

Cover Page

Order ID : P5382

Project ID : Comegys School

Client : Kleinfelder

Lab Sample Number

P5382-01
P5382-02
P5382-03
P5382-04
P5382-05
P5382-06
P5382-07
P5382-08
P5382-09
P5382-10
P5382-11
P5382-12
P5382-13
P5382-14
P5382-15

Client Sample Number

COMP-1
COMP-2
COMP-3
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-9
SB-10
SB-11
SB-12

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 12/30/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P5382

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: KETAN PATEL

Date: 12/30/2024

LAB CHRONICLE

OrderID: P5382
Client: Kleinfelder
Contact: Mark Warchol

OrderDate: 12/23/2024 11:39:00 AM
Project: Comegys School
Location: N31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5382-01	COMP-1	SOIL	VOCMS Group1	8260D	12/20/24		12/26/24	12/23/24
P5382-02	COMP-2	SOIL	VOCMS Group1	8260D	12/20/24		12/27/24	12/23/24
P5382-03	COMP-3	SOIL	VOCMS Group1	8260D	12/20/24		12/27/24	12/23/24



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Hit Summary Sheet
SW-846

SDG No.: P5382

Client: Kleinfelder

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
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Client ID:

0

Total Voc :

Total Concentration:



QC SUMMARY

Surrogate Summary

SDG No.: **P5382**

Client: **Kleinfelder**

Analytical Method: **SW8260D**

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P5382-01	COMP-1	1,2-Dichloroethane-d4	50	65.6	131	50	163
		Dibromofluoromethane	50	58.3	117	54	147
		Toluene-d8	50	53.0	106	58	134
		4-Bromofluorobenzene	50	50.7	101	29	146
P5382-02	COMP-2	1,2-Dichloroethane-d4	50	62.4	125	50	163
		Dibromofluoromethane	50	56.8	114	54	147
		Toluene-d8	50	53.0	106	58	134
		4-Bromofluorobenzene	50	44.5	89	29	146
P5382-03	COMP-3	1,2-Dichloroethane-d4	50	61.4	123	50	163
		Dibromofluoromethane	50	57.3	115	54	147
		Toluene-d8	50	52.6	105	58	134
		4-Bromofluorobenzene	50	47.0	94	29	146
VY1226SBL01	VY1226SBL01	1,2-Dichloroethane-d4	50	64.7	129	50	163
		Dibromofluoromethane	50	57.6	115	54	147
		Toluene-d8	50	52.6	105	58	134
		4-Bromofluorobenzene	50	51.0	102	29	146
VY1226SBS01	VY1226SBS01	1,2-Dichloroethane-d4	50	55.0	110	50	163
		Dibromofluoromethane	50	52.1	104	54	147
		Toluene-d8	50	50.6	101	58	134
		4-Bromofluorobenzene	50	51.8	104	29	146
VY1227SBL01	VY1227SBL01	1,2-Dichloroethane-d4	50	63.5	127	50	163
		Dibromofluoromethane	50	57.1	114	54	147
		Toluene-d8	50	53.3	107	58	134
		4-Bromofluorobenzene	50	48.3	97	29	146
VY1227SBS01	VY1227SBS01	1,2-Dichloroethane-d4	50	54.8	110	50	163
		Dibromofluoromethane	50	54.3	109	54	147
		Toluene-d8	50	52.6	105	58	134
		4-Bromofluorobenzene	50	53.1	106	29	146
VY1227SBSD01	VY1227SBSD01	1,2-Dichloroethane-d4	50	55.9	112	50	163
		Dibromofluoromethane	50	53.6	107	54	147
		Toluene-d8	50	52.8	105	58	134
		4-Bromofluorobenzene	50	53.2	106	29	146

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5382

Client: Kleinfelder

Analytical Method: SW8260D

Datafile : VY020715.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY1226SBS01	cis-1,2-Dichloroethene	20	19.3	ug/Kg	97			82	123	
	1,1,1-Trichloroethane	20	19.4	ug/Kg	97			80	126	
	Benzene	20	20.0	ug/Kg	100			84	121	
	Trichloroethene	20	19.4	ug/Kg	97			83	122	
	Toluene	20	20.3	ug/Kg	102			83	122	
	Ethyl Benzene	20	20.2	ug/Kg	101			82	124	
	m/p-Xylenes	40	41.6	ug/Kg	104			83	124	
	o-Xylene	20	20.7	ug/Kg	104			83	123	
	Isopropylbenzene	20	19.8	ug/Kg	99			82	124	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5382

Client: Kleinfelder

Analytical Method: SW8260D

Datafile : VY020732.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY1227SBS01	cis-1,2-Dichloroethene	20	20.4	ug/Kg	102			82	123	
	1,1,1-Trichloroethane	20	19.3	ug/Kg	97			80	126	
	Benzene	20	20.7	ug/Kg	104			84	121	
	Trichloroethene	20	19.9	ug/Kg	100			83	122	
	Toluene	20	20.4	ug/Kg	102			83	122	
	Ethyl Benzene	20	20.7	ug/Kg	104			82	124	
	m/p-Xylenes	40	41.9	ug/Kg	105			83	124	
	o-Xylene	20	20.6	ug/Kg	103			83	123	
	Isopropylbenzene	20	20.2	ug/Kg	101			82	124	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5382

Client: Kleinfelder

Analytical Method: SW8260D

Datafile : VY020733.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY1227SBSD01	cis-1,2-Dichloroethene	20	21.4	ug/Kg	107	5		82	123	20
	1,1,1-Trichloroethane	20	20.7	ug/Kg	104	7		80	126	20
	Benzene	20	21.2	ug/Kg	106	2		84	121	20
	Trichloroethene	20	20.6	ug/Kg	103	3		83	122	20
	Toluene	20	21.1	ug/Kg	106	4		83	122	20
	Ethyl Benzene	20	21.1	ug/Kg	106	2		82	124	20
	m/p-Xylenes	40	42.4	ug/Kg	106	1		83	124	20
	o-Xylene	20	21.0	ug/Kg	105	2		83	123	20
	Isopropylbenzene	20	21.2	ug/Kg	106	5		82	124	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY1226SBL01

Lab Name: CHEMTECH

Contract: POWE02

Lab Code: CHEM Case No.: P5382

SAS No.: P5382 SDG NO.: P5382

Lab File ID: VY020714.D

Lab Sample ID: VY1226SBL01

Date Analyzed: 12/26/2024

Time Analyzed: 13:56

GC Column: RXI-624 ID: 0.25 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY1226SBS01	VY1226SBS01	VY020715.D	12/26/2024
COMP-1	P5382-01	VY020727.D	12/26/2024

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY1227SBL01

Lab Name: CHEMTECH

Contract: POWE02

Lab Code: CHEM Case No.: P5382

SAS No.: P5382 SDG NO.: P5382

Lab File ID: VY020731.D

Lab Sample ID: VY1227SBL01

Date Analyzed: 12/27/2024

Time Analyzed: 11:24

GC Column: RXI-624 ID: 0.25 (mm)

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY1227SBS01	VY1227SBS01	VY020732.D	12/27/2024
VY1227SBSD01	VY1227SBSD01	VY020733.D	12/27/2024
COMP-2	P5382-02	VY020734.D	12/27/2024
COMP-3	P5382-03	VY020735.D	12/27/2024

COMMENTS: _____



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: POWE02
Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG NO.: P5382
Lab File ID: VY020705.D BFB Injection Date: 12/26/2024
Instrument ID: MSVOA_Y BFB Injection Time: 08:29
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.9
75	30.0 - 60.0% of mass 95	56.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	88.9
175	5.0 - 9.0% of mass 174	4.7 (5.3) 1
176	95.0 - 101.0% of mass 174	85.2 (95.8) 1
177	5.0 - 9.0% of mass 176	6 (7) 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
VSTDIC005	VSTDIC005	VY020706.D	12/26/2024	09:31
VSTDIC010	VSTDIC010	VY020707.D	12/26/2024	09:53
VSTDIC020	VSTDIC020	VY020708.D	12/26/2024	10:16
VSTDIC050	VSTDIC050	VY020709.D	12/26/2024	10:39
VSTDIC150	VSTDIC150	VY020710.D	12/26/2024	11:01
VSTDIC100	VSTDIC100	VY020711.D	12/26/2024	11:51
VY1226SBL01	VY1226SBL01	VY020714.D	12/26/2024	13:56
VY1226SBS01	VY1226SBS01	VY020715.D	12/26/2024	14:32
COMP-1	P5382-01	VY020727.D	12/26/2024	19:12



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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: POWE02
Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG NO.: P5382
Lab File ID: VY020729.D BFB Injection Date: 12/27/2024
Instrument ID: MSVOA_Y BFB Injection Time: 09:05
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	54.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	93.8
175	5.0 - 9.0% of mass 174	8 (8.5) 1
176	95.0 - 101.0% of mass 174	90.5 (96.5) 1
177	5.0 - 9.0% of mass 176	6.1 (6.7) 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	VY020730.D	12/27/2024	10:20
VY1227SBL01	VY1227SBL01	VY020731.D	12/27/2024	11:24
VY1227SBS01	VY1227SBS01	VY020732.D	12/27/2024	12:03
VY1227SBSD01	VY1227SBSD01	VY020733.D	12/27/2024	12:26
COMP-2	P5382-02	VY020734.D	12/27/2024	12:55
COMP-3	P5382-03	VY020735.D	12/27/2024	13:18

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: POWE02
Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG NO.: P5382
Lab File ID: VY020709.D Date Analyzed: 12/26/2024
Instrument ID: MSVOA_Y Time Analyzed: 10:39
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	95919	7.72	134605	8.62	116249	11.42
UPPER LIMIT	191838	8.22	269210	9.122	232498	11.92
LOWER LIMIT	47959.5	7.22	67302.5	8.122	58124.5	10.92
EPA SAMPLE NO.						
COMP-1	97104	7.71	158398	8.62	137952	11.42
VY1226SBL01	99549	7.72	157271	8.62	133794	11.42
VY1226SBS01	120044	7.72	165739	8.62	139363	11.42

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: POWE02
 Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG NO.: P5382
 Lab File ID: VY020709.D Date Analyzed: 12/26/2024
 Instrument ID: MSVOA_Y Time Analyzed: 10:39
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	60351	13.353				
UPPER LIMIT	120702	13.853				
LOWER LIMIT	30175.5	12.853				
EPA SAMPLE NO.						
COMP-1	58207	13.35				
VY1226SBL01	56315	13.35				
VY1226SBS01	74040	13.35				

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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: POWE02
Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG NO.: P5382
Lab File ID: VY020730.D Date Analyzed: 12/27/2024
Instrument ID: MSVOA_Y Time Analyzed: 10:20
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	133845	7.72	187374	8.63	158006	11.43
UPPER LIMIT	267690	8.219	374748	9.128	316012	11.926
LOWER LIMIT	66922.5	7.219	93687	8.128	79003	10.926
EPA SAMPLE NO.						
COMP-2	91285	7.71	150432	8.62	125625	11.42
COMP-3	107608	7.71	174360	8.62	145577	11.42
VY1227SBL01	112620	7.72	180909	8.62	153112	11.42
VY1227SBS01	136570	7.72	194898	8.62	164208	11.43
VY1227SBSD01	129413	7.72	186352	8.62	158160	11.42

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: POWE02
 Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG NO.: P5382
 Lab File ID: VY020730.D Date Analyzed: 12/27/2024
 Instrument ID: MSVOA_Y Time Analyzed: 10:20
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	79722	13.358				
UPPER LIMIT	159444	13.858				
LOWER LIMIT	39861	12.858				
EPA SAMPLE NO.						
COMP-2	45053	13.35				
COMP-3	55916	13.35				
VY1227SBL01	62475	13.35				
VY1227SBS01	85032	13.36				
VY1227SBSD01	79149	13.35				

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:	Kleinfelder	Date Collected:	12/20/24
Project:	Comegys School	Date Received:	12/23/24
Client Sample ID:	COMP-1	SDG No.:	P5382
Lab Sample ID:	P5382-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	82.8
Sample Wt/Vol:	5.39 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020727.D	1		12/26/24 19:12	VY122624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	0.68	U	0.68	5.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.87	U	0.87	5.60	ug/Kg
71-43-2	Benzene	0.81	U	0.81	5.60	ug/Kg
79-01-6	Trichloroethene	0.84	U	0.84	5.60	ug/Kg
108-88-3	Toluene	0.75	U	0.75	5.60	ug/Kg
100-41-4	Ethyl Benzene	0.69	U	0.69	5.60	ug/Kg
1330-20-7	Total Xylenes	2.28	U	2.28	16.8	ug/Kg
98-82-8	Isopropylbenzene	0.75	U	0.75	5.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	65.6		50 - 163	131%	SPK: 50
1868-53-7	Dibromofluoromethane	58.3		54 - 147	117%	SPK: 50
2037-26-5	Toluene-d8	53.0		58 - 134	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.7		29 - 146	101%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	97100	7.713			
540-36-3	1,4-Difluorobenzene	158000	8.615			
3114-55-4	Chlorobenzene-d5	138000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	58200	13.352			

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_Y\Data\VY122624\
 Data File : VY020727.D
 Acq On : 26 Dec 2024 19:12
 Operator : SY/MD
 Sample : P5382-01
 Misc : 5.39g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 25 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 COMP-1

Quant Time: Dec 27 00:37:07 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

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

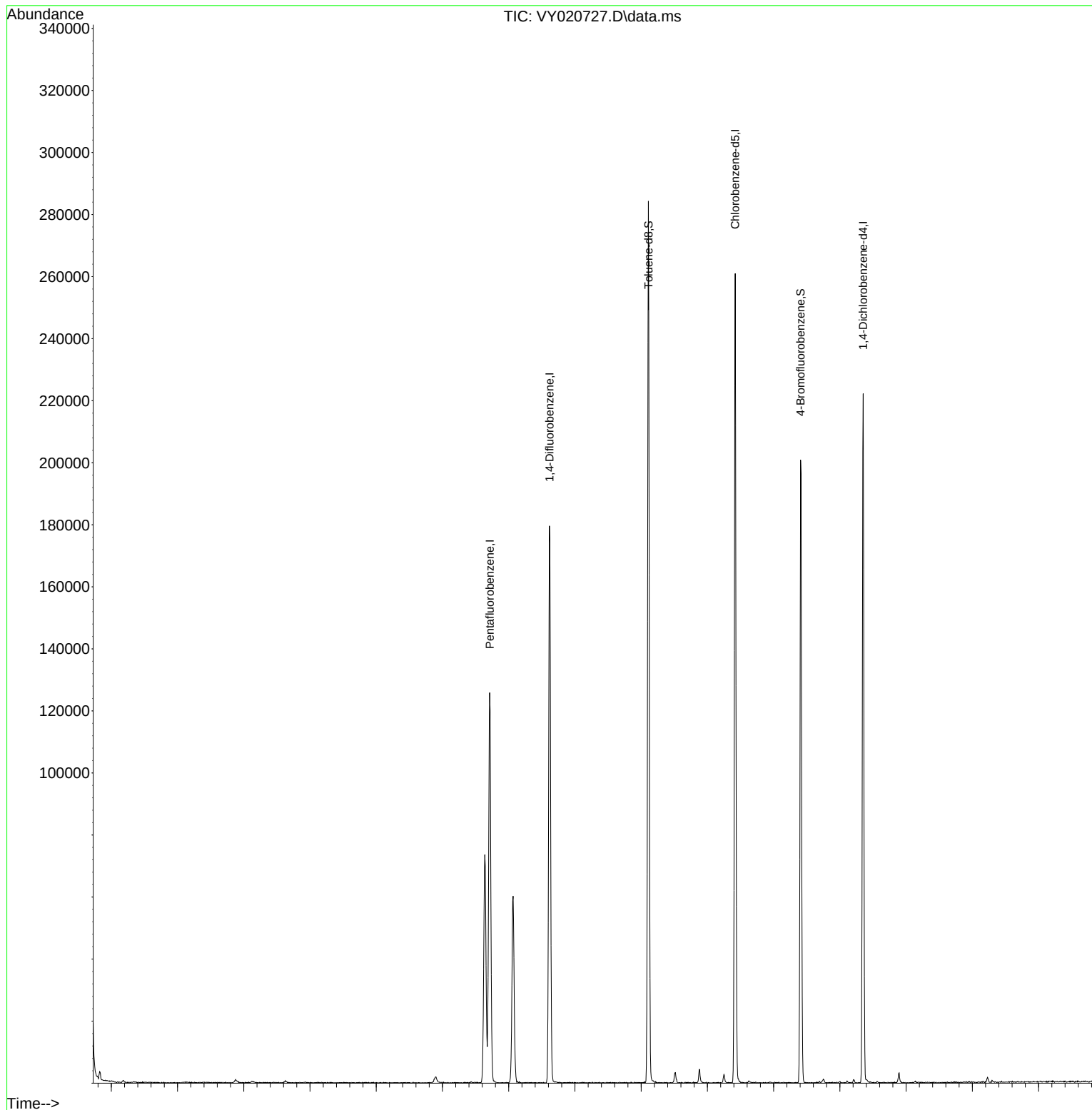
Internal Standards						
1) Pentafluorobenzene	7.713	168	97104	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	8.615	114	158398	50.000	ug/l	-0.01
63) Chlorobenzene-d5	11.420	117	137952	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.352	152	58207	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	52177	65.601	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	131.200%
35) Dibromofluoromethane	7.640	113	50831	58.260	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	116.520%
50) Toluene-d8	10.109	98	184287	53.009	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	106.020%
62) 4-Bromofluorobenzene	12.407	95	58794	50.707	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	101.420%
Target Compounds						
16) Acetone	3.878	43	1591	15.768	ug/l	Qvalue # 55

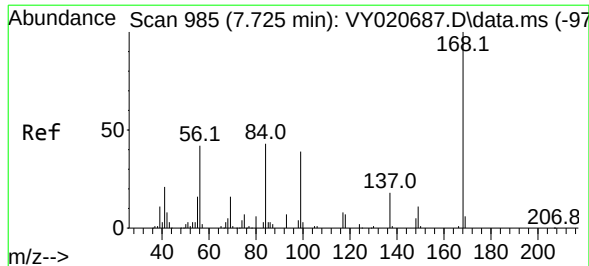
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020727.D
Acq On : 26 Dec 2024 19:12
Operator : SY/MD
Sample : P5382-01
Misc : 5.39g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
COMP-1

Quant Time: Dec 27 00:37:07 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration

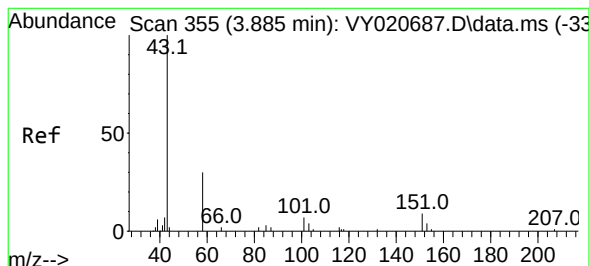
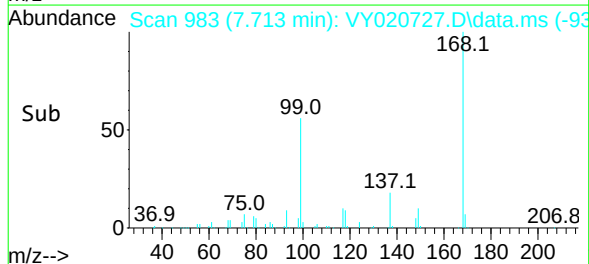
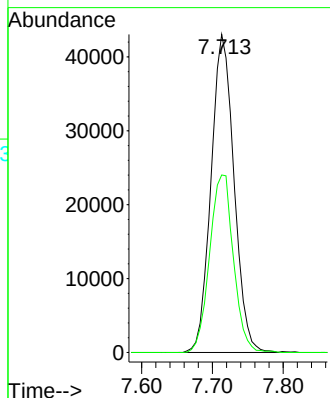
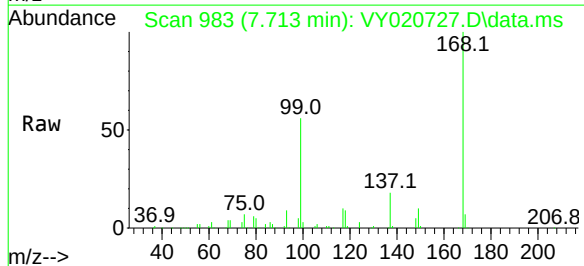




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 98
Delta R.T. -0.012 min
Lab File: VY020727.D
Acq: 26 Dec 2024 19:12

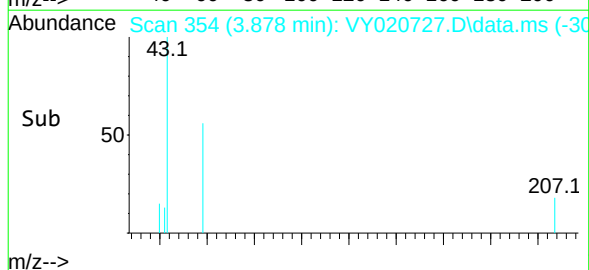
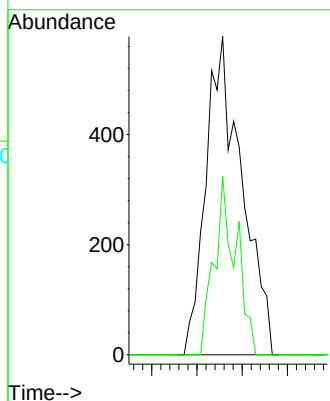
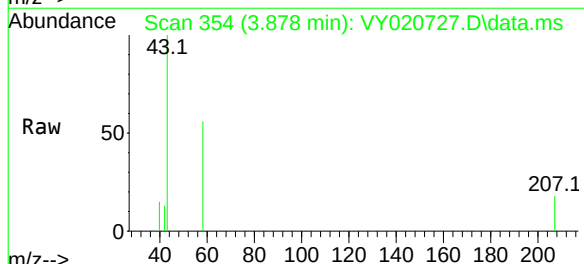
Instrument :
MSVOA_Y
ClientSampleId :
COMP-1

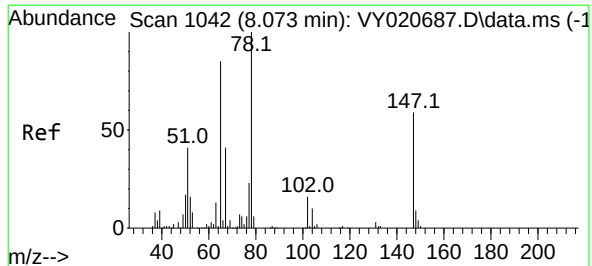
Tgt Ion: 168 Resp: 97104
Ion Ratio Lower Upper
168 100
99 55.8 43.8 65.6



#16
Acetone
Concen: 15.768 ug/l
RT: 3.878 min Scan# 354
Delta R.T. -0.007 min
Lab File: VY020727.D
Acq: 26 Dec 2024 19:12

Tgt Ion: 43 Resp: 1591
Ion Ratio Lower Upper
43 100
58 56.1 25.0 37.6#

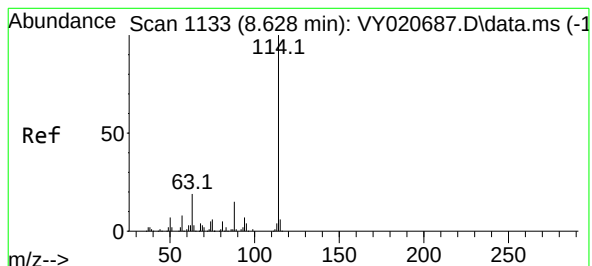
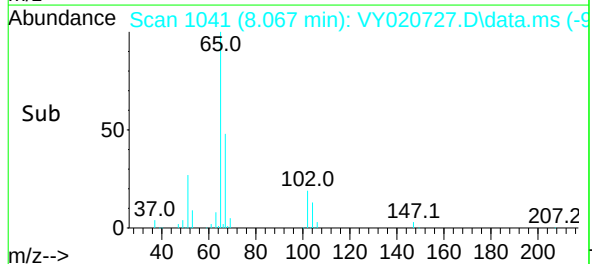
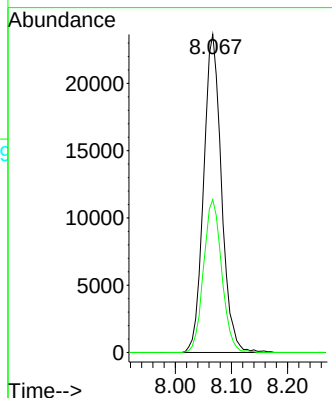
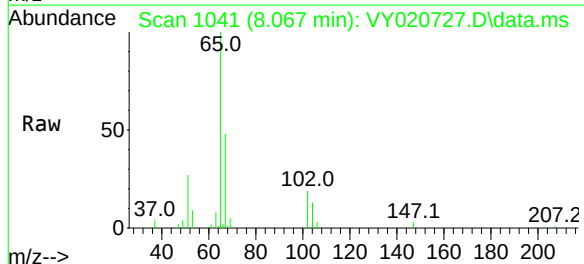




#33
1,2-Dichloroethane-d4
Concen: 65.601 ug/l
RT: 8.067 min Scan# 1042
Delta R.T. -0.006 min
Lab File: VY020727.D
Acq: 26 Dec 2024 19:12

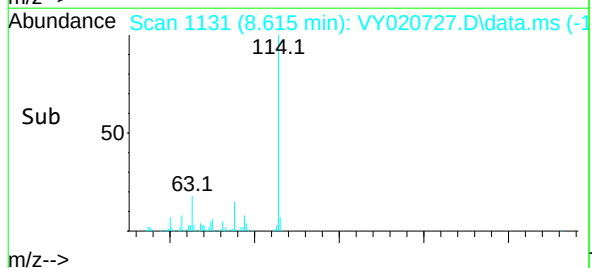
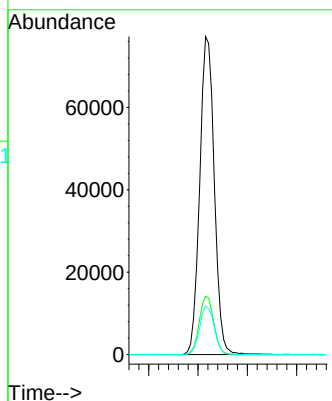
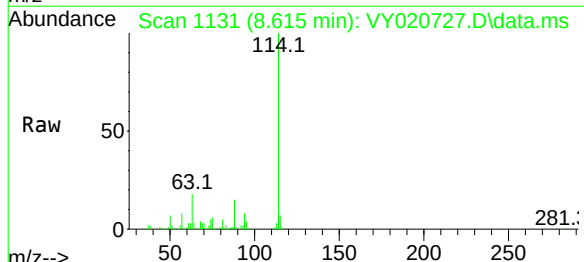
Instrument :
MSVOA_Y
ClientSampleId :
COMP-1

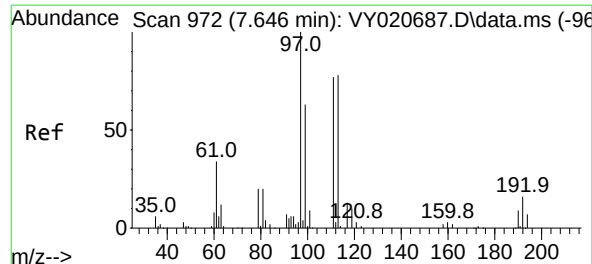
Tgt Ion: 65 Resp: 52177
Ion Ratio Lower Upper
65 100
67 49.0 0.0 98.0



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.615 min Scan# 1131
Delta R.T. -0.013 min
Lab File: VY020727.D
Acq: 26 Dec 2024 19:12

Tgt Ion: 114 Resp: 158398
Ion Ratio Lower Upper
114 100
63 18.3 0.0 38.4
88 15.3 0.0 30.4





#35

Dibromofluoromethane

Concen: 58.260 ug/l

RT: 7.640 min Scan# 97

Delta R.T. -0.006 min

Lab File: VY020727.D

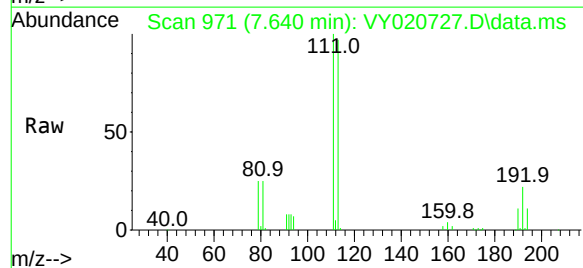
Acq: 26 Dec 2024 19:12

Instrument :

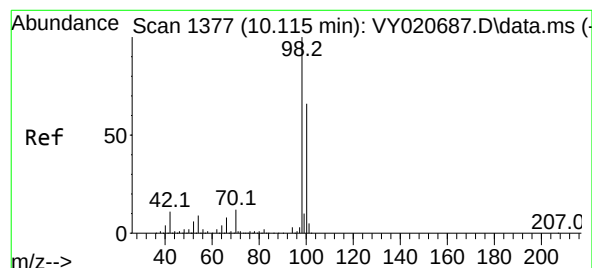
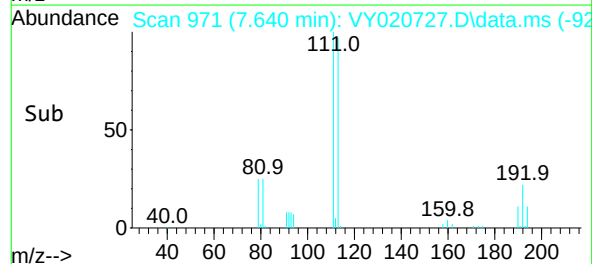
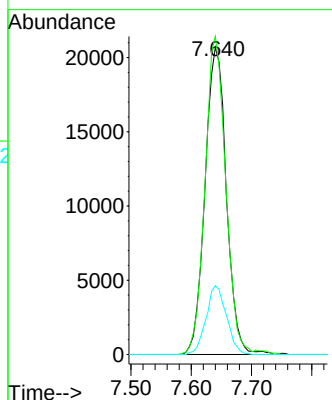
MSVOA_Y

ClientSampleId :

COMP-1



Tgt Ion:	113	Resp:	50831
Ion	Ratio	Lower	Upper
113	100		
111	101.2	79.8	119.8
192	21.4	17.0	25.6



#50

Toluene-d8

Concen: 53.009 ug/l

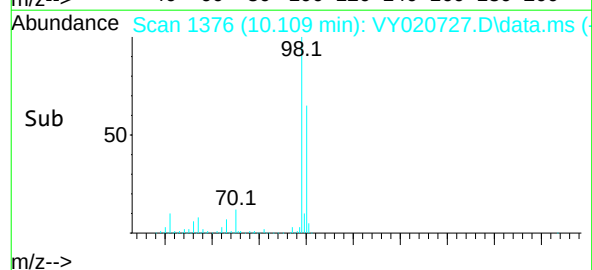
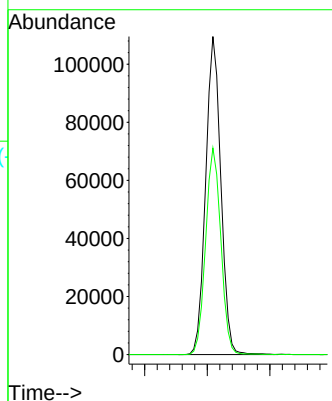
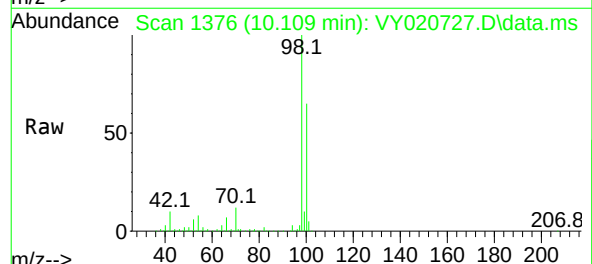
RT: 10.109 min Scan# 1376

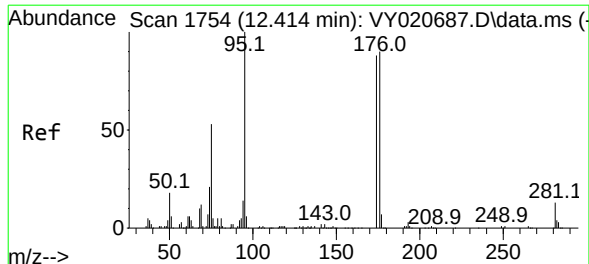
Delta R.T. -0.006 min

Lab File: VY020727.D

Acq: 26 Dec 2024 19:12

Tgt Ion:	98	Resp:	184287
Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.2	78.4





#62

4-Bromofluorobenzene

Concen: 50.707 ug/l

RT: 12.407 min Scan# 1754

Delta R.T. -0.007 min

Lab File: VY020727.D

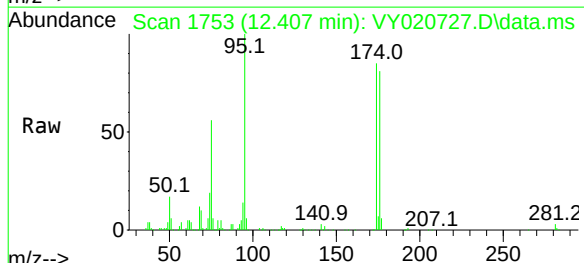
Acq: 26 Dec 2024 19:12

Instrument :

MSVOA_Y

ClientSampleId :

COMP-1



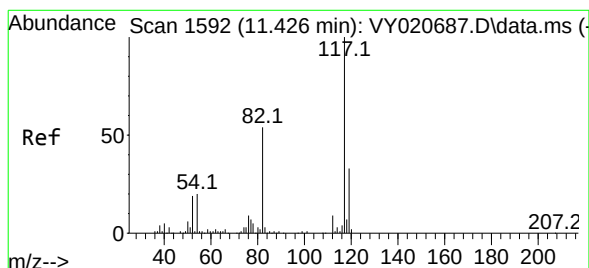
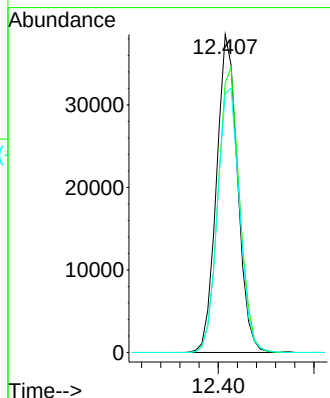
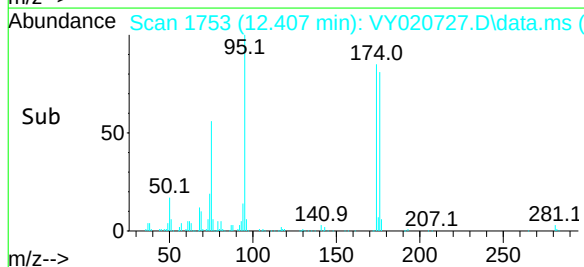
Tgt Ion: 95 Resp: 58794

