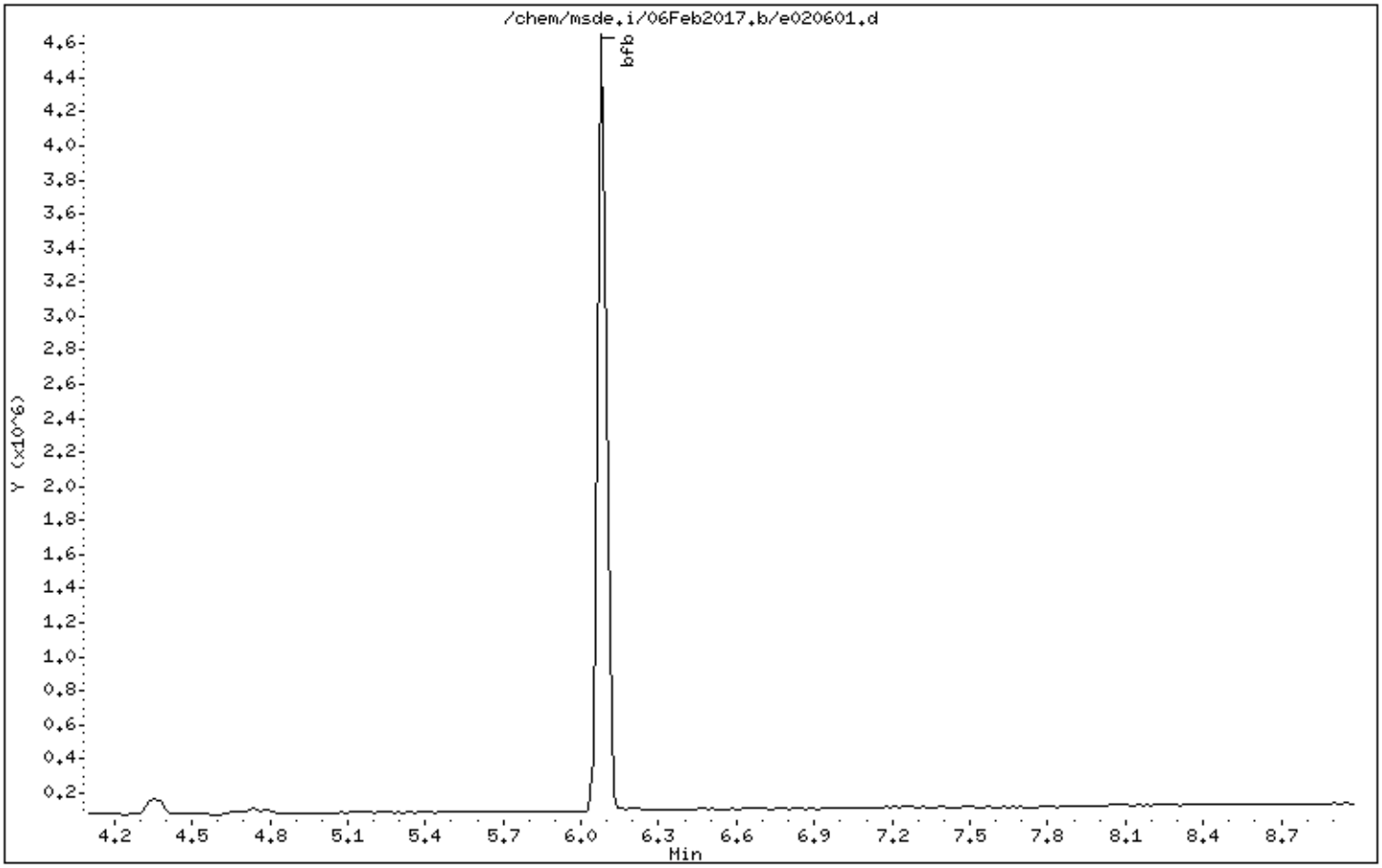
Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/06Feb2017.b/e020601.d

