

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

LAB CHRONICLE

OrderID: Q1782	OrderDate: 4/10/2025 1:22:00 PM
Client: Lockwood, Kessler & Bartlett, Inc.	Project: Ansonia Landfill 2025
Contact: John Gerlach	Location: K11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1782-01	MW-1	Water	VOCMS Group1	8260-Low	04/09/25		04/11/25	04/10/25
Q1782-03	MW-2	Water	VOCMS Group1	8260-Low	04/09/25		04/11/25	04/10/25
Q1782-05	MW-3	Water	VOCMS Group1	8260-Low	04/09/25		04/11/25	04/10/25
Q1782-09	TRIP BLANK	Water	VOCMS Group1	8260-Low	04/09/25		04/11/25	04/10/25

Hit Summary Sheet
SW-846

SDG No.: Q1782

Client: Lockwood, Kessler & Bartlett, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: Q1782-01	MW-1 MW-1	Water	Acetone	1.80	J	1.50	5.00	ug/L
			Total Voc :	1.80				
			Total Concentration:	1.80				
Client ID: Q1782-03	MW-2 MW-2	Water	Acetone	1.50	J	1.50	5.00	ug/L
			Total Voc :	1.50				
			Total Concentration:	1.50				
Client ID: Q1782-05	MW-3 MW-3	Water	Acetone	1.90	J	1.50	5.00	ug/L
			Total Voc :	1.90				
			Total Concentration:	1.90				



QC SUMMARY

Surrogate Summary

SDG No.: Q1782

Client: Lockwood, Kessler & Bartlett, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1782-01	MW-1	1,2-Dichloroethane-d4	50	53.3	107	74	125
		Dibromofluoromethane	50	52.0	104	75	124
		Toluene-d8	50	50.9	102	86	113
		4-Bromofluorobenzene	50	50.6	101	77	121
Q1782-03	MW-2	1,2-Dichloroethane-d4	50	55.3	111	74	125
		Dibromofluoromethane	50	51.2	102	75	124
		Toluene-d8	50	51.5	103	86	113
		4-Bromofluorobenzene	50	51.5	103	77	121
Q1782-05	MW-3	1,2-Dichloroethane-d4	50	55.1	110	74	125
		Dibromofluoromethane	50	52.0	104	75	124
		Toluene-d8	50	51.0	102	86	113
		4-Bromofluorobenzene	50	52.0	104	77	121
Q1782-09	TRIP BLANK	1,2-Dichloroethane-d4	50	55.2	110	74	125
		Dibromofluoromethane	50	51.6	103	75	124
		Toluene-d8	50	50.8	102	86	113
		4-Bromofluorobenzene	50	52.3	105	77	121
VX0411WBL01	VX0411WBL01	1,2-Dichloroethane-d4	50	53.5	107	74	125
		Dibromofluoromethane	50	51.2	102	75	124
		Toluene-d8	50	50.0	100	86	113
		4-Bromofluorobenzene	50	50.4	101	77	121
VX0411WBS01	VX0411WBS01	1,2-Dichloroethane-d4	50	50.5	101	74	125
		Dibromofluoromethane	50	50.6	101	75	124
		Toluene-d8	50	49.2	98	86	113
		4-Bromofluorobenzene	50	50.6	101	77	121
VX0411WBSD0	VX0411WBSD01	1,2-Dichloroethane-d4	50	52.3	105	74	125
		Dibromofluoromethane	50	49.8	100	75	124
		Toluene-d8	50	49.3	99	86	113
		4-Bromofluorobenzene	50	52.9	106	77	121

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1782

Client: Lockwood, Kessler & Bartlett, Inc.

Analytical Method: SW8260-Low

Datafile : VX045733.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0411WBS01	Vinyl chloride	20	17.5	ug/L	88			65	117	
	Chloroethane	20	18.9	ug/L	95			56	128	
	Trichlorofluoromethane	20	18.4	ug/L	92			73	115	
	1,1-Dichloroethene	20	17.7	ug/L	89			74	110	
	Acrylonitrile	100	92.8	ug/L	93			73	113	
	Acetone	100	91.5	ug/L	92			60	125	
	Carbon disulfide	20	14.2	ug/L	71			64	112	
	Methylene Chloride	20	18.2	ug/L	91			72	114	
	Vinyl Acetate	100	92.3	ug/L	92			76	115	
	2-Butanone	100	95.6	ug/L	96			65	122	
	Carbon Tetrachloride	20	18.6	ug/L	93			77	113	
	cis-1,2-Dichloroethene	20	18.0	ug/L	90			77	110	
	Bromochloromethane	20	24.5	ug/L	123			70	124	
	Chloroform	20	18.3	ug/L	92			79	113	
	1,1,1-Trichloroethane	20	18.6	ug/L	93			80	108	
	Benzene	20	18.1	ug/L	91			82	109	
	1,2-Dichloropropane	20	18.7	ug/L	94			83	111	
	Dibromomethane	20	18.5	ug/L	93			82	110	
	Bromodichloromethane	20	18.3	ug/L	92			83	110	
	4-Methyl-2-Pentanone	100	98.3	ug/L	98			74	118	
	Toluene	20	18.2	ug/L	91			82	110	
	t-1,3-Dichloropropene	20	17.5	ug/L	88			79	110	
	cis-1,3-Dichloropropene	20	19.0	ug/L	95			82	110	
	2-Hexanone	100	100	ug/L	100			73	117	
	Dibromochloromethane	20	18.5	ug/L	93			82	110	
	1,2-Dibromoethane	20	18.6	ug/L	93			81	110	
	Tetrachloroethene	20	19.2	ug/L	96			67	123	
	Chlorobenzene	20	19.0	ug/L	95			82	109	
	1,1,1,2-Tetrachloroethane	20	18.5	ug/L	93			84	111	
	Ethyl Benzene	20	19.0	ug/L	95			83	109	
	m/p-Xylenes	40	37.7	ug/L	94			82	110	
	o-Xylene	20	19.1	ug/L	96			83	109	
	Styrene	20	19.3	ug/L	97			80	111	
	Bromoform	20	17.9	ug/L	90			79	109	
	1,1,2,2-Tetrachloroethane	20	19.3	ug/L	97			76	118	
	1,2,3-Trichloropropane	20	19.3	ug/L	97			75	112	
	1,4-Dichlorobenzene	20	19.0	ug/L	95			82	107	
	1,2-Dichlorobenzene	20	19.4	ug/L	97			82	109	
	1,2-Dibromo-3-Chloropropane	20	19.7	ug/L	99			68	112	
	Methyl iodide	20	16.1	ug/L	81			70	130	
	trans-1,4-Dichloro-2-butene	20	17.3	ug/L	86			79	102	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1782

Client: Lockwood, Kessler & Bartlett, Inc.

Analytical Method: SW8260-Low

Datafile : VX045734.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0411WBSD01	Vinyl chloride	20	17.6	ug/L	88	0		65	117	20
	Chloroethane	20	19.0	ug/L	95	0		56	128	20
	Trichlorofluoromethane	20	19.3	ug/L	97	5		73	115	20
	1,1-Dichloroethene	20	17.9	ug/L	90	1		74	110	20
	Acrylonitrile	100	99.0	ug/L	99	6		73	113	20
	Acetone	100	100	ug/L	100	8		60	125	20
	Carbon disulfide	20	14.5	ug/L	73	3		64	112	20
	Methylene Chloride	20	19.4	ug/L	97	6		72	114	20
	Vinyl Acetate	100	98.0	ug/L	98	6		76	115	20
	2-Butanone	100	100	ug/L	100	4		65	122	20
	Carbon Tetrachloride	20	18.9	ug/L	95	2		77	113	20
	cis-1,2-Dichloroethene	20	18.4	ug/L	92	2		77	110	20
	Bromochloromethane	20	25.7	ug/L	129	5	*	70	124	20
	Chloroform	20	19.7	ug/L	99	7		79	113	20
	1,1,1-Trichloroethane	20	19.3	ug/L	97	4		80	108	20
	Benzene	20	18.7	ug/L	94	3		82	109	20
	1,2-Dichloropropane	20	19.2	ug/L	96	2		83	111	20
	Dibromomethane	20	19.7	ug/L	99	6		82	110	20
	Bromodichloromethane	20	19.5	ug/L	98	6		83	110	20
	4-Methyl-2-Pentanone	100	110	ug/L	110	12		74	118	20
	Toluene	20	19.1	ug/L	96	5		82	110	20
	t-1,3-Dichloropropene	20	18.4	ug/L	92	4		79	110	20
	cis-1,3-Dichloropropene	20	19.9	ug/L	100	5		82	110	20
	2-Hexanone	100	110	ug/L	110	10		73	117	20
	Dibromochloromethane	20	19.2	ug/L	96	3		82	110	20
	1,2-Dibromoethane	20	20.1	ug/L	101	8		81	110	20
	Tetrachloroethene	20	19.2	ug/L	96	0		67	123	20
	Chlorobenzene	20	19.6	ug/L	98	3		82	109	20
	1,1,1,2-Tetrachloroethane	20	19.2	ug/L	96	3		84	111	20
	Ethyl Benzene	20	19.5	ug/L	98	3		83	109	20
	m/p-Xylenes	40	38.9	ug/L	97	3		82	110	20
	o-Xylene	20	19.7	ug/L	99	3		83	109	20
	Styrene	20	20.1	ug/L	101	4		80	111	20
	Bromoform	20	18.8	ug/L	94	4		79	109	20
	1,1,2,2-Tetrachloroethane	20	19.1	ug/L	96	1		76	118	20
	1,2,3-Trichloropropane	20	19.4	ug/L	97	0		75	112	20
	1,4-Dichlorobenzene	20	18.6	ug/L	93	2		82	107	20
	1,2-Dichlorobenzene	20	19.4	ug/L	97	0		82	109	20
	1,2-Dibromo-3-Chloropropane	20	20.3	ug/L	102	3		68	112	20
	Methyl iodide	20	17.6	ug/L	88	8		70	130	20
	trans-1,4-Dichloro-2-butene	20	17.0	ug/L	85	1		79	102	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0411WBL01

Lab Name: CHEMTECH

Contract: LOCK01

Lab Code: CHEM Case No.: Q1782

SAS No.: Q1782 SDG NO.: Q1782

Lab File ID: VX045732.D

Lab Sample ID: VX0411WBL01

Date Analyzed: 04/11/2025

Time Analyzed: 11:32

GC Column: DB-624UI ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0411WBS01	VX0411WBS01	VX045733.D	04/11/2025
VX0411WBSD01	VX0411WBSD01	VX045734.D	04/11/2025
TRIP BLANK	Q1782-09	VX045740.D	04/11/2025
MW-1	Q1782-01	VX045741.D	04/11/2025
MW-2	Q1782-03	VX045742.D	04/11/2025
MW-3	Q1782-05	VX045743.D	04/11/2025

COMMENTS: _____



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LOCK01
Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG NO.: Q1782
Lab File ID: VX045524.D BFB Injection Date: 04/01/2025
Instrument ID: MSVOA_X BFB Injection Time: 16:15
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 60.0% of mass 95	58.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.8 (1.2) 1
174	50.0 - 100.0% of mass 95	66.8
175	5.0 - 9.0% of mass 174	5.2 (7.8) 1
176	95.0 - 101.0% of mass 174	65.3 (97.8) 1
177	5.0 - 9.0% of mass 176	4.4 (6.8) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC001	VSTDIC001	VX045525.D	04/01/2025	17:06
VSTDIC005	VSTDIC005	VX045526.D	04/01/2025	17:29
VSTDIC020	VSTDIC020	VX045527.D	04/01/2025	17:52
VSTDIC050	VSTDIC050	VX045528.D	04/01/2025	18:15
VSTDIC100	VSTDIC100	VX045529.D	04/01/2025	18:38
VSTDIC150	VSTDIC150	VX045530.D	04/01/2025	19:02



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: LOCK01
Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG NO.: Q1782
Lab File ID: VX045729.D BFB Injection Date: 04/11/2025
Instrument ID: MSVOA_X BFB Injection Time: 10:14
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.2
75	30.0 - 60.0% of mass 95	59.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1.3) 1
174	50.0 - 100.0% of mass 95	66.2
175	5.0 - 9.0% of mass 174	5 (7.5) 1
176	95.0 - 101.0% of mass 174	63.3 (95.7) 1
177	5.0 - 9.0% of mass 176	4 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX045730.D	04/11/2025	10:41
VX0411WBL01	VX0411WBL01	VX045732.D	04/11/2025	11:32
VX0411WBS01	VX0411WBS01	VX045733.D	04/11/2025	11:55
VX0411WBSD01	VX0411WBSD01	VX045734.D	04/11/2025	12:22
TRIP BLANK	Q1782-09	VX045740.D	04/11/2025	14:41
MW-1	Q1782-01	VX045741.D	04/11/2025	15:04
MW-2	Q1782-03	VX045742.D	04/11/2025	15:28
MW-3	Q1782-05	VX045743.D	04/11/2025	15:51

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LOCK01
 Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG NO.: Q1782
 Lab File ID: VX045730.D Date Analyzed: 04/11/2025
 Instrument ID: MSVOA_X Time Analyzed: 10:41
 GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	97283	5.54	164714	6.76	147741	10.05
UPPER LIMIT	194566	6.044	329428	7.257	295482	10.549
LOWER LIMIT	48641.5	5.044	82357	6.257	73870.5	9.549
EPA SAMPLE NO.						
MW-1	68722	5.54	132692	6.76	121469	10.05
MW-2	65299	5.54	128436	6.76	119025	10.06
MW-3	63602	5.55	124448	6.76	115160	10.06
TRIP BLANK	62495	5.55	122581	6.76	112879	10.05
VX0411WBL01	65554	5.55	128675	6.76	118153	10.05
VX0411WBS01	92540	5.54	163903	6.76	140888	10.05
VX0411WBSD01	84320	5.54	150272	6.76	131860	10.05

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: LOCK01
 Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG NO.: Q1782
 Lab File ID: VX045730.D Date Analyzed: 04/11/2025
 Instrument ID: MSVOA_X Time Analyzed: 10:41
 GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	71449	12.018				
UPPER LIMIT	142898	12.518				
LOWER LIMIT	35724.5	11.518				
EPA SAMPLE NO.						
MW-1	48933	12.02				
MW-2	49214	12.02				
MW-3	48473	12.02				
TRIP BLANK	48954	12.02				
VX0411WBL01	48353	12.02				
VX0411WBS01	64715	12.02				
VX0411WBSD01	63206	12.02				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = -50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.



SAMPLE DATA

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	MW-1	SDG No.:	Q1782
Lab Sample ID:	Q1782-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	DB-624UI	ID :	0.18
Prep Method :		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045741.D	1		04/11/25 15:04	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.80	J	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	UQ	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	MW-1	SDG No.:	Q1782
Lab Sample ID:	Q1782-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	DB-624UI	ID :	0.18
Prep Method :		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045741.D	1		04/11/25 15:04	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1330-20-7	Total Xylenes	0.36	U	0.36	3.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
74-88-4	Methyl Iodide	0.83	U	0.83	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.84	U	0.84	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.3		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	52.0		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	50.9		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.6		77 - 121	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	68700	5.544			
540-36-3	1,4-Difluorobenzene	133000	6.757			
3114-55-4	Chlorobenzene-d5	121000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	48900	12.018			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of OC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045741.D
 Acq On : 11 Apr 2025 15:04
 Operator : JC/MD
 Sample : Q1782-01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 MW-1

Quant Time: Apr 11 23:05:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

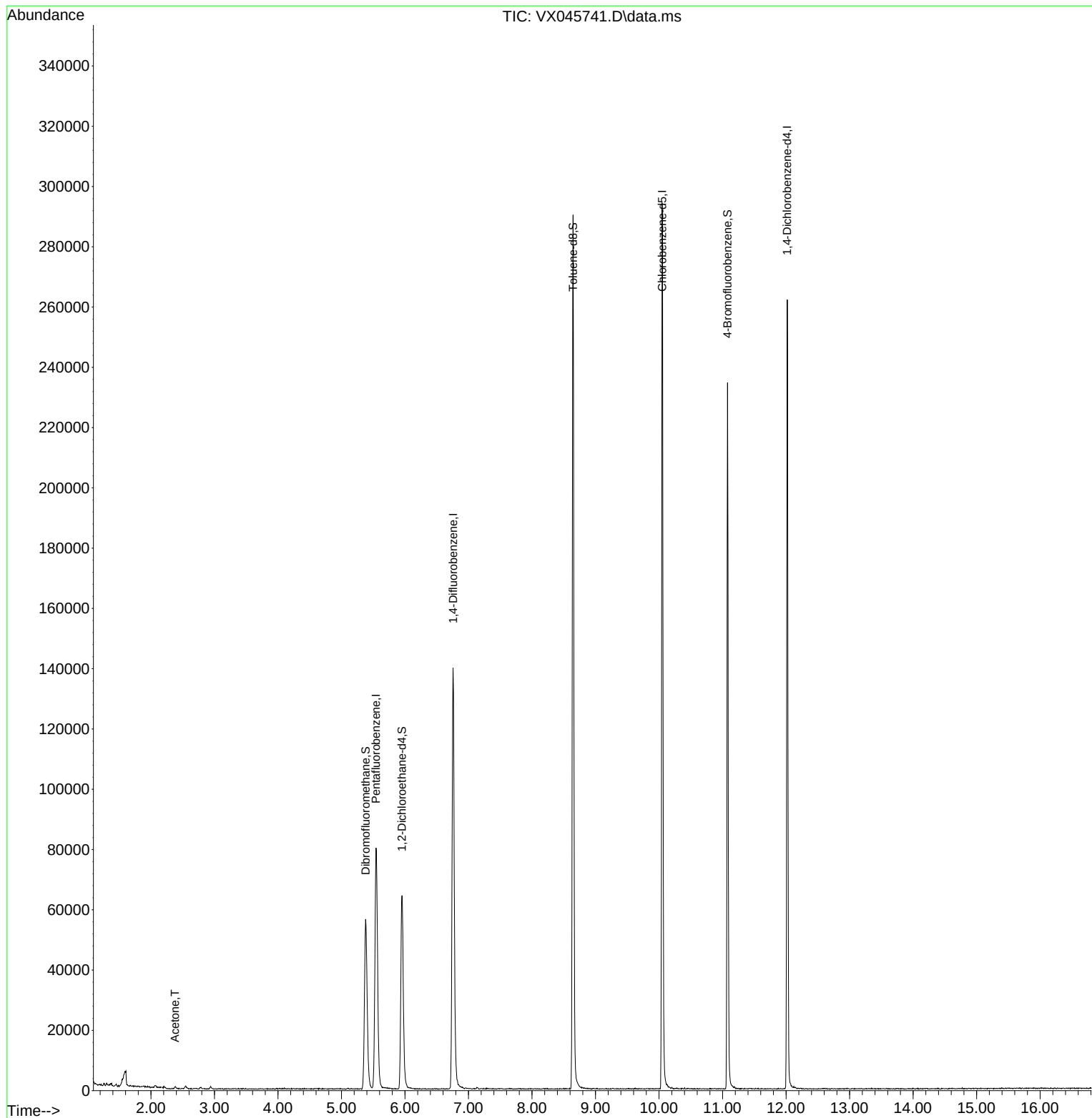
Internal Standards						
1) Pentafluorobenzene	5.544	168	68722	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	132692	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	121469	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	48933	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	66987	53.302	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	= 106.600%	
35) Dibromofluoromethane	5.379	113	48989	52.036	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	= 104.080%	
50) Toluene-d8	8.647	98	167371	50.934	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	= 101.860%	
62) 4-Bromofluorobenzene	11.079	95	60578	50.611	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	= 101.220%	
Target Compounds						
16) Acetone	2.379	43	915	1.773	ug/l	Qvalue # 84

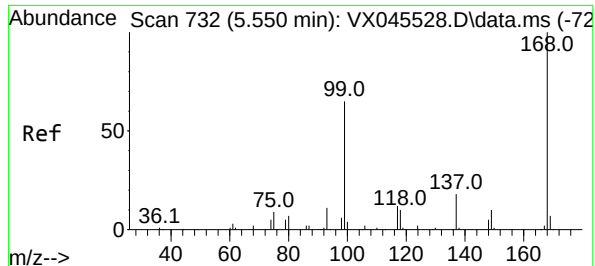
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045741.D
Acq On : 11 Apr 2025 15:04
Operator : JC/MD
Sample : Q1782-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-1

Quant Time: Apr 11 23:05:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

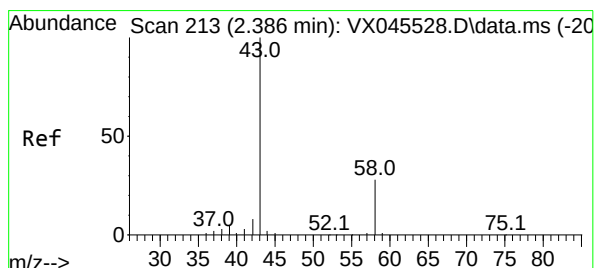
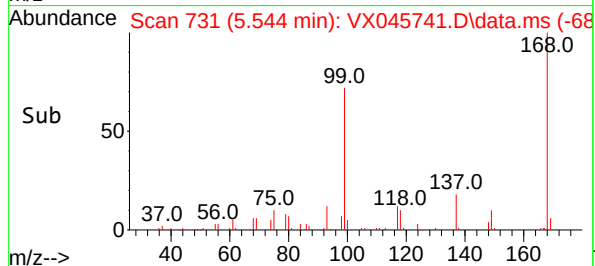
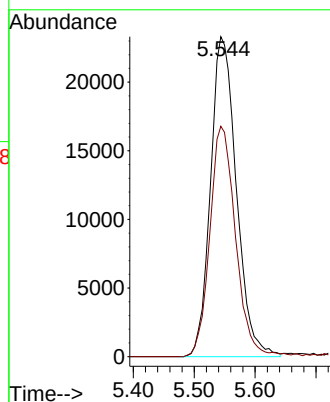
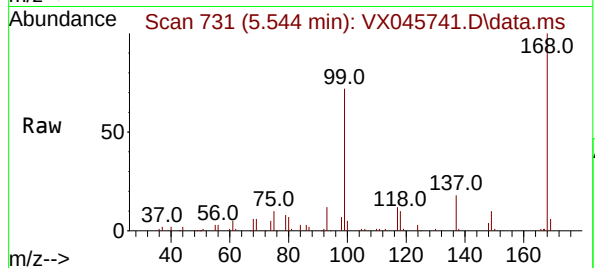




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.544 min Scan# 71
Delta R.T. -0.006 min
Lab File: VX045741.D
Acq: 11 Apr 2025 15:04

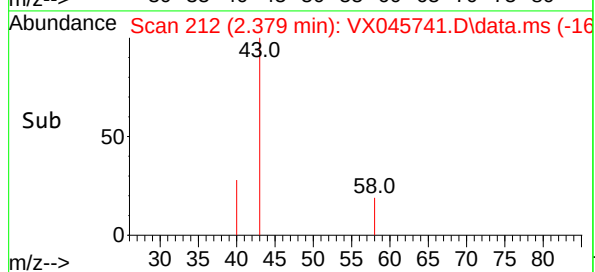
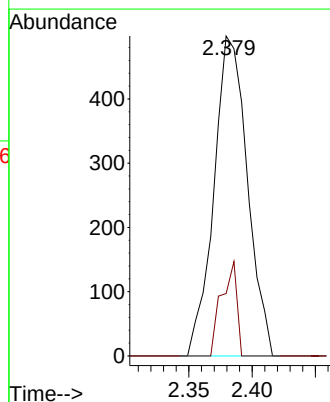
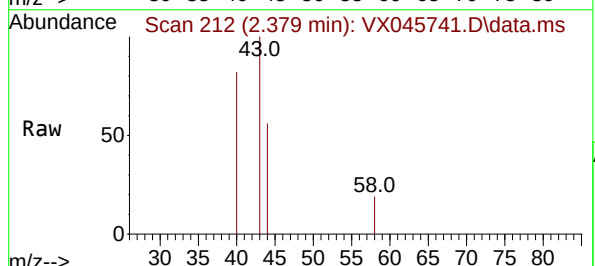
Instrument :
MSVOA_X
ClientSampleId :
MW-1

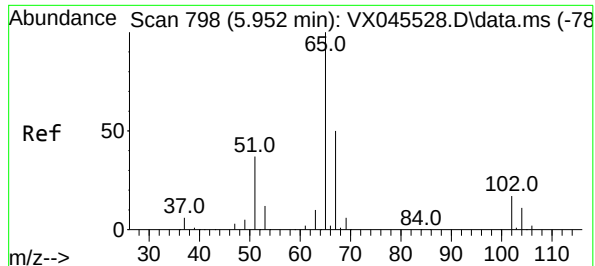
Tgt Ion:168 Resp: 68722
Ion Ratio Lower Upper
168 100
99 72.0 52.3 78.5



#16
Acetone
Concen: 1.773 ug/l
RT: 2.379 min Scan# 212
Delta R.T. -0.006 min
Lab File: VX045741.D
Acq: 11 Apr 2025 15:04

Tgt Ion: 43 Resp: 915
Ion Ratio Lower Upper
43 100
58 19.5 22.3 33.5





#33

1,2-Dichloroethane-d4

Concen: 53.302 ug/l

RT: 5.952 min Scan# 798

Delta R.T. -0.000 min

Lab File: VX045741.D

Acq: 11 Apr 2025 15:04

Instrument :

MSVOA_X

ClientSampleId :

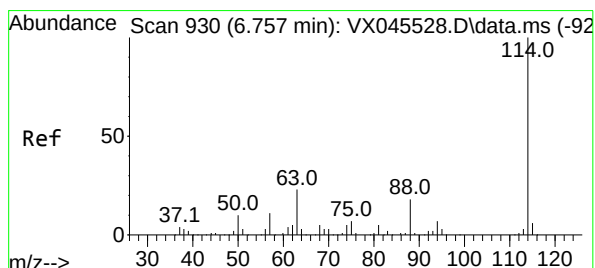
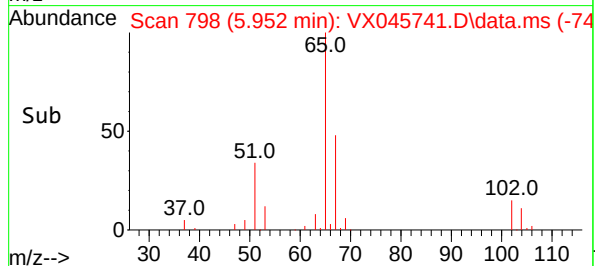
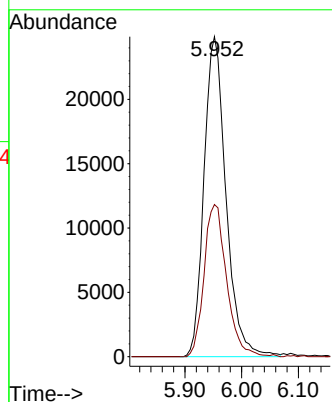
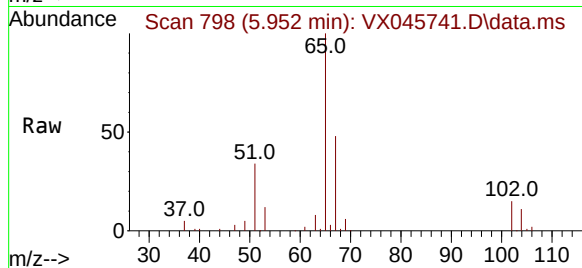
MW-1

Tgt Ion: 65 Resp: 66987

Ion Ratio Lower Upper

65 100

67 48.8 0.0 99.0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.000 min

Lab File: VX045741.D

Acq: 11 Apr 2025 15:04

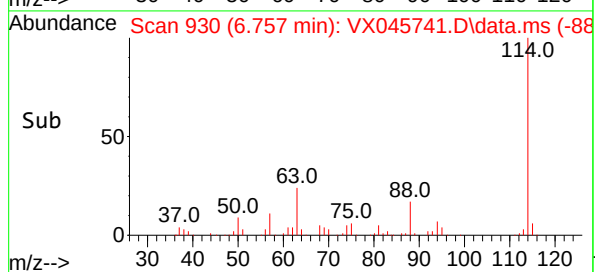
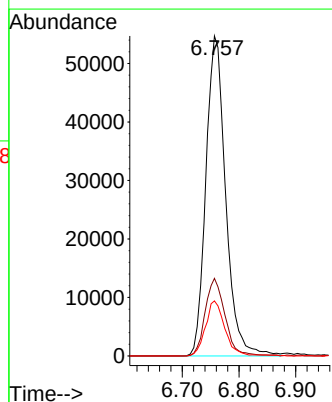
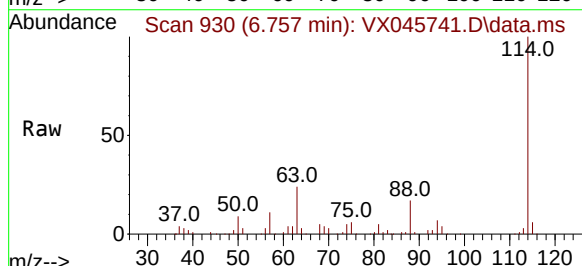
Tgt Ion: 114 Resp: 132692

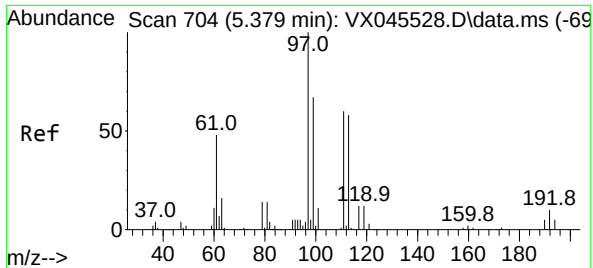
Ion Ratio Lower Upper

114 100

63 24.3 0.0 46.8

88 17.2 0.0 35.4





#35

Dibromofluoromethane

Concen: 52.036 ug/l

RT: 5.379 min Scan# 704

Delta R.T. -0.000 min

Lab File: VX045741.D

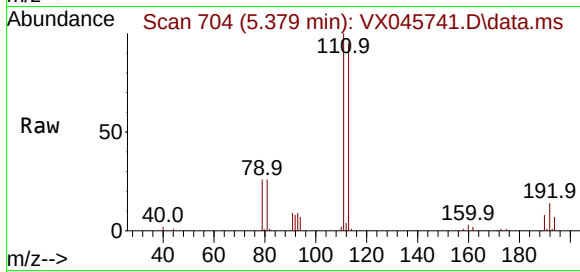
Acq: 11 Apr 2025 15:04

Instrument :

MSVOA_X

ClientSampleId :

MW-1



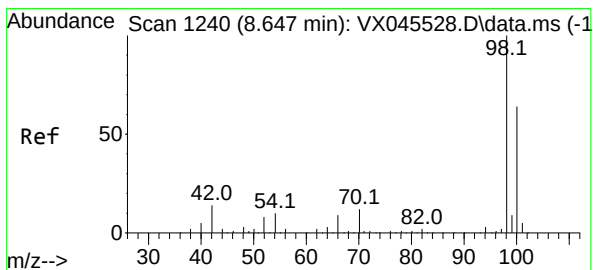
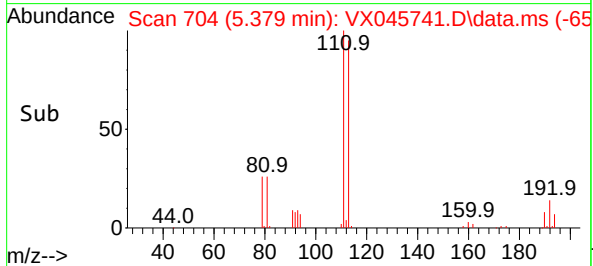
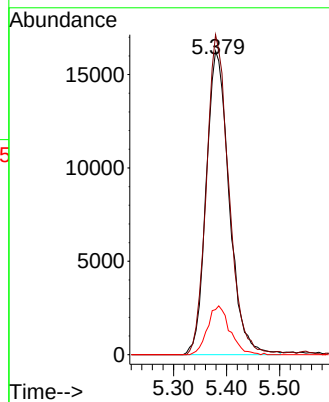
Tgt Ion:113 Resp: 48989

Ion Ratio Lower Upper

113 100

111 102.6 81.8 122.6

192 15.7 13.8 20.6



#50

Toluene-d8

Concen: 50.934 ug/l

RT: 8.647 min Scan# 1240

Delta R.T. -0.000 min

Lab File: VX045741.D

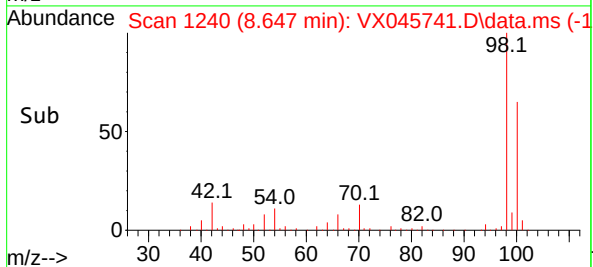
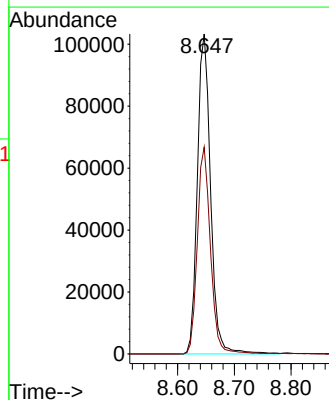
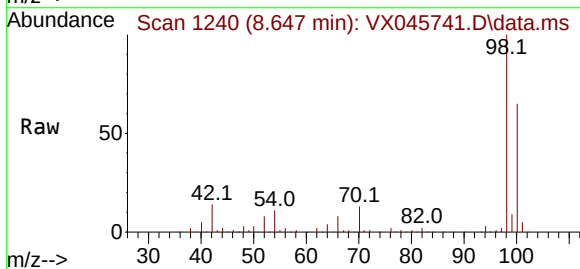
Acq: 11 Apr 2025 15:04

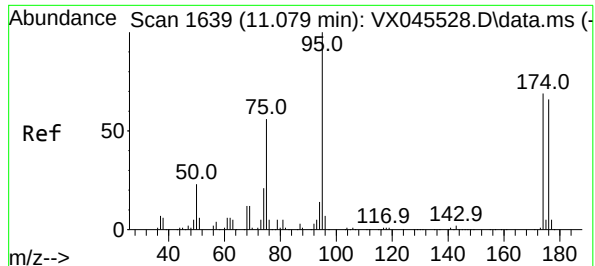
Tgt Ion: 98 Resp: 167371

Ion Ratio Lower Upper

98 100

100 64.0 52.2 78.4





#62

4-Bromofluorobenzene

Concen: 50.611 ug/l

RT: 11.079 min Scan# 1

Delta R.T. -0.000 min

Lab File: VX045741.D

Acq: 11 Apr 2025 15:04

Instrument :

MSVOA_X

ClientSampleId :

MW-1

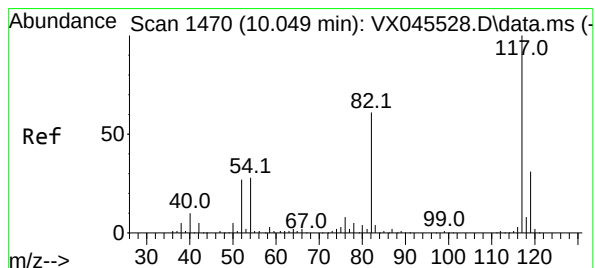
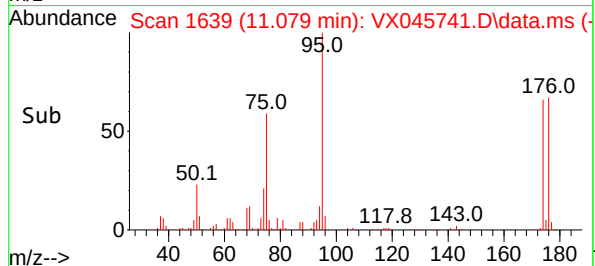
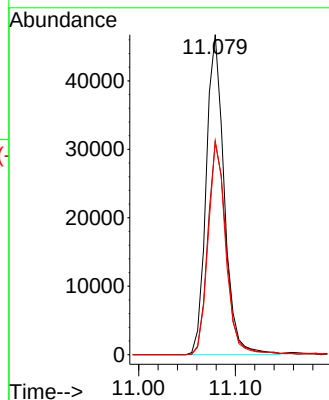
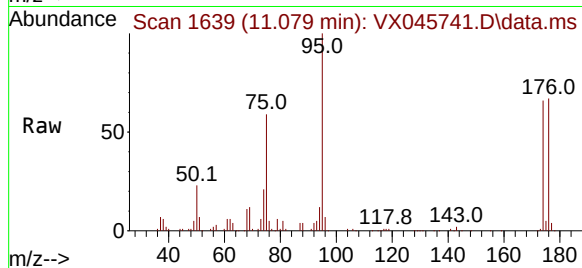
Tgt Ion: 95 Resp: 60578

Ion Ratio Lower Upper

95 100

174 68.1 0.0 135.8

176 65.3 0.0 131.4



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.049 min Scan# 1470

Delta R.T. -0.000 min

Lab File: VX045741.D

Acq: 11 Apr 2025 15:04

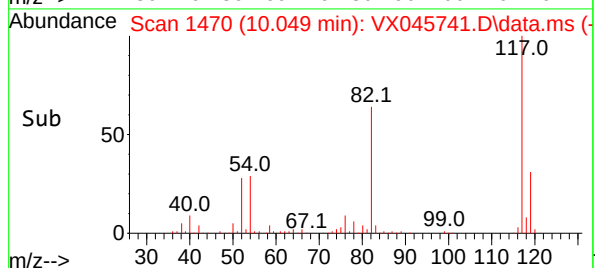
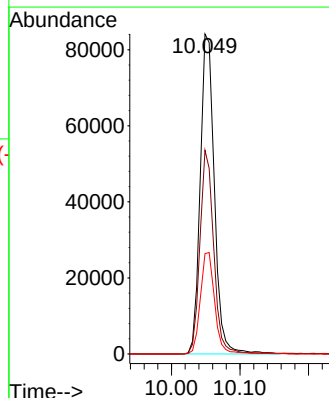
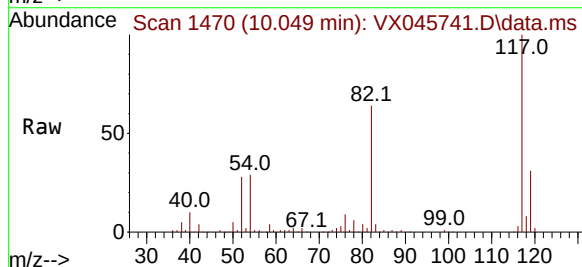
Tgt Ion: 117 Resp: 121469

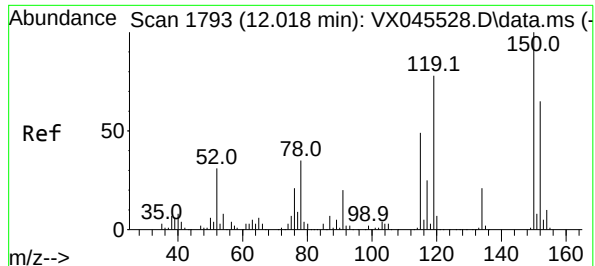
Ion Ratio Lower Upper

117 100

82 63.7 49.2 73.8

119 31.4 25.1 37.7





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.018 min Scan# 11

Delta R.T. -0.000 min

Lab File: VX045741.D

Acq: 11 Apr 2025 15:04

Instrument :

MSVOA_X

ClientSampleId :

MW-1

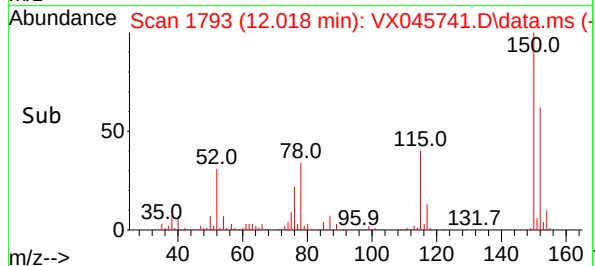
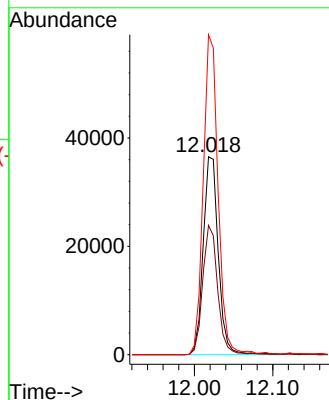
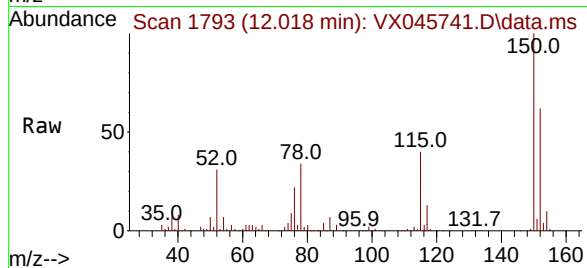
Tgt Ion:152 Resp: 48933

Ion Ratio Lower Upper

152 100

115 64.8 46.9 140.7

150 159.0 0.0 349.4



Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	MW-2	SDG No.:	Q1782
Lab Sample ID:	Q1782-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	DB-624UI	ID :	0.18
Prep Method :		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045742.D	1		04/11/25 15:28	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	J	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	UQ	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	MW-2	SDG No.:	Q1782
Lab Sample ID:	Q1782-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5	Units:	mL
Soil Aliquot Vol:			uL
GC Column:	DB-624UI	ID :	0.18
Prep Method :		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045742.D	1		04/11/25 15:28	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1330-20-7	Total Xylenes	0.36	U	0.36	3.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
74-88-4	Methyl Iodide	0.83	U	0.83	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.84	U	0.84	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.3		74 - 125	111%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	51.5		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.5		77 - 121	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	65300	5.543			
540-36-3	1,4-Difluorobenzene	128000	6.757			
3114-55-4	Chlorobenzene-d5	119000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	49200	12.018			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of OC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045742.D
 Acq On : 11 Apr 2025 15:28
 Operator : JC/MD
 Sample : Q1782-03
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 MW-2

Quant Time: Apr 11 23:05:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

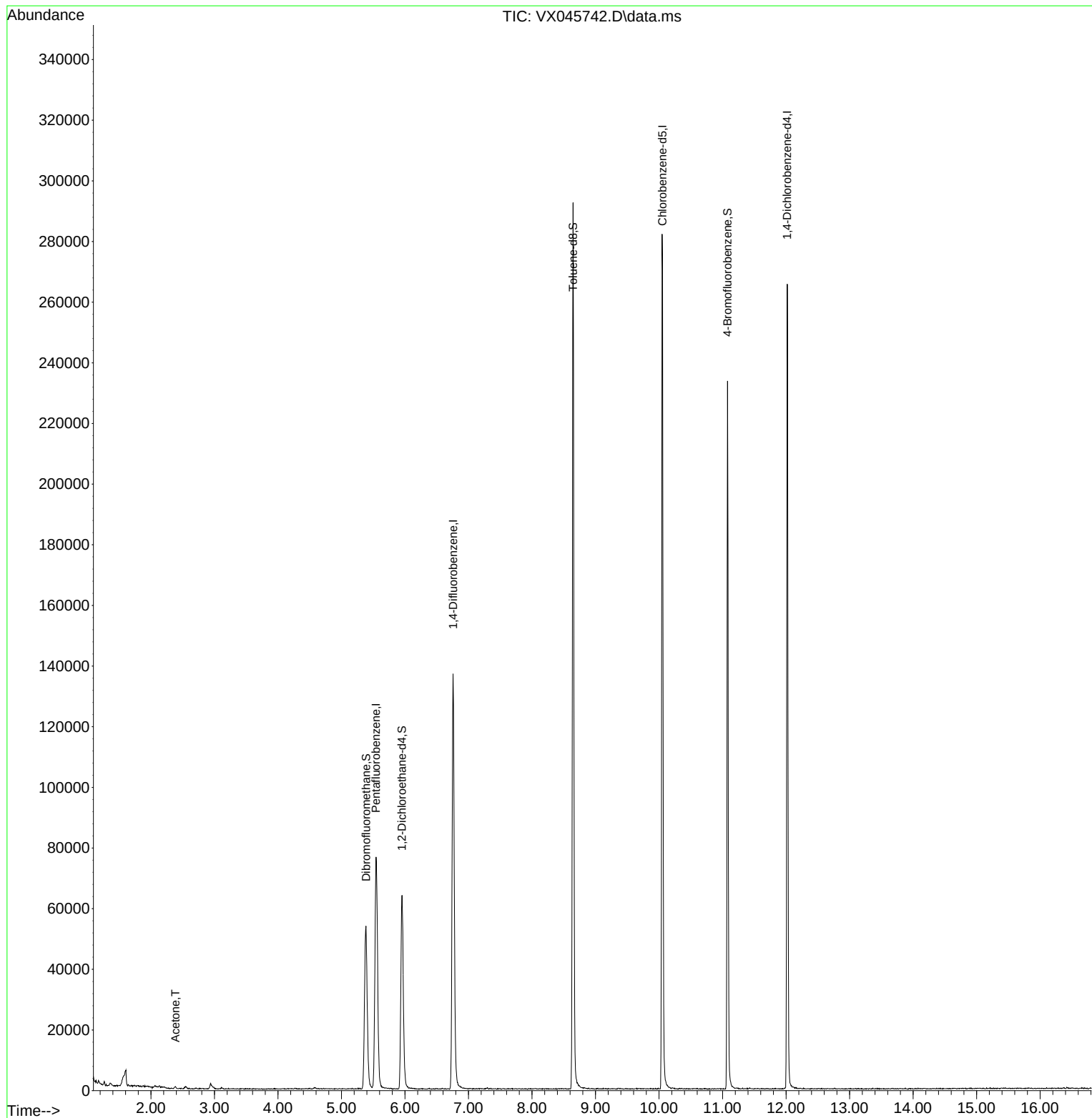
Internal Standards						
1) Pentafluorobenzene	5.543	168	65299	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	128436	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	119025	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	49214	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	66071	55.329	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 110.660%			
35) Dibromofluoromethane	5.385	113	46646	51.189	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.380%			
50) Toluene-d8	8.646	98	163762	51.487	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 102.980%			
62) 4-Bromofluorobenzene	11.079	95	59714	51.542	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 103.080%			
Target Compounds						
16) Acetone	2.385	43	724	1.476	ug/l	92

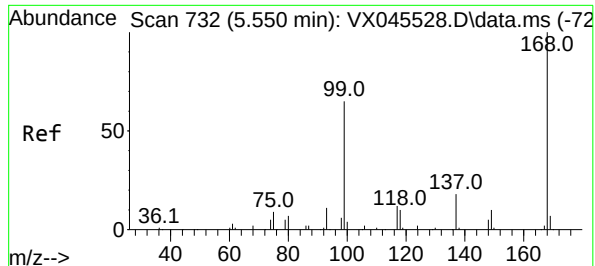
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045742.D
Acq On : 11 Apr 2025 15:28
Operator : JC/MD
Sample : Q1782-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-2

Quant Time: Apr 11 23:05:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

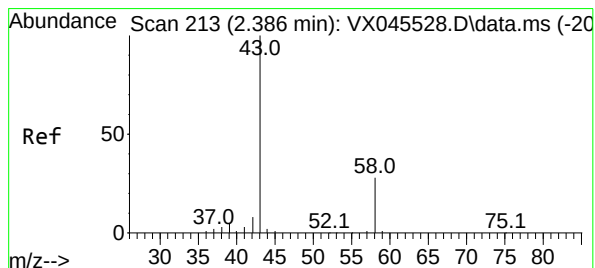
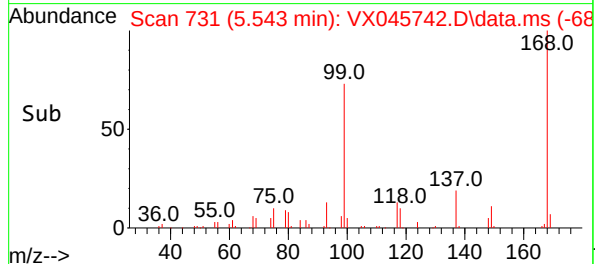
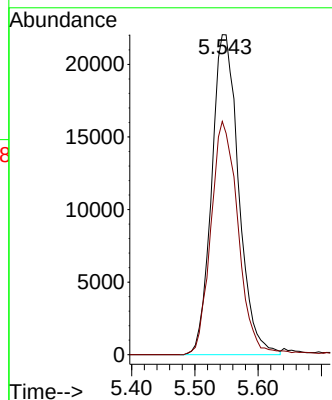
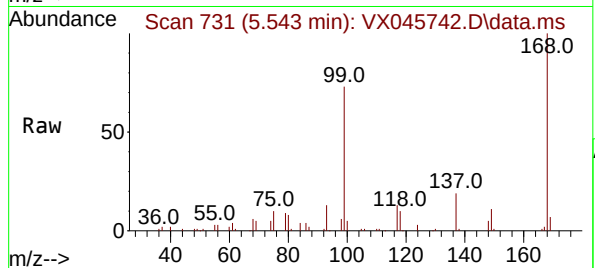




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.543 min Scan# 731
Delta R.T. -0.007 min
Lab File: VX045742.D
Acq: 11 Apr 2025 15:28

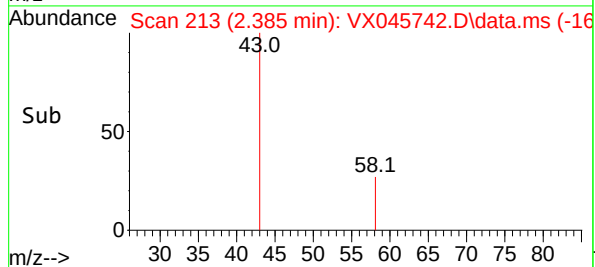
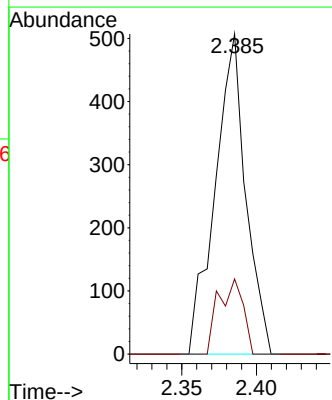
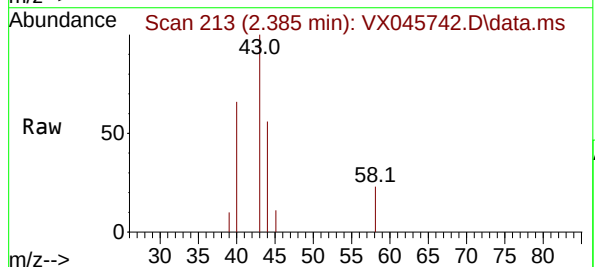
Instrument :
MSVOA_X
ClientSampleId :
MW-2

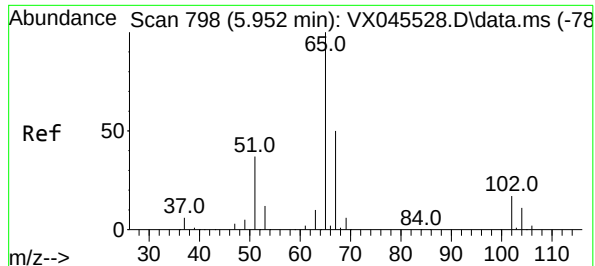
Tgt Ion:168 Resp: 65299
Ion Ratio Lower Upper
168 100
99 72.9 52.3 78.5



#16
Acetone
Concen: 1.476 ug/l
RT: 2.385 min Scan# 213
Delta R.T. -0.000 min
Lab File: VX045742.D
Acq: 11 Apr 2025 15:28

Tgt Ion: 43 Resp: 724
Ion Ratio Lower Upper
43 100
58 23.5 22.3 33.5





#33

1,2-Dichloroethane-d4

Concen: 55.329 ug/l

RT: 5.952 min Scan# 798

Delta R.T. -0.000 min

Lab File: VX045742.D

Acq: 11 Apr 2025 15:28

Instrument :

MSVOA_X

ClientSampleId :