Ion Ratio Lower Upper

95 100

174 92.0 0.0 179.2

176 87.6 0.0 179.8



#63

Chlorobenzene-d5

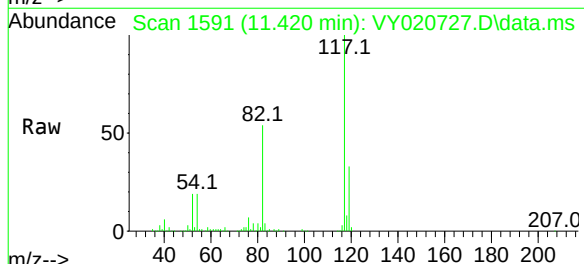
Concen: 50.000 ug/l

RT: 11.420 min Scan# 1591

Delta R.T. -0.006 min

Lab File: VY020727.D

Acq: 26 Dec 2024 19:12



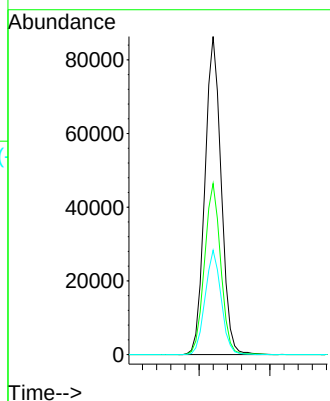
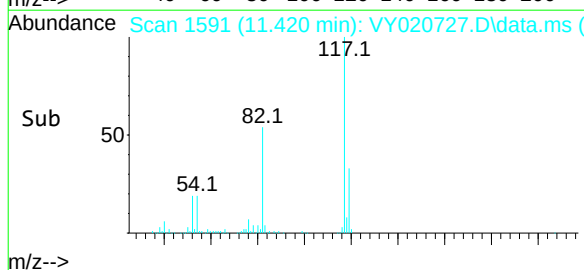
Tgt Ion: 117 Resp: 137952

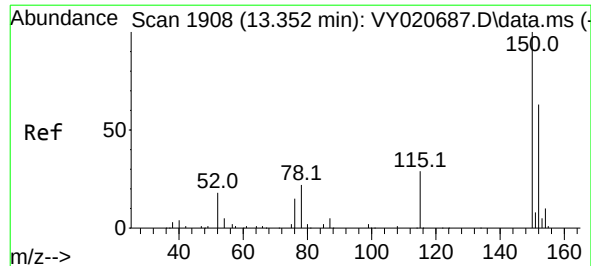
Ion Ratio Lower Upper

117 100

82 53.8 43.4 65.2

119 32.8 26.6 39.8





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.352 min Scan# 19

Delta R.T. 0.000 min

Lab File: VY020727.D

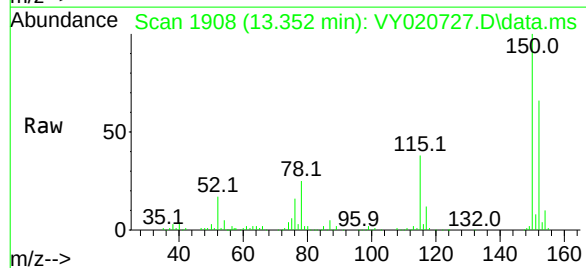
Acq: 26 Dec 2024 19:12

Instrument :

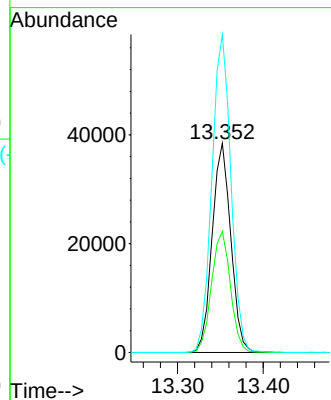
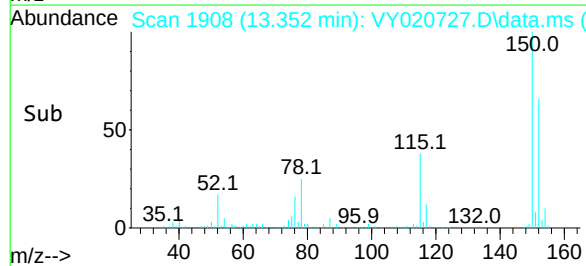
MSVOA_Y

ClientSampleId :

COMP-1



Tgt	Ion:152	Resp:	58207
Ion	Ratio	Lower	Upper
152	100		
115	58.8	30.3	90.9
150	154.7	0.0	349.0



Report of Analysis

Client:	Kleinfelder	Date Collected:	12/20/24
Project:	Comegys School	Date Received:	12/23/24
Client Sample ID:	COMP-2	SDG No.:	P5382
Lab Sample ID:	P5382-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	82.5
Sample Wt/Vol:	5.37	Units:	g
Soil Aliquot Vol:			uL
GC Column:	RXI-624	ID :	0.25
Prep Method :		Level :	LOW
		Final Vol:	5000
		Test:	VOCMS Group1

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020734.D	1		12/27/24 12:55	VY122724

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	0.69	U	0.69	5.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.88	U	0.88	5.60	ug/Kg
71-43-2	Benzene	0.81	U	0.81	5.60	ug/Kg
79-01-6	Trichloroethene	0.85	U	0.85	5.60	ug/Kg
108-88-3	Toluene	0.76	U	0.76	5.60	ug/Kg
100-41-4	Ethyl Benzene	0.70	U	0.70	5.60	ug/Kg
1330-20-7	Total Xylenes	2.29	U	2.29	16.9	ug/Kg
98-82-8	Isopropylbenzene	0.76	U	0.76	5.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	62.4		50 - 163	125%	SPK: 50
1868-53-7	Dibromofluoromethane	56.8		54 - 147	114%	SPK: 50
2037-26-5	Toluene-d8	52.9		58 - 134	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.5		29 - 146	89%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	91300	7.713			
540-36-3	1,4-Difluorobenzene	150000	8.622			
3114-55-4	Chlorobenzene-d5	126000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	45100	13.353			

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_Y\Data\VY122724\
 Data File : VY020734.D
 Acq On : 27 Dec 2024 12:55
 Operator : SY/MD
 Sample : P5382-02
 Misc : 5.37g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 COMP-2

Quant Time: Dec 28 03:02:02 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

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

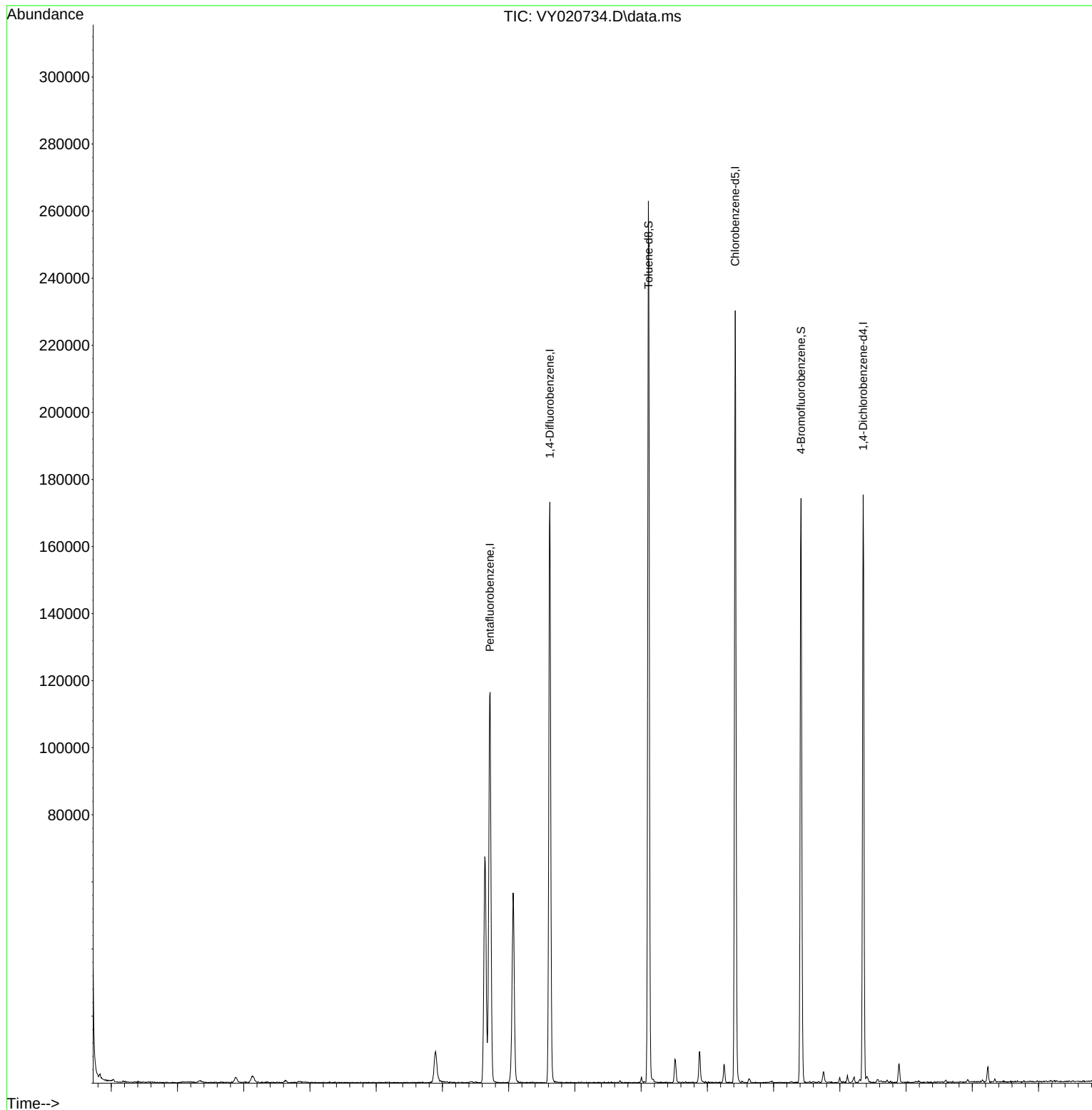
Internal Standards						
1) Pentafluorobenzene	7.713	168	91285	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	8.622	114	150432	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	125625	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	45053	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	46658	62.401	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	124.800%
35) Dibromofluoromethane	7.640	113	47025	56.752	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	113.500%
50) Toluene-d8	10.109	98	174809	52.947	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	105.900%
62) 4-Bromofluorobenzene	12.414	95	49014	44.510	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	89.020%
Target Compounds						
16) Acetone	3.879	43	2888	30.447	ug/l	91
51) 4-Methyl-2-Pentanone	10.006	43	785	2.121	ug/l	92

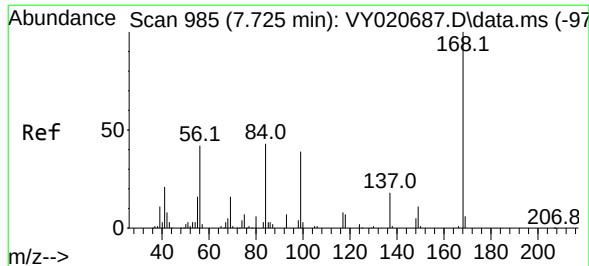
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020734.D
Acq On : 27 Dec 2024 12:55
Operator : SY/MD
Sample : P5382-02
Misc : 5.37g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
COMP-2

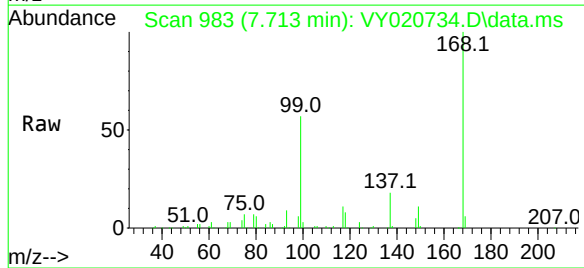
Quant Time: Dec 28 03:02:02 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration



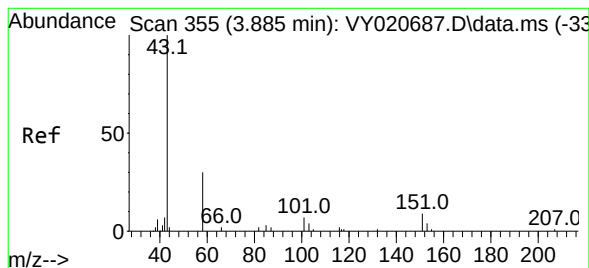
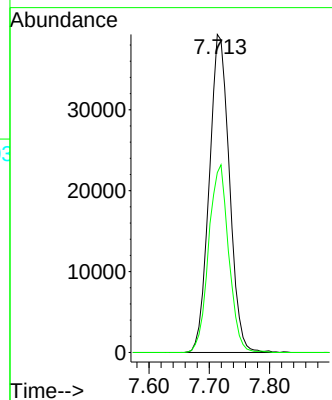
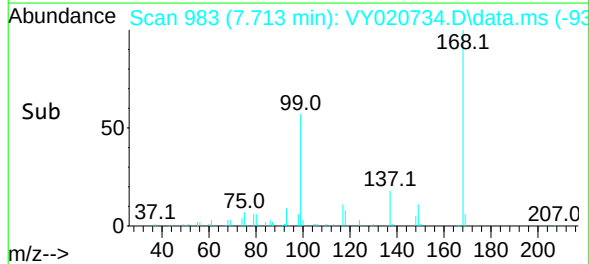


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 98
Delta R.T. -0.012 min
Lab File: VY020734.D
Acq: 27 Dec 2024 12:55

Instrument :
MSVOA_Y
ClientSampleId :
COMP-2

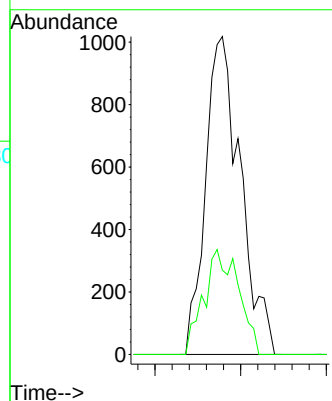
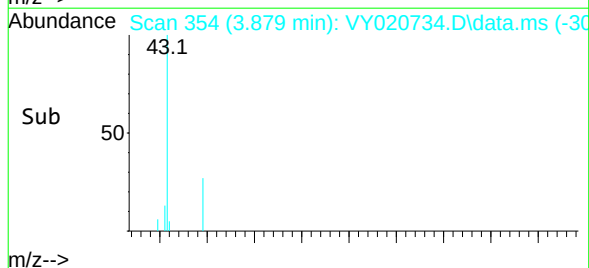
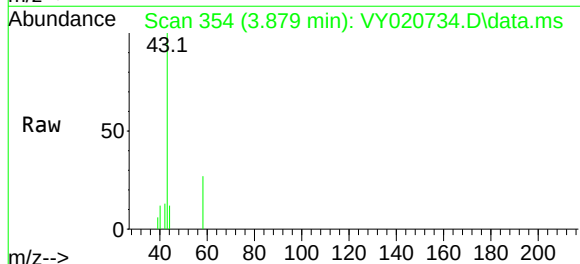


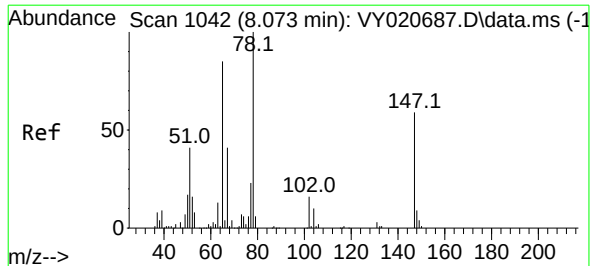
Tgt Ion: 168 Resp: 91285
Ion Ratio Lower Upper
168 100
99 56.6 43.8 65.6



#16
Acetone
Concen: 30.447 ug/l
RT: 3.879 min Scan# 354
Delta R.T. -0.006 min
Lab File: VY020734.D
Acq: 27 Dec 2024 12:55

Tgt Ion: 43 Resp: 2888
Ion Ratio Lower Upper
43 100
58 26.5 25.0 37.6

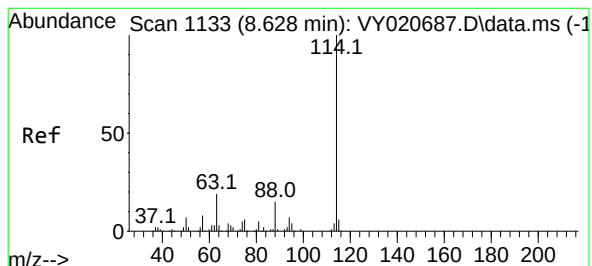
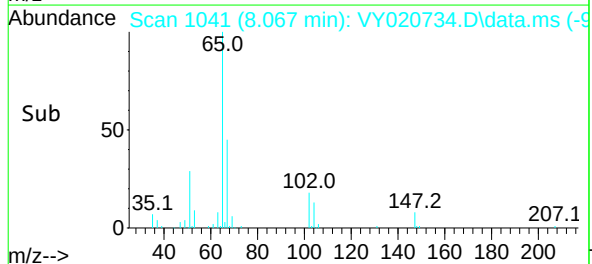
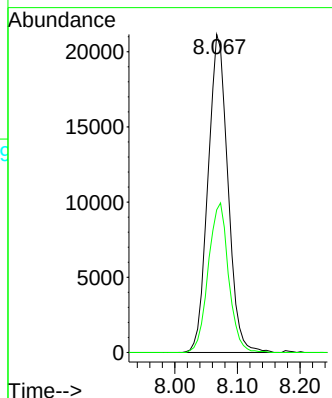
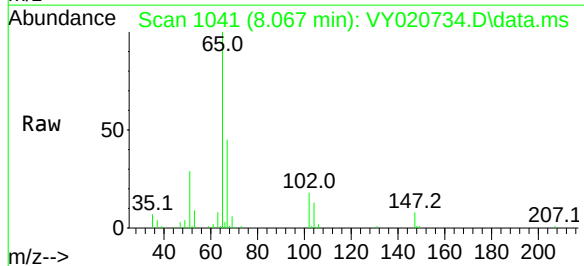




#33
1,2-Dichloroethane-d4
Concen: 62.401 ug/l
RT: 8.067 min Scan# 1041
Delta R.T. -0.006 min
Lab File: VY020734.D
Acq: 27 Dec 2024 12:55

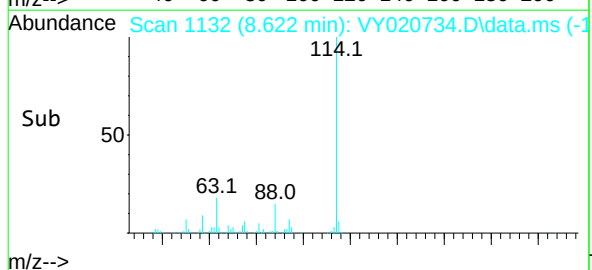
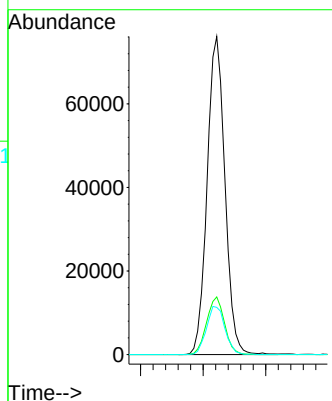
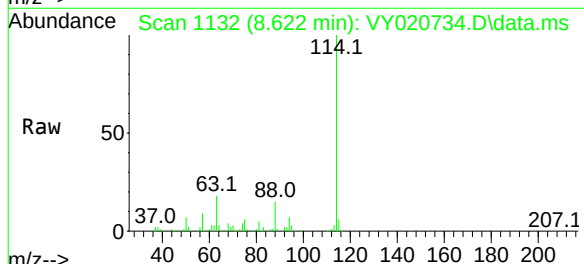
Instrument :
MSVOA_Y
ClientSampleId :
COMP-2

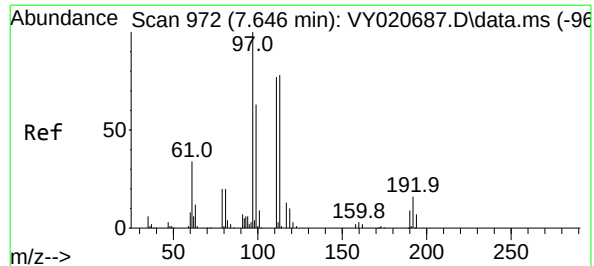
Tgt Ion:	65	Resp:	46658
Ion	Ratio	Lower	Upper
65	100		
67	48.0	0.0	98.0



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.622 min Scan# 1132
Delta R.T. -0.006 min
Lab File: VY020734.D
Acq: 27 Dec 2024 12:55

Tgt Ion:	114	Resp:	150432
Ion	Ratio	Lower	Upper
114	100		
63	18.1	0.0	38.4
88	14.8	0.0	30.4





#35

Dibromofluoromethane

Concen: 56.752 ug/l

RT: 7.640 min Scan# 97

Delta R.T. -0.006 min

Lab File: VY020734.D

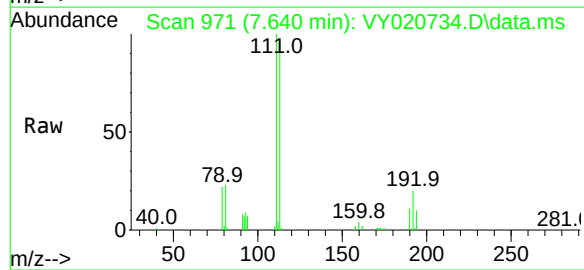
Acq: 27 Dec 2024 12:55

Instrument :

MSVOA_Y

ClientSampleId :

COMP-2



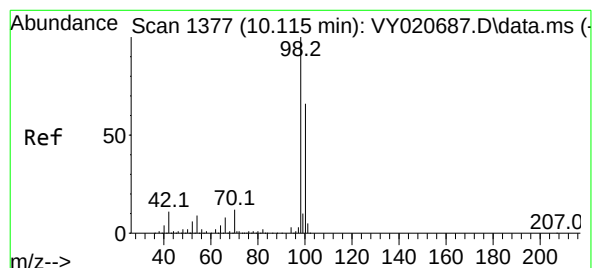
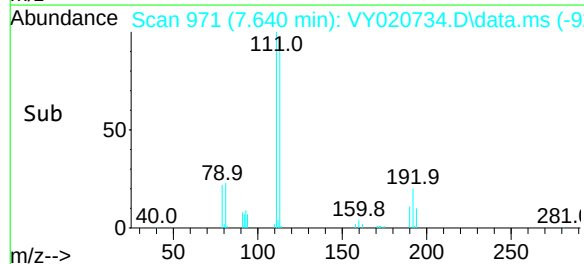
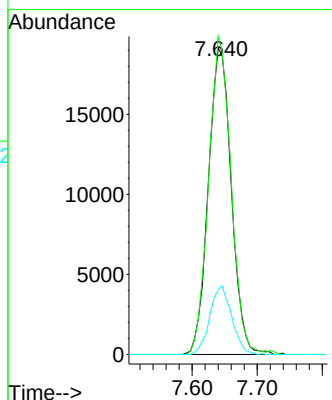
Tgt Ion:113 Resp: 47025

Ion Ratio Lower Upper

113 100

111 100.9 79.8 119.8

192 21.3 17.0 25.6



#50

Toluene-d8

Concen: 52.947 ug/l

RT: 10.109 min Scan# 1376

Delta R.T. -0.006 min

Lab File: VY020734.D

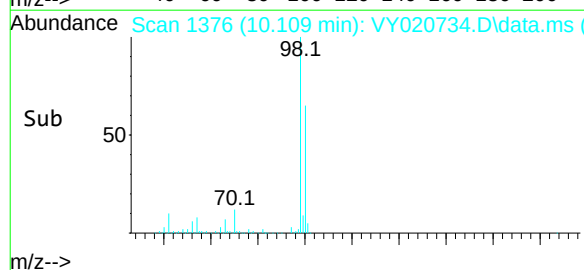
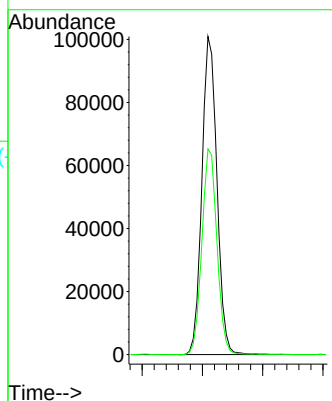
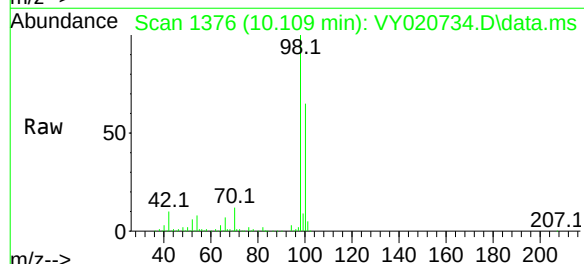
Acq: 27 Dec 2024 12:55

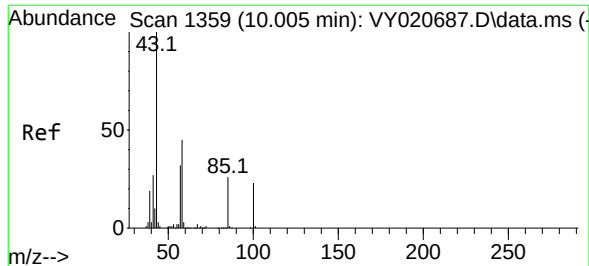
Tgt Ion: 98 Resp: 174809

Ion Ratio Lower Upper

98 100

100 65.0 52.2 78.4





#51

4-Methyl-2-Pentanone

Concen: 2.121 ug/l

RT: 10.006 min Scan# 1359

Delta R.T. 0.001 min

Lab File: VY020734.D

Acq: 27 Dec 2024 12:55

Instrument :

MSVOA_Y

ClientSampleId :

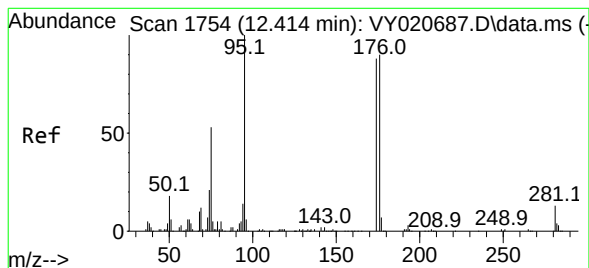
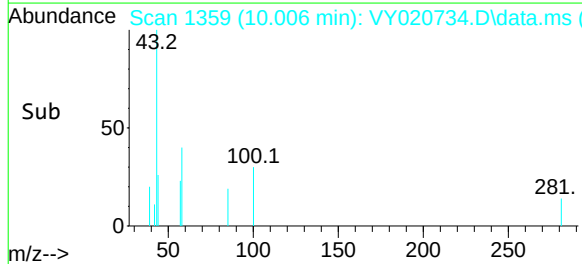
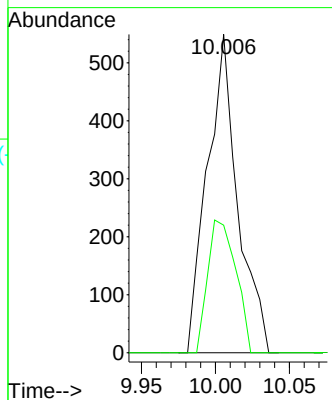
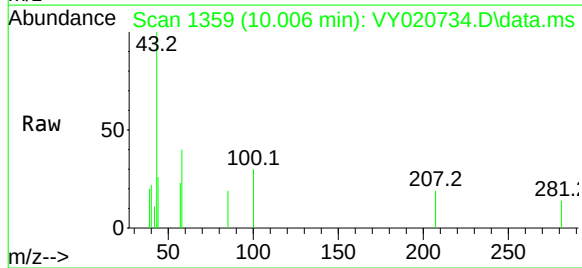
COMP-2

Tgt Ion: 43 Resp: 785

Ion Ratio Lower Upper

43 100

58 38.5 35.1 52.7



#62

4-Bromofluorobenzene

Concen: 44.510 ug/l

RT: 12.414 min Scan# 1754

Delta R.T. -0.000 min

Lab File: VY020734.D

Acq: 27 Dec 2024 12:55

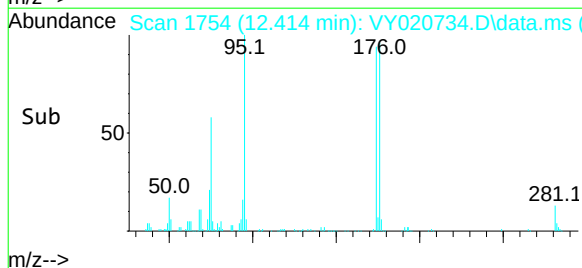
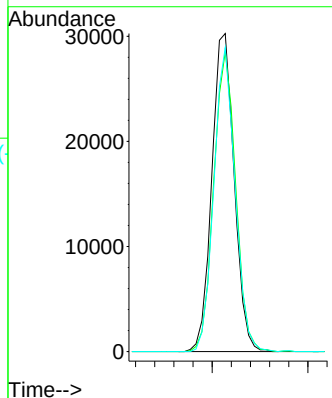
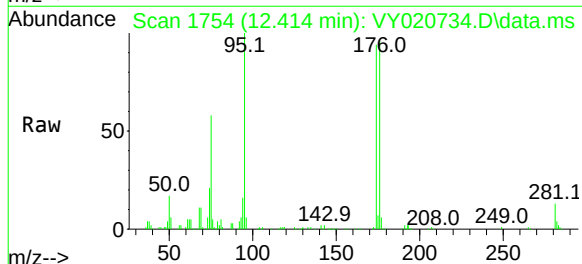
Tgt Ion: 95 Resp: 49014

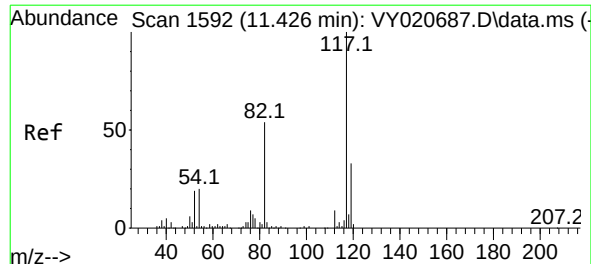
Ion Ratio Lower Upper

95 100

174 92.5 0.0 179.2

176 90.7 0.0 179.8





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1592

Delta R.T. -0.006 min

Lab File: VY020734.D

Acq: 27 Dec 2024 12:55

Instrument :

MSVOA_Y

ClientSampleId :

COMP-2

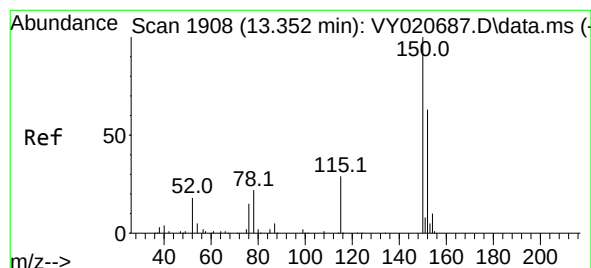
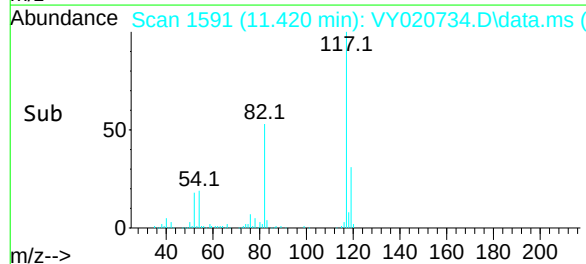
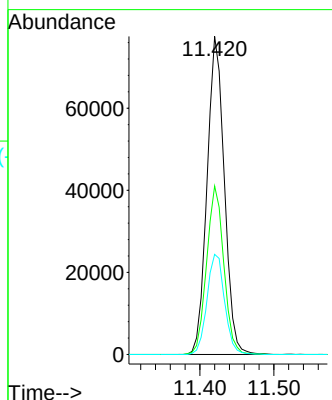
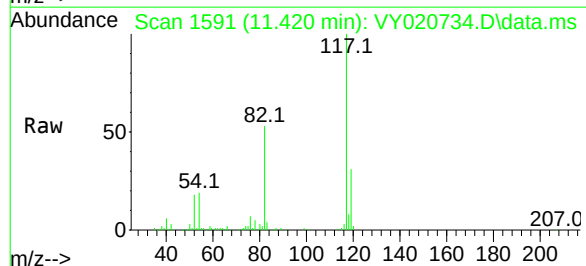
Tgt Ion:117 Resp: 125625

Ion Ratio Lower Upper

117 100

82 53.0 43.4 65.2

119 31.5 26.6 39.8



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.353 min Scan# 1908

Delta R.T. 0.001 min

Lab File: VY020734.D

Acq: 27 Dec 2024 12:55

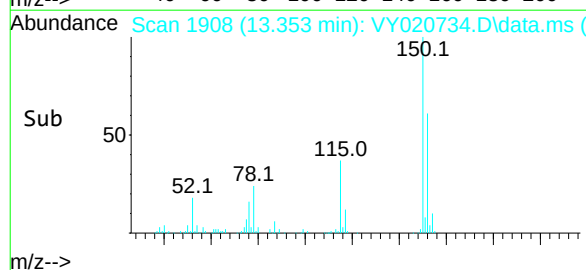
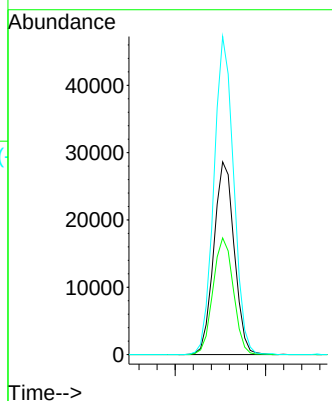
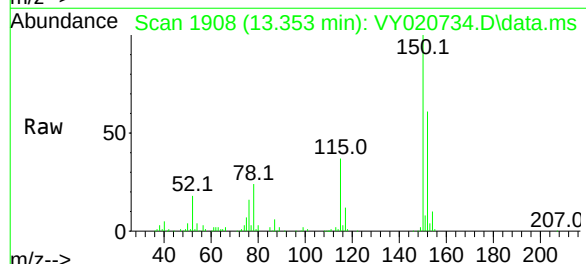
Tgt Ion:152 Resp: 45053