Date : 06-FEB-2017 07:17

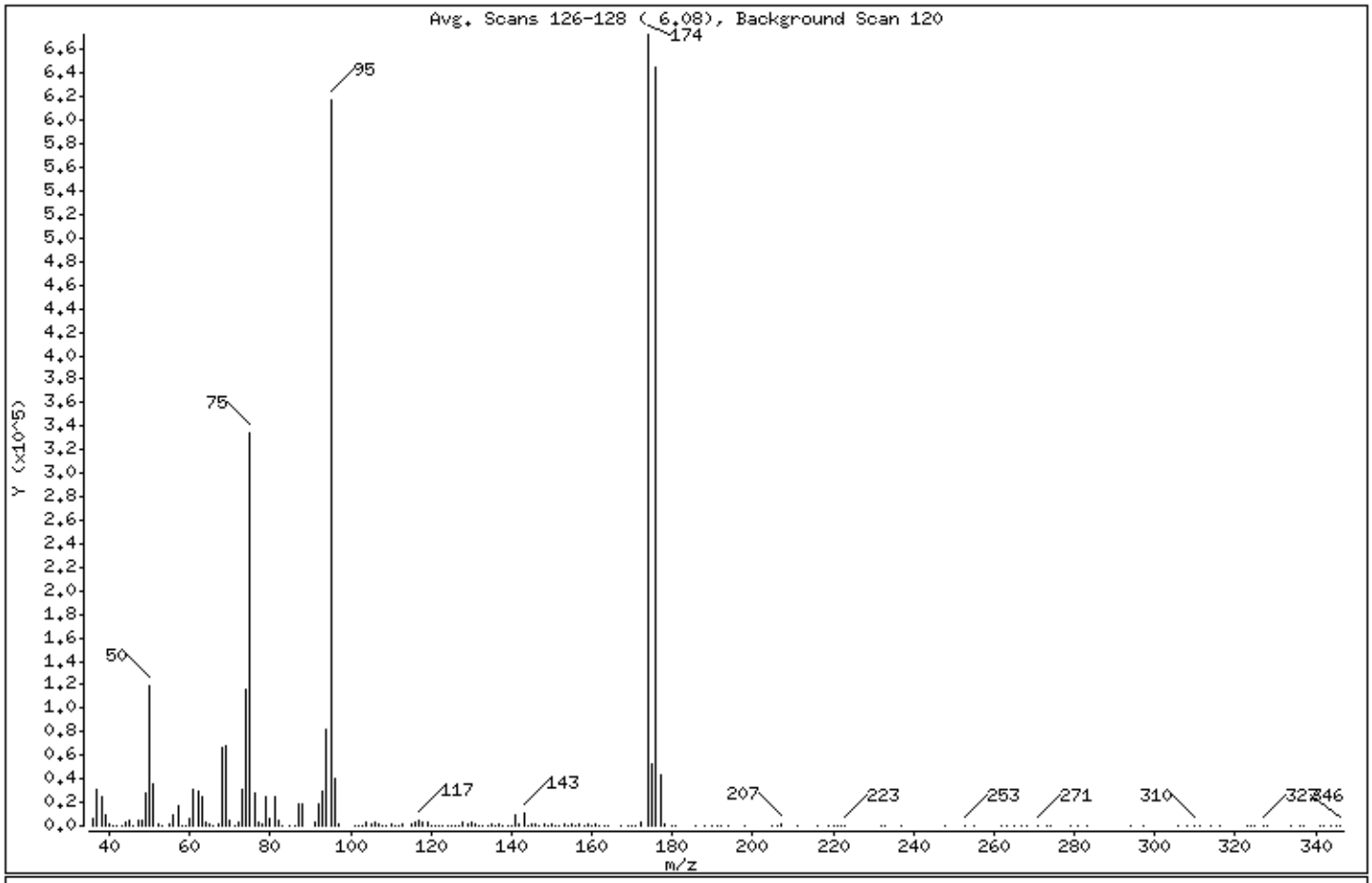
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0 Operator: sw

Column phase: Rtx-624 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	19.31
75	30.00 - 66.00% of mass 95	54.13
96	5.00 - 9.00% of mass 95	6.55
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	109.08
175	4.00 - 9.00% of mass 174	8.42 (7.72)
176	93.00 - 101.00% of mass 174	104.45 (95.75)
177	5.00 - 9.00% of mass 176	6.91 (6.62)