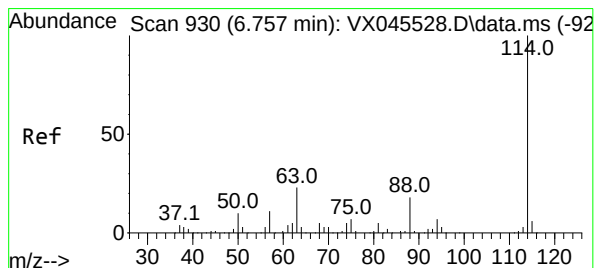
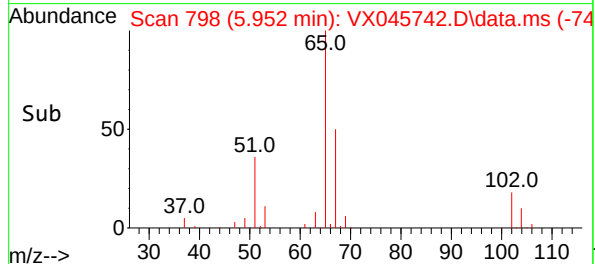
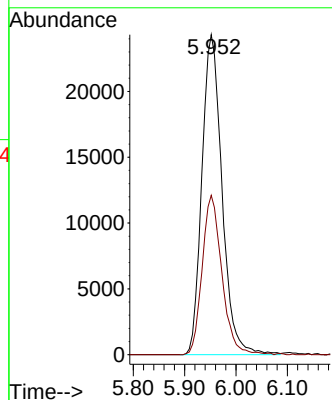
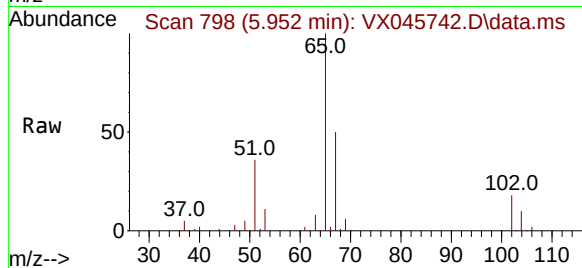
MW-2

Tgt Ion: 65 Resp: 66071

Ion Ratio Lower Upper

65 100

67 48.7 0.0 99.0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.000 min

Lab File: VX045742.D

Acq: 11 Apr 2025 15:28

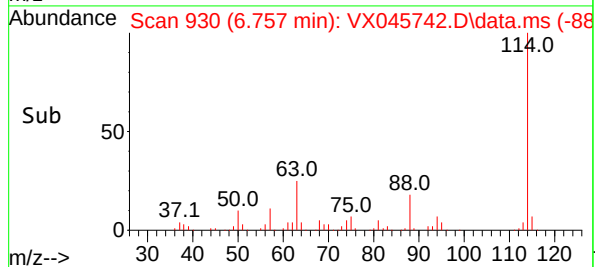
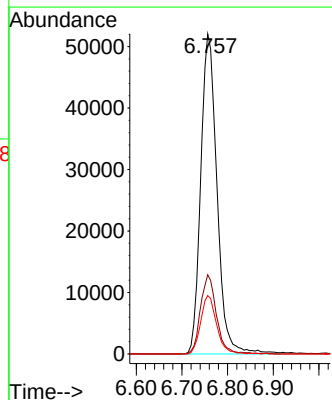
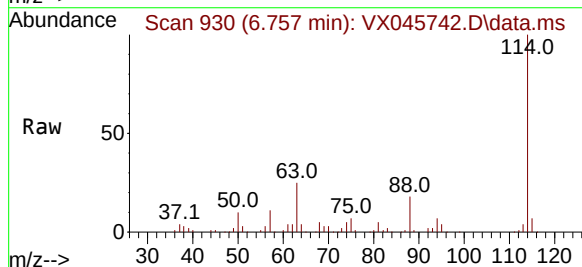
Tgt Ion: 114 Resp: 128436

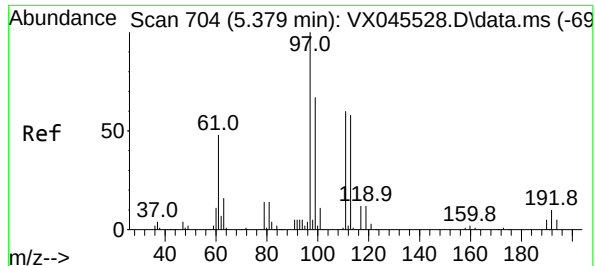
Ion Ratio Lower Upper

114 100

63 24.8 0.0 46.8

88 18.3 0.0 35.4





#35

Dibromofluoromethane

Concen: 51.189 ug/l

RT: 5.385 min Scan# 704

Delta R.T. 0.006 min

Lab File: VX045742.D

Acq: 11 Apr 2025 15:28

Instrument :

MSVOA_X

ClientSampleId :

MW-2

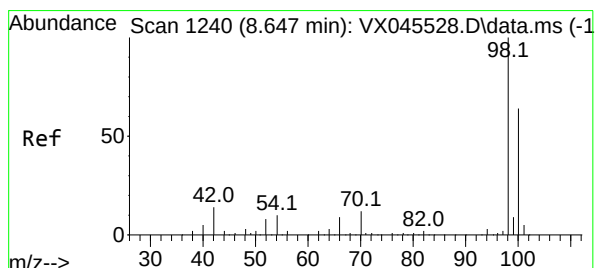
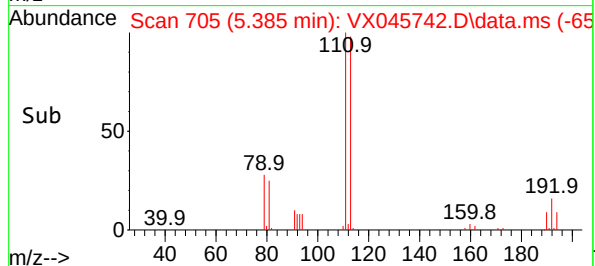
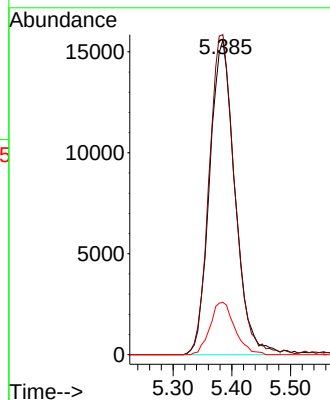
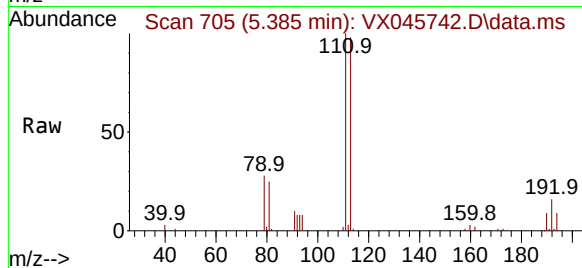
Tgt Ion:113 Resp: 46646

Ion Ratio Lower Upper

113 100

111 102.5 81.8 122.6

192 16.3 13.8 20.6



#50

Toluene-d8

Concen: 51.487 ug/l

RT: 8.646 min Scan# 1240

Delta R.T. -0.000 min

Lab File: VX045742.D

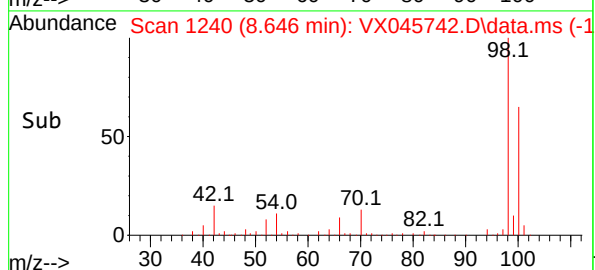
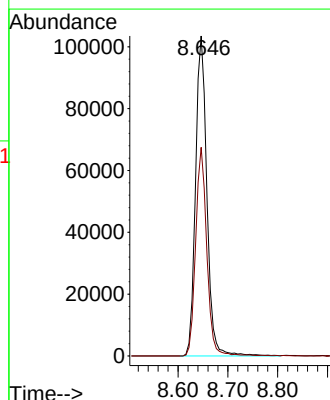
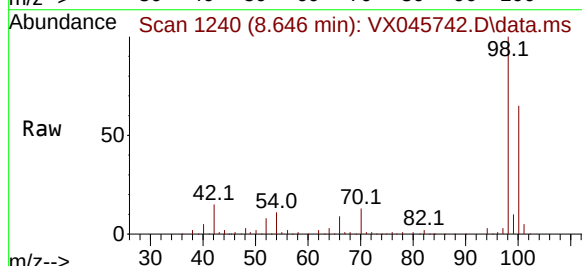
Acq: 11 Apr 2025 15:28

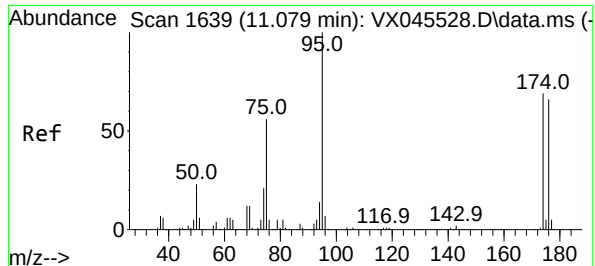
Tgt Ion: 98 Resp: 163762

Ion Ratio Lower Upper

98 100

100 63.5 52.2 78.4

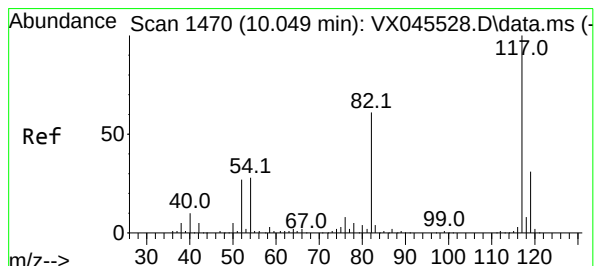
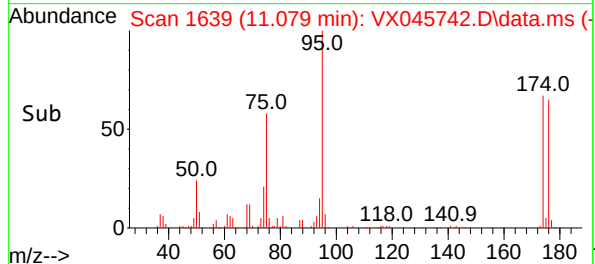
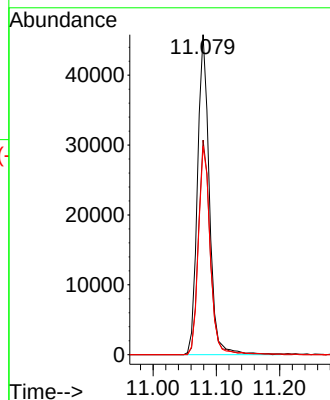
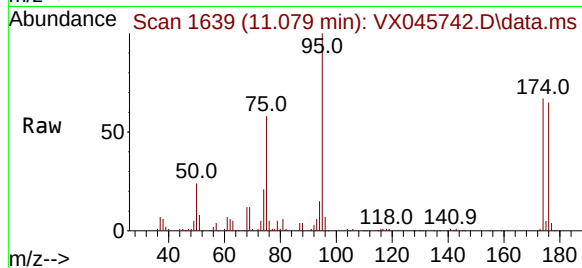




#62
4-Bromofluorobenzene
Concen: 51.542 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045742.D
Acq: 11 Apr 2025 15:28

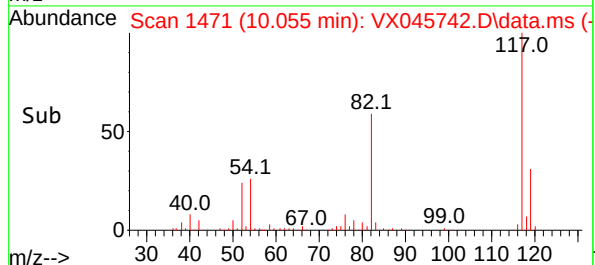
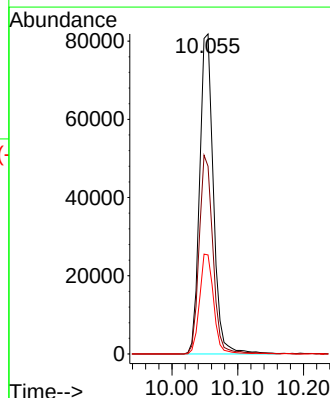
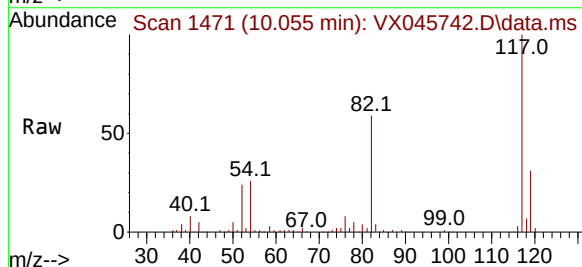
Instrument :
MSVOA_X
ClientSampleId :
MW-2

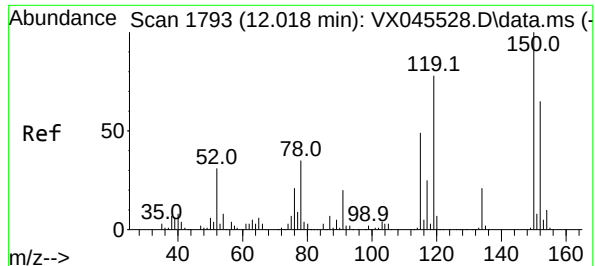
Tgt Ion: 95 Resp: 59714
Ion Ratio Lower Upper
95 100
174 66.2 0.0 135.8
176 65.0 0.0 131.4



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.006 min
Lab File: VX045742.D
Acq: 11 Apr 2025 15:28

Tgt Ion: 117 Resp: 119025
Ion Ratio Lower Upper
117 100
82 58.6 49.2 73.8
119 31.0 25.1 37.7





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.018 min Scan# 11

Delta R.T. -0.000 min

Lab File: VX045742.D

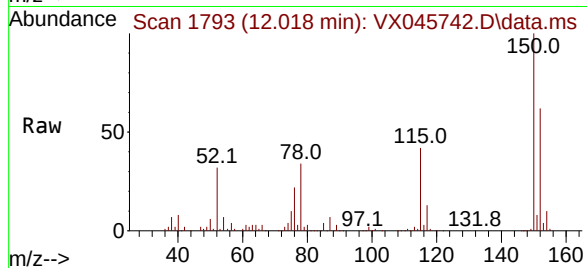
Acq: 11 Apr 2025 15:28

Instrument :

MSVOA_X

ClientSampleId :

MW-2



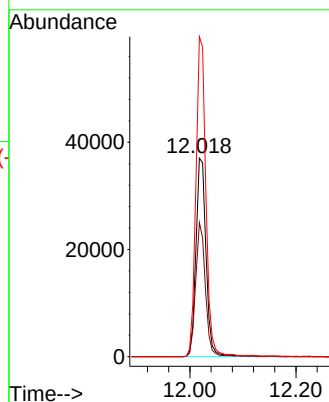
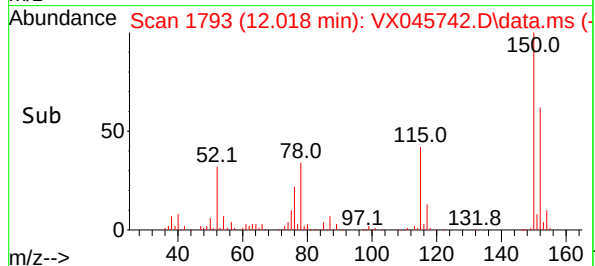
Tgt Ion:152 Resp: 49214

Ion Ratio Lower Upper

152 100

115 65.1 46.9 140.7

150 158.0 0.0 349.4



Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	MW-3	SDG No.:	Q1782
Lab Sample ID:	Q1782-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045743.D	1		04/11/25 15:51	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.90	J	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	UQ	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	MW-3	SDG No.:	Q1782
Lab Sample ID:	Q1782-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045743.D	1		04/11/25 15:51	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1330-20-7	Total Xylenes	0.36	U	0.36	3.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
74-88-4	Methyl Iodide	0.83	U	0.83	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.84	U	0.84	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.1		74 - 125	110%	SPK: 50
1868-53-7	Dibromofluoromethane	52.0		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	51.0		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.0		77 - 121	104%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	63600	5.55			
540-36-3	1,4-Difluorobenzene	124000	6.757			
3114-55-4	Chlorobenzene-d5	115000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	48500	12.018			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045743.D
 Acq On : 11 Apr 2025 15:51
 Operator : JC/MD
 Sample : Q1782-05
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 MW-3

Quant Time: Apr 11 23:05:53 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

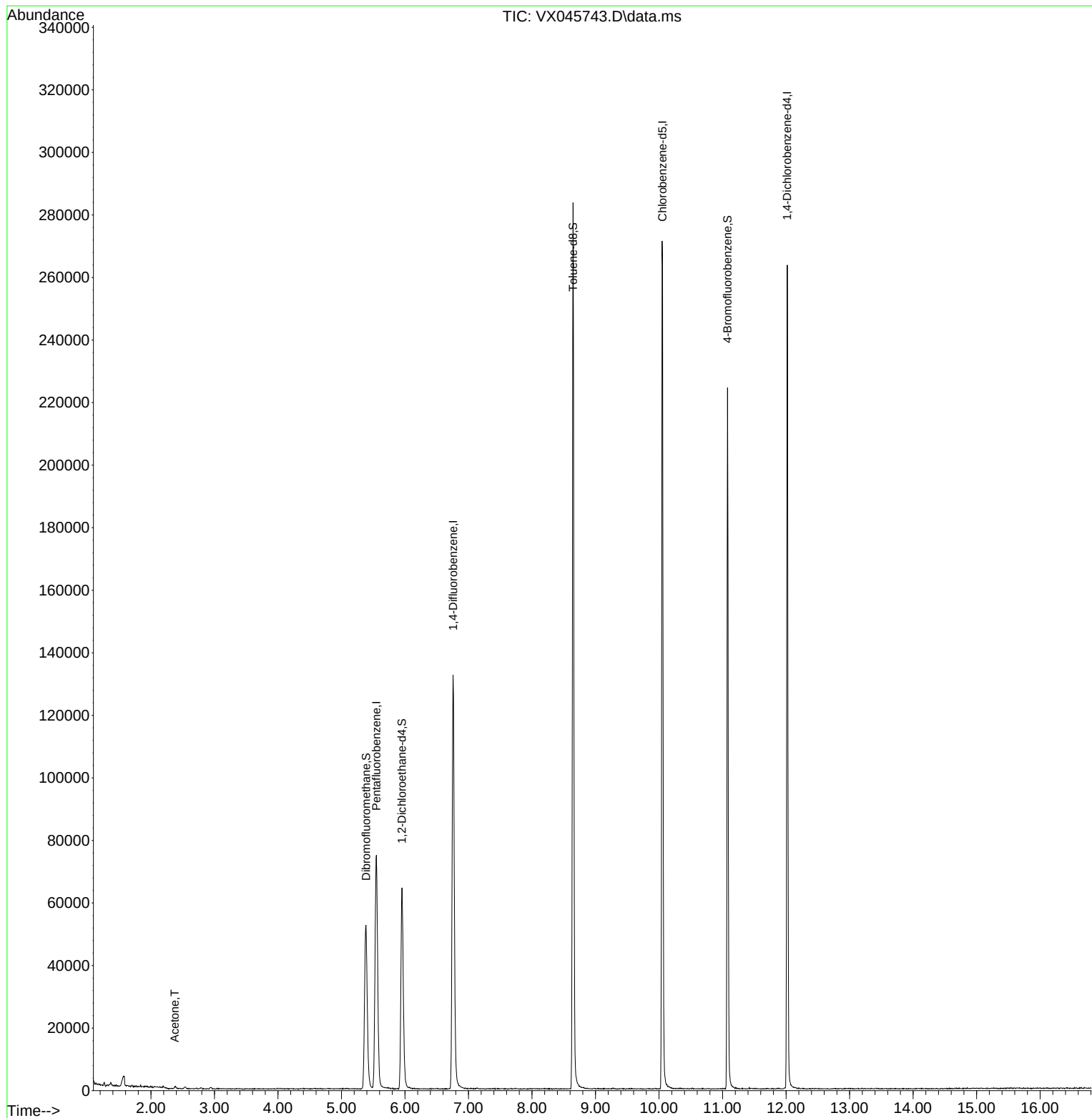
Internal Standards						
1) Pentafluorobenzene	5.550	168	63602	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	124448	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	115160	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	48473	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	64126	55.133	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	110.260%
35) Dibromofluoromethane	5.385	113	45947	52.037	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	104.080%
50) Toluene-d8	8.647	98	157073	50.967	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	101.940%
62) 4-Bromofluorobenzene	11.079	95	58388	52.013	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	=	104.020%
Target Compounds						
16) Acetone	2.373	43	904	1.893	ug/l	Qvalue # 84

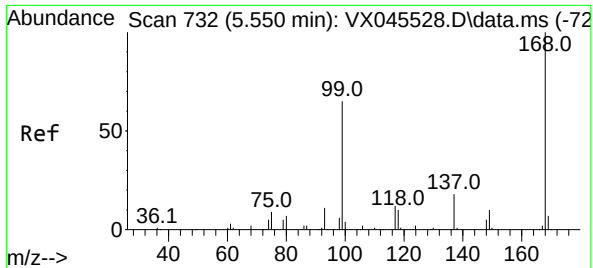
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045743.D
Acq On : 11 Apr 2025 15:51
Operator : JC/MD
Sample : Q1782-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-3

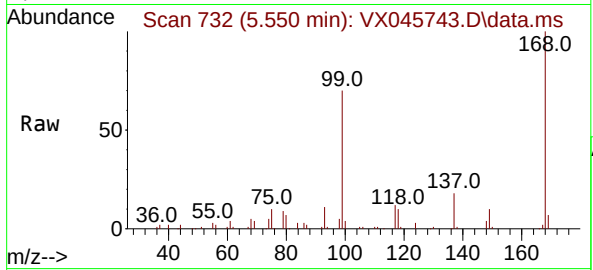
Quant Time: Apr 11 23:05:53 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



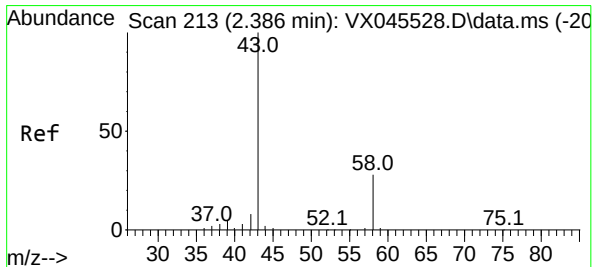
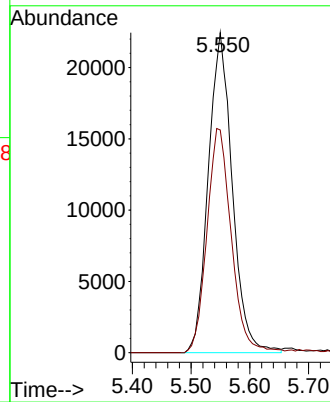
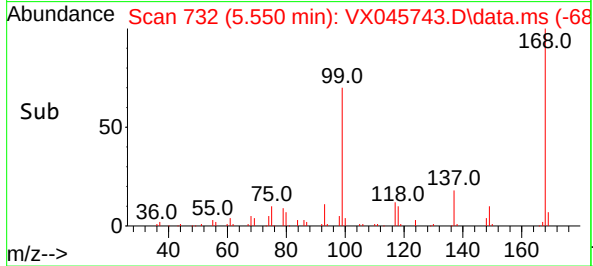


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 71
Delta R.T. -0.000 min
Lab File: VX045743.D
Acq: 11 Apr 2025 15:51

Instrument :
MSVOA_X
ClientSampleId :
MW-3

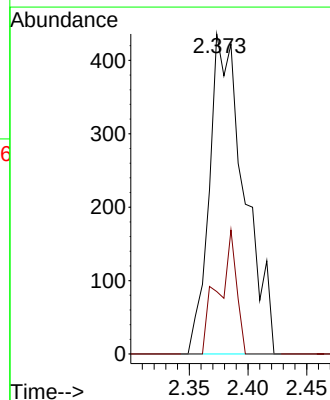
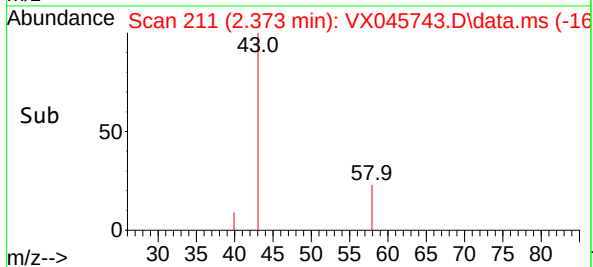
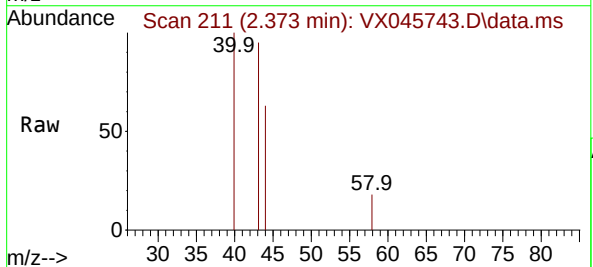


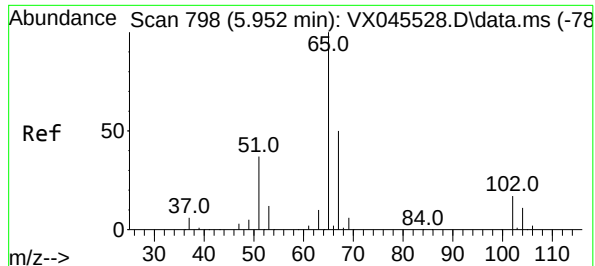
Tgt Ion:168 Resp: 63602
Ion Ratio Lower Upper
168 100
99 69.6 52.3 78.5



#16
Acetone
Concen: 1.893 ug/l
RT: 2.373 min Scan# 211
Delta R.T. -0.012 min
Lab File: VX045743.D
Acq: 11 Apr 2025 15:51

Tgt Ion: 43 Resp: 904
Ion Ratio Lower Upper
43 100
58 19.5 22.3 33.5#





#33

1,2-Dichloroethane-d4

Concen: 55.133 ug/l

RT: 5.952 min Scan# 798

Delta R.T. -0.000 min

Lab File: VX045743.D

Acq: 11 Apr 2025 15:51

Instrument :

MSVOA_X

ClientSampleId :

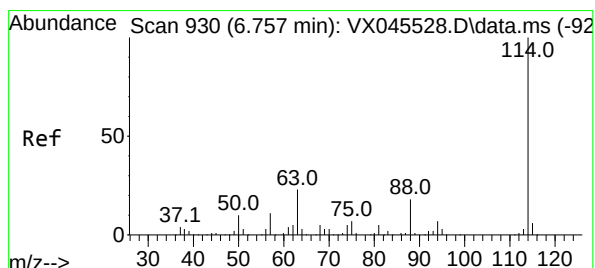
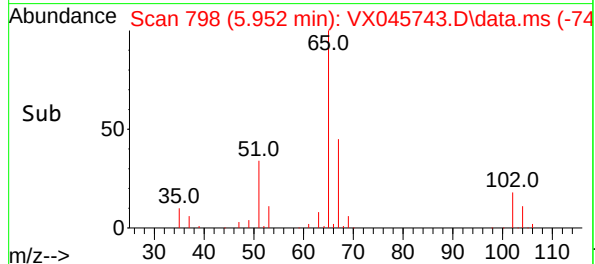
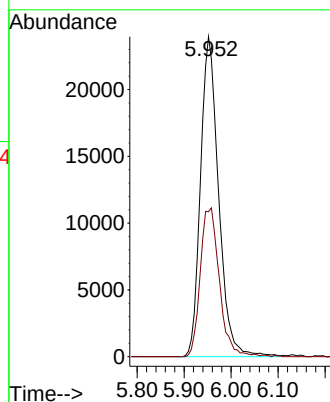
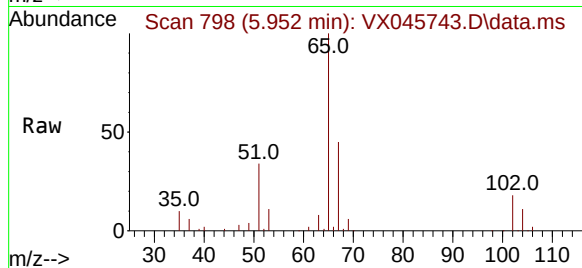
MW-3

Tgt Ion: 65 Resp: 64126

Ion Ratio Lower Upper

65 100

67 48.9 0.0 99.0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.000 min

Lab File: VX045743.D

Acq: 11 Apr 2025 15:51

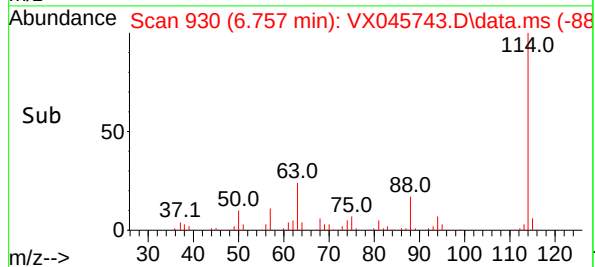
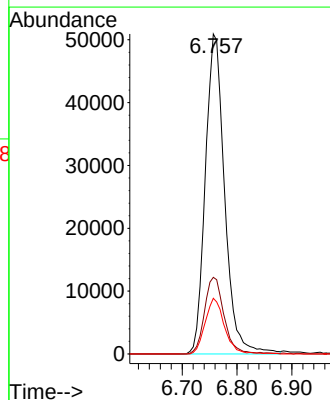
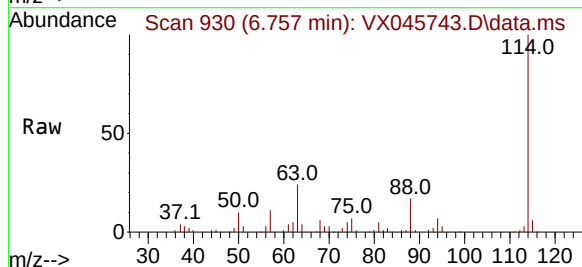
Tgt Ion: 114 Resp: 124448

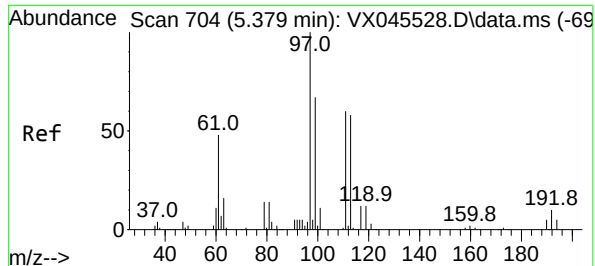
Ion Ratio Lower Upper

114 100

63 23.9 0.0 46.8

88 17.4 0.0 35.4





#35

Dibromofluoromethane

Concen: 52.037 ug/l

RT: 5.385 min Scan# 704

Delta R.T. 0.006 min

Lab File: VX045743.D

Acq: 11 Apr 2025 15:51

Instrument :

MSVOA_X

ClientSampleId :

MW-3

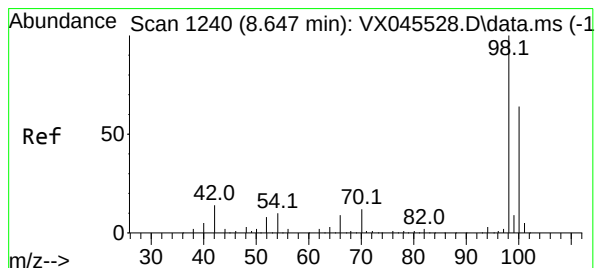
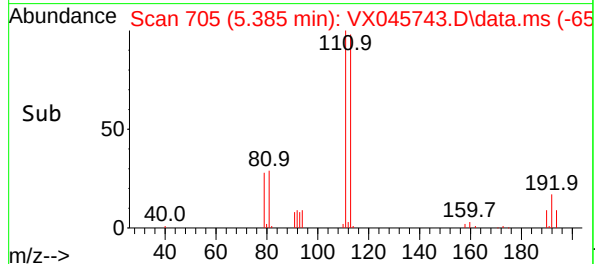
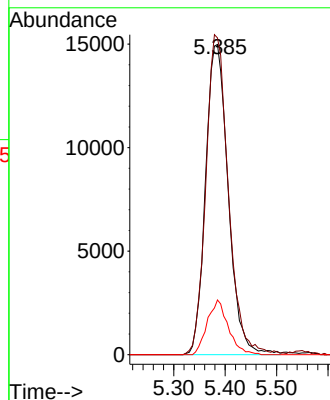
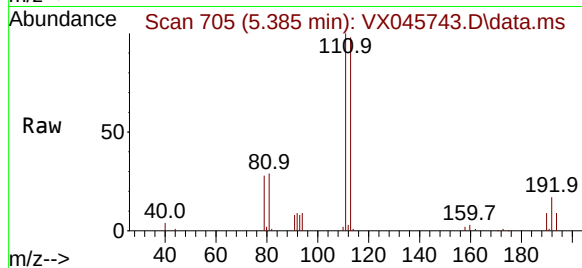
Tgt Ion:113 Resp: 45947

Ion Ratio Lower Upper

113 100

111 102.1 81.8 122.6

192 16.3 13.8 20.6



#50

Toluene-d8

Concen: 50.967 ug/l

RT: 8.647 min Scan# 1240

Delta R.T. -0.000 min

Lab File: VX045743.D

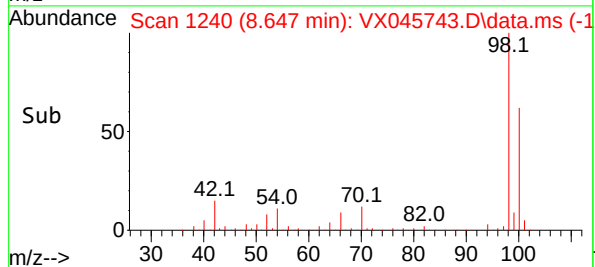
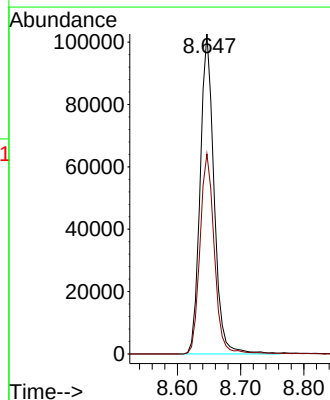
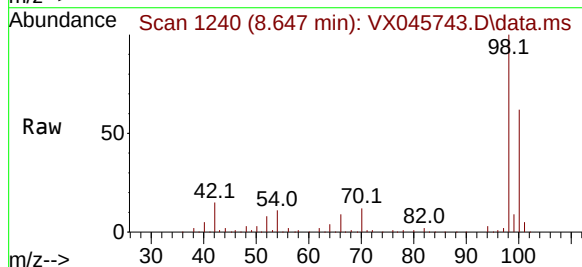
Acq: 11 Apr 2025 15:51

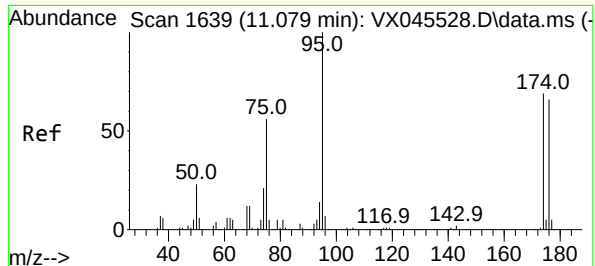
Tgt Ion: 98 Resp: 157073

Ion Ratio Lower Upper

98 100

100 64.6 52.2 78.4

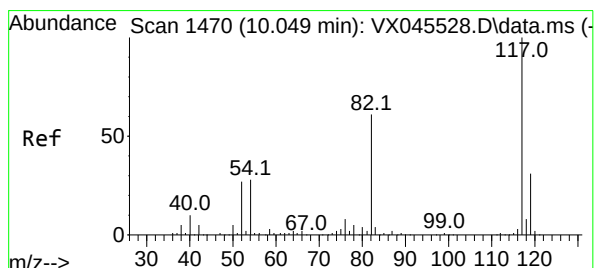
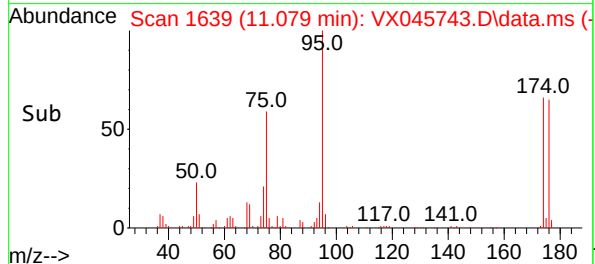
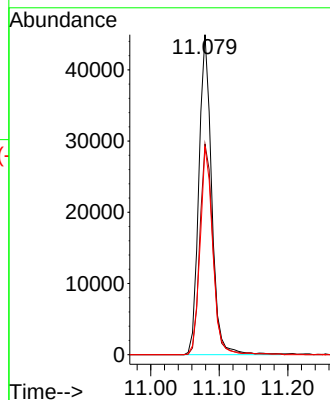
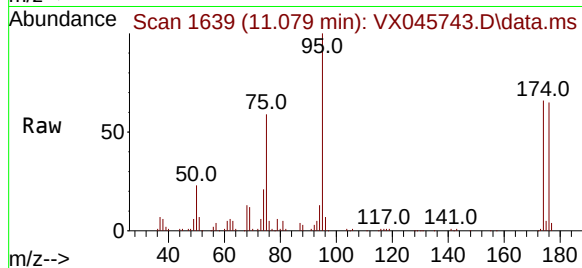




#62
4-Bromofluorobenzene
Concen: 52.013 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045743.D
Acq: 11 Apr 2025 15:51

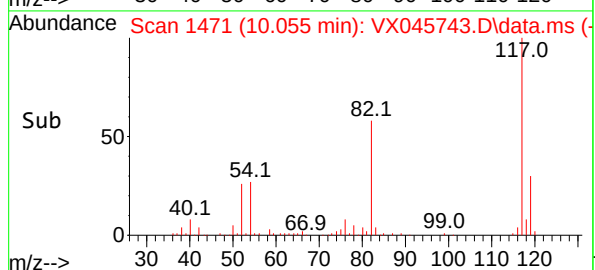
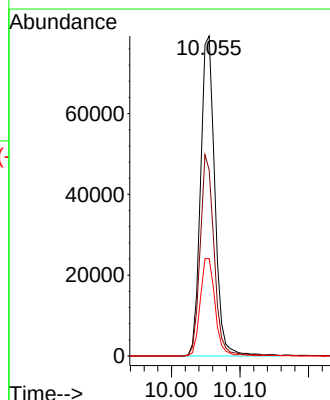
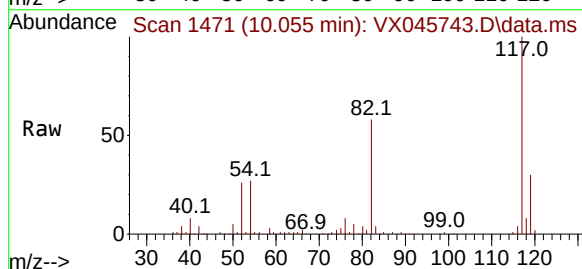
Instrument :
MSVOA_X
ClientSampleId :
MW-3

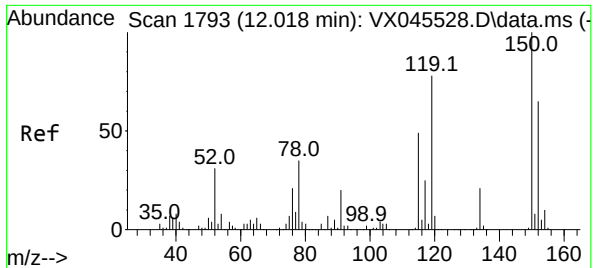
Tgt Ion: 95 Resp: 58388
Ion Ratio Lower Upper
95 100
174 67.4 0.0 135.8
176 64.3 0.0 131.4



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.006 min
Lab File: VX045743.D
Acq: 11 Apr 2025 15:51

Tgt Ion: 117 Resp: 115160
Ion Ratio Lower Upper
117 100
82 58.1 49.2 73.8
119 30.4 25.1 37.7





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.018 min Scan# 11

Delta R.T. -0.000 min

Lab File: VX045743.D

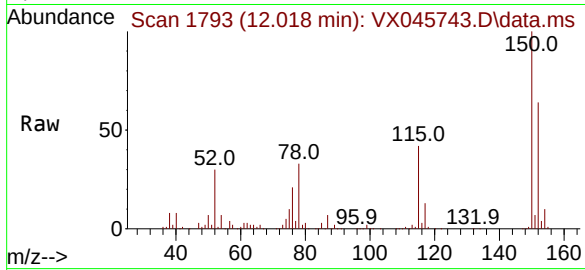
Acq: 11 Apr 2025 15:51

Instrument :

MSVOA_X

ClientSampleId :

MW-3



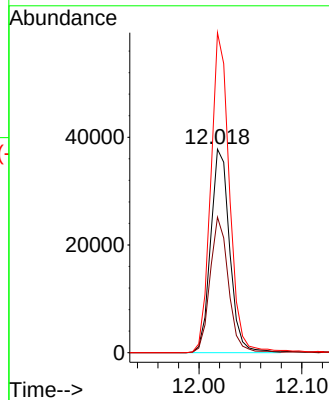
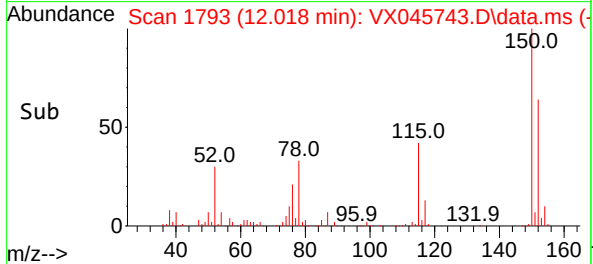
Tgt Ion:152 Resp: 48473

Ion Ratio Lower Upper

152 100

115 64.5 46.9 140.7

150 155.7 0.0 349.4



Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	TRIP BLANK	SDG No.:	Q1782
Lab Sample ID:	Q1782-09	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045740.D	1		04/11/25 14:41	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	U	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	UQ	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	04/09/25
Project:	Ansonia Landfill 2025	Date Received:	04/10/25
Client Sample ID:	TRIP BLANK	SDG No.:	Q1782
Lab Sample ID:	Q1782-09	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045740.D	1		04/11/25 14:41	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1330-20-7	Total Xylenes	0.36	U	0.36	3.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
74-88-4	Methyl Iodide	0.83	U	0.83	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.84	U	0.84	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.2		74 - 125	110%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	50.8		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.3		77 - 121	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	62500	5.55			
540-36-3	1,4-Difluorobenzene	123000	6.757			
3114-55-4	Chlorobenzene-d5	113000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	49000	12.018			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045740.D
 Acq On : 11 Apr 2025 14:41
 Operator : JC/MD
 Sample : Q1782-09
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 TRIP BLANK

Quant Time: Apr 11 23:05:20 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.550	168	62495	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	122581	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	112879	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	48954	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.946	65	63128	55.236	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	110.480%
35) Dibromofluoromethane	5.379	113	44883	51.607	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	103.220%
50) Toluene-d8	8.647	98	154342	50.843	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	101.680%
62) 4-Bromofluorobenzene	11.079	95	57776	52.251	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	=	104.500%

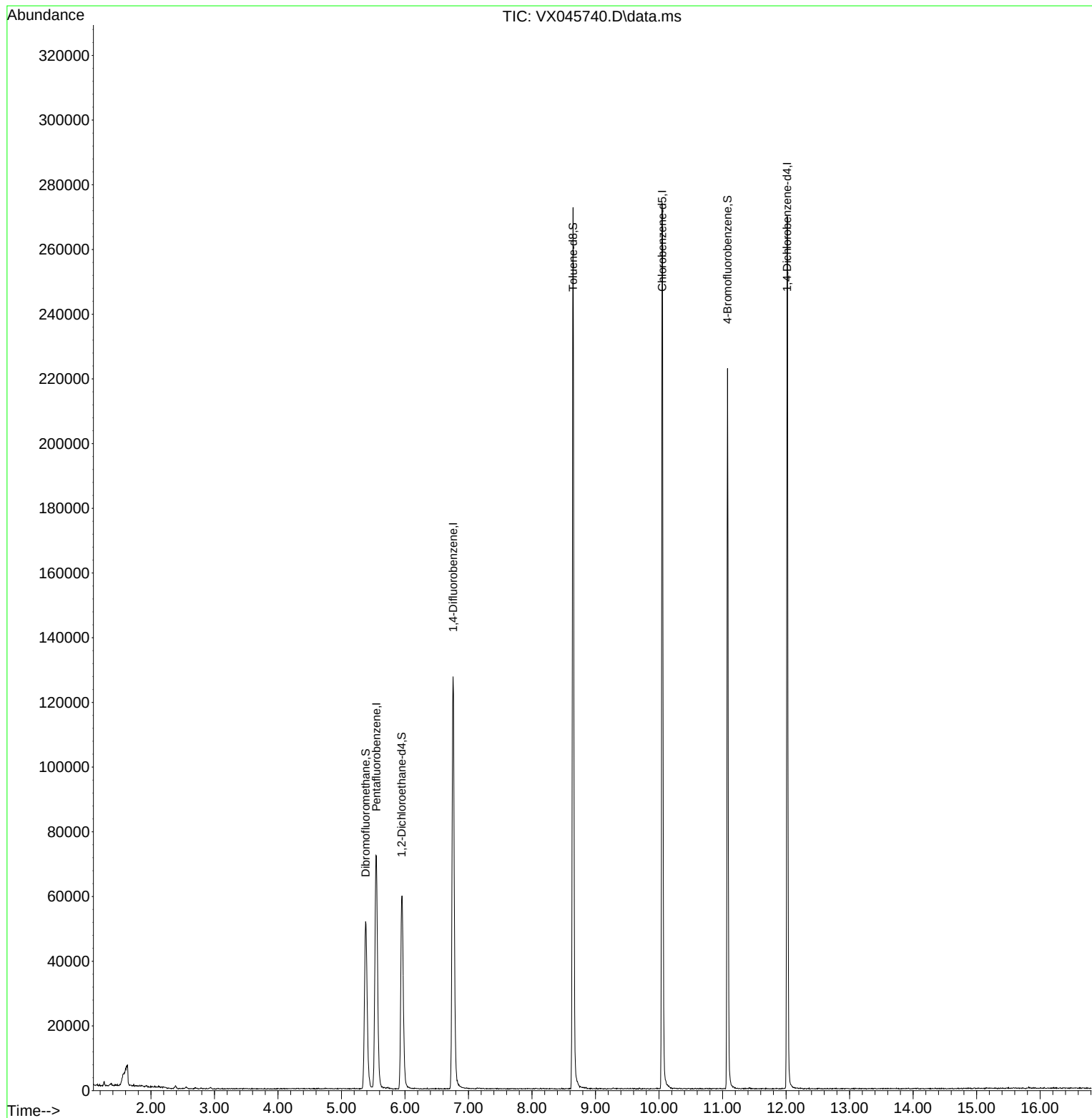
Target Compounds	Qvalue

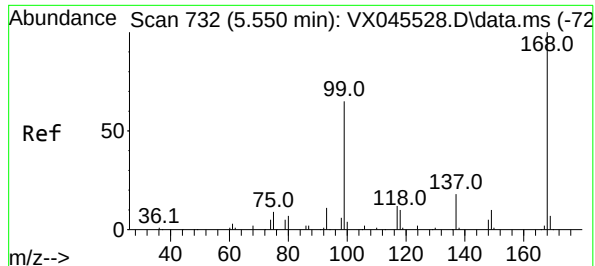
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045740.D
Acq On : 11 Apr 2025 14:41
Operator : JC/MD
Sample : Q1782-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
TRIP BLANK

Quant Time: Apr 11 23:05:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

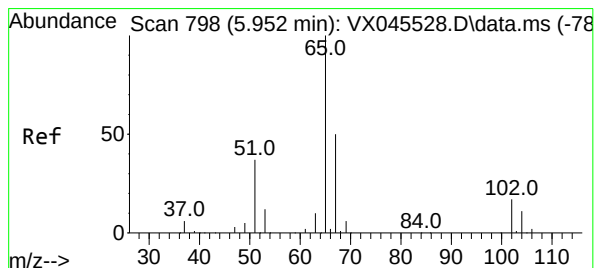
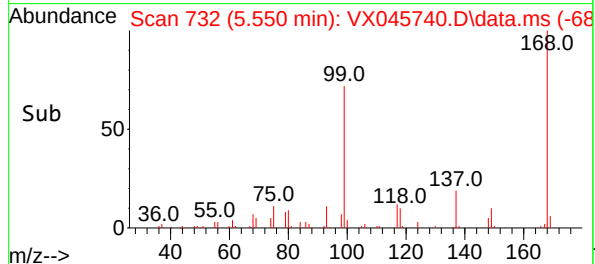
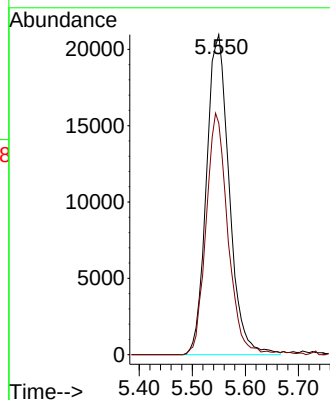
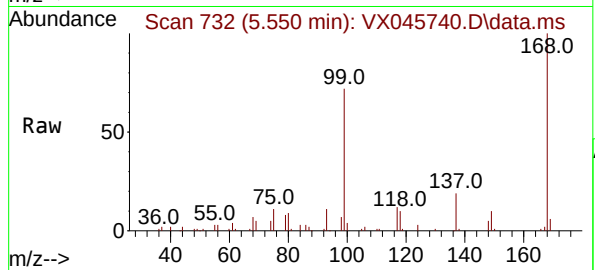




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 71
Delta R.T. -0.000 min
Lab File: VX045740.D
Acq: 11 Apr 2025 14:41

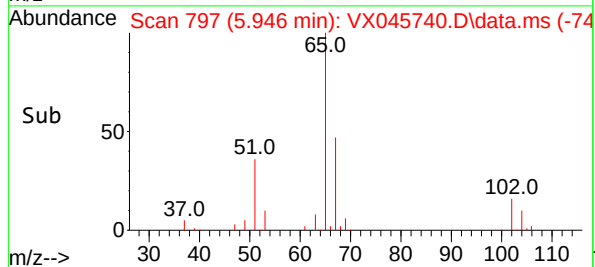
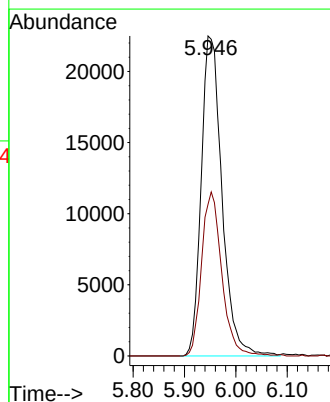
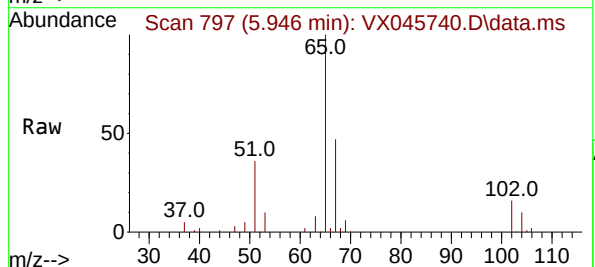
Instrument :
MSVOA_X
ClientSampleId :
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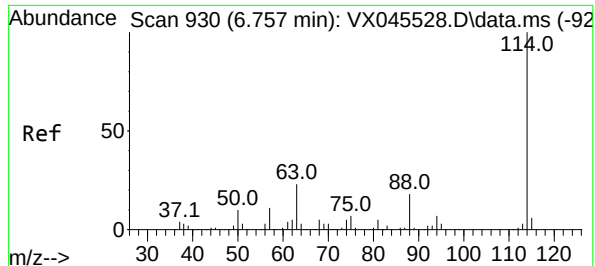
Tgt Ion:168 Resp: 62495
Ion Ratio Lower Upper
168 100
99 72.4 52.3 78.5