Ion Ratio Lower Upper

152 100

115 60.1 30.3 90.9

150 159.8 0.0 349.0



Report of Analysis

Client:	Kleinfelder	Date Collected:	12/20/24
Project:	Comegys School	Date Received:	12/23/24
Client Sample ID:	COMP-3	SDG No.:	P5382
Lab Sample ID:	P5382-03	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	82.8
Sample Wt/Vol:	5.69 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020735.D	1		12/27/24 13:18	VY122724

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	0.65	U	0.65	5.30	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.83	U	0.83	5.30	ug/Kg
71-43-2	Benzene	0.76	U	0.76	5.30	ug/Kg
79-01-6	Trichloroethene	0.80	U	0.80	5.30	ug/Kg
108-88-3	Toluene	0.71	U	0.71	5.30	ug/Kg
100-41-4	Ethyl Benzene	0.66	U	0.66	5.30	ug/Kg
1330-20-7	Total Xylenes	2.14	U	2.14	15.9	ug/Kg
98-82-8	Isopropylbenzene	0.71	U	0.71	5.30	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	61.4		50 - 163	123%	SPK: 50
1868-53-7	Dibromofluoromethane	57.3		54 - 147	115%	SPK: 50
2037-26-5	Toluene-d8	52.6		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.0		29 - 146	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	108000	7.713			
540-36-3	1,4-Difluorobenzene	174000	8.616			
3114-55-4	Chlorobenzene-d5	146000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	55900	13.352			

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_Y\Data\VY122724\
Data File : VY020735.D
Acq On : 27 Dec 2024 13:18
Operator : SY/MD
Sample : P5382-03
Misc : 5.69g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
COMP-3

Quant Time: Dec 28 03:02:24 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.713	168	107608	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	8.616	114	174360	50.000	ug/l	-0.01
63) Chlorobenzene-d5	11.420	117	145577	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.352	152	55916	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	54118	61.400	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	122.800%
35) Dibromofluoromethane	7.640	113	55015	57.283	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	114.560%
50) Toluene-d8	10.109	98	201262	52.605	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	105.220%
62) 4-Bromofluorobenzene	12.408	95	59987	46.999	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	94.000%

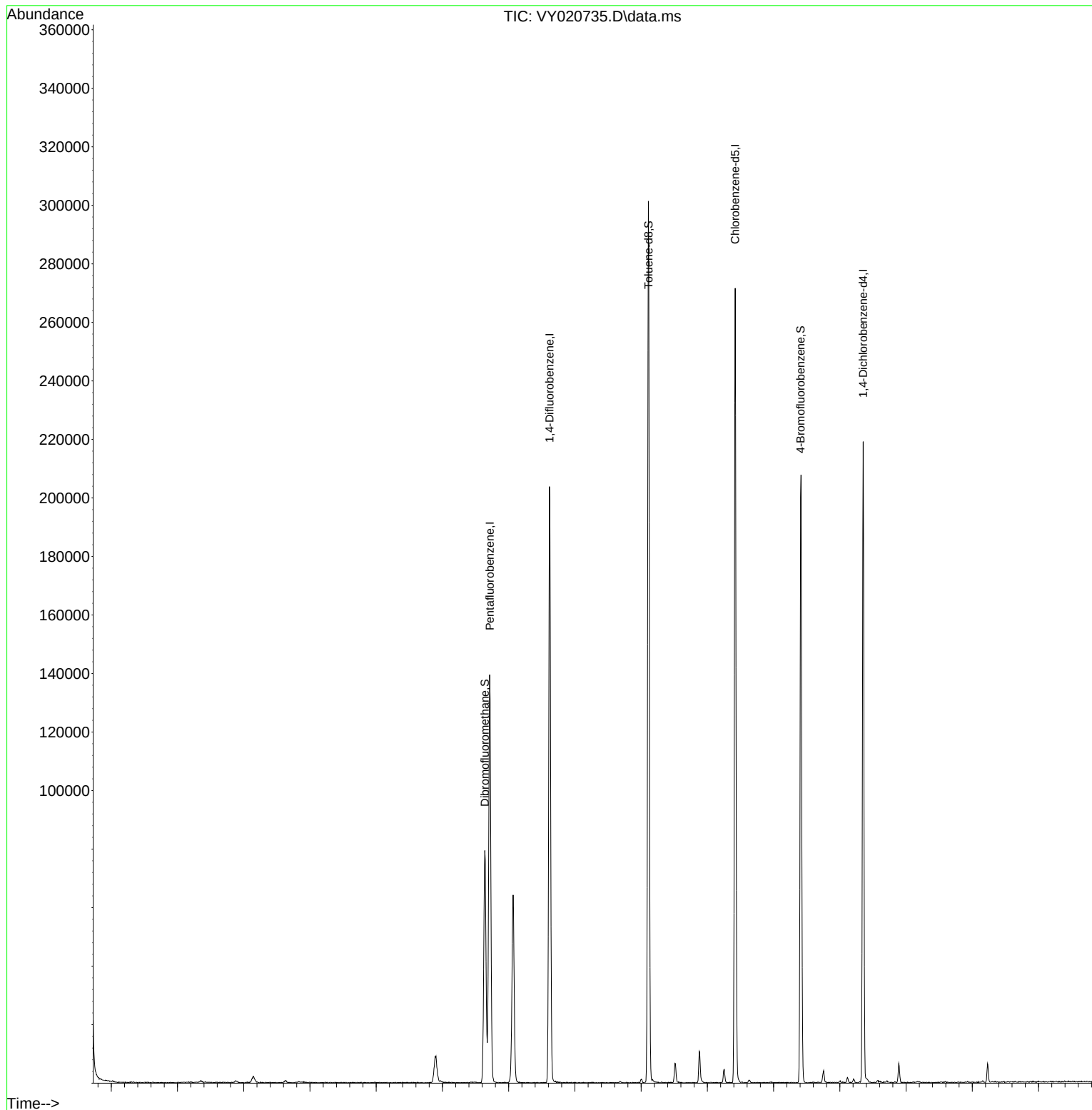
Target Compounds	Qvalue

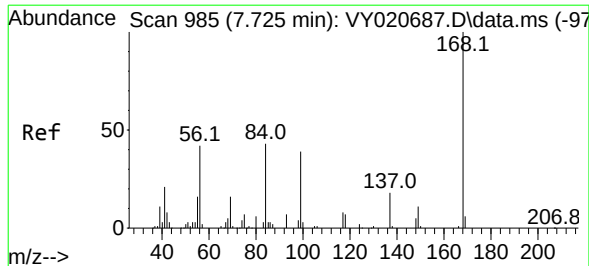
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020735.D
Acq On : 27 Dec 2024 13:18
Operator : SY/MD
Sample : P5382-03
Misc : 5.69g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
COMP-3

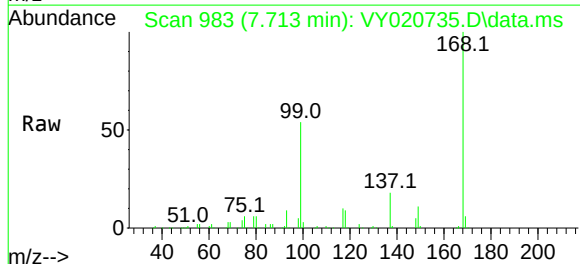
Quant Time: Dec 28 03:02:24 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration



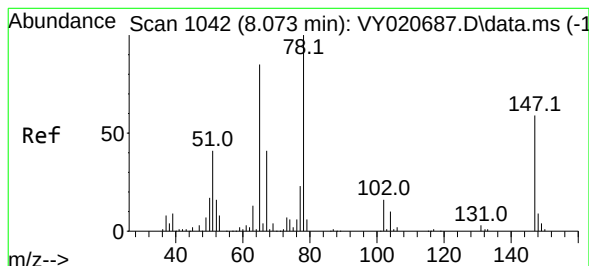
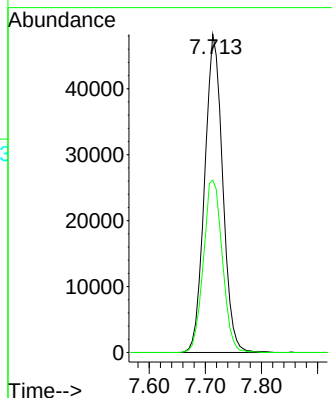
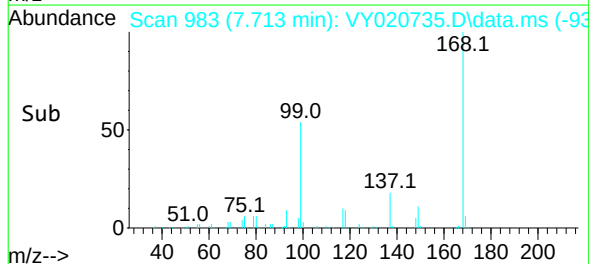


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.713 min Scan# 98
Delta R.T. -0.012 min
Lab File: VY020735.D
Acq: 27 Dec 2024 13:18

Instrument :
MSVOA_Y
ClientSampleId :
COMP-3

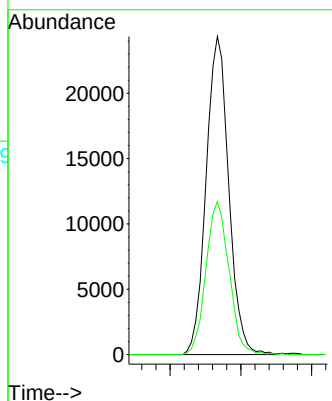
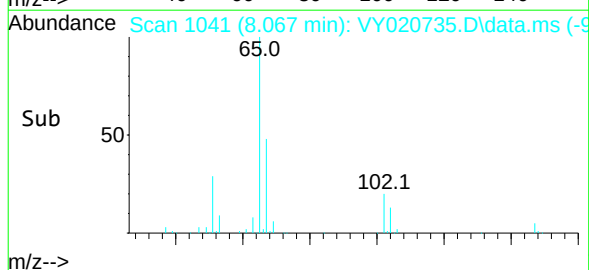
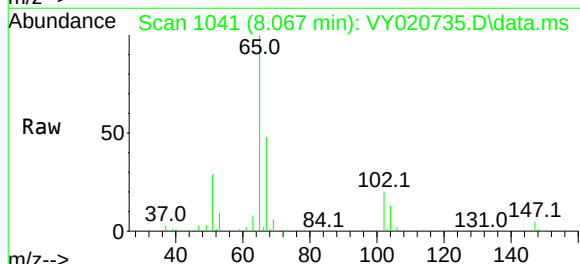


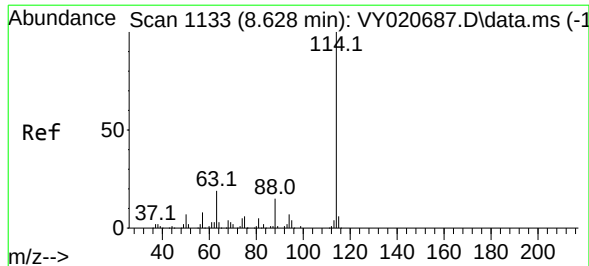
Tgt Ion:168 Resp: 107608
Ion Ratio Lower Upper
168 100
99 54.2 43.8 65.6



#33
1,2-Dichloroethane-d4
Concen: 61.400 ug/l
RT: 8.067 min Scan# 1041
Delta R.T. -0.006 min
Lab File: VY020735.D
Acq: 27 Dec 2024 13:18

Tgt Ion: 65 Resp: 54118
Ion Ratio Lower Upper
65 100
67 49.1 0.0 98.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 11

Delta R.T. -0.012 min

Lab File: VY020735.D

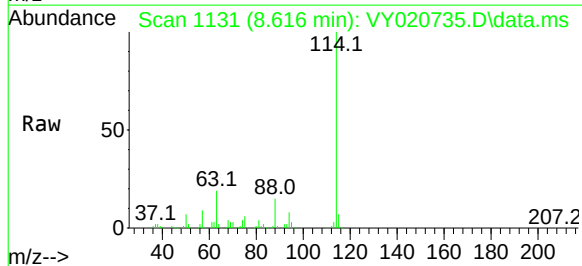
Acq: 27 Dec 2024 13:18

Instrument :

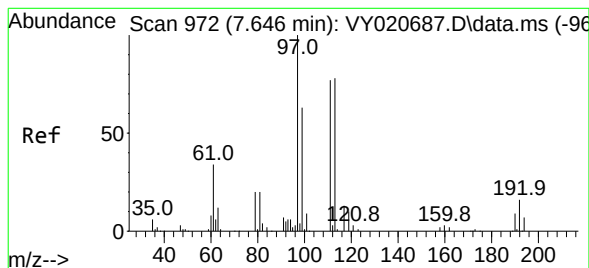
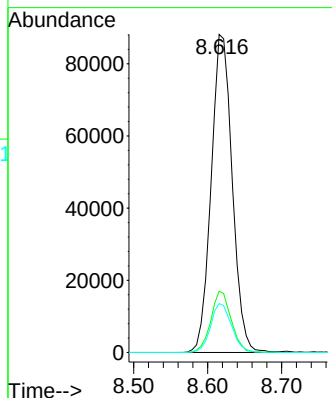
MSVOA_Y

ClientSampleId :

COMP-3



Tgt Ion:	114	Resp:	174360
Ion	Ratio	Lower	Upper
114	100		
63	19.3	0.0	38.4
88	15.4	0.0	30.4



#35

Dibromofluoromethane

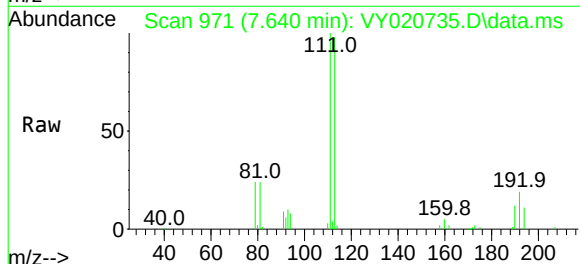
Concen: 57.283 ug/l

RT: 7.640 min Scan# 971

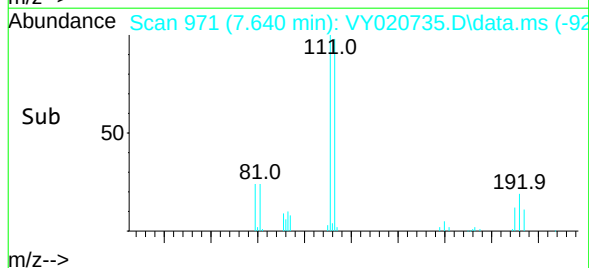
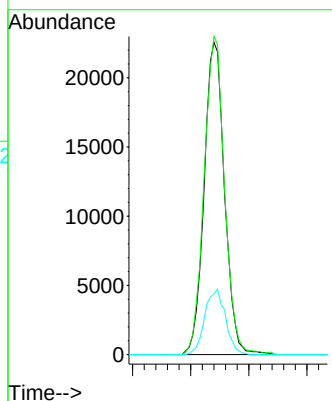
Delta R.T. -0.006 min

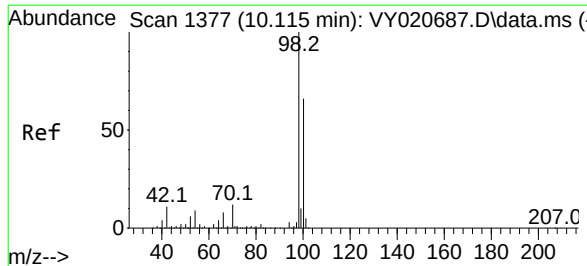
Lab File: VY020735.D

Acq: 27 Dec 2024 13:18



Tgt Ion:	113	Resp:	55015
Ion	Ratio	Lower	Upper
113	100		
111	102.4	79.8	119.8
192	21.2	17.0	25.6





#50

Toluene-d8

Concen: 52.605 ug/l

RT: 10.109 min Scan# 1376

Delta R.T. -0.006 min

Lab File: VY020735.D

Acq: 27 Dec 2024 13:18

Instrument :

MSVOA_Y

ClientSampleId :

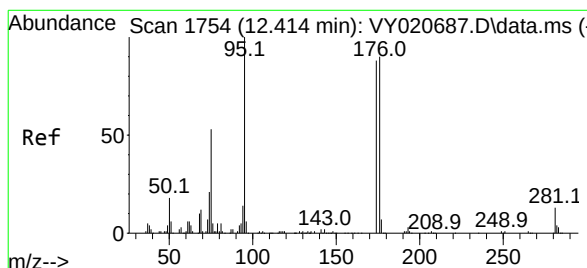
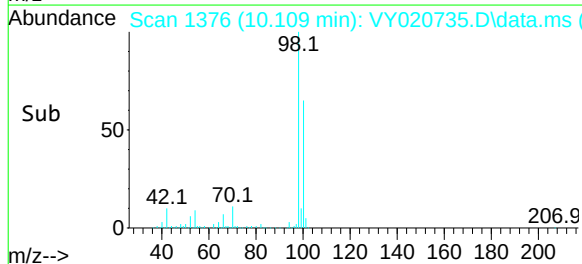
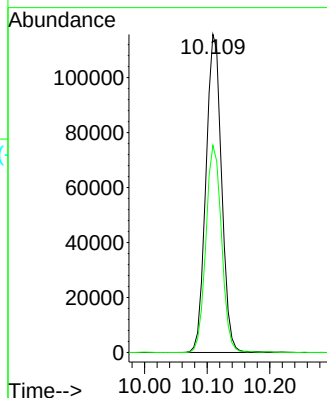
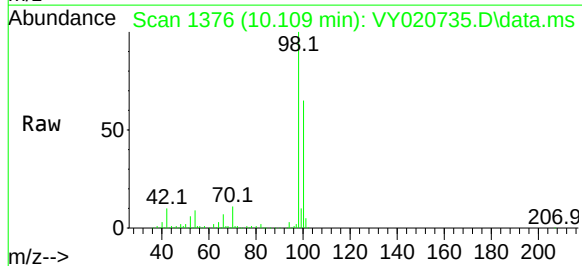
COMP-3

Tgt Ion: 98 Resp: 201262

Ion Ratio Lower Upper

98 100

100 65.0 52.2 78.4



#62

4-Bromofluorobenzene

Concen: 46.999 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. -0.006 min

Lab File: VY020735.D

Acq: 27 Dec 2024 13:18

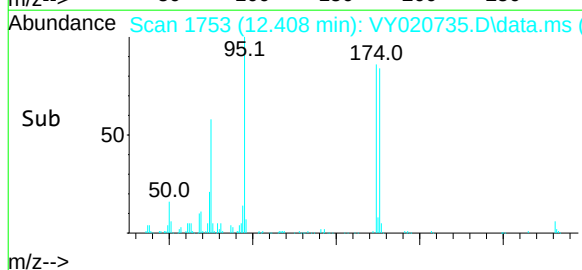
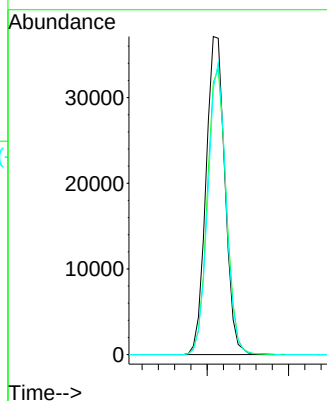
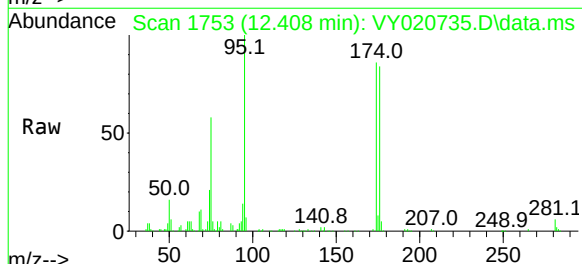
Tgt Ion: 95 Resp: 59987

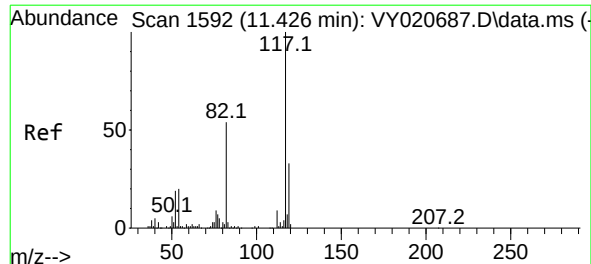
Ion Ratio Lower Upper

95 100

174 90.0 0.0 179.2

176 87.8 0.0 179.8





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1592

Delta R.T. -0.006 min

Lab File: VY020735.D

Acq: 27 Dec 2024 13:18

Instrument :

MSVOA_Y

ClientSampleId :

COMP-3

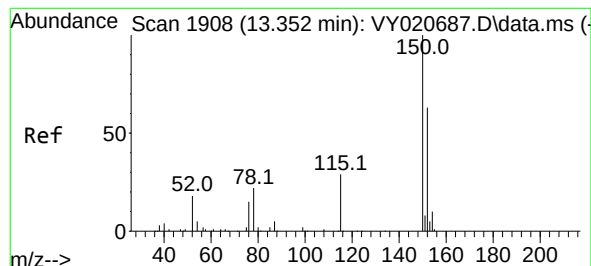
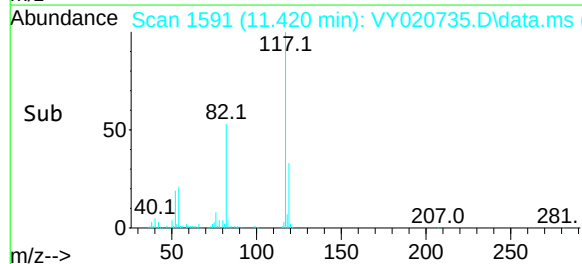
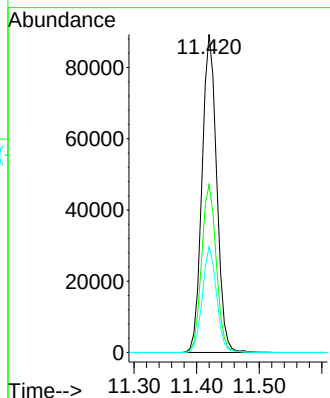
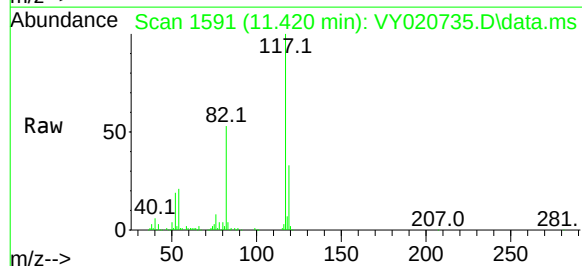
Tgt Ion:117 Resp: 145577

Ion Ratio Lower Upper

117 100

82 52.8 43.4 65.2

119 33.3 26.6 39.8



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.352 min Scan# 1908

Delta R.T. 0.000 min

Lab File: VY020735.D

Acq: 27 Dec 2024 13:18

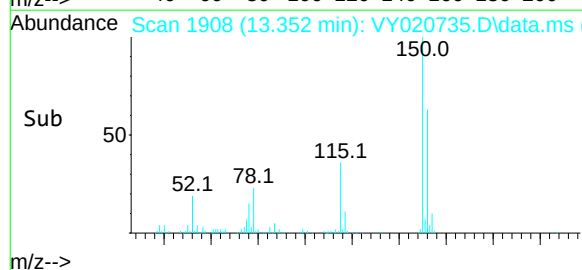
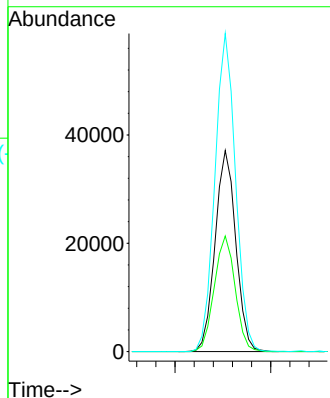
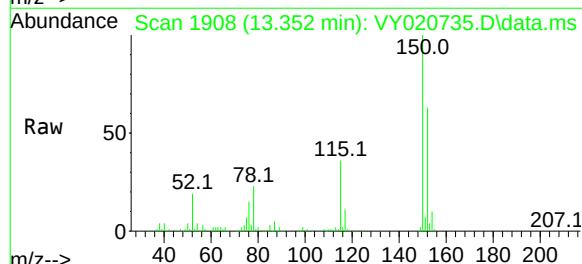
Tgt Ion:152 Resp: 55916

Ion Ratio Lower Upper

152 100

115 57.8 30.3 90.9

150 157.6 0.0 349.0





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: POWE02
 Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG No.: P5382
 Instrument ID: MSVOA_Y Calibration Date(s): 12/26/2024 12/26/2024
 Heated Purge: (Y/N) Y Calibration Time(s): 09:31 11:51
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:		RRF005 = VY020706.D		RRF010 = VY020707.D		RRF020 = VY020708.D		
		RRF050 = VY020709.D		RRF150 = VY020710.D		RRF100 = VY020711.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF150	RRF100	RRF	% RSD
cis-1,2-Dichloroethene	0.419	0.460	0.426	0.462	0.432	0.447	0.441	4.1
1,1,1-Trichloroethane	0.814	0.897	0.826	0.859	0.816	0.831	0.840	3.8
Benzene	0.969	1.104	1.040	1.089	1.041	1.083	1.054	4.7
Trichloroethene	0.288	0.336	0.315	0.324	0.309	0.317	0.315	5.1
Toluene	0.654	0.751	0.722	0.745	0.723	0.741	0.723	4.9
Ethyl Benzene	1.540	1.810	1.715	1.778	1.682	1.743	1.711	5.6
m/p-Xylenes	0.590	0.691	0.649	0.675	0.643	0.667	0.653	5.4
o-Xylene	0.552	0.666	0.639	0.650	0.603	0.632	0.624	6.6
Isopropylbenzene	3.123	3.801	3.508	3.476	3.402	3.474	3.464	6.3
1,2-Dichloroethane-d4	0.335	0.402	0.313	0.516	0.433	0.457	0.410	18.7
Dibromofluoromethane	0.235	0.274	0.232	0.319	0.284	0.307	0.275	13.1
Toluene-d8	0.733	0.883	0.733	1.227	1.093	1.158	0.971	22.4
4-Bromofluorobenzene	0.303	0.378	0.319	0.426	0.373	0.397	0.366	12.8

* 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_Y\methods\
 Method File : 82Y122624S.M
 Title : SW846 8260
 Last Update : Thu Dec 26 16:12:28 2024
 Response Via : Initial Calibration

Calibration Files

5 =VY020706.D 10 =VY020707.D 20 =VY020708.D 50 =VY020709.D 100 =VY020711.D 150 =VY020710.

D

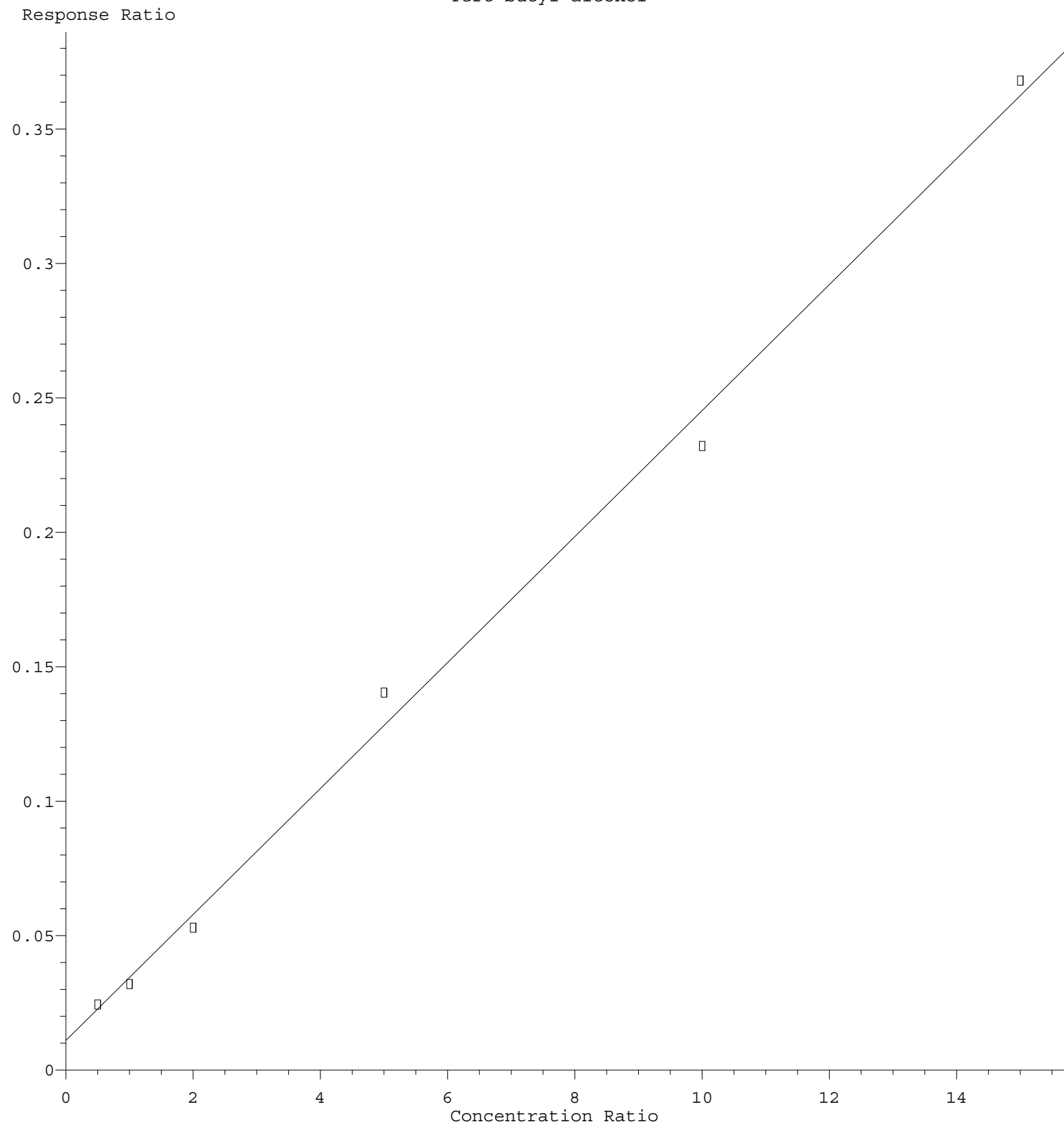
Compound		5	10	20	50	100	150	Avg	%RSD

1) I	Pentafluorobenzene	-----ISTD-----							
2) T	Dichlorodifluo...	0.368	0.453	0.375	0.405	0.385	0.376	0.394	8.03
3) P	Chloromethane	0.136	0.154	0.131	0.157	0.155	0.148	0.147	7.55
4) C	Vinyl Chloride	0.168	0.195	0.176	0.192	0.181	0.178	0.182	5.65#
5) T	Bromomethane	0.131	0.149	0.128	0.141	0.138	0.136	0.137	5.45
6) T	Chloroethane	0.101	0.116	0.102	0.113	0.111	0.112	0.109	5.60
7) T	Trichlorofluor...	0.651	0.767	0.686	0.715	0.689	0.689	0.699	5.55
8) T	Diethyl Ether	0.149	0.171	0.156	0.178	0.175	0.169	0.166	6.77
9) T	1,1,2-Trichlor...	0.346	0.428	0.378	0.391	0.385	0.376	0.384	6.92
10) T	Methyl Iodide	0.355	0.420	0.396	0.453	0.450	0.445	0.420	9.20
11) T	Tert butyl alc...	0.049	0.032	0.026	0.028	0.023	0.025	0.031	30.94
12) CM	1,1-Dichloroet...	0.326	0.359	0.330	0.352	0.344	0.340	0.342	3.73#
13) T	Acrolein	0.010	0.012	0.012	0.006	0.006	0.006	0.009	33.13
14) T	Allyl chloride	0.356	0.425	0.389	0.414	0.412	0.403	0.400	6.16
15) T	Acrylonitrile	0.058	0.068	0.060	0.071	0.064	0.065	0.064	7.69
16) T	Acetone	0.050	0.068	0.045	0.054	0.046	0.048	0.052	16.75
17) T	Carbon Disulfide	0.745	0.854	0.769	0.906	0.889	0.867	0.838	7.86
18) T	Methyl Acetate	0.115	0.155	0.132	0.159	0.140	0.144	0.141	11.41
19) T	Methyl tert-bu...	0.880	1.004	0.922	1.015	0.951	0.942	0.952	5.34
20) T	Methylene Chlo...	0.324	0.365	0.328	0.343	0.338	0.329	0.338	4.47
21) T	trans-1,2-Dich...	0.339	0.378	0.356	0.391	0.378	0.368	0.368	4.98
22) T	Diisopropyl ether	0.729	0.884	0.804	0.857	0.819	0.785	0.813	6.73
23) T	Vinyl Acetate	0.430	0.498	0.469	0.537	0.491	0.488	0.486	7.27
24) P	1,1-Dichloroet...	0.571	0.661	0.596	0.620	0.620	0.591	0.609	5.11
25) T	2-Butanone	0.069	0.069	0.066	0.080	0.067	0.071	0.070	6.95
26) T	2,2-Dichloropr...	0.755	0.811	0.722	0.750	0.725	0.713	0.746	4.78
27) T	cis-1,2-Dichlo...	0.419	0.460	0.426	0.462	0.447	0.432	0.441	4.08
28) T	Bromochloromet...	0.133	0.151	0.129	0.193	0.184	0.178	0.161	16.93
29) T	Tetrahydrofuran	0.040	0.045	0.040	0.049	0.041	0.044	0.043	8.24
30) C	Chloroform	0.839	0.821	0.753	0.788	0.762	0.742	0.784	4.99#
31) T	Cyclohexane	0.629	0.582	0.493	0.510	0.479	0.463	0.526	12.40
32) T	1,1,1-Trichlor...	0.814	0.897	0.826	0.859	0.831	0.816	0.840	3.78
33) S	1,2-Dichloroet...	0.335	0.402	0.313	0.516	0.457	0.433	0.410	18.66
34) I	1,4-Difluorobenzene	-----ISTD-----							
35) S	Dibromofluorom...	0.235	0.274	0.232	0.319	0.307	0.284	0.275	13.05
36) T	1,1-Dichloropr...	0.337	0.393	0.350	0.374	0.370	0.359	0.364	5.34
37) T	Ethyl Acetate	0.116	0.110	0.120	0.133	0.117	0.123	0.120	6.49
38) T	Carbon Tetrach...	0.556	0.644	0.581	0.614	0.606	0.593	0.599	5.03
39) T	Methylcyclohexane	0.427	0.483	0.462	0.485	0.474	0.468	0.466	4.55
40) TM	Benzene	0.969	1.104	1.040	1.089	1.083	1.041	1.054	4.68
41) T	Methacrylonitrile	0.051	0.058	0.067	0.056	0.065	0.065	0.061	10.48
42) TM	1,2-Dichloroet...	0.297	0.352	0.325	0.364	0.348	0.342	0.338	7.04
43) T	Isopropyl Acetate	0.229	0.246	0.240	0.287	0.261	0.265	0.255	8.13
44) TM	Trichloroethene	0.288	0.336	0.315	0.324	0.317	0.309	0.315	5.06
45) C	1,2-Dichloropr...	0.205	0.230	0.205	0.225	0.211	0.204	0.213	5.29#
46) T	Dibromomethane	0.138	0.153	0.140	0.159	0.148	0.148	0.148	5.32
47) T	Bromodichlorom...	0.384	0.444	0.415	0.433	0.421	0.416	0.419	4.89
48) T	Methyl methacr...	0.106	0.119	0.112	0.131	0.124	0.122	0.119	7.40
49) T	1,4-Dioxane	0.001	0.001	0.001	0.002	0.001	0.002	0.001	16.30
50) S	Toluene-d8	0.733	0.883	0.733	1.227	1.158	1.093	0.971	22.39
51) T	4-Methyl-2-Pen...	0.111	0.123	0.117	0.140	0.121	0.126	0.123	7.76
52) CM	Toluene	0.654	0.751	0.722	0.745	0.741	0.723	0.723	4.92#
53) T	t-1,3-Dichloro...	0.318	0.366	0.352	0.403	0.386	0.382	0.368	8.17
54) T	cis-1,3-Dichlo...	0.361	0.408	0.395	0.430	0.413	0.410	0.403	5.78
55) T	1,1,2-Trichlor...	0.182	0.187	0.186	0.199	0.188	0.189	0.188	3.08