Data File: /chem/msde.i/06Feb2017.b/e020601.d

Date : 06-FEB-2017 07:17

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00

Data File: e020601.d
Spectrum: Avg. Scans 126-128 (6.08), Background Scan 120
Location of Maximum: 174.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	6021	86.00	568	140.00	636	216.00	20
37.00	31184	87.00	18632	141.00	8836	219.00	149
38.00	25160	88.00	17944	142.00	1029	220.00	106
39.00	9502	91.00	3282	143.00	10106	221.00	56
40.00	1252	92.00	18872	144.00	610	222.00	128
41.00	99	93.00	28840	145.00	1318	223.00	307
42.00	202	94.00	81608	146.00	1266	232.00	84
43.00	705	95.00	617088	147.00	120	233.00	64
44.00	3602	96.00	40408	148.00	2104	237.00	152
45.00	4934	97.00	1334	149.00	476	248.00	254
46.00	587	101.00	128	150.00	1047	253.00	666
47.00	4860	102.00	56	151.00	230	255.00	117
48.00	4802	103.00	444	152.00	467	262.00	187
49.00	28080	104.00	3429	153.00	776	263.00	89
50.00	119176	105.00	1534	154.00	602	265.00	135
51.00	35848	106.00	3766	155.00	2049	267.00	72
52.00	1251	107.00	888	156.00	652	268.00	311
53.00	408	108.00	131	157.00	1396	271.00	454
55.00	1610	109.00	164	158.00	478	273.00	65
56.00	9997	110.00	947	159.00	1173	274.00	37
57.00	17088	111.00	688	160.00	258	279.00	39
58.00	765	112.00	722	161.00	1175	281.00	252
59.00	91	113.00	856	162.00	199	283.00	233
60.00	6823	115.00	846	163.00	239	294.00	35
61.00	30968	116.00	3336	164.00	98	297.00	46
62.00	30088	117.00	4815	167.00	202	306.00	44
63.00	24280	118.00	3242	169.00	256	308.00	40
64.00	2679	119.00	3303	170.00	529	310.00	92
65.00	1615	120.00	199	171.00	750	311.00	35
66.00	340	121.00	307	172.00	3175	314.00	52
67.00	2278	122.00	19	174.00	673152	316.00	37
68.00	65992	123.00	98	175.00	51952	323.00	39
69.00	68048	124.00	655	176.00	644608	324.00	56
70.00	4684	125.00	457	177.00	42640	325.00	265
71.00	164	126.00	250	178.00	1515	327.00	339

Data File: /chem/msde.i/06Feb2017.b/e020601.d

Date : 06-FEB-2017 07:17

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL# 2810-94; BFB; BFB

Volume Injected (uL): 1.0

Operator: sw

Column phase: Rtx-624

Column diameter: 2.00

Data File: e020601.d
Spectrum: Avg. Scans 126-128 (6.08), Background Scan 120
Location of Maximum: 174.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	3331	127.00	562	180.00	181	328.00	134
73.00	30400	128.00	2412	181.00	274	334.00	283
74.00	116408	129.00	1370	186.00	61	336.00	18
75.00	334080	130.00	3158	188.00	111	337.00	58
76.00	27552	131.00	1109	190.00	107	341.00	293
77.00	2837	132.00	68	191.00	67	342.00	47
78.00	1878	133.00	96	192.00	165	344.00	294
79.00	24256	134.00	184	194.00	345	345.00	139
80.00	6401	135.00	1780	198.00	42	346.00	47
81.00	24912	136.00	218	205.00	293		
82.00	5117	137.00	1308	206.00	131		
83.00	623	138.00	326	207.00	1111		
85.00	72	139.00	384	211.00	41		

Shipping/ Receiving Documents

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

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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

Page 1 of 2

Project Manager: Terry Taylor
Collected by: (Print and Sign) RO, TT, DL, RNO
Company: AMAI Email: ttaylor@amaiconsult.com
Address: 2700 Westchester Ave. City: Purchase State: NY Zip: 10577
Phone: 914-251-0400 x309 Fax: 914-251-1286

Project Info:
P.O. #:
Project #: BMS V1
Project Name: BMS V1

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	B301A-1-012117	25236	01/21/17	1817	TO-15, MeOH, CH_4	30"	5"		
02A	B301A-2-012117	N1755	01/21/17	1820	TO-15, MeOH, CH_4	30"	6.5		
03A	B301A-3-012117	9551	01/21/17	1821	TO-15, MeOH, CH_4	28"	10.5"		
04A	B301A-4-012117	00895	01/21/17	1822	TO-15, MeOH, CH_4	30"	5"		
05A	B301A-4D-012117 00898	~~00908~~	01/21/17	1822	TO-15, MeOH, CH_4	30"	6"		
06A	B301A-5-012117	33787	01/21/17	1825	TO-15, MeOH, CH_4	30"+	6"		
07A	B1830AA-012117	33585	1/21/17	1842	TO-15, MeOH, CH_4	30"	6"		
08A	B181A-1-012117	N1735	1/21/17	1807	TO-15, MeOH, CH_4	30"+	8"		
09A	B181A-1D-012117	00138	1/21/17	1807	TO-15, MeOH, CH_4	30"	7.5"		
10A	B181A-2-012117	GL1216	1/21/17	1800	TO-15, MeOH, CH_4	30"+	5"		

Relinquished by: (signature) Date/Time: 1-27-17 1400
Received by: (signature) Date/Time: Fed EX Track No. 7782 9053 0772
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time: 1/30/17 0920
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

Notes: Tag for canister 00898 indicated it is N00448. That ID is not on the packing slip. The canister has the serial # 00898, and is listed on the packing slip

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		N/A	good	Yes No None	1701428

Form 1293 rev.11

Air Toxics LTD.