#33
1,2-Dichloroethane-d4
Concen: 55.236 ug/l
RT: 5.946 min Scan# 797
Delta R.T. -0.006 min
Lab File: VX045740.D
Acq: 11 Apr 2025 14:41

Tgt Ion: 65 Resp: 63128
Ion Ratio Lower Upper
65 100
67 49.9 0.0 99.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 91

Delta R.T. -0.000 min

Lab File: VX045740.D

Acq: 11 Apr 2025 14:41

Instrument :

MSVOA_X

ClientSampleId :

TRIP BLANK

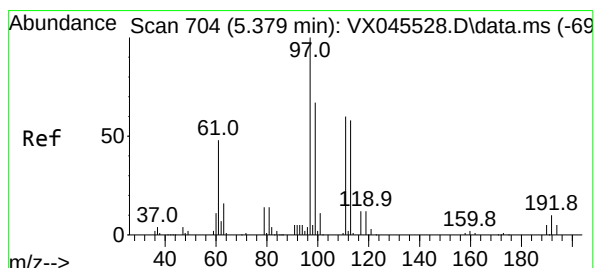
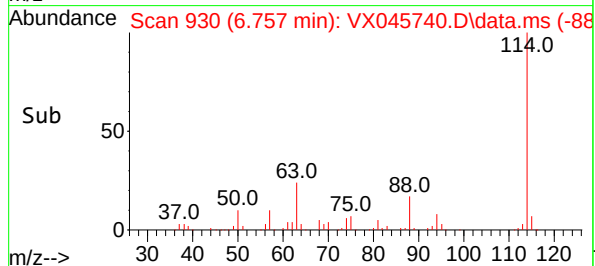
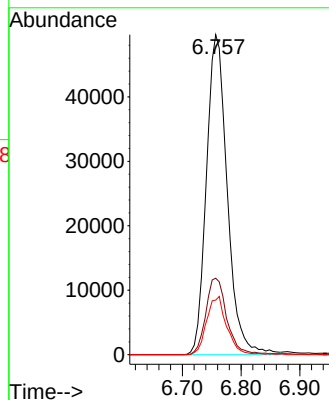
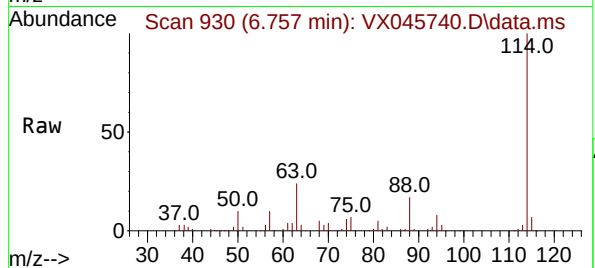
Tgt Ion:114 Resp: 122581

Ion Ratio Lower Upper

114 100

63 23.9 0.0 46.8

88 17.0 0.0 35.4



#35

Dibromofluoromethane

Concen: 51.607 ug/l

RT: 5.379 min Scan# 704

Delta R.T. -0.000 min

Lab File: VX045740.D

Acq: 11 Apr 2025 14:41

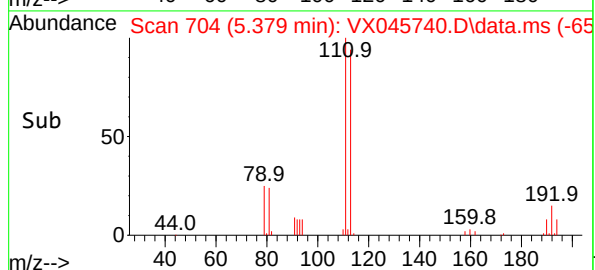
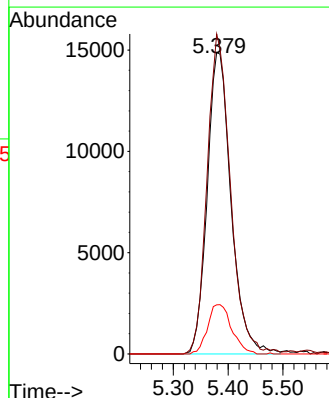
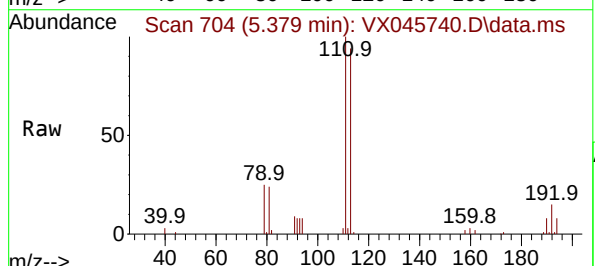
Tgt Ion:113 Resp: 44883

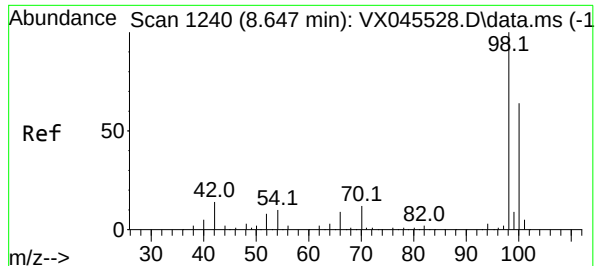
Ion Ratio Lower Upper

113 100

111 103.3 81.8 122.6

192 16.5 13.8 20.6





#50

Toluene-d8

Concen: 50.843 ug/l

RT: 8.647 min Scan# 11

Delta R.T. -0.000 min

Lab File: VX045740.D

Acq: 11 Apr 2025 14:41

Instrument :

MSVOA_X

ClientSampleId :

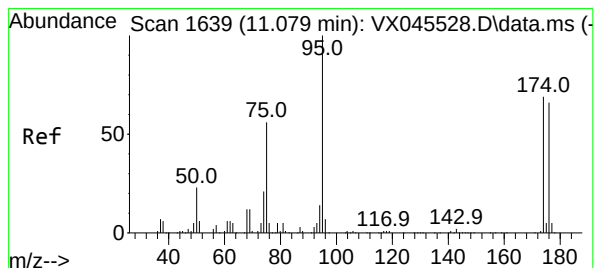
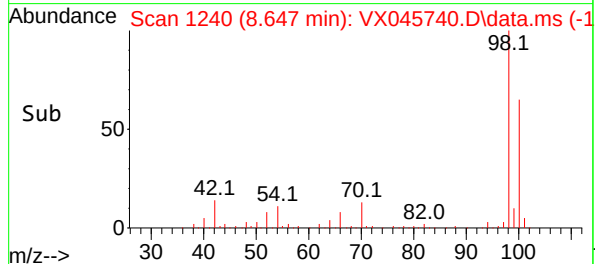
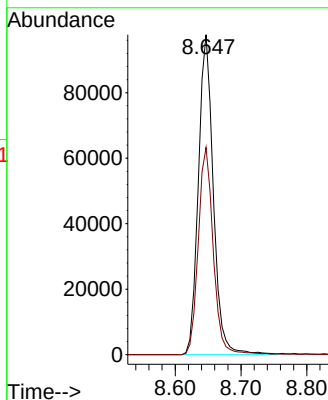
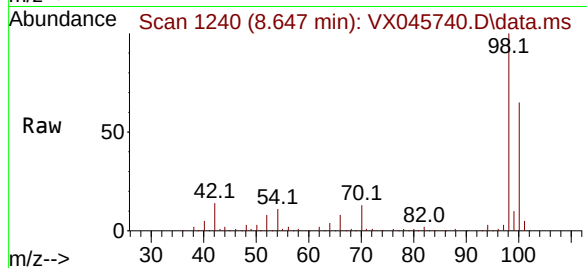
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Tgt Ion: 98 Resp: 154342

Ion Ratio Lower Upper

98 100

100 64.8 52.2 78.4



#62

4-Bromofluorobenzene

Concen: 52.251 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. -0.000 min

Lab File: VX045740.D

Acq: 11 Apr 2025 14:41

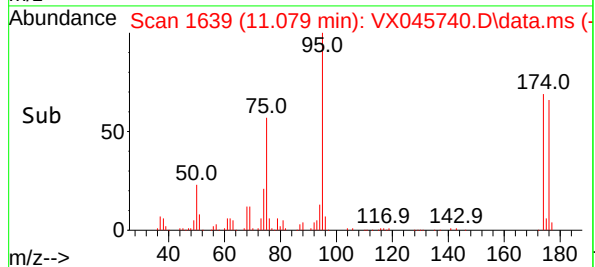
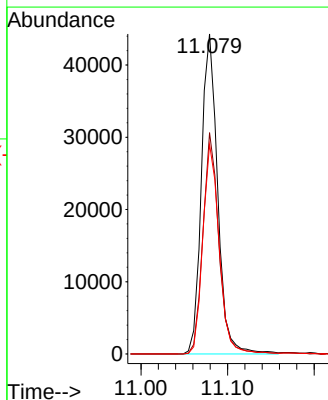
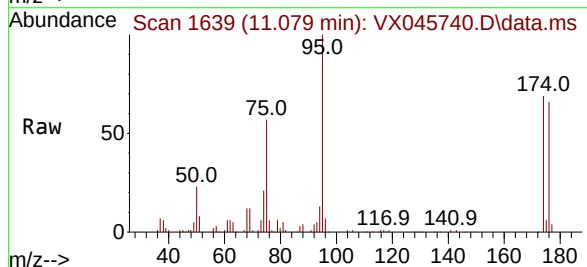
Tgt Ion: 95 Resp: 57776

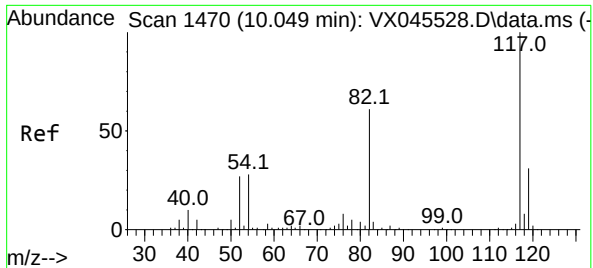
Ion Ratio Lower Upper

95 100

174 67.8 0.0 135.8

176 65.9 0.0 131.4

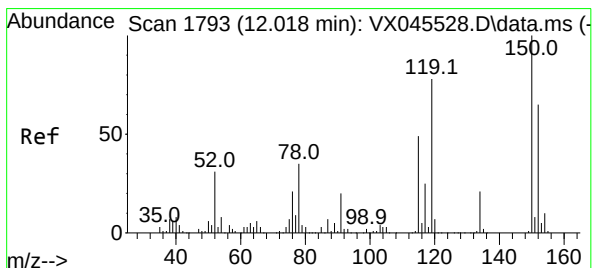
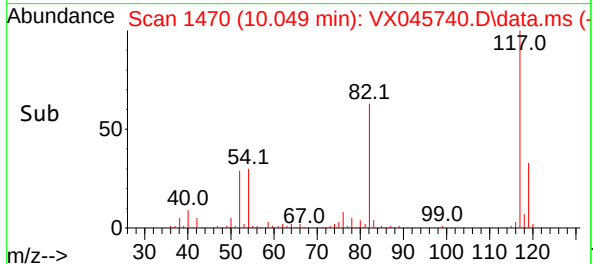
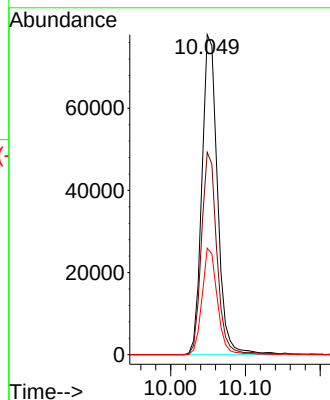
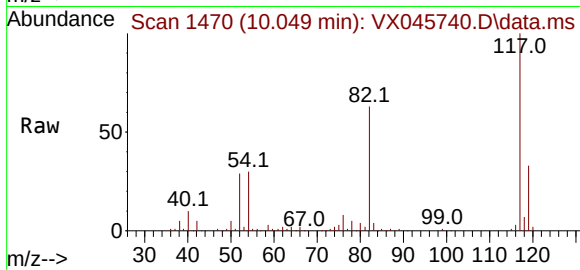




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.049 min Scan# 1470
Delta R.T. -0.000 min
Lab File: VX045740.D
Acq: 11 Apr 2025 14:41

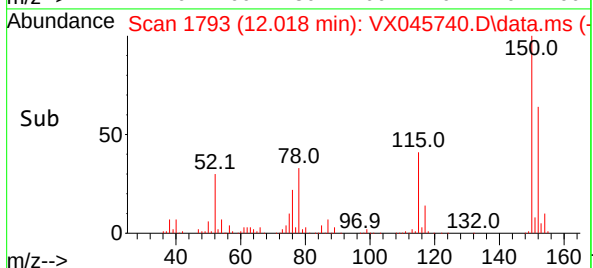
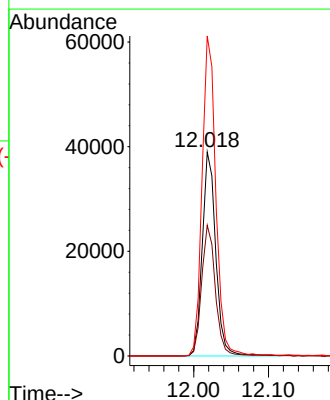
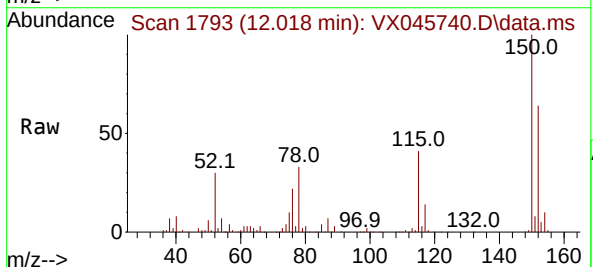
Instrument :
MSVOA_X
ClientSampleId :
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Tgt Ion:117 Resp: 112879
Ion Ratio Lower Upper
117 100
82 63.3 49.2 73.8
119 33.3 25.1 37.7



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VX045740.D
Acq: 11 Apr 2025 14:41

Tgt Ion:152 Resp: 48954
Ion Ratio Lower Upper
152 100
115 65.5 46.9 140.7
150 159.9 0.0 349.4





CALIBRATION SUMMARY



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LOCK01
 Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG No.: Q1782
 Instrument ID: MSVOA_X Calibration Date(s): 04/01/2025 04/01/2025
 Heated Purge: (Y/N) N Calibration Time(s): 17:06 19:02
 GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:	RRF001 = VX045525.D			RRF005 = VX045526.D		RRF020 = VX045527.D		
	RRF050 = VX045528.D			RRF100 = VX045529.D		RRF150 = VX045530.D		
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Vinyl Chloride	0.671	0.662	0.701	0.716	0.738	0.730	0.703	4.4
Chloroethane	0.378	0.397	0.390	0.398	0.355	0.319	0.373	8.3
Trichlorofluoromethane	1.051	0.999	1.075	1.086	1.089	0.989	1.048	4.2
1,1-Dichloroethene	0.563	0.588	0.612	0.604	0.618	0.616	0.600	3.5
Acrylonitrile	0.356	0.382	0.413	0.407	0.394	0.376	0.388	5.4
Acetone	0.400	0.369	0.387	0.378	0.365	0.355	0.375	4.3
Carbon Disulfide	1.334	1.327	1.434	1.553	1.604	1.642	1.483	9.2
Methylene Chloride	0.692	0.695	0.726	0.709	0.705	0.690	0.703	2
Vinyl Acetate	1.542	1.693	2.005	2.087	2.147	2.156	1.938	13.3
2-Butanone	0.474	0.537	0.582	0.586	0.571	0.548	0.550	7.5
Carbon Tetrachloride	0.450	0.497	0.521	0.536	0.545	0.556	0.518	7.5
cis-1,2-Dichloroethene	0.762	0.696	0.760	0.751	0.754	0.760	0.747	3.4
Bromochloromethane	0.671	0.608	0.617	0.596	0.610	0.576	0.613	5.2
Chloroform	1.244	1.309	1.348	1.315	1.309	1.309	1.306	2.6
1,1,1-Trichloroethane	1.028	1.052	1.120	1.109	1.153	1.167	1.105	5
Benzene	1.414	1.416	1.519	1.481	1.483	1.465	1.463	2.8
1,2-Dichloropropane	0.309	0.365	0.388	0.376	0.379	0.374	0.365	7.8
Dibromomethane	0.237	0.287	0.297	0.292	0.286	0.282	0.280	7.8
Bromodichloromethane	0.521	0.519	0.576	0.572	0.587	0.583	0.560	5.6
4-Methyl-2-Pentanone	0.499	0.578	0.661	0.663	0.647	0.589	0.606	10.6
Toluene	0.817	0.866	0.939	0.910	0.905	0.875	0.885	4.8
t-1,3-Dichloropropene	0.316	0.400	0.465	0.508	0.555	0.558	0.467	20.3
cis-1,3-Dichloropropene	0.371	0.474	0.546	0.568	0.597	0.600	0.526	16.9
2-Hexanone	0.363	0.429	0.488	0.492	0.484	0.439	0.449	11.1
Dibromochloromethane	0.313	0.352	0.404	0.412	0.421	0.405	0.385	11.1
1,2-Dibromoethane	0.294	0.351	0.380	0.373	0.380	0.364	0.357	9.1
Tetrachloroethene	0.346	0.373	0.371	0.347	0.333	0.347	0.353	4.5
Chlorobenzene	0.951	1.054	1.123	1.084	1.086	1.112	1.068	5.8
1,1,1,2-Tetrachloroethane	0.368	0.344	0.372	0.373	0.379	0.390	0.371	4.2
Ethyl Benzene	1.608	1.819	2.002	2.007	1.993	2.053	1.914	8.9

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: LOCK01
 Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG No.: Q1782
 Instrument ID: MSVOA_X Calibration Date(s): 04/01/2025 04/01/2025
 Heated Purge: (Y/N) N Calibration Time(s): 17:06 19:02
 GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:		RRF001 = VX045525.D		RRF005 = VX045526.D		RRF020 = VX045527.D			
		RRF050 = VX045528.D		RRF100 = VX045529.D		RRF150 = VX045530.D			
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
m/p-Xylenes	0.594	0.669	0.732	0.728	0.723	0.729	0.696	7.9	
o-Xylene	0.562	0.676	0.725	0.719	0.716	0.714	0.686	9.2	
Styrene	0.897	1.043	1.202	1.216	1.230	1.202	1.132	11.8	
Bromoform	0.220	0.252	0.272	0.296	0.307	0.315	0.277	13.1	
1,1,2,2-Tetrachloroethane	1.457	1.428	1.461	1.384	1.354	1.358	1.407	3.4	
1,2,3-Trichloropropane	1.221	1.257	1.251	1.225	1.192	1.171	1.220	2.7	
1,4-Dichlorobenzene	1.671	1.724	1.768	1.703	1.674	1.706	1.708	2.1	
1,2-Dichlorobenzene	1.644	1.645	1.750	1.678	1.665	1.667	1.675	2.3	
1,2-Dibromo-3-Chloropropane	0.196	0.260	0.312	0.316	0.333	0.349	0.294	19.4	
1,2-Dichloroethane-d4		0.962	0.900	0.868	0.904	0.937	0.914	3.9	
Dibromofluoromethane		0.372	0.342	0.345	0.353	0.362	0.355	3.5	
Toluene-d8		1.257	1.233	1.214	1.230	1.257	1.238	1.5	
4-Bromofluorobenzene		0.413	0.448	0.453	0.481	0.460	0.451	5.5	
Methyl Iodide		0.705	0.789	0.799	0.788	0.750	0.766	5.1	
trans-1,4-Dichloro-2-butene		0.274	0.323	0.371	0.401	0.428	0.359	17.2	

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
 Method File : 82X040225W.M
 Title : SW846 8260
 Last Update : Wed Apr 02 03:11:43 2025
 Response Via : Initial Calibration

Calibration Files

1 =VX045525.D 5 =VX045526.D 20 =VX045527.D 50 =VX045528.D 100 =VX045529.D 150 =VX045530.D

	Compound	1	5	20	50	100	150	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.615	0.695	0.700	0.820	0.837	0.820	0.748	12.13
3) P	Chloromethane	0.764	0.734	0.777	0.784	0.815	0.734	0.768	4.05
4) C	Vinyl Chloride	0.671	0.662	0.701	0.716	0.738	0.730	0.703	4.43#
5) T	Bromomethane		0.342	0.327	0.330	0.341	0.327	0.333	2.20
6) T	Chloroethane	0.378	0.397	0.390	0.398	0.355	0.319	0.373	8.27
7) T	Trichlorofluor...	1.051	0.999	1.075	1.086	1.089	0.989	1.048	4.22
8) T	Diethyl Ether	0.345	0.340	0.356	0.355	0.358	0.357	0.352	2.11
9) T	1,1,2-Trichlor...	0.575	0.599	0.635	0.621	0.621	0.634	0.614	3.74
10) T	Methyl Iodide		0.705	0.789	0.799	0.788	0.750	0.766	5.08
11) T	Tert butyl alc...		0.111	0.124	0.127	0.128	0.124	0.123	5.44
12) CM	1,1-Dichloroet...	0.563	0.588	0.612	0.604	0.618	0.616	0.600	3.51#
13) T	Acrolein		0.176	0.161	0.167	0.170	0.172	0.169	3.41
14) T	Allyl chloride	1.092	1.068	1.142	1.172	1.199	1.160	1.139	4.36
15) T	Acrylonitrile	0.356	0.382	0.413	0.407	0.394	0.376	0.388	5.38
16) T	Acetone	0.400	0.369	0.387	0.378	0.365	0.355	0.375	4.28
17) T	Carbon Disulfide	1.334	1.327	1.434	1.553	1.604	1.642	1.483	9.24
18) T	Methyl Acetate	0.901	0.863	0.864	0.857	0.855	0.846	0.864	2.22
19) T	Methyl tert-bu...	1.915	1.964	2.169	2.118	2.217	2.216	2.100	6.20
20) T	Methylene Chlo...	0.692	0.695	0.726	0.709	0.705	0.690	0.703	1.96
21) T	trans-1,2-Dich...	0.574	0.594	0.636	0.624	0.621	0.630	0.613	3.94
22) T	Diisopropyl ether	2.003	2.120	2.329	2.293	2.359	2.357	2.243	6.59
23) T	Vinyl Acetate	1.542	1.693	2.005	2.087	2.147	2.156	1.938	13.34
24) P	1,1-Dichloroet...	1.211	1.240	1.318	1.269	1.283	1.292	1.269	3.01
25) T	2-Butanone	0.474	0.537	0.582	0.586	0.571	0.548	0.550	7.55
26) T	2,2-Dichloropr...	0.676	0.757	0.802	0.847	0.903	0.933	0.820	11.67
27) T	cis-1,2-Dichlo...	0.762	0.696	0.760	0.751	0.754	0.760	0.747	3.43
28) T	Bromochloromet...	0.671	0.608	0.617	0.596	0.610	0.576	0.613	5.18
29) T	Tetrahydrofuran	0.339	0.341	0.371	0.371	0.364	0.352	0.356	4.05
30) C	Chloroform	1.244	1.309	1.348	1.315	1.309	1.309	1.306	2.60#
31) T	Cyclohexane		1.044	1.148	1.123	1.145	1.149	1.122	4.00
32) T	1,1,1-Trichlor...	1.028	1.052	1.120	1.109	1.153	1.167	1.105	4.96
33) S	1,2-Dichloroet...		0.962	0.900	0.868	0.904	0.937	0.914	3.94
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...		0.372	0.342	0.345	0.353	0.362	0.355	3.48
36) T	1,1-Dichloropr...	0.477	0.443	0.474	0.485	0.496	0.499	0.479	4.26
37) T	Ethyl Acetate	0.582	0.565	0.609	0.623	0.629	0.614	0.604	4.15
38) T	Carbon Tetrach...	0.450	0.497	0.521	0.536	0.545	0.556	0.518	7.49
39) T	Methylcyclohexane	0.519	0.527	0.596	0.622	0.628	0.632	0.587	8.76
40) TM	Benzene	1.414	1.416	1.519	1.481	1.483	1.465	1.463	2.81
41) T	Methacrylonitrile	0.252	0.276	0.338	0.351	0.350	0.343	0.318	13.52
42) TM	1,2-Dichloroet...	0.533	0.585	0.649	0.622	0.620	0.617	0.604	6.72
43) T	Isopropyl Acetate	0.735	0.831	0.952	0.978	1.002	0.991	0.915	11.77
44) TM	Trichloroethene	0.349	0.322	0.356	0.351	0.351	0.356	0.348	3.67
45) C	1,2-Dichloropr...	0.309	0.365	0.388	0.376	0.379	0.374	0.365	7.83#
46) T	Dibromomethane	0.237	0.287	0.297	0.292	0.286	0.282	0.280	7.76
47) T	Bromodichlorom...	0.521	0.519	0.576	0.571	0.587	0.583	0.560	5.56
48) T	Methyl methacr...	0.405	0.416	0.486	0.508	0.518	0.502	0.472	10.44
49) T	1,4-Dioxane	0.007	0.010	0.009	0.009	0.009	0.008	0.009	13.93
50) S	Toluene-d8		1.257	1.233	1.214	1.230	1.257	1.238	1.50
51) T	4-Methyl-2-Pen...	0.499	0.578	0.661	0.663	0.647	0.589	0.606	10.57
52) CM	Toluene	0.817	0.866	0.939	0.910	0.905	0.875	0.885	4.79#
53) T	t-1,3-Dichloro...	0.316	0.400	0.465	0.508	0.555	0.558	0.467	20.27
54) T	cis-1,3-Dichlo...	0.371	0.474	0.546	0.568	0.597	0.600	0.526	16.88
55) T	1,1,2-Trichlor...	0.337	0.346	0.376	0.359	0.358	0.340	0.353	4.11
56) T	Ethyl methacry...	0.407	0.482	0.562	0.600	0.629	0.595	0.546	15.54

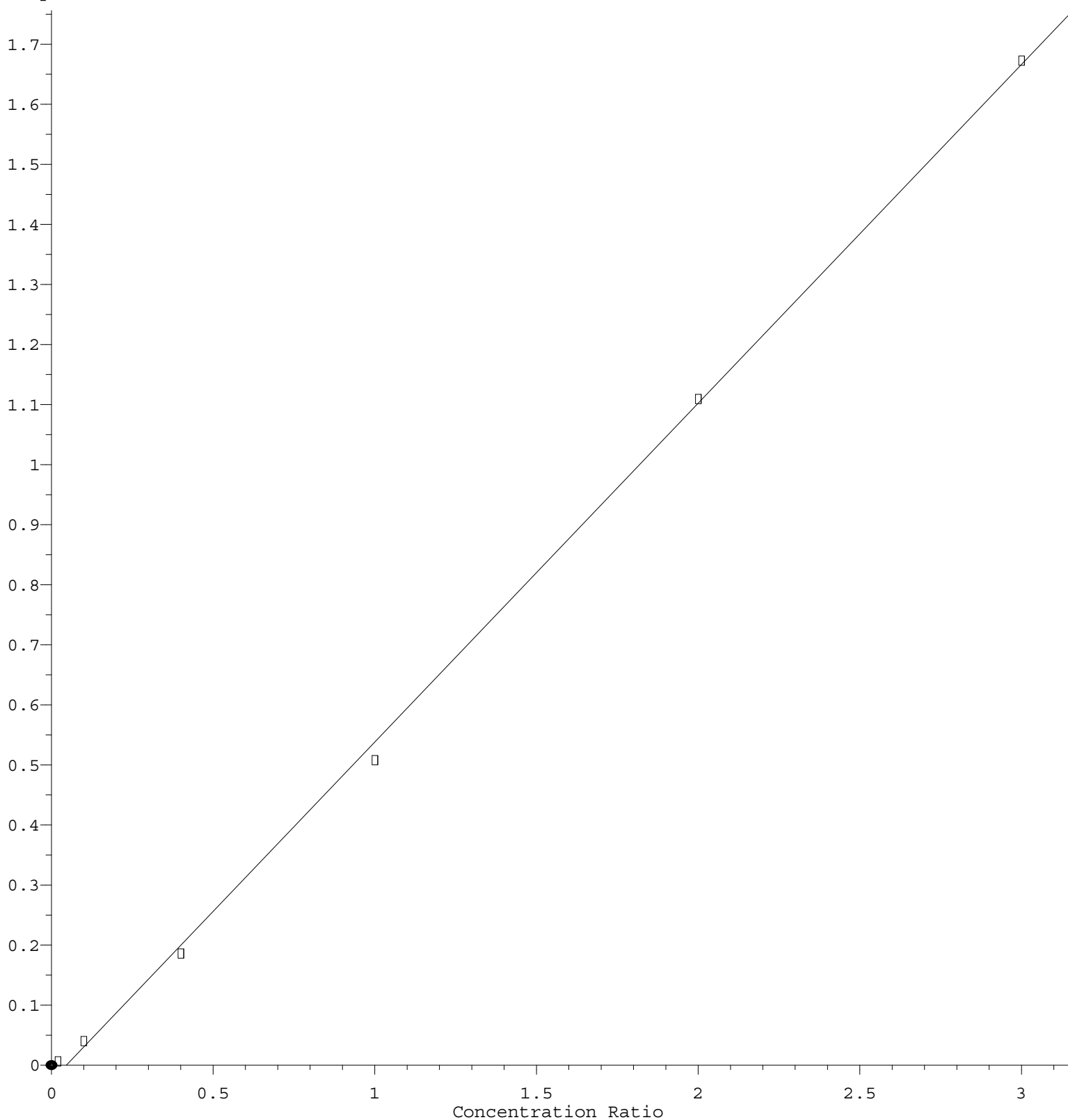
Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
 Method File : 82X040225W.M

57)	T	1,3-Dichloropr...	0.555	0.614	0.652	0.633	0.630	0.601	0.614	5.49
58)	T	2-Chloroethyl ...	0.221	0.257	0.286	0.298	0.301	0.293	0.276	11.26
59)	T	2-Hexanone	0.363	0.429	0.488	0.492	0.484	0.439	0.449	11.14
60)	T	Dibromochlorom...	0.313	0.352	0.404	0.412	0.421	0.405	0.385	11.06
61)	T	1,2-Dibromoethane	0.294	0.351	0.380	0.373	0.380	0.364	0.357	9.12
62)	S	4-Bromofluorob...		0.413	0.448	0.453	0.481	0.460	0.451	5.45
63)	I	Chlorobenzene-d5	-----ISTD-----							
64)	T	Tetrachloroethene	0.346	0.373	0.371	0.347	0.333	0.347	0.353	4.47
65)	PM	Chlorobenzene	0.951	1.054	1.123	1.084	1.086	1.112	1.068	5.83
66)	T	1,1,1,2-Tetrac...	0.368	0.344	0.372	0.373	0.379	0.390	0.371	4.18
67)	C	Ethyl Benzene	1.608	1.819	2.002	2.007	1.993	2.053	1.914	8.89#
68)	T	m/p-Xylenes	0.594	0.669	0.732	0.728	0.723	0.729	0.696	7.92
69)	T	o-Xylene	0.562	0.676	0.725	0.719	0.716	0.714	0.686	9.17
70)	T	Styrene	0.897	1.043	1.202	1.216	1.230	1.202	1.132	11.82
71)	P	Bromoform	0.220	0.252	0.272	0.296	0.307	0.315	0.277	13.07
72)	I	1,4-Dichlorobenzen...	-----ISTD-----							
73)	T	Isopropylbenzene	3.581	3.850	4.224	4.181	4.043	4.151	4.005	6.17
74)	T	N-amyl acetate	1.442	1.682	1.960	2.058	2.132	2.221	1.916	15.51
75)	P	1,1,2,2-Tetrac...	1.457	1.428	1.461	1.384	1.354	1.358	1.407	3.43
76)	T	1,2,3-Trichlor...	1.221	1.257	1.251	1.225	1.192	1.171	1.220	2.71
77)	T	Bromobenzene	0.877	0.927	0.953	0.938	0.925	0.932	0.925	2.77
78)	T	n-propylbenzene	3.734	4.346	5.012	4.896	4.819	4.872	4.613	10.59
79)	T	2-Chlorotoluene	2.894	2.873	3.130	2.966	2.915	2.918	2.949	3.19
80)	T	1,3,5-Trimethy...	2.931	3.119	3.571	3.511	3.367	3.371	3.312	7.35
81)	T	trans-1,4-Dich...		0.274	0.323	0.371	0.401	0.428	0.359	17.16
82)	T	4-Chlorotoluene	2.961	3.156	3.470	3.449	3.350	3.343	3.288	5.93
83)	T	tert-Butylbenzene	2.894	3.124	3.437	3.427	3.387	3.405	3.279	6.78
84)	T	1,2,4-Trimethy...	2.906	3.129	3.529	3.523	3.438	3.420	3.324	7.57
85)	T	sec-Butylbenzene	3.195	3.828	4.316	4.300	4.232	4.292	4.027	11.12
86)	T	p-Isopropyltol...	2.734	3.157	3.515	3.524	3.506	3.484	3.320	9.63
87)	T	1,3-Dichlorobe...	1.658	1.605	1.726	1.699	1.714	1.706	1.684	2.70
88)	T	1,4-Dichlorobe...	1.671	1.724	1.768	1.703	1.674	1.706	1.708	2.09
89)	T	n-Butylbenzene	2.117	2.486	2.974	3.160	3.256	3.283	2.879	16.50
90)	T	Hexachloroethane	0.493	0.493	0.556	0.597	0.623	0.661	0.571	12.14
91)	T	1,2-Dichlorobe...	1.644	1.645	1.750	1.678	1.665	1.667	1.675	2.34
92)	T	1,2-Dibromo-3-...	0.196	0.260	0.312	0.316	0.333	0.349	0.294	19.37
93)	T	1,2,4-Trichlor...	0.727	0.844	0.948	0.947	1.045	1.083	0.932	14.07
94)	T	Hexachlorobuta...	0.379	0.389	0.401	0.404	0.415	0.422	0.402	4.03
95)	T	Naphthalene	2.544	3.070	3.630	3.722	3.867	3.982	3.469	15.93
96)	T	1,2,3-Trichlor...	0.782	0.916	0.999	1.000	1.063	1.097	0.976	11.63

(#) = Out of Range

t-1,3-Dichloropropene

Response Ratio



$$\text{Response} = 5.639\text{e-}001 * \text{Amt} - 2.582\text{e-}002$$

Coef of Det (r^2) = 0.999232 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA X\Method\82X040225W.M

Calibration Table Last Updated: Wed Apr 02 03:11:43 2025

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045525.D
 Acq On : 01 Apr 2025 17:06
 Operator : JC/MD
 Sample : VSTDICC001
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC001

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:50:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	96737	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	175266	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	153312	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	61114	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	0.000	65	0d	0.000	ug/l	
Spiked Amount	50.000	Range	74 - 125	Recovery	=	0.000%#
35) Dibromofluoromethane	0.000	113	0d	0.000	ug/l	
Spiked Amount	50.000	Range	75 - 124	Recovery	=	0.000%#
50) Toluene-d8	0.000	98	0d	0.000	ug/l	
Spiked Amount	50.000	Range	86 - 113	Recovery	=	0.000%#
62) 4-Bromofluorobenzene	0.000	95	0d	0.000	ug/l	
Spiked Amount	50.000	Range	77 - 121	Recovery	=	0.000%#

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.167	85	1189	0.822	ug/l	94
3) Chloromethane	1.307	50	1479	0.995	ug/l #	86
4) Vinyl Chloride	1.374	62	1299	0.955	ug/l	98
6) Chloroethane	1.673	64	732	1.014	ug/l #	67
7) Trichlorofluoromethane	1.880	101	2034	1.003	ug/l	93
8) Diethyl Ether	2.130	74	668	0.981	ug/l	83
9) 1,1,2-Trichlorotrifluo...	2.325	101	1113	0.936	ug/l	94
12) 1,1-Dichloroethene	2.313	96	1090	0.939	ug/l	95
14) Allyl chloride	2.660	41	2113	0.959	ug/l	93
15) Acrylonitrile	3.075	53	3446	4.592	ug/l	95
16) Acetone	2.380	43	3867	5.323	ug/l	98
17) Carbon Disulfide	2.508	76	2580	0.899	ug/l #	95
18) Methyl Acetate	2.703	43	1744	1.043	ug/l	91
19) Methyl tert-butyl Ether	3.117	73	3705	0.912	ug/l	92
20) Methylene Chloride	2.782	84	1338	0.984	ug/l	91
21) trans-1,2-Dichloroethene	3.087	96	1111	0.936	ug/l #	93
22) Diisopropyl ether	3.758	45	3875	0.893	ug/l #	59
23) Vinyl Acetate	3.727	43	14921	3.979	ug/l	95
24) 1,1-Dichloroethane	3.611	63	2343	0.954	ug/l #	90
25) 2-Butanone	4.581	43	4590	4.317	ug/l	92
26) 2,2-Dichloropropane	4.471	77	1307	0.824	ug/l	85
27) cis-1,2-Dichloroethene	4.495	96	1475	1.020	ug/l	80
28) Bromochloromethane	4.891	49	1298	1.094	ug/l #	97
29) Tetrahydrofuran	5.032	42	3276	4.752	ug/l	97
30) Chloroform	5.093	83	2406	0.953	ug/l	84
32) 1,1,1-Trichloroethane	5.385	97	1989	0.931	ug/l #	53
36) 1,1-Dichloropropene	5.696	75	1671	0.995	ug/l #	89
37) Ethyl Acetate	4.751	43	2040	0.964	ug/l #	76
38) Carbon Tetrachloride	5.672	117	1578	0.870	ug/l #	91
39) Methylcyclohexane	7.379	83	1818	0.883	ug/l #	89
40) Benzene	6.038	78	4957	0.967	ug/l	97
41) Methacrylonitrile	4.952	41	883m	0.784	ug/l	
42) 1,2-Dichloroethane	6.092	62	1867	0.882	ug/l	86
43) Isopropyl Acetate	6.361	43	2578	0.804	ug/l #	86
44) Trichloroethene	7.123	130	1224	1.004	ug/l	87
45) 1,2-Dichloropropane	7.434	63	1082	0.846	ug/l	90

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045525.D
 Acq On : 01 Apr 2025 17:06
 Operator : JC/MD
 Sample : VSTDIC001
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDIC001

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:50:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) Dibromomethane	7.592	93	831	0.846	ug/l	90
47) Bromodichloromethane	7.824	83	1827	0.931	ug/l #	77
48) Methyl methacrylate	7.720	41	1419	0.857	ug/l	92
49) 1,4-Dioxane	7.671	88	458m	15.288	ug/l	
51) 4-Methyl-2-Pentanone	8.574	43	8746	4.114	ug/l	100
52) Toluene	8.720	92	2863	0.923	ug/l	96
53) t-1,3-Dichloropropene	8.988	75	1109	2.850	ug/l	93
54) cis-1,3-Dichloropropene	8.379	75	1300	0.705	ug/l	90
55) 1,1,2-Trichloroethane	9.159	97	1183	0.957	ug/l #	76
56) Ethyl methacrylate	9.129	69	1425m	0.745	ug/l	
57) 1,3-Dichloropropane	9.311	76	1946	0.904	ug/l	91
58) 2-Chloroethyl Vinyl ether	8.245	63	3880	4.008	ug/l	93
59) 2-Hexanone	9.439	43	6360	4.040	ug/l	85
60) Dibromochloromethane	9.519	129	1097	0.814	ug/l	99
61) 1,2-Dibromoethane	9.610	107	1032	0.825	ug/l	96
64) Tetrachloroethene	9.269	164	1062	0.981	ug/l	92
65) Chlorobenzene	10.080	112	2916	0.890	ug/l	95
66) 1,1,1,2-Tetrachloroethane	10.159	131	1128	0.992	ug/l #	64
67) Ethyl Benzene	10.195	91	4930	0.840	ug/l	90
68) m/p-Xylenes	10.305	106	3645	1.708	ug/l	97
69) o-Xylene	10.640	106	1724	0.820	ug/l	83
70) Styrene	10.659	104	2750	0.793	ug/l	94
71) Bromoform	10.805	173	675	0.795	ug/l #	94
73) Isopropylbenzene	10.964	105	4377	0.894	ug/l	95
74) N-amyl acetate	10.854	43	1762	0.752	ug/l #	93
75) 1,1,2,2-Tetrachloroethane	11.214	83	1781	1.036	ug/l	94
76) 1,2,3-Trichloropropane	11.244	75	1493m	1.002	ug/l	
77) Bromobenzene	11.201	156	1072	0.948	ug/l	95
78) n-propylbenzene	11.305	91	4564	0.809	ug/l	97
79) 2-Chlorotoluene	11.366	91	3537	0.981	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	3582	0.885	ug/l	100
82) 4-Chlorotoluene	11.457	91	3619	0.900	ug/l	96
83) tert-Butylbenzene	11.713	119	3537	0.883	ug/l	94
84) 1,2,4-Trimethylbenzene	11.750	105	3552	0.874	ug/l	99
85) sec-Butylbenzene	11.890	105	3905	0.793	ug/l	98
86) p-Isopropyltoluene	12.012	119	3342	0.824	ug/l	94
87) 1,3-Dichlorobenzene	11.969	146	2026	0.984	ug/l	97
88) 1,4-Dichlorobenzene	12.043	146	2042m	0.978	ug/l	
89) n-Butylbenzene	12.335	91	2587	0.735	ug/l	99
90) Hexachloroethane	12.543	117	602	0.863	ug/l	95
91) 1,2-Dichlorobenzene	12.335	146	2009	0.981	ug/l	93
92) 1,2-Dibromo-3-Chloropr...	12.945	75	239	0.665	ug/l #	73
93) 1,2,4-Trichlorobenzene	13.591	180	888	0.779	ug/l	94
94) Hexachlorobutadiene	13.725	225	463	0.943	ug/l	90
95) Naphthalene	13.780	128	3109	0.733	ug/l	99
96) 1,2,3-Trichlorobenzene	13.969	180	956	0.801	ug/l	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

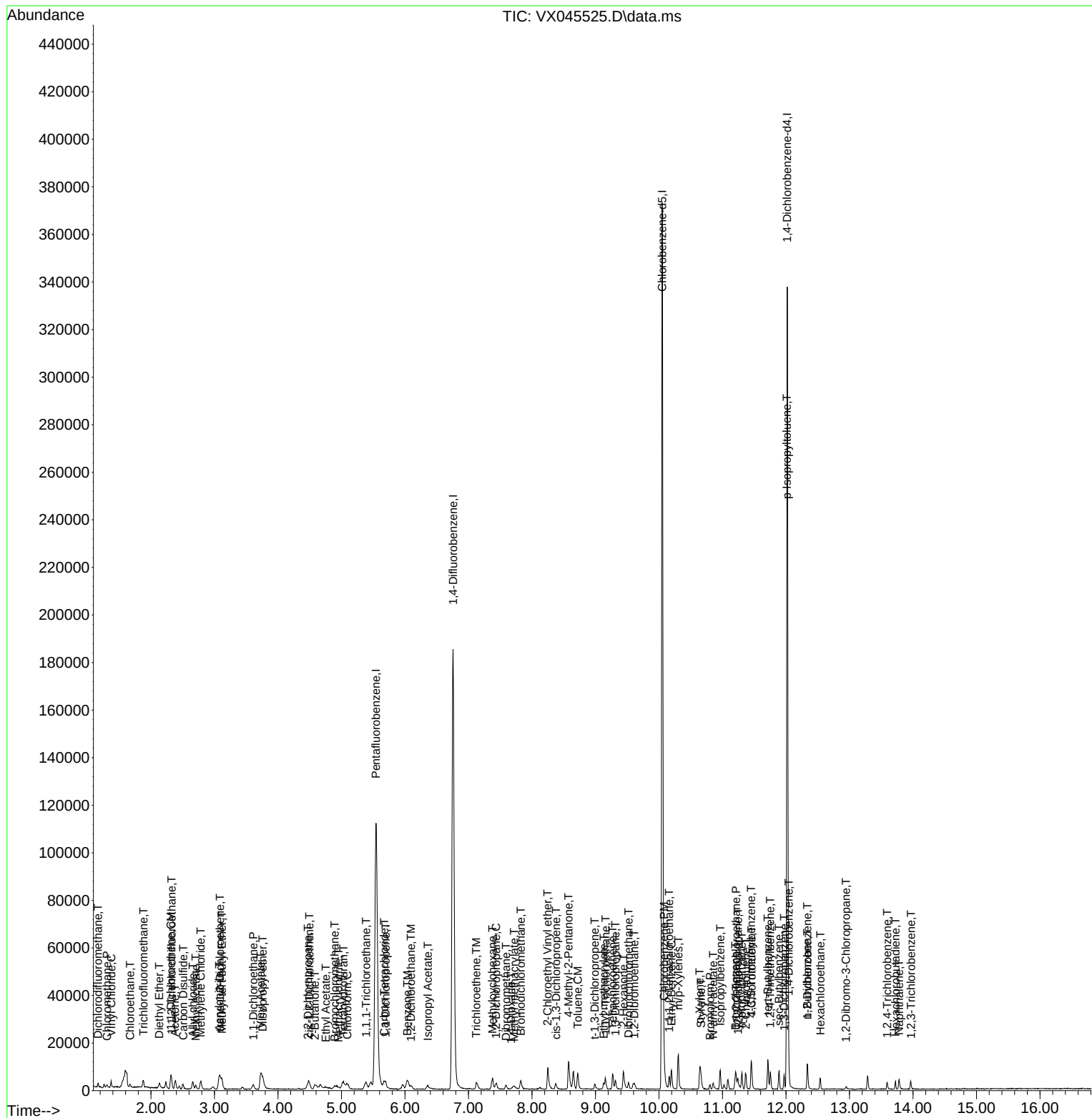
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045525.D
Acq On : 01 Apr 2025 17:06
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:50:12 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045526.D
 Acq On : 01 Apr 2025 17:29
 Operator : JC/MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:51:06 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	93234	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	166137	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	143937	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	63909	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.958	65	8969	5.260	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	10.520%#		
35) Dibromofluoromethane	5.391	113	6181	5.244	ug/l	0.01
Spiked Amount 50.000	Range 75 - 124		Recovery =	10.480%#		
50) Toluene-d8	8.647	98	20890	5.077	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	10.160%#		
62) 4-Bromofluorobenzene	11.079	95	6867	4.582	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	9.160%#		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.166	85	6482	4.649	ug/l	91
3) Chloromethane	1.307	50	6846	4.779	ug/l	99
4) Vinyl Chloride	1.374	62	6169	4.706	ug/l	100
5) Bromomethane	1.593	94	3185	5.124	ug/l	90
6) Chloroethane	1.666	64	3703	5.324	ug/l	96
7) Trichlorofluoromethane	1.874	101	9316	4.766	ug/l	94
8) Diethyl Ether	2.136	74	3171	4.832	ug/l	96
9) 1,1,2-Trichlorotrifluo...	2.325	101	5589	4.879	ug/l	99
10) Methyl Iodide	2.447	142	6574	4.601	ug/l	97
11) Tert butyl alcohol	2.983	59	5186	22.633	ug/l	99
12) 1,1-Dichloroethene	2.313	96	5485	4.901	ug/l	90
13) Acrolein	2.239	56	8202	25.993	ug/l	97
14) Allyl chloride	2.654	41	9960	4.690	ug/l	95
15) Acrylonitrile	3.069	53	17811	24.624	ug/l	97
16) Acetone	2.386	43	17188	24.550	ug/l	99
17) Carbon Disulfide	2.502	76	12376	4.477	ug/l #	93
18) Methyl Acetate	2.703	43	8042	4.989	ug/l	96
19) Methyl tert-butyl Ether	3.111	73	18314	4.677	ug/l	100
20) Methylene Chloride	2.782	84	6481	4.945	ug/l	96
21) trans-1,2-Dichloroethene	3.087	96	5534	4.840	ug/l	95
22) Diisopropyl ether	3.764	45	19765	4.725	ug/l #	82
23) Vinyl Acetate	3.721	43	78907	21.831	ug/l	98
24) 1,1-Dichloroethane	3.605	63	11562	4.887	ug/l	98
25) 2-Butanone	4.574	43	25026	24.419	ug/l	99
26) 2,2-Dichloropropane	4.477	77	7054	4.615	ug/l	95
27) cis-1,2-Dichloroethene	4.483	96	6485	4.655	ug/l	95
28) Bromochloromethane	4.898	49	5666	4.956	ug/l	95
29) Tetrahydrofuran	5.013	42	15913	23.950	ug/l	100
30) Chloroform	5.087	83	12200	5.012	ug/l	99
31) Cyclohexane	5.465	56	9731	4.653	ug/l	97
32) 1,1,1-Trichloroethane	5.379	97	9811	4.763	ug/l	99
36) 1,1-Dichloropropene	5.690	75	7354	4.621	ug/l	98
37) Ethyl Acetate	4.721	43	9384	4.679	ug/l #	91
38) Carbon Tetrachloride	5.666	117	8264	4.804	ug/l	99
39) Methylcyclohexane	7.379	83	8757	4.489	ug/l	95
40) Benzene	6.038	78	23522	4.839	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045526.D
 Acq On : 01 Apr 2025 17:29
 Operator : JC/MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:51:06 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	4593	4.302	ug/l	92
42) 1,2-Dichloroethane	6.092	62	9713	4.838	ug/l	100
43) Isopropyl Acetate	6.348	43	13803	4.541	ug/l	97
44) Trichloroethene	7.129	130	5355	4.635	ug/l	99
45) 1,2-Dichloropropane	7.434	63	6060	4.997	ug/l	99
46) Dibromomethane	7.580	93	4767	5.120	ug/l	99
47) Bromodichloromethane	7.818	83	8619	4.636	ug/l #	97
48) Methyl methacrylate	7.696	41	6908	4.401	ug/l	98
49) 1,4-Dioxane	7.665	88	3205	112.864	ug/l	95
51) 4-Methyl-2-Pentanone	8.574	43	48050	23.844	ug/l	97
52) Toluene	8.714	92	14391	4.893	ug/l	100
53) t-1,3-Dichloropropene	8.982	75	6643	5.834	ug/l	97
54) cis-1,3-Dichloropropene	8.366	75	7873	4.506	ug/l	95
55) 1,1,2-Trichloroethane	9.153	97	5741	4.898	ug/l	90
56) Ethyl methacrylate	9.116	69	8012	4.417	ug/l	95
57) 1,3-Dichloropropane	9.305	76	10208	5.002	ug/l	99
58) 2-Chloroethyl Vinyl ether	8.244	63	21382	23.302	ug/l	99
59) 2-Hexanone	9.433	43	35628	23.875	ug/l	99
60) Dibromochloromethane	9.519	129	5855	4.582	ug/l	99
61) 1,2-Dibromoethane	9.610	107	5837	4.920	ug/l	98
64) Tetrachloroethene	9.275	164	5373	5.287	ug/l	93
65) Chlorobenzene	10.073	112	15178	4.935	ug/l	96
66) 1,1,1,2-Tetrachloroethane	10.159	131	4945	4.631	ug/l	97
67) Ethyl Benzene	10.195	91	26180	4.753	ug/l	97
68) m/p-Xylenes	10.299	106	19268	9.617	ug/l	99
69) o-Xylene	10.640	106	9735	4.932	ug/l	99
70) Styrene	10.653	104	15017	4.610	ug/l	96
71) Bromoform	10.799	173	3634	4.558	ug/l #	95
73) Isopropylbenzene	10.964	105	24604	4.806	ug/l	100
74) N-amyl acetate	10.848	43	10750	4.390	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	9127	5.075	ug/l	98
76) 1,2,3-Trichloropropane	11.238	75	8032m	5.152	ug/l	
77) Bromobenzene	11.195	156	5927	5.011	ug/l	97
78) n-propylbenzene	11.305	91	27777	4.711	ug/l	98
79) 2-Chlorotoluene	11.360	91	18358	4.870	ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	19936	4.710	ug/l	98
81) trans-1,4-Dichloro-2-b...	11.018	75	1752	3.814	ug/l	85
82) 4-Chlorotoluene	11.457	91	20171	4.799	ug/l	99
83) tert-Butylbenzene	11.713	119	19962	4.763	ug/l	98
84) 1,2,4-Trimethylbenzene	11.750	105	19998	4.707	ug/l	99
85) sec-Butylbenzene	11.890	105	24465	4.753	ug/l	100
86) p-Isopropyltoluene	12.006	119	20178	4.755	ug/l	99
87) 1,3-Dichlorobenzene	11.969	146	10255	4.763	ug/l	98
88) 1,4-Dichlorobenzene	12.036	146	11016	5.047	ug/l	93
89) n-Butylbenzene	12.329	91	15887	4.317	ug/l	98
90) Hexachloroethane	12.536	117	3151	4.320	ug/l	98
91) 1,2-Dichlorobenzene	12.335	146	10510	4.910	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	12.945	75	1661	4.417	ug/l	92
93) 1,2,4-Trichlorobenzene	13.591	180	5391	4.524	ug/l	95
94) Hexachlorobutadiene	13.719	225	2483	4.836	ug/l	98
95) Naphthalene	13.774	128	19618	4.424	ug/l	97
96) 1,2,3-Trichlorobenzene	13.957	180	5854	4.692	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045526.D
Acq On : 01 Apr 2025 17:29
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:51:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