Method Path : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\										
Method File : 82Y122624S.M										
56)	T	Ethyl methacry...	0.193	0.249	0.243	0.277	0.258	0.266	0.248	11.94
57)	T	1,3-Dichloropr...	0.265	0.310	0.299	0.334	0.315	0.312	0.306	7.47
58)	T	2-Chloroethyl ...	0.067	0.079	0.079	0.102	0.095	0.096	0.086	15.15
59)	T	2-Hexanone	0.066	0.077	0.078	0.096	0.083	0.087	0.081	12.38
60)	T	Dibromochlorom...	0.276	0.321	0.294	0.316	0.312	0.309	0.305	5.52
61)	T	1,2-Dibromoethane	0.158	0.179	0.175	0.191	0.178	0.184	0.177	6.11
62)	S	4-Bromofluorob...	0.303	0.378	0.319	0.426	0.397	0.373	0.366	12.82
-----ISTD-----										
63)	I	Chlorobenzene-d5								
64)	T	Tetrachloroethene	0.308	0.360	0.348	0.351	0.346	0.337	0.342	5.28
65)	PM	Chlorobenzene	0.925	1.044	0.976	1.002	0.985	0.943	0.979	4.33
66)	T	1,1,1,2-Tetrac...	0.365	0.406	0.367	0.390	0.383	0.366	0.379	4.39
67)	C	Ethyl Benzene	1.540	1.810	1.715	1.778	1.743	1.682	1.711	5.57#
68)	T	m/p-Xylenes	0.590	0.691	0.649	0.675	0.667	0.643	0.653	5.40
69)	T	o-Xylene	0.552	0.666	0.639	0.650	0.632	0.603	0.624	6.56
70)	T	Styrene	0.958	1.076	1.061	1.090	1.075	1.022	1.047	4.71
71)	P	Bromoform	0.188	0.227	0.212	0.241	0.222	0.218	0.218	8.20
-----ISTD-----										
72)	I	1,4-Dichlorobenzen...								
73)	T	Isopropylbenzene	3.123	3.801	3.508	3.476	3.474	3.402	3.464	6.27
74)	T	N-amyl acetate	0.391	0.483	0.476	0.547	0.518	0.538	0.492	11.64
75)	P	1,1,2,2-Tetrac...	0.430	0.438	0.438	0.476	0.431	0.451	0.444	3.85
76)	T	1,2,3-Trichlor...	0.376	0.226	0.360	0.300	0.284	0.362	0.318	18.29
77)	T	Bromobenzene	0.762	0.827	0.779	0.816	0.805	0.796	0.797	3.01
78)	T	n-propylbenzene	3.521	4.231	3.972	3.896	3.902	3.774	3.883	6.02
79)	T	2-Chlorotoluene	2.010	2.378	2.228	2.258	2.226	2.180	2.213	5.43
80)	T	1,3,5-Trimethy...	2.645	3.101	2.909	2.947	2.903	2.812	2.886	5.24
81)	T	trans-1,4-Dich...	0.151	0.153	0.155	0.175	0.165	0.165	0.161	5.87
82)	T	4-Chlorotoluene	2.099	2.437	2.294	2.344	2.310	2.240	2.287	4.95
83)	T	tert-Butylbenzene	2.487	2.888	2.751	2.727	2.687	2.632	2.695	4.94
84)	T	1,2,4-Trimethy...	2.513	2.946	2.860	2.888	2.867	2.777	2.809	5.51
85)	T	sec-Butylbenzene	3.316	3.880	3.730	3.676	3.653	3.540	3.633	5.25
86)	T	p-Isopropyltol...	2.922	3.487	3.288	3.295	3.259	3.173	3.237	5.74
87)	T	1,3-Dichlorobe...	1.428	1.670	1.567	1.578	1.579	1.529	1.559	5.06
88)	T	1,4-Dichlorobe...	1.492	1.625	1.562	1.572	1.549	1.502	1.550	3.15
89)	T	n-Butylbenzene	2.356	2.894	2.764	2.757	2.760	2.683	2.702	6.77
90)	T	Hexachloroethane	0.586	0.657	0.601	0.616	0.625	0.609	0.616	3.97
91)	T	1,2-Dichlorobe...	1.197	1.374	1.362	1.410	1.347	1.328	1.336	5.50
92)	T	1,2-Dibromo-3-...	0.068	0.089	0.086	0.098	0.086	0.090	0.086	11.75
93)	T	1,2,4-Trichlor...	0.666	0.826	0.811	0.902	0.944	0.947	0.849	12.58
94)	T	Hexachlorobuta...	0.538	0.652	0.608	0.624	0.658	0.635	0.619	7.05
95)	T	Naphthalene	0.979	1.248	1.290	1.528	1.513	1.604	1.360	17.19
96)	T	1,2,3-Trichlor...	0.531	0.678	0.678	0.773	0.787	0.796	0.707	14.34

(#) = Out of Range

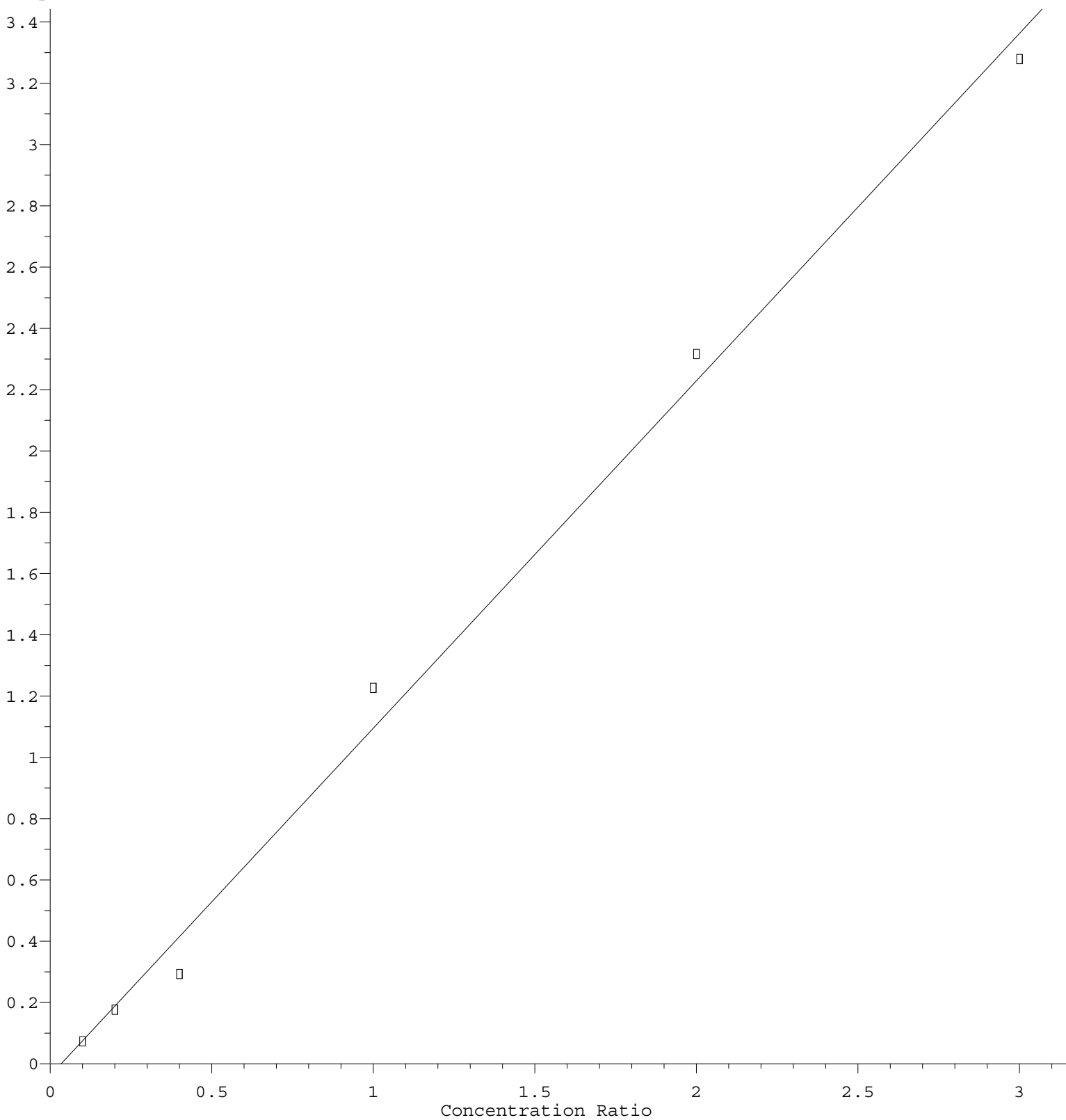
Tert butyl alcohol



Response = $2.347e-002 * Amt + 1.057e-002$
 Coef of Det (r^2) = 0.995835 Curve Fit: Linear
 Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y122624S.M
 Calibration Table Last Updated: Thu Dec 26 16:12:28 2024

Toluene-d8

Response Ratio



$$\text{Response} = 1.134\text{e}+000 * \text{Amt} - 3.913\text{e}-002$$

Coef of Det (r^2) = 0.994604 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA Y\methods\82Y122624S.M

Calibration Table Last Updated: Thu Dec 26 16:12:28 2024

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020706.D
 Acq On : 26 Dec 2024 09:31
 Operator : SY/MD
 Sample : VSTDICC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDICC005

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024

Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:01:53 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M

Quant Title : SW846 8260

QLast Update : Thu Dec 26 15:59:15 2024

Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.720	168	118156	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	168634	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.426	117	139342	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.359	152	68108	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	3955	4.087	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	8.180%#		
35) Dibromofluoromethane	7.646	113	3966	4.270	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	8.540%#		
50) Toluene-d8	10.115	98	12366	4.957	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	9.920%#		
62) 4-Bromofluorobenzene	12.414	95	5109	4.139	ug/l	0.00
Spiked Amount 50.000	Range 29 - 146		Recovery =	8.280%#		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.873	85	4346	4.673	ug/l	85
3) Chloromethane	2.074	50	1604	4.624	ug/l	98
4) Vinyl Chloride	2.214	62	1987	4.624	ug/l	97
5) Bromomethane	2.611	94	1547	4.768	ug/l	81
6) Chloroethane	2.757	64	1195	4.635	ug/l #	81
7) Trichlorofluoromethane	3.074	101	7688	4.652	ug/l	88
8) Diethyl Ether	3.470	74	1765	4.488	ug/l	83
9) 1,1,2-Trichlorotrifluo...	3.824	101	4090	4.508	ug/l	93
10) Methyl Iodide	4.019	142	4193	4.226	ug/l	99
11) Tert butyl alcohol	4.885	59	2879m	29.170	ug/l	
12) 1,1-Dichloroethene	3.818	96	3846	4.763	ug/l #	80
13) Acrolein	3.678	56	596	29.459	ug/l	93
14) Allyl chloride	4.403	41	4206	4.451	ug/l	99
15) Acrylonitrile	5.074	53	3397	22.361	ug/l #	89
16) Acetone	3.897	43	2982	24.288	ug/l	95
17) Carbon Disulfide	4.129	76	8806	4.445	ug/l	97
18) Methyl Acetate	4.403	43	1356	4.081	ug/l	99
19) Methyl tert-butyl Ether	5.129	73	10398	4.620	ug/l	97
20) Methylene Chloride	4.641	84	3827m	4.796	ug/l	
21) trans-1,2-Dichloroethene	5.122	96	4008	4.606	ug/l	91
22) Diisopropyl ether	6.031	45	8608	4.481	ug/l #	86
23) Vinyl Acetate	5.982	43	25395	22.132	ug/l	99
24) 1,1-Dichloroethane	5.927	63	6745	4.683	ug/l	93
25) 2-Butanone	6.909	43	4081	24.607	ug/l	94
26) 2,2-Dichloropropane	6.890	77	8915	5.057	ug/l	94
27) cis-1,2-Dichloroethene	6.915	96	4953	4.753	ug/l	95
28) Bromochloromethane	7.268	49	1572	4.127	ug/l #	100
29) Tetrahydrofuran	7.281	42	2337	22.956	ug/l	95
30) Chloroform	7.433	83	9912	5.350	ug/l	93
31) Cyclohexane	7.713	56	7429	5.976	ug/l #	81
32) 1,1,1-Trichloroethane	7.634	97	9621	4.844	ug/l	98
36) 1,1-Dichloropropene	7.848	75	5685	4.633	ug/l	96
37) Ethyl Acetate	7.012	43	1951	4.825	ug/l #	86
38) Carbon Tetrachloride	7.829	117	9371	4.638	ug/l	97
39) Methylcyclohexane	9.122	83	7196	4.576	ug/l	95
40) Benzene	8.098	78	16340	4.595	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020706.D
 Acq On : 26 Dec 2024 09:31
 Operator : SY/MD
 Sample : VSTDICC005
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:01:53 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 15:59:15 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.226	41	865	4.235	ug/l #	84
42) 1,2-Dichloroethane	8.171	62	5012	4.396	ug/l	99
43) Isopropyl Acetate	8.201	43	3867	4.500	ug/l	99
44) Trichloroethene	8.872	130	4862	4.578	ug/l	98
45) 1,2-Dichloropropane	9.152	63	3462	4.810	ug/l	94
46) Dibromomethane	9.238	93	2330	4.678	ug/l	96
47) Bromodichloromethane	9.433	83	6469	4.581	ug/l	89
48) Methyl methacrylate	9.238	41	1784	4.445	ug/l	92
49) 1,4-Dioxane	9.250	88	342	72.090	ug/l #	80
51) 4-Methyl-2-Pentanone	10.006	43	9383	22.620	ug/l	99
52) Toluene	10.182	92	11031	4.526	ug/l	98
53) t-1,3-Dichloropropene	10.402	75	5357	4.320	ug/l	97
54) cis-1,3-Dichloropropene	9.865	75	6091	4.481	ug/l	92
55) 1,1,2-Trichloroethane	10.579	97	3068	4.826	ug/l #	93
56) Ethyl methacrylate	10.445	69	3250	3.891	ug/l	94
57) 1,3-Dichloropropane	10.725	76	4475	4.337	ug/l	95
58) 2-Chloroethyl Vinyl ether	9.719	63	5665	19.451	ug/l	95
59) 2-Hexanone	10.768	43	5560	20.301	ug/l	95
60) Dibromochloromethane	10.920	129	4656	4.532	ug/l	100
61) 1,2-Dibromoethane	11.024	107	2672	4.467	ug/l	93
64) Tetrachloroethene	10.652	164	4294	4.511	ug/l	92
65) Chlorobenzene	11.451	112	12888	4.724	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.524	131	5080	4.806	ug/l	95
67) Ethyl Benzene	11.524	91	21456	4.499	ug/l	100
68) m/p-Xylenes	11.640	106	16447	9.042	ug/l	99
69) o-Xylene	11.963	106	7691	4.425	ug/l	95
70) Styrene	11.981	104	13353	4.577	ug/l	96
71) Bromoform	12.146	173	2618	4.308	ug/l #	98
73) Isopropylbenzene	12.261	105	21271	4.508	ug/l	97
74) N-amyl acetate	12.078	43	2662	3.970	ug/l	94
75) 1,1,2,2-Tetrachloroethane	12.511	83	2932	4.847	ug/l	98
76) 1,2,3-Trichloropropane	12.560	75	2559m	5.265	ug/l	
77) Bromobenzene	12.542	156	5187	4.775	ug/l	95
78) n-propylbenzene	12.603	91	23980	4.534	ug/l	99
79) 2-Chlorotoluene	12.688	91	13687	4.540	ug/l	98
80) 1,3,5-Trimethylbenzene	12.743	105	18014	4.582	ug/l	98
81) trans-1,4-Dichloro-2-b...	12.310	75	1030	4.700	ug/l	94
82) 4-Chlorotoluene	12.786	91	14294	4.588	ug/l	97
83) tert-Butylbenzene	13.005	119	16938	4.613	ug/l	99
84) 1,2,4-Trimethylbenzene	13.054	105	17114	4.473	ug/l	97
85) sec-Butylbenzene	13.182	105	22583	4.564	ug/l	97
86) p-Isopropyltoluene	13.298	119	19901	4.513	ug/l	99
87) 1,3-Dichlorobenzene	13.298	146	9727	4.582	ug/l	95
88) 1,4-Dichlorobenzene	13.377	146	10161	4.811	ug/l	93
89) n-Butylbenzene	13.627	91	16045	4.359	ug/l	98
90) Hexachloroethane	13.883	117	3991	4.760	ug/l	95
91) 1,2-Dichlorobenzene	13.670	146	8154	4.480	ug/l	94
92) 1,2-Dibromo-3-Chloropr...	14.291	75	460	3.921	ug/l	86
93) 1,2,4-Trichlorobenzene	14.932	180	4536	3.920	ug/l	95
94) Hexachlorobutadiene	15.035	225	3664	4.345	ug/l	98
95) Naphthalene	15.157	128	6669	3.599	ug/l	99
96) 1,2,3-Trichlorobenzene	15.340	180	3615	3.753	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020706.D
Acq On : 26 Dec 2024 09:31
Operator : SY/MD
Sample : VSTDICC005
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:01:53 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 15:59:15 2024
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

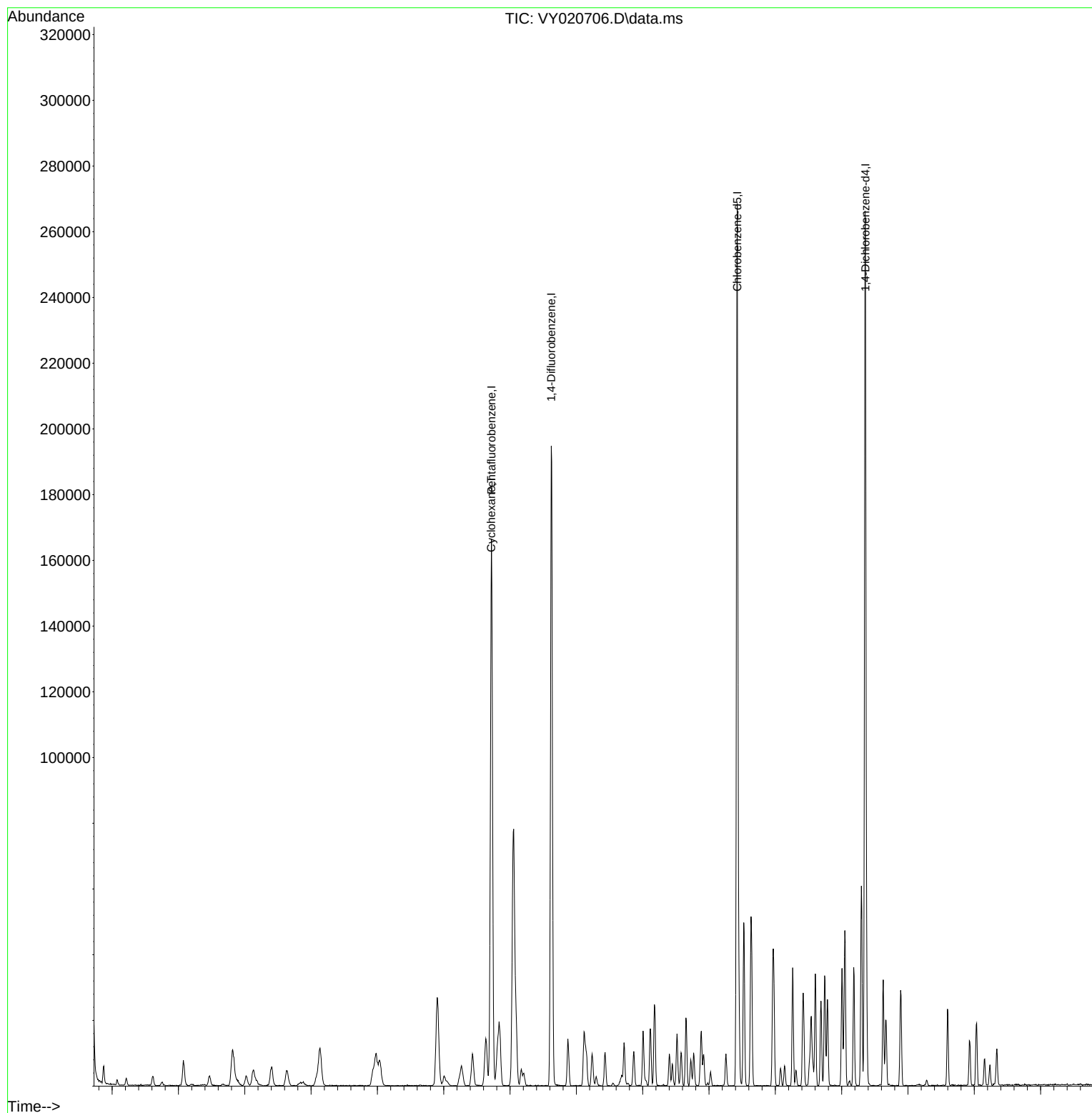
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020706.D
Acq On : 26 Dec 2024 09:31
Operator : SY/MD
Sample : VSTDICC005
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:01:53 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 15:59:15 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020707.D
 Acq On : 26 Dec 2024 09:53
 Operator : SY/MD
 Sample : VSTDICC010
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC010

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:28 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	113806	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.621	114	160513	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.426	117	134187	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.352	152	67536	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	9148	9.814	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	19.620%#
35) Dibromofluoromethane	7.646	113	8811	9.966	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	19.940%#
50) Toluene-d8	10.115	98	28333	9.506	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	19.020%#
62) 4-Bromofluorobenzene	12.413	95	12144	10.336	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	20.680%#

Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.873	85	10304	11.503	ug/l	90
3) Chloromethane	2.080	50	3515	10.521	ug/l	97
4) Vinyl Chloride	2.214	62	4449	10.748	ug/l	97
5) Bromomethane	2.610	94	3397	10.870	ug/l	93
6) Chloroethane	2.751	64	2641	10.636	ug/l	90
7) Trichlorofluoromethane	3.074	101	17447	10.961	ug/l	95
8) Diethyl Ether	3.464	74	3903	10.304	ug/l	93
9) 1,1,2-Trichlorotrifluo...	3.830	101	9745	11.152	ug/l	99
10) Methyl Iodide	4.019	142	9549	9.993	ug/l	100
11) Tert butyl alcohol	4.872	59	3641	45.628	ug/l	99
12) 1,1-Dichloroethene	3.811	96	8169	10.503	ug/l	90
13) Acrolein	3.677	56	1325	67.996	ug/l	90
14) Allyl chloride	4.403	41	9677	10.632	ug/l	94
15) Acrylonitrile	5.079	53	7720	52.760	ug/l	94
16) Acetone	3.891	43	7777	65.764	ug/l	90
17) Carbon Disulfide	4.122	76	19437	10.187	ug/l	99
18) Methyl Acetate	4.397	43	3518	10.992	ug/l	95
19) Methyl tert-butyl Ether	5.134	73	22860	10.545	ug/l	97
20) Methylene Chloride	4.640	84	8316	10.812	ug/l #	88
21) trans-1,2-Dichloroethene	5.134	96	8600	10.261	ug/l	98
22) Diisopropyl ether	6.030	45	20110	10.869	ug/l	93
23) Vinyl Acetate	5.976	43	56669	51.276	ug/l	98
24) 1,1-Dichloroethane	5.939	63	15035	10.838	ug/l #	95
25) 2-Butanone	6.914	43	7858	49.191	ug/l	93
26) 2,2-Dichloropropane	6.902	77	18453	10.868	ug/l	96
27) cis-1,2-Dichloroethene	6.908	96	10464	10.425	ug/l	98
28) Bromochloromethane	7.262	49	3437	9.369	ug/l #	92
29) Tetrahydrofuran	7.274	42	5125	52.267	ug/l	99
30) Chloroform	7.433	83	18692	10.474	ug/l	88
31) Cyclohexane	7.719	56	13258	11.072	ug/l #	92
32) 1,1,1-Trichloroethane	7.634	97	20406	10.668	ug/l	98
36) 1,1-Dichloropropene	7.847	75	12601	10.790	ug/l	98
37) Ethyl Acetate	6.994	43	3547	9.217	ug/l	100
38) Carbon Tetrachloride	7.829	117	20683	10.755	ug/l	94
39) Methylcyclohexane	9.115	83	15497	10.353	ug/l	95
40) Benzene	8.091	78	35447	10.473	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020707.D
 Acq On : 26 Dec 2024 09:53
 Operator : SY/MD
 Sample : VSTDICC010
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :

MSVOA_Y

ClientSampleId :

VSTDICC010

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024

Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:28 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M

Quant Title : SW846 8260

QLast Update : Thu Dec 26 16:03:55 2024

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.238	41	1876	9.650	ug/l #	68
42) 1,2-Dichloroethane	8.170	62	11313	10.424	ug/l	99
43) Isopropyl Acetate	8.207	43	7905	9.664	ug/l #	87
44) Trichloroethene	8.878	130	10790	10.673	ug/l	96
45) 1,2-Dichloropropane	9.146	63	7377	10.767	ug/l	91
46) Dibromomethane	9.237	93	4900	10.336	ug/l	94
47) Bromodichloromethane	9.432	83	14245	10.599	ug/l	98
48) Methyl methacrylate	9.231	41	3827	10.018	ug/l	94
49) 1,4-Dioxane	9.243	88	924	204.624	ug/l	90
51) 4-Methyl-2-Pentanone	10.005	43	19722	49.951	ug/l	99
52) Toluene	10.176	92	24111	10.393	ug/l	98
53) t-1,3-Dichloropropene	10.402	75	11736	9.942	ug/l	98
54) cis-1,3-Dichloropropene	9.865	75	13095	10.121	ug/l	97
55) 1,1,2-Trichloroethane	10.578	97	5992	9.902	ug/l	94
56) Ethyl methacrylate	10.444	69	7986	10.046	ug/l	96
57) 1,3-Dichloropropane	10.725	76	9956	10.137	ug/l	96
58) 2-Chloroethyl Vinyl ether	9.719	63	12740	45.957	ug/l	97
59) 2-Hexanone	10.767	43	12416	47.628	ug/l	100
60) Dibromochloromethane	10.920	129	10320	10.554	ug/l	96
61) 1,2-Dibromoethane	11.023	107	5732	10.067	ug/l	97
64) Tetrachloroethene	10.658	164	9654	10.530	ug/l	93
65) Chlorobenzene	11.450	112	28012	10.661	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.523	131	10891	10.699	ug/l	99
67) Ethyl Benzene	11.529	91	48565	10.575	ug/l	97
68) m/p-Xylenes	11.639	106	37110	21.184	ug/l	99
69) o-Xylene	11.962	106	17878	10.682	ug/l	99
70) Styrene	11.975	104	28883	10.280	ug/l	99
71) Bromoform	12.133	173	6103	10.428	ug/l #	98
73) Isopropylbenzene	12.261	105	51343	10.973	ug/l	99
74) N-amyl acetate	12.078	43	6525	9.813	ug/l	97
75) 1,1,2,2-Tetrachloroethane	12.511	83	5918	9.866	ug/l	94
76) 1,2,3-Trichloropropane	12.566	75	3057m	5.738	ug/l	
77) Bromobenzene	12.541	156	11164	10.365	ug/l	94
78) n-propylbenzene	12.602	91	57154	10.898	ug/l	100
79) 2-Chlorotoluene	12.688	91	32123	10.745	ug/l	98
80) 1,3,5-Trimethylbenzene	12.743	105	41891	10.746	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.310	75	2060	9.480	ug/l	92
82) 4-Chlorotoluene	12.785	91	32918	10.654	ug/l	100
83) tert-Butylbenzene	13.005	119	39005	10.714	ug/l	100
84) 1,2,4-Trimethylbenzene	13.054	105	39791	10.489	ug/l	96
85) sec-Butylbenzene	13.182	105	52410	10.682	ug/l	97
86) p-Isopropyltoluene	13.297	119	47106	10.773	ug/l	99
87) 1,3-Dichlorobenzene	13.297	146	22556	10.715	ug/l	99
88) 1,4-Dichlorobenzene	13.377	146	21947	10.480	ug/l	96
89) n-Butylbenzene	13.627	91	39091	10.710	ug/l	99
90) Hexachloroethane	13.889	117	8880	10.680	ug/l	99
91) 1,2-Dichlorobenzene	13.663	146	18554	10.279	ug/l	96
92) 1,2-Dibromo-3-Chloropr...	14.285	75	1198	10.298	ug/l	98
93) 1,2,4-Trichlorobenzene	14.931	180	11153	9.721	ug/l	97
94) Hexachlorobutadiene	15.035	225	8808	10.534	ug/l	98
95) Naphthalene	15.151	128	16857	9.174	ug/l	98
96) 1,2,3-Trichlorobenzene	15.340	180	9155	9.584	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020707.D
Acq On : 26 Dec 2024 09:53
Operator : SY/MD
Sample : VSTDICC010
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:28 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
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

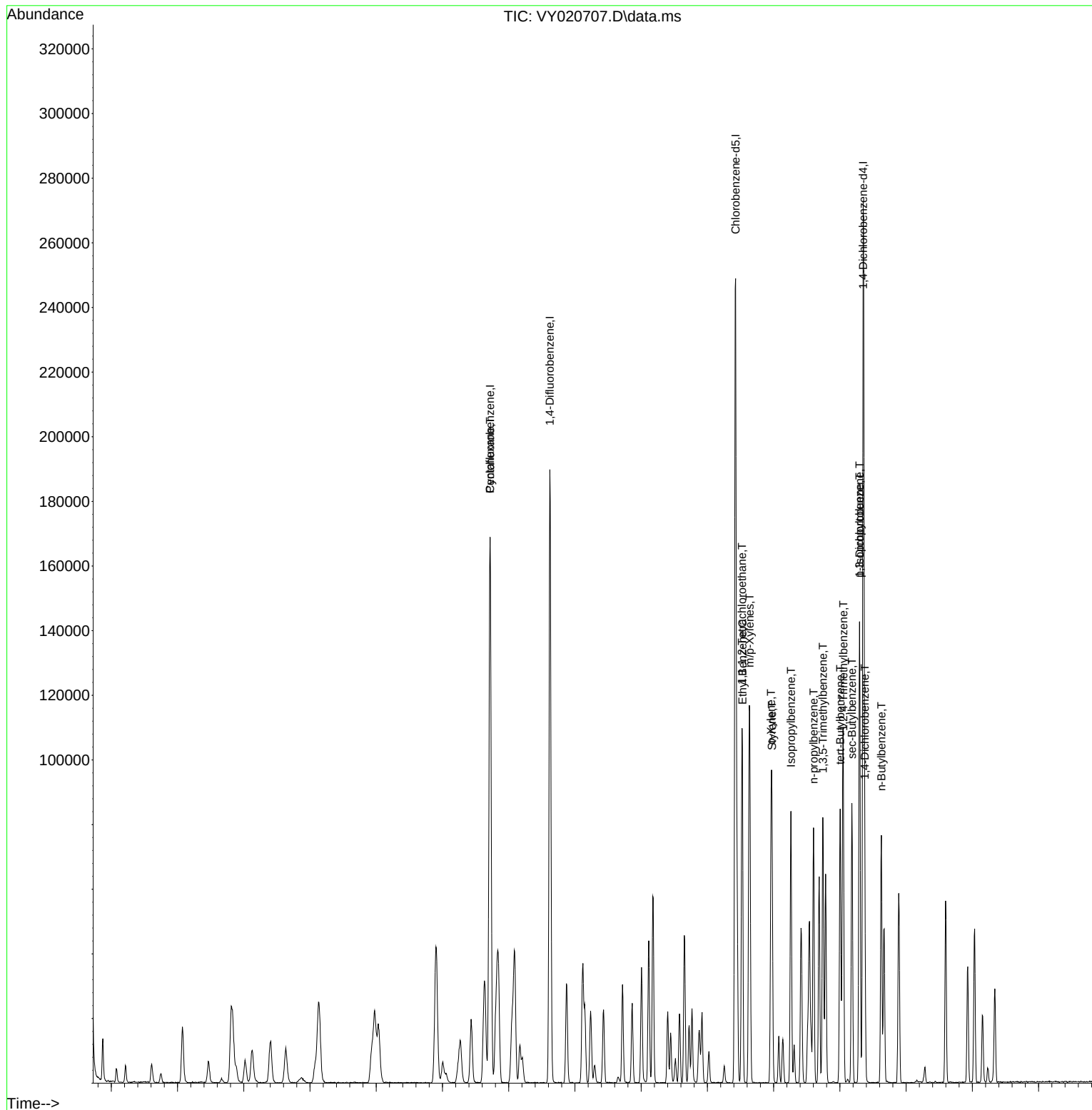
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Data File : VY020707.D
Acq On : 26 Dec 2024 09:53
Operator : SY/MD
Sample : VSTDIC010
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDIC010