Chain-of-Custody Record

Page 2 of 2

Contact Person Terry Taylor
Company Anderson Mulholland & Associates, Inc.
Address 2700 Winchester, Suite 417 City Purchase State NY Zip 10577
Phone 914-251-0400, x 309 FAX
Collected By: (Signature)

Project Information:
P.O. #
Project #
Project Name BMS VI Invest.
Buildings 8,13, 5, 18, and 30

Turn Around Time:
[X] Normal
[ ] Rush
Specify

Pressurized by:
Date:
Press. Gas: N2 He

Lab I.D.	Field Sample I.D.	Canister I.D.	Date & Time	Analysis Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
11 A	B18IA-3-012117	34320	1/21/17:1810	TO-15, MeOH, CH_4	29 "Hg	6		
12 A	B18IA-4-012117	N1591	1/21/17:1812	TO-15, MeOH, CH_4	29.5 "Hg	6		
13 A	B8IA-2-012317	N1726	1/23/17:1223	TO-15, MeOH, CH_4	29 "Hg	8		
14 A	B8IA-2D-012317	N0416	1/23/17:1223	TO-15, MeOH, CH_4	29 "Hg	9		
15 A	B8AA-012317	0316	1/23/17:0920	TO-15, MeOH, CH_4	29 "Hg	3		
16 A	B8SS-2-012417	1L1603	1/24/17:1535	TO-15, MeOH, CH_4	30 "Hg	5		
17 A	B8SS-2D-012417	12373	1/24/17:1535	TO-15, MeOH, CH_4	29 "Hg	5		
18 A	B18SS-1-012617	1L1720	1/26/17:1730	TO-15, MeOH, CH_4	30 "Hg	5		
~~19 A~~	~~B18SS-1DUP-012617~~				~~"Hg~~			
20 A	B18SS-1DUP-012617	N1929	1/26/17:1730	TO-15, MeOH, CH_4	30 "Hg	6		

V.V 1/30/17
VV 1/30/17

Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time 1-27-17 1400 Fed EX
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time EATL 1/30/17 0920
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time

Notes:
FedEx Tracking No. 7782 9053 0772

Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
Fed Ex		EATL	N/A	Good	Yes No (None)	1701428

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1701428A

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: 02/10/17
Date Completed: 2/9/17
Date Received: 1/30/17
PO#:
Project#: BMS VI

Total $: $ 4,831.17
Logged By: JV

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B30IA-1-012117	Modified TO-15	1/21/2017	5 "Hg	$135.00
02A	B30IA-2-012117	Modified TO-15	1/21/2017	5.5 "Hg	$135.00
03A	B30IA-3-012117	Modified TO-15	1/21/2017	9 "Hg	$135.00
04A	B30IA-4-012117	Modified TO-15	1/21/2017	5 "Hg	$135.00
05A	B30IA-4D-012117	Modified TO-15	1/21/2017	6 "Hg	$135.00
06A	B30IA-5-012117	Modified TO-15	1/21/2017	5.5 "Hg	$135.00
07A	B1830AA-012117	Modified TO-15	1/21/2017	5.5 "Hg	$135.00
08A	B18IA-1-012117	Modified TO-15	1/21/2017	7.5 "Hg	$135.00
09A	B18IA-1D-012117	Modified TO-15	1/21/2017	6 "Hg	$135.00
10A	B18IA-2-012117	Modified TO-15	1/21/2017	7 "Hg	$135.00
11A	B18IA-3-012117	Modified TO-15	1/21/2017	4.5 "Hg	$135.00
12A	B18IA-4-012117	Modified TO-15	1/21/2017	1.5 "Hg	$135.00
13A	B8IA-2-012317	Modified TO-15	1/23/2017	7 "Hg	$135.00
14A	B8IA-2D-012317	Modified TO-15	1/23/2017	8.5 "Hg	$135.00
15A	B8AA-012317	Modified TO-15	1/23/2017	2.5 "Hg	$135.00
16A	Lab Blank	Modified TO-15	NA	NA	$0.00
16B	Lab Blank	Modified TO-15	NA	NA	$0.00
16C	Lab Blank	Modified TO-15	NA	NA	$0.00
17A	CCV	Modified TO-15	NA	NA	$0.00
17B	CCV	Modified TO-15	NA	NA	$0.00