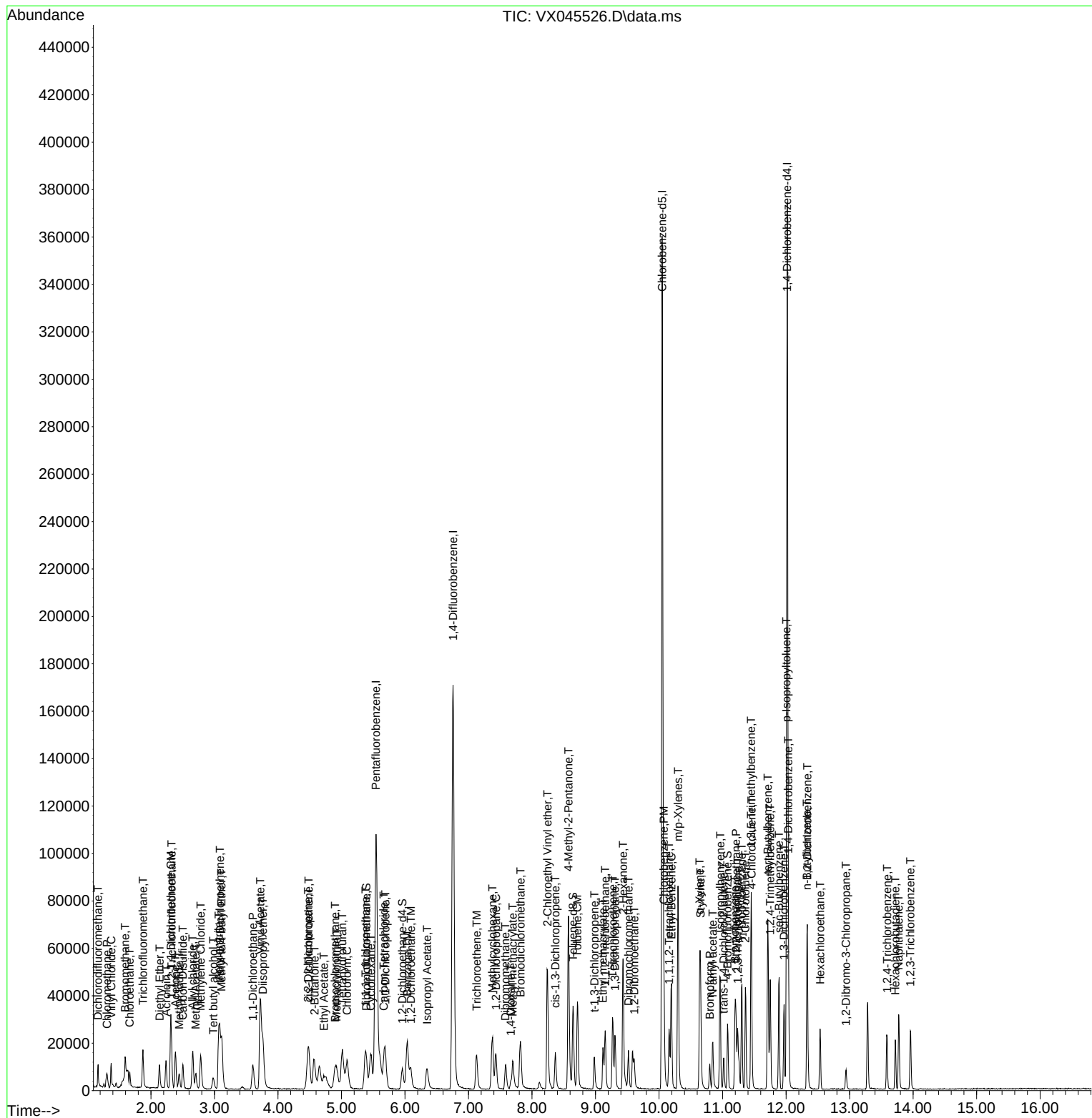

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Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\  
Data File : VX045526.D  
Acq On    : 01 Apr 2025  17:29  
Operator  : JC/MD  
Sample    : VSTDIC005  
Misc      : 5.0mL/MSVOA_X/WATER  
ALS Vial  : 4      Sample Multiplier: 1
```

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:51:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045527.D
 Acq On : 01 Apr 2025 17:52
 Operator : JC/MD
 Sample : VSTDICC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:52:02 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.550	168	90228	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	160754	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	144087	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	65341	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	32500	19.697	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	39.400%#		
35) Dibromofluoromethane	5.385	113	21963	19.256	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	38.520%#		
50) Toluene-d8	8.647	98	79303	19.921	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	39.840%#		
62) 4-Bromofluorobenzene	11.079	95	28795	19.858	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	39.720%#		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	25265	18.724	ug/l	97
3) Chloromethane	1.301	50	28034	20.223	ug/l	98
4) Vinyl Chloride	1.374	62	25285	19.931	ug/l	97
5) Bromomethane	1.593	94	11815	19.642	ug/l	99
6) Chloroethane	1.666	64	14071	20.905	ug/l	98
7) Trichlorofluoromethane	1.874	101	38815	20.518	ug/l	98
8) Diethyl Ether	2.136	74	12852	20.235	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.319	101	22917	20.673	ug/l	95
10) Methyl Iodide	2.441	142	28478	20.596	ug/l	99
11) Tert butyl alcohol	2.983	59	22453	101.253	ug/l	100
12) 1,1-Dichloroethene	2.306	96	22103	20.406	ug/l	96
13) Acrolein	2.239	56	28991	94.938	ug/l	99
14) Allyl chloride	2.660	41	41233	20.063	ug/l	99
15) Acrylonitrile	3.062	53	74487	106.412	ug/l	98
16) Acetone	2.386	43	69788	103.000	ug/l	99
17) Carbon Disulfide	2.502	76	51771	19.352	ug/l	98
18) Methyl Acetate	2.703	43	31190	19.994	ug/l	99
19) Methyl tert-butyl Ether	3.117	73	78284	20.660	ug/l	96
20) Methylene Chloride	2.782	84	26212	20.664	ug/l	96
21) trans-1,2-Dichloroethene	3.087	96	22968	20.755	ug/l	92
22) Diisopropyl ether	3.757	45	84046	20.760	ug/l #	81
23) Vinyl Acetate	3.721	43	361881	103.458	ug/l	99
24) 1,1-Dichloroethane	3.605	63	47560	20.772	ug/l	99
25) 2-Butanone	4.556	43	105062	105.931	ug/l	99
26) 2,2-Dichloropropane	4.471	77	28956	19.574	ug/l	99
27) cis-1,2-Dichloroethene	4.483	96	27425	20.342	ug/l	98
28) Bromochloromethane	4.897	49	22285	20.141	ug/l	100
29) Tetrahydrofuran	5.007	42	66994	104.187	ug/l	99
30) Chloroform	5.093	83	48639	20.646	ug/l	100
31) Cyclohexane	5.458	56	41450	20.478	ug/l	99
32) 1,1,1-Trichloroethane	5.373	97	40407	20.270	ug/l	99
36) 1,1-Dichloropropene	5.684	75	30504	19.808	ug/l	98
37) Ethyl Acetate	4.715	43	39163	20.180	ug/l	98
38) Carbon Tetrachloride	5.672	117	33533	20.148	ug/l	94
39) Methylcyclohexane	7.373	83	38303	20.291	ug/l	97
40) Benzene	6.031	78	97667	20.766	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045527.D
 Acq On : 01 Apr 2025 17:52
 Operator : JC/MD
 Sample : VSTDICC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:52:02 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	21740	21.046	ug/l	97
42) 1,2-Dichloroethane	6.086	62	41733	21.484	ug/l	100
43) Isopropyl Acetate	6.342	43	61222	20.814	ug/l	99
44) Trichloroethene	7.123	130	22918	20.501	ug/l	97
45) 1,2-Dichloropropane	7.428	63	24926	21.241	ug/l	90
46) Dibromomethane	7.580	93	19104	21.207	ug/l	99
47) Bromodichloromethane	7.818	83	37036	20.587	ug/l	99
48) Methyl methacrylate	7.696	41	31247	20.575	ug/l	99
49) 1,4-Dioxane	7.659	88	12104	440.515	ug/l	96
51) 4-Methyl-2-Pentanone	8.574	43	212645	109.055	ug/l	99
52) Toluene	8.714	92	60357	21.208	ug/l	99
53) t-1,3-Dichloropropene	8.976	75	29870	18.764	ug/l	96
54) cis-1,3-Dichloropropene	8.366	75	35099	20.762	ug/l	95
55) 1,1,2-Trichloroethane	9.147	97	24191	21.331	ug/l	96
56) Ethyl methacrylate	9.116	69	36155	20.600	ug/l	99
57) 1,3-Dichloropropane	9.305	76	41900	21.217	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	91923	103.534	ug/l	100
59) 2-Hexanone	9.427	43	156999	108.730	ug/l	99
60) Dibromochloromethane	9.519	129	25992	21.023	ug/l	98
61) 1,2-Dibromoethane	9.604	107	24456	21.303	ug/l	99
64) Tetrachloroethene	9.269	164	21379	21.015	ug/l	98
65) Chlorobenzene	10.079	112	64727	21.023	ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.159	131	21447	20.064	ug/l	98
67) Ethyl Benzene	10.189	91	115368	20.921	ug/l	99
68) m/p-Xylenes	10.299	106	84420	42.092	ug/l	99
69) o-Xylene	10.640	106	41803	21.158	ug/l	100
70) Styrene	10.653	104	69290	21.249	ug/l	99
71) Bromoform	10.799	173	15659	19.619	ug/l #	99
73) Isopropylbenzene	10.957	105	110396	21.093	ug/l	100
74) N-amyl acetate	10.842	43	51238	20.466	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.207	83	38177	20.764	ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	32690m	20.510	ug/l	
77) Bromobenzene	11.195	156	24902	20.592	ug/l	100
78) n-propylbenzene	11.299	91	130994	21.729	ug/l	98
79) 2-Chlorotoluene	11.360	91	81817	21.229	ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	93328	21.564	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	8435	17.961	ug/l	88
82) 4-Chlorotoluene	11.451	91	90704	21.108	ug/l	99
83) tert-Butylbenzene	11.713	119	89828	20.964	ug/l	98
84) 1,2,4-Trimethylbenzene	11.750	105	92242	21.235	ug/l	100
85) sec-Butylbenzene	11.890	105	112800	21.433	ug/l	100
86) p-Isopropyltoluene	12.006	119	91866	21.173	ug/l	99
87) 1,3-Dichlorobenzene	11.969	146	45105	20.490	ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	46208	20.706	ug/l	99
89) n-Butylbenzene	12.329	91	77739	20.662	ug/l	100
90) Hexachloroethane	12.536	117	14544	19.505	ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	45732	20.896	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	8153	21.203	ug/l	100
93) 1,2,4-Trichlorobenzene	13.585	180	24787	20.347	ug/l	98
94) Hexachlorobutadiene	13.725	225	10488	19.979	ug/l	97
95) Naphthalene	13.774	128	94875	20.928	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	26113	20.471	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045527.D
Acq On : 01 Apr 2025 17:52
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:52:02 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration

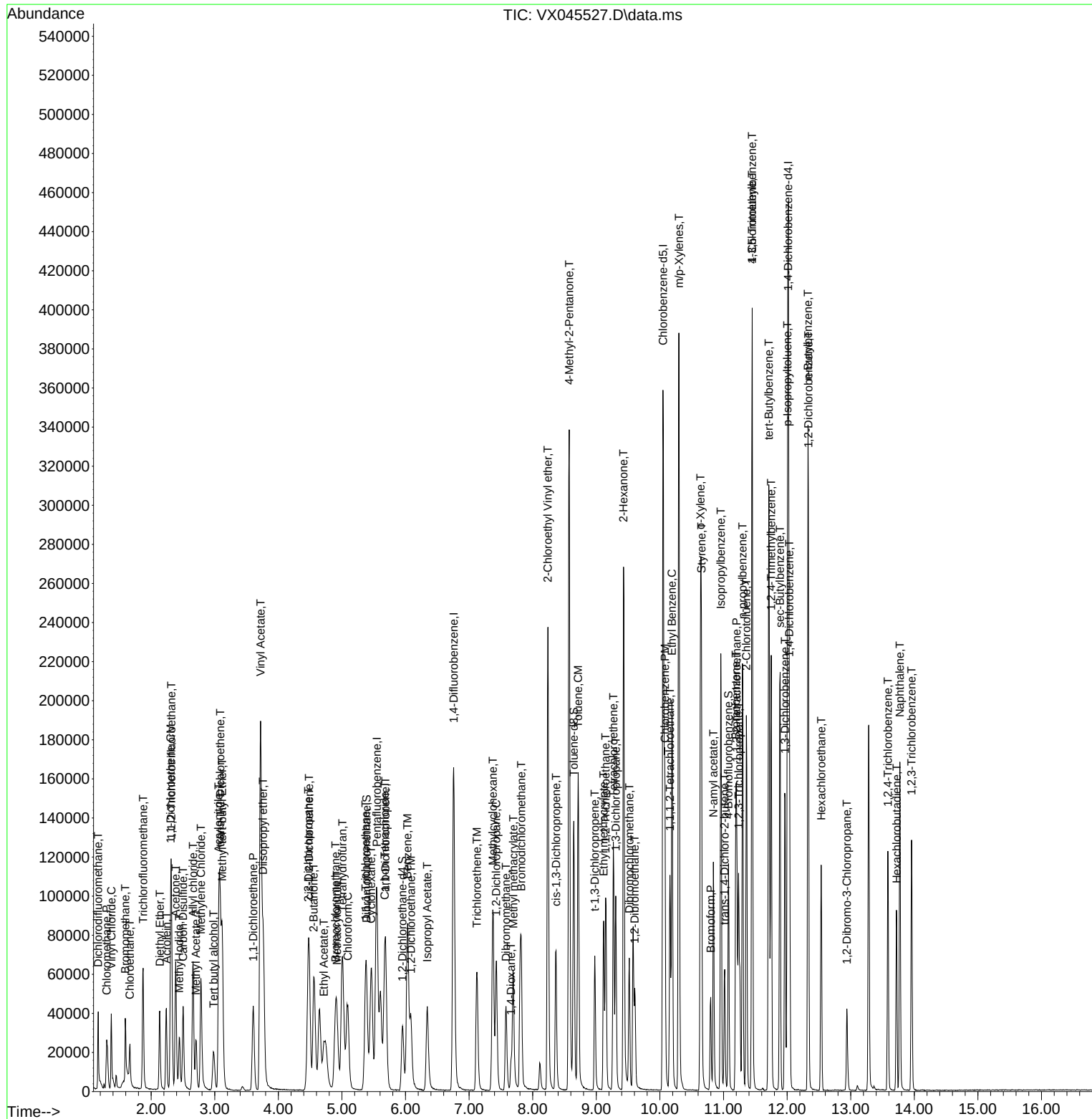
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045528.D
 Acq On : 01 Apr 2025 18:15
 Operator : JC/MD
 Sample : VSTDICCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:53:01 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.550	168	95658	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	168287	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	150201	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	68786	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	83054	47.477	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	94.960%		
35) Dibromofluoromethane	5.379	113	58108	48.667	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	97.340%		
50) Toluene-d8	8.647	98	204338	49.031	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	98.060%		
62) 4-Bromofluorobenzene	11.079	95	76190	50.190	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	100.380%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	78444	54.834	ug/l	100
3) Chloromethane	1.307	50	75032	51.054	ug/l	100
4) Vinyl Chloride	1.374	62	68516	50.942	ug/l	100
5) Bromomethane	1.593	94	31584	49.526	ug/l	100
6) Chloroethane	1.666	64	38112	53.409	ug/l	100
7) Trichlorofluoromethane	1.874	101	103888	51.798	ug/l	100
8) Diethyl Ether	2.136	74	33953	50.424	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.325	101	59431	50.569	ug/l	100
10) Methyl Iodide	2.447	142	76404	52.121	ug/l	100
11) Tert butyl alcohol	2.977	59	60610	257.809	ug/l	100
12) 1,1-Dichloroethene	2.313	96	57738	50.278	ug/l	100
13) Acrolein	2.239	56	79989	247.074	ug/l	100
14) Allyl chloride	2.660	41	112085	51.441	ug/l	100
15) Acrylonitrile	3.062	53	194445	262.015	ug/l	100
16) Acetone	2.386	43	180563	251.366	ug/l	100
17) Carbon Disulfide	2.508	76	148601	52.393	ug/l	100
18) Methyl Acetate	2.703	43	82000	49.581	ug/l	100
19) Methyl tert-butyl Ether	3.111	73	202582	50.429	ug/l	100
20) Methylene Chloride	2.782	84	67855	50.457	ug/l	100
21) trans-1,2-Dichloroethene	3.087	96	59696	50.882	ug/l	100
22) Diisopropyl ether	3.764	45	219374	51.111	ug/l	100
23) Vinyl Acetate	3.721	43	998064	269.139	ug/l	100
24) 1,1-Dichloroethane	3.605	63	121348	49.992	ug/l	100
25) 2-Butanone	4.556	43	280076	266.363	ug/l	100
26) 2,2-Dichloropropane	4.471	77	81054	51.683	ug/l	100
27) cis-1,2-Dichloroethene	4.483	96	71871	50.282	ug/l	100
28) Bromochloromethane	4.897	49	57046	48.632	ug/l	100
29) Tetrahydrofuran	5.001	42	177402	260.230	ug/l	100
30) Chloroform	5.086	83	125797	50.366	ug/l	100
31) Cyclohexane	5.464	56	107407	50.052	ug/l	100
32) 1,1,1-Trichloroethane	5.379	97	106062	50.184	ug/l	100
36) 1,1-Dichloropropene	5.684	75	81607	50.620	ug/l	100
37) Ethyl Acetate	4.715	43	104896	51.632	ug/l	100
38) Carbon Tetrachloride	5.672	117	90247	51.797	ug/l	100
39) Methylcyclohexane	7.373	83	104678	52.970	ug/l	100
40) Benzene	6.031	78	249161	50.605	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045528.D
 Acq On : 01 Apr 2025 18:15
 Operator : JC/MD
 Sample : VSTDICCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:53:01 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	59068	54.623	ug/l	100
42) 1,2-Dichloroethane	6.080	62	104601	51.437	ug/l	100
43) Isopropyl Acetate	6.336	43	164588	53.452	ug/l	100
44) Trichloroethene	7.123	130	59042	50.452	ug/l	100
45) 1,2-Dichloropropane	7.427	63	63316	51.540	ug/l	100
46) Dibromomethane	7.574	93	49125	52.092	ug/l	100
47) Bromodichloromethane	7.818	83	96176	51.068	ug/l	100
48) Methyl methacrylate	7.690	41	85483	53.768	ug/l	100
49) 1,4-Dioxane	7.659	88	31199	1084.635	ug/l	100
51) 4-Methyl-2-Pentanone	8.574	43	558029	273.375	ug/l	100
52) Toluene	8.714	92	153143	51.402	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	85462	47.317	ug/l	100
54) cis-1,3-Dichloropropene	8.366	75	95524	53.975	ug/l	100
55) 1,1,2-Trichloroethane	9.147	97	60452	50.919	ug/l	100
56) Ethyl methacrylate	9.116	69	100998	54.970	ug/l	100
57) 1,3-Dichloropropane	9.305	76	106580	51.554	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	250428	269.434	ug/l	100
59) 2-Hexanone	9.427	43	413824	273.765	ug/l	100
60) Dibromochloromethane	9.519	129	69258	53.511	ug/l	100
61) 1,2-Dibromoethane	9.604	107	62812	52.264	ug/l	100
64) Tetrachloroethene	9.269	164	52155	49.181	ug/l	100
65) Chlorobenzene	10.073	112	162829	50.733	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.159	131	55974	50.233	ug/l	100
67) Ethyl Benzene	10.189	91	301481	52.447	ug/l	100
68) m/p-Xylenes	10.299	106	218702	104.606	ug/l	100
69) o-Xylene	10.640	106	108028	52.452	ug/l	100
70) Styrene	10.653	104	182620	53.723	ug/l	100
71) Bromoform	10.799	173	44397	53.361	ug/l #	100
73) Isopropylbenzene	10.957	105	287628	52.203	ug/l	100
74) N-amyl acetate	10.842	43	141589	53.721	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.207	83	95200	49.185	ug/l	100
76) 1,2,3-Trichloropropane	11.238	75	84279m	50.230	ug/l	
77) Bromobenzene	11.195	156	64527	50.686	ug/l	100
78) n-propylbenzene	11.299	91	336796	53.069	ug/l	100
79) 2-Chlorotoluene	11.360	91	203994	50.279	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	241536	53.013	ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	25488	51.556	ug/l	100
82) 4-Chlorotoluene	11.451	91	237213	52.439	ug/l	100
83) tert-Butylbenzene	11.713	119	235715	52.256	ug/l	100
84) 1,2,4-Trimethylbenzene	11.750	105	242301	52.986	ug/l	100
85) sec-Butylbenzene	11.890	105	295799	53.391	ug/l	100
86) p-Isopropyltoluene	12.006	119	242416	53.073	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	116890	50.441	ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	117164	49.871	ug/l	100
89) n-Butylbenzene	12.329	91	217345	54.874	ug/l	100
90) Hexachloroethane	12.536	117	41095	52.352	ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	115426	50.099	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	21712	53.638	ug/l	100
93) 1,2,4-Trichlorobenzene	13.585	180	65145	50.797	ug/l	100
94) Hexachlorobutadiene	13.719	225	27795	50.296	ug/l	100
95) Naphthalene	13.774	128	256009	53.643	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	68781	51.219	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045528.D
Acq On : 01 Apr 2025 18:15
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:53:01 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration

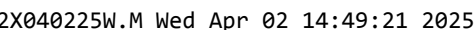
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045529.D
 Acq On : 01 Apr 2025 18:38
 Operator : JC/MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:54:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	86107	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	152724	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	136369	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	64612	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.946	65	155757	98.914	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 197.820%#			
35) Dibromofluoromethane	5.379	113	107908	99.585	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 199.160%#			
50) Toluene-d8	8.647	98	375599	99.309	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 198.620%#			
62) 4-Bromofluorobenzene	11.079	95	146944	106.664	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 213.320%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	144108	111.909	ug/l	99
3) Chloromethane	1.307	50	140360	106.098	ug/l	100
4) Vinyl Chloride	1.374	62	127174	105.042	ug/l	99
5) Bromomethane	1.593	94	58706	102.266	ug/l	98
6) Chloroethane	1.660	64	61099	95.120	ug/l	98
7) Trichlorofluoromethane	1.867	101	187555	103.887	ug/l	98
8) Diethyl Ether	2.136	74	61683	101.767	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.319	101	106989	101.133	ug/l	97
10) Methyl Iodide	2.441	142	135732	102.863	ug/l	100
11) Tert butyl alcohol	2.989	59	110044	519.999	ug/l	99
12) 1,1-Dichloroethene	2.306	96	106404	102.934	ug/l	99
13) Acrolein	2.233	56	146268	501.914	ug/l	99
14) Allyl chloride	2.654	41	206484	105.276	ug/l	99
15) Acrylonitrile	3.062	53	338970	507.426	ug/l	99
16) Acetone	2.386	43	314285	486.054	ug/l	100
17) Carbon Disulfide	2.502	76	276285	108.215	ug/l	100
18) Methyl Acetate	2.703	43	147272	98.925	ug/l	99
19) Methyl tert-butyl Ether	3.111	73	381719	105.561	ug/l	99
20) Methylene Chloride	2.782	84	121435	100.316	ug/l	98
21) trans-1,2-Dichloroethene	3.081	96	106896	101.220	ug/l	98
22) Diisopropyl ether	3.757	45	406185	105.132	ug/l	95
23) Vinyl Acetate	3.721	43	1848817	553.853	ug/l	99
24) 1,1-Dichloroethane	3.605	63	220934	101.114	ug/l	100
25) 2-Butanone	4.556	43	491249	519.018	ug/l	100
26) 2,2-Dichloropropane	4.465	77	155592	110.215	ug/l	100
27) cis-1,2-Dichloroethene	4.483	96	129785	100.871	ug/l	98
28) Bromochloromethane	4.891	49	105093	99.530	ug/l	100
29) Tetrahydrofuran	5.001	42	313121	510.264	ug/l	99
30) Chloroform	5.086	83	225402	100.255	ug/l	99
31) Cyclohexane	5.458	56	197136	102.056	ug/l	98
32) 1,1,1-Trichloroethane	5.379	97	198511	104.346	ug/l	99
36) 1,1-Dichloropropene	5.684	75	151448	103.515	ug/l	99
37) Ethyl Acetate	4.715	43	192130	104.207	ug/l	99
38) Carbon Tetrachloride	5.672	117	166465	105.278	ug/l	99
39) Methylcyclohexane	7.373	83	191752	106.921	ug/l	99
40) Benzene	6.031	78	452946	101.369	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045529.D
 Acq On : 01 Apr 2025 18:38
 Operator : JC/MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:54:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	107037	109.068	ug/l	99
42) 1,2-Dichloroethane	6.080	62	189528	102.696	ug/l	100
43) Isopropyl Acetate	6.336	43	305974	109.494	ug/l	100
44) Trichloroethene	7.123	130	107332	101.062	ug/l	97
45) 1,2-Dichloropropane	7.421	63	115731	103.806	ug/l	98
46) Dibromomethane	7.574	93	87381	102.101	ug/l	97
47) Bromodichloromethane	7.818	83	179265	104.886	ug/l	98
48) Methyl methacrylate	7.690	41	158241	109.675	ug/l	99
49) 1,4-Dioxane	7.665	88	52624	2015.906	ug/l	97
51) 4-Methyl-2-Pentanone	8.574	43	988881	533.814	ug/l	99
52) Toluene	8.714	92	276323	102.199	ug/l	99
53) t-1,3-Dichloropropene	8.976	75	169413	100.645	ug/l	100
54) cis-1,3-Dichloropropene	8.366	75	182328	113.521	ug/l	99
55) 1,1,2-Trichloroethane	9.147	97	109208	101.361	ug/l	98
56) Ethyl methacrylate	9.116	69	192034	115.168	ug/l	99
57) 1,3-Dichloropropane	9.305	76	192473	102.588	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	460297	545.696	ug/l	100
59) 2-Hexanone	9.427	43	738772	538.538	ug/l	99
60) Dibromochloromethane	9.519	129	128700	109.570	ug/l	98
61) 1,2-Dibromoethane	9.604	107	115919	106.282	ug/l	99
64) Tetrachloroethene	9.269	164	90817	94.325	ug/l	99
65) Chlorobenzene	10.073	112	296300	101.682	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.159	131	103437	102.243	ug/l	99
67) Ethyl Benzene	10.189	91	543568	104.152	ug/l	99
68) m/p-Xylenes	10.299	106	394241	207.694	ug/l	100
69) o-Xylene	10.640	106	195381	104.487	ug/l	99
70) Styrene	10.653	104	335333	108.654	ug/l	100
71) Bromoform	10.799	173	83632	110.714	ug/l #	97
73) Isopropylbenzene	10.957	105	522436	100.944	ug/l	100
74) N-amyl acetate	10.842	43	275462	111.267	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	174977	96.243	ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	154048m	97.744	ug/l	
77) Bromobenzene	11.195	156	119561	99.983	ug/l	99
78) n-propylbenzene	11.299	91	622679	104.454	ug/l	100
79) 2-Chlorotoluene	11.360	91	376682	98.840	ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	435137	101.675	ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	51873	111.704	ug/l	95
82) 4-Chlorotoluene	11.451	91	432884	101.877	ug/l	99
83) tert-Butylbenzene	11.713	119	437649	103.292	ug/l	99
84) 1,2,4-Trimethylbenzene	11.750	105	444211	103.414	ug/l	99
85) sec-Butylbenzene	11.890	105	546857	105.082	ug/l	100
86) p-Isopropyltoluene	12.006	119	453109	105.609	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	221481	101.749	ug/l	99
88) 1,4-Dichlorobenzene	12.036	146	216367	98.047	ug/l	98
89) n-Butylbenzene	12.329	91	420694	113.075	ug/l	99
90) Hexachloroethane	12.536	117	80489	109.160	ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	215157	99.419	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	43047	113.214	ug/l	99
93) 1,2,4-Trichlorobenzene	13.585	180	135046	112.106	ug/l	99
94) Hexachlorobutadiene	13.725	225	53636	103.326	ug/l	98
95) Naphthalene	13.774	128	499719	111.473	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	137328	108.869	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045529.D
Acq On : 01 Apr 2025 18:38
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:54:00 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration

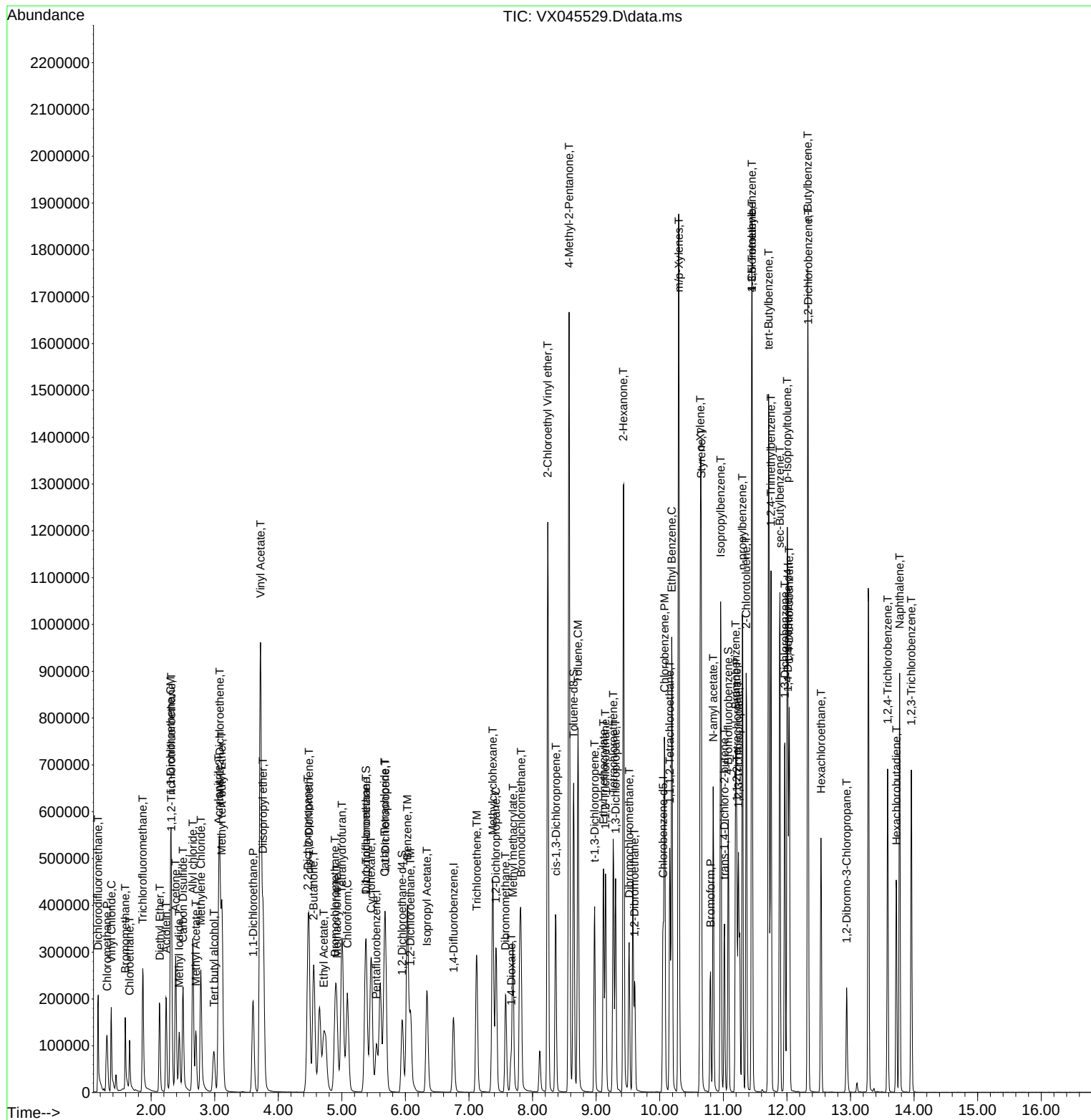
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045530.D
 Acq On : 01 Apr 2025 19:02
 Operator : JC/MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC150

Quant Time: Apr 02 02:54:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	90033	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	160037	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	133342	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	61380	50.000	ug/l	# 0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	252998	153.661	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 307.320%#			
35) Dibromofluoromethane	5.379	113	173598	152.887	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 305.780%#			
50) Toluene-d8	8.647	98	603264	152.216	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 304.440%#			
62) 4-Bromofluorobenzene	11.079	95	220921	153.035	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 306.060%#			
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.167	85	221436	164.460	ug/l	100
3) Chloromethane	1.307	50	198321	143.373	ug/l	98
4) Vinyl Chloride	1.374	62	197096	155.697	ug/l	100
5) Bromomethane	1.593	94	88225	146.986	ug/l	97
6) Chloroethane	1.660	64	86251	128.421	ug/l	97
7) Trichlorofluoromethane	1.868	101	267098	141.495	ug/l	100
8) Diethyl Ether	2.136	74	96467	152.215	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.319	101	171118	154.698	ug/l	97
10) Methyl Iodide	2.441	142	202594	146.838	ug/l	99
11) Tert butyl alcohol	2.989	59	167769	758.202	ug/l	100
12) 1,1-Dichloroethene	2.307	96	166365	153.921	ug/l	97
13) Acrolein	2.239	56	232818	764.070	ug/l	100
14) Allyl chloride	2.654	41	313268	152.755	ug/l	99
15) Acrylonitrile	3.069	53	507965	727.247	ug/l	100
16) Acetone	2.386	43	479564	709.323	ug/l	99
17) Carbon Disulfide	2.502	76	443495	166.133	ug/l	99
18) Methyl Acetate	2.703	43	228558	146.832	ug/l	99
19) Methyl tert-butyl Ether	3.117	73	598532	158.301	ug/l	99
20) Methylene Chloride	2.782	84	186382	147.254	ug/l	99
21) trans-1,2-Dichloroethene	3.081	96	170283	154.210	ug/l	98
22) Diisopropyl ether	3.764	45	636728	157.617	ug/l	94
23) Vinyl Acetate	3.721	43	2911326	834.120	ug/l	100
24) 1,1-Dichloroethane	3.605	63	349040	152.778	ug/l	99
25) 2-Butanone	4.556	43	740096	747.834	ug/l	99
26) 2,2-Dichloropropane	4.465	77	252063	170.765	ug/l	100
27) cis-1,2-Dichloroethene	4.483	96	205254	152.571	ug/l	98
28) Bromochloromethane	4.891	49	155600	140.938	ug/l	97
29) Tetrahydrofuran	5.001	42	475589	741.226	ug/l	100
30) Chloroform	5.087	83	353681	150.451	ug/l	98
31) Cyclohexane	5.458	56	310219	153.595	ug/l	97
32) 1,1,1-Trichloroethane	5.373	97	315136	158.426	ug/l	98
36) 1,1-Dichloropropene	5.684	75	239776	156.399	ug/l	98
37) Ethyl Acetate	4.715	43	294559	152.461	ug/l	99
38) Carbon Tetrachloride	5.672	117	266770	161.005	ug/l	99
39) Methylcyclohexane	7.373	83	303251	161.366	ug/l	96
40) Benzene	6.031	78	703311	150.208	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045530.D
 Acq On : 01 Apr 2025 19:02
 Operator : JC/MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:54:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 02:44:48 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.922	41	164699	160.155	ug/l	98
42) 1,2-Dichloroethane	6.080	62	296168	153.146	ug/l	100
43) Isopropyl Acetate	6.336	43	475823	162.494	ug/l	99
44) Trichloroethene	7.117	130	170940	153.599	ug/l	95
45) 1,2-Dichloropropane	7.428	63	179457	153.610	ug/l	98
46) Dibromomethane	7.574	93	135415	150.996	ug/l	98
47) Bromodichloromethane	7.818	83	279881	156.272	ug/l	98
48) Methyl methacrylate	7.690	41	240818	159.281	ug/l	99
49) 1,4-Dioxane	7.659	88	74929	2739.196	ug/l	99
51) 4-Methyl-2-Pentanone	8.574	43	1414771	728.817	ug/l	99
52) Toluene	8.714	92	420015	148.245	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	267671	150.589	ug/l	98
54) cis-1,3-Dichloropropene	8.360	75	287973	171.104	ug/l	98
55) 1,1,2-Trichloroethane	9.147	97	163426	144.752	ug/l	98
56) Ethyl methacrylate	9.116	69	285895	163.624	ug/l	98
57) 1,3-Dichloropropane	9.305	76	288430	146.708	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	703881	796.340	ug/l	99
59) 2-Hexanone	9.433	43	1053971	733.198	ug/l	100
60) Dibromochloromethane	9.519	129	194342	157.895	ug/l	98
61) 1,2-Dibromoethane	9.610	107	174571	152.745	ug/l	99
64) Tetrachloroethene	9.269	164	138926	147.568	ug/l	98
65) Chlorobenzene	10.080	112	444631	156.049	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.159	131	156069	157.769	ug/l	99
67) Ethyl Benzene	10.189	91	821130	160.907	ug/l	99
68) m/p-Xylenes	10.299	106	583228	314.231	ug/l	99
69) o-Xylene	10.640	106	285670	156.241	ug/l	100
70) Styrene	10.653	104	480722	159.299	ug/l	99
71) Bromoform	10.799	173	126115	170.743	ug/l #	98
73) Isopropylbenzene	10.957	105	764406	155.475	ug/l	100
74) N-amyl acetate	10.842	43	408934	173.877	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	249980	144.737	ug/l	100
76) 1,2,3-Trichloropropane	11.238	75	215694m	144.064	ug/l	
77) Bromobenzene	11.195	156	171573	151.033	ug/l	99
78) n-propylbenzene	11.305	91	897084	158.408	ug/l	100
79) 2-Chlorotoluene	11.360	91	537263	148.399	ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	620819	152.700	ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	78805	178.636	ug/l	93
82) 4-Chlorotoluene	11.451	91	615594	152.505	ug/l	99
83) tert-Butylbenzene	11.713	119	627039	155.783	ug/l	100
84) 1,2,4-Trimethylbenzene	11.750	105	629704	154.317	ug/l	100
85) sec-Butylbenzene	11.890	105	790355	159.869	ug/l	100
86) p-Isopropyltoluene	12.006	119	641521	157.397	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	314077	151.885	ug/l	100
88) 1,4-Dichlorobenzene	12.037	146	314197	149.876	ug/l	99
89) n-Butylbenzene	12.329	91	604445	171.019	ug/l	100
90) Hexachloroethane	12.536	117	121761	173.829	ug/l	99
91) 1,2-Dichlorobenzene	12.335	146	307031	149.342	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	64317	178.062	ug/l	99
93) 1,2,4-Trichlorobenzene	13.585	180	199365	174.213	ug/l	99
94) Hexachlorobutadiene	13.725	225	77792	157.752	ug/l	99
95) Naphthalene	13.774	128	733300	172.191	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	201989	168.562	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045530.D
Acq On : 01 Apr 2025 19:02
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:54:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

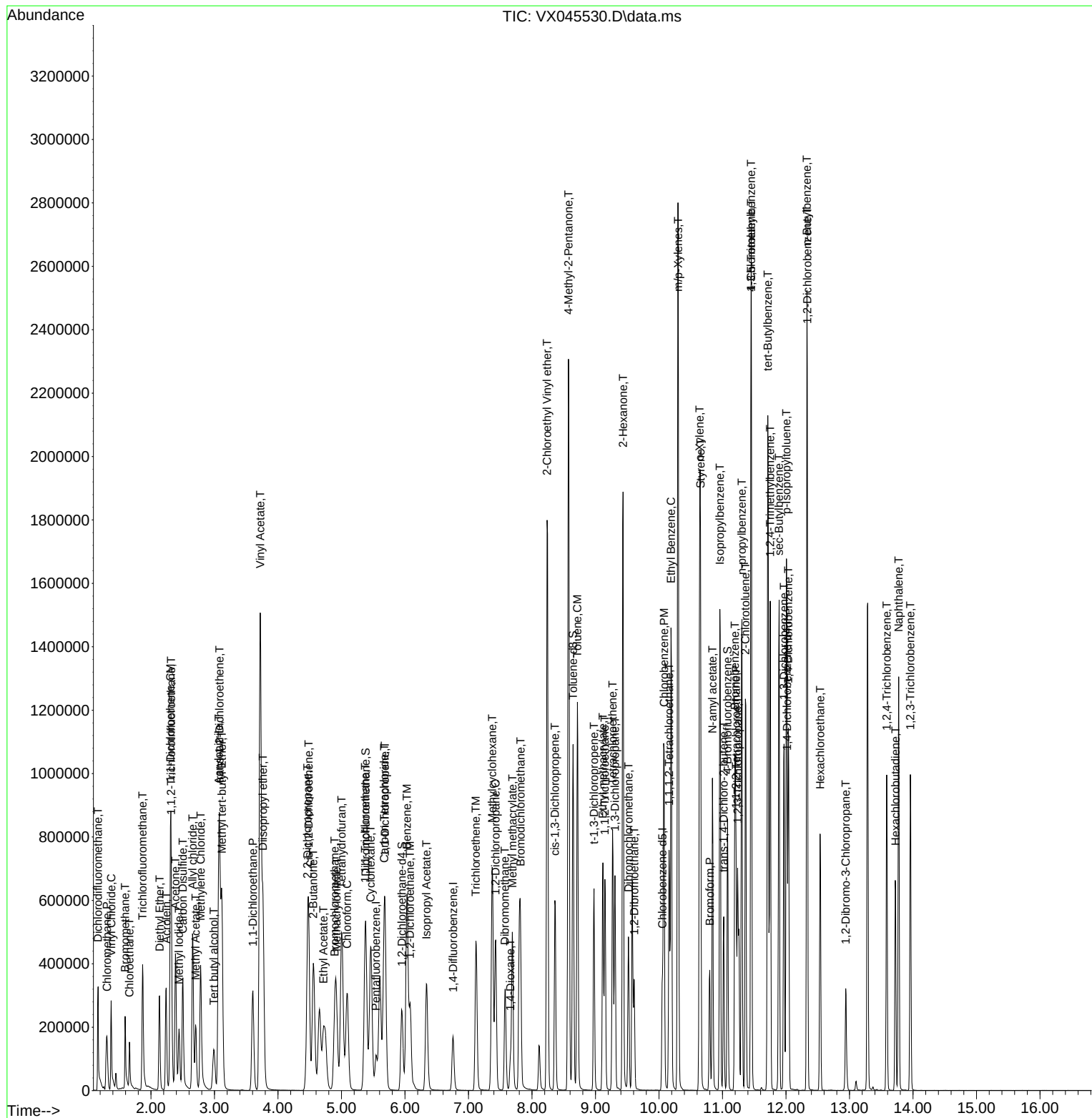

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Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\  
Data File : VX045530.D  
Acq On    : 01 Apr 2025  19:02  
Operator  : JC/MD  
Sample    : VSTDICC150  
Misc      : 5.0mL/MSVOA_X/WATER  
ALS Vial  : 8   Sample Multiplier: 1
```

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 02:54:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 02:44:48 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045532.D
 Acq On : 01 Apr 2025 19:48
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX040225

Quant Time: Apr 02 03:14:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	96972	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	174855	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	152417	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	67633	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	89251	50.329	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 100.660%			
35) Dibromofluoromethane	5.379	113	61107	49.256	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 98.520%			
50) Toluene-d8	8.647	98	217200	50.160	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.320%			
62) 4-Bromofluorobenzene	11.079	95	80376	50.959	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 101.920%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	76070	52.454	ug/l	97
3) Chloromethane	1.301	50	72033	48.349	ug/l	99
4) Vinyl Chloride	1.374	62	66559	48.816	ug/l	99
5) Bromomethane	1.593	94	30379	46.991	ug/l	99
6) Chloroethane	1.672	64	37317	51.586	ug/l	100
7) Trichlorofluoromethane	1.880	101	102379	50.354	ug/l	96
8) Diethyl Ether	2.130	74	33603	49.228	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.325	101	59007	49.528	ug/l	98
10) Methyl Iodide	2.447	142	72261	48.626	ug/l	99
11) Tert butyl alcohol	2.971	59	58774	246.612	ug/l	99
12) 1,1-Dichloroethene	2.313	96	57888	49.726	ug/l	99
13) Acrolein	2.233	56	78156	238.141	ug/l	99
14) Allyl chloride	2.660	41	111636	50.541	ug/l	99
15) Acrylonitrile	3.062	53	186837	248.351	ug/l	100
16) Acetone	2.380	43	176153	241.904	ug/l	99
17) Carbon Disulfide	2.508	76	149677	52.057	ug/l	100
18) Methyl Acetate	2.703	43	81720	48.742	ug/l	100
19) Methyl tert-butyl Ether	3.111	73	207487	50.950	ug/l	100
20) Methylene Chloride	2.782	84	66875	49.055	ug/l	99
21) trans-1,2-Dichloroethene	3.087	96	59229	49.800	ug/l	98
22) Diisopropyl ether	3.757	45	221449	50.895	ug/l	92
23) Vinyl Acetate	3.715	43	1005423	267.449	ug/l	99
24) 1,1-Dichloroethane	3.605	63	122240	49.677	ug/l	99
25) 2-Butanone	4.550	43	271686	254.882	ug/l	97
26) 2,2-Dichloropropane	4.471	77	82704	52.020	ug/l	100
27) cis-1,2-Dichloroethene	4.483	96	71072	49.049	ug/l	98
28) Bromochloromethane	4.891	49	57557	48.403	ug/l	99
29) Tetrahydrofuran	5.001	42	172405	249.473	ug/l	100
30) Chloroform	5.086	83	125621	49.614	ug/l	98
31) Cyclohexane	5.458	56	107862	49.583	ug/l	97
32) 1,1,1-Trichloroethane	5.379	97	107830	50.330	ug/l	99
36) 1,1-Dichloropropene	5.684	75	83901	50.088	ug/l	99
37) Ethyl Acetate	4.708	43	105095	49.787	ug/l	98
38) Carbon Tetrachloride	5.672	117	91723	50.667	ug/l	100
39) Methylcyclohexane	7.373	83	102919	50.124	ug/l	99
40) Benzene	6.031	78	251758	49.212	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045532.D
 Acq On : 01 Apr 2025 19:48
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX040225

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 04/02/2025
 Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 03:14:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.916	41	59140	53.098	ug/l	99
42) 1,2-Dichloroethane	6.080	62	103270	48.875	ug/l	100
43) Isopropyl Acetate	6.336	43	164894	51.539	ug/l	100
44) Trichloroethene	7.123	130	57931	47.643	ug/l	92
45) 1,2-Dichloropropane	7.421	63	63210	49.521	ug/l	95
46) Dibromomethane	7.574	93	47564	48.542	ug/l	97
47) Bromodichloromethane	7.818	83	96418	49.273	ug/l	96
48) Methyl methacrylate	7.690	41	85084	51.507	ug/l	99
49) 1,4-Dioxane	7.659	88	28552	955.327	ug/l	99
51) 4-Methyl-2-Pentanone	8.568	43	540822	254.994	ug/l	100
52) Toluene	8.714	92	151664	48.994	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	87744	46.783	ug/l	98
54) cis-1,3-Dichloropropene	8.360	75	99074	53.878	ug/l	98
55) 1,1,2-Trichloroethane	9.147	97	60452	49.007	ug/l	97
56) Ethyl methacrylate	9.116	69	102525	53.705	ug/l	100
57) 1,3-Dichloropropane	9.305	76	107121	49.869	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	251285	260.201	ug/l	99
59) 2-Hexanone	9.427	43	395336	251.710	ug/l	100
60) Dibromochloromethane	9.519	129	68562	50.983	ug/l	99
61) 1,2-Dibromoethane	9.604	107	63301	50.693	ug/l	100
64) Tetrachloroethene	9.269	164	50834	47.239	ug/l	99
65) Chlorobenzene	10.073	112	163518	50.207	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.159	131	57096	50.495	ug/l	99
67) Ethyl Benzene	10.189	91	300747	51.558	ug/l	100
68) m/p-Xylenes	10.299	106	217943	102.728	ug/l	99
69) o-Xylene	10.640	106	107947	51.650	ug/l	100
70) Styrene	10.653	104	181524	52.624	ug/l	100
71) Bromoform	10.799	173	44489	52.694	ug/l #	98
73) Isopropylbenzene	10.957	105	286010	52.794	ug/l	100
74) N-amyl acetate	10.842	43	140941	54.387	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.207	83	92505	48.608	ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	82060m	49.741	ug/l	
77) Bromobenzene	11.195	156	63244	50.525	ug/l	98
78) n-propylbenzene	11.299	91	336753	53.967	ug/l	100
79) 2-Chlorotoluene	11.360	91	203677	51.057	ug/l	99
80) 1,3,5-Trimethylbenzene	11.445	105	239822	53.534	ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	25511	52.482	ug/l	98
82) 4-Chlorotoluene	11.451	91	233159	52.422	ug/l	100
83) tert-Butylbenzene	11.713	119	236276	53.274	ug/l	100
84) 1,2,4-Trimethylbenzene	11.750	105	238257	52.990	ug/l	100
85) sec-Butylbenzene	11.890	105	293633	53.903	ug/l	100
86) p-Isopropyltoluene	12.006	119	244031	54.337	ug/l	99
87) 1,3-Dichlorobenzene	11.963	146	115113	50.521	ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	113458	49.117	ug/l	97
89) n-Butylbenzene	12.329	91	214931	55.189	ug/l	99
90) Hexachloroethane	12.536	117	41729	54.066	ug/l	98
91) 1,2-Dichlorobenzene	12.329	146	113126	49.938	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	21184	53.226	ug/l	100
93) 1,2,4-Trichlorobenzene	13.585	180	65488	51.935	ug/l	98
94) Hexachlorobutadiene	13.725	225	27147	49.961	ug/l	99
95) Naphthalene	13.774	128	247600	52.765	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	66542	50.396	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045532.D
Acq On : 01 Apr 2025 19:48
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Manual Integrations
APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 03:14:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