Manual Integrations
APPROVED

Reviewed By : Mahesh Dadoda 12/27/2024
Supervised By : Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:28 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020708.D
 Acq On : 26 Dec 2024 10:16
 Operator : SY/MD
 Sample : VSTDICC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:50 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.720	168	124056	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	173311	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	146011	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	74311	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	15547	15.300	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	30.600%#
35) Dibromofluoromethane	7.646	113	16110	16.876	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	33.760%#
50) Toluene-d8	10.115	98	50794	14.644	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	29.280%#
62) 4-Bromofluorobenzene	12.414	95	22093	17.414	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	34.820%

Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.867	85	18601	19.049	ug/l	92
3) Chloromethane	2.074	50	6487	17.813	ug/l	96
4) Vinyl Chloride	2.214	62	8742	19.375	ug/l	98
5) Bromomethane	2.611	94	6370	18.699	ug/l	96
6) Chloroethane	2.745	64	5058	18.687	ug/l	96
7) Trichlorofluoromethane	3.074	101	34026	19.610	ug/l	99
8) Diethyl Ether	3.470	74	7737	18.739	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.824	101	18742	19.675	ug/l	97
10) Methyl Iodide	4.019	142	19652	18.866	ug/l	99
11) Tert butyl alcohol	4.897	59	6567	90.235	ug/l #	88
12) 1,1-Dichloroethene	3.806	96	16374	19.312	ug/l	93
13) Acrolein	3.665	56	2867	134.971	ug/l	94
14) Allyl chloride	4.403	41	19316	19.468	ug/l	96
15) Acrylonitrile	5.074	53	14919	93.535	ug/l	99
16) Acetone	3.885	43	11272	87.443	ug/l	99
17) Carbon Disulfide	4.123	76	38140	18.338	ug/l	96
18) Methyl Acetate	4.403	43	6527	18.708	ug/l	93
19) Methyl tert-butyl Ether	5.135	73	45739	19.355	ug/l	97
20) Methylene Chloride	4.629	84	16287	19.426	ug/l	87
21) trans-1,2-Dichloroethene	5.128	96	17672	19.342	ug/l	96
22) Diisopropyl ether	6.031	45	39891	19.778	ug/l	97
23) Vinyl Acetate	5.976	43	116269	96.512	ug/l	99
24) 1,1-Dichloroethane	5.939	63	29556	19.545	ug/l	98
25) 2-Butanone	6.903	43	16336	93.814	ug/l	95
26) 2,2-Dichloropropane	6.903	77	35847	19.368	ug/l	99
27) cis-1,2-Dichloroethene	6.909	96	21139	19.320	ug/l	98
28) Bromochloromethane	7.256	49	6388	15.974	ug/l	93
29) Tetrahydrofuran	7.274	42	9908	92.698	ug/l	94
30) Chloroform	7.433	83	37350	19.200	ug/l	97
31) Cyclohexane	7.720	56	24456	18.736	ug/l #	95
32) 1,1,1-Trichloroethane	7.628	97	40987	19.656	ug/l	99
36) 1,1-Dichloropropene	7.848	75	24262	19.240	ug/l	98
37) Ethyl Acetate	6.994	43	8299	19.972	ug/l	96
38) Carbon Tetrachloride	7.829	117	40302	19.409	ug/l	96
39) Methylcyclohexane	9.116	83	32007	19.803	ug/l	94
40) Benzene	8.091	78	72108	19.731	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020708.D
 Acq On : 26 Dec 2024 10:16
 Operator : SY/MD
 Sample : VSTDICC020
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC020

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:50 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.232	41	4661	22.206	ug/l	97
42) 1,2-Dichloroethane	8.171	62	22531	19.227	ug/l	99
43) Isopropyl Acetate	8.207	43	16635	18.834	ug/l	98
44) Trichloroethene	8.878	130	21859	20.026	ug/l	88
45) 1,2-Dichloropropane	9.152	63	14245	19.256	ug/l	92
46) Dibromomethane	9.238	93	9719	18.988	ug/l	97
47) Bromodichloromethane	9.433	83	28737	19.803	ug/l	96
48) Methyl methacrylate	9.225	41	7787	18.879	ug/l	99
49) 1,4-Dioxane	9.238	88	1825	374.309	ug/l	94
51) 4-Methyl-2-Pentanone	10.006	43	40592	95.218	ug/l	99
52) Toluene	10.176	92	50060	19.986	ug/l	99
53) t-1,3-Dichloropropene	10.402	75	24428	19.166	ug/l	99
54) cis-1,3-Dichloropropene	9.865	75	27417	19.625	ug/l	99
55) 1,1,2-Trichloroethane	10.579	97	12886	19.722	ug/l	94
56) Ethyl methacrylate	10.445	69	16830	19.607	ug/l	97
57) 1,3-Dichloropropane	10.725	76	20740	19.558	ug/l	96
58) 2-Chloroethyl Vinyl ether	9.719	63	27533	91.985	ug/l	99
59) 2-Hexanone	10.768	43	27109	96.312	ug/l	100
60) Dibromochloromethane	10.920	129	20354	19.279	ug/l	99
61) 1,2-Dibromoethane	11.018	107	12098	19.678	ug/l	97
64) Tetrachloroethene	10.658	164	20307	20.357	ug/l	97
65) Chlorobenzene	11.451	112	56993	19.935	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.524	131	21420	19.338	ug/l	96
67) Ethyl Benzene	11.524	91	100148	20.042	ug/l	99
68) m/p-Xylenes	11.633	106	75856	39.796	ug/l	99
69) o-Xylene	11.963	106	37301	20.482	ug/l	96
70) Styrene	11.975	104	61946	20.262	ug/l	98
71) Bromoform	12.139	173	12354	19.400	ug/l #	96
73) Isopropylbenzene	12.261	105	104274	20.254	ug/l	100
74) N-amyl acetate	12.078	43	14154	19.346	ug/l	95
75) 1,1,2,2-Tetrachloroethane	12.511	83	13030	19.742	ug/l	99
76) 1,2,3-Trichloropropane	12.560	75	10691m	18.239	ug/l	
77) Bromobenzene	12.536	156	23151	19.534	ug/l	98
78) n-propylbenzene	12.603	91	118053	20.458	ug/l	99
79) 2-Chlorotoluene	12.688	91	66234	20.135	ug/l	100
80) 1,3,5-Trimethylbenzene	12.743	105	86460	20.157	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.310	75	4620	19.322	ug/l	91
82) 4-Chlorotoluene	12.786	91	68187	20.057	ug/l	100
83) tert-Butylbenzene	13.005	119	81757	20.410	ug/l	100
84) 1,2,4-Trimethylbenzene	13.048	105	85025	20.370	ug/l	97
85) sec-Butylbenzene	13.182	105	110869	20.536	ug/l	99
86) p-Isopropyltoluene	13.298	119	97722	20.311	ug/l	99
87) 1,3-Dichlorobenzene	13.292	146	46587	20.113	ug/l	98
88) 1,4-Dichlorobenzene	13.371	146	46439	20.154	ug/l	98
89) n-Butylbenzene	13.627	91	82147	20.454	ug/l	99
90) Hexachloroethane	13.889	117	17856	19.517	ug/l	98
91) 1,2-Dichlorobenzene	13.664	146	40471	20.378	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.279	75	2548	19.905	ug/l	97
93) 1,2,4-Trichlorobenzene	14.932	180	24098	19.089	ug/l	97
94) Hexachlorobutadiene	15.029	225	18082	19.654	ug/l	99
95) Naphthalene	15.151	128	38351	18.968	ug/l	98
96) 1,2,3-Trichlorobenzene	15.340	180	20167	19.187	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020708.D
Acq On : 26 Dec 2024 10:16
Operator : SY/MD
Sample : VSTDICC020
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:50 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
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

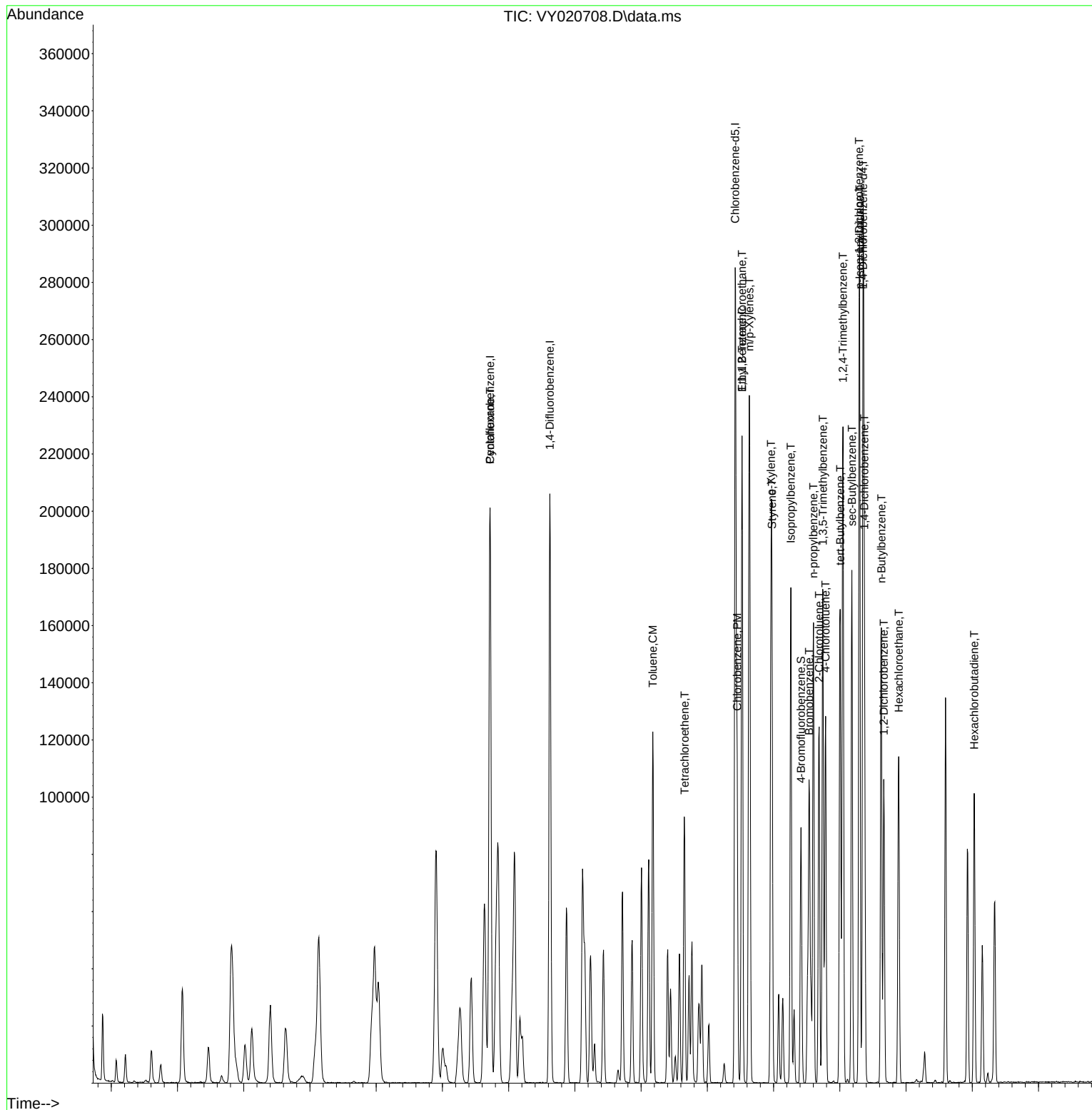
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020708.D
Acq On : 26 Dec 2024 10:16
Operator : SY/MD
Sample : VSTDIC020
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:05:50 2024
Quant Method : Z:\voasrv\HPCHEM1\MSSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020709.D
 Acq On : 26 Dec 2024 10:39
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.720	168	95919	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	134605	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	116249	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	60351	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	49534	63.047	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	126.100%
35) Dibromofluoromethane	7.646	113	42955	57.936	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	115.880%
50) Toluene-d8	10.115	98	165135	55.802	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	111.600%
62) 4-Bromofluorobenzene	12.414	95	57393	58.248	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	116.500%

Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.867	85	38801	51.393	ug/l	98
3) Chloromethane	2.074	50	15038	53.407	ug/l	98
4) Vinyl Chloride	2.214	62	18435	52.843	ug/l	99
5) Bromomethane	2.611	94	13527	51.355	ug/l	93
6) Chloroethane	2.745	64	10817	51.686	ug/l	98
7) Trichlorofluoromethane	3.074	101	68580	51.119	ug/l	99
8) Diethyl Ether	3.464	74	17063	53.449	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.830	101	37468	50.872	ug/l	99
10) Methyl Iodide	4.019	142	43478	53.984	ug/l	97
11) Tert butyl alcohol	4.879	59	13467	276.533	ug/l #	91
12) 1,1-Dichloroethene	3.806	96	33758	51.495	ug/l	97
13) Acrolein	3.665	56	3048	185.584	ug/l	98
14) Allyl chloride	4.397	41	39674	51.717	ug/l	96
15) Acrylonitrile	5.074	53	34070	276.260	ug/l	98
16) Acetone	3.879	43	26066	261.525	ug/l	97
17) Carbon Disulfide	4.123	76	86912	54.046	ug/l	100
18) Methyl Acetate	4.397	43	15232	56.466	ug/l	97
19) Methyl tert-butyl Ether	5.128	73	97389	53.300	ug/l	96
20) Methylene Chloride	4.635	84	32892	50.741	ug/l	93
21) trans-1,2-Dichloroethene	5.128	96	37498	53.081	ug/l	95
22) Diisopropyl ether	6.031	45	82233	52.731	ug/l	98
23) Vinyl Acetate	5.976	43	257552	276.499	ug/l	99
24) 1,1-Dichloroethane	5.933	63	59422	50.822	ug/l	99
25) 2-Butanone	6.903	43	38144	283.310	ug/l	97
26) 2,2-Dichloropropane	6.896	77	71954	50.280	ug/l	100
27) cis-1,2-Dichloroethene	6.903	96	44338	52.410	ug/l	97
28) Bromochloromethane	7.256	49	18465	59.719	ug/l	96
29) Tetrahydrofuran	7.274	42	23409	283.255	ug/l	96
30) Chloroform	7.433	83	75540	50.224	ug/l	93
31) Cyclohexane	7.713	56	48960	48.512	ug/l	99
32) 1,1,1-Trichloroethane	7.628	97	82365	51.087	ug/l	99
36) 1,1-Dichloropropene	7.848	75	50348	51.408	ug/l	99
37) Ethyl Acetate	7.000	43	17946	55.607	ug/l	99
38) Carbon Tetrachloride	7.829	117	82604	51.220	ug/l	97
39) Methylcyclohexane	9.116	83	65222	51.957	ug/l	99
40) Benzene	8.091	78	146525	51.623	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020709.D
 Acq On : 26 Dec 2024 10:39
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.232	41	7518	46.116	ug/l #	71
42) 1,2-Dichloroethane	8.165	62	49005	53.844	ug/l	100
43) Isopropyl Acetate	8.207	43	38693	56.406	ug/l	99
44) Trichloroethene	8.872	130	43575	51.399	ug/l	90
45) 1,2-Dichloropropane	9.152	63	30307	52.749	ug/l	95
46) Dibromomethane	9.238	93	21455	53.969	ug/l	97
47) Bromodichloromethane	9.433	83	58285	51.714	ug/l	93
48) Methyl methacrylate	9.225	41	17575	54.863	ug/l	99
49) 1,4-Dioxane	9.238	88	4523	1194.426	ug/l	98
51) 4-Methyl-2-Pentanone	10.006	43	93936	283.711	ug/l	99
52) Toluene	10.176	92	100248	51.531	ug/l	98
53) t-1,3-Dichloropropene	10.402	75	54221	54.774	ug/l	100
54) cis-1,3-Dichloropropene	9.865	75	57850	53.316	ug/l	96
55) 1,1,2-Trichloroethane	10.579	97	26808	52.828	ug/l	99
56) Ethyl methacrylate	10.445	69	37346	56.020	ug/l	98
57) 1,3-Dichloropropane	10.725	76	44949	54.576	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.719	63	68375	294.122	ug/l	100
59) 2-Hexanone	10.768	43	64500	295.048	ug/l	98
60) Dibromochloromethane	10.920	129	42531	51.869	ug/l	96
61) 1,2-Dibromoethane	11.018	107	25662	53.744	ug/l	98
64) Tetrachloroethene	10.652	164	40834	51.414	ug/l	96
65) Chlorobenzene	11.451	112	116432	51.151	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.524	131	45293	51.360	ug/l	99
67) Ethyl Benzene	11.524	91	206644	51.942	ug/l	98
68) m/p-Xylenes	11.633	106	156992	103.449	ug/l	99
69) o-Xylene	11.963	106	75564	52.115	ug/l	99
70) Styrene	11.975	104	126718	52.061	ug/l	99
71) Bromoform	12.139	173	28066	55.357	ug/l #	99
73) Isopropylbenzene	12.261	105	209755	50.166	ug/l	99
74) N-amyl acetate	12.078	43	33024	55.579	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	28705	53.553	ug/l	98
76) 1,2,3-Trichloropropane	12.560	75	18132m	38.088	ug/l	
77) Bromobenzene	12.536	156	49237	51.155	ug/l	98
78) n-propylbenzene	12.603	91	235128	50.173	ug/l	100
79) 2-Chlorotoluene	12.688	91	136280	51.012	ug/l	99
80) 1,3,5-Trimethylbenzene	12.743	105	177863	51.057	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.310	75	10590	54.534	ug/l	98
82) 4-Chlorotoluene	12.786	91	141476	51.241	ug/l	99
83) tert-Butylbenzene	13.005	119	164603	50.596	ug/l	99
84) 1,2,4-Trimethylbenzene	13.048	105	174321	51.423	ug/l	99
85) sec-Butylbenzene	13.182	105	221870	50.603	ug/l	99
86) p-Isopropyltoluene	13.298	119	198854	50.891	ug/l	100
87) 1,3-Dichlorobenzene	13.292	146	95245	50.631	ug/l	98
88) 1,4-Dichlorobenzene	13.371	146	94865	50.694	ug/l	99
89) n-Butylbenzene	13.621	91	166380	51.010	ug/l	99
90) Hexachloroethane	13.889	117	37154	50.005	ug/l	99
91) 1,2-Dichlorobenzene	13.664	146	85113	52.769	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.285	75	5917	56.916	ug/l	95
93) 1,2,4-Trichlorobenzene	14.932	180	54457	53.117	ug/l	100
94) Hexachlorobutadiene	15.029	225	37636	50.369	ug/l	99
95) Naphthalene	15.151	128	92244	56.177	ug/l	99
96) 1,2,3-Trichlorobenzene	15.340	180	46678	54.682	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020709.D
Acq On : 26 Dec 2024 10:39
Operator : SY/MD
Sample : VSTDICCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
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

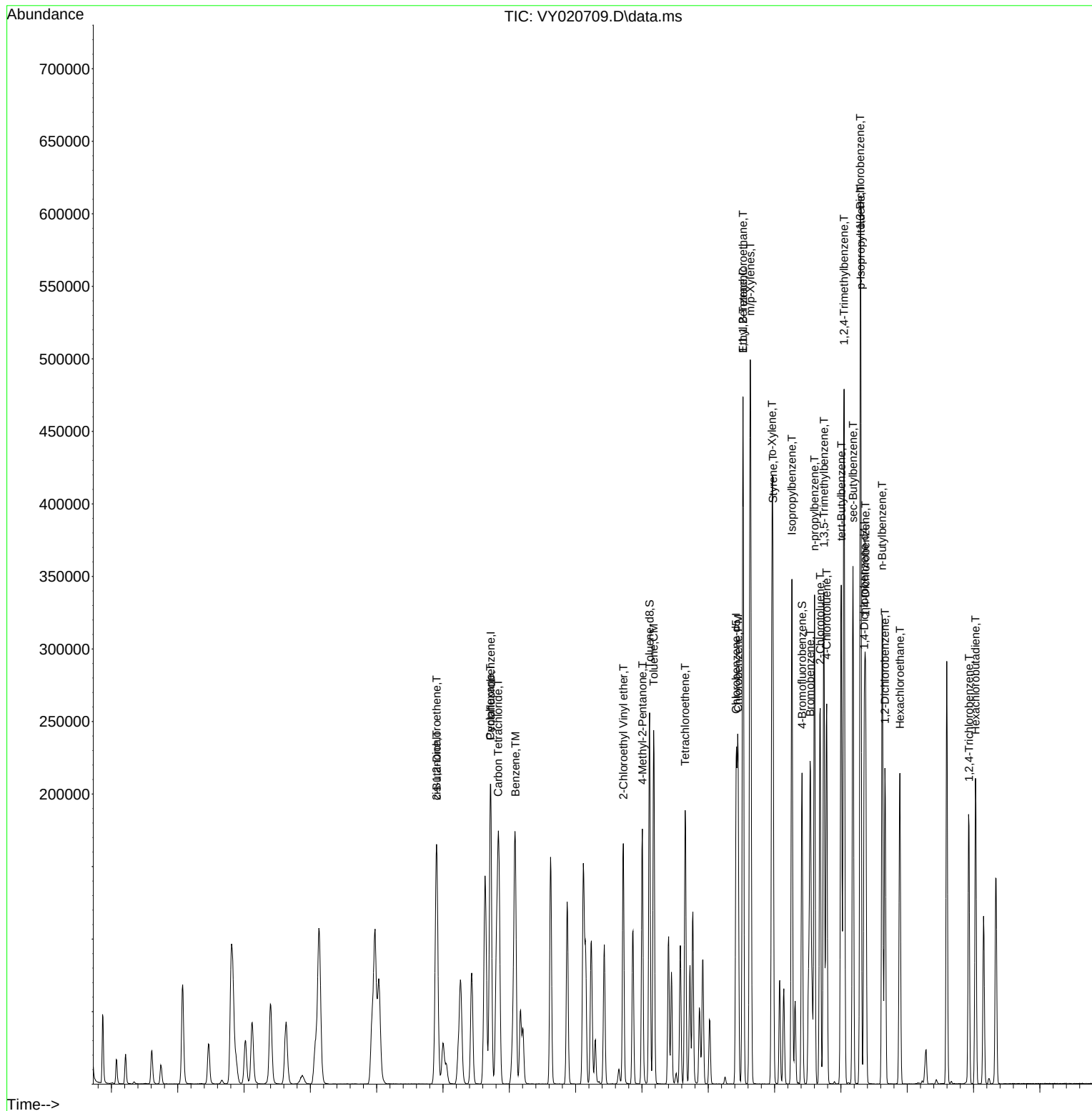
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020709.D
Acq On : 26 Dec 2024 10:39
Operator : SY/MD
Sample : VSTDICCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020710.D
 Acq On : 26 Dec 2024 11:01
 Operator : SY/MD
 Sample : VSTDICC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC150

Quant Time: Dec 26 16:06:41 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	114988	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.621	114	158039	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.426	117	137996	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.352	152	68495	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	149540	158.772	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 317.540%#			
35) Dibromofluoromethane	7.646	113	134770	154.819	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 309.640%#			
50) Toluene-d8	10.115	98	518209	146.261	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 292.520%#			
62) 4-Bromofluorobenzene	12.413	95	176701	152.741	ug/l	0.00
Spiked Amount 50.000	Range 29 - 146		Recovery = 305.480%#			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.873	85	129832	143.447	ug/l	98
3) Chloromethane	2.074	50	50886	150.751	ug/l	94
4) Vinyl Chloride	2.214	62	61386	146.779	ug/l	100
5) Bromomethane	2.598	94	46855	148.385	ug/l	93
6) Chloroethane	2.744	64	38539	153.610	ug/l	92
7) Trichlorofluoromethane	3.067	101	237769	147.839	ug/l	99
8) Diethyl Ether	3.464	74	58291	152.312	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.829	101	129702	146.898	ug/l	98
10) Methyl Iodide	4.012	142	153490	158.974	ug/l	98
11) Tert butyl alcohol	4.878	59	42318	761.366	ug/l #	78
12) 1,1-Dichloroethene	3.805	96	117146	149.063	ug/l	100
13) Acrolein	3.665	56	9943	505.005	ug/l	97
14) Allyl chloride	4.396	41	139044	151.192	ug/l	97
15) Acrylonitrile	5.073	53	112334	759.818	ug/l	99
16) Acetone	3.878	43	82039	686.613	ug/l	99
17) Carbon Disulfide	4.122	76	299085	155.142	ug/l	99
18) Methyl Acetate	4.396	43	49673	153.605	ug/l	98
19) Methyl tert-butyl Ether	5.134	73	325123	148.428	ug/l	100
20) Methylene Chloride	4.634	84	113659	146.259	ug/l	94
21) trans-1,2-Dichloroethene	5.134	96	126864	149.805	ug/l	97
22) Diisopropyl ether	6.030	45	270897	144.902	ug/l	98
23) Vinyl Acetate	5.975	43	842460	754.449	ug/l	99
24) 1,1-Dichloroethane	5.927	63	203786	145.390	ug/l	98
25) 2-Butanone	6.908	43	121750	754.322	ug/l	95
26) 2,2-Dichloropropane	6.896	77	245949	143.362	ug/l	100
27) cis-1,2-Dichloroethene	6.902	96	149023	146.943	ug/l	98
28) Bromochloromethane	7.256	49	61393	165.629	ug/l	95
29) Tetrahydrofuran	7.274	42	75734	764.431	ug/l	97
30) Chloroform	7.433	83	255843	141.892	ug/l	94
31) Cyclohexane	7.713	56	159686	131.985	ug/l	98
32) 1,1,1-Trichloroethane	7.628	97	281529	145.661	ug/l	99
36) 1,1-Dichloropropene	7.847	75	170324	148.123	ug/l	99
37) Ethyl Acetate	6.994	43	58258	153.750	ug/l	100
38) Carbon Tetrachloride	7.829	117	281225	148.522	ug/l	96
39) Methylcyclohexane	9.115	83	222062	150.669	ug/l	96
40) Benzene	8.091	78	493419	148.061	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020710.D
 Acq On : 26 Dec 2024 11:01
 Operator : SY/MD
 Sample : VSTDICC150
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:41 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.225	41	30977	161.841	ug/l	94
42) 1,2-Dichloroethane	8.170	62	162177	151.768	ug/l	99
43) Isopropyl Acetate	8.207	43	125433	155.741	ug/l	98
44) Trichloroethene	8.871	130	146621	147.303	ug/l	93
45) 1,2-Dichloropropane	9.146	63	96524	143.087	ug/l	95
46) Dibromomethane	9.237	93	70177	150.351	ug/l	99
47) Bromodichloromethane	9.432	83	197163	148.994	ug/l	93
48) Methyl methacrylate	9.225	41	57813	153.712	ug/l	99
49) 1,4-Dioxane	9.237	88	14810	3331.078	ug/l	98
51) 4-Methyl-2-Pentanone	10.005	43	297779	766.010	ug/l	100
52) Toluene	10.176	92	342599	149.994	ug/l	100
53) t-1,3-Dichloropropene	10.401	75	180957	155.696	ug/l	98
54) cis-1,3-Dichloropropene	9.865	75	194591	152.747	ug/l	97
55) 1,1,2-Trichloroethane	10.578	97	89814	150.745	ug/l	97
56) Ethyl methacrylate	10.444	69	125990	160.965	ug/l	99
57) 1,3-Dichloropropane	10.725	76	147770	152.813	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.719	63	227376	833.052	ug/l	99
59) 2-Hexanone	10.767	43	205596	801.023	ug/l	99
60) Dibromochloromethane	10.920	129	146356	152.023	ug/l	99
61) 1,2-Dibromoethane	11.023	107	87182	155.511	ug/l	99
64) Tetrachloroethene	10.651	164	139334	147.787	ug/l	97
65) Chlorobenzene	11.450	112	390317	144.451	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.523	131	151401	144.626	ug/l	99
67) Ethyl Benzene	11.523	91	696321	147.444	ug/l	99
68) m/p-Xylenes	11.633	106	532697	295.699	ug/l	100
69) o-Xylene	11.962	106	249576	145.003	ug/l	98
70) Styrene	11.974	104	422920	146.372	ug/l	100
71) Bromoform	12.139	173	90423	150.242	ug/l #	100
73) Isopropylbenzene	12.261	105	699104	147.320	ug/l	100
74) N-amyl acetate	12.078	43	110622	164.040	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	92629	152.263	ug/l	99
76) 1,2,3-Trichloropropane	12.566	75	74431m	137.761	ug/l	
77) Bromobenzene	12.541	156	163665	149.824	ug/l	98
78) n-propylbenzene	12.602	91	775459	145.797	ug/l	99
79) 2-Chlorotoluene	12.688	91	447942	147.735	ug/l	99
80) 1,3,5-Trimethylbenzene	12.743	105	577812	146.144	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.310	75	33964	154.104	ug/l	97
82) 4-Chlorotoluene	12.785	91	460319	146.900	ug/l	99
83) tert-Butylbenzene	13.005	119	540775	146.461	ug/l	99
84) 1,2,4-Trimethylbenzene	13.047	105	570579	148.302	ug/l	99
85) sec-Butylbenzene	13.181	105	727401	146.177	ug/l	99
86) p-Isopropyltoluene	13.297	119	651978	147.017	ug/l	99
87) 1,3-Dichlorobenzene	13.297	146	314188	147.160	ug/l	98
88) 1,4-Dichlorobenzene	13.377	146	308690	145.345	ug/l	98
89) n-Butylbenzene	13.627	91	551311	148.927	ug/l	100
90) Hexachloroethane	13.889	117	125073	148.318	ug/l	97
91) 1,2-Dichlorobenzene	13.663	146	272976	149.118	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.279	75	18575	157.429	ug/l	97
93) 1,2,4-Trichlorobenzene	14.931	180	194628	167.268	ug/l	99
94) Hexachlorobutadiene	15.029	225	130414	153.785	ug/l	99
95) Naphthalene	15.151	128	329555	176.838	ug/l	100
96) 1,2,3-Trichlorobenzene	15.340	180	163465	168.727	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020710.D
Acq On : 26 Dec 2024 11:01
Operator : SY/MD
Sample : VSTDICC150
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
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