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

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY Continued

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: 02/10/17
Date Completed: 2/9/17
Date Received: 1/30/17
PO#:
Project#: BMS VI

Total $: $ 4,831.17
Logged By: JV

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
17C	CCV	Modified TO-15	NA	NA	$0.00
18A	LCS	Modified TO-15	NA	NA	$0.00
18AA	LCSD	Modified TO-15	NA	NA	$0.00
18B	LCS	Modified TO-15	NA	NA	$0.00
18BB	LCSD	Modified TO-15	NA	NA	$0.00
18C	LCS	Modified TO-15	NA	NA	$0.00
18CC	LCSD	Modified TO-15	NA	NA	$0.00

Misc. Charges	1 Liter Summa Canister (100% Certified) (4) @ $40.00 each., Shipmei	$160.00
	6 Liter Summa Canister (100% Certified) (15) @ $55.00 each., Shipm	$825.00
	Flow Controller-24 hr (100% Certified) (15) @ $25.00 each., Shipmen	$375.00
	eCVP (15) @ $5.00 each.	$75.00
	Shipping Charges (Shipped Via DHL DHL EXPRESS WORLDWIDE	$1,371.17

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

Other Records

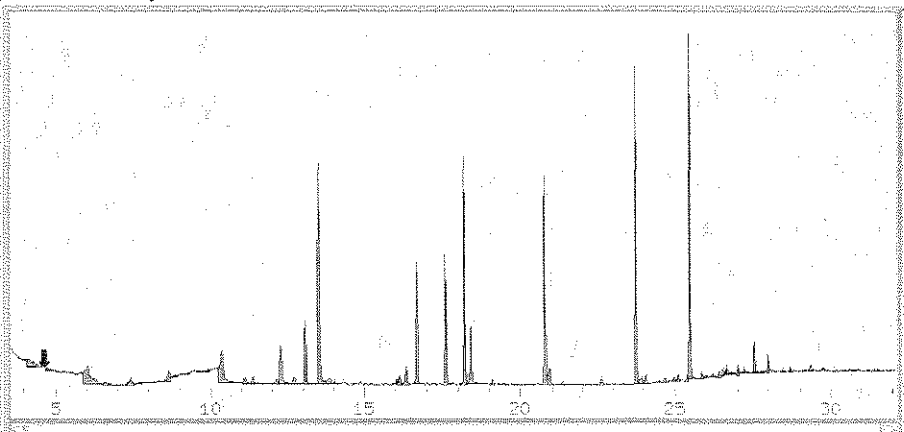
TargetReview.exe:1701428A-03A /chem/ms8260/31Jan2017.b/20013119.d

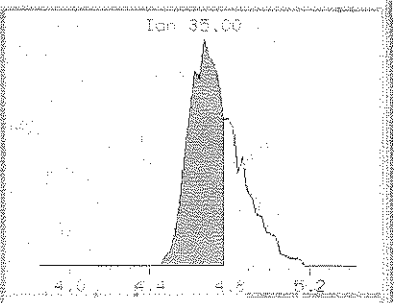
File Security Edit Display Process Spectra Help

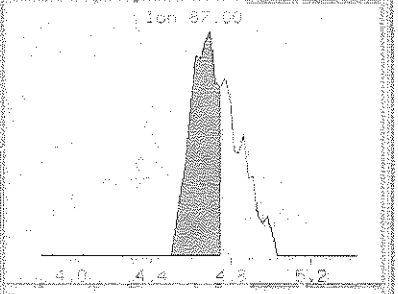
Sample: 1701428A-03A Type: SAMPLE Inj.Date: 31-JAN-2017 19:57