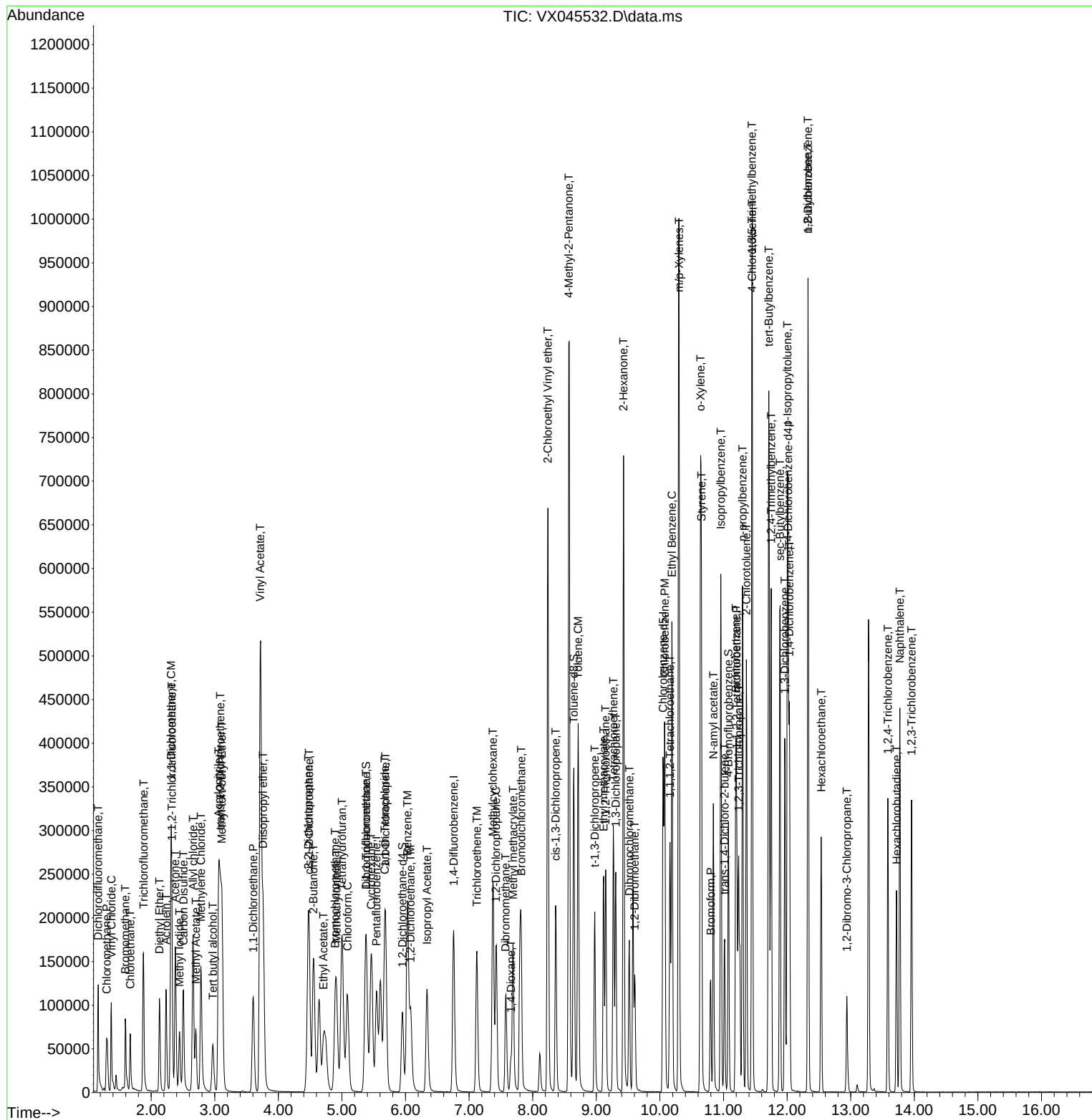
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\  
Data File : VX045532.D  
Acq On    : 01 Apr 2025   19:48  
Operator  : JC/MD  
Sample    : VSTDICV050  
Misc      : 5.0mL/MSVOA_X/WATER  
ALS Vial  : 10   Sample Multiplier: 1
```

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Manual Integrations APPROVED

Reviewed By :Amit Patel 04/02/2025
Supervised By :Mahesh Dadoda 04/02/2025

Quant Time: Apr 02 03:14:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045532.D
 Acq On : 01 Apr 2025 19:48
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICSVVX040225

Quant Time: Apr 02 03:14:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2 T	Dichlorodifluoromethane	0.748	0.784	-4.8	97	0.00
3 P	Chloromethane	0.768	0.743	3.3	96	0.00
4 C	Vinyl Chloride	0.703	0.686	2.4#	97	0.00
5 T	Bromomethane	0.333	0.313	6.0	96	0.00
6 T	Chloroethane	0.373	0.385	-3.2	98	0.00
7 T	Trichlorofluoromethane	1.048	1.056	-0.8	99	0.00
8 T	Diethyl Ether	0.352	0.347	1.4	99	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.614	0.608	1.0	99	0.00
10 T	Methyl Iodide	0.766	0.745	2.7	95	0.00
11 T	Tert butyl alcohol	0.123	0.121	1.6	97	0.00
12 CM	1,1-Dichloroethene	0.600	0.597	0.5#	100	0.00
13 T	Acrolein	0.169	0.161	4.7	98	0.00
14 T	Allyl chloride	1.139	1.151	-1.1	100	0.00
15 T	Acrylonitrile	0.388	0.385	0.8	96	0.00
16 T	Acetone	0.375	0.363	3.2	98	0.00
17 T	Carbon Disulfide	1.483	1.544	-4.1	101	0.00
18 T	Methyl Acetate	0.864	0.843	2.4	100	0.00
19 T	Methyl tert-butyl Ether	2.100	2.140	-1.9	102	0.00
20 T	Methylene Chloride	0.703	0.690	1.8	99	0.00
21 T	trans-1,2-Dichloroethene	0.613	0.611	0.3	99	0.00
22 T	Diisopropyl ether	2.243	2.284	-1.8	101	0.00
23 T	Vinyl Acetate	1.938	2.074	-7.0	101	0.00
24 P	1,1-Dichloroethane	1.269	1.261	0.6	101	0.00
25 T	2-Butanone	0.550	0.560	-1.8	97	0.00
26 T	2,2-Dichloropropane	0.820	0.853	-4.0	102	0.00
27 T	cis-1,2-Dichloroethene	0.747	0.733	1.9	99	0.00
28 T	Bromochloromethane	0.613	0.594	3.1	101	0.00
29 T	Tetrahydrofuran	0.356	0.356	0.0	97	0.00
30 C	Chloroform	1.306	1.295	0.8#	100	0.00
31 T	Cyclohexane	1.122	1.112	0.9	100	0.00
32 T	1,1,1-Trichloroethane	1.105	1.112	-0.6	102	0.00
33 S	1,2-Dichloroethane-d4	0.914	0.920	-0.7	107	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	104	0.00
35 S	Dibromofluoromethane	0.355	0.349	1.7	105	0.00
36 T	1,1-Dichloropropene	0.479	0.480	-0.2	103	0.00
37 T	Ethyl Acetate	0.604	0.601	0.5	100	0.00
38 T	Carbon Tetrachloride	0.518	0.525	-1.4	102	0.00
39 T	Methylcyclohexane	0.587	0.589	-0.3	98	0.00
40 TM	Benzene	1.463	1.440	1.6	101	0.00
41 T	Methacrylonitrile	0.318	0.338	-6.3	100	0.00
42 TM	1,2-Dichloroethane	0.604	0.591	2.2	99	0.00
43 T	Isopropyl Acetate	0.915	0.943	-3.1	100	0.00
44 TM	Trichloroethene	0.348	0.331	4.9	98	0.00
45 C	1,2-Dichloropropane	0.365	0.361	1.1#	100	0.00
46 T	Dibromomethane	0.280	0.272	2.9	97	0.00
47 T	Bromodichloromethane	0.560	0.551	1.6	100	0.00
48 T	Methyl methacrylate	0.472	0.487	-3.2	100	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
 Data File : VX045532.D
 Acq On : 01 Apr 2025 19:48
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICSVVX040225

Quant Time: Apr 02 03:14:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.009	0.008	11.1	92	0.00
50 S	Toluene-d8	1.238	1.242	-0.3	106	0.00
51 T	4-Methyl-2-Pentanone	0.606	0.619	-2.1	97	0.00
52 CM	Toluene	0.885	0.867	2.0#	99	0.00
53 T	t-1,3-Dichloropropene	0.467	0.502	-7.5	103	0.00
54 T	cis-1,3-Dichloropropene	0.526	0.567	-7.8	104	0.00
55 T	1,1,2-Trichloroethane	0.353	0.346	2.0	100	0.00
56 T	Ethyl methacrylate	0.546	0.586	-7.3	102	0.00
57 T	1,3-Dichloropropane	0.614	0.613	0.2	101	0.00
58 T	2-Chloroethyl Vinyl ether	0.276	0.287	-4.0	100	0.00
59 T	2-Hexanone	0.449	0.452	-0.7	96	0.00
60 T	Dibromochloromethane	0.385	0.392	-1.8	99	0.00
61 T	1,2-Dibromoethane	0.357	0.362	-1.4	101	0.00
62 S	4-Bromofluorobenzene	0.451	0.460	-2.0	105	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00
64 T	Tetrachloroethene	0.353	0.334	5.4	97	0.00
65 PM	Chlorobenzene	1.068	1.073	-0.5	100	0.00
66 T	1,1,1,2-Tetrachloroethane	0.371	0.375	-1.1	102	0.00
67 C	Ethyl Benzene	1.914	1.973	-3.1#	100	0.00
68 T	m/p-Xylenes	0.696	0.715	-2.7	100	0.00
69 T	o-Xylene	0.686	0.708	-3.2	100	0.00
70 T	Styrene	1.132	1.191	-5.2	99	0.00
71 P	Bromoform	0.277	0.292	-5.4	100	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
73 T	Isopropylbenzene	4.005	4.229	-5.6	99	0.00
74 T	N-amyl acetate	1.916	2.084	-8.8	100	0.00
75 P	1,1,2,2-Tetrachloroethane	1.407	1.368	2.8	97	0.00
76 T	1,2,3-Trichloropropane	1.220	1.213	0.6	97	0.00
77 T	Bromobenzene	0.925	0.935	-1.1	98	0.00
78 T	n-propylbenzene	4.613	4.979	-7.9	100	0.00
79 T	2-Chlorotoluene	2.949	3.012	-2.1	100	0.00
80 T	1,3,5-Trimethylbenzene	3.312	3.546	-7.1	99	0.00
81 T	trans-1,4-Dichloro-2-butene	0.359	0.377	-5.0	100	0.00
82 T	4-Chlorotoluene	3.288	3.447	-4.8	98	0.00
83 T	tert-Butylbenzene	3.279	3.494	-6.6	100	0.00
84 T	1,2,4-Trimethylbenzene	3.324	3.523	-6.0	98	0.00
85 T	sec-Butylbenzene	4.027	4.342	-7.8	99	0.00
86 T	p-Isopropyltoluene	3.320	3.608	-8.7	101	0.00
87 T	1,3-Dichlorobenzene	1.684	1.702	-1.1	98	0.00
88 T	1,4-Dichlorobenzene	1.708	1.678	1.8	97	0.00
89 T	n-Butylbenzene	2.879	3.178	-10.4	99	0.00
90 T	Hexachloroethane	0.571	0.617	-8.1	102	0.00
91 T	1,2-Dichlorobenzene	1.675	1.673	0.1	98	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.294	0.313	-6.5	98	0.00
93 T	1,2,4-Trichlorobenzene	0.932	0.968	-3.9	101	0.00
94 T	Hexachlorobutadiene	0.402	0.401	0.2	98	0.00
95 T	Naphthalene	3.469	3.661	-5.5	97	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045532.D
Acq On : 01 Apr 2025 19:48
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Quant Time: Apr 02 03:14:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.976	0.984	-0.8	97	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\WX040225\
 Data File : VX045532.D
 Acq On : 01 Apr 2025 19:48
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX040225

Quant Time: Apr 02 03:14:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	101	0.00
2 T	Dichlorodifluoromethane	50.000	52.454	-4.9	97	0.00
3 P	Chloromethane	50.000	48.349	3.3	96	0.00
4 C	Vinyl Chloride	50.000	48.816	2.4#	97	0.00
5 T	Bromomethane	50.000	46.991	6.0	96	0.00
6 T	Chloroethane	50.000	51.586	-3.2	98	0.00
7 T	Trichlorofluoromethane	50.000	50.354	-0.7	99	0.00
8 T	Diethyl Ether	50.000	49.228	1.5	99	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	49.528	0.9	99	0.00
10 T	Methyl Iodide	50.000	48.626	2.7	95	0.00
11 T	Tert butyl alcohol	250.000	246.612	1.4	97	0.00
12 CM	1,1-Dichloroethene	50.000	49.726	0.5#	100	0.00
13 T	Acrolein	250.000	238.141	4.7	98	0.00
14 T	Allyl chloride	50.000	50.541	-1.1	100	0.00
15 T	Acrylonitrile	250.000	248.351	0.7	96	0.00
16 T	Acetone	250.000	241.904	3.2	98	0.00
17 T	Carbon Disulfide	50.000	52.057	-4.1	101	0.00
18 T	Methyl Acetate	50.000	48.742	2.5	100	0.00
19 T	Methyl tert-butyl Ether	50.000	50.950	-1.9	102	0.00
20 T	Methylene Chloride	50.000	49.055	1.9	99	0.00
21 T	trans-1,2-Dichloroethene	50.000	49.800	0.4	99	0.00
22 T	Diisopropyl ether	50.000	50.895	-1.8	101	0.00
23 T	Vinyl Acetate	250.000	267.449	-7.0	101	0.00
24 P	1,1-Dichloroethane	50.000	49.677	0.6	101	0.00
25 T	2-Butanone	250.000	254.882	-2.0	97	0.00
26 T	2,2-Dichloropropane	50.000	52.020	-4.0	102	0.00
27 T	cis-1,2-Dichloroethene	50.000	49.049	1.9	99	0.00
28 T	Bromochloromethane	50.000	48.403	3.2	101	0.00
29 T	Tetrahydrofuran	250.000	249.473	0.2	97	0.00
30 C	Chloroform	50.000	49.614	0.8#	100	0.00
31 T	Cyclohexane	50.000	49.583	0.8	100	0.00
32 T	1,1,1-Trichloroethane	50.000	50.330	-0.7	102	0.00
33 S	1,2-Dichloroethane-d4	50.000	50.329	-0.7	107	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	104	0.00
35 S	Dibromofluoromethane	50.000	49.256	1.5	105	0.00
36 T	1,1-Dichloropropene	50.000	50.088	-0.2	103	0.00
37 T	Ethyl Acetate	50.000	49.787	0.4	100	0.00
38 T	Carbon Tetrachloride	50.000	50.667	-1.3	102	0.00
39 T	Methylcyclohexane	50.000	50.124	-0.2	98	0.00
40 TM	Benzene	50.000	49.212	1.6	101	0.00
41 T	Methacrylonitrile	50.000	53.098	-6.2	100	0.00
42 TM	1,2-Dichloroethane	50.000	48.875	2.3	99	0.00
43 T	Isopropyl Acetate	50.000	51.539	-3.1	100	0.00
44 TM	Trichloroethene	50.000	47.643	4.7	98	0.00
45 C	1,2-Dichloropropane	50.000	49.521	1.0#	100	0.00
46 T	Dibromomethane	50.000	48.542	2.9	97	0.00
47 T	Bromodichloromethane	50.000	49.273	1.5	100	0.00
48 T	Methyl methacrylate	50.000	51.507	-3.0	100	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\WX040225\
 Data File : VX045532.D
 Acq On : 01 Apr 2025 19:48
 Operator : JC/MD
 Sample : VSTDICV050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICSVX040225

Quant Time: Apr 02 03:14:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	955.327	4.5	92	0.00
50 S	Toluene-d8	50.000	50.160	-0.3	106	0.00
51 T	4-Methyl-2-Pentanone	250.000	254.994	-2.0	97	0.00
52 CM	Toluene	50.000	48.994	2.0#	99	0.00
53 T	t-1,3-Dichloropropene	50.000	46.783	6.4	103	0.00
54 T	cis-1,3-Dichloropropene	50.000	53.878	-7.8	104	0.00
55 T	1,1,2-Trichloroethane	50.000	49.007	2.0	100	0.00
56 T	Ethyl methacrylate	50.000	53.705	-7.4	102	0.00
57 T	1,3-Dichloropropane	50.000	49.869	0.3	101	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	260.201	-4.1	100	0.00
59 T	2-Hexanone	250.000	251.710	-0.7	96	0.00
60 T	Dibromochloromethane	50.000	50.983	-2.0	99	0.00
61 T	1,2-Dibromoethane	50.000	50.693	-1.4	101	0.00
62 S	4-Bromofluorobenzene	50.000	50.959	-1.9	105	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	101	0.00
64 T	Tetrachloroethene	50.000	47.239	5.5	97	0.00
65 PM	Chlorobenzene	50.000	50.207	-0.4	100	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	50.495	-1.0	102	0.00
67 C	Ethyl Benzene	50.000	51.558	-3.1#	100	0.00
68 T	m/p-Xylenes	100.000	102.728	-2.7	100	0.00
69 T	o-Xylene	50.000	51.650	-3.3	100	0.00
70 T	Styrene	50.000	52.624	-5.2	99	0.00
71 P	Bromoform	50.000	52.694	-5.4	100	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	98	0.00
73 T	Isopropylbenzene	50.000	52.794	-5.6	99	0.00
74 T	N-ethyl acetate	50.000	54.387	-8.8	100	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	48.608	2.8	97	0.00
76 T	1,2,3-Trichloropropane	50.000	49.741	0.5	97	0.00
77 T	Bromobenzene	50.000	50.525	-1.0	98	0.00
78 T	n-propylbenzene	50.000	53.967	-7.9	100	0.00
79 T	2-Chlorotoluene	50.000	51.057	-2.1	100	0.00
80 T	1,3,5-Trimethylbenzene	50.000	53.534	-7.1	99	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	52.482	-5.0	100	0.00
82 T	4-Chlorotoluene	50.000	52.422	-4.8	98	0.00
83 T	tert-Butylbenzene	50.000	53.274	-6.5	100	0.00
84 T	1,2,4-Trimethylbenzene	50.000	52.990	-6.0	98	0.00
85 T	sec-Butylbenzene	50.000	53.903	-7.8	99	0.00
86 T	p-Isopropyltoluene	50.000	54.337	-8.7	101	0.00
87 T	1,3-Dichlorobenzene	50.000	50.521	-1.0	98	0.00
88 T	1,4-Dichlorobenzene	50.000	49.117	1.8	97	0.00
89 T	n-Butylbenzene	50.000	55.189	-10.4	99	0.00
90 T	Hexachloroethane	50.000	54.066	-8.1	102	0.00
91 T	1,2-Dichlorobenzene	50.000	49.938	0.1	98	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	53.226	-6.5	98	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.935	-3.9	101	0.00
94 T	Hexachlorobutadiene	50.000	49.961	0.1	98	0.00
95 T	Naphthalene	50.000	52.765	-5.5	97	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045532.D
Acq On : 01 Apr 2025 19:48
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Quant Time: Apr 02 03:14:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	50.396	-0.8	97	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LOCK01

Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG No.: Q1782

Instrument ID: MSVOA_X Calibration Date/Time: 04/11/2025 10:41

Lab File ID: VX045730.D Init. Calib. Date(s): 04/01/2025 04/01/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 17:06 19:02

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.703	0.636		-9.53	20
Chloroethane	0.373	0.355		-4.83	20
Trichlorofluoromethane	1.048	1.004		-4.2	20
1,1-Dichloroethene	0.600	0.549		-8.5	20
Acrylonitrile	0.388	0.368		-5.16	20
Acetone	0.375	0.347		-7.47	20
Carbon Disulfide	1.483	1.188		-19.89	20
Methylene Chloride	0.703	0.649		-7.68	20
Vinyl Acetate	1.938	1.908		-1.55	20
2-Butanone	0.550	0.536		-2.55	20
Carbon Tetrachloride	0.518	0.529		2.12	20
cis-1,2-Dichloroethene	0.747	0.682		-8.7	20
Bromochloromethane	0.613	0.580		-5.38	20
Chloroform	1.306	1.240		-5.05	20
1,1,1-Trichloroethane	1.105	1.067		-3.44	20
Benzene	1.463	1.404		-4.03	20
1,2-Dichloropropane	0.365	0.361		-1.1	20
Dibromomethane	0.280	0.275		-1.79	20
Bromodichloromethane	0.560	0.562		0.36	20
4-Methyl-2-Pentanone	0.606	0.640		5.61	20
Toluene	0.885	0.858		-3.05	20
t-1,3-Dichloropropene	0.467	0.511		9.42	20
cis-1,3-Dichloropropene	0.526	0.565		7.41	20
2-Hexanone	0.449	0.475		5.79	20
Dibromochloromethane	0.385	0.398		3.38	20
1,2-Dibromoethane	0.357	0.366		2.52	20
Tetrachloroethene	0.353	0.323		-8.5	20
Chlorobenzene	1.068	1.043	0.3	-2.34	20
1,1,1,2-Tetrachloroethane	0.371	0.368		-0.81	20
Ethyl Benzene	1.914	1.917		0.16	20
m/p-Xylenes	0.696	0.709		1.87	20
o-Xylene	0.686	0.699		1.89	20
Styrene	1.132	1.185		4.68	20
Bromoform	0.277	0.288	0.1	3.97	20
1,1,2,2-Tetrachloroethane	1.407	1.291	0.3	-8.24	20
1,2,3-Trichloropropane	1.220	1.130		-7.38	20
1,4-Dichlorobenzene	1.708	1.635		-4.27	20
1,2-Dichlorobenzene	1.675	1.610		-3.88	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LOCK01

Lab Code: CHEM Case No.: Q1782 SAS No.: Q1782 SDG No.: Q1782

Instrument ID: MSVOA_X Calibration Date/Time: 04/11/2025 10:41

Lab File ID: VX045730.D Init. Calib. Date(s): 04/01/2025 04/01/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 17:06 19:02

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,2-Dibromo-3-Chloropropane	0.294	0.301		2.38	20
1,2-Dichloroethane-d4	0.914	0.880		-3.72	20
Dibromofluoromethane	0.355	0.354		-0.28	20
Toluene-d8	1.238	1.226		-0.97	20
4-Bromofluorobenzene	0.451	0.491		8.87	20
Methyl Iodide	0.766	0.690		-9.92	20
trans-1,4-Dichloro-2-butene	0.359	0.351		-2.23	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045730.D
 Acq On : 11 Apr 2025 10:41
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :John Carlone 04/14/2025
 Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:03:09 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	97283	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	164714	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	147741	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	71449	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	5.946	65	85573	48.100	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	96.200%
35) Dibromofluoromethane	5.379	113	58254	49.847	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	99.700%
50) Toluene-d8	8.647	98	202013	49.525	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	99.040%
62) 4-Bromofluorobenzene	11.079	95	80858	54.421	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	=	108.840%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.166	85	72437	49.789	ug/l	99
3) Chloromethane	1.307	50	67667	45.273	ug/l	100
4) Vinyl Chloride	1.374	62	61876	45.237	ug/l	99
5) Bromomethane	1.593	94	27260	42.032	ug/l	99
6) Chloroethane	1.666	64	34556	47.617	ug/l	100
7) Trichlorofluoromethane	1.873	101	97632	47.866	ug/l	99
8) Diethyl Ether	2.130	74	31690	46.277	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.319	101	58859	49.246	ug/l	98
10) Methyl Iodide	2.440	142	67086	45.000	ug/l	97
11) Tert butyl alcohol	2.977	59	60339	252.369	ug/l	99
12) 1,1-Dichloroethene	2.306	96	53422	45.743	ug/l	97
13) Acrolein	2.233	56	61319	186.241	ug/l	99
14) Allyl chloride	2.654	41	106077	47.870	ug/l	100
15) Acrylonitrile	3.062	53	178975	237.140	ug/l	98
16) Acetone	2.386	43	168655	230.867	ug/l	97
17) Carbon Disulfide	2.501	76	115535	40.054	ug/l	98
18) Methyl Acetate	2.703	43	89137	52.996	ug/l	100
19) Methyl tert-butyl Ether	3.111	73	201092	49.222	ug/l	98
20) Methylene Chloride	2.782	84	63104	46.141	ug/l	98
21) trans-1,2-Dichloroethene	3.081	96	53927	45.197	ug/l	95
22) Diisopropyl ether	3.757	45	208728	47.818	ug/l	93
23) Vinyl Acetate	3.715	43	927978	246.059	ug/l	100
24) 1,1-Dichloroethane	3.599	63	114911	46.549	ug/l	99
25) 2-Butanone	4.556	43	260543	243.647	ug/l	99
26) 2,2-Dichloropropane	4.465	77	88385	55.416	ug/l	100
27) cis-1,2-Dichloroethene	4.483	96	66350	45.644	ug/l	96
28) Bromochloromethane	4.891	49	56463	47.331	ug/l	98
29) Tetrahydrofuran	5.001	42	163985	236.531	ug/l	99
30) Chloroform	5.086	83	120655	47.500	ug/l	99
31) Cyclohexane	5.464	56	100209	45.918	ug/l	100
32) 1,1,1-Trichloroethane	5.373	97	103773	48.281	ug/l	99
36) 1,1-Dichloropropene	5.684	75	76541	48.508	ug/l	99
37) Ethyl Acetate	4.708	43	95833	48.194	ug/l	99
38) Carbon Tetrachloride	5.665	117	87144	51.101	ug/l	98
39) Methylcyclohexane	7.373	83	98187	50.764	ug/l	96
40) Benzene	6.031	78	231234	47.983	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045730.D
 Acq On : 11 Apr 2025 10:41
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDCCC050

Manual Integrations
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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.916	41	56924	54.255	ug/l	98
42) 1,2-Dichloroethane	6.080	62	100704	50.595	ug/l	100
43) Isopropyl Acetate	6.336	43	158328	52.534	ug/l	100
44) Trichloroethene	7.123	130	55126	48.127	ug/l	97
45) 1,2-Dichloropropane	7.421	63	59390	49.393	ug/l	97
46) Dibromomethane	7.574	93	45368	49.152	ug/l	98
47) Bromodichloromethane	7.818	83	92524	50.194	ug/l	96
48) Methyl methacrylate	7.690	41	82873	53.257	ug/l	98
49) 1,4-Dioxane	7.659	88	30420	1080.494	ug/l	99
51) 4-Methyl-2-Pentanone	8.574	43	526773	263.661	ug/l	99
52) Toluene	8.714	92	141355	48.475	ug/l	99
53) t-1,3-Dichloropropene	8.976	75	84143	47.584	ug/l	99
54) cis-1,3-Dichloropropene	8.360	75	93096	53.744	ug/l	97
55) 1,1,2-Trichloroethane	9.147	97	58189	50.076	ug/l	97
56) Ethyl methacrylate	9.116	69	98718	54.894	ug/l	99
57) 1,3-Dichloropropane	9.305	76	101969	50.393	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.238	63	245823	270.217	ug/l	99
59) 2-Hexanone	9.427	43	391086	264.335	ug/l	100
60) Dibromochloromethane	9.518	129	65483	51.692	ug/l	99
61) 1,2-Dibromoethane	9.604	107	60328	51.286	ug/l	100
64) Tetrachloroethene	9.269	164	47682	45.712	ug/l	98
65) Chlorobenzene	10.073	112	154107	48.815	ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.159	131	54432	49.662	ug/l	99
67) Ethyl Benzene	10.189	91	283288	50.102	ug/l	100
68) m/p-Xylenes	10.299	106	209512	101.879	ug/l	99
69) o-Xylene	10.640	106	103263	50.973	ug/l	100
70) Styrene	10.652	104	175059	52.356	ug/l	99
71) Bromoform	10.799	173	42549	51.992	ug/l #	99
73) Isopropylbenzene	10.957	105	279055	48.759	ug/l	99
74) N-amyl acetate	10.841	43	140866	51.455	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.213	83	92218	45.869	ug/l	100
76) 1,2,3-Trichloropropane	11.238	75	80723m	46.318	ug/l	
77) Bromobenzene	11.195	156	62929	47.589	ug/l	99
78) n-propylbenzene	11.299	91	329781	50.027	ug/l	100
79) 2-Chlorotoluene	11.360	91	204153	48.443	ug/l	98
80) 1,3,5-Trimethylbenzene	11.451	105	237040	50.087	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	25061	48.803	ug/l	97
82) 4-Chlorotoluene	11.451	91	233003	49.589	ug/l	100
83) tert-Butylbenzene	11.713	119	234833	50.120	ug/l	98
84) 1,2,4-Trimethylbenzene	11.750	105	239508	50.423	ug/l	100
85) sec-Butylbenzene	11.890	105	294171	51.118	ug/l	100
86) p-Isopropyltoluene	12.006	119	243819	51.391	ug/l	99
87) 1,3-Dichlorobenzene	11.969	146	116417	48.364	ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	116806	47.866	ug/l	99
89) n-Butylbenzene	12.329	91	221431	53.822	ug/l	100
90) Hexachloroethane	12.536	117	41335	50.695	ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	115059	48.079	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	21534	51.215	ug/l	98
93) 1,2,4-Trichlorobenzene	13.585	180	68376	51.329	ug/l	98
94) Hexachlorobutadiene	13.719	225	29358	51.144	ug/l	99
95) Naphthalene	13.774	128	251217	50.677	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	70089	50.247	ug/l	100

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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

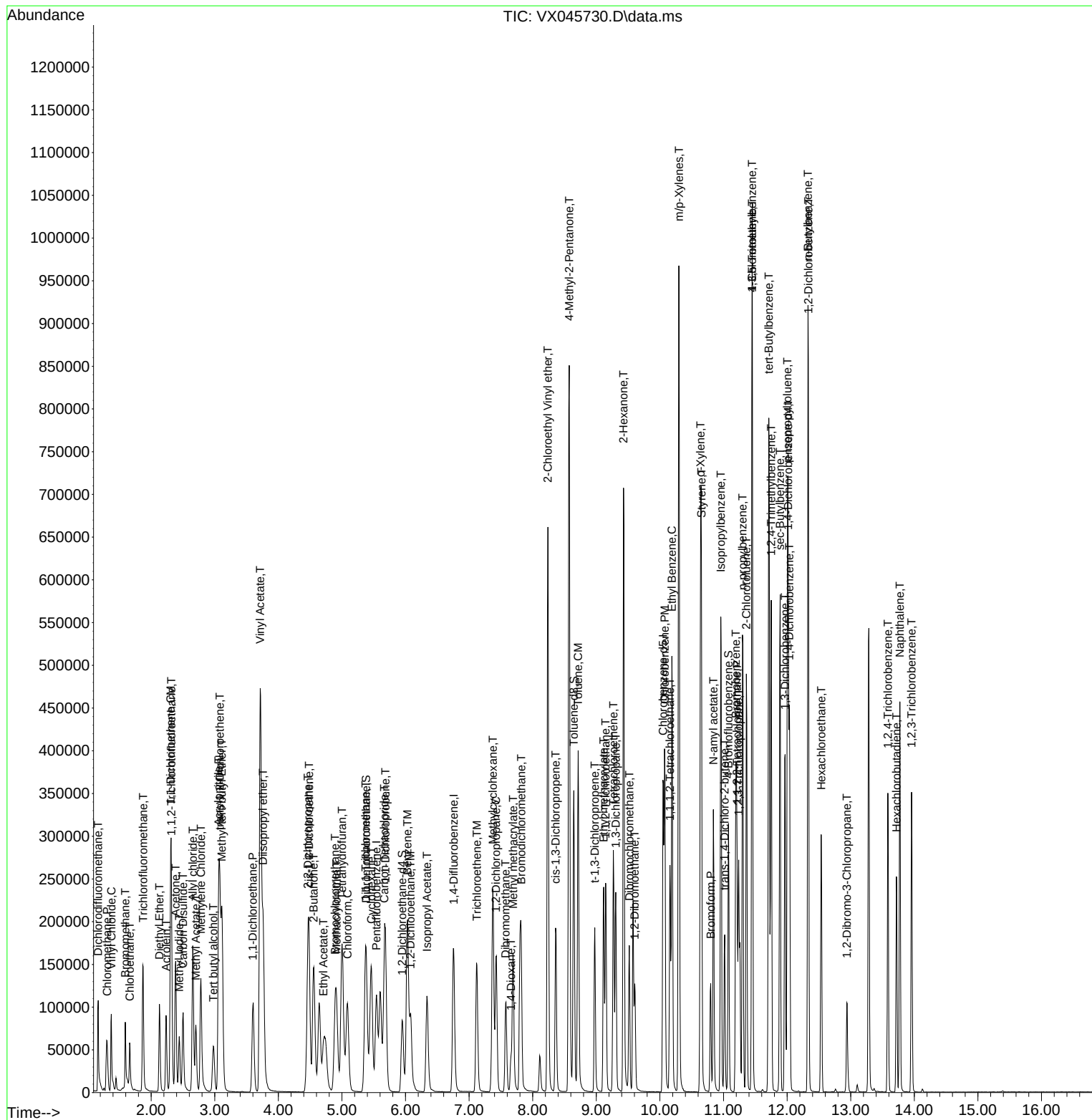
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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	102	0.00
2 T	Dichlorodifluoromethane	0.748	0.745	0.4	92	0.00
3 P	Chloromethane	0.768	0.696	9.4	90	0.00
4 C	Vinyl Chloride	0.703	0.636	9.5#	90	0.00
5 T	Bromomethane	0.333	0.280	15.9	86	0.00
6 T	Chloroethane	0.373	0.355	4.8	91	0.00
7 T	Trichlorofluoromethane	1.048	1.004	4.2	94	0.00
8 T	Diethyl Ether	0.352	0.326	7.4	93	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.614	0.605	1.5	99	0.00
10 T	Methyl Iodide	0.766	0.690	9.9	88	0.00
11 T	Tert butyl alcohol	0.123	0.124	-0.8	100	0.00
12 CM	1,1-Dichloroethene	0.600	0.549	8.5#	93	0.00
13 T	Acrolein	0.169	0.126	25.4#	77	0.00
14 T	Allyl chloride	1.139	1.090	4.3	95	0.00
15 T	Acrylonitrile	0.388	0.368	5.2	92	0.00
16 T	Acetone	0.375	0.347	7.5	93	0.00
17 T	Carbon Disulfide	1.483	1.188	19.9	78	0.00
18 T	Methyl Acetate	0.864	0.916	-6.0	109	0.00
19 T	Methyl tert-butyl Ether	2.100	2.067	1.6	99	0.00
20 T	Methylene Chloride	0.703	0.649	7.7	93	0.00
21 T	trans-1,2-Dichloroethene	0.613	0.554	9.6	90	0.00
22 T	Diisopropyl ether	2.243	2.146	4.3	95	0.00
23 T	Vinyl Acetate	1.938	1.908	1.5	93	0.00
24 P	1,1-Dichloroethane	1.269	1.181	6.9	95	0.00
25 T	2-Butanone	0.550	0.536	2.5	93	0.00
26 T	2,2-Dichloropropane	0.820	0.909	-10.9	109	0.00
27 T	cis-1,2-Dichloroethene	0.747	0.682	8.7	92	0.00
28 T	Bromochloromethane	0.613	0.580	5.4	99	0.00
29 T	Tetrahydrofuran	0.356	0.337	5.3	92	0.00
30 C	Chloroform	1.306	1.240	5.1#	96	0.00
31 T	Cyclohexane	1.122	1.030	8.2	93	0.00
32 T	1,1,1-Trichloroethane	1.105	1.067	3.4	98	0.00
33 S	1,2-Dichloroethane-d4	0.914	0.880	3.7	103	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
35 S	Dibromofluoromethane	0.355	0.354	0.3	100	0.00
36 T	1,1-Dichloropropene	0.479	0.465	2.9	94	0.00
37 T	Ethyl Acetate	0.604	0.582	3.6	91	0.00
38 T	Carbon Tetrachloride	0.518	0.529	-2.1	97	0.00
39 T	Methylcyclohexane	0.587	0.596	-1.5	94	0.00
40 TM	Benzene	1.463	1.404	4.0	93	0.00
41 T	Methacrylonitrile	0.318	0.346	-8.8	96	0.00
42 TM	1,2-Dichloroethane	0.604	0.611	-1.2	96	0.00
43 T	Isopropyl Acetate	0.915	0.961	-5.0	96	0.00
44 TM	Trichloroethene	0.348	0.335	3.7	93	0.00
45 C	1,2-Dichloropropane	0.365	0.361	1.1#	94	0.00
46 T	Dibromomethane	0.280	0.275	1.8	92	0.00
47 T	Bromodichloromethane	0.560	0.562	-0.4	96	0.00
48 T	Methyl methacrylate	0.472	0.503	-6.6	97	0.00

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 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	0.009	0.009	0.0	98	0.00
50 S	Toluene-d8	1.238	1.226	1.0	99	0.00
51 T	4-Methyl-2-Pentanone	0.606	0.640	-5.6	94	0.00
52 CM	Toluene	0.885	0.858	3.1#	92	0.00
53 T	t-1,3-Dichloropropene	0.467	0.511	-9.4	98	0.00
54 T	cis-1,3-Dichloropropene	0.526	0.565	-7.4	97	0.00
55 T	1,1,2-Trichloroethane	0.353	0.353	0.0	96	0.00
56 T	Ethyl methacrylate	0.546	0.599	-9.7	98	0.00
57 T	1,3-Dichloropropane	0.614	0.619	-0.8	96	0.00
58 T	2-Chloroethyl Vinyl ether	0.276	0.298	-8.0	98	0.00
59 T	2-Hexanone	0.449	0.475	-5.8	95	0.00
60 T	Dibromochloromethane	0.385	0.398	-3.4	95	0.00
61 T	1,2-Dibromoethane	0.357	0.366	-2.5	96	0.00
62 S	4-Bromofluorobenzene	0.451	0.491	-8.9	106	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
64 T	Tetrachloroethene	0.353	0.323	8.5	91	0.00
65 PM	Chlorobenzene	1.068	1.043	2.3	95	0.00
66 T	1,1,1,2-Tetrachloroethane	0.371	0.368	0.8	97	0.00
67 C	Ethyl Benzene	1.914	1.917	-0.2#	94	0.00
68 T	m/p-Xylenes	0.696	0.709	-1.9	96	0.00
69 T	o-Xylene	0.686	0.699	-1.9	96	0.00
70 T	Styrene	1.132	1.185	-4.7	96	0.00
71 P	Bromoform	0.277	0.288	-4.0	96	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
73 T	Isopropylbenzene	4.005	3.906	2.5	97	0.00
74 T	N-amyl acetate	1.916	1.972	-2.9	99	0.00
75 P	1,1,2,2-Tetrachloroethane	1.407	1.291	8.2	97	0.00
76 T	1,2,3-Trichloropropane	1.220	1.130	7.4	96	0.00
77 T	Bromobenzene	0.925	0.881	4.8	98	0.00
78 T	n-propylbenzene	4.613	4.616	-0.1	98	0.00
79 T	2-Chlorotoluene	2.949	2.857	3.1	100	0.00
80 T	1,3,5-Trimethylbenzene	3.312	3.318	-0.2	98	0.00
81 T	trans-1,4-Dichloro-2-butene	0.359	0.351	2.2	98	0.00
82 T	4-Chlorotoluene	3.288	3.261	0.8	98	0.00
83 T	tert-Butylbenzene	3.279	3.287	-0.2	100	0.00
84 T	1,2,4-Trimethylbenzene	3.324	3.352	-0.8	99	0.00
85 T	sec-Butylbenzene	4.027	4.117	-2.2	99	0.00
86 T	p-Isopropyltoluene	3.320	3.412	-2.8	101	0.00
87 T	1,3-Dichlorobenzene	1.684	1.629	3.3	100	0.00
88 T	1,4-Dichlorobenzene	1.708	1.635	4.3	100	0.00
89 T	n-Butylbenzene	2.879	3.099	-7.6	102	0.00
90 T	Hexachloroethane	0.571	0.579	-1.4	101	0.00
91 T	1,2-Dichlorobenzene	1.675	1.610	3.9	100	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.294	0.301	-2.4	99	0.00
93 T	1,2,4-Trichlorobenzene	0.932	0.957	-2.7	105	0.00
94 T	Hexachlorobutadiene	0.402	0.411	-2.2	106	0.00
95 T	Naphthalene	3.469	3.516	-1.4	98	0.00

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Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.976	0.981	-0.5	102	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.000	50.000	0.0	102	0.00
2 T	Dichlorodifluoromethane	50.000	49.789	0.4	92	0.00
3 P	Chloromethane	50.000	45.273	9.5	90	0.00
4 C	Vinyl Chloride	50.000	45.237	9.5#	90	0.00
5 T	Bromomethane	50.000	42.032	15.9	86	0.00
6 T	Chloroethane	50.000	47.617	4.8	91	0.00
7 T	Trichlorofluoromethane	50.000	47.866	4.3	94	0.00
8 T	Diethyl Ether	50.000	46.277	7.4	93	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	49.246	1.5	99	0.00
10 T	Methyl Iodide	50.000	45.000	10.0	88	0.00
11 T	Tert butyl alcohol	250.000	252.369	-0.9	100	0.00
12 CM	1,1-Dichloroethene	50.000	45.743	8.5#	93	0.00
13 T	Acrolein	250.000	186.241	25.5#	77	0.00
14 T	Allyl chloride	50.000	47.870	4.3	95	0.00
15 T	Acrylonitrile	250.000	237.140	5.1	92	0.00
16 T	Acetone	250.000	230.867	7.7	93	0.00
17 T	Carbon Disulfide	50.000	40.054	19.9	78	0.00
18 T	Methyl Acetate	50.000	52.996	-6.0	109	0.00
19 T	Methyl tert-butyl Ether	50.000	49.222	1.6	99	0.00
20 T	Methylene Chloride	50.000	46.141	7.7	93	0.00
21 T	trans-1,2-Dichloroethene	50.000	45.197	9.6	90	0.00
22 T	Diisopropyl ether	50.000	47.818	4.4	95	0.00
23 T	Vinyl Acetate	250.000	246.059	1.6	93	0.00
24 P	1,1-Dichloroethane	50.000	46.549	6.9	95	0.00
25 T	2-Butanone	250.000	243.647	2.5	93	0.00
26 T	2,2-Dichloropropane	50.000	55.416	-10.8	109	0.00
27 T	cis-1,2-Dichloroethene	50.000	45.644	8.7	92	0.00
28 T	Bromochloromethane	50.000	47.331	5.3	99	0.00
29 T	Tetrahydrofuran	250.000	236.531	5.4	92	0.00
30 C	Chloroform	50.000	47.500	5.0#	96	0.00
31 T	Cyclohexane	50.000	45.918	8.2	93	0.00
32 T	1,1,1-Trichloroethane	50.000	48.281	3.4	98	0.00
33 S	1,2-Dichloroethane-d4	50.000	48.100	3.8	103	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	98	0.00
35 S	Dibromofluoromethane	50.000	49.847	0.3	100	0.00
36 T	1,1-Dichloropropene	50.000	48.508	3.0	94	0.00
37 T	Ethyl Acetate	50.000	48.194	3.6	91	0.00
38 T	Carbon Tetrachloride	50.000	51.101	-2.2	97	0.00
39 T	Methylcyclohexane	50.000	50.764	-1.5	94	0.00
40 TM	Benzene	50.000	47.983	4.0	93	0.00
41 T	Methacrylonitrile	50.000	54.255	-8.5	96	0.00
42 TM	1,2-Dichloroethane	50.000	50.595	-1.2	96	0.00
43 T	Isopropyl Acetate	50.000	52.534	-5.1	96	0.00
44 TM	Trichloroethene	50.000	48.127	3.7	93	0.00
45 C	1,2-Dichloropropane	50.000	49.393	1.2#	94	0.00
46 T	Dibromomethane	50.000	49.152	1.7	92	0.00
47 T	Bromodichloromethane	50.000	50.194	-0.4	96	0.00
48 T	Methyl methacrylate	50.000	53.257	-6.5	97	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045730.D
 Acq On : 11 Apr 2025 10:41
 Operator : JC/MD
 Sample : VSTDCCC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC050

Quant Time: Apr 11 23:03:09 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	1,4-Dioxane	1000.000	1080.494	-8.0	98	0.00
50 S	Toluene-d8	50.000	49.525	1.0	99	0.00
51 T	4-Methyl-2-Pentanone	250.000	263.661	-5.5	94	0.00
52 CM	Toluene	50.000	48.475	3.0#	92	0.00
53 T	t-1,3-Dichloropropene	50.000	47.584	4.8	98	0.00
54 T	cis-1,3-Dichloropropene	50.000	53.744	-7.5	97	0.00
55 T	1,1,2-Trichloroethane	50.000	50.076	-0.2	96	0.00
56 T	Ethyl methacrylate	50.000	54.894	-9.8	98	0.00
57 T	1,3-Dichloropropane	50.000	50.393	-0.8	96	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	270.217	-8.1	98	0.00
59 T	2-Hexanone	250.000	264.335	-5.7	95	0.00
60 T	Dibromochloromethane	50.000	51.692	-3.4	95	0.00
61 T	1,2-Dibromoethane	50.000	51.286	-2.6	96	0.00
62 S	4-Bromofluorobenzene	50.000	54.421	-8.8	106	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	98	0.00
64 T	Tetrachloroethene	50.000	45.712	8.6	91	0.00
65 PM	Chlorobenzene	50.000	48.815	2.4	95	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	49.662	0.7	97	0.00
67 C	Ethyl Benzene	50.000	50.102	-0.2#	94	0.00
68 T	m/p-Xylenes	100.000	101.879	-1.9	96	0.00
69 T	o-Xylene	50.000	50.973	-1.9	96	0.00
70 T	Styrene	50.000	52.356	-4.7	96	0.00
71 P	Bromoform	50.000	51.992	-4.0	96	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	104	0.00
73 T	Isopropylbenzene	50.000	48.759	2.5	97	0.00
74 T	N-amyl acetate	50.000	51.455	-2.9	99	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	45.869	8.3	97	0.00
76 T	1,2,3-Trichloropropane	50.000	46.318	7.4	96	0.00
77 T	Bromobenzene	50.000	47.589	4.8	98	0.00
78 T	n-propylbenzene	50.000	50.027	-0.1	98	0.00
79 T	2-Chlorotoluene	50.000	48.443	3.1	100	0.00
80 T	1,3,5-Trimethylbenzene	50.000	50.087	-0.2	98	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	48.803	2.4	98	0.00
82 T	4-Chlorotoluene	50.000	49.589	0.8	98	0.00
83 T	tert-Butylbenzene	50.000	50.120	-0.2	100	0.00
84 T	1,2,4-Trimethylbenzene	50.000	50.423	-0.8	99	0.00
85 T	sec-Butylbenzene	50.000	51.118	-2.2	99	0.00
86 T	p-Isopropyltoluene	50.000	51.391	-2.8	101	0.00
87 T	1,3-Dichlorobenzene	50.000	48.364	3.3	100	0.00
88 T	1,4-Dichlorobenzene	50.000	47.866	4.3	100	0.00
89 T	n-Butylbenzene	50.000	53.822	-7.6	102	0.00
90 T	Hexachloroethane	50.000	50.695	-1.4	101	0.00
91 T	1,2-Dichlorobenzene	50.000	48.079	3.8	100	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	51.215	-2.4	99	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.329	-2.7	105	0.00
94 T	Hexachlorobutadiene	50.000	51.144	-2.3	106	0.00
95 T	Naphthalene	50.000	50.677	-1.4	98	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045730.D
Acq On : 11 Apr 2025 10:41
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Apr 11 23:03:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	50.247	-0.5	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6



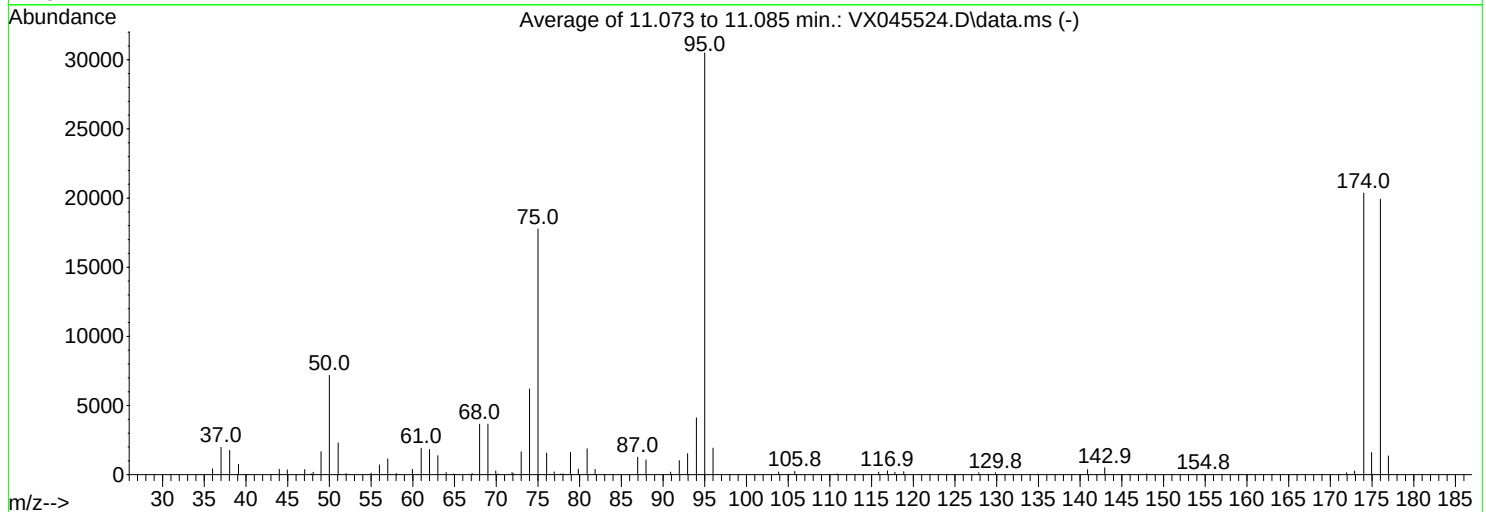
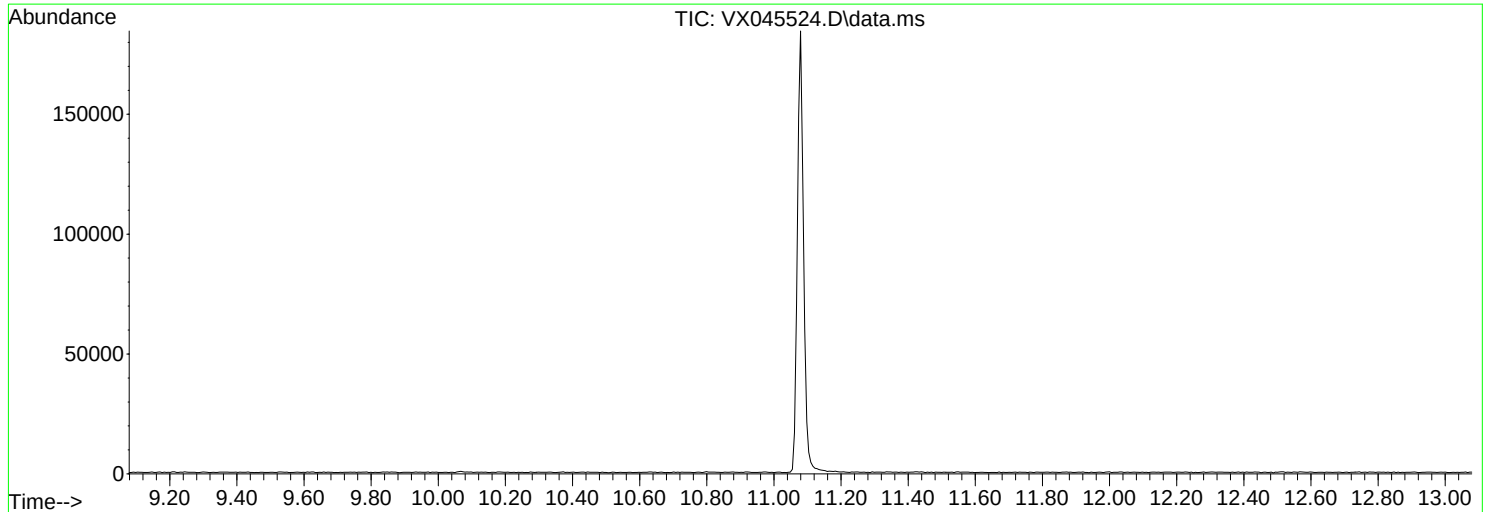
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045524.D
Acq On : 01 Apr 2025 16:15
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Title : SW846 8260
Last Update : Wed Apr 02 03:11:43 2025



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

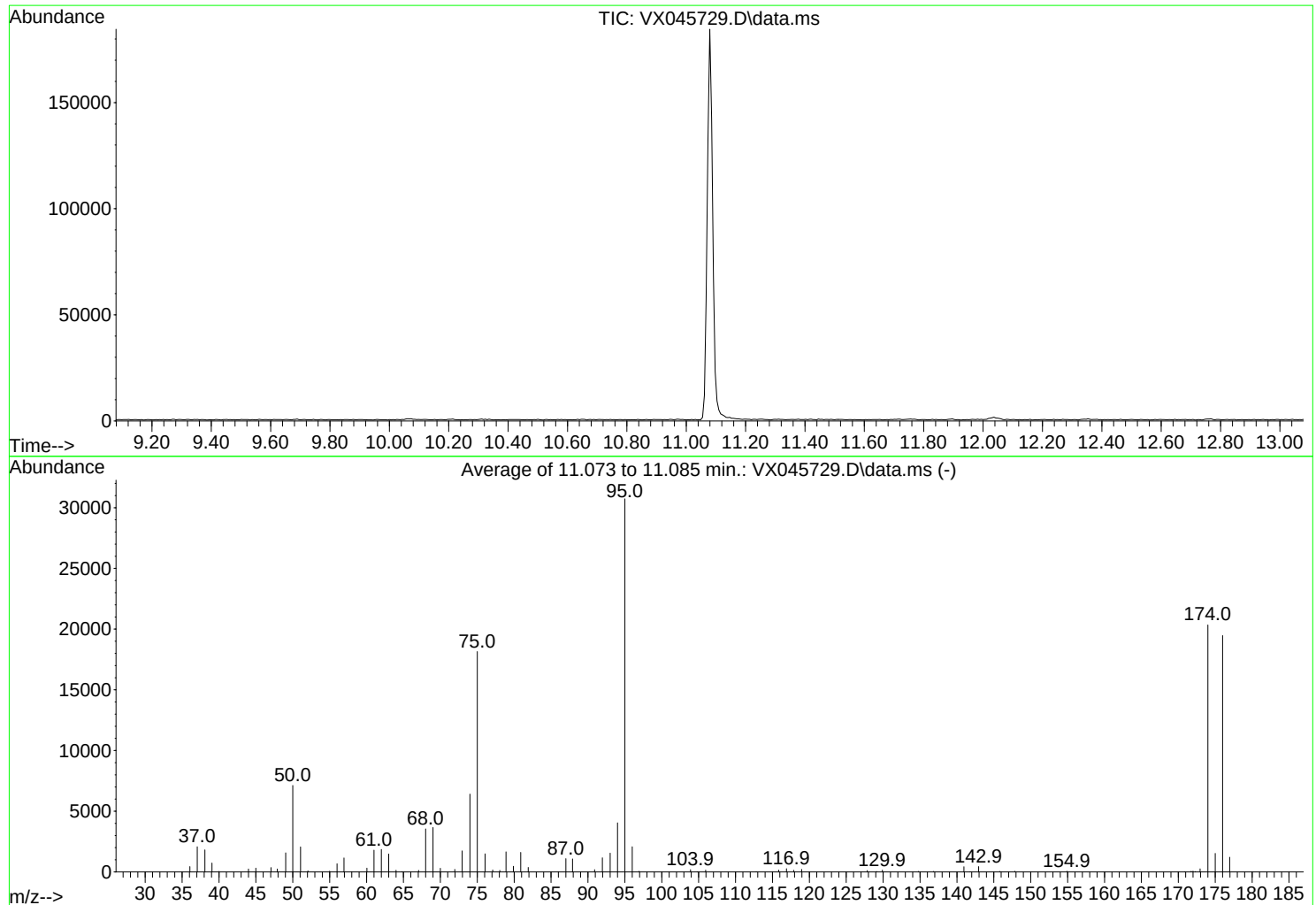
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.6	7184	PASS
75	95	30	60	58.2	17768	PASS
95	95	100	100	100.0	30504	PASS
96	95	5	9	6.3	1916	PASS
173	174	0.00	2	1.2	253	PASS
174	95	50	100	66.8	20365	PASS
175	174	5	9	7.8	1596	PASS
176	174	95	101	97.8	19923	PASS
177	176	5	9	6.8	1352	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045729.D
Acq On : 11 Apr 2025 10:14
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Title : SW846 8260
Last Update : Wed Apr 02 03:11:43 2025



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.2	7120	PASS
75	95	30	60	59.1	18154	PASS
95	95	100	100	100.0	30731	PASS
96	95	5	9	6.8	2080	PASS
173	174	0.00	2	1.3	256	PASS
174	95	50	100	66.2	20343	PASS
175	174	5	9	7.5	1523	PASS
176	174	95	101	95.7	19467	PASS
177	176	5	9	6.2	1215	PASS

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	
Project:	Ansonia Landfill 2025	Date Received:	
Client Sample ID:	VX0411WBL01	SDG No.:	Q1782
Lab Sample ID:	VX0411WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045732.D	1		04/11/25 11:32	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	U	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	
Project:	Ansonia Landfill 2025	Date Received:	
Client Sample ID:	VX0411WBL01	SDG No.:	Q1782
Lab Sample ID:	VX0411WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045732.D	1		04/11/25 11:32	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1330-20-7	Total Xylenes	0.36	U	0.36	3.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
74-88-4	Methyl Iodide	0.83	U	0.83	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.84	U	0.84	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.5		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	50.0		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		77 - 121	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	65600	5.55			
540-36-3	1,4-Difluorobenzene	129000	6.757			
3114-55-4	Chlorobenzene-d5	118000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	48400	12.018			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045732.D
Acq On : 11 Apr 2025 11:32
Operator : JC/MD
Sample : VX0411WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0411WBL01

Quant Time: Apr 11 23:03:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.550	168	65554	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	128675	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	118153	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	48353	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	64154	53.515	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	107.020%
35) Dibromofluoromethane	5.379	113	46741	51.198	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	102.400%
50) Toluene-d8	8.647	98	159396	50.021	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	100.040%
62) 4-Bromofluorobenzene	11.079	95	58527	50.424	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	=	100.840%

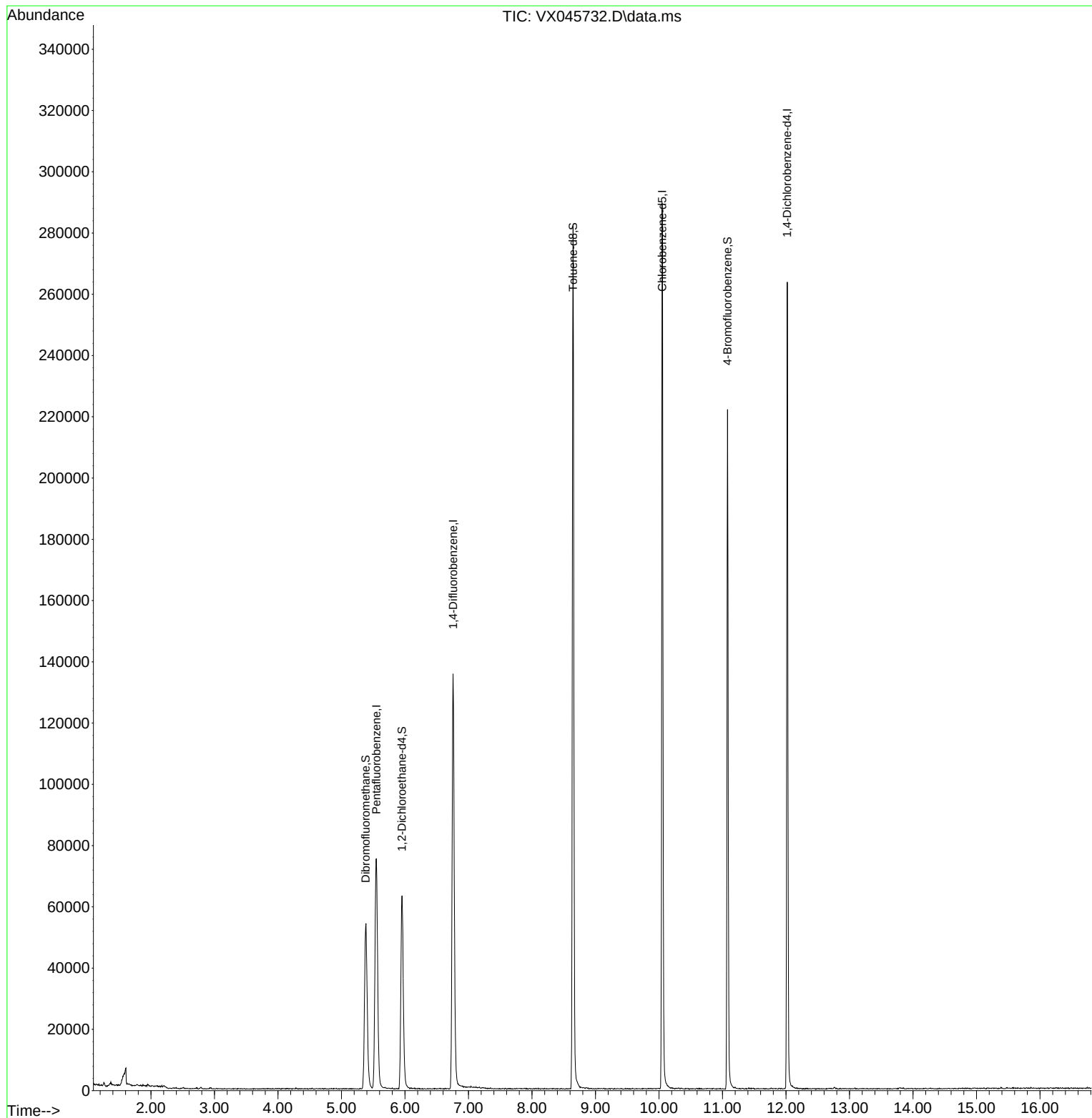
Target Compounds	Qvalue

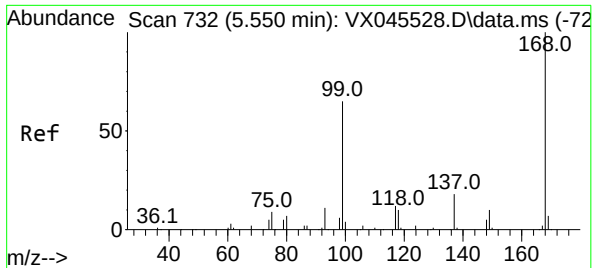
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045732.D
Acq On : 11 Apr 2025 11:32
Operator : JC/MD
Sample : VX0411WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0411WBL01

Quant Time: Apr 11 23:03:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



#1
Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.550 min Scan# 732

Delta R.T. -0.000 min

Lab File: VX045732.D

Acq: 11 Apr 2025 11:32

Instrument :

MSVOA_X

ClientSampleId :

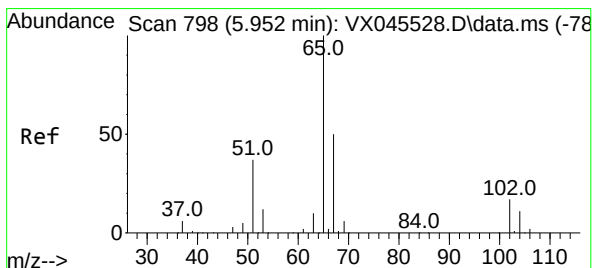
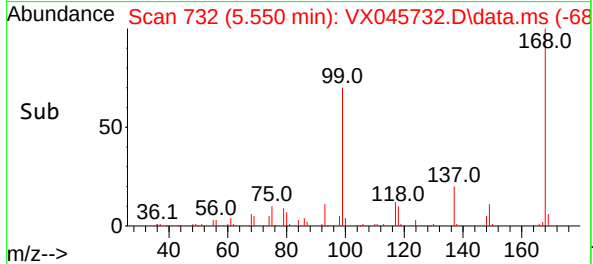
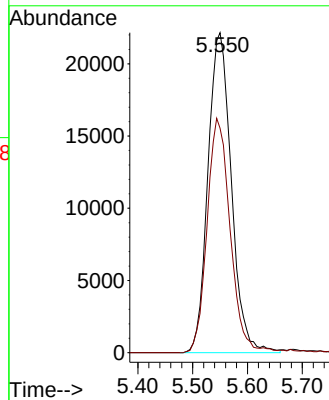
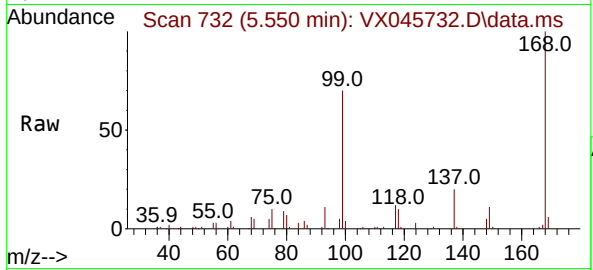
VX0411WBL01

Tgt Ion:168 Resp: 65554

Ion Ratio Lower Upper

168 100

99 70.1 52.3 78.5



#33

1,2-Dichloroethane-d4

Concen: 53.515 ug/l

RT: 5.952 min Scan# 798

Delta R.T. 0.000 min

Lab File: VX045732.D

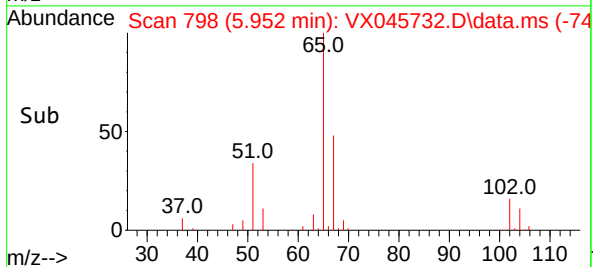
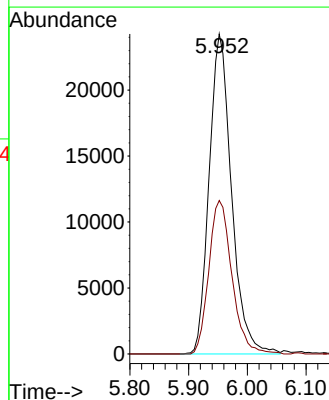
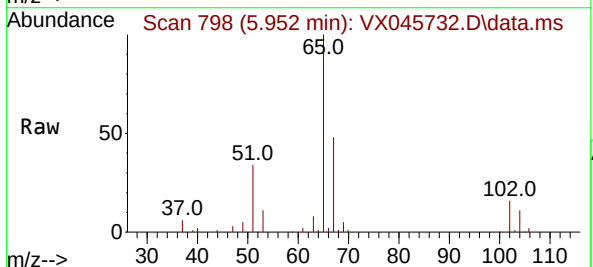
Acq: 11 Apr 2025 11:32

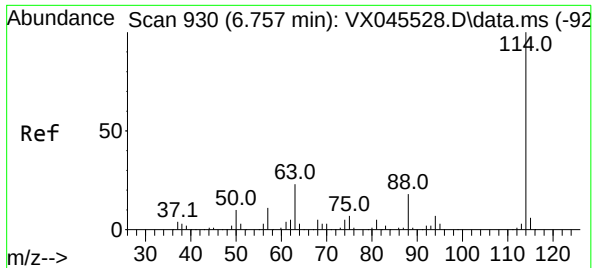
Tgt Ion: 65 Resp: 64154

Ion Ratio Lower Upper

65 100

67 49.6 0.0 99.0

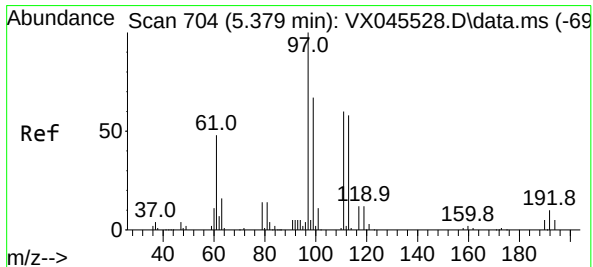
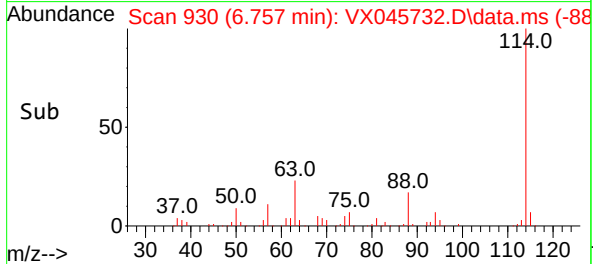
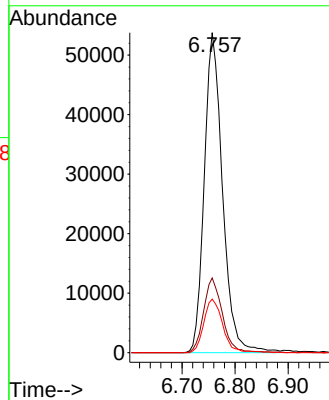
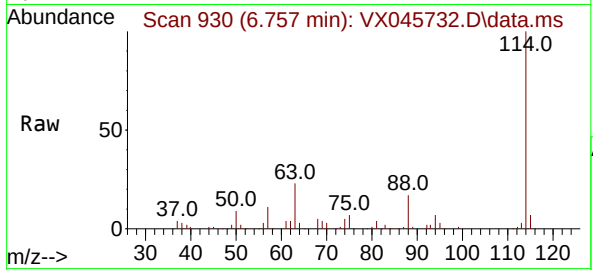




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 91
Delta R.T. 0.000 min
Lab File: VX045732.D
Acq: 11 Apr 2025 11:32

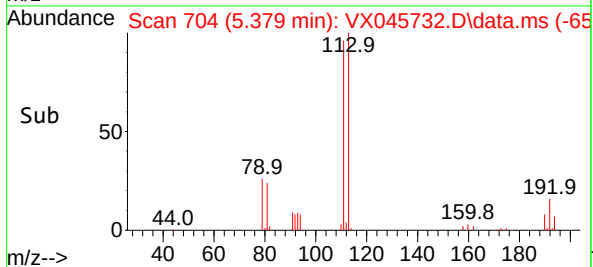
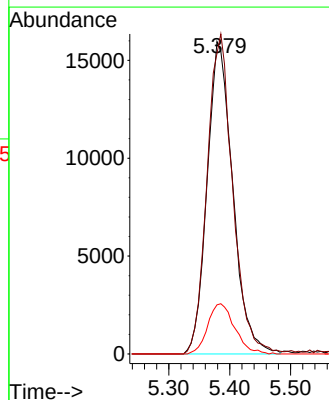
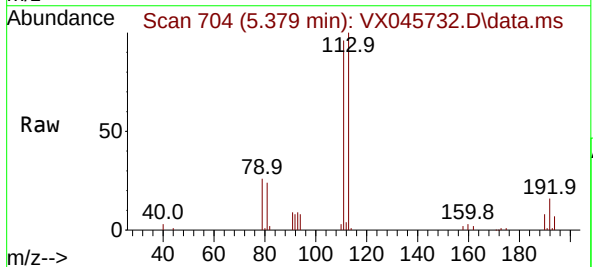
Instrument :
MSVOA_X
ClientSampleId :
VX0411WBL01

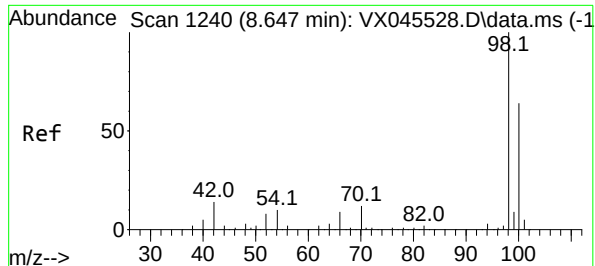
Tgt Ion:114 Resp: 128675
Ion Ratio Lower Upper
114 100
63 23.4 0.0 46.8
88 16.8 0.0 35.4



#35
Dibromofluoromethane
Concen: 51.198 ug/l
RT: 5.379 min Scan# 704
Delta R.T. 0.000 min
Lab File: VX045732.D
Acq: 11 Apr 2025 11:32

Tgt Ion:113 Resp: 46741
Ion Ratio Lower Upper
113 100
111 102.1 81.8 122.6
192 16.9 13.8 20.6





#50

Toluene-d8

Concen: 50.021 ug/l

RT: 8.647 min Scan# 11

Delta R.T. 0.000 min

Lab File: VX045732.D

Acq: 11 Apr 2025 11:32

Instrument :

MSVOA_X

ClientSampleId :

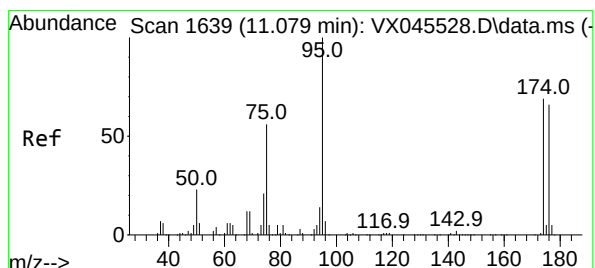
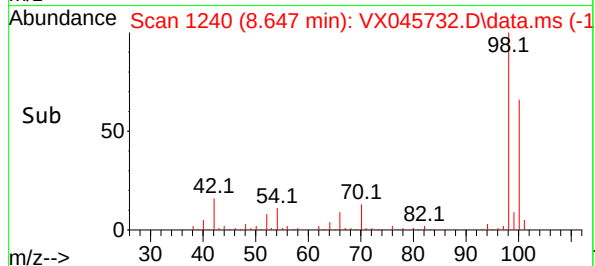
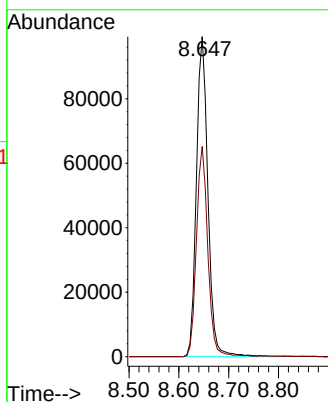
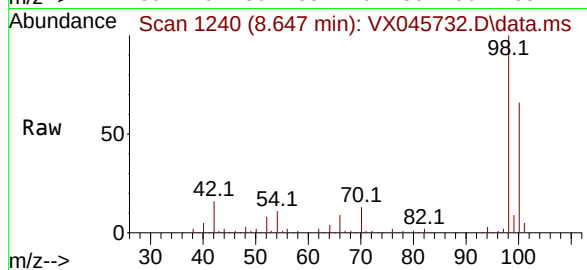
VX0411WBL01

Tgt Ion: 98 Resp: 159396

Ion Ratio Lower Upper

98 100

100 64.9 52.2 78.4



#62

4-Bromofluorobenzene

Concen: 50.424 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. 0.000 min

Lab File: VX045732.D

Acq: 11 Apr 2025 11:32

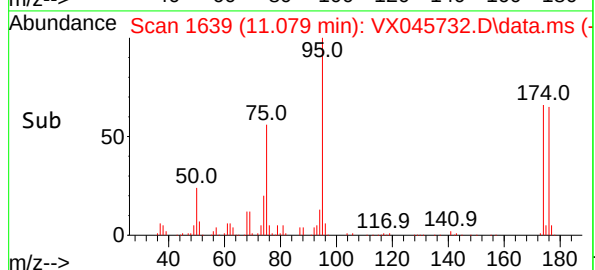
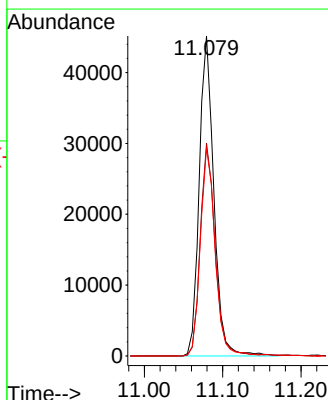
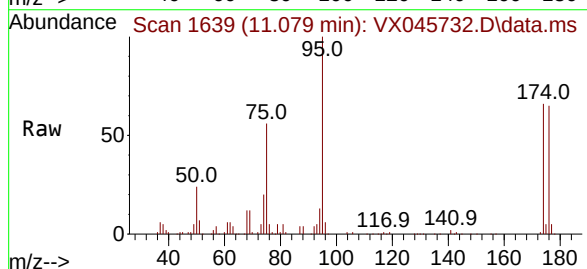
Tgt Ion: 95 Resp: 58527

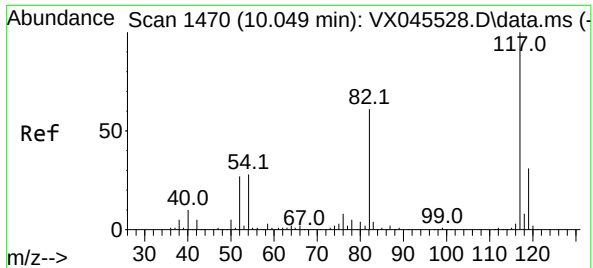
Ion Ratio Lower Upper

95 100

174 67.8 0.0 135.8

176 65.5 0.0 131.4

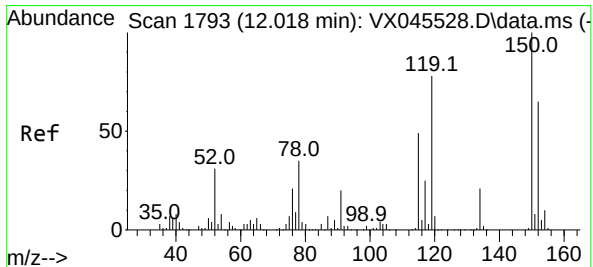
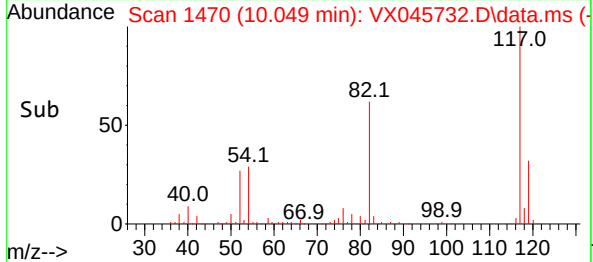
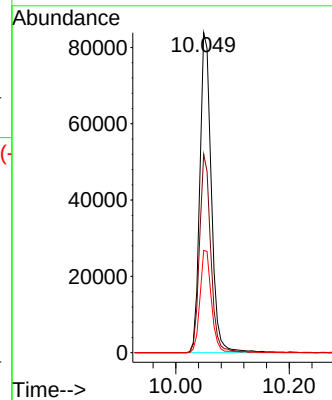
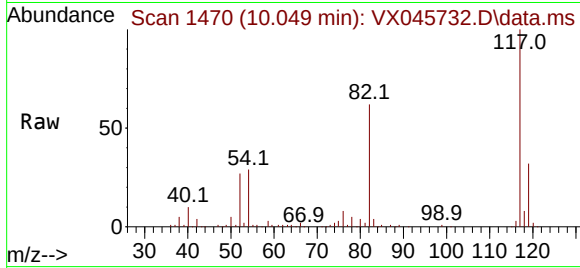




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.049 min Scan# 1470
Delta R.T. 0.000 min
Lab File: VX045732.D
Acq: 11 Apr 2025 11:32

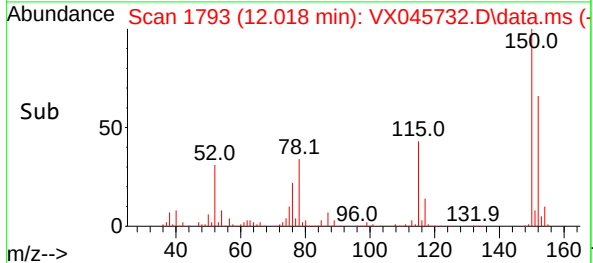
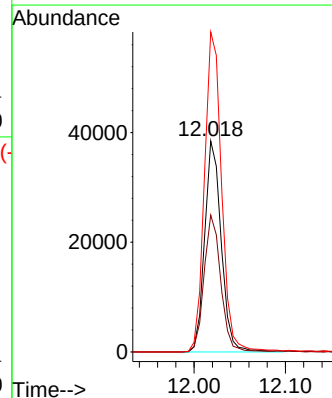
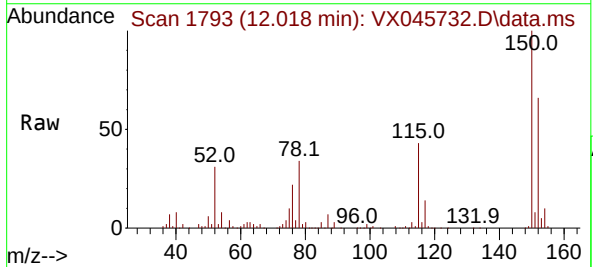
Instrument :
MSVOA_X
ClientSampleId :
VX0411WBL01

Tgt Ion	Ratio	Lower	Upper
117	100		
82	62.0	49.2	73.8
119	31.9	25.1	37.7



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX045732.D
Acq: 11 Apr 2025 11:32

Tgt Ion	Ratio	Lower	Upper
152	100		
115	65.6	46.9	140.7
150	157.7	0.0	349.4



Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	
Project:	Ansonia Landfill 2025	Date Received:	
Client Sample ID:	VX0411WBS01	SDG No.:	Q1782
Lab Sample ID:	VX0411WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045733.D	1		04/11/25 11:55	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	17.5		0.26	1.00	ug/L
75-00-3	Chloroethane	18.9		0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.4		0.33	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.7		0.23	1.00	ug/L
107-13-1	Acrylonitrile	92.8		0.83	5.00	ug/L
67-64-1	Acetone	91.5		1.50	5.00	ug/L
75-15-0	Carbon Disulfide	14.2		0.21	1.00	ug/L
75-09-2	Methylene Chloride	18.2		0.28	1.00	ug/L
108-05-4	Vinyl Acetate	92.3		0.66	5.00	ug/L
78-93-3	2-Butanone	95.6		0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.6		0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.0		0.19	1.00	ug/L
74-97-5	Bromochloromethane	24.5		0.22	1.00	ug/L
67-66-3	Chloroform	18.3		0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.6		0.20	1.00	ug/L
71-43-2	Benzene	18.1		0.15	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.7		0.20	1.00	ug/L
74-95-3	Dibromomethane	18.5		0.25	1.00	ug/L
75-27-4	Bromodichloromethane	18.3		0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	98.3		0.68	5.00	ug/L
108-88-3	Toluene	18.2		0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.5		0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.0		0.16	1.00	ug/L
591-78-6	2-Hexanone	100		0.89	5.00	ug/L
124-48-1	Dibromochloromethane	18.5		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	18.6		0.15	1.00	ug/L
127-18-4	Tetrachloroethene	19.2		0.23	1.00	ug/L
108-90-7	Chlorobenzene	19.0		0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	18.5		0.19	1.00	ug/L
100-41-4	Ethyl Benzene	19.0		0.13	1.00	ug/L

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	
Project:	Ansonia Landfill 2025	Date Received:	
Client Sample ID:	VX0411WBS01	SDG No.:	Q1782
Lab Sample ID:	VX0411WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045733.D	1		04/11/25 11:55	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1330-20-7	Total Xylenes	56.8		0.36	3.00	ug/L
100-42-5	Styrene	19.3		0.15	1.00	ug/L
75-25-2	Bromoform	17.9		0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.3		0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	19.3		0.35	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.0		0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.4		0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19.7		0.53	1.00	ug/L
74-88-4	Methyl Iodide	16.1		0.83	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	17.3		0.84	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.5		74 - 125	101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	49.2		86 - 113	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.6		77 - 121	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	92500	5.544			
540-36-3	1,4-Difluorobenzene	164000	6.757			
3114-55-4	Chlorobenzene-d5	141000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	64700	12.018			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045733.D
 Acq On : 11 Apr 2025 11:55
 Operator : JC/MD
 Sample : VX0411WBS01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0411WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 04/14/2025
 Supervised By : Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:03:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	92540	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	163903	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	140888	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	64715	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	85438	50.486	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 100.980%			
35) Dibromofluoromethane	5.379	113	58904	50.653	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.300%			
50) Toluene-d8	8.647	98	199568	49.167	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 98.340%			
62) 4-Bromofluorobenzene	11.079	95	74766	50.570	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 101.140%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.167	85	26280	18.989	ug/l	99
3) Chloromethane	1.301	50	25029	17.604	ug/l	97
4) Vinyl Chloride	1.374	62	22732	17.471	ug/l	98
5) Bromomethane	1.593	94	10370	16.809	ug/l	97
6) Chloroethane	1.666	64	13051	18.906	ug/l	98
7) Trichlorofluoromethane	1.874	101	35608	18.352	ug/l	98
8) Diethyl Ether	2.130	74	11886	18.247	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.319	101	21099	18.558	ug/l	99
10) Methyl Iodide	2.447	142	22864	16.123	ug/l	96
11) Tert butyl alcohol	2.977	59	22092	97.136	ug/l	100
12) 1,1-Dichloroethene	2.307	96	19635	17.674	ug/l	98
13) Acrolein	2.233	56	28468	90.896	ug/l	99
14) Allyl chloride	2.654	41	38178	18.112	ug/l	98
15) Acrylonitrile	3.063	53	66646	92.831	ug/l	99
16) Acetone	2.386	43	63606	91.531	ug/l	95
17) Carbon Disulfide	2.502	76	39067	14.238	ug/l	98
18) Methyl Acetate	2.703	43	33915	21.198	ug/l	99
19) Methyl tert-butyl Ether	3.117	73	72300	18.604	ug/l	99
20) Methylene Chloride	2.782	84	23691	18.210	ug/l	97
21) trans-1,2-Dichloroethene	3.087	96	20427	17.998	ug/l	97
22) Diisopropyl ether	3.764	45	77857	18.751	ug/l	93
23) Vinyl Acetate	3.721	43	331007	92.267	ug/l	100
24) 1,1-Dichloroethane	3.605	63	42626	18.152	ug/l	98
25) 2-Butanone	4.556	43	97238	95.593	ug/l	98
26) 2,2-Dichloropropane	4.471	77	30907	20.371	ug/l	99
27) cis-1,2-Dichloroethene	4.483	96	24956	18.048	ug/l	97
28) Bromochloromethane	4.891	49	27754	24.458	ug/l	99
29) Tetrahydrofuran	5.007	42	61195	92.791	ug/l	99
30) Chloroform	5.087	83	44128	18.263	ug/l	96
31) Cyclohexane	5.458	56	35674	17.184	ug/l	98
32) 1,1,1-Trichloroethane	5.379	97	37994	18.583	ug/l	100
36) 1,1-Dichloropropene	5.684	75	27539	17.539	ug/l	99
37) Ethyl Acetate	4.715	43	35996	18.192	ug/l	100
38) Carbon Tetrachloride	5.672	117	31597	18.620	ug/l	98
39) Methylcyclohexane	7.379	83	34358	17.851	ug/l	96
40) Benzene	6.031	78	86923	18.126	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045733.D
 Acq On : 11 Apr 2025 11:55
 Operator : JC/MD
 Sample : VX0411WBS01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0411WBS01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 04/14/2025
 Supervised By : Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:03:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.916	41	19757	18.924	ug/l	98
42) 1,2-Dichloroethane	6.086	62	38345	19.360	ug/l	100
43) Isopropyl Acetate	6.342	43	56572	18.864	ug/l	99
44) Trichloroethene	7.123	130	20087	17.624	ug/l	89
45) 1,2-Dichloropropane	7.428	63	22348	18.678	ug/l	92
46) Dibromomethane	7.580	93	17027	18.538	ug/l	98
47) Bromodichloromethane	7.818	83	33605	18.321	ug/l	99
48) Methyl methacrylate	7.696	41	29328	18.940	ug/l	99
49) 1,4-Dioxane	7.659	88	11671	416.596	ug/l	99
51) 4-Methyl-2-Pentanone	8.574	43	195382	98.277	ug/l	100
52) Toluene	8.714	92	52911	18.235	ug/l	97
53) t-1,3-Dichloropropene	8.976	75	28172	17.529	ug/l	99
54) cis-1,3-Dichloropropene	8.366	75	32748	18.999	ug/l	99
55) 1,1,2-Trichloroethane	9.153	97	21867	18.911	ug/l	94
56) Ethyl methacrylate	9.116	69	34930	19.520	ug/l	99
57) 1,3-Dichloropropane	9.305	76	39057	19.398	ug/l	98
58) 2-Chloroethyl Vinyl ether	8.238	63	93610	103.408	ug/l	100
59) 2-Hexanone	9.427	43	148152	100.631	ug/l	98
60) Dibromochloromethane	9.519	129	23294	18.479	ug/l	98
61) 1,2-Dibromoethane	9.610	107	21821	18.642	ug/l	100
64) Tetrachloroethene	9.269	164	19066	19.167	ug/l	98
65) Chlorobenzene	10.073	112	57085	18.962	ug/l	96
66) 1,1,1,2-Tetrachloroethane	10.159	131	19355	18.518	ug/l	98
67) Ethyl Benzene	10.189	91	102213	18.957	ug/l	98
68) m/p-Xylenes	10.299	106	73917	37.692	ug/l	97
69) o-Xylene	10.640	106	36919	19.111	ug/l	95
70) Styrene	10.653	104	61692	19.348	ug/l	98
71) Bromoform	10.799	173	13988	17.924	ug/l #	97
73) Isopropylbenzene	10.957	105	98461	18.994	ug/l	99
74) N-amyl acetate	10.842	43	49056	19.784	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.207	83	35200	19.330	ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	30476m	19.306	ug/l	
77) Bromobenzene	11.195	156	22387	18.691	ug/l	97
78) n-propylbenzene	11.299	91	114109	19.111	ug/l	98
79) 2-Chlorotoluene	11.360	91	72587	19.016	ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	82627	19.276	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	8026	17.256	ug/l	93
82) 4-Chlorotoluene	11.451	91	80441	18.901	ug/l	99
83) tert-Butylbenzene	11.713	119	81916	19.303	ug/l	98
84) 1,2,4-Trimethylbenzene	11.750	105	83790	19.476	ug/l	99
85) sec-Butylbenzene	11.890	105	100614	19.303	ug/l	100
86) p-Isopropyltoluene	12.006	119	82019	19.086	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	41097	18.850	ug/l	100
88) 1,4-Dichlorobenzene	12.037	146	42067	19.032	ug/l	98
89) n-Butylbenzene	12.329	91	69149	18.556	ug/l	99
90) Hexachloroethane	12.536	117	13478	18.250	ug/l	98
91) 1,2-Dichlorobenzene	12.335	146	41989	19.371	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	7494	19.678	ug/l	96
93) 1,2,4-Trichlorobenzene	13.585	180	22029	18.258	ug/l	98
94) Hexachlorobutadiene	13.725	225	9827	18.901	ug/l	98
95) Naphthalene	13.774	128	86221	19.203	ug/l	99
96) 1,2,3-Trichlorobenzene	13.957	180	23835	18.866	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045733.D
Acq On : 11 Apr 2025 11:55
Operator : JC/MD
Sample : VX0411WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0411WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:03:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

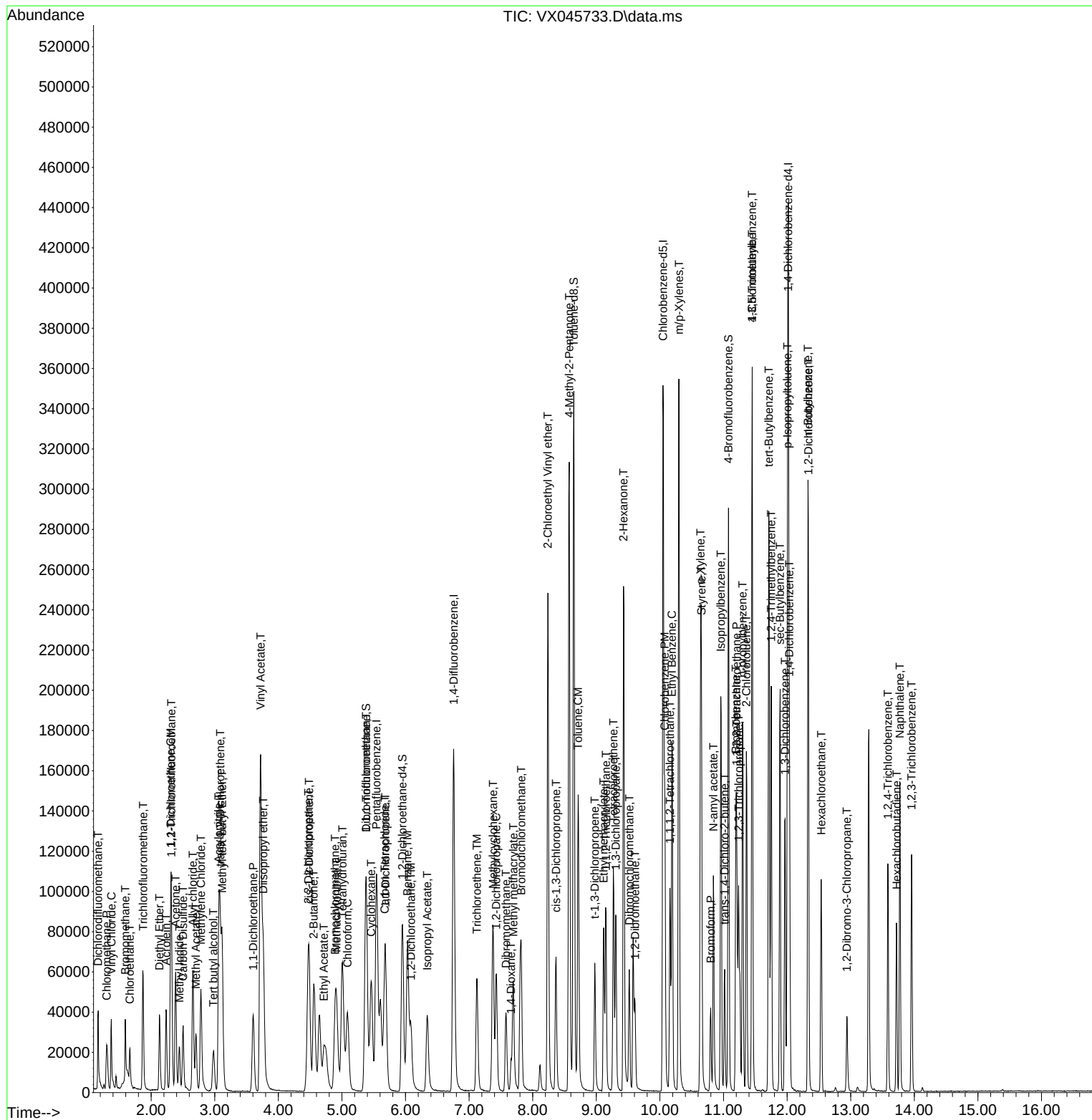
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045733.D
Acq On : 11 Apr 2025 11:55
Operator : JC/MD
Sample : VX0411WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0411WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:03:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.		Date Collected:	
Project:	Ansonia Landfill 2025		Date Received:	
Client Sample ID:	VX0411WBSD01		SDG No.:	Q1782
Lab Sample ID:	VX0411WBSD01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	DB-624UI	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045734.D	1		04/11/25 12:22	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	17.6		0.26	1.00	ug/L
75-00-3	Chloroethane	19.0		0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.3		0.33	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.9		0.23	1.00	ug/L
107-13-1	Acrylonitrile	99.0		0.83	5.00	ug/L
67-64-1	Acetone	100		1.50	5.00	ug/L
75-15-0	Carbon Disulfide	14.5		0.21	1.00	ug/L
75-09-2	Methylene Chloride	19.4		0.28	1.00	ug/L
108-05-4	Vinyl Acetate	98.0		0.66	5.00	ug/L
78-93-3	2-Butanone	100		0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.9		0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.4		0.19	1.00	ug/L
74-97-5	Bromochloromethane	25.7		0.22	1.00	ug/L
67-66-3	Chloroform	19.7		0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.3		0.20	1.00	ug/L
71-43-2	Benzene	18.7		0.15	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.2		0.20	1.00	ug/L
74-95-3	Dibromomethane	19.7		0.25	1.00	ug/L
75-27-4	Bromodichloromethane	19.5		0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		0.68	5.00	ug/L
108-88-3	Toluene	19.1		0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.4		0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.9		0.16	1.00	ug/L
591-78-6	2-Hexanone	110		0.89	5.00	ug/L
124-48-1	Dibromochloromethane	19.2		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	20.1		0.15	1.00	ug/L
127-18-4	Tetrachloroethene	19.2		0.23	1.00	ug/L
108-90-7	Chlorobenzene	19.6		0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	19.2		0.19	1.00	ug/L
100-41-4	Ethyl Benzene	19.5		0.13	1.00	ug/L

Report of Analysis

Client:	Lockwood, Kessler & Bartlett, Inc.	Date Collected:	
Project:	Ansonia Landfill 2025	Date Received:	
Client Sample ID:	VX0411WBSD01	SDG No.:	Q1782
Lab Sample ID:	VX0411WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045734.D	1		04/11/25 12:22	VX041125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1330-20-7	Total Xylenes	58.6		0.36	3.00	ug/L
100-42-5	Styrene	20.1		0.15	1.00	ug/L
75-25-2	Bromoform	18.8		0.19	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.1		0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	19.4		0.35	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.6		0.19	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.4		0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	20.3		0.53	1.00	ug/L
74-88-4	Methyl Iodide	17.6		0.83	5.00	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	17.0		0.84	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.3		74 - 125	105%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		75 - 124	100%	SPK: 50
2037-26-5	Toluene-d8	49.3		86 - 113	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.9		77 - 121	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	84300	5.544			
540-36-3	1,4-Difluorobenzene	150000	6.757			
3114-55-4	Chlorobenzene-d5	132000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	63200	12.018			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045734.D
 Acq On : 11 Apr 2025 12:22
 Operator : JC/MD
 Sample : VX0411WBSD01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0411WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 04/14/2025
 Supervised By : Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:04:06 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.544	168	84320	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	150272	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	131860	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	63206	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	80683	52.324	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 104.640%			
35) Dibromofluoromethane	5.379	113	53111	49.814	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 99.620%			
50) Toluene-d8	8.647	98	183285	49.252	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 98.500%			
62) 4-Bromofluorobenzene	11.079	95	71699	52.894	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 105.780%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	24625	19.528	ug/l	98
3) Chloromethane	1.307	50	23327	18.007	ug/l	100
4) Vinyl Chloride	1.374	62	20906	17.634	ug/l	95
5) Bromomethane	1.593	94	9876	17.569	ug/l	99
6) Chloroethane	1.660	64	11924	18.957	ug/l	92
7) Trichlorofluoromethane	1.867	101	34101	19.289	ug/l	98
8) Diethyl Ether	2.130	74	11527	19.421	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.319	101	20130	19.431	ug/l	97
10) Methyl Iodide	2.441	142	22790	17.637	ug/l	99
11) Tert butyl alcohol	2.983	59	22438	108.275	ug/l	99
12) 1,1-Dichloroethene	2.306	96	18161	17.941	ug/l	98
13) Acrolein	2.233	56	27599	96.712	ug/l	99
14) Allyl chloride	2.654	41	36269	18.884	ug/l	99
15) Acrylonitrile	3.062	53	64772	99.016	ug/l	98
16) Acetone	2.386	43	63457	100.219	ug/l	98
17) Carbon Disulfide	2.502	76	36188	14.474	ug/l	98
18) Methyl Acetate	2.703	43	33397	22.909	ug/l	98
19) Methyl tert-butyl Ether	3.111	73	72099	20.361	ug/l	99
20) Methylene Chloride	2.782	84	22948	19.359	ug/l	98
21) trans-1,2-Dichloroethene	3.087	96	19175	18.542	ug/l	94
22) Diisopropyl ether	3.763	45	74151	19.599	ug/l	97
23) Vinyl Acetate	3.721	43	320471	98.039	ug/l	100
24) 1,1-Dichloroethane	3.605	63	41001	19.162	ug/l	99
25) 2-Butanone	4.556	43	95825	103.387	ug/l	98
26) 2,2-Dichloropropane	4.465	77	28763	20.806	ug/l	98
27) cis-1,2-Dichloroethene	4.483	96	23213	18.424	ug/l	96
28) Bromochloromethane	4.891	49	26597	25.723	ug/l	98
29) Tetrahydrofuran	5.007	42	59004	98.191	ug/l	99
30) Chloroform	5.086	83	43373	19.700	ug/l	93
31) Cyclohexane	5.464	56	34507	18.243	ug/l	96
32) 1,1,1-Trichloroethane	5.373	97	36032	19.341	ug/l	99
36) 1,1-Dichloropropene	5.684	75	26656	18.517	ug/l	97
37) Ethyl Acetate	4.715	43	35089	19.342	ug/l	98
38) Carbon Tetrachloride	5.672	117	29414	18.906	ug/l	93
39) Methylcyclohexane	7.379	83	32952	18.674	ug/l	96
40) Benzene	6.031	78	82159	18.687	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
 Data File : VX045734.D
 Acq On : 11 Apr 2025 12:22
 Operator : JC/MD
 Sample : VX0411WBSD01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0411WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 04/14/2025
 Supervised By : Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:04:06 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 02 03:11:43 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.916	41	19564	20.439	ug/l	97
42) 1,2-Dichloroethane	6.080	62	36989	20.370	ug/l	99
43) Isopropyl Acetate	6.342	43	55460	20.170	ug/l	99
44) Trichloroethene	7.123	130	19251	18.422	ug/l	99
45) 1,2-Dichloropropane	7.427	63	21096	19.231	ug/l	93
46) Dibromomethane	7.574	93	16560	19.665	ug/l	97
47) Bromodichloromethane	7.818	83	32810	19.510	ug/l	97
48) Methyl methacrylate	7.696	41	28607	20.151	ug/l	99
49) 1,4-Dioxane	7.659	88	11098	432.076	ug/l	96
51) 4-Methyl-2-Pentanone	8.574	43	195029	106.998	ug/l	99
52) Toluene	8.714	92	50898	19.132	ug/l	99
53) t-1,3-Dichloropropene	8.976	75	27223	18.352	ug/l	95
54) cis-1,3-Dichloropropene	8.366	75	31424	19.884	ug/l	97
55) 1,1,2-Trichloroethane	9.147	97	21082	19.886	ug/l	97
56) Ethyl methacrylate	9.116	69	34367	20.947	ug/l	99
57) 1,3-Dichloropropane	9.305	76	38320	20.758	ug/l	97
58) 2-Chloroethyl Vinyl ether	8.238	63	91986	110.832	ug/l	100
59) 2-Hexanone	9.427	43	143752	106.500	ug/l	99
60) Dibromochloromethane	9.519	129	22170	19.183	ug/l	100
61) 1,2-Dibromoethane	9.610	107	21539	20.071	ug/l	100
64) Tetrachloroethene	9.269	164	17919	19.248	ug/l	97
65) Chlorobenzene	10.079	112	55155	19.575	ug/l	97
66) 1,1,1,2-Tetrachloroethane	10.159	131	18774	19.192	ug/l	99
67) Ethyl Benzene	10.189	91	98437	19.506	ug/l	98
68) m/p-Xylenes	10.299	106	71463	38.936	ug/l	98
69) o-Xylene	10.640	106	35702	19.746	ug/l	98
70) Styrene	10.653	104	60067	20.128	ug/l	99
71) Bromoform	10.799	173	13766	18.847	ug/l #	97
73) Isopropylbenzene	10.957	105	95325	18.828	ug/l	99
74) N-amyl acetate	10.841	43	47908	19.782	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.213	83	33971	19.101	ug/l	98
76) 1,2,3-Trichloropropane	11.238	75	29944m	19.422	ug/l	
77) Bromobenzene	11.195	156	21636	18.496	ug/l	99
78) n-propylbenzene	11.305	91	109219	18.729	ug/l	100
79) 2-Chlorotoluene	11.360	91	70992	19.042	ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	82413	19.685	ug/l	99
81) trans-1,4-Dichloro-2-b...	11.018	75	7708	16.968	ug/l	89
82) 4-Chlorotoluene	11.451	91	79146	19.041	ug/l	100
83) tert-Butylbenzene	11.713	119	81006	19.544	ug/l	98
84) 1,2,4-Trimethylbenzene	11.750	105	81630	19.427	ug/l	99
85) sec-Butylbenzene	11.890	105	100015	19.646	ug/l	99
86) p-Isopropyltoluene	12.006	119	80710	19.230	ug/l	98
87) 1,3-Dichlorobenzene	11.969	146	39819	18.700	ug/l	99
88) 1,4-Dichlorobenzene	12.036	146	40207	18.625	ug/l	97
89) n-Butylbenzene	12.329	91	70013	19.237	ug/l	98
90) Hexachloroethane	12.536	117	12972	17.984	ug/l	98
91) 1,2-Dichlorobenzene	12.335	146	41172	19.448	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	7559	20.323	ug/l	96
93) 1,2,4-Trichlorobenzene	13.585	180	23156	19.650	ug/l	95
94) Hexachlorobutadiene	13.725	225	9675	19.053	ug/l	98
95) Naphthalene	13.774	128	87280	19.903	ug/l	100
96) 1,2,3-Trichlorobenzene	13.963	180	23791	19.280	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045734.D
Acq On : 11 Apr 2025 12:22
Operator : JC/MD
Sample : VX0411WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0411WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:04:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

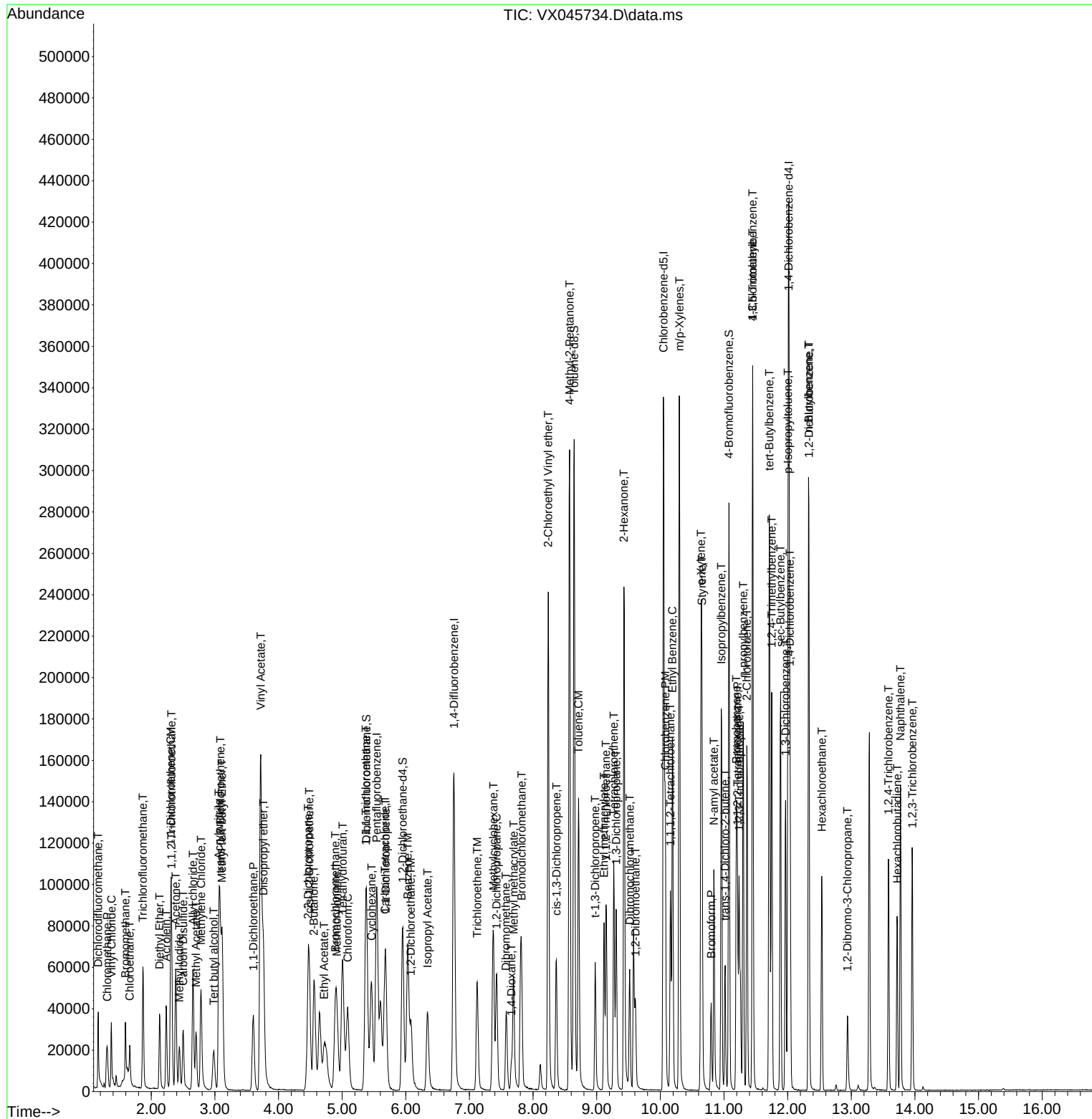
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX041125\
Data File : VX045734.D
Acq On    : 11 Apr 2025  12:22
Operator  : JC/MD
Sample    : VX0411WBSD01
Misc      : 5.0mL/MSVOA_X/WATER
ALS Vial  : 6      Sample Multiplier: 1
```