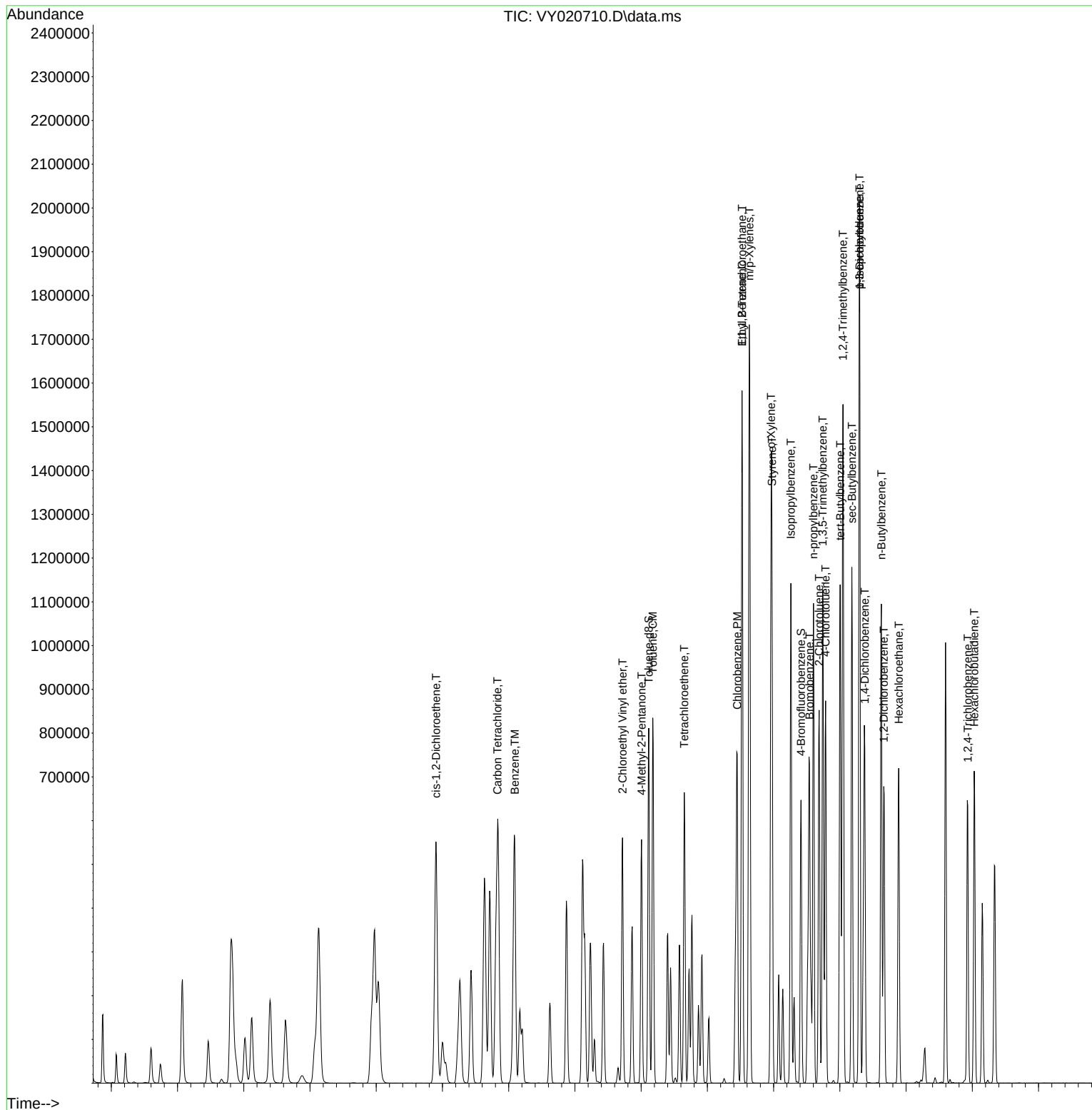
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020710.D
Acq On : 26 Dec 2024 11:01
Operator : SY/MD
Sample : VSTDICC150
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020711.D
 Acq On : 26 Dec 2024 11:51
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:07:06 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	116833	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	159804	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.426	117	137258	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	69727	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	106883	111.689	ug/l	0.00
Spiked Amount 50.000	Range 50	- 163	Recovery	= 223.380%#		
35) Dibromofluoromethane	7.646	113	98131	111.484	ug/l	0.00
Spiked Amount 50.000	Range 54	- 147	Recovery	= 222.960%#		
50) Toluene-d8	10.115	98	370174	103.831	ug/l	0.00
Spiked Amount 50.000	Range 58	- 134	Recovery	= 207.660%#		
62) 4-Bromofluorobenzene	12.414	95	126890	108.473	ug/l	0.00
Spiked Amount 50.000	Range 29	- 146	Recovery	= 216.940%#		
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.873	85	89983	97.849	ug/l	98
3) Chloromethane	2.074	50	36325	105.914	ug/l	97
4) Vinyl Chloride	2.214	62	42335	99.628	ug/l	99
5) Bromomethane	2.605	94	32346	100.819	ug/l	92
6) Chloroethane	2.745	64	25930	101.721	ug/l	92
7) Trichlorofluoromethane	3.074	101	160967	98.505	ug/l	97
8) Diethyl Ether	3.464	74	40852	105.059	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.824	101	89952	100.269	ug/l	98
10) Methyl Iodide	4.019	142	105224	107.262	ug/l	99
11) Tert butyl alcohol	4.872	59	27117	471.856	ug/l #	76
12) 1,1-Dichloroethene	3.799	96	80482	100.793	ug/l	98
13) Acrolein	3.665	56	6965	348.166	ug/l	98
14) Allyl chloride	4.397	41	96335	103.097	ug/l	97
15) Acrylonitrile	5.074	53	74874	498.444	ug/l	98
16) Acetone	3.879	43	53244	438.581	ug/l	99
17) Carbon Disulfide	4.116	76	207648	106.011	ug/l	99
18) Methyl Acetate	4.397	43	32722	99.589	ug/l	99
19) Methyl tert-butyl Ether	5.128	73	222187	99.833	ug/l	100
20) Methylene Chloride	4.629	84	78882	99.904	ug/l	95
21) trans-1,2-Dichloroethene	5.128	96	88224	102.532	ug/l	97
22) Diisopropyl ether	6.037	45	191362	100.743	ug/l	97
23) Vinyl Acetate	5.976	43	574176	506.073	ug/l	100
24) 1,1-Dichloroethane	5.927	63	144777	101.659	ug/l	99
25) 2-Butanone	6.903	43	78288	477.386	ug/l	97
26) 2,2-Dichloropropane	6.896	77	169441	97.206	ug/l	99
27) cis-1,2-Dichloroethene	6.903	96	104390	101.307	ug/l	97
28) Bromochloromethane	7.256	49	42948	114.037	ug/l	95
29) Tetrahydrofuran	7.274	42	48175	478.582	ug/l	94
30) Chloroform	7.433	83	178101	97.216	ug/l	97
31) Cyclohexane	7.713	56	111954	91.072	ug/l	98
32) 1,1,1-Trichloroethane	7.628	97	194164	98.873	ug/l	99
36) 1,1-Dichloropropene	7.848	75	118213	101.669	ug/l	99
37) Ethyl Acetate	6.994	43	37453	97.751	ug/l	97
38) Carbon Tetrachloride	7.829	117	193743	101.190	ug/l	98
39) Methylcyclohexane	9.116	83	151388	101.582	ug/l	96
40) Benzene	8.091	78	346286	102.763	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020711.D
 Acq On : 26 Dec 2024 11:51
 Operator : SY/MD
 Sample : VSTDICC100
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICC100

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:07:06 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.232	41	20832	107.636	ug/l	96
42) 1,2-Dichloroethane	8.165	62	111130	102.849	ug/l	99
43) Isopropyl Acetate	8.207	43	83521	102.557	ug/l #	86
44) Trichloroethene	8.872	130	101237	100.585	ug/l	95
45) 1,2-Dichloropropane	9.146	63	67508	98.968	ug/l	98
46) Dibromomethane	9.238	93	47179	99.962	ug/l	99
47) Bromodichloromethane	9.427	83	134627	100.613	ug/l	96
48) Methyl methacrylate	9.225	41	39672	104.314	ug/l	97
49) 1,4-Dioxane	9.244	88	9130	2030.846	ug/l	97
51) 4-Methyl-2-Pentanone	10.006	43	194141	493.895	ug/l	99
52) Toluene	10.176	92	236867	102.558	ug/l	100
53) t-1,3-Dichloropropene	10.402	75	123413	105.012	ug/l	99
54) cis-1,3-Dichloropropene	9.865	75	132154	102.590	ug/l	97
55) 1,1,2-Trichloroethane	10.579	97	60063	99.697	ug/l	99
56) Ethyl methacrylate	10.445	69	82573	104.330	ug/l	98
57) 1,3-Dichloropropane	10.725	76	100785	103.074	ug/l	97
58) 2-Chloroethyl Vinyl ether	9.719	63	151207	547.868	ug/l	99
59) 2-Hexanone	10.768	43	132885	512.015	ug/l	99
60) Dibromochloromethane	10.920	129	99612	102.326	ug/l	99
61) 1,2-Dibromoethane	11.024	107	56939	100.443	ug/l	100
64) Tetrachloroethene	10.652	164	95043	101.351	ug/l	97
65) Chlorobenzene	11.451	112	270485	100.641	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.524	131	105235	101.066	ug/l	98
67) Ethyl Benzene	11.524	91	478506	101.867	ug/l	99
68) m/p-Xylenes	11.633	106	366100	204.314	ug/l	100
69) o-Xylene	11.963	106	173536	101.366	ug/l	99
70) Styrene	11.975	104	294999	102.647	ug/l	99
71) Bromoform	12.139	173	60872	101.685	ug/l #	98
73) Isopropylbenzene	12.261	105	484532	100.300	ug/l	100
74) N-amyl acetate	12.078	43	72233	105.221	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	60116	97.073	ug/l	99
76) 1,2,3-Trichloropropane	12.560	75	39557m	71.921	ug/l	
77) Bromobenzene	12.542	156	112291	100.978	ug/l	97
78) n-propylbenzene	12.603	91	544130	100.496	ug/l	100
79) 2-Chlorotoluene	12.688	91	310413	100.568	ug/l	100
80) 1,3,5-Trimethylbenzene	12.743	105	404786	100.572	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.310	75	23063	102.794	ug/l	97
82) 4-Chlorotoluene	12.786	91	322204	101.007	ug/l	99
83) tert-Butylbenzene	13.005	119	374773	99.709	ug/l	100
84) 1,2,4-Trimethylbenzene	13.048	105	399805	102.079	ug/l	100
85) sec-Butylbenzene	13.182	105	509425	100.564	ug/l	99
86) p-Isopropyltoluene	13.298	119	454433	100.661	ug/l	99
87) 1,3-Dichlorobenzene	13.298	146	220131	101.283	ug/l	99
88) 1,4-Dichlorobenzene	13.377	146	216013	99.911	ug/l	98
89) n-Butylbenzene	13.627	91	384958	102.152	ug/l	100
90) Hexachloroethane	13.889	117	87162	101.535	ug/l	97
91) 1,2-Dichlorobenzene	13.670	146	187803	100.778	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.285	75	12047	100.298	ug/l	98
93) 1,2,4-Trichlorobenzene	14.932	180	131697	111.184	ug/l	100
94) Hexachlorobutadiene	15.029	225	91705	106.228	ug/l	98
95) Naphthalene	15.151	128	210953	111.196	ug/l	100
96) 1,2,3-Trichlorobenzene	15.340	180	109793	111.325	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020711.D
Acq On : 26 Dec 2024 11:51
Operator : SY/MD
Sample : VSTDICC100
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:07:06 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
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

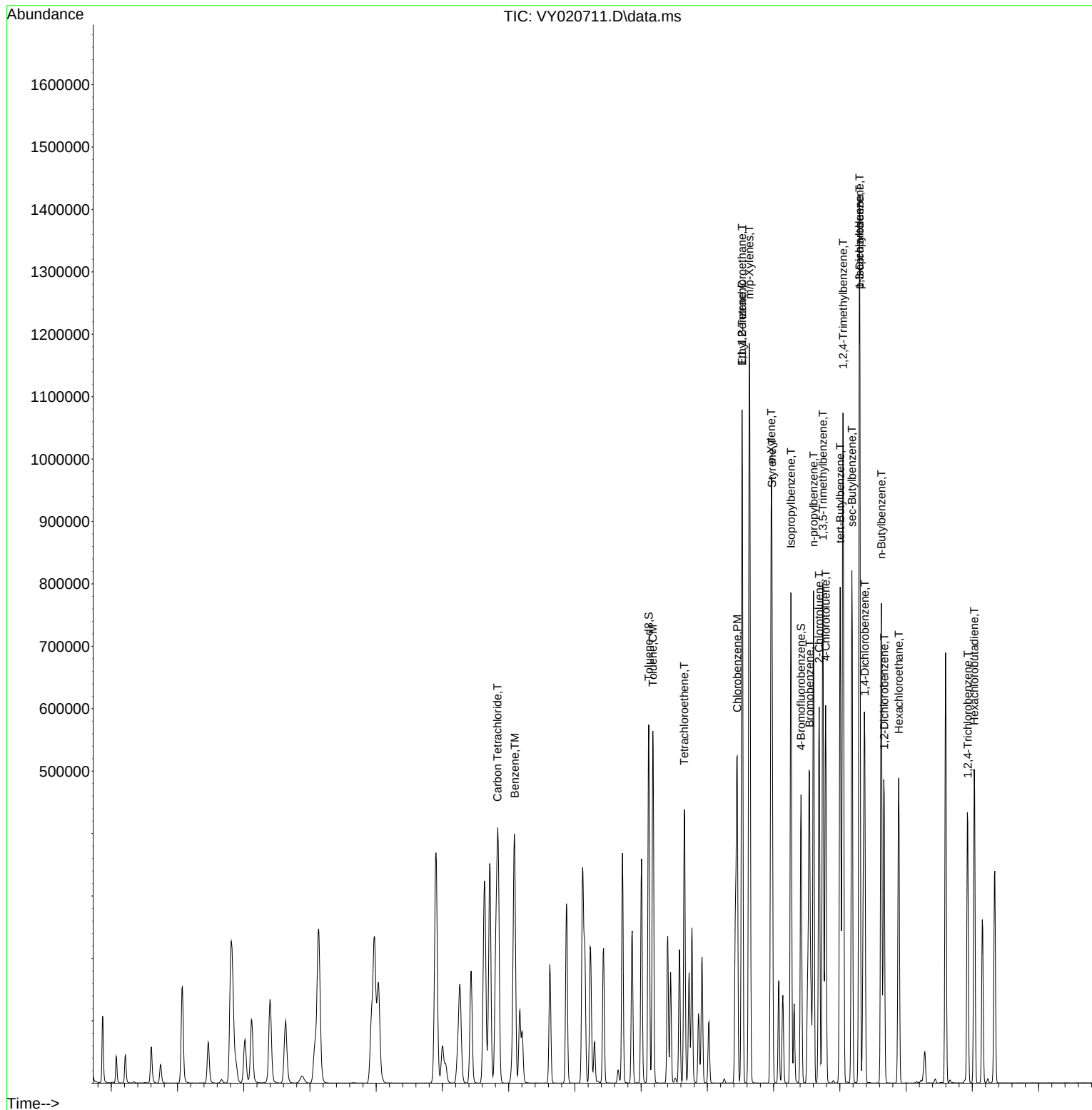
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Data File : VY020711.D
Acq On : 26 Dec 2024 11:51
Operator : SY/MD
Sample : VSTDICC100
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:07:06 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020713.D
 Acq On : 26 Dec 2024 12:51
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY122624

Quant Time: Dec 26 16:15:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	116912	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.621	114	160856	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.426	117	136421	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.358	152	70383	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	50667	52.910	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	105.820%
35) Dibromofluoromethane	7.646	113	46763	52.779	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	105.560%
50) Toluene-d8	10.115	98	184089	52.171	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	104.340%
62) 4-Bromofluorobenzene	12.413	95	62660	53.215	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	106.440%

Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.873	85	43692	47.479	ug/l	98
3) Chloromethane	2.080	50	18877	55.003	ug/l	99
4) Vinyl Chloride	2.214	62	21107	49.638	ug/l	97
5) Bromomethane	2.610	94	16385	51.036	ug/l	92
6) Chloroethane	2.750	64	13110	51.394	ug/l	100
7) Trichlorofluoromethane	3.074	101	79960	48.899	ug/l	100
8) Diethyl Ether	3.470	74	19539	50.215	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.830	101	43422	48.370	ug/l	98
10) Methyl Iodide	4.019	142	50185	51.123	ug/l	99
11) Tert butyl alcohol	4.878	59	12665	208.224	ug/l #	85
12) 1,1-Dichloroethene	3.805	96	39605	49.566	ug/l	99
13) Acrolein	3.677	56	2881	143.918	ug/l	97
14) Allyl chloride	4.403	41	47747	51.064	ug/l	96
15) Acrylonitrile	5.073	53	34113	226.940	ug/l	99
16) Acetone	3.878	43	25249	207.840	ug/l	99
17) Carbon Disulfide	4.122	76	103010	52.554	ug/l	99
18) Methyl Acetate	4.403	43	15970	48.572	ug/l	100
19) Methyl tert-butyl Ether	5.134	73	106703	47.911	ug/l	100
20) Methylene Chloride	4.628	84	39747	50.306	ug/l	90
21) trans-1,2-Dichloroethene	5.134	96	43912	50.999	ug/l	98
22) Diisopropyl ether	6.030	45	95914	50.460	ug/l	98
23) Vinyl Acetate	5.976	43	275873	242.987	ug/l	100
24) 1,1-Dichloroethane	5.933	63	72030	50.544	ug/l	99
25) 2-Butanone	6.908	43	36966	225.260	ug/l	97
26) 2,2-Dichloropropane	6.902	77	82553	47.328	ug/l	100
27) cis-1,2-Dichloroethene	6.908	96	51212	49.666	ug/l	98
28) Bromochloromethane	7.262	49	20413	54.165	ug/l	90
29) Tetrahydrofuran	7.280	42	22616	224.521	ug/l	95
30) Chloroform	7.433	83	88644	48.353	ug/l	95
31) Cyclohexane	7.713	56	55329	44.979	ug/l	94
32) 1,1,1-Trichloroethane	7.634	97	95277	48.484	ug/l	99
36) 1,1-Dichloropropene	7.847	75	57746	49.340	ug/l	99
37) Ethyl Acetate	7.000	43	18046	46.791	ug/l	97
38) Carbon Tetrachloride	7.829	117	94603	49.087	ug/l	98
39) Methylcyclohexane	9.121	83	76295	50.860	ug/l	95
40) Benzene	8.091	78	173716	51.214	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020713.D
 Acq On : 26 Dec 2024 12:51
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY122624

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:15:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.237	41	9136	46.896	ug/l	94
42) 1,2-Dichloroethane	8.170	62	52925	48.661	ug/l	99
43) Isopropyl Acetate	8.207	43	38101	46.479	ug/l	97
44) Trichloroethene	8.877	130	50355	49.703	ug/l	92
45) 1,2-Dichloropropane	9.152	63	34051	49.593	ug/l	99
46) Dibromomethane	9.237	93	22170	46.666	ug/l	97
47) Bromodichloromethane	9.432	83	65991	48.995	ug/l	94
48) Methyl methacrylate	9.231	41	17544	45.829	ug/l	99
49) 1,4-Dioxane	9.237	88	4519	998.617	ug/l	96
51) 4-Methyl-2-Pentanone	10.005	43	91062	230.147	ug/l	99
52) Toluene	10.182	92	119622	51.455	ug/l	98
53) t-1,3-Dichloropropene	10.402	75	57734	48.805	ug/l	99
54) cis-1,3-Dichloropropene	9.865	75	64766	49.949	ug/l	98
55) 1,1,2-Trichloroethane	10.578	97	29233	48.206	ug/l	99
56) Ethyl methacrylate	10.444	69	37050	46.506	ug/l	99
57) 1,3-Dichloropropane	10.725	76	48458	49.234	ug/l	96
58) 2-Chloroethyl Vinyl ether	9.719	63	67974	244.679	ug/l	97
59) 2-Hexanone	10.767	43	59853	229.110	ug/l	97
60) Dibromochloromethane	10.920	129	47597	48.574	ug/l	100
61) 1,2-Dibromoethane	11.023	107	27610	48.387	ug/l	100
64) Tetrachloroethene	10.658	164	46724	50.131	ug/l	95
65) Chlorobenzene	11.450	112	133203	49.866	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.523	131	52397	50.630	ug/l	98
67) Ethyl Benzene	11.529	91	238810	51.151	ug/l	98
68) m/p-Xylenes	11.639	106	183706	103.152	ug/l	98
69) o-Xylene	11.962	106	86833	51.032	ug/l	99
70) Styrene	11.981	104	144868	50.717	ug/l	99
71) Bromoform	12.139	173	28995	48.733	ug/l #	98
73) Isopropylbenzene	12.261	105	242449	49.720	ug/l	99
74) N-ethyl acetate	12.078	43	33272	48.015	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	29166	46.657	ug/l	99
76) 1,2,3-Trichloropropane	12.566	75	20390m	45.549	ug/l	
77) Bromobenzene	12.541	156	56640	50.459	ug/l	96
78) n-propylbenzene	12.602	91	273917	50.119	ug/l	99
79) 2-Chlorotoluene	12.688	91	154710	49.656	ug/l	99
80) 1,3,5-Trimethylbenzene	12.743	105	205116	50.488	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.310	75	11017	48.646	ug/l	94
82) 4-Chlorotoluene	12.785	91	161536	50.168	ug/l	99
83) tert-Butylbenzene	13.005	119	188052	49.565	ug/l	99
84) 1,2,4-Trimethylbenzene	13.054	105	203012	51.350	ug/l	99
85) sec-Butylbenzene	13.188	105	258622	50.578	ug/l	99
86) p-Isopropyltoluene	13.303	119	230385	50.557	ug/l	100
87) 1,3-Dichlorobenzene	13.297	146	108941	49.657	ug/l	97
88) 1,4-Dichlorobenzene	13.377	146	107603	49.305	ug/l	98
89) n-Butylbenzene	13.627	91	194314	51.082	ug/l	99
90) Hexachloroethane	13.889	117	42996	49.619	ug/l	100
91) 1,2-Dichlorobenzene	13.669	146	95132	50.573	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.285	75	5601	46.197	ug/l	95
93) 1,2,4-Trichlorobenzene	14.931	180	62409	52.197	ug/l	99
94) Hexachlorobutadiene	15.035	225	44277	50.811	ug/l	98
95) Naphthalene	15.157	128	94983	49.600	ug/l	99
96) 1,2,3-Trichlorobenzene	15.340	180	51411	51.643	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020713.D
Acq On : 26 Dec 2024 12:51
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVY122624

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:15:08 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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

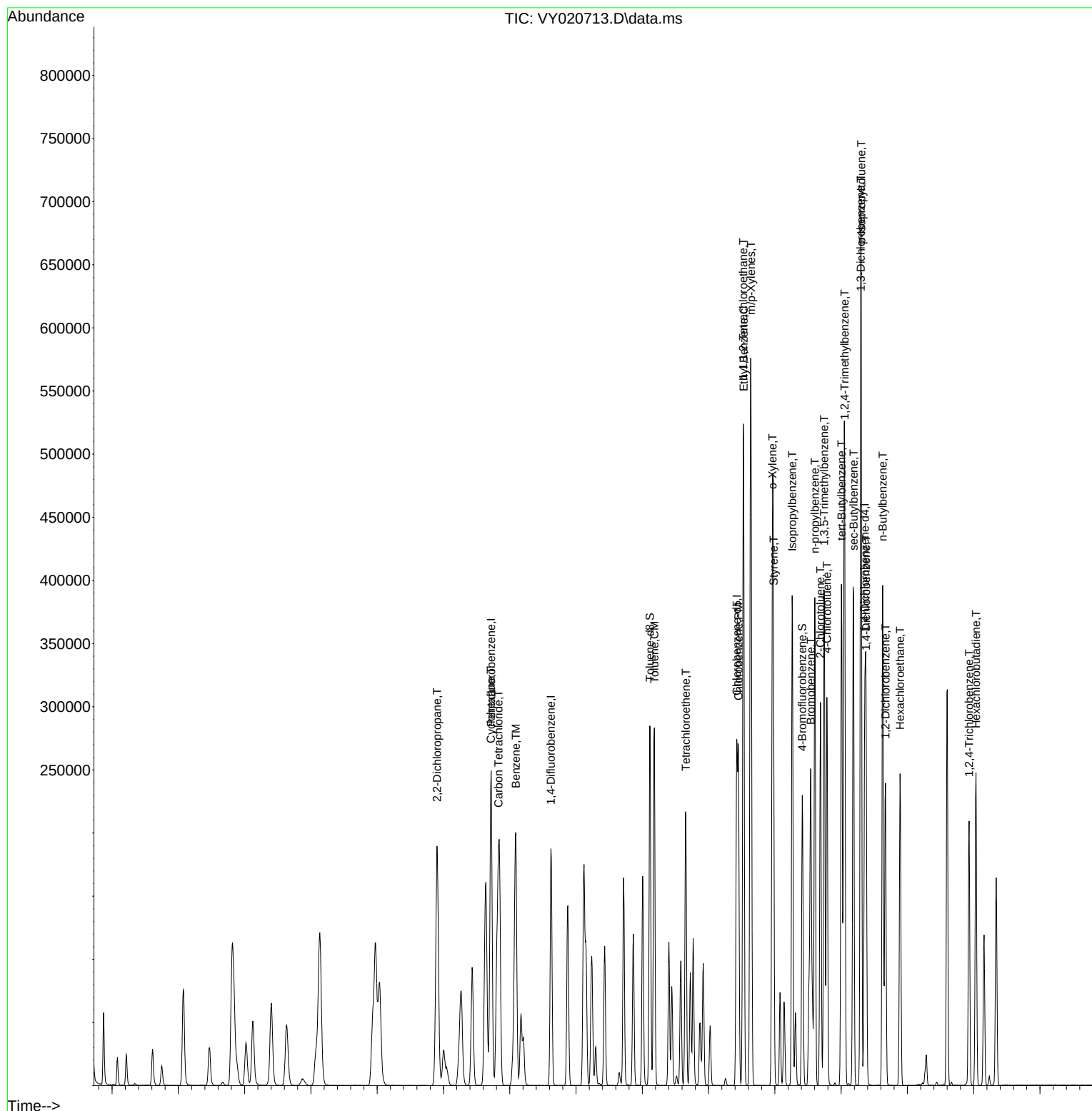
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020713.D
Acq On : 26 Dec 2024 12:51
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY122624

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:15:08 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020713.D
 Acq On : 26 Dec 2024 12:51
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICVVY122624

Quant Time: Dec 26 16:15:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 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	122	0.00
2 T	Dichlorodifluoromethane	0.394	0.374	5.1	113	0.00
3 P	Chloromethane	0.147	0.161	-9.5	126	0.00
4 C	Vinyl Chloride	0.182	0.181	0.5#	114	0.00
5 T	Bromomethane	0.137	0.140	-2.2	121	0.00
6 T	Chloroethane	0.109	0.112	-2.8	121	0.00
7 T	Trichlorofluoromethane	0.699	0.684	2.1	117	0.00
8 T	Diethyl Ether	0.166	0.167	-0.6	115	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.384	0.371	3.4	116	0.00
10 T	Methyl Iodide	0.420	0.429	-2.1	115	0.00
11 T	Tert butyl alcohol	0.031	0.022	29.0#	94	0.00
12 CM	1,1-Dichloroethene	0.342	0.339	0.9#	117	0.00
13 T	Acrolein	0.009	0.005	44.4#	95	0.00
14 T	Allyl chloride	0.400	0.408	-2.0	120	0.00
15 T	Acrylonitrile	0.064	0.058	9.4	100	0.00
16 T	Acetone	0.052	0.043	17.3	97	0.00
17 T	Carbon Disulfide	0.838	0.881	-5.1	119	0.00
18 T	Methyl Acetate	0.141	0.137	2.8	105	0.00
19 T	Methyl tert-butyl Ether	0.952	0.913	4.1	110	0.00
20 T	Methylene Chloride	0.338	0.340	-0.6	121	0.00
21 T	trans-1,2-Dichloroethene	0.368	0.376	-2.2	117	0.00
22 T	Diisopropyl ether	0.813	0.820	-0.9	117	0.00
23 T	Vinyl Acetate	0.486	0.472	2.9	107	0.00
24 P	1,1-Dichloroethane	0.609	0.616	-1.1	121	0.00
25 T	2-Butanone	0.070	0.063	10.0	97	0.00
26 T	2,2-Dichloropropane	0.746	0.706	5.4	115	0.00
27 T	cis-1,2-Dichloroethene	0.441	0.438	0.7	116	0.00
28 T	Bromochloromethane	0.161	0.175	-8.7	111	0.00
29 T	Tetrahydrofuran	0.043	0.039	9.3	97	0.00
30 C	Chloroform	0.784	0.758	3.3#	117	0.00
31 T	Cyclohexane	0.526	0.473	10.1	113	0.00
32 T	1,1,1-Trichloroethane	0.840	0.815	3.0	116	0.00
33 S	1,2-Dichloroethane-d4	0.410	0.433	-5.6	102	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	120	0.00
35 S	Dibromofluoromethane	0.275	0.291	-5.8	109	0.00
36 T	1,1-Dichloropropene	0.364	0.359	1.4	115	0.00
37 T	Ethyl Acetate	0.120	0.112	6.7	101	0.00
38 T	Carbon Tetrachloride	0.599	0.588	1.8	115	0.00
39 T	Methylcyclohexane	0.466	0.474	-1.7	117	0.00
40 TM	Benzene	1.054	1.080	-2.5	119	0.00
41 T	Methacrylonitrile	0.061	0.057	6.6	122	0.00
42 TM	1,2-Dichloroethane	0.338	0.329	2.7	108	0.00
43 T	Isopropyl Acetate	0.255	0.237	7.1	98	0.00
44 TM	Trichloroethene	0.315	0.313	0.6	116	0.00
45 C	1,2-Dichloropropane	0.213	0.212	0.5#	112	0.00
46 T	Dibromomethane	0.148	0.138	6.8	103	0.00
47 T	Bromodichloromethane	0.419	0.410	2.1	113	0.00
48 T	Methyl methacrylate	0.119	0.109	8.4	100	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020713.D
 Acq On : 26 Dec 2024 12:51
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICSVY122624

Quant Time: Dec 26 16:15:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 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	0.001	0.001	0.0	100	0.00
50 S	Toluene-d8	0.971	1.144	-17.8	111	0.00
51 T	4-Methyl-2-Pentanone	0.123	0.113	8.1	97	0.00
52 CM	Toluene	0.723	0.744	-2.9#	119	0.00
53 T	t-1,3-Dichloropropene	0.368	0.359	2.4	106	0.00
54 T	cis-1,3-Dichloropropene	0.403	0.403	0.0	112	0.00
55 T	1,1,2-Trichloroethane	0.188	0.182	3.2	109	0.00
56 T	Ethyl methacrylate	0.248	0.230	7.3	99	0.00
57 T	1,3-Dichloropropane	0.306	0.301	1.6	108	0.00
58 T	2-Chloroethyl Vinyl ether	0.086	0.085	1.2	99	0.00
59 T	2-Hexanone	0.081	0.074	8.6	93	0.00
60 T	Dibromochloromethane	0.305	0.296	3.0	112	0.00
61 T	1,2-Dibromoethane	0.177	0.172	2.8	108	0.00
62 S	4-Bromofluorobenzene	0.366	0.390	-6.6	109	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	117	0.00
64 T	Tetrachloroethene	0.342	0.342	0.0	114	0.00
65 PM	Chlorobenzene	0.979	0.976	0.3	114	0.00
66 T	1,1,1,2-Tetrachloroethane	0.379	0.384	-1.3	116	0.00
67 C	Ethyl Benzene	1.711	1.751	-2.3#	116	0.00
68 T	m/p-Xylenes	0.653	0.673	-3.1	117	0.00
69 T	o-Xylene	0.624	0.637	-2.1	115	0.00
70 T	Styrene	1.047	1.062	-1.4	114	0.00
71 P	Bromoform	0.218	0.213	2.3	103	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	117	0.00
73 T	Isopropylbenzene	3.464	3.445	0.5	116	0.00
74 T	N-amyl acetate	0.492	0.473	3.9	101	0.00
75 P	1,1,2,2-Tetrachloroethane	0.444	0.414	6.8	102	0.00
76 T	1,2,3-Trichloropropane	0.318	0.290	8.8	112	0.00
77 T	Bromobenzene	0.797	0.805	-1.0	115	0.00
78 T	n-propylbenzene	3.883	3.892	-0.2	116	0.00
79 T	2-Chlorotoluene	2.213	2.198	0.7	114	0.00
80 T	1,3,5-Trimethylbenzene	2.886	2.914	-1.0	115	0.00
81 T	trans-1,4-Dichloro-2-butene	0.161	0.157	2.5	104	0.00
82 T	4-Chlorotoluene	2.287	2.295	-0.3	114	0.00
83 T	tert-Butylbenzene	2.695	2.672	0.9	114	0.00
84 T	1,2,4-Trimethylbenzene	2.809	2.884	-2.7	116	0.00
85 T	sec-Butylbenzene	3.633	3.674	-1.1	117	0.00
86 T	p-Isopropyltoluene	3.237	3.273	-1.1	116	0.00
87 T	1,3-Dichlorobenzene	1.559	1.548	0.7	114	0.00
88 T	1,4-Dichlorobenzene	1.550	1.529	1.4	113	0.00
89 T	n-Butylbenzene	2.702	2.761	-2.2	117	0.00
90 T	Hexachloroethane	0.616	0.611	0.8	116	0.00
91 T	1,2-Dichlorobenzene	1.336	1.352	-1.2	112	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.086	0.080	7.0	95	0.00
93 T	1,2,4-Trichlorobenzene	0.849	0.887	-4.5	115	0.00
94 T	Hexachlorobutadiene	0.619	0.629	-1.6	118	0.00
95 T	Naphthalene	1.360	1.350	0.7	103	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020713.D
Acq On : 26 Dec 2024 12:51
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY122624

Quant Time: Dec 26 16:15:08 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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	0.707	0.730	-3.3	110	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020713.D
Acq On : 26 Dec 2024 12:51
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY122624

Quant Time: Dec 26 16:15:08 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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	122	0.00
2 T	Dichlorodifluoromethane	50.000	47.479	5.0	113	0.00
3 P	Chloromethane	50.000	55.003	-10.0	126	0.00
4 C	Vinyl Chloride	50.000	49.638	0.7#	114	0.00
5 T	Bromomethane	50.000	51.036	-2.1	121	0.00
6 T	Chloroethane	50.000	51.394	-2.8	121	0.00
7 T	Trichlorofluoromethane	50.000	48.899	2.2	117	0.00
8 T	Diethyl Ether	50.000	50.215	-0.4	115	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	48.370	3.3	116	0.00
10 T	Methyl Iodide	50.000	51.123	-2.2	115	0.00
11 T	Tert butyl alcohol	250.000	208.224	16.7	94	0.00
12 CM	1,1-Dichloroethene	50.000	49.566	0.9#	117	0.00
13 T	Acrolein	250.000	143.918	42.4#	95	0.00
14 T	Allyl chloride	50.000	51.064	-2.1	120	0.00
15 T	Acrylonitrile	250.000	226.940	9.2	100	0.00
16 T	Acetone	250.000	207.840	16.9	97	0.00
17 T	Carbon Disulfide	50.000	52.554	-5.1	119	0.00
18 T	Methyl Acetate	50.000	48.572	2.9	105	0.00
19 T	Methyl tert-butyl Ether	50.000	47.911	4.2	110	0.00
20 T	Methylene Chloride	50.000	50.306	-0.6	121	0.00
21 T	trans-1,2-Dichloroethene	50.000	50.999	-2.0	117	0.00
22 T	Diisopropyl ether	50.000	50.460	-0.9	117	0.00
23 T	Vinyl Acetate	250.000	242.987	2.8	107	0.00
24 P	1,1-Dichloroethane	50.000	50.544	-1.1	121	0.00
25 T	2-Butanone	250.000	225.260	9.9	97	0.00
26 T	2,2-Dichloropropane	50.000	47.328	5.3	115	0.00
27 T	cis-1,2-Dichloroethene	50.000	49.666	0.7	116	0.00
28 T	Bromochloromethane	50.000	54.165	-8.3	111	0.00
29 T	Tetrahydrofuran	250.000	224.521	10.2	97	0.00
30 C	Chloroform	50.000	48.353	3.3#	117	0.00
31 T	Cyclohexane	50.000	44.979	10.0	113	0.00
32 T	1,1,1-Trichloroethane	50.000	48.484	3.0	116	0.00
33 S	1,2-Dichloroethane-d4	50.000	52.910	-5.8	102	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	120	0.00
35 S	Dibromofluoromethane	50.000	52.779	-5.6	109	0.00
36 T	1,1-Dichloropropene	50.000	49.340	1.3	115	0.00
37 T	Ethyl Acetate	50.000	46.791	6.4	101	0.00
38 T	Carbon Tetrachloride	50.000	49.087	1.8	115	0.00
39 T	Methylcyclohexane	50.000	50.860	-1.7	117	0.00
40 TM	Benzene	50.000	51.214	-2.4	119	0.00
41 T	Methacrylonitrile	50.000	46.896	6.2	122	0.00
42 TM	1,2-Dichloroethane	50.000	48.661	2.7	108	0.00
43 T	Isopropyl Acetate	50.000	46.479	7.0	98	0.00
44 TM	Trichloroethene	50.000	49.703	0.6	116	0.00
45 C	1,2-Dichloropropane	50.000	49.593	0.8#	112	0.00
46 T	Dibromomethane	50.000	46.666	6.7	103	0.00
47 T	Bromodichloromethane	50.000	48.995	2.0	113	0.00
48 T	Methyl methacrylate	50.000	45.829	8.3	100	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020713.D
 Acq On : 26 Dec 2024 12:51
 Operator : SY/MD
 Sample : VSTDICV050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 ICSVY122624