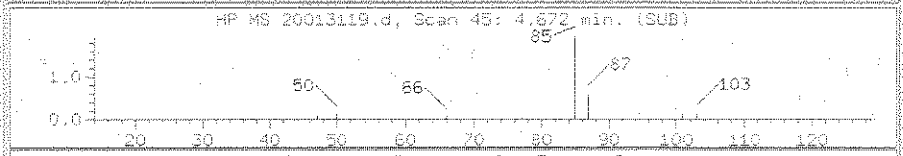
- 98 Bromochloromethane
- 123 1,4-Difluorobenzene
- 163 Chlorobenzene-d5
- 117 1,2-Dichloroethane-d4
- 146 Toluene-d8
- 177 4-Bromofluorobenzene
- 11 Freon 12
- 15 Freon 114
- 17 Chloromethane
- 25 Vinyl Chloride
- 26 1,3-Butadiene
- 29 Bromomethane
- 30 Chloroethane
- 35 Freon 11
- 42 Ethanol
- 49 Freon 113
- 50 1,1-Dichloroethane
- 52 Acetone
- 56 Carbon Disulfide
- 57 2-Propanol
- 58 3-Chloropropene
- 66 Methylene Chloride
- 72 Methyl tert-butyl ether
- 73 trans-1,2-Dichloroethene
- 78 Hexane

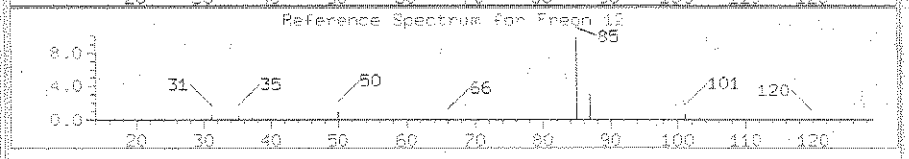
20013119.d











Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.672	21876	0.1515	0.3657	100		
	4.696	6210			28		

- Mark Freon 12 Undetected.

before HAB 2/9/17

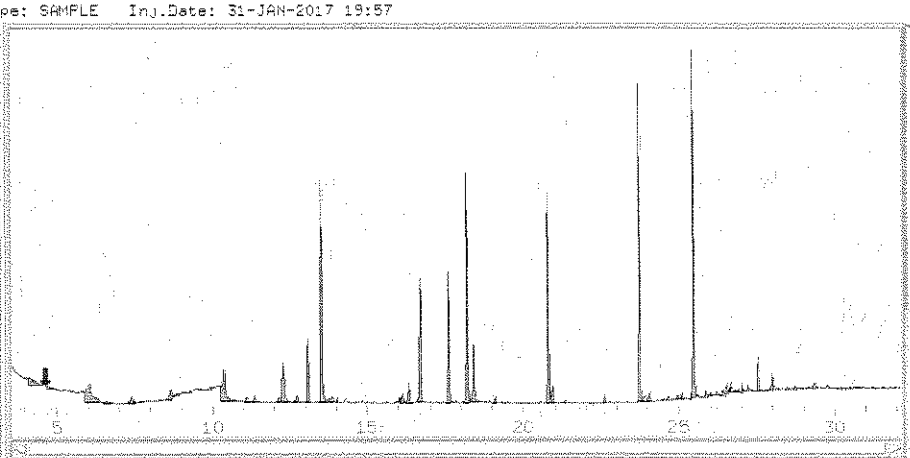
TargetReview: cpyore: 1701428A-03A: Z:\chem\msd20.i\31-jan2017.b\20013119.d

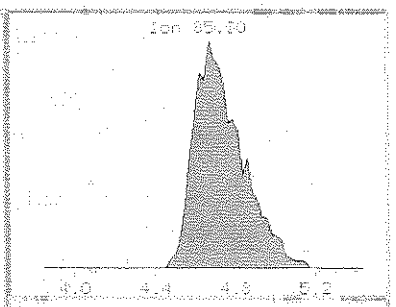
File Search Edit Display Tools Spectra Help

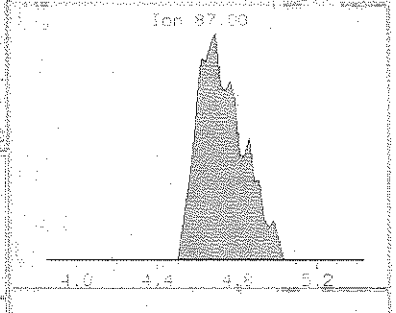
Sample: 1701428A-03A Type: SAMPLE Inj.Date: 31-JAN-2017 19:57