Instrument :
MSVOA_X
ClientSampleId :
VX0411WBSD01

Manual Integrations

Reviewed By :John Carlone 04/14/2025
Supervised By :Mahesh Dadoda 04/14/2025

Quant Time: Apr 11 23:04:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



Manual Integration Report

Sequence:	VX040225	Instrument	MSVOA_x
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDIC001	VX045525.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDIC001	VX045525.D	1,4-Dichlorobenzene	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDIC001	VX045525.D	1,4-Dioxane	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDIC001	VX045525.D	Ethyl methacrylate	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDIC001	VX045525.D	Methacrylonitrile	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDIC005	VX045526.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:22 PM	MMDadoda	4/2/2025 2:16:07 PM	Peak Integrated by Software
VSTDIC020	VX045527.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:25 PM	MMDadoda	4/2/2025 2:16:09 PM	Peak Integrated by Software
VSTDIC050	VX045528.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:26 PM	MMDadoda	4/2/2025 2:16:11 PM	Peak Integrated by Software
VSTDIC100	VX045529.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:28 PM	MMDadoda	4/2/2025 2:16:15 PM	Peak Integrated by Software
VSTDIC150	VX045530.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:30 PM	MMDadoda	4/2/2025 2:16:46 PM	Peak Integrated by Software
VSTDICV050	VX045532.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:32 PM	MMDadoda	4/2/2025 2:17:50 PM	Peak Integrated by Software
VSTDCCC050	VX045534.D	1,2,3-Trichloropropane	JOHN	4/3/2025 10:04:10 AM	MMDadoda	4/3/2025 1:12:02 PM	Peak Integrated by Software
VSTDCCC050	VX045557.D	1,2,3-Trichloropropane	JOHN	4/3/2025 10:04:58 AM	MMDadoda	4/3/2025 1:12:08 PM	Peak Integrated by Software