Quant Time: Dec 26 16:15:08 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 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	998.617	0.1	100	0.00
50 S	Toluene-d8	50.000	52.171	-4.3	111	0.00
51 T	4-Methyl-2-Pentanone	250.000	230.147	7.9	97	0.00
52 CM	Toluene	50.000	51.455	-2.9#	119	0.00
53 T	t-1,3-Dichloropropene	50.000	48.805	2.4	106	0.00
54 T	cis-1,3-Dichloropropene	50.000	49.949	0.1	112	0.00
55 T	1,1,2-Trichloroethane	50.000	48.206	3.6	109	0.00
56 T	Ethyl methacrylate	50.000	46.506	7.0	99	0.00
57 T	1,3-Dichloropropane	50.000	49.234	1.5	108	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	244.679	2.1	99	0.00
59 T	2-Hexanone	250.000	229.110	8.4	93	0.00
60 T	Dibromochloromethane	50.000	48.574	2.9	112	0.00
61 T	1,2-Dibromoethane	50.000	48.387	3.2	108	0.00
62 S	4-Bromofluorobenzene	50.000	53.215	-6.4	109	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	117	0.00
64 T	Tetrachloroethene	50.000	50.131	-0.3	114	0.00
65 PM	Chlorobenzene	50.000	49.866	0.3	114	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	50.630	-1.3	116	0.00
67 C	Ethyl Benzene	50.000	51.151	-2.3#	116	0.00
68 T	m/p-Xylenes	100.000	103.152	-3.2	117	0.00
69 T	o-Xylene	50.000	51.032	-2.1	115	0.00
70 T	Styrene	50.000	50.717	-1.4	114	0.00
71 P	Bromoform	50.000	48.733	2.5	103	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	117	0.00
73 T	Isopropylbenzene	50.000	49.720	0.6	116	0.00
74 T	N-amyl acetate	50.000	48.015	4.0	101	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	46.657	6.7	102	0.00
76 T	1,2,3-Trichloropropane	50.000	45.549	8.9	112	0.00
77 T	Bromobenzene	50.000	50.459	-0.9	115	0.00
78 T	n-propylbenzene	50.000	50.119	-0.2	116	0.00
79 T	2-Chlorotoluene	50.000	49.656	0.7	114	0.00
80 T	1,3,5-Trimethylbenzene	50.000	50.488	-1.0	115	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	48.646	2.7	104	0.00
82 T	4-Chlorotoluene	50.000	50.168	-0.3	114	0.00
83 T	tert-Butylbenzene	50.000	49.565	0.9	114	0.00
84 T	1,2,4-Trimethylbenzene	50.000	51.350	-2.7	116	0.00
85 T	sec-Butylbenzene	50.000	50.578	-1.2	117	0.00
86 T	p-Isopropyltoluene	50.000	50.557	-1.1	116	0.00
87 T	1,3-Dichlorobenzene	50.000	49.657	0.7	114	0.00
88 T	1,4-Dichlorobenzene	50.000	49.305	1.4	113	0.00
89 T	n-Butylbenzene	50.000	51.082	-2.2	117	0.00
90 T	Hexachloroethane	50.000	49.619	0.8	116	0.00
91 T	1,2-Dichlorobenzene	50.000	50.573	-1.1	112	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	46.197	7.6	95	0.00
93 T	1,2,4-Trichlorobenzene	50.000	52.197	-4.4	115	0.00
94 T	Hexachlorobutadiene	50.000	50.811	-1.6	118	0.00
95 T	Naphthalene	50.000	49.600	0.8	103	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020713.D
Acq On : 26 Dec 2024 12:51
Operator : SY/MD
Sample : VSTDICV050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
ICVVY122624

Quant Time: Dec 26 16:15:08 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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	51.643	-3.3	110	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: POWE02

Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG No.: P5382

Instrument ID: MSVOA_Y Calibration Date/Time: 12/26/2024 10:39

Lab File ID: VY020709.D Init. Calib. Date(s): 12/26/2024 12/26/2024

Heated Purge: (Y/N) Y Init. Calib. Time(s): 09:31 11:51

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
cis-1,2-Dichloroethene	0.441	0.462		4.76	
1,1,1-Trichloroethane	0.840	0.859		2.26	
Benzene	1.054	1.089		3.32	
Trichloroethene	0.315	0.324		2.86	
Toluene	0.723	0.745		3.04	
Ethyl Benzene	1.711	1.778		3.92	
m/p-Xylenes	0.653	0.675		3.37	
o-Xylene	0.624	0.650		4.17	
Isopropylbenzene	3.464	3.476		0.35	
1,2-Dichloroethane-d4	0.410	0.516		25.85	
Dibromofluoromethane	0.275	0.319		16	
Toluene-d8	0.971	1.227		26.36	
4-Bromofluorobenzene	0.366	0.426		16.39	

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_Y\Data\VY122624\
 Data File : VY020709.D
 Acq On : 26 Dec 2024 10:39
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.720	168	95919	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	134605	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	116249	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	60351	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.073	65	49534	63.047	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	126.100%
35) Dibromofluoromethane	7.646	113	42955	57.936	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	115.880%
50) Toluene-d8	10.115	98	165135	55.802	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	111.600%
62) 4-Bromofluorobenzene	12.414	95	57393	58.248	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	116.500%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.867	85	38801	51.393	ug/l	98
3) Chloromethane	2.074	50	15038	53.407	ug/l	98
4) Vinyl Chloride	2.214	62	18435	52.843	ug/l	99
5) Bromomethane	2.611	94	13527	51.355	ug/l	93
6) Chloroethane	2.745	64	10817	51.686	ug/l	98
7) Trichlorofluoromethane	3.074	101	68580	51.119	ug/l	99
8) Diethyl Ether	3.464	74	17063	53.449	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.830	101	37468	50.872	ug/l	99
10) Methyl Iodide	4.019	142	43478	53.984	ug/l	97
11) Tert butyl alcohol	4.879	59	13467	276.533	ug/l #	91
12) 1,1-Dichloroethene	3.806	96	33758	51.495	ug/l	97
13) Acrolein	3.665	56	3048	185.584	ug/l	98
14) Allyl chloride	4.397	41	39674	51.717	ug/l	96
15) Acrylonitrile	5.074	53	34070	276.260	ug/l	98
16) Acetone	3.879	43	26066	261.525	ug/l	97
17) Carbon Disulfide	4.123	76	86912	54.046	ug/l	100
18) Methyl Acetate	4.397	43	15232	56.466	ug/l	97
19) Methyl tert-butyl Ether	5.128	73	97389	53.300	ug/l	96
20) Methylene Chloride	4.635	84	32892	50.741	ug/l	93
21) trans-1,2-Dichloroethene	5.128	96	37498	53.081	ug/l	95
22) Diisopropyl ether	6.031	45	82233	52.731	ug/l	98
23) Vinyl Acetate	5.976	43	257552	276.499	ug/l	99
24) 1,1-Dichloroethane	5.933	63	59422	50.822	ug/l	99
25) 2-Butanone	6.903	43	38144	283.310	ug/l	97
26) 2,2-Dichloropropane	6.896	77	71954	50.280	ug/l	100
27) cis-1,2-Dichloroethene	6.903	96	44338	52.410	ug/l	97
28) Bromochloromethane	7.256	49	18465	59.719	ug/l	96
29) Tetrahydrofuran	7.274	42	23409	283.255	ug/l	96
30) Chloroform	7.433	83	75540	50.224	ug/l	93
31) Cyclohexane	7.713	56	48960	48.512	ug/l	99
32) 1,1,1-Trichloroethane	7.628	97	82365	51.087	ug/l	99
36) 1,1-Dichloropropene	7.848	75	50348	51.408	ug/l	99
37) Ethyl Acetate	7.000	43	17946	55.607	ug/l	99
38) Carbon Tetrachloride	7.829	117	82604	51.220	ug/l	97
39) Methylcyclohexane	9.116	83	65222	51.957	ug/l	99
40) Benzene	8.091	78	146525	51.623	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020709.D
 Acq On : 26 Dec 2024 10:39
 Operator : SY/MD
 Sample : VSTDICCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDICCC050

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:03:55 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.232	41	7518	46.116	ug/l #	71
42) 1,2-Dichloroethane	8.165	62	49005	53.844	ug/l	100
43) Isopropyl Acetate	8.207	43	38693	56.406	ug/l	99
44) Trichloroethene	8.872	130	43575	51.399	ug/l	90
45) 1,2-Dichloropropane	9.152	63	30307	52.749	ug/l	95
46) Dibromomethane	9.238	93	21455	53.969	ug/l	97
47) Bromodichloromethane	9.433	83	58285	51.714	ug/l	93
48) Methyl methacrylate	9.225	41	17575	54.863	ug/l	99
49) 1,4-Dioxane	9.238	88	4523	1194.426	ug/l	98
51) 4-Methyl-2-Pentanone	10.006	43	93936	283.711	ug/l	99
52) Toluene	10.176	92	100248	51.531	ug/l	98
53) t-1,3-Dichloropropene	10.402	75	54221	54.774	ug/l	100
54) cis-1,3-Dichloropropene	9.865	75	57850	53.316	ug/l	96
55) 1,1,2-Trichloroethane	10.579	97	26808	52.828	ug/l	99
56) Ethyl methacrylate	10.445	69	37346	56.020	ug/l	98
57) 1,3-Dichloropropane	10.725	76	44949	54.576	ug/l	98
58) 2-Chloroethyl Vinyl ether	9.719	63	68375	294.122	ug/l	100
59) 2-Hexanone	10.768	43	64500	295.048	ug/l	98
60) Dibromochloromethane	10.920	129	42531	51.869	ug/l	96
61) 1,2-Dibromoethane	11.018	107	25662	53.744	ug/l	98
64) Tetrachloroethene	10.652	164	40834	51.414	ug/l	96
65) Chlorobenzene	11.451	112	116432	51.151	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.524	131	45293	51.360	ug/l	99
67) Ethyl Benzene	11.524	91	206644	51.942	ug/l	98
68) m/p-Xylenes	11.633	106	156992	103.449	ug/l	99
69) o-Xylene	11.963	106	75564	52.115	ug/l	99
70) Styrene	11.975	104	126718	52.061	ug/l	99
71) Bromoform	12.139	173	28066	55.357	ug/l #	99
73) Isopropylbenzene	12.261	105	209755	50.166	ug/l	99
74) N-ethyl acetate	12.078	43	33024	55.579	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	28705	53.553	ug/l	98
76) 1,2,3-Trichloropropane	12.560	75	18132m	38.088	ug/l	
77) Bromobenzene	12.536	156	49237	51.155	ug/l	98
78) n-propylbenzene	12.603	91	235128	50.173	ug/l	100
79) 2-Chlorotoluene	12.688	91	136280	51.012	ug/l	99
80) 1,3,5-Trimethylbenzene	12.743	105	177863	51.057	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.310	75	10590	54.534	ug/l	98
82) 4-Chlorotoluene	12.786	91	141476	51.241	ug/l	99
83) tert-Butylbenzene	13.005	119	164603	50.596	ug/l	99
84) 1,2,4-Trimethylbenzene	13.048	105	174321	51.423	ug/l	99
85) sec-Butylbenzene	13.182	105	221870	50.603	ug/l	99
86) p-Isopropyltoluene	13.298	119	198854	50.891	ug/l	100
87) 1,3-Dichlorobenzene	13.292	146	95245	50.631	ug/l	98
88) 1,4-Dichlorobenzene	13.371	146	94865	50.694	ug/l	99
89) n-Butylbenzene	13.621	91	166380	51.010	ug/l	99
90) Hexachloroethane	13.889	117	37154	50.005	ug/l	99
91) 1,2-Dichlorobenzene	13.664	146	85113	52.769	ug/l	99
92) 1,2-Dibromo-3-Chloropr...	14.285	75	5917	56.916	ug/l	95
93) 1,2,4-Trichlorobenzene	14.932	180	54457	53.117	ug/l	100
94) Hexachlorobutadiene	15.029	225	37636	50.369	ug/l	99
95) Naphthalene	15.151	128	92244	56.177	ug/l	99
96) 1,2,3-Trichlorobenzene	15.340	180	46678	54.682	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020709.D
Acq On : 26 Dec 2024 10:39
Operator : SY/MD
Sample : VSTDICCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
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

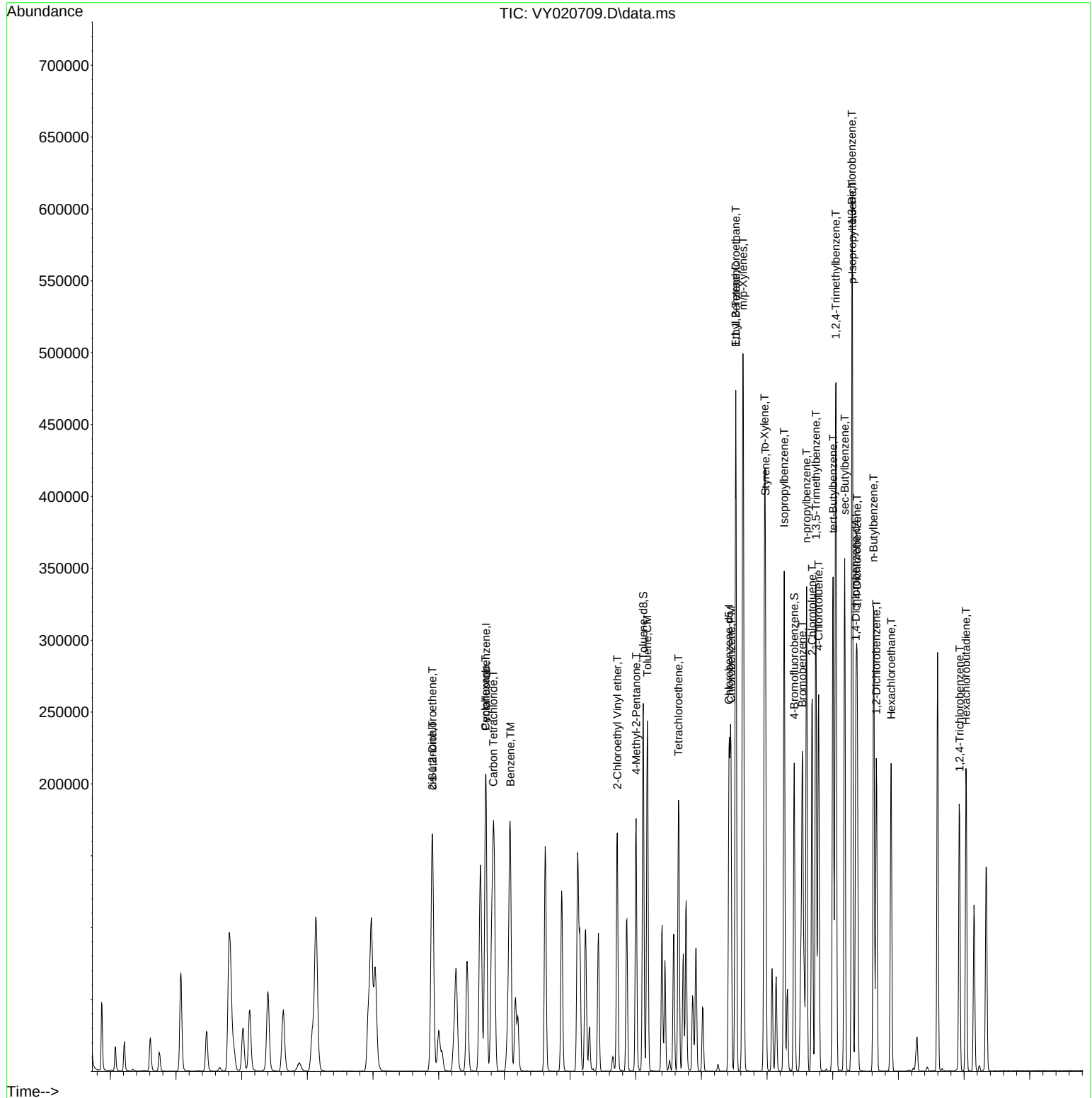
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020709.D
Acq On : 26 Dec 2024 10:39
Operator : SY/MD
Sample : VSTDICCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:06:11 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:03:55 2024
Response via : Initial Calibration





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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: POWE02

Lab Code: CHEM Case No.: P5382 SAS No.: P5382 SDG No.: P5382

Instrument ID: MSVOA_Y Calibration Date/Time: 12/27/2024 10:20

Lab File ID: VY020730.D Init. Calib. Date(s): 12/26/2024 12/26/2024

Heated Purge: (Y/N) Y Init. Calib. Time(s): 09:31 11:51

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
cis-1,2-Dichloroethene	0.441	0.454		2.95	20
1,1,1-Trichloroethane	0.840	0.807		-3.93	20
Benzene	1.054	1.087		3.13	20
Trichloroethene	0.315	0.315		0	20
Toluene	0.723	0.739		2.21	20
Ethyl Benzene	1.711	1.764		3.04	20
m/p-Xylenes	0.653	0.667		2.14	20
o-Xylene	0.624	0.636		1.92	20
Isopropylbenzene	3.464	3.535		2.05	20
1,2-Dichloroethane-d4	0.410	0.430		4.88	20
Dibromofluoromethane	0.275	0.292		6.18	20
Toluene-d8	0.971	1.153		18.74	20
4-Bromofluorobenzene	0.366	0.385		5.19	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_Y\Data\VY122724\
 Data File : VY020730.D
 Acq On : 27 Dec 2024 10:20
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
 Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 02:58:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	133845	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.628	114	187374	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.426	117	158006	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.358	152	79722	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.073	65	57614	52.553	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	105.100%
35) Dibromofluoromethane	7.652	113	54795	53.092	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	106.180%
50) Toluene-d8	10.115	98	216107	52.564	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	105.120%
62) 4-Bromofluorobenzene	12.414	95	72054	52.533	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	105.060%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.873	85	51228	48.626	ug/l	95
3) Chloromethane	2.080	50	23141	58.897	ug/l	97
4) Vinyl Chloride	2.214	62	26766	54.983	ug/l	89
5) Bromomethane	2.610	94	18970	51.612	ug/l	98
6) Chloroethane	2.751	64	16702	57.192	ug/l	92
7) Trichlorofluoromethane	3.080	101	91073	48.649	ug/l	100
8) Diethyl Ether	3.470	74	23214	52.112	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.836	101	52713	51.291	ug/l	98
10) Methyl Iodide	4.025	142	59452	52.901	ug/l	95
11) Tert butyl alcohol	4.891	59	14856	213.899	ug/l #	88
12) 1,1-Dichloroethene	3.805	96	47296	51.703	ug/l	98
13) Acrolein	3.665	56	3847	167.861	ug/l	93
14) Allyl chloride	4.403	41	58687	54.824	ug/l	92
15) Acrylonitrile	5.073	53	43598	253.347	ug/l	96
16) Acetone	3.885	43	29746	213.880	ug/l	98
17) Carbon Disulfide	4.128	76	123531	55.051	ug/l	99
18) Methyl Acetate	4.397	43	19514	51.842	ug/l	97
19) Methyl tert-butyl Ether	5.134	73	123169	48.308	ug/l	96
20) Methylene Chloride	4.634	84	47276	52.265	ug/l	96
21) trans-1,2-Dichloroethene	5.134	96	51566	52.312	ug/l	98
22) Diisopropyl ether	6.037	45	118838	54.611	ug/l	98
23) Vinyl Acetate	5.982	43	334445	257.310	ug/l	98
24) 1,1-Dichloroethane	5.939	63	85791	52.584	ug/l	99
25) 2-Butanone	6.908	43	46137	245.577	ug/l	95
26) 2,2-Dichloropropane	6.902	77	96125	48.137	ug/l	99
27) cis-1,2-Dichloroethene	6.908	96	60776	51.485	ug/l	98
28) Bromochloromethane	7.262	49	27369	63.435	ug/l	98
29) Tetrahydrofuran	7.274	42	28016	242.943	ug/l	99
30) Chloroform	7.439	83	102428	48.804	ug/l	94
31) Cyclohexane	7.713	56	68981	48.982	ug/l	99
32) 1,1,1-Trichloroethane	7.628	97	108074	48.039	ug/l	99
36) 1,1-Dichloropropene	7.847	75	70228	51.513	ug/l	98
37) Ethyl Acetate	7.000	43	22212	49.443	ug/l	98
38) Carbon Tetrachloride	7.835	117	107755	47.999	ug/l	98
39) Methylcyclohexane	9.121	83	91105	52.137	ug/l	98
40) Benzene	8.091	78	203662	51.545	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
 Data File : VY020730.D
 Acq On : 27 Dec 2024 10:20
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VSTDCCC050

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
 Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 02:58:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.232	41	12968	57.145	ug/l	96
42) 1,2-Dichloroethane	8.170	62	59741	47.154	ug/l	98
43) Isopropyl Acetate	8.207	43	46484	48.680	ug/l	99
44) Trichloroethene	8.878	130	59012	50.005	ug/l	98
45) 1,2-Dichloropropane	9.152	63	42264	52.843	ug/l	96
46) Dibromomethane	9.243	93	26669	48.192	ug/l	99
47) Bromodichloromethane	9.432	83	76106	48.509	ug/l	95
48) Methyl methacrylate	9.231	41	21784	48.851	ug/l	95
49) 1,4-Dioxane	9.243	88	5205	987.428	ug/l	90
51) 4-Methyl-2-Pentanone	10.005	43	112082	243.182	ug/l	99
52) Toluene	10.182	92	138423	51.115	ug/l	99
53) t-1,3-Dichloropropene	10.402	75	68883	49.988	ug/l	96
54) cis-1,3-Dichloropropene	9.865	75	77141	51.073	ug/l	99
55) 1,1,2-Trichloroethane	10.585	97	34585	48.960	ug/l	98
56) Ethyl methacrylate	10.450	69	45059	48.555	ug/l	98
57) 1,3-Dichloropropane	10.725	76	58035	50.620	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.719	63	90878	280.828	ug/l	97
59) 2-Hexanone	10.767	43	73439	241.330	ug/l	100
60) Dibromochloromethane	10.920	129	54194	47.479	ug/l	99
61) 1,2-Dibromoethane	11.024	107	31902	47.996	ug/l	98
64) Tetrachloroethene	10.658	164	55299	51.226	ug/l	97
65) Chlorobenzene	11.450	112	155423	50.236	ug/l	99
66) 1,1,1,2-Tetrachloroethane	11.523	131	59092	49.299	ug/l	99
67) Ethyl Benzene	11.530	91	278643	51.530	ug/l	98
68) m/p-Xylenes	11.639	106	210736	102.165	ug/l	99
69) o-Xylene	11.962	106	100416	50.953	ug/l	99
70) Styrene	11.981	104	169065	51.103	ug/l	98
71) Bromoform	12.139	173	33360	48.410	ug/l #	98
73) Isopropylbenzene	12.261	105	281788	51.018	ug/l	100
74) N-amyl acetate	12.078	43	40220	51.243	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.517	83	35282	49.829	ug/l	98
76) 1,2,3-Trichloropropane	12.566	75	24010m	47.353	ug/l	
77) Bromobenzene	12.542	156	63340	49.818	ug/l	99
78) n-propylbenzene	12.603	91	320025	51.696	ug/l	100
79) 2-Chlorotoluene	12.688	91	182465	51.704	ug/l	100
80) 1,3,5-Trimethylbenzene	12.749	105	230643	50.121	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.310	75	12742	49.672	ug/l	95
82) 4-Chlorotoluene	12.785	91	185289	50.803	ug/l	100
83) tert-Butylbenzene	13.005	119	212202	49.378	ug/l	99
84) 1,2,4-Trimethylbenzene	13.054	105	228098	50.937	ug/l	98
85) sec-Butylbenzene	13.188	105	294934	50.923	ug/l	99
86) p-Isopropyltoluene	13.298	119	261181	50.601	ug/l	99
87) 1,3-Dichlorobenzene	13.298	146	122537	49.311	ug/l	96
88) 1,4-Dichlorobenzene	13.377	146	121606	49.194	ug/l	98
89) n-Butylbenzene	13.627	91	220197	51.106	ug/l	98
90) Hexachloroethane	13.889	117	48174	49.082	ug/l	99
91) 1,2-Dichlorobenzene	13.669	146	106646	50.053	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.285	75	6343	46.188	ug/l	98
93) 1,2,4-Trichlorobenzene	14.931	180	65595	48.435	ug/l	99
94) Hexachlorobutadiene	15.035	225	47909	48.539	ug/l	99
95) Naphthalene	15.157	128	100561	46.361	ug/l	100
96) 1,2,3-Trichlorobenzene	15.340	180	53264	47.236	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020730.D
Acq On : 27 Dec 2024 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 02:58:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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

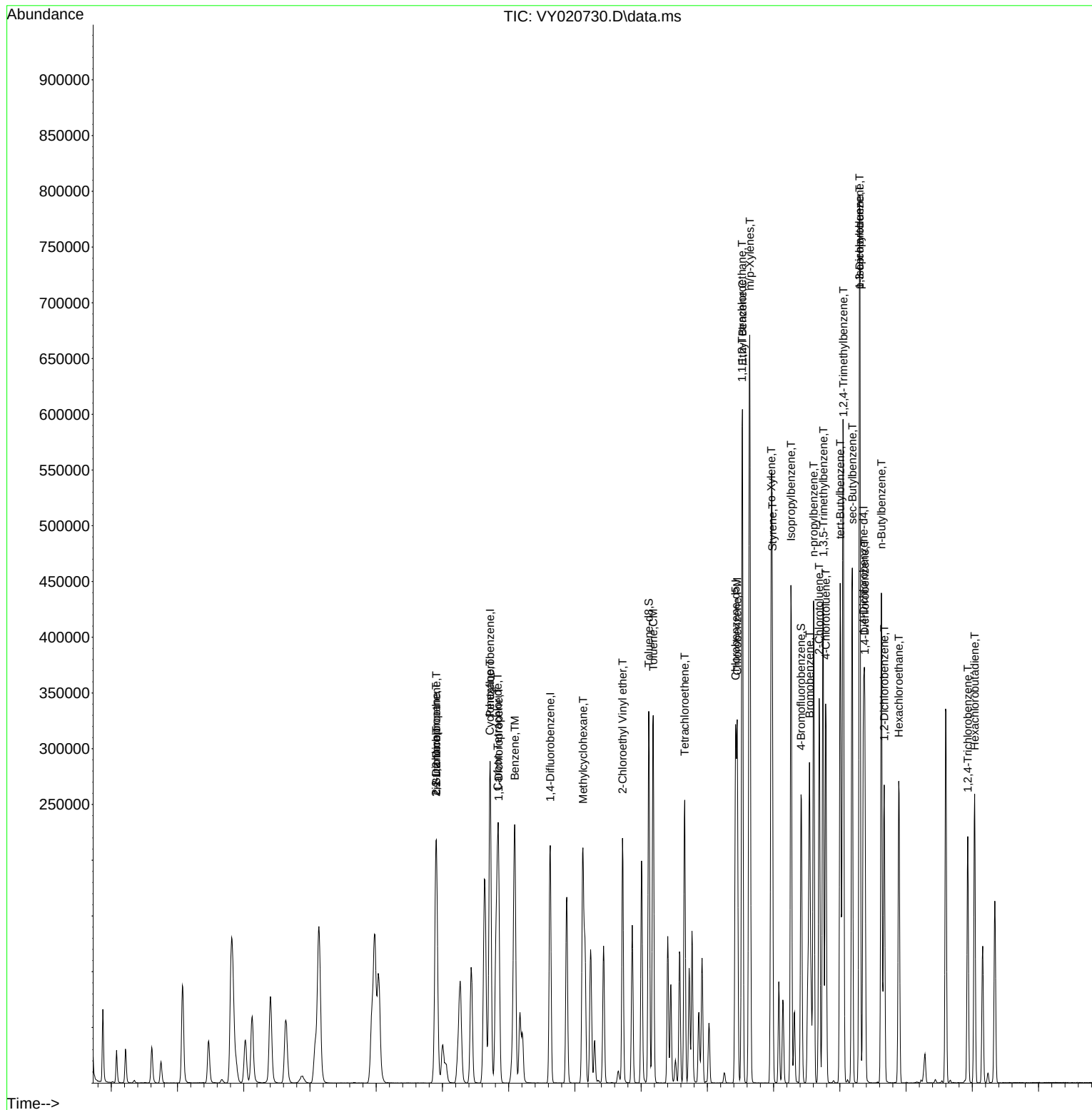
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020730.D
Acq On : 27 Dec 2024 10:20
Operator : SY/MD
Sample : VSTDCCC050
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ALS Vial : 2 Sample Multiplier: 1

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Manual Integrations
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Reviewed By : Semsettin Yesilyurt 12/30/2024
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Quant Time: Dec 28 02:58:58 2024
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
 Data File : VY020730.D
 Acq On : 27 Dec 2024 10:20
 Operator : SY/MD
 Sample : VSTDCCC050
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 MSVOA_Y
 LabSampleId :
 VSTDCCC050

Quant Time: Dec 28 02:58:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 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	140	0.00
2 T	Dichlorodifluoromethane	0.394	0.383	2.8	132	0.00
3 P	Chloromethane	0.147	0.173	-17.7	154#	0.00
4 C	Vinyl Chloride	0.182	0.200	-9.9#	145	0.00
5 T	Bromomethane	0.137	0.142	-3.6	140	0.00
6 T	Chloroethane	0.109	0.125	-14.7	154#	0.00
7 T	Trichlorofluoromethane	0.699	0.680	2.7	133	0.00
8 T	Diethyl Ether	0.166	0.173	-4.2	136	0.00
9 T	1,1,2-Trichlorotrifluoroeth	0.384	0.394	-2.6	141	0.00
10 T	Methyl Iodide	0.420	0.444	-5.7	137	0.00
11 T	Tert butyl alcohol	0.031	0.022	29.0#	110	0.01
12 CM	1,1-Dichloroethene	0.342	0.353	-3.2#	140	0.00
13 T	Acrolein	0.009	0.006	33.3#	126	0.00
14 T	Allyl chloride	0.400	0.438	-9.5	148	0.00
15 T	Acrylonitrile	0.064	0.065	-1.6	128	0.00
16 T	Acetone	0.052	0.044	15.4	114	0.00
17 T	Carbon Disulfide	0.838	0.923	-10.1	142	0.00
18 T	Methyl Acetate	0.141	0.146	-3.5	128	0.00
19 T	Methyl tert-butyl Ether	0.952	0.920	3.4	126	0.00
20 T	Methylene Chloride	0.338	0.353	-4.4	144	0.00
21 T	trans-1,2-Dichloroethene	0.368	0.385	-4.6	138	0.00
22 T	Diisopropyl ether	0.813	0.888	-9.2	145	0.00
23 T	Vinyl Acetate	0.486	0.500	-2.9	130	0.00
24 P	1,1-Dichloroethane	0.609	0.641	-5.3	144	0.00
25 T	2-Butanone	0.070	0.069	1.4	121	0.00
26 T	2,2-Dichloropropane	0.746	0.718	3.8	134	0.00
27 T	cis-1,2-Dichloroethene	0.441	0.454	-2.9	137	0.00
28 T	Bromochloromethane	0.161	0.204	-26.7#	148	0.00
29 T	Tetrahydrofuran	0.043	0.042	2.3	120	0.00
30 C	Chloroform	0.784	0.765	2.4#	136	0.00
31 T	Cyclohexane	0.526	0.515	2.1	141	0.00
32 T	1,1,1-Trichloroethane	0.840	0.807	3.9	131	0.00
33 S	1,2-Dichloroethane-d4	0.410	0.430	-4.9	116	0.00
34 I	1,4-Difluorobenzene	1.000	1.000	0.0	139	0.00
35 S	Dibromofluoromethane	0.275	0.292	-6.2	128	0.00
36 T	1,1-Dichloropropene	0.364	0.375	-3.0	139	0.00
37 T	Ethyl Acetate	0.120	0.119	0.8	124	0.00
38 T	Carbon Tetrachloride	0.599	0.575	4.0	130	0.00
39 T	Methylcyclohexane	0.466	0.486	-4.3	140	0.00
40 TM	Benzene	1.054	1.087	-3.1	139	0.00
41 T	Methacrylonitrile	0.061	0.069	-13.1	172#	0.00
42 TM	1,2-Dichloroethane	0.338	0.319	5.6	122	0.00
43 T	Isopropyl Acetate	0.255	0.248	2.7	120	0.00
44 TM	Trichloroethene	0.315	0.315	0.0	135	0.00
45 C	1,2-Dichloropropane	0.213	0.226	-6.1#	139	0.00
46 T	Dibromomethane	0.148	0.142	4.1	124	0.00
47 T	Bromodichloromethane	0.419	0.406	3.1	131	0.00
48 T	Methyl methacrylate	0.119	0.116	2.5	124	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
 Data File : VY020730.D
 Acq On : 27 Dec 2024 10:20
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 LabSampleId :
 VSTDCCC050