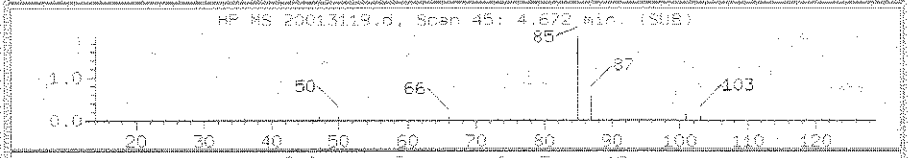
- 98 Bromochloromet
- 123 1,4-Difluorobe
- 163 Chlorobenzene-
- 117 1,2-Dichloroet
- 146 Toluene-d8
- 177 4-Bromofluorob
- 11 Freon 12
- 15 Freon 114
- + 17 Chloromethane
- 25 Vinyl Chloride
- ! 26 1,3-Butadiene
- 29 Bromomethane
- 30 Chloroethane
- + 35 Freon 11
- + 42 Ethanol
- + 49 Freon 113
- ! 50 1,1-Dichloroet
- + 52 Acetone
- 56 Carbon Disulfi
- + 57 2-Propanol
- 58 3-Chloropropen
- 66 Methylene Chlo
- 72 Methyl tert-bu
- 73 trans-1,2-Dich
- + 78 Hexane

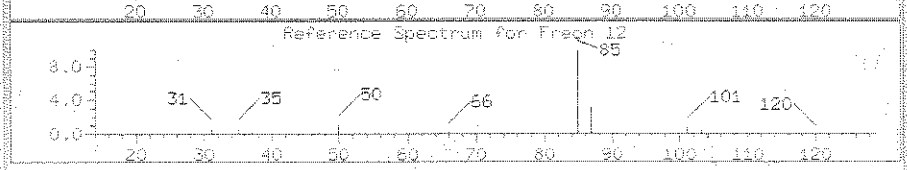
20013119.d











Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.672	32795	0.2871	0.5483	100	M	
	4.696	10101			31		

- Mark Freon 12 Undetected.

after HSB 2/9/17

corrected peak integration

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)})*(14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

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	

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Media Certification Report

Canister Number: 6L# 25236
Can#: 110659-25236
Date : 01/05/17 19:47
Data File: d010507.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	99.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	99.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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Media Certification Report

Canister Number: 6L# 1755
Can#: 110659-1755
Date : 01/06/17 23:02
Data File: o010619.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		81.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	81.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	81.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	81.00	% Recovery
Toluene-d8	2037-26-5	0.050	83.00	% Recovery
Toluene-d8	2037-26-5	0.250	83.00	% Recovery

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Media Certification Report

Canister Number: 6L# 9551
Can#: 110659-9551
Date : 01/09/17 18:36
Data File: d010916.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	101.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0895
Can#: 110659-0895
Date : 01/10/17 3:41
Data File: o010922.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		99.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	99.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	99.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	99.00	% Recovery
Toluene-d8	2037-26-5	0.050	98.00	% Recovery
Toluene-d8	2037-26-5	0.250	98.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0898
Can#: 110659-0898
Date : 01/10/17 2:26
Data File: d010929.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	101.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 33787
Can#: 110659-33787
Date : 01/07/17 15:47
Data File: d010640.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	99.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	99.00	% Recovery
Toluene-d8	2037-26-5	0.050	98.00	% Recovery
Toluene-d8	2037-26-5	0.250	98.00	% Recovery

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Media Certification Report

Canister Number: 6L# 33585
Can#: 110659-33585
Date : 01/07/17 14:33
Data File: d010638.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		102.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	98.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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1-800-985-5955

Media Certification Report

Canister Number: 6L# 1735
Can#: 110659-1735
Date : 01/06/17 2:24
Data File: d010518.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0138
Can#: 110659-0138
Date : 01/10/17 7:29
Data File: o010929.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		98.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	101.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 6L1216
Can#: 110659-6L1216
Date : 01/09/17 15:32
Data File: d010911.d

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Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	102.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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Media Certification Report

Canister Number: 6L# 34320
Can#: 110659-34320
Date : 01/07/17 16:24
Data File: d010641.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	98.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# N1591
Can#: 110659-1591
Date : 01/07/17 13:20
Data File: d010636.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 1726
Can#: 110659-1726
Date : 01/09/17 17:22
Data File: d010914.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		99.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	99.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	101.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0416
Can#: 110659-0416
Date : 01/09/17 16:09
Data File: d010912.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	102.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0316
Can#: 110659-0316
Date : 01/05/17 20:24
Data File: d010508.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	99.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	99.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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Media Certification Report

Canister Number: 1L# 1L1603
Can#: 110659-1L1603
Date : 01/05/17 17:27
Data File: i010518.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		114.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	114.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	112.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	112.00	% Recovery
Toluene-d8	2037-26-5	0.050	107.00	% Recovery
Toluene-d8	2037-26-5	0.250	107.00	% Recovery

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Media Certification Report

Canister Number: 1L#12373 w/Batch
Can#: 110659-12373
Date : 01/05/17 11:36
Data File: i010507.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		104.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	104.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	102.00	% Recovery
Toluene-d8	2037-26-5	0.050	104.00	% Recovery
Toluene-d8	2037-26-5	0.250	104.00	% Recovery