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Manual Integration Report

Sequence:

VX040225

Instrument

MSVOA_x

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:

vx041125

Instrument

MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX045730.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:06:21 AM	MMDadoda	4/14/2025 3:43:04 PM	Peak Integrated by Software
VX0411WBS01	VX045733.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:06:26 AM	MMDadoda	4/14/2025 3:43:05 PM	Peak Integrated by Software
VX0411WBSD01	VX045734.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:06:33 AM	MMDadoda	4/14/2025 3:43:07 PM	Peak Integrated by Software
VSTDCCC050	VX045753.D	1,2,3-Trichloropropane	JOHN	4/14/2025 9:06:45 AM	MMDadoda	4/14/2025 3:43:13 PM	Peak Integrated by Software

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX040225

Review By	John Carlone	Review On	4/2/2025 9:42:46 AM
Supervise By	Amit Patel	Supervise On	4/2/2025 2:14:39 PM
SubDirectory	VX040225	HP Acquire Method	HP Processing Method 82X040225W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133559,VP133563		
Initial Calibration Stds	VP133569,VP133570,VP133571,VP133572,VP133573,VP133574		
CCC	VP133564,VP133565		
Internal Standard/PEM			
ICV/I.BLK	VP133575		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045524.D	01 Apr 2025 16:15	JC/MD	Ok
2	VSTDIC001	VX045525.D	01 Apr 2025 17:06	JC/MD	Ok,M
3	VSTDIC005	VX045526.D	01 Apr 2025 17:29	JC/MD	Ok,M
4	VSTDIC020	VX045527.D	01 Apr 2025 17:52	JC/MD	Ok,M
5	VSTDIC050	VX045528.D	01 Apr 2025 18:15	JC/MD	Ok,M
6	VSTDIC100	VX045529.D	01 Apr 2025 18:38	JC/MD	Ok,M
7	VSTDIC150	VX045530.D	01 Apr 2025 19:02	JC/MD	Ok,M
8	IBLK	VX045531.D	01 Apr 2025 19:25	JC/MD	Ok
9	VSTDICV050	VX045532.D	01 Apr 2025 19:48	JC/MD	Ok,M
10	BFB	VX045533.D	02 Apr 2025 09:30	JC/MD	Ok
11	VSTDIC050	VX045534.D	02 Apr 2025 10:02	JC/MD	Ok,M
12	VX0402MBL01	VX045535.D	02 Apr 2025 10:30	JC/MD	Ok
13	VX0402WBL01	VX045536.D	02 Apr 2025 10:53	JC/MD	Ok
14	VX0402WBS01	VX045537.D	02 Apr 2025 11:16	JC/MD	Ok,M
15	VX0402WBSD01	VX045538.D	02 Apr 2025 11:44	JC/MD	Ok,M
16	Q1697-01	VX045539.D	02 Apr 2025 12:07	JC/MD	Dilution
17	Q1697-02	VX045540.D	02 Apr 2025 12:30	JC/MD	Dilution
18	IBLK	VX045541.D	02 Apr 2025 12:54	JC/MD	Ok
19	Q1697-01DL	VX045542.D	02 Apr 2025 13:21	JC/MD	Ok
20	Q1697-02DL	VX045543.D	02 Apr 2025 13:44	JC/MD	Ok
21	Q1697-03	VX045544.D	02 Apr 2025 14:07	JC/MD	Not Ok

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX040225

Review By	John Carlone	Review On	4/2/2025 9:42:46 AM
Supervise By	Amit Patel	Supervise On	4/2/2025 2:14:39 PM
SubDirectory	VX040225	HP Acquire Method	HP Processing Method 82X040225W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133559,VP133563		
Initial Calibration Stds	VP133569,VP133570,VP133571,VP133572,VP133573,VP133574		
CCC	VP133564,VP133565		
Internal Standard/PEM			
ICV/I.BLK	VP133575		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

22	Q1697-04	VX045545.D	02 Apr 2025 14:31	JC/MD	Not Ok
23	Q1697-05	VX045546.D	02 Apr 2025 14:54	JC/MD	Not Ok
24	Q1697-07	VX045547.D	02 Apr 2025 15:18	JC/MD	Not Ok
25	IBLK	VX045548.D	02 Apr 2025 15:41	JC/MD	Ok
26	Q1697-03	VX045549.D	02 Apr 2025 16:04	JC/MD	Ok
27	Q1697-04	VX045550.D	02 Apr 2025 16:27	JC/MD	Ok
28	Q1697-05	VX045551.D	02 Apr 2025 16:51	JC/MD	Ok
29	Q1697-06	VX045552.D	02 Apr 2025 17:14	JC/MD	ReRun
30	Q1623-01	VX045553.D	02 Apr 2025 17:37	JC/MD	Ok
31	Q1623-02	VX045554.D	02 Apr 2025 18:01	JC/MD	Ok
32	Q1623-03	VX045555.D	02 Apr 2025 18:24	JC/MD	Ok
33	Q1623-04	VX045556.D	02 Apr 2025 18:47	JC/MD	Ok
34	VSTDCCC050	VX045557.D	02 Apr 2025 19:10	JC/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX041125

Review By	John Carlone	Review On	4/14/2025 9:35:27 AM
Supervise By	Maresh Dadoda	Supervise On	4/14/2025 3:43:21 PM
SubDirectory	VX041125	HP Acquire Method	HP Processing Method 82X040225W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133640		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133641,VP133642		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045729.D	11 Apr 2025 10:14	JC/MD	Ok
2	VSTDCCC050	VX045730.D	11 Apr 2025 10:41	JC/MD	Ok,M
3	VX0411MBL01	VX045731.D	11 Apr 2025 11:09	JC/MD	Ok
4	VX0411WBL01	VX045732.D	11 Apr 2025 11:32	JC/MD	Ok
5	VX0411WBS01	VX045733.D	11 Apr 2025 11:55	JC/MD	Ok,M
6	VX0411WBSD01	VX045734.D	11 Apr 2025 12:22	JC/MD	Ok,M
7	Q1773-02	VX045735.D	11 Apr 2025 12:45	JC/MD	Ok
8	Q1773-03	VX045736.D	11 Apr 2025 13:08	JC/MD	Dilution
9	Q1773-01	VX045737.D	11 Apr 2025 13:32	JC/MD	ReRun
10	Q1790-17	VX045738.D	11 Apr 2025 13:55	JC/MD	Ok
11	Q1790-19	VX045739.D	11 Apr 2025 14:18	JC/MD	Ok
12	Q1782-09	VX045740.D	11 Apr 2025 14:41	JC/MD	Ok
13	Q1782-01	VX045741.D	11 Apr 2025 15:04	JC/MD	Ok
14	Q1782-03	VX045742.D	11 Apr 2025 15:28	JC/MD	Ok
15	Q1782-05	VX045743.D	11 Apr 2025 15:51	JC/MD	Ok
16	Q1767-01	VX045744.D	11 Apr 2025 16:14	JC/MD	Not Ok
17	VX0411MBS01	VX045745.D	11 Apr 2025 16:37	JC/MD	Ok,M
18	Q1773-03DL	VX045746.D	11 Apr 2025 17:00	JC/MD	Ok
19	Q1773-01	VX045747.D	11 Apr 2025 17:23	JC/MD	Ok
20	Q1790-01	VX045748.D	11 Apr 2025 17:47	JC/MD	Not Ok
21	Q1790-04	VX045749.D	11 Apr 2025 18:10	JC/MD	Not Ok

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX041125

Review By	John Carlone	Review On	4/14/2025 9:35:27 AM
Supervise By	Mahesh Dadoda	Supervise On	4/14/2025 3:43:21 PM
SubDirectory	VX041125	HP Acquire Method	HP Processing Method 82X040225W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133640		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133641,VP133642		

22	Q1790-06	VX045750.D	11 Apr 2025 18:33	JC/MD	Not Ok
23	IBLK	VX045751.D	11 Apr 2025 18:56	JC/MD	Ok
24	IBLK	VX045752.D	11 Apr 2025 19:19	JC/MD	Ok
25	VSTDCCC050	VX045753.D	11 Apr 2025 19:42	JC/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX040225

Review By	John Carlone	Review On	4/2/2025 9:42:46 AM
Supervise By	Amit Patel	Supervise On	4/2/2025 2:14:39 PM
SubDirectory	VX040225	HP Acquire Method	HP Processing Method 82X040225W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133559,VP133563
Initial Calibration Stds	VP133569,VP133570,VP133571,VP133572,VP133573,VP133574
CCC	VP133564,VP133565
Internal Standard/PEM	
ICV/I.BLK	VP133575
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045524.D	01 Apr 2025 16:15		JC/MD	Ok
2	VSTDIC001	VSTDIC001	VX045525.D	01 Apr 2025 17:06	%D failed for Comp. #53 in 01PPB	JC/MD	Ok,M
3	VSTDIC005	VSTDIC005	VX045526.D	01 Apr 2025 17:29		JC/MD	Ok,M
4	VSTDIC020	VSTDIC020	VX045527.D	01 Apr 2025 17:52		JC/MD	Ok,M
5	VSTDIC050	VSTDIC050	VX045528.D	01 Apr 2025 18:15		JC/MD	Ok,M
6	VSTDIC100	VSTDIC100	VX045529.D	01 Apr 2025 18:38		JC/MD	Ok,M
7	VSTDIC150	VSTDIC150	VX045530.D	01 Apr 2025 19:02		JC/MD	Ok,M
8	IBLK	IBLK	VX045531.D	01 Apr 2025 19:25		JC/MD	Ok
9	VSTDICV050	ICV VX040225	VX045532.D	01 Apr 2025 19:48		JC/MD	Ok,M
10	BFB	BFB	VX045533.D	02 Apr 2025 09:30		JC/MD	Ok
11	VSTDIC050	VSTDIC050	VX045534.D	02 Apr 2025 10:02	pH#Lot#V12668	JC/MD	Ok,M
12	VX0402MBL01	VX0402MBL01	VX045535.D	02 Apr 2025 10:30		JC/MD	Ok
13	VX0402WBL01	VX0402WBL01	VX045536.D	02 Apr 2025 10:53		JC/MD	Ok
14	VX0402WBS01	VX0402WBS01	VX045537.D	02 Apr 2025 11:16		JC/MD	Ok,M
15	VX0402WBSD01	VX0402WBSD01	VX045538.D	02 Apr 2025 11:44		JC/MD	Ok,M
16	Q1697-01	MW-19B-72-040125	VX045539.D	02 Apr 2025 12:07	vial A pH<2 Need 200X	JC/MD	Dilution
17	Q1697-02	IW-01-55-040125	VX045540.D	02 Apr 2025 12:30	vial A pH<2 Need 10X	JC/MD	Dilution

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX040225

Review By	John Carlone	Review On	4/2/2025 9:42:46 AM
Supervise By	Amit Patel	Supervise On	4/2/2025 2:14:39 PM
SubDirectory	VX040225	HP Acquire Method	HP Processing Method 82X040225W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133559,VP133563		
Initial Calibration Stds	VP133569,VP133570,VP133571,VP133572,VP133573,VP133574		
CCC	VP133564,VP133565		
Internal Standard/PEM			
ICV/I.BLK	VP133575		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

18	IBLK	IBLK	VX045541.D	02 Apr 2025 12:54		JC/MD	Ok
19	Q1697-01DL	MW-19B-72-040125DL	VX045542.D	02 Apr 2025 13:21	vial B pH<2	JC/MD	Ok
20	Q1697-02DL	IW-01-55-040125DL	VX045543.D	02 Apr 2025 13:44	vial B pH<2	JC/MD	Ok
21	Q1697-03	IW-02-55-040125	VX045544.D	02 Apr 2025 14:07	Need lower dilution	JC/MD	Not Ok
22	Q1697-04	IW-02-55-040125-FD	VX045545.D	02 Apr 2025 14:31	Need lower dilution	JC/MD	Not Ok
23	Q1697-05	IW-03-55-040125	VX045546.D	02 Apr 2025 14:54	Need lower dilution	JC/MD	Not Ok
24	Q1697-07	MW-19B-72-040125	VX045547.D	02 Apr 2025 15:18	Not On Login	JC/MD	Not Ok
25	IBLK	IBLK	VX045548.D	02 Apr 2025 15:41		JC/MD	Ok
26	Q1697-03	IW-02-55-040125	VX045549.D	02 Apr 2025 16:04	vial A pH<2	JC/MD	Ok
27	Q1697-04	IW-02-55-040125-FD	VX045550.D	02 Apr 2025 16:27	vial A pH<2	JC/MD	Ok
28	Q1697-05	IW-03-55-040125	VX045551.D	02 Apr 2025 16:51	vial A pH<2	JC/MD	Ok
29	Q1697-06	TB-01-040125	VX045552.D	02 Apr 2025 17:14	vial A pH<2 TB;Hit of comp.#44	JC/MD	ReRun
30	Q1623-01	Storage-Blank-SOIL-RE	VX045553.D	02 Apr 2025 17:37	vial A pH<2	JC/MD	Ok
31	Q1623-02	Storage-Blank-WATER	VX045554.D	02 Apr 2025 18:01	vial A pH<2	JC/MD	Ok
32	Q1623-03	Storage-Blank-WATER	VX045555.D	02 Apr 2025 18:24	vial A pH<2	JC/MD	Ok
33	Q1623-04	Storage-Blank-SAMPLE	VX045556.D	02 Apr 2025 18:47	vial A pH<2	JC/MD	Ok
34	VSTDCCC050	VSTDCCC050EC	VX045557.D	02 Apr 2025 19:10		JC/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX041125

Review By	John Carlone	Review On	4/14/2025 9:35:27 AM
Supervise By	Maresh Dadoda	Supervise On	4/14/2025 3:43:21 PM
SubDirectory	VX041125	HP Acquire Method	HP Processing Method 82X040225W.M

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP133640
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133641,VP133642

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045729.D	11 Apr 2025 10:14		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX045730.D	11 Apr 2025 10:41	pH#Lot#V12668	JC/MD	Ok,M
3	VX0411MBL01	VX0411MBL01	VX045731.D	11 Apr 2025 11:09		JC/MD	Ok
4	VX0411WBL01	VX0411WBL01	VX045732.D	11 Apr 2025 11:32		JC/MD	Ok
5	VX0411WBS01	VX0411WBS01	VX045733.D	11 Apr 2025 11:55		JC/MD	Ok,M
6	VX0411WBSD01	VX0411WBSD01	VX045734.D	11 Apr 2025 12:22		JC/MD	Ok,M
7	Q1773-02	BP-TT-190D2-GW-202	VX045735.D	11 Apr 2025 12:45	vial A pH<2	JC/MD	Ok
8	Q1773-03	BP-TT-190D1-GW-202	VX045736.D	11 Apr 2025 13:08	vial A pH<2 Need 10X	JC/MD	Dilution
9	Q1773-01	BP-TB-20250407	VX045737.D	11 Apr 2025 13:32	vial A pH<2 TB;E flag of previous sample	JC/MD	ReRun
10	Q1790-17	EB01-041025	VX045738.D	11 Apr 2025 13:55	vial A pH<2 EB	JC/MD	Ok
11	Q1790-19	FB01-041025	VX045739.D	11 Apr 2025 14:18	vial A pH<2 FB	JC/MD	Ok
12	Q1782-09	TRIP BLANK	VX045740.D	11 Apr 2025 14:41	vial A pH<2 TB	JC/MD	Ok
13	Q1782-01	MW-1	VX045741.D	11 Apr 2025 15:04	vial A pH<2	JC/MD	Ok
14	Q1782-03	MW-2	VX045742.D	11 Apr 2025 15:28	vial A pH<2	JC/MD	Ok
15	Q1782-05	MW-3	VX045743.D	11 Apr 2025 15:51	vial A pH<2	JC/MD	Ok
16	Q1767-01	NWB-2152	VX045744.D	11 Apr 2025 16:14	run @10x	JC/MD	Not Ok
17	VX0411MBS01	VX0411MBS01	VX045745.D	11 Apr 2025 16:37		JC/MD	Ok,M

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX041125

Review By	John Carlone	Review On	4/14/2025 9:35:27 AM
Supervise By	Maresh Dadoda	Supervise On	4/14/2025 3:43:21 PM
SubDirectory	VX041125	HP Acquire Method	HP Processing Method 82X040225W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133640		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133641,VP133642		

18	Q1773-03DL	BP-TT-190D1-GW-202	VX045746.D	11 Apr 2025 17:00	vial B pH<2	JC/MD	Ok
19	Q1773-01	BP-TB-20250407	VX045747.D	11 Apr 2025 17:23	vial B pH<2 TB	JC/MD	Ok
20	Q1790-01	S-872-GI-SO-20.0-20.5	VX045748.D	11 Apr 2025 17:47	run st. MEOH	JC/MD	Not Ok
21	Q1790-04	S-871-GI-SO-23.0-23.5	VX045749.D	11 Apr 2025 18:10	run st. MEOH	JC/MD	Not Ok
22	Q1790-06	S-870-GI-SO-22.0-22.5	VX045750.D	11 Apr 2025 18:33	run st. MEOH	JC/MD	Not Ok
23	IBLK	IBLK	VX045751.D	11 Apr 2025 18:56		JC/MD	Ok
24	IBLK	IBLK	VX045752.D	11 Apr 2025 19:19		JC/MD	Ok
25	VSTDCCC050	VSTDCCC050EC	VX045753.D	11 Apr 2025 19:42		JC/MD	Ok,M

M : Manual Integration

Prep Standard - Chemical Standard Summary

Order ID : Q1782

Test : VOCMS Group1

Prepbatch ID :

Sequence ID/Qc Batch ID: vx041125,

Standard ID :

VP131746,VP131767,VP132035,VP132096,VP133174,VP133342,VP133544,VP133640,VP133641,VP133642,

Chemical ID :

V13391,V13457,V13460,V13465,V13466,V13706,V14154,V14289,V14431,V14435,V14501,V14502,V14523,V14524,V14613,V14614,V14615,V14630,V14631,V14632,V14633,V14719,V14720,V14726,V14744,V14753,V14804,V14805,V14842,V14883,V14896,V14897,V14898,V14899,W3112,

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
247	8260 Internal Standard, 250PPM	VP131746	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								11/23/2024

FROM 0.50000ml of V14289 + 49.50000ml of V14154 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
218	BFB, 25PPM	VP131767	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								11/27/2024

FROM 0.50000ml of V13391 + 49.50000ml of V14154 = Final Quantity: 50.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1810	8260 Working Std(2-CVE)-800ppm	VP132035	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/12/2024

FROM 1.00000ml of V14630 + 1.00000ml of V14631 + 1.00000ml of V14632 + 1.00000ml of V14633 + 46.00000ml of V14614 = Final
Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
719	8260 Working STD (BCM)-First source, 400PPM	VP132096	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/19/2024

FROM 1.00000ml of V13465 + 1.00000ml of V13466 + 1.50000ml of V13457 + 1.50000ml of V13460 + 20.00000ml of V14614 = Final
Quantity: 25.000 ml

VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
617	8260 Surrogate, 400PPM	VP133174	02/27/2025	08/27/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								03/04/2025

FROM 0.40000ml of V13706 + 24.60000ml of V14613 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
51	8260 Working STD (Acrolein) -first source, 800PPM	VP133342	03/18/2025	04/17/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								03/20/2025

FROM 1.00000ml of V14896 + 1.00000ml of V14897 + 1.00000ml of V14898 + 1.00000ml of V14899 + 21.00000ml of V14883 = Final Quantity: 25.000 ml



VOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
257	8260 Calibration Working STD Mix-First source, 160PPM	VP133544	04/01/2025	05/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 04/03/2025

FROM 0.40000ml of V14842 + 1.00000ml of V14431 + 1.00000ml of V14435 + 1.00000ml of V14501 + 1.00000ml of V14502 + 1.00000ml of V14523 + 1.00000ml of V14524 + 1.00000ml of V14726 + 1.00000ml of V14744 + 1.00000ml of V14753 + 1.00000ml of V14804 + 1.00000ml of V14805 + 1.50000ml of V14719 + 1.50000ml of V14720 + 10.60000ml of V14615 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
589	BFB TUNE CHECK	VP133640	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP131767 = Final Quantity: 40.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
620	50 PPB CCC, 8260-Water	VP133641	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025
<u>FROM</u>	39.94450ml of W3112 + 0.00500ml of VP132096 + 0.00500ml of VP133174 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP133342 + 0.01250ml of VP133544 = Final Quantity: 40.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
620	50 PPB CCC, 8260-Water	VP133642	04/11/2025	04/12/2025	John Carlone	None	None	Mahesh Dadoda 04/15/2025
<u>FROM</u>	39.94450ml of W3112 + 0.00500ml of VP132096 + 0.00500ml of VP133174 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP133342 + 0.01250ml of VP133544 = Final Quantity: 40.000 ml							

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0191805	11/22/2025	11/22/2024 / SAM	01/13/2023 / SAM	V13391

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13457

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13460

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0196865	02/27/2026	02/27/2025 / SAM	04/12/2023 / SAM	V13706

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	05/18/2025	11/18/2024 / pedro	02/06/2024 / SAM	V14154

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0210184	11/22/2025	11/22/2024 / SAM	04/15/2024 / SAM	V14289

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0209618	09/20/2025	03/20/2025 / SAM	08/15/2024 / SAM	V14431

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0209618	09/20/2025	03/20/2025 / SAM	08/15/2024 / SAM	V14435

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	09/20/2025	03/20/2025 / SAM	09/17/2024 / SAM	V14501

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	09/20/2025	03/20/2025 / SAM	09/17/2024 / SAM	V14502

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	09/20/2025	03/20/2025 / SAM	09/18/2024 / SAM	V14523

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	09/20/2025	03/20/2025 / SAM	09/18/2024 / SAM	V14524

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	08/27/2025	02/27/2025 / SAM	11/26/2024 / SAM	V14613

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	06/10/2025	12/10/2024 / SAM	11/26/2024 / SAM	V14614

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	09/19/2025	03/19/2025 / SAM	11/26/2024 / SAM	V14615

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14630

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14631

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14632

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14633

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	09/20/2025	03/20/2025 / SAM	12/17/2024 / SAM	V14719

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	09/20/2025	03/20/2025 / SAM	12/17/2024 / SAM	V14720

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	07/30/2025	01/30/2025 / SAM	12/17/2024 / SAM	V14726

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	08/27/2025	02/27/2025 / SAM	12/17/2024 / SAM	V14744

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	07/30/2025	01/30/2025 / SAM	12/17/2024 / SAM	V14753

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE	A0220471	09/20/2025	03/20/2025 / SAM	01/08/2025 / SAM	V14804

LOTS

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE	A0220471	09/20/2025	03/20/2025 / SAM	01/08/2025 / SAM	V14805

LOTS

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0217535	08/27/2025	02/27/2025 / SAM	01/21/2025 / SAM	V14842

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	10/25/2025	02/19/2025 / Jaswal	04/22/2024 / Jaswal	V14883

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14896

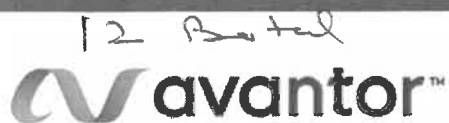
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14897

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14898

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	031725	04/17/2025	03/18/2025 / SAM	03/18/2025 / SAM	V14899

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / lwona	07/03/2024 / lwona	W3112

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



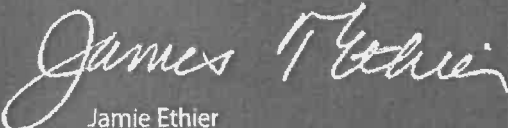
Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

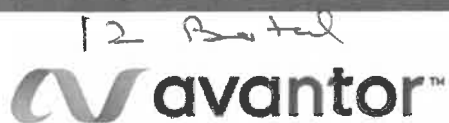
Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



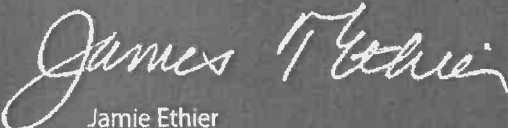
Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

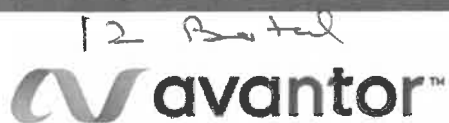
Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
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500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Ethier
Vice President Global Quality



Ree 03117/24

CERTIFIED WEIGHT REPORT

Part Number: 95317

Lot Number: 021624

Description: Universal VOA Megamix

69 components

Expiration Date: 021627

Recommended Storage: Freezer (0 °C)

Nominal Concentration (µg/mL): 2000

NIST Test ID#: BUTB

Solvent(s): Lot#
Methanol EG359-USQ12Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Balance Uncertainty
Flask Uncertainty

Formulated By:	Prashant Chauhan	021624
Reviewed By:	Pedro L. Renteria	021624
DATE		

Compound	(K049)	Lot	Dir.	Initial	Initial	Nominal	Purity	Purity	Uncertainty	Target	Actual	Actual	Expanded	SDS Information			
	Part Number	Number	Factor	Vol. (mL)	Conc. (µg/mL)	Conc. (µg/mL)	(%)	Uncertainty	Pipette (mL)	Weight(g)	Weight(g)	Conc. (µg/mL)	Uncertainty	(+/-) (µg/mL)	CASE	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	or-rat 2450mg/kg	
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	or-rat 700mg/kg	
3. Carbon disulfide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	or-rat 1200mg/kg	
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21056	0.21069	2001.1	8.5	1478-11-5	NA	N/A	
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20746	2001.7	8.4	110-57-6	NA	N/A	
6. Diethyl ether	(0153)	IK18CAS000C	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	NA	N/A	
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	NA	or-rat 14800mg/kg	
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm (28mg/m3/8H) (skin)	or-rat 75mg/kg	
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	or-rat 2460mg/kg	
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	128-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 120mg/kg	
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm (35mg/m3/8H) (skin)	or-rat 277mg/kg	
12. Methyl methacrylate	(0404)	MKGW6137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	or-rat 7872mg/kg	
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H) (skin)	or-rat 780mg/kg	
14. 2-Nitropropane	(0461)	14002JK	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	78-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg	
15. Perchloroethane	(0460)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	78-01-7	NA	N/A	
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	or-rat 43g/kg	
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	NA	or-rat 915mg/kg	
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	NA	or-rat 848mg/kg	
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	158-59-2	NA	N/A	
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	158-60-5	NA	N/A	
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	or-rat 1235mg/kg	
22. 1,1-Dichloroethane	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	or-rat 200mg/kg	
23. Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	or-rat 933mg/kg	
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	58-23-5	2 ppm (12.6mg/m3/8H)	or-rat 2350mg/kg	
25. Chloroform	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	67-68-3	60 ppm (240mg/m3) (CL)	or-rat 908mg/kg	
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	NA	N/A	
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	NA	or-rat 108mg/kg	
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	or-rat 725mg/kg	
29. Trichloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	NA	N/A	
30. 1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	2019.8	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg	
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40018.5	2000	NA	NA	0.017	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	or-rat 10300mg/kg	
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	or-rat 170mg/kg	
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.7	22.9	108-93-4	20 ppm (8H)	or-rat 108mg/kg	
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	or-rat 670mg/kg	
35. 1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	or-rat 1947mg/kg	
36. 1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	NA	or-mus 3600mg/kg	
37. cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.1	28.7	563-58-6	NA	N/A	
38. trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	NA	N/A	
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	NA	N/A	
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	or-rat 82mg/kg	
41. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	2000.1	22.9	830-20-6	NA	or-rat 670mg/kg	
42. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H) (skin)	or-rat 800mg/kg	
43. Trichloroethene	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H) (skin)	or-rat 936mg/kg	
44. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	or-mus 2402mg/kg	
45. Benzene	35162	050823	0.05	5.00	40006.0	2000	NA	NA	0.017	NA	NA	1999.9	22.9	98-18-4	10 ppm (60mg/m3/8H)	or-rat 149.8mg/kg	
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	or-rat 4894mg/kg	
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-1	NA	or-rat 2699mg/kg	
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	NA	N/A	
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg	
50. Naphthalene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	NA	or-rat 4750mg/kg	
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	or-rat 490mg/kg	
52. Toluene	35162	050823	0.05	5.00	40008.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg	
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	or-rat 5000mg/kg	
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-81-6	NA	or-mus 1390mg/kg	
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 756mg/kg	
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	23.0	95-63-6	NA	or-rat 5g/kg	
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-87-8	NA	or-rat 5000mg/kg	
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	or-rat 5g/kg	
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.8	22.9	98-06-6	NA	N/A	
60. Chlorobenzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-8	NA	N/A	
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	or-rat 2240mg/kg	
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	or-rat 2290mg/kg	
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	NA	or-rat 3900mg/kg	</

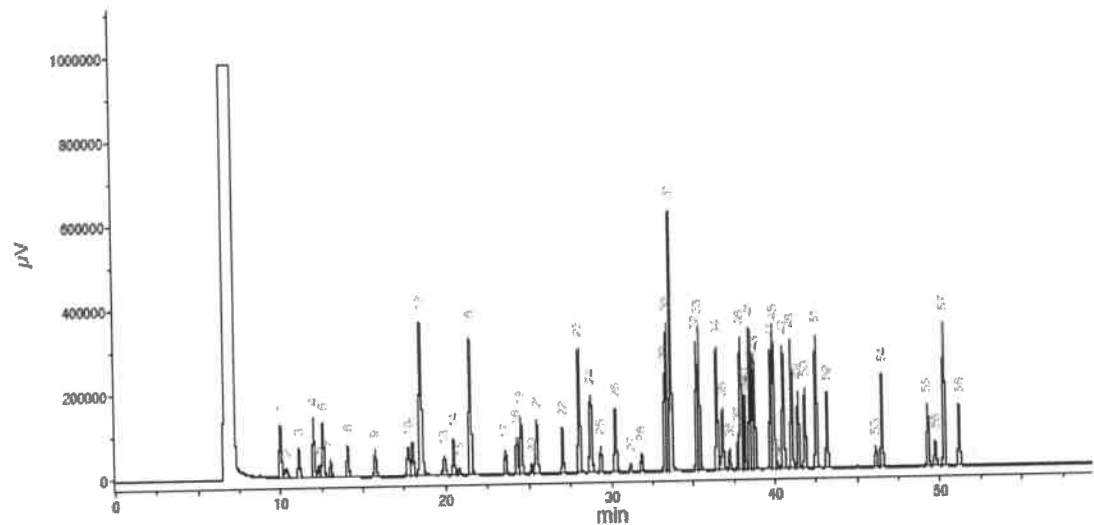


Run 16, "P95317 L021624 (2000µg/mL in MeOH)"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,2-trifluoroethane	10.53
3	1,1-Dichloroethane	11.10
4	Acetonitrile	12.60
5	Iodomethane	12.91
6	Allyl chloride	12.96
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methoxyvinyltoluene/Methyl acrylate/Chloroform	18.49
13	Isobutene/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.88
18	1,2-Dichloropropane	24.52
19	Methyl methacrylate	25.13
20	Bromochloropropane	25.46
21	Dibromomethane/2-Pentene	27.07
22	cis-1,2-Dichloroethene	28.03
23	Toluene	28.73
24	Ethyl methacrylate/Trans-1,2-Dichloroethene	29.34
25	1,1,2-Trichloroethane	30.34
26	Tetrachloroethane/1,2-Dichloropropane	31.16
27	Dibromochloromethane	31.84
28	1,2-Dibromomethane	33.06
29	Chlorobenzene	33.40
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.85
31	m-Xylene/p-Xylene	35.33
32	o-Xylene	35.70
33	Styrene	35.70
34	Isopropylbenzene/Bromofarm	36.48
35	cis-1,4-Dichloro-3-butene	36.80
36	1,1,2-Trichloropropane	37.23
37	n-Propylbenzene	37.77
38	trans-1,4-Dichloro-3-butene	37.92
39	Bromobenzene	38.05
40	1,3,5-Trimethylbenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	Chlorobenzene	38.63
43	4-Chlorobenzene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.40
55	1,2,4-Trifluorobenzene	49.28
56	Hexachlorocyclopentadiene	49.72
57	Naphthalene	50.56
58	1,2,3-Trichlorobenzene	51.16

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225 H370 P271 P302,332	Highly Flammable Liquid and Vapor Cause damage to organs Use in ventilated area If on skin, wash with soap and water	H301, 311, 331 H351 P280 P305,351,338	Toxic if swallowed, skin contact, inhaled Suspected of causing cancer Use gloves, eye protection/face shield If in eyes, remove contacts, rinse with water
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Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))	CAS#	% (optional)
Methanol METHYL ALCOHOL	67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Storage Conditions	Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1 TWA 200 ppm
Skin notation	TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.	
Personal protective equipment	Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.	

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Ree 03117/24

CERTIFIED WEIGHT REPORT

Part Number: 95317

Lot Number: 021624

Description: Universal VOA Megamix

69 components

Expiration Date: 021627

Recommended Storage: Freezer (0 °C)

Nominal Concentration (µg/mL): 2000

NIST Test ID#: BUTB

Solvent(s): Lot#
Methanol EG359-USQ12Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Balance Uncertainty
Flask Uncertainty

Formulated By:	Prashant Chauhan	021624
Reviewed By:	Pedro L. Renteria	021624
DATE		

Compound	(K049)	Lot	Dir.	Initial	Initial	Nominal	Purity	Purity	Uncertainty	Target	Actual	Actual	Expanded	SDS Information			
	Part Number	Number	Factor	Vol. (mL)	Conc. (µg/mL)	Conc. (µg/mL)	(%)	Uncertainty	Pipette (mL)	Weight(g)	Weight(g)	Conc. (µg/mL)	Uncertainty	(+/-) (µg/mL)	CASE	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	or-rat 2450mg/kg	
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	or-rat 700mg/kg	
3. Carbon disulfide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	or-rat 1200mg/kg	
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21056	0.21069	2001.1	8.5	1478-11-5	N/A	N/A	
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20746	2001.7	8.4	110-57-6	N/A	N/A	
6. Diethyl ether	(0153)	IK18CAS000C	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A	
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	or-rat 14800mg/kg	
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm (28mg/m3/8H) (skin)	or-rat 75mg/kg	
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	or-rat 2460mg/kg	
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	128-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 120mg/kg	
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm (35mg/m3/8H) (skin)	or-rat 277mg/kg	
12. Methyl methacrylate	(0404)	MKGW6137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	or-rat 7872mg/kg	
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H) (skin)	or-rat 780mg/kg	
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	78-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg	
15. Perchloroethane	(0460)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	78-01-7	N/A	N/A	
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	or-rat 43g/kg	
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	or-rat 915mg/kg	
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	or-rat 848mg/kg	
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A	
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.2	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	N/A	
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	or-rat 1235mg/kg	
22. 1,1-Dichloroethane	32261	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	or-rat 200mg/kg	
23. Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	78-25-2	0.5 ppm (5mg/m3) (skin)	or-rat 933mg/kg	
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.6	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	or-rat 2350mg/kg	
25. Chloroform	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	67-68-3	60 ppm (240mg/m3) (CL)	or-rat 908mg/kg	
26. Dibromomethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	or-rat 108mg/kg	
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	75-34-3	100 ppm	or-rat 725mg/kg	
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.8	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg	
29. Trichloroethene	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	or-rat 10300mg/kg	
30. 1,1,1-Trichloroethane	35161	112322	0.05	5.00	40018.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	86-12-8	0.001 ppm	or-rat 170mg/kg	
31. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	or-rat 108mg/kg	
32. 1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	or-rat 670mg/kg	
33. 1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	or-rat 1947mg/kg	
34. 1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	or-rat 3600mg/kg	
35. 1,1-Dichloropropane	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	28.7	563-58-6	N/A	N/A	
36. cis-1,3-Dichloropropane	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A	
37. trans-1,3-Dichloropropane	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A	
38. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	or-rat 82mg/kg	
39. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	830-20-6	N/A	or-rat 670mg/kg	
40. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H) (skin)	or-rat 800mg/kg	
41. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H) (skin)	or-rat 936mg/kg	
42. Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	or-mus 2402mg/kg	
43. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	or-rat 149.8mg/kg	
44. Benzene	35162	050823	0.05	5.00	40006.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	or-rat 4894mg/kg	
45. Bromobenzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	104-51-8	N/A	or-rat 2699mg/kg	
46. n-Butyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg	
47. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	or-rat 4750mg/kg	
48. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	or-rat 490mg/kg	
49. Naphthalene	35162	050823	0.05	5.00	40005.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	100-42-5	100 ppm	or-rat 5000mg/kg	
50. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	or-rat 5000mg/kg	
51. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-81-6	N/A	or-rat 1390mg/kg	
52. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 756mg/kg	
53. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	or-rat 5g/kg	
54. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-87-8	N/A	or-rat 5000mg/kg	
55. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	109-38-3	100 ppm (435mg/m3/8H)	or-rat 5g/kg	
56. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	96-06-6	N/A	N/A	
57. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-8	N/A	or-rat 2240mg/kg	
58. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	or-rat 2290mg/kg	
59. Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	or-rat 3900mg/kg	
60. 2-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	or-rat 2100mg/kg	
61. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	or-rat 500mg/kg	
62. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	or-mus 1062mg/kg	
63. 1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.				

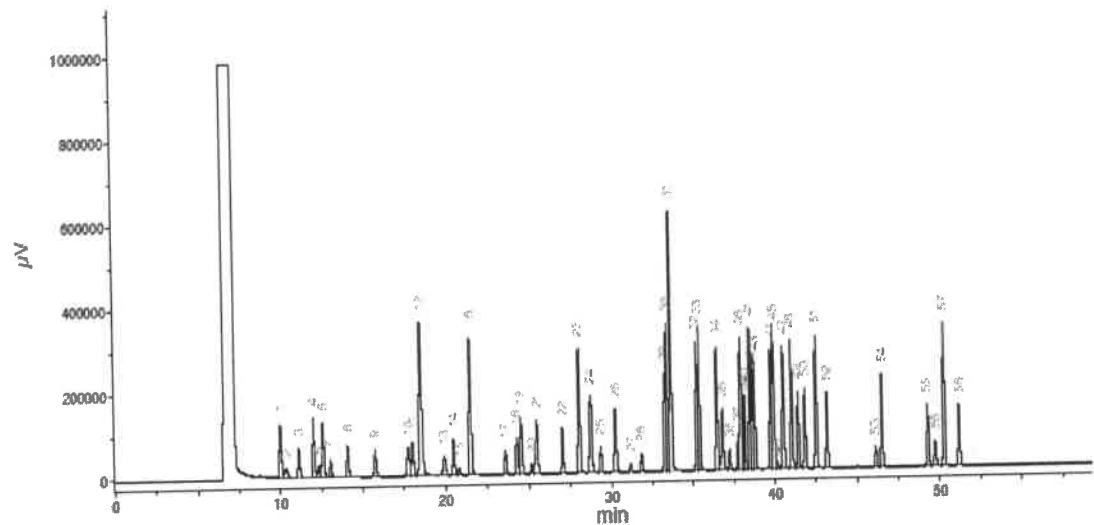


Run 16, "P95317 L021624 (2000µg/mL in MeOH)"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,2-trifluoroethane	10.53
3	1,1-Dichloroethane	11.10
4	Acetonitrile	12.60
5	Iodomethane	12.91
6	Allyl chloride	12.96
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methoxyvinylbenzene/Methyl acrylate/Chloroform	18.49
13	Isobutene/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.88
18	1,2-Dichloropropane	24.52
19	Methyl methacrylate	25.13
20	Bromochloropropane	25.46
21	Dibromomethane/2-Pentene	27.07
22	cis-1,2-Dichloroethene	28.03
23	Toluene	28.73
24	Ethyl methacrylate/Trans-1,2-Dichloroethene	29.34
25	1,1,2-Trichloroethane	30.34
26	Tetrachloroethane/1,2-Dichloropropane	31.16
27	Dibromochloromethane	31.84
28	1,2-Dibromomethane	33.06
29	Chlorobenzene	33.40
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.85
31	m-Xylene/p-Xylene	35.33
32	o-Xylene	35.70
33	Styrene	35.70
34	Isopropylbenzene/Bromofarm	36.48
35	cis-1,4-Dichloro-3-butene	36.80
36	1,1,2-Trichloropropane	37.23
37	n-Propylbenzene	37.77
38	trans-1,4-Dichloro-3-butene	37.92
39	Bromobenzene	38.05
40	1,3,5-Trimethylbenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	Chlorobenzene	38.63
43	4-Chlorobenzene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropylbenzene	41.02
49	1,3-Trichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.58
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.40
55	1,2,4-Trichlorobenzene	49.28
56	Hexachlorocyclopentadiene	49.72
57	Naphthalene	50.56
58	1,2,3-Trichlorobenzene	51.16

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225 H370 P271 P302,332	Highly Flammable Liquid and Vapor Cause damage to organs Use in ventilated area If on skin, wash with soap and water	H301, 311, 331 H351 P280 P305,351,338	Toxic if swallowed, skin contact, inhaled Suspected of causing cancer Use gloves, eye protection/face shield If in eyes, remove contacts, rinse with water
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Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))	CAS#	% (optional)
Methanol METHYL ALCOHOL	67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Storage Conditions	Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1 TWA 200 ppm
Skin notation	TWA 200 ppm
Potential for skin absorption	ingestion and inhalation.
Personal protective equipment	Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing.	Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



202 03/18/24



CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

91980
031725
Acrolein

Solvent(s):
Water

Lot#
072324Q

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test ID#:

041725
Refrigerate (4 °C)
5000
6UTB

V14895 to
V14899

Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.001 Peak Uncertainty

Expanded
Uncertainty
(+/-) (µg/mL)

SDS Information

(Solvent Safety Info. On Attached pg.)

CAS# OSHA PEL (TWA) LDSO

Compound

RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO
5	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	52.5	107-02-8	0.1 ppm	orl-rat 48mg/kg

Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode), Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C, Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Scan 232 (8.927 min): [BSB2]79005.D

Abundance

Abundance

27

250000 8.93

60000

200000

50000

56

150000

40000

100000

30000

20000

50000

10000

37

Time-->

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00

m/z-->

0 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

44 65 75 85 119 158 169

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2025

Section II - Hazards Identification

P271	Use in ventilated area	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
P302,332	If on skin, wash with soap and water	H315
		P280
		P305,351,338
		If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))	CAS#: 7732-18-5	% (optional)
Water		> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV, FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V, FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI, ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII, HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII, EXPOSURE CONTROLS/PERSONAL PROTECTION

Water	CAS#: 7732-18-5	TWA: 500 ppm
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing.	Wash hands thoroughly after handling the product.	

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H ₂ O = 1)
Vapor Pressure (mm Hg)		Melting Point

Vapor Density (AIR = 1)		NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water		Completely miscible		
Appearance and Odor		CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
NA

Conditions to avoid
NA

Materials to avoid
NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat
NA

LC50 Inhalation - Rat
NA

LD50 Dermal - Guinea pig
NA

Causes skin irritation.

Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50
NA

EC50
NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Exposure to this product may have serious adverse health effects including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC. DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM

202 03/18/24



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 031725
Description: Acrolein

Expiration Date: 04/1725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water
Lot# 072324Q

V14895 to
V14899

5E-05 Balance Uncertainty
0.001 Peak Uncertainty

Weight(s) shown below were combined and diluted to (mL): 10.0

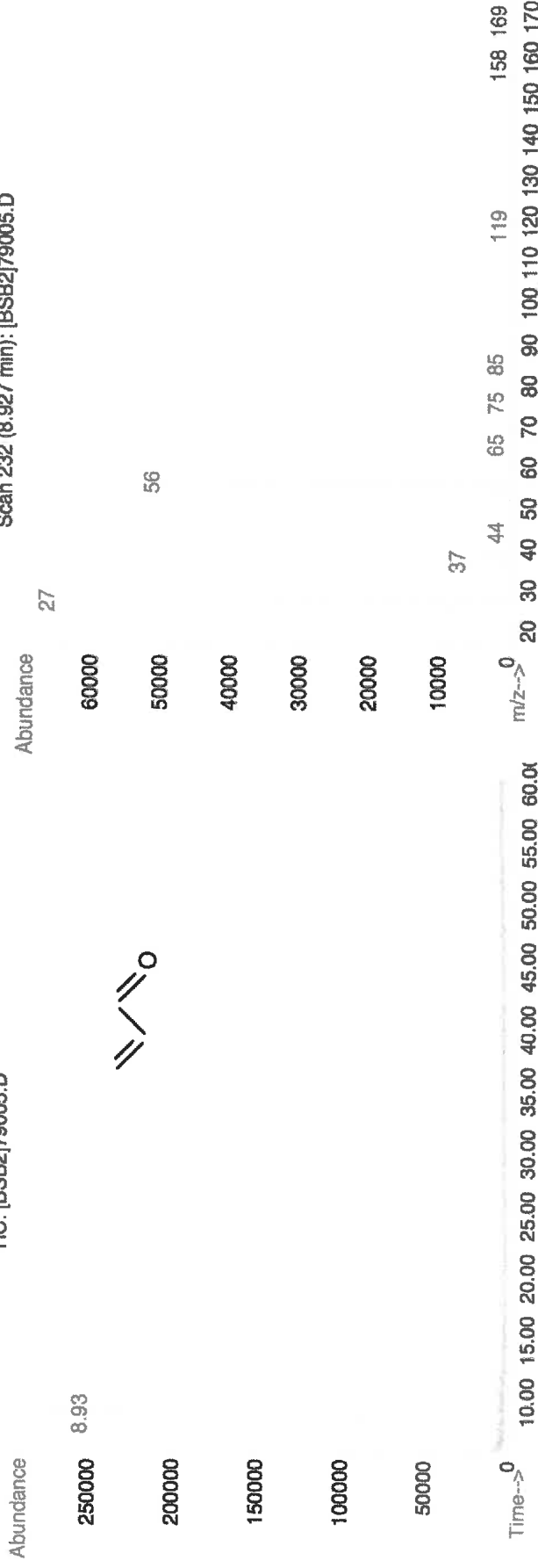
Formulated By:	Lawrence Barry	031725
Reviewed By:	Pedro L. Rentas	031725
		DATE
		DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO
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1. Acrolein 5 103755V10F 5000 97 0.5 0.05166 0.05170 5004.1 52.5 107-02-8 0.1 ppm orl-rat 48mg/kg

Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode), Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C, Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D



The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2025

Section II - Hazards Identification

P271	Use in ventilated area	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
P302,332	If on skin, wash with soap and water	H315
		P280
		P305,351,338
		If in eyes, remove contacts, rinse with water

Signal Word: DANGER

See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV, FIRST AID MEASURES

General advice
If inhaled
If in case of skin contact
If swallowed
Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Wash with soap and water. Consult a physician.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V, FIREFIGHTING MEASURES

Suitable extinguishing media
Protective equipment for fire
Hazardous Decomposition products
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Wear self contained breathing apparatus for fire fighting if necessary.
Carbon oxides

Section VI, ACCIDENTAL RELEASE MEASURES

Personal precautions
Environmental precautions
Clean up
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII, HANDLING AND STORAGE

Precautions for safe handling
Storage Conditions
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist
Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII, EXPOSURE CONTROLS/PERSONAL PROTECTION

Water
CAS#: 7732-18-5
TWA: 500 ppm
Personal protective equipment
Respiratory protection
Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H ₂ O = 1)
Vapor Pressure (mm Hg)		Melting Point

Vapor Density (AIR = 1)		NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water		Completely miscible		
Appearance and Odor		CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
NA
Conditions to avoid
NA
Materials to avoid
NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat
NA
LC50 Inhalation - Rat
NA
LD50 Dermal - Guinea pig
NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50
NA
EC50
NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water
ATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Exposure to this product may have serious adverse health effects including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC. DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM

202 03/18/24



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 031725
Description: Acrolein

Expiration Date: 04/17/25
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water
Lot# 072324Q

V14895 to
V14899

5E-05 Balance Uncertainty
0.001 Peak Uncertainty

Weight(s) shown below were combined and diluted to (mL): 10.0

Formulated By:	Lawrence Barry	031725
Reviewed By:	Pedro L. Rentas	031725
		DATE
		DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO
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1. Acrolein 5 103755V10F 5000 97 0.5 0.05166 0.05170 5004.1 52.5 107-02-8 0.1 ppm orl-rat 48mg/kg

Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode), Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C, Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Abundance

Abundance

Scan 232 (8.927 min): [BSB2]79005.D

27

250000 8.93

200000



50000 56

150000

40000

30000

100000

20000

50000

10000

37

Time-->

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00

m/z-->

20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

119

158 169

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2025

Section II - Hazards Identification

P271	Use in ventilated area	H315	Causes skin and eye irritation.
P302,332	If on skin, wash with soap and water	P280	Use gloves, eye protection/face shield
		P305,351,338	If in eyes, remove contacts, rinse with water

Signal Word: DANGER

See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV, FIRST AID MEASURES

General advice
If inhaled Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Wash with soap and water. Consult a physician.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V, FIREFIGHTING MEASURES

Suitable extinguishing media
Protective equipment for fire
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Wear self contained breathing apparatus for fire fighting if necessary.
Carbon oxides

Section VI, ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up
Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII, HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist
Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII, EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Vapor Density (AIR = 1)			
NA	NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water			
Completely miscible			

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions NA

Conditions to avoid NA

Materials to avoid NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA

LC50 Inhalation - Rat NA

LD50 Dermal - Guinea pig NA

Causes skin irritation.

Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA

EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US) Not dangerous goods

Proper shipping name: Water

IATA Not dangerous goods

Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC. DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM

202 03/18/24



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 031725
Description: Acrolein

Expiration Date: 04/1725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water
Lot# 072324Q

V14895 to
V14899

5E-05 Balance Uncertainty
0.001 Peak Uncertainty

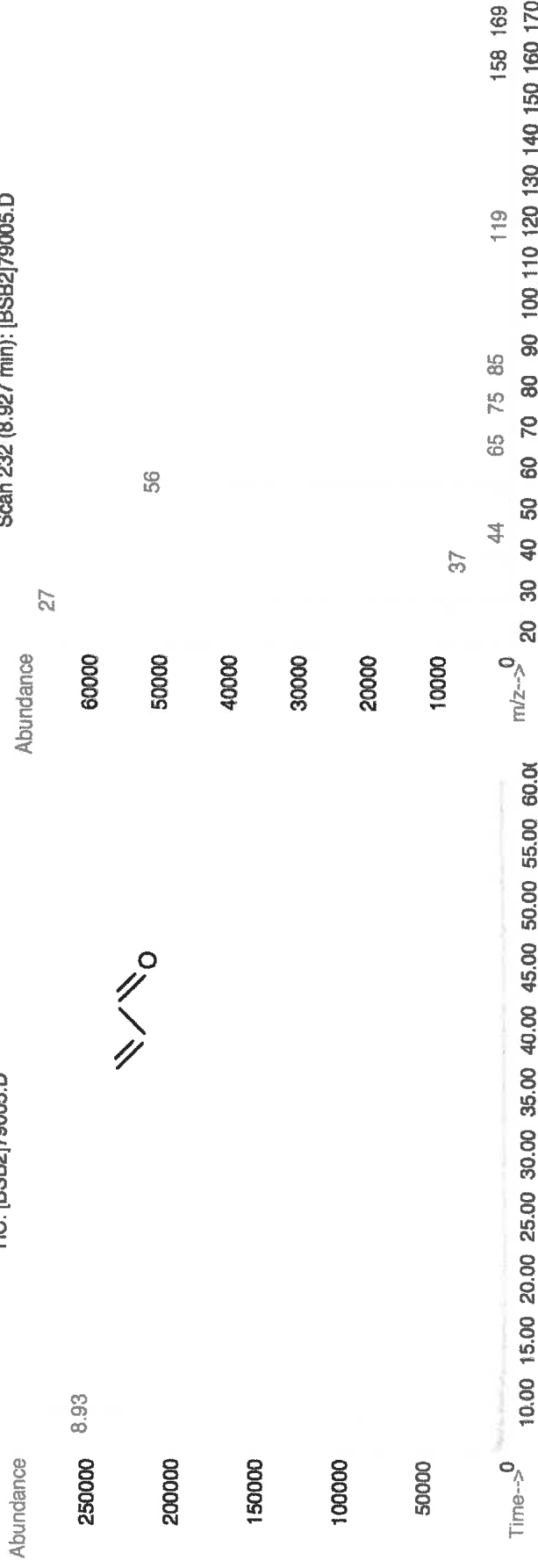
Weight(s) shown below were combined and diluted to (mL): 10.0

Formulated By: <i>Lawrence Barry</i>	031725
DATE	
Reviewed By: <i>Pedro L. Rentas</i>	031725
DATE	

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (Solvent Safety Info. On Attached pg.)		
									(+/-) (µg/mL)	CAS#	OSHA PEL (TWA) LDSO
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	52.5	107-02-8	0.1 ppm orl-rat 48mg/kg

Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode), Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C, Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D



The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Safety Data Sheet (SDS)
GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	1-352-323-3500
		Date Prepared/Revised	January 1, 2025

Section II - Hazards Identification

P271	Use in ventilated area	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
P302,332	If on skin, wash with soap and water	H315
		P280
		P305,351,338
		If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))	CAS#: 7732-18-5	% (optional)
Water		> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.
INTENDED USE: REFERENCE MATERIAL

Section IV, FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V, FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI, ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII, HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII, EXPOSURE CONTROLS/PERSONAL PROTECTION

Water	CAS#: 7732-18-5	TWA: 500 ppm
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing.	Wash hands thoroughly after handling the product.	

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H ₂ O = 1)
Vapor Pressure (mm Hg)		Melting Point

Vapor Density (AIR = 1)			
NA	NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water			
Completely miscible			
Appearance and Odor			
CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.			

Section X. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
NA

Conditions to avoid
NA

Materials to avoid
NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat
NA

LC50 Inhalation - Rat
NA

LD50 Dermal - Guinea pig
NA

Causes skin irritation.

Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50
NA

EC50
NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Exposure to this product may have serious adverse health effects including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC. DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Certified Reference Material CRM



Dec 09/17/24

CERTIFIED WEIGHT REPORT

Part Number:

91980

Lot Number:

091424

Description:

Acrolein

Solvent(s):

Water

Lot#

072324Q

Expiration Date:

101424

Recommended Storage:

Refrigerate (4 °C)

Nominal Concentration (µg/mL):

5000

NIST Test ID#:

6UTB

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

10.0

Weight(s) shown below were combined and diluted to (mL):

Formulated By:	Justin Dippold	DATE	091424
Reviewed By:	Pedro L. Rentas	DATE	091424

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (±) (µg/mL)	(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
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1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	ori-rat 46mg/kg
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Method: GC/MSD-1, Detector: Mass Selective Detector (Scan mode). Columns: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 0min.), Temp. 2 = 200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas, NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Scan 232 (8.927 min): [BSB2]79005.D

Abundance

27

250000

8.93

200000

50000

56

150000

40000

30000

20000

50000

10000

37

Time-->

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00

m/z-->

0

20

30

40

50

60

70

80

85

119

158

169

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
 * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
 * Standards are certified (±) 0.5% of the stated value, unless otherwise stated.
 * All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
 * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Certified Reference Material CRM



Dec 09/17/24

CERTIFIED WEIGHT REPORT

Part Number:

91980

Lot Number:

091424

Description:

Acrolein

Solvent(s):

Water

Lot#

072324Q

Expiration Date:

101424

Recommended Storage:

Refrigerate (4 °C)

Nominal Concentration (µg/mL):

5000

NIST Test ID#:

6UTB

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

10.0

Weight(s) shown below were combined and diluted to (mL):

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
----------	-----	------------	----------------------	------------	-------------	------------------	------------------	---------------------	------------------------------------	--	----------------	------

1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	ori-rat 46mg/kg
-------------	---	------------	------	----	-----	---------	---------	--------	------	----------	---------	-----------------

Method: GC/MSD-1, Detector: Mass Selective Detector (Scan mode). Columns: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 0min.), Temp. 2 = 200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas, NOTE: Due to the instability of acrolein in solution, all solutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D

Scan 232 (8.927 min): [BSB2]79005.D

Abundance

27

250000

8.93

200000

C=CC=O

50000

56

150000

40000

30000

20000

50000

10000

37

Time-->

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00

m/z-->

0

20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

44 65 75 85 119 158 169

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Dec 12/6/24
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

✓ 14630 to
✓ 14649

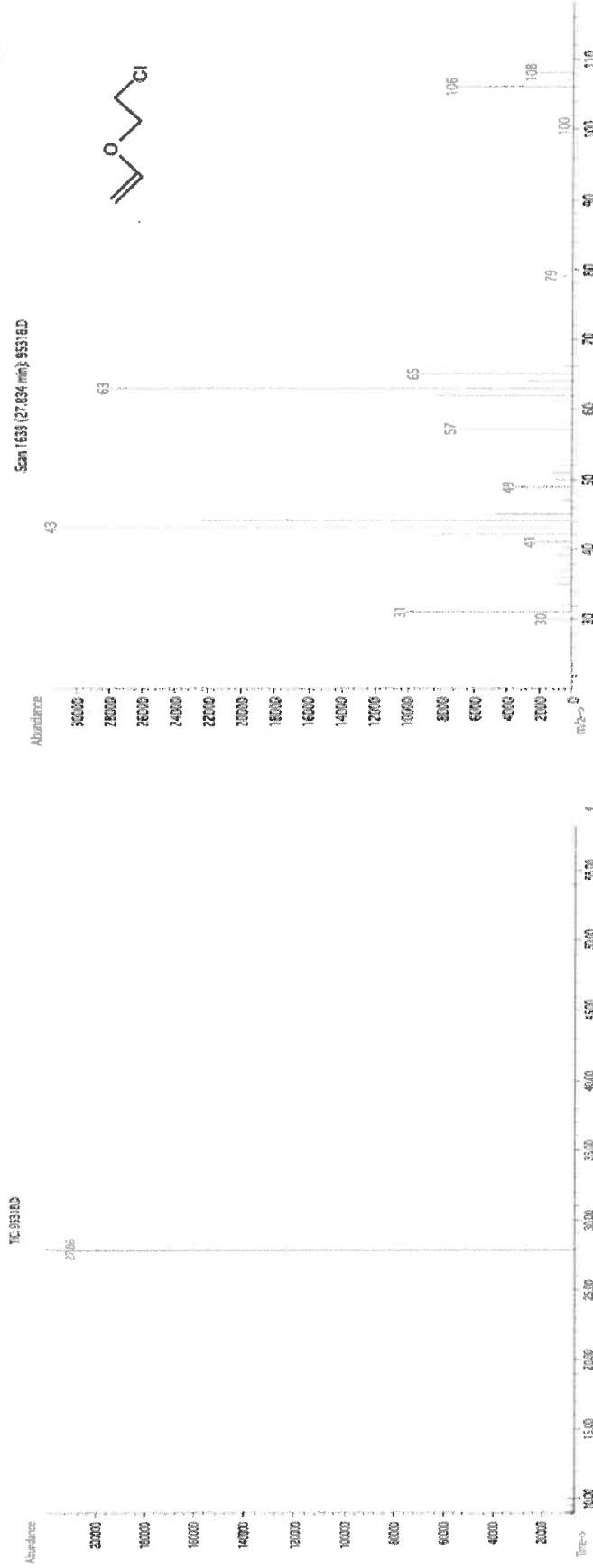
Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty (±) (µg/mL)	(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
----------	-----	------------	----------------------	------------	--------------------	-------------------	-------------------	---------------------	----------------------------------	--	----------------	------

1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	or-rat 250mg/kg
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Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp = 220°C. Analyst: Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (±) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr.	Emergency Telephone International	1-352-323-3500
	Hamden CT, 06514	Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Methanol	METHYL ALCOHOL	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1	67-56-1	TWA 200 ppm
Skin notation			TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.			
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use.	Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.			

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Dec 12/6/24
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

✓ 14630 to
✓ 14649

Weight(s) shown below were combined and diluted to (mL):

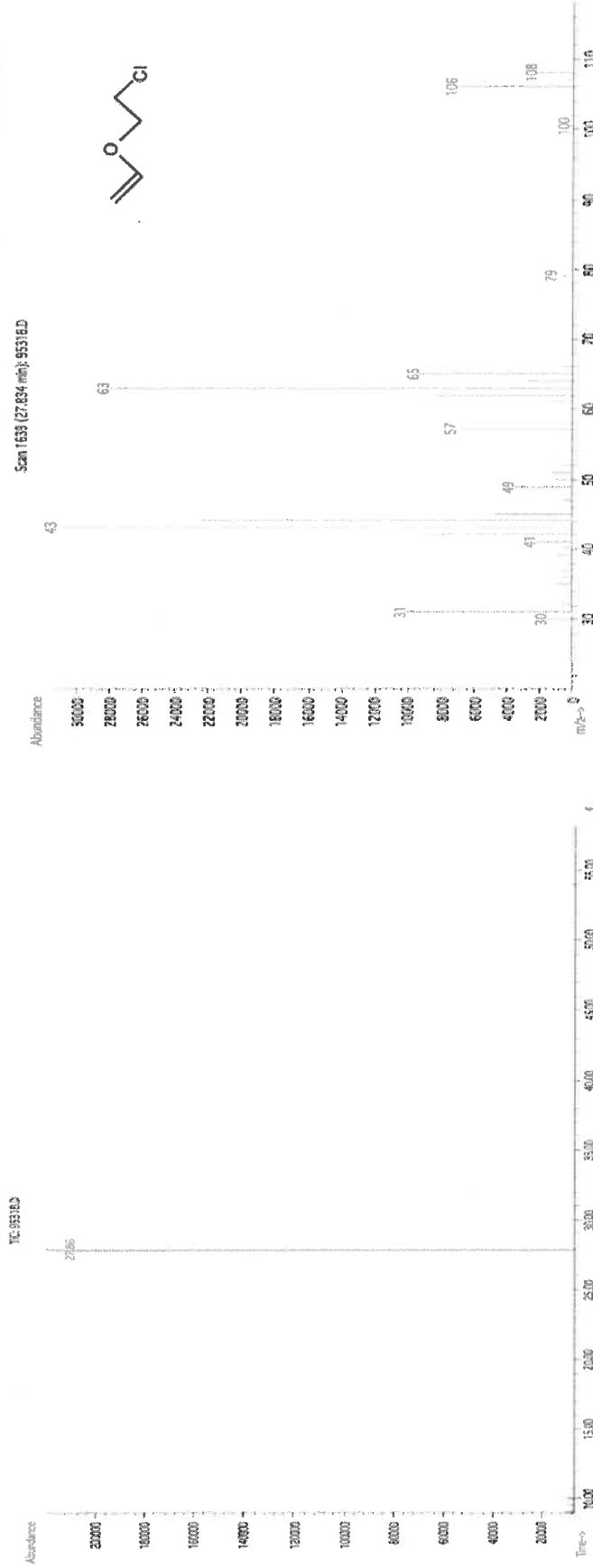
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Expanded Uncertainty (Solvent Safety Info. On Attached pg.)
Uncertainty (±) (µg/mL) CAS# OSHA PEL (TWA) LDSO

SDS Information

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty (±) (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	or-rat 250mg/kg

Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp = 220°C. Analyst: Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (±) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr.	Emergency Telephone International	1-352-323-3500
	Hamden CT, 06514	Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Methanol	METHYL ALCOHOL	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1	67-56-1	TWA 200 ppm
Skin notation			TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.			
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use.	Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.			

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Dec 12/16/24
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL):

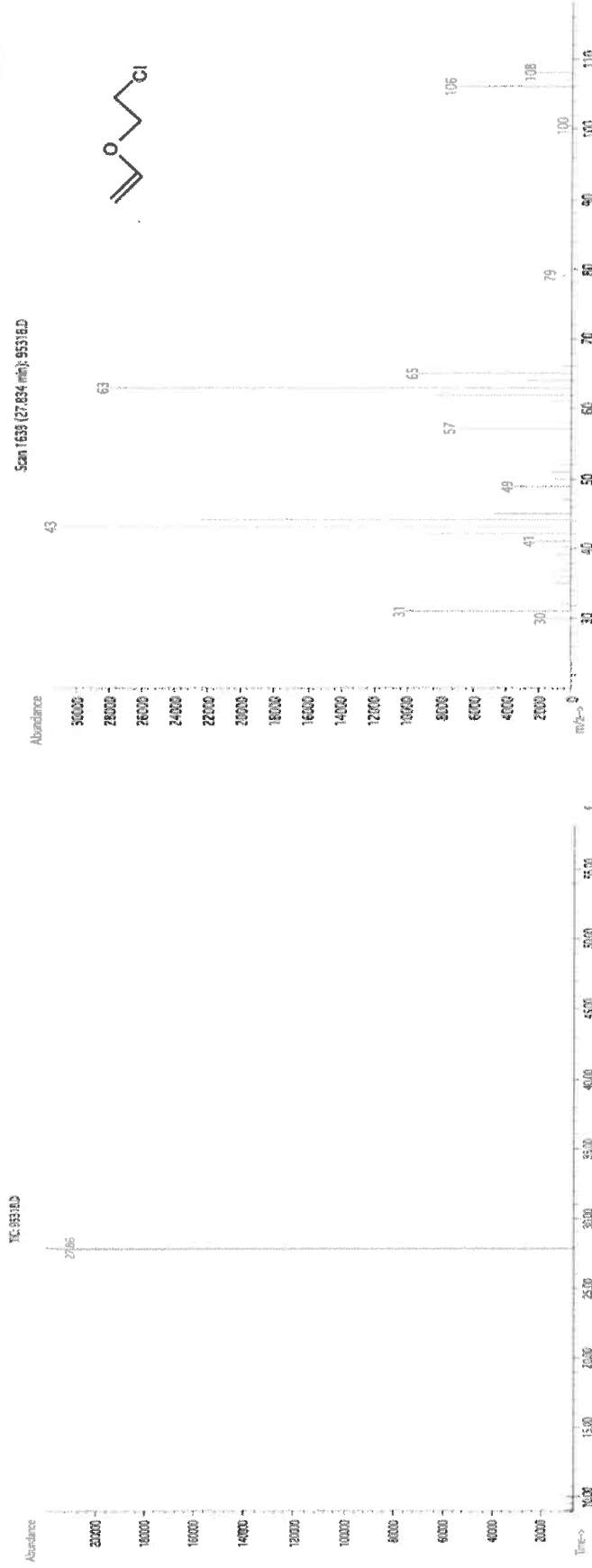
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By: Prashant Chauhan 120524
Reviewed By: Pedro L. Rentas 120524

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information	
										(Solvent Safety Info. On Attached pg.)	LD50

1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	or-rat 250mg/kg
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Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp. = 220°C. Analyst: Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Safety Data Sheet (SDS)

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rossotto Dr.	Emergency Telephone International	1-352-323-3500
	Hamden CT, 06514	Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))	CAS#	% (optional)
Methanol	METHYL ALCOHOL 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1	67-56-1	TWA 200 ppm
Skin notation			TWA 200 ppm
Potential for skin absorption, ingestion and inhalation.			
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use.	Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.			

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions.	- Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50 15,400 mg/l - 96 h
EC50 24,500.00 mg/l - 48 h
EC100 10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



Dec 12/16/24
20 vial

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#
Methanol EJ143-US

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL):

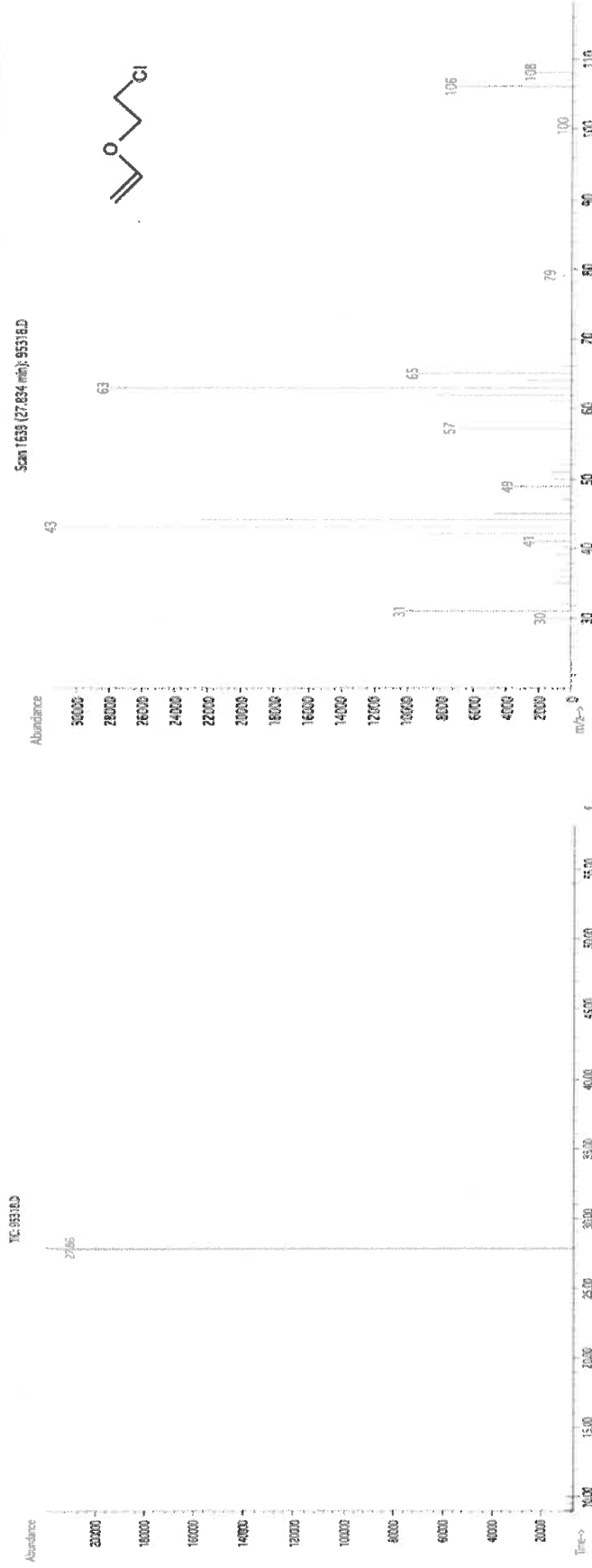
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By: Prashant Chauhan 120524 DATE
Reviewed By: Pedro L. Rentas 120524 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information	
										(Solvent Safety Info. On Attached pg.)	LD50

1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	or-rat 250mg/kg
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Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp. = 220°C. Analyst: Candice Warren.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	1-800-535-5053
Address	44 Rosotto Dr. Hamden CT. 06514	Emergency Telephone International Date Prepared/Revised	1-352-323-3500 January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	Highly Flammable Liquid and Vapor	H301, 311, 331	Toxic if swallowed, skin contact, inhaled
H370	Cause damage to organs	H351	Suspected of causing cancer
P271	Use in ventilated area	P280	Use gloves, eye protection/face shield
P302,332	If on skin, wash with soap and water	P305,351,338	If in eyes, remove contacts, rinse with water



Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))	CAS#	% (optional)
Methanol METHYL ALCOHOL	67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1 TWA 200 ppm		
Skin notation	TWA 200 ppm		
Potential for skin absorption, ingestion and inhalation.			
Personal protective equipment	Respiratory protection	Handle with gloves. Gloves must be inspected prior to use.	Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.			

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H ₂ O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

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DOT (US)	IATA
UN number: 1230 Class: 3 Packing group: II	UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol	Proper shipping name: Methanol

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0191805

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol,
1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	2,483.9 µg/mL	+/- 139.5488

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

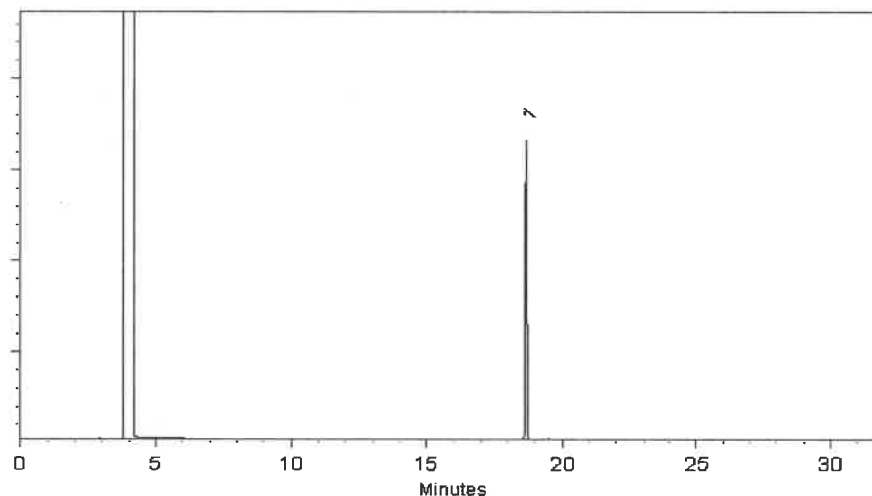
FID

Split Vent:

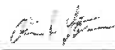
40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Alicia Leathers - Operation Technician I

Date Mixed: 17-Nov-2022

Balance Serial # B251644995


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Nov-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

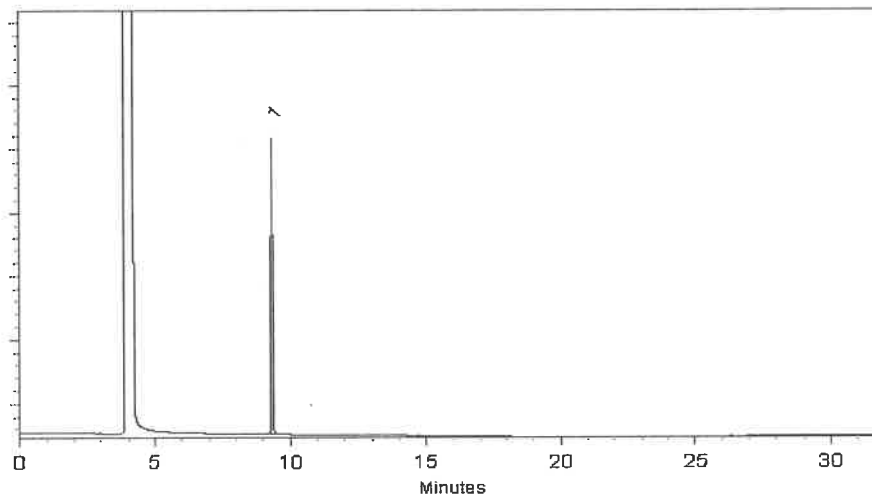
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022 Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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chromatographic plus



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

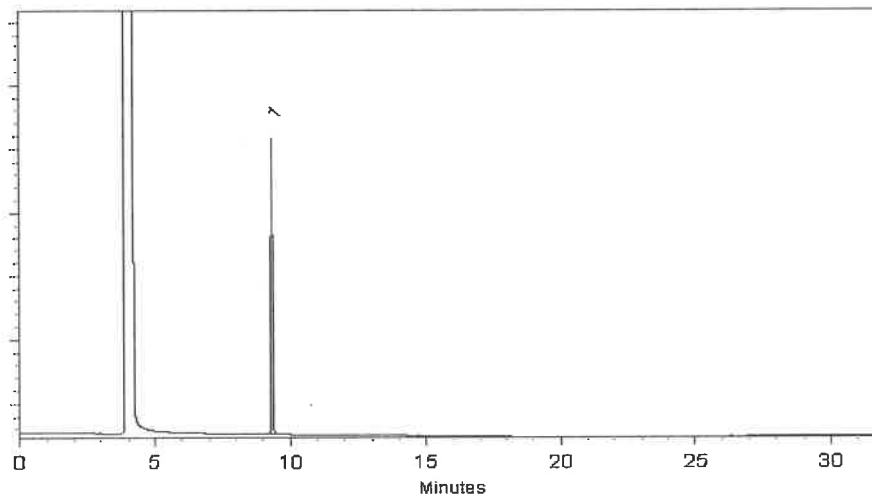
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



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Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022 Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

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Description : Bromochloromethane Standard
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2027 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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105m x 0.53mm x 3.0µm
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hydrogen-constant pressure 11.0 psi.

Temp. Program:

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Det. Type:

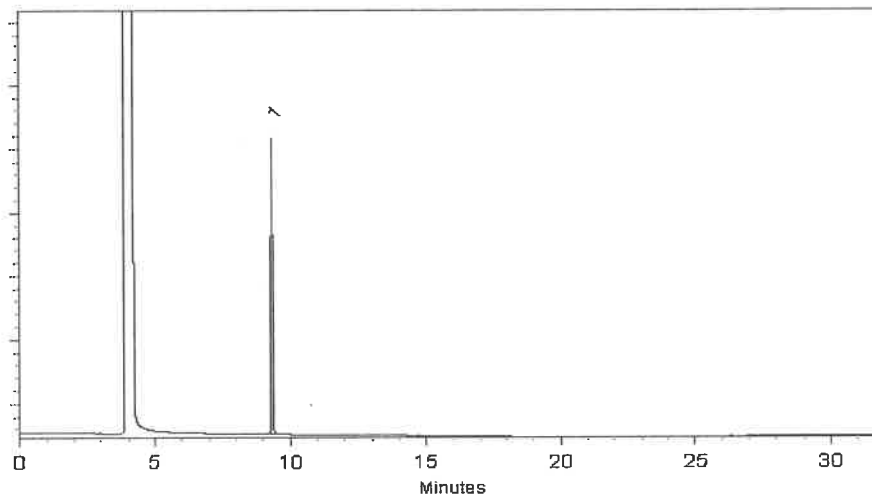
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



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Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022

Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

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Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0193071
Description : Bromochloromethane Standard
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2027 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

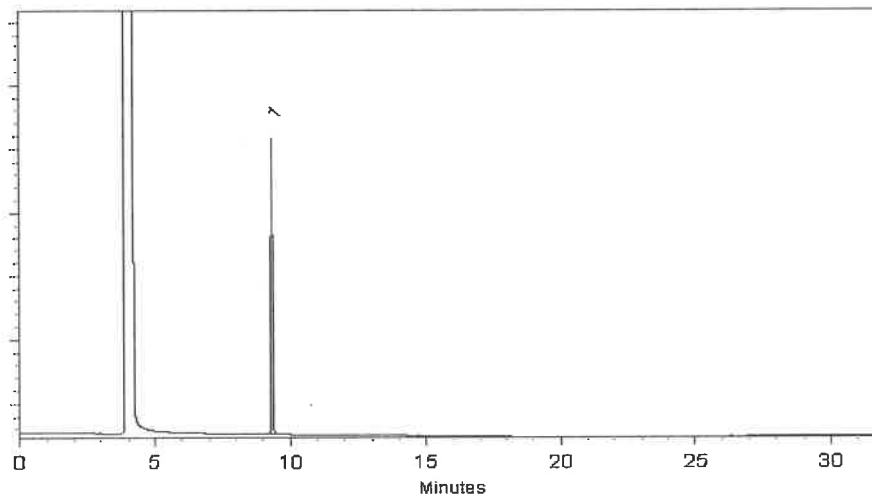
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022 Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0196865

Description : Custom 8260A/B Surrogate Mix
Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol,
1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dichloroethane-d4	17060-07-0	PR-32845	99%	25,036.0 µg/mL	+/- 1,417.9179
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	25,132.0 µg/mL	+/- 1,423.3549
3	Dibromofluoromethane	1868-53-7	022013	99%	25,040.0 µg/mL	+/- 1,418.1445
4	Toluene-d8	2037-26-5	PR-33397	99%	25,028.0 µg/mL	+/- 1,417.4648

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 11-Apr-2023

Balance: 1127510105

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0209618

Description : 8260B Acetates Mix
8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this

reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

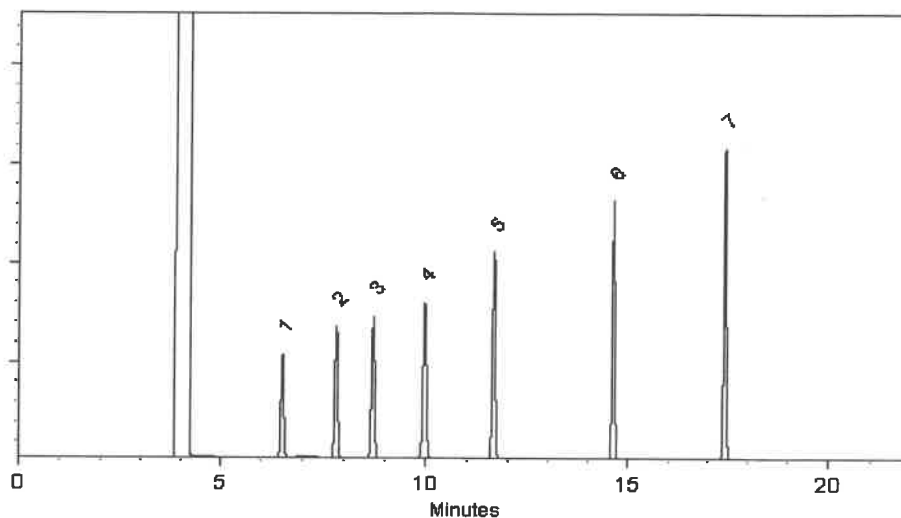
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024

Balance Serial # B707717271

Dillon Murphy
Dillon Murphy - Operations Technician I

Date Passed: 01-Apr-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0209618

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this

reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

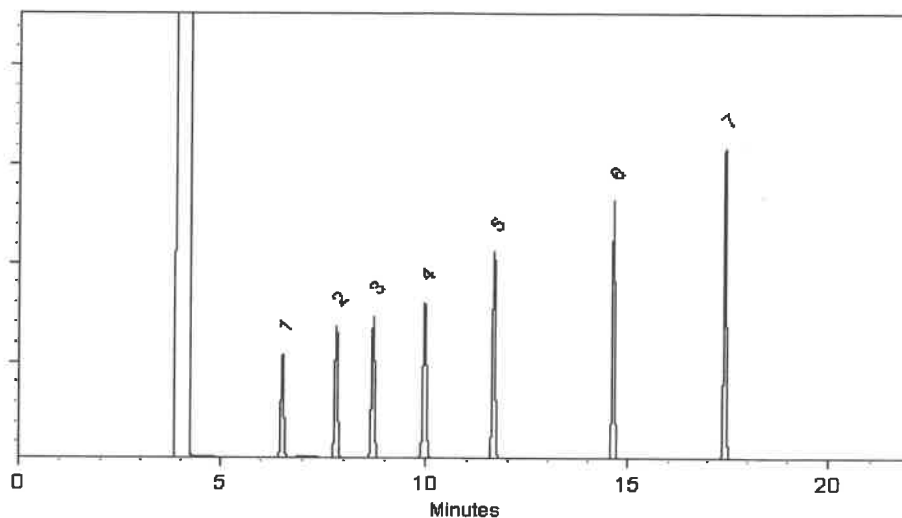
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024

Balance Serial # B707717271

Dillon Murphy
Dillon Murphy - Operations Technician I

Date Passed: 01-Apr-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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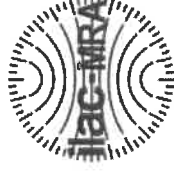
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 555581 **Lot No.:** A0210184

Description: Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size: 2 mL **Pkg Amt:** > 1 mL

Expiration Date: April 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	25,212.0 µg/mL	+/- 1,427.8857
2	1,4-Difluorobenzene	540-36-3	MKCS8657	99%	25,220.0 µg/mL	+/- 1,428.3388
3	Chlorobenzene-d5	3114-55-4	PR-31132	99%	25,116.0 µg/mL	+/- 1,422.4487
4	Pentafluorobenzene	363-72-4	MKCR9383	99%	25,180.0 µg/mL	+/- 1,426.0734

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 11-Apr-2024

Balance: 11275.10105



Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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Dec 12/17/24
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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

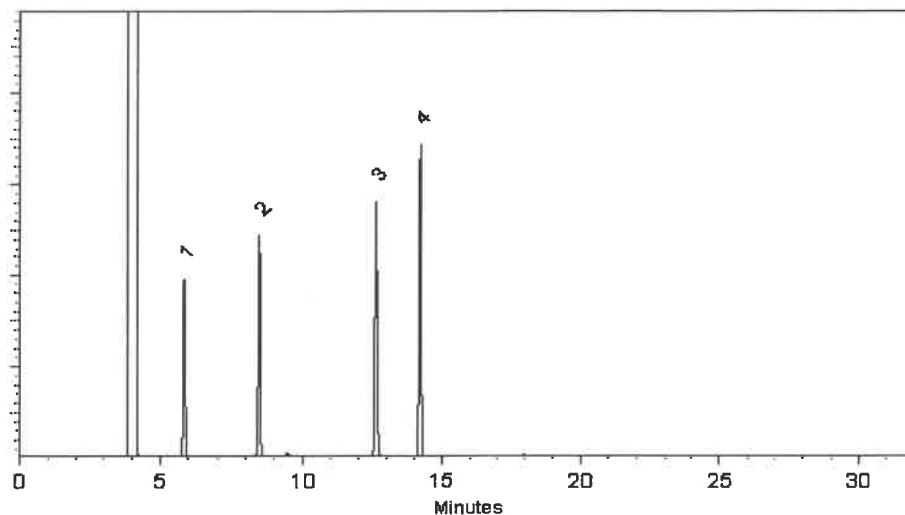
FID

Split Vent:

40 ml/min

Inj. Vol

1µl

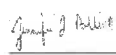


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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Fax: 1-814-353-1309

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0210618
Description : VOA Calibration Mix #1
VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : July 31, 2027 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

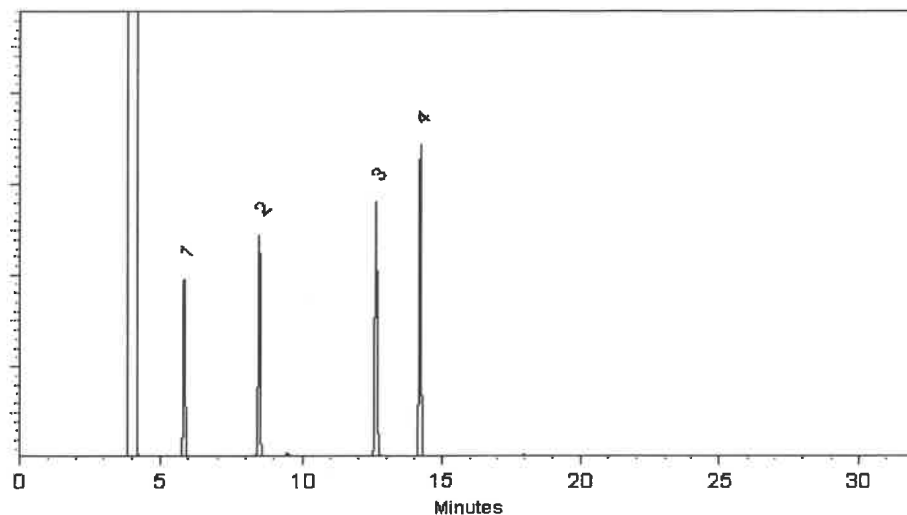
FID

Split Vent:

40 ml/min

Inj. Vol

1µl

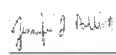


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

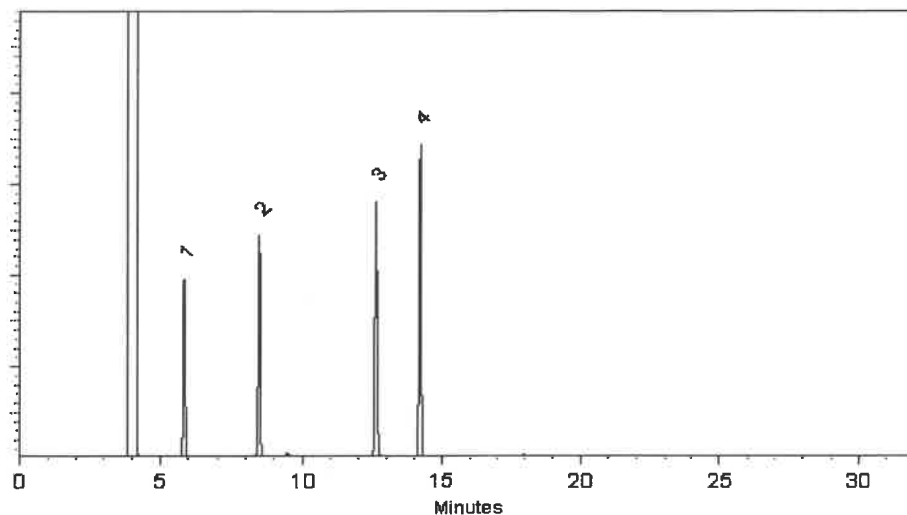
FID

Split Vent:

40 ml/min

Inj. Vol

1µl

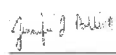


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0216826
Description : 502.2 Calibration Mix #1
502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2031 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:

helium-constant flow 2.0 mL/min.

Temp. Program:

40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

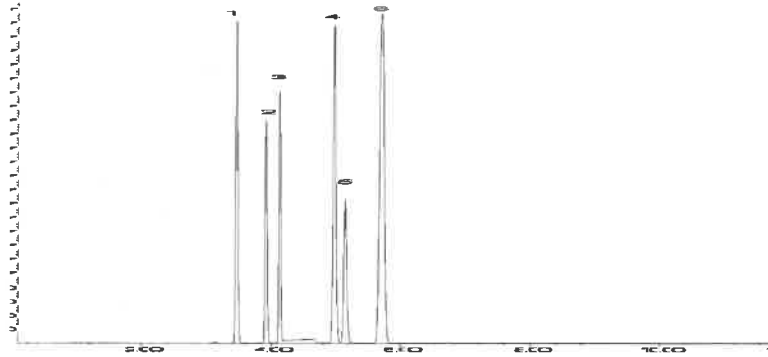
MSD

Split Vent:

Split ratio 10:1

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician

Date Mixed: 23-Sep-2024

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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30 ml
Certificate of Analysis
chromatographic plus

V14727 to
V14756



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0216826
Description : 502.2 Calibration Mix #1
502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2031 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:

helium-constant flow 2.0 mL/min.

Temp. Program:

40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

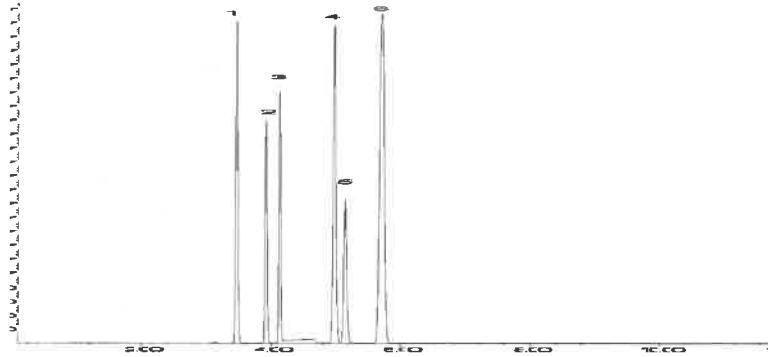
MSD

Split Vent:

Split ratio 10:1

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician

Date Mixed: 23-Sep-2024

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0217535
Description : tert-Butanol Standard
tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : October 31, 2027 **Storage:** 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	tert-Butanol (TBA)	75-65-0	SHBQ8002-1	99%	50,007.5 µg/mL	+/- 717.6137

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

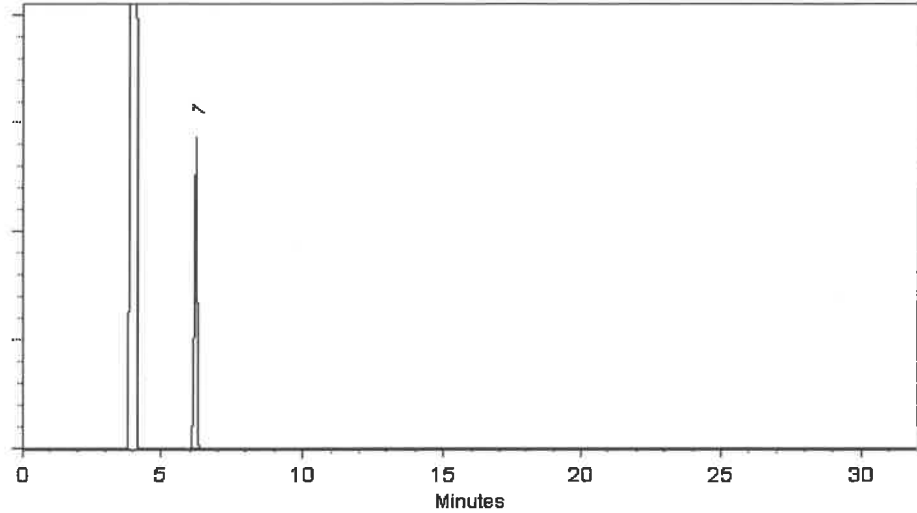
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

A. O. E.
Aaron Enyart - Operations Tech I

Date Mixed: 07-Oct-2024

Balance Serial # B251644995

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 09-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
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Certified Uncertainty Value Notes:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

2014 Dec 01/08/21
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0220471
Description : Custom Vinyl Acetate Standard
Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : June 30, 2026 **Storage:** -20°C or colder
Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

200°C

Det. Temp:

250°C

Det. Type:

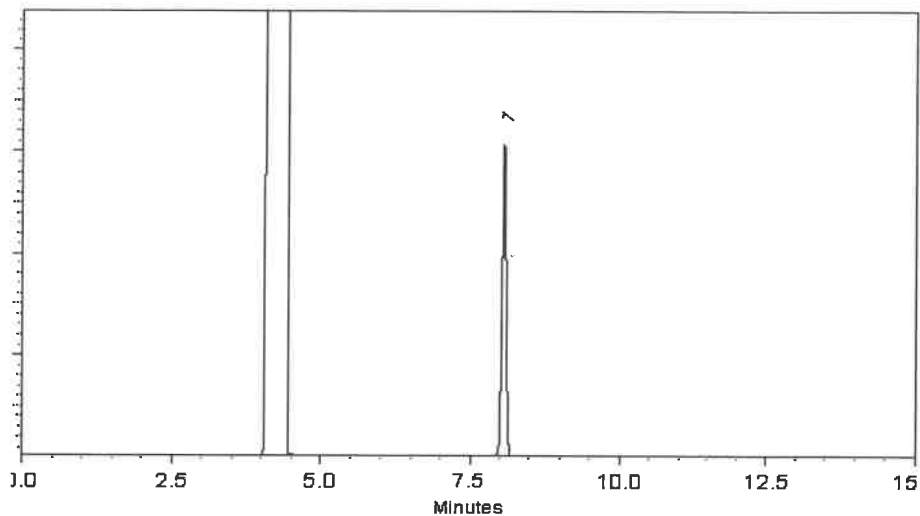
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024

Balance Serial # 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED
By Jennifer Pollock at 7:12 am, Jan 05, 2025

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Det. Type:

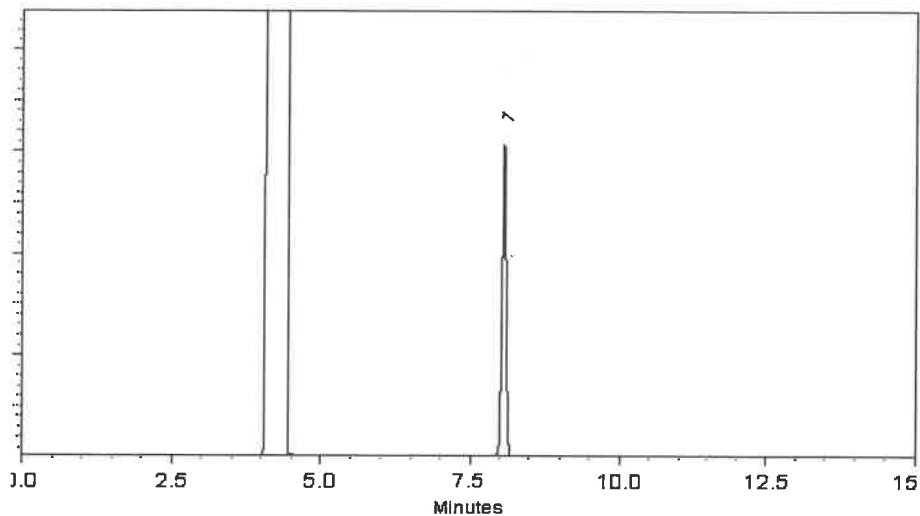
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Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



V14883
V14884

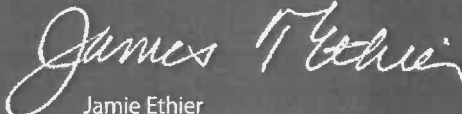
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Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087, U.S.A. Phone 610.386.1700
Page 1 of 1



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: LKB, INC.
ADDRESS: 1 AERIAL WAY
CITY: SYOSSET STATE: NY ZIP: 11791
ATTENTION: JOHN GERLACH
PHONE: 516-210-8931 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: ANSONIA LANDFILL
PROJECT NO.: 0774-08 LOCATION: CT
PROJECT MANAGER: JOHN GERLACH
e-mail: jgerlach@LKBINC.COM
PHONE: SAME FAX:

CLIENT BILLING INFORMATION

BILL TO: LKB, INC. PO#: NA for Lab
ADDRESS: SAME
CITY: STATE: ZIP:
ATTENTION: SHARON F PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): STD. DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☒ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other _____
☒ EDD FORMAT NYSDEC

1 2 3 4 5 6 7 8 9

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		A/E	E + OTHERS AS APPROPRIATE								← Specify Preservatives
									1	2	3	4	5	6	7	8	9
1.	MW-1	GW		X	4/9/25	10:15	10		X								} SAMPLE FOR DISS. Fe + Mn FILTERED IN FIELD
2.	MW-2	GW		X	4/9/25	13:10	10		X								
3.	MW-3	GW		X		11:30	10		X								
4.	MW-4	GW		X		12:10	8		X								
5.	TRIP BLANK	DI		X	↓		2	X									
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME: <u>4/10/25 8:52</u>	RECEIVED BY: <u>1303</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>3.8</u> °C
1. <u>[Signature]</u>		<u>4-10-25</u>	Comments: <u>Temp 3.8°C CADjustment Factor +1.0 IIR Gun #1</u>
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	<u>PH 1.3 Lot # 80A0441.</u>
2. <u>[Signature]</u>			
RELINQUISHED BY SAMPLER:	DATE/TIME: <u>4-10-25</u>	RECEIVED BY:	
3. <u>[Signature]</u>			

Page ____ of ____

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete

☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1782	LOCK01	Order Date : 4/10/2025 1:22:00 PM	Project Mgr : Kiran
Client Name : Lockwood, Kessler & Bartl		Project Name : Ansonia Landfill 2025	Report Type : NYS ASPB Level 2
Client Contact : John Gerlach		Receive Date/Time : 4/10/2025 5:58:00 PM	EDD Type : EXCEL NOCLEANUP
Invoice Name : Lockwood, Kessler & Bartl		Purchase Order :	Hard Copy Date :
Invoice Contact : John Gerlach			Date Signoff : 4/11/2025 10:21:31 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1782-01	MW-1	Water	04/09/2025	10:15					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1782-03	MW-2	Water	04/09/2025	13:10					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1782-05	MW-3	Water	04/09/2025	11:30					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1782-09	TRIP BLANK	Water	04/09/2025	12:10					
					VOCMS Group1		8260-Low	10 Bus. Days	

Relinquished By:

Date / Time : 4-11-25 10:33

Received By:

Date / Time : 4-11-25 10:33

Storage Area : VOA Refridgerator Room