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Media Certification Report

Canister Number: 1L# 1L1720
Can#: 110659-1L1720
Date : 01/05/17 16:23
Data File: i010516.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		111.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	111.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	111.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	111.00	% Recovery
Toluene-d8	2037-26-5	0.050	115.00	% Recovery
Toluene-d8	2037-26-5	0.250	115.00	% Recovery

eurofins | Air Toxics

Media Certification Report

Canister Number: 1L# 1929
Can#: 110659-1929
Date : 01/05/17 13:12
Data File: i010510.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,1-Trichloroethane	71-55-6	0.250	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.250	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.250	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.250	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	1.000	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.250	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.250	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.250	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.250	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.250	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.250	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.250	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.250	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.250	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
1,4-Dioxane	123-91-1	1.000	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.000	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Hexanone	591-78-6	1.000	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
2-Propanol	67-63-0	1.000	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
3-Chloropropene	107-05-1	1.000	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Ethyltoluene	622-96-8	0.250	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.250	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Acetone	67-64-1	2.500	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Benzene	71-43-2	0.250	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.250	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromoform	75-25-2	0.250	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Bromomethane	74-83-9	2.500	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Disulfide	75-15-0	1.000	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.250	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.250	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroethane	75-00-3	1.000	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloroform	67-66-3	0.250	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
Chloromethane	74-87-3	2.500	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.250	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.250	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cumene	98-82-8	0.250	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Cyclohexane	110-82-7	0.250	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.250	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethanol	64-17-5	1.000	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.250	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv
Freon 11	75-69-4	0.250	ND	ppbv
Freon 113	76-13-1	0.050	ND	ppbv
Freon 113	76-13-1	0.250	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 114	76-14-2	0.250	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Freon 12	75-71-8	0.250	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Heptane	142-82-5	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexachlorobutadiene	87-68-3	1.000	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Hexane	110-54-3	0.250	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.250	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	1.000	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Methylene Chloride	75-09-2	2.500	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
Naphthalene	91-20-3	0.500	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
o-Xylene	95-47-6	0.250	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Propylbenzene	103-65-1	0.250	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Styrene	100-42-5	0.250	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.250	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
Toluene	108-88-3	0.250	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.250	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.250	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.250	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.250	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		85.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	85.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	113.00	% Recovery
Toluene-d8	2037-26-5	0.250	113.00	% Recovery

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # 1701428A	Form F1.27	Revision #13	Revision Date: 02/23/16	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: MS220 1/31/17	S2: MS220 1/31/17	S3: 2/3/17	S4: 83/E/2-6-17
✓	✓	✓			Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
✓	✓	✓			Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder				
NA	NA	NA			Manual Integrations included and approved				
✓	✓	✓		✓	Chain of Custody verified for special comments (add comments below)				
✓	✓	✓			Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)				

Profile, analyses, reporting, special notes and unusual circumstances:

1 out in LCS. J-flag to MDL. S2 = CCV - 2 out LCS - 2 out J flag MDL
chloroethane <RPD 1 out 72% (<40%).
S3: 2 out in LCS. 1 out LCS/LCSD RPD RPD 1 out <40%. S4: LCS exceedances; J flag MDL

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: 1/31/17	A2: 1/31/17	A3: EA 2/6/17	A4:
✓	✓	✓			IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
NA	NA	NA		NA	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
NA		NA		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				
✓	✓	✓			Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on CIAAs have been verified (system blks, confirmation runs).				
✓	✓	✓			All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)				

Analytical and special notes: A1: 09A, 03A = Fail LCSSS. A3: 11A-15A full loads 13A/14A FD confirmation # ED20615

A2: 03A-06A-full loads 04A-05A-FD needs confirmation; 20013125 - 05A Reton values off. one flag 03.

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/Date MS220, MSDE	D1: HNB 2/9/17	D2:	D3:	D4:
NA					■	CAR # (if applicable)				
					■	Spectra Verified (documentation of spectral defense included if applicable)				
NA					■	TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)				
						Lab Narrative is correct				
NA					■	TPH/NMOC calculations complete and included in folder				

Special notes: J-flag to the MDL all full loads

FT12 → manual integrations in samples - 03A -05A/-05AA dil ≤ 5XRL

A	3T	Section 4 – Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: HNB 2/9/17	3rd Tier: (needed only for DOD or per client request)	
NA		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: Carbon tetrachloride in -03A may be biased high due to co-elution with a non-target.

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

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)

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