Quant Time: Dec 28 02:58:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 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	0.001	0.001	0.0	115	0.00
50 S	Toluene-d8	0.971	1.153	-18.7	131	0.00
51 T	4-Methyl-2-Pentanone	0.123	0.120	2.4	119	0.00
52 CM	Toluene	0.723	0.739	-2.2#	138	0.00
53 T	t-1,3-Dichloropropene	0.368	0.368	0.0	127	0.00
54 T	cis-1,3-Dichloropropene	0.403	0.412	-2.2	133	0.00
55 T	1,1,2-Trichloroethane	0.188	0.185	1.6	129	0.00
56 T	Ethyl methacrylate	0.248	0.240	3.2	121	0.00
57 T	1,3-Dichloropropane	0.306	0.310	-1.3	129	0.00
58 T	2-Chloroethyl Vinyl ether	0.086	0.097	-12.8	133	0.00
59 T	2-Hexanone	0.081	0.078	3.7	114	0.00
60 T	Dibromochloromethane	0.305	0.289	5.2	127	0.00
61 T	1,2-Dibromoethane	0.177	0.170	4.0	124	0.00
62 S	4-Bromofluorobenzene	0.366	0.385	-5.2	126	0.00
63 I	Chlorobenzene-d5	1.000	1.000	0.0	136	0.00
64 T	Tetrachloroethene	0.342	0.350	-2.3	135	0.00
65 PM	Chlorobenzene	0.979	0.984	-0.5	133	0.00
66 T	1,1,1,2-Tetrachloroethane	0.379	0.374	1.3	130	0.00
67 C	Ethyl Benzene	1.711	1.763	-3.0#	135	0.00
68 T	m/p-Xylenes	0.653	0.667	-2.1	134	0.00
69 T	o-Xylene	0.624	0.636	-1.9	133	0.00
70 T	Styrene	1.047	1.070	-2.2	133	0.00
71 P	Bromoform	0.218	0.211	3.2	119	0.00
72 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	132	0.00
73 T	Isopropylbenzene	3.464	3.535	-2.0	134	0.00
74 T	N-amyl acetate	0.492	0.505	-2.6	122	0.00
75 P	1,1,2,2-Tetrachloroethane	0.444	0.443	0.2	123	0.00
76 T	1,2,3-Trichloropropane	0.318	0.301	5.3	132	0.00
77 T	Bromobenzene	0.797	0.795	0.3	129	0.00
78 T	n-propylbenzene	3.883	4.014	-3.4	136	0.00
79 T	2-Chlorotoluene	2.213	2.289	-3.4	134	0.00
80 T	1,3,5-Trimethylbenzene	2.886	2.893	-0.2	130	0.00
81 T	trans-1,4-Dichloro-2-butene	0.161	0.160	0.6	120	0.00
82 T	4-Chlorotoluene	2.287	2.324	-1.6	131	0.00
83 T	tert-Butylbenzene	2.695	2.662	1.2	129	0.00
84 T	1,2,4-Trimethylbenzene	2.809	2.861	-1.9	131	0.00
85 T	sec-Butylbenzene	3.633	3.700	-1.8	133	0.00
86 T	p-Isopropyltoluene	3.237	3.276	-1.2	131	0.00
87 T	1,3-Dichlorobenzene	1.559	1.537	1.4	129	0.00
88 T	1,4-Dichlorobenzene	1.550	1.525	1.6	128	0.00
89 T	n-Butylbenzene	2.702	2.762	-2.2	132	0.00
90 T	Hexachloroethane	0.616	0.604	1.9	130	0.00
91 T	1,2-Dichlorobenzene	1.336	1.338	-0.1	125	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.086	0.080	7.0	107	0.00
93 T	1,2,4-Trichlorobenzene	0.849	0.823	3.1	120	0.00
94 T	Hexachlorobutadiene	0.619	0.601	2.9	127	0.00
95 T	Naphthalene	1.360	1.261	7.3	109	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020730.D
Acq On : 27 Dec 2024 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Dec 28 02:58:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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	0.707	0.668	5.5	114	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020730.D
Acq On : 27 Dec 2024 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Dec 28 02:58:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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	140	0.00
2 T	Dichlorodifluoromethane	50.000	48.626	2.7	132	0.00
3 P	Chloromethane	50.000	58.897	-17.8	154	0.00
4 C	Vinyl Chloride	50.000	54.983	-10.0#	145	0.00
5 T	Bromomethane	50.000	51.612	-3.2	140	0.00
6 T	Chloroethane	50.000	57.192	-14.4	154	0.00
7 T	Trichlorofluoromethane	50.000	48.649	2.7	133	0.00
8 T	Diethyl Ether	50.000	52.112	-4.2	136	0.00
9 T	1,1,2-Trichlorotrifluoroeth	50.000	51.291	-2.6	141	0.00
10 T	Methyl Iodide	50.000	52.901	-5.8	137	0.00
11 T	Tert butyl alcohol	250.000	213.899	14.4	110	0.01
12 CM	1,1-Dichloroethene	50.000	51.703	-3.4#	140	0.00
13 T	Acrolein	250.000	167.861	32.9#	126	0.00
14 T	Allyl chloride	50.000	54.824	-9.6	148	0.00
15 T	Acrylonitrile	250.000	253.347	-1.3	128	0.00
16 T	Acetone	250.000	213.880	14.4	114	0.00
17 T	Carbon Disulfide	50.000	55.051	-10.1	142	0.00
18 T	Methyl Acetate	50.000	51.842	-3.7	128	0.00
19 T	Methyl tert-butyl Ether	50.000	48.308	3.4	126	0.00
20 T	Methylene Chloride	50.000	52.265	-4.5	144	0.00
21 T	trans-1,2-Dichloroethene	50.000	52.312	-4.6	138	0.00
22 T	Diisopropyl ether	50.000	54.611	-9.2	145	0.00
23 T	Vinyl Acetate	250.000	257.310	-2.9	130	0.00
24 P	1,1-Dichloroethane	50.000	52.584	-5.2	144	0.00
25 T	2-Butanone	250.000	245.577	1.8	121	0.00
26 T	2,2-Dichloropropane	50.000	48.137	3.7	134	0.00
27 T	cis-1,2-Dichloroethene	50.000	51.485	-3.0	137	0.00
28 T	Bromochloromethane	50.000	63.435	-26.9#	148	0.00
29 T	Tetrahydrofuran	250.000	242.943	2.8	120	0.00
30 C	Chloroform	50.000	48.804	2.4#	136	0.00
31 T	Cyclohexane	50.000	48.982	2.0	141	0.00
32 T	1,1,1-Trichloroethane	50.000	48.039	3.9	131	0.00
33 S	1,2-Dichloroethane-d4	50.000	52.553	-5.1	116	0.00
34 I	1,4-Difluorobenzene	50.000	50.000	0.0	139	0.00
35 S	Dibromofluoromethane	50.000	53.092	-6.2	128	0.00
36 T	1,1-Dichloropropene	50.000	51.513	-3.0	139	0.00
37 T	Ethyl Acetate	50.000	49.443	1.1	124	0.00
38 T	Carbon Tetrachloride	50.000	47.999	4.0	130	0.00
39 T	Methylcyclohexane	50.000	52.137	-4.3	140	0.00
40 TM	Benzene	50.000	51.545	-3.1	139	0.00
41 T	Methacrylonitrile	50.000	57.145	-14.3	172	0.00
42 TM	1,2-Dichloroethane	50.000	47.154	5.7	122	0.00
43 T	Isopropyl Acetate	50.000	48.680	2.6	120	0.00
44 TM	Trichloroethene	50.000	50.005	-0.0	135	0.00
45 C	1,2-Dichloropropane	50.000	52.843	-5.7#	139	0.00
46 T	Dibromomethane	50.000	48.192	3.6	124	0.00
47 T	Bromodichloromethane	50.000	48.509	3.0	131	0.00
48 T	Methyl methacrylate	50.000	48.851	2.3	124	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
 Data File : VY020730.D
 Acq On : 27 Dec 2024 10:20
 Operator : SY/MD
 Sample : VSTDCCC050
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 LabSampleId :
 VSTDCCC050

Quant Time: Dec 28 02:58:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 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	987.428	1.3	115	0.00
50 S	Toluene-d8	50.000	52.564	-5.1	131	0.00
51 T	4-Methyl-2-Pentanone	250.000	243.182	2.7	119	0.00
52 CM	Toluene	50.000	51.115	-2.2#	138	0.00
53 T	t-1,3-Dichloropropene	50.000	49.988	0.0	127	0.00
54 T	cis-1,3-Dichloropropene	50.000	51.073	-2.1	133	0.00
55 T	1,1,2-Trichloroethane	50.000	48.960	2.1	129	0.00
56 T	Ethyl methacrylate	50.000	48.555	2.9	121	0.00
57 T	1,3-Dichloropropane	50.000	50.620	-1.2	129	0.00
58 T	2-Chloroethyl Vinyl ether	250.000	280.828	-12.3	133	0.00
59 T	2-Hexanone	250.000	241.330	3.5	114	0.00
60 T	Dibromochloromethane	50.000	47.479	5.0	127	0.00
61 T	1,2-Dibromoethane	50.000	47.996	4.0	124	0.00
62 S	4-Bromofluorobenzene	50.000	52.533	-5.1	126	0.00
63 I	Chlorobenzene-d5	50.000	50.000	0.0	136	0.00
64 T	Tetrachloroethene	50.000	51.226	-2.5	135	0.00
65 PM	Chlorobenzene	50.000	50.236	-0.5	133	0.00
66 T	1,1,1,2-Tetrachloroethane	50.000	49.299	1.4	130	0.00
67 C	Ethyl Benzene	50.000	51.530	-3.1#	135	0.00
68 T	m/p-Xylenes	100.000	102.165	-2.2	134	0.00
69 T	o-Xylene	50.000	50.953	-1.9	133	0.00
70 T	Styrene	50.000	51.103	-2.2	133	0.00
71 P	Bromoform	50.000	48.410	3.2	119	0.00
72 I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	132	0.00
73 T	Isopropylbenzene	50.000	51.018	-2.0	134	0.00
74 T	N-amyl acetate	50.000	51.243	-2.5	122	0.00
75 P	1,1,2,2-Tetrachloroethane	50.000	49.829	0.3	123	0.00
76 T	1,2,3-Trichloropropane	50.000	47.353	5.3	132	0.00
77 T	Bromobenzene	50.000	49.818	0.4	129	0.00
78 T	n-propylbenzene	50.000	51.696	-3.4	136	0.00
79 T	2-Chlorotoluene	50.000	51.704	-3.4	134	0.00
80 T	1,3,5-Trimethylbenzene	50.000	50.121	-0.2	130	0.00
81 T	trans-1,4-Dichloro-2-butene	50.000	49.672	0.7	120	0.00
82 T	4-Chlorotoluene	50.000	50.803	-1.6	131	0.00
83 T	tert-Butylbenzene	50.000	49.378	1.2	129	0.00
84 T	1,2,4-Trimethylbenzene	50.000	50.937	-1.9	131	0.00
85 T	sec-Butylbenzene	50.000	50.923	-1.8	133	0.00
86 T	p-Isopropyltoluene	50.000	50.601	-1.2	131	0.00
87 T	1,3-Dichlorobenzene	50.000	49.311	1.4	129	0.00
88 T	1,4-Dichlorobenzene	50.000	49.194	1.6	128	0.00
89 T	n-Butylbenzene	50.000	51.106	-2.2	132	0.00
90 T	Hexachloroethane	50.000	49.082	1.8	130	0.00
91 T	1,2-Dichlorobenzene	50.000	50.053	-0.1	125	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	46.188	7.6	107	0.00
93 T	1,2,4-Trichlorobenzene	50.000	48.435	3.1	120	0.00
94 T	Hexachlorobutadiene	50.000	48.539	2.9	127	0.00
95 T	Naphthalene	50.000	46.361	7.3	109	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020730.D
Acq On : 27 Dec 2024 10:20
Operator : SY/MD
Sample : VSTDCCC050
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_Y
LabSampleId :
VSTDCCC050

Quant Time: Dec 28 02:58:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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	47.236	5.5	114	0.00

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



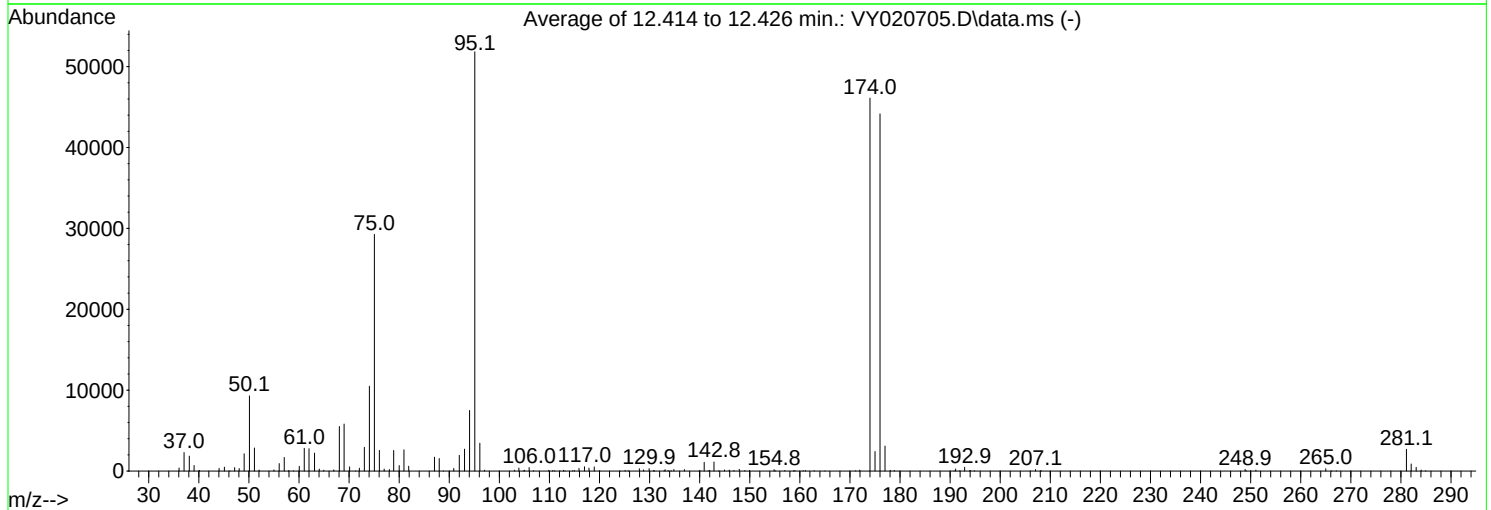
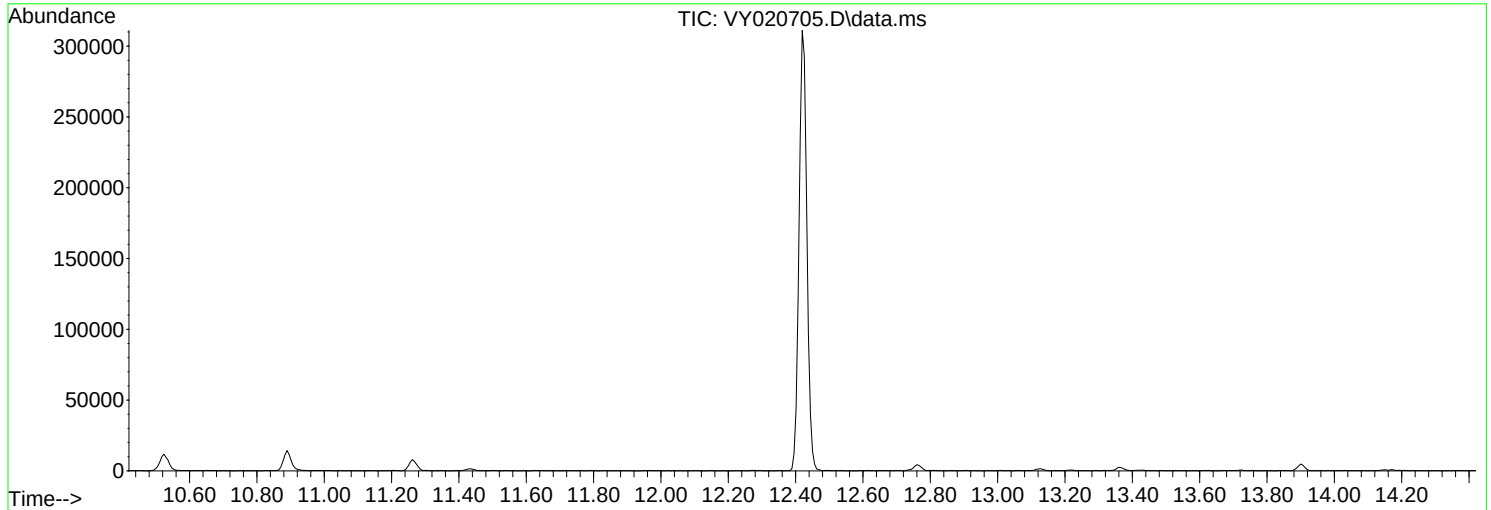
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020705.D
Acq On : 26 Dec 2024 08:29
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Title : SW846 8260
Last Update : Thu Dec 26 16:12:28 2024



AutoFind: Scans 1754, 1755, 1756; Background Corrected with Scan 1747

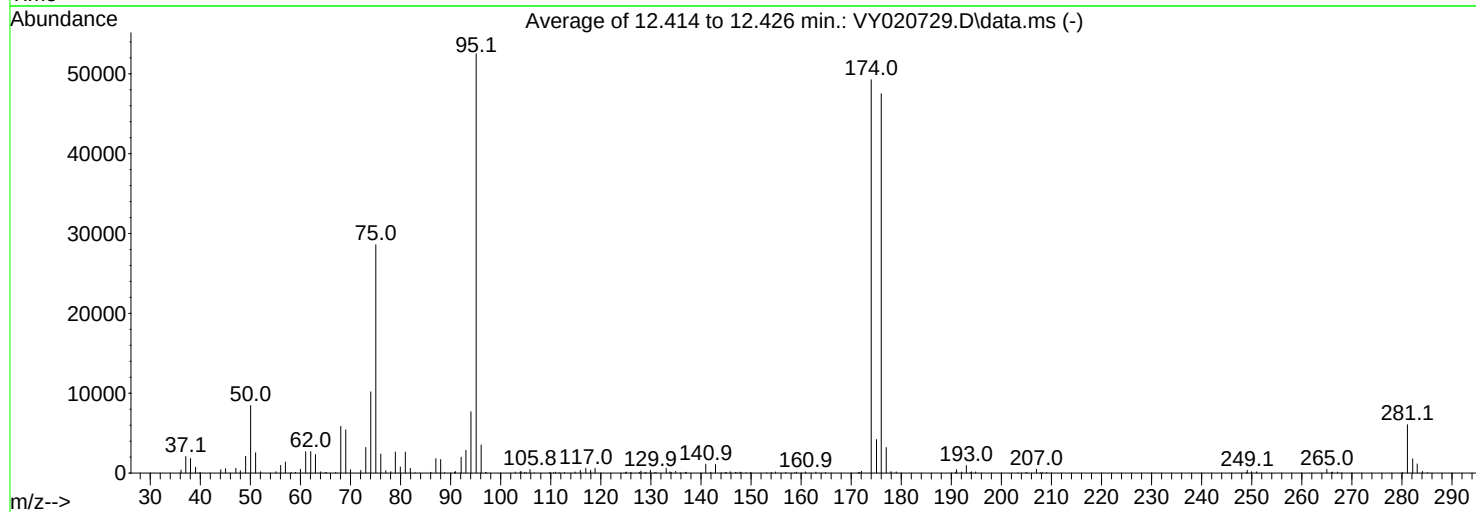
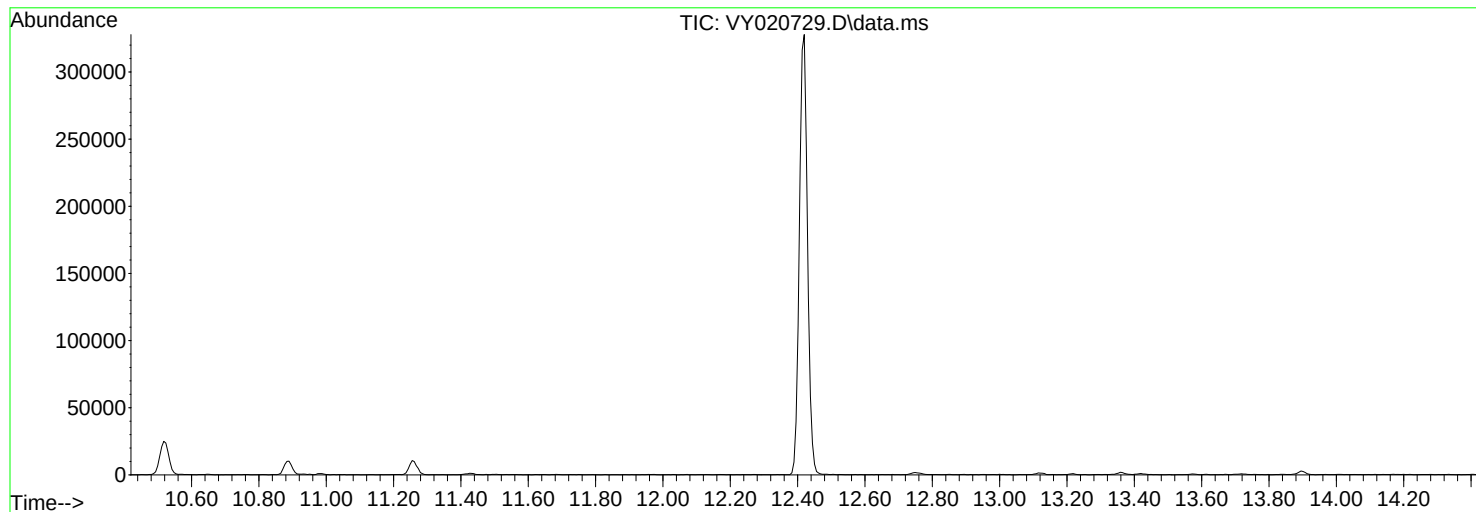
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	9300	PASS
75	95	30	60	56.5	29264	PASS
95	95	100	100	100.0	51840	PASS
96	95	5	9	6.7	3450	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.9	46104	PASS
175	174	5	9	5.3	2423	PASS
176	174	95	101	95.8	44160	PASS
177	176	5	9	7.0	3092	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020729.D
Acq On : 27 Dec 2024 09:05
Operator : SY/MD
Sample : BFB
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Title : SW846 8260
Last Update : Thu Dec 26 16:12:28 2024



AutoFind: Scans 1754, 1755, 1756; Background Corrected with Scan 1746

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	8453	PASS
75	95	30	60	54.4	28592	PASS
95	95	100	100	100.0	52515	PASS
96	95	5	9	6.7	3519	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	93.8	49264	PASS
175	174	5	9	8.5	4199	PASS
176	174	95	101	96.5	47520	PASS
177	176	5	9	6.7	3200	PASS

Report of Analysis

Client:	Kleinfelder	Date Collected:	
Project:	Comegys School	Date Received:	
Client Sample ID:	VY1226SBL01	SDG No.:	P5382
Lab Sample ID:	VY1226SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5	Units:	g
Soil Aliquot Vol:			uL
GC Column:	RXI-624	Final Vol:	5000
Prep Method :	ID : 0.25	Test:	VOCMS Group1
		Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020714.D	1		12/26/24 13:56	VY122624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	0.61	U	0.61	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.78	U	0.78	5.00	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.00	ug/Kg
79-01-6	Trichloroethene	0.75	U	0.75	5.00	ug/Kg
108-88-3	Toluene	0.67	U	0.67	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.62	U	0.62	5.00	ug/Kg
1330-20-7	Total Xylenes	2.10	U	2.10	15.0	ug/Kg
98-82-8	Isopropylbenzene	0.67	U	0.67	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	64.7		50 - 163	129%	SPK: 50
1868-53-7	Dibromofluoromethane	57.6		54 - 147	115%	SPK: 50
2037-26-5	Toluene-d8	52.6		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.0		29 - 146	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	99500	7.719			
540-36-3	1,4-Difluorobenzene	157000	8.622			
3114-55-4	Chlorobenzene-d5	134000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	56300	13.352			

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_Y\Data\VY122624\
Data File : VY020714.D
Acq On : 26 Dec 2024 13:56
Operator : SY/MD
Sample : VY1226SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1226SBL01

Quant Time: Dec 26 16:15:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	99549	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	157271	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	133794	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.352	152	56315	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.067	65	52717	64.652	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	129.300%
35) Dibromofluoromethane	7.640	113	49885	57.586	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	115.180%
50) Toluene-d8	10.109	98	181408	52.569	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	105.140%
62) 4-Bromofluorobenzene	12.407	95	58692	50.981	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	101.960%

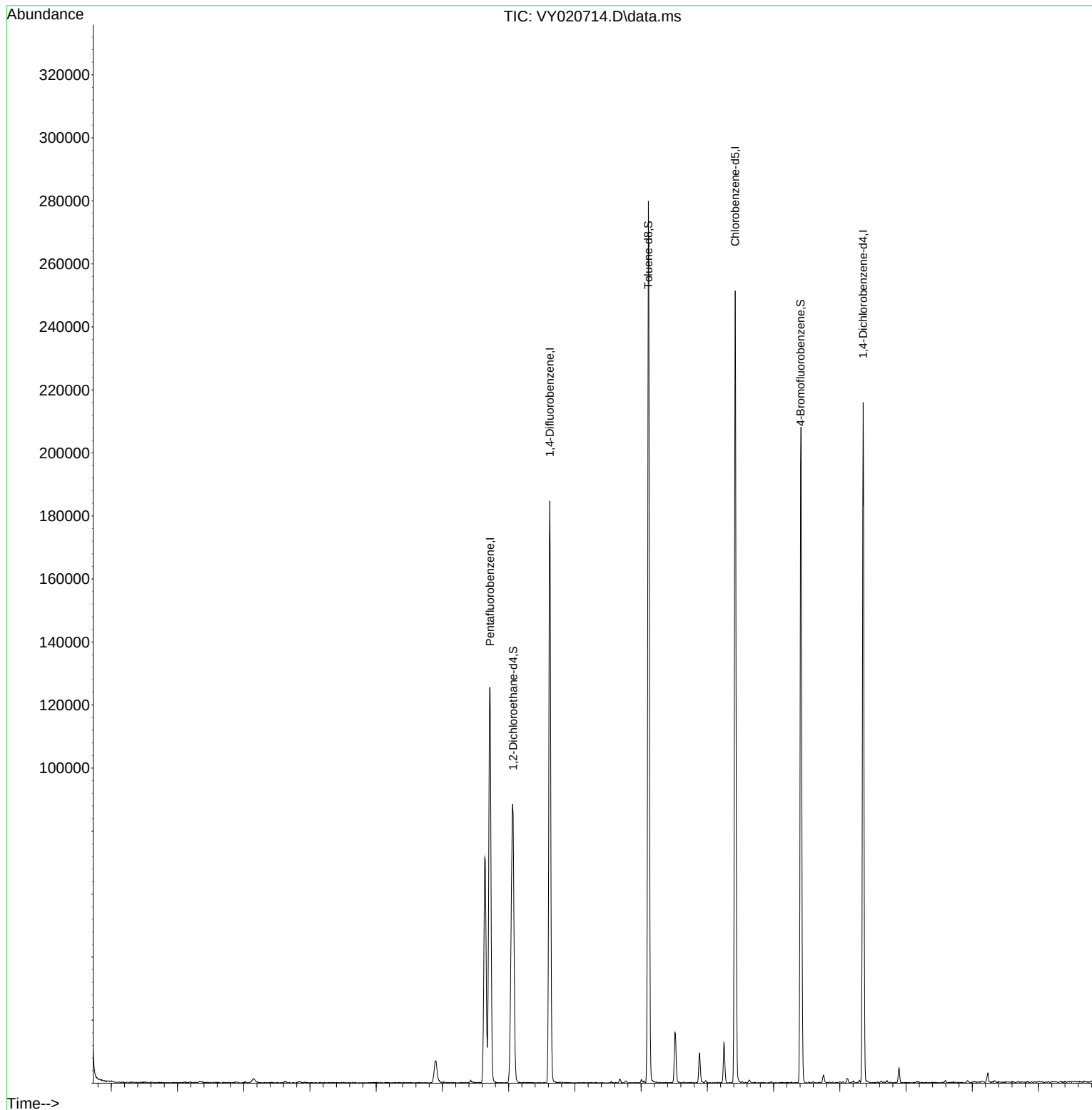
Target Compounds	Qvalue

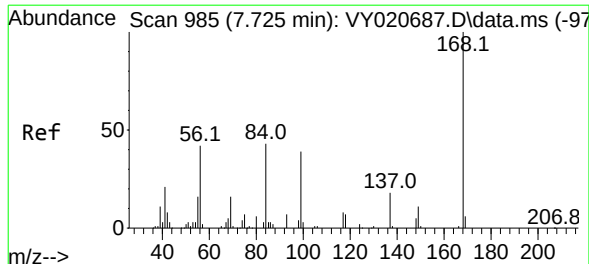
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020714.D
Acq On : 26 Dec 2024 13:56
Operator : SY/MD
Sample : VY1226SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1226SBL01

Quant Time: Dec 26 16:15:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration

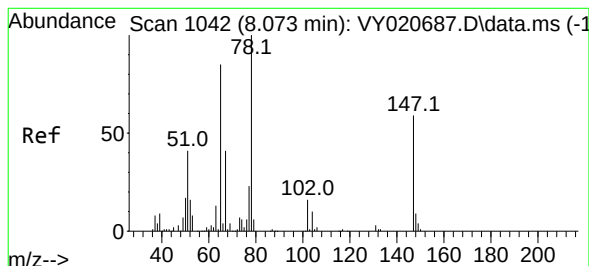
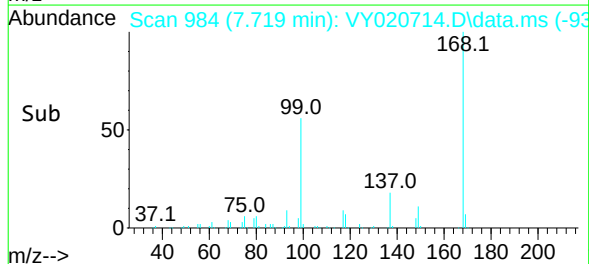
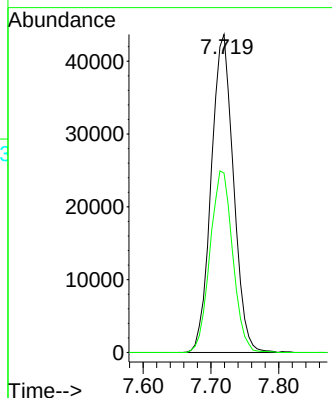
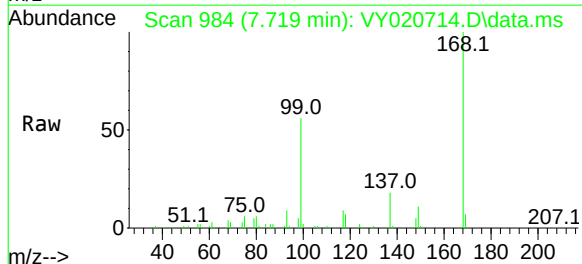




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.719 min Scan# 98
Delta R.T. -0.006 min
Lab File: VY020714.D
Acq: 26 Dec 2024 13:56

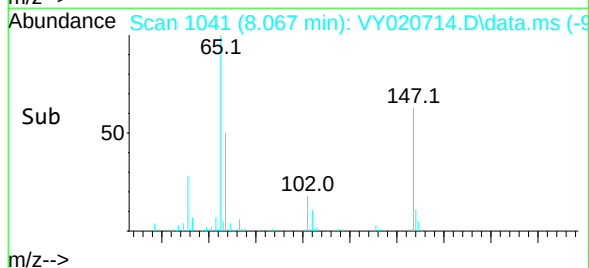
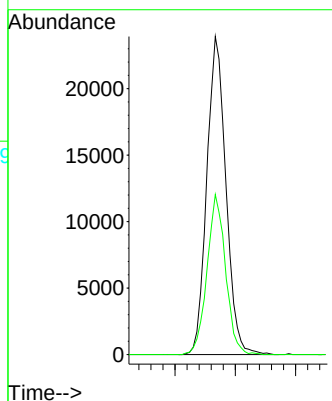
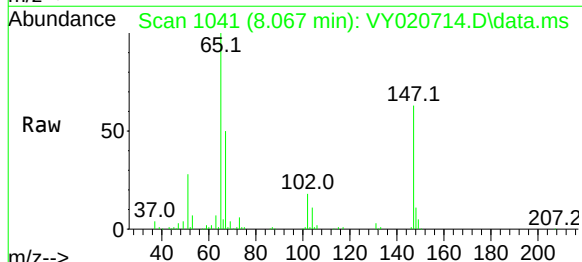
Instrument :
MSVOA_Y
ClientSampleId :
VY1226SBL01

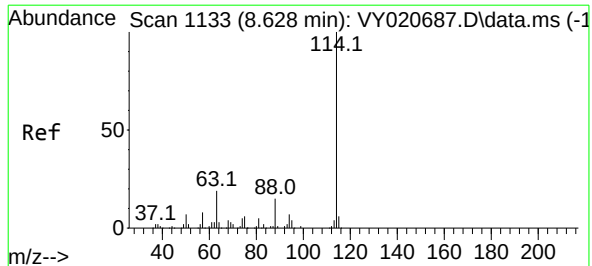
Tgt Ion: 168 Resp: 99549
Ion Ratio Lower Upper
168 100
99 56.4 43.8 65.6



#33
1,2-Dichloroethane-d4
Concen: 64.652 ug/l
RT: 8.067 min Scan# 1041
Delta R.T. -0.006 min
Lab File: VY020714.D
Acq: 26 Dec 2024 13:56

Tgt Ion: 65 Resp: 52717
Ion Ratio Lower Upper
65 100
67 48.8 0.0 98.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.622 min Scan# 11

Delta R.T. -0.006 min

Lab File: VY020714.D

Acq: 26 Dec 2024 13:56

Instrument :

MSVOA_Y

ClientSampleId :

VY1226SBL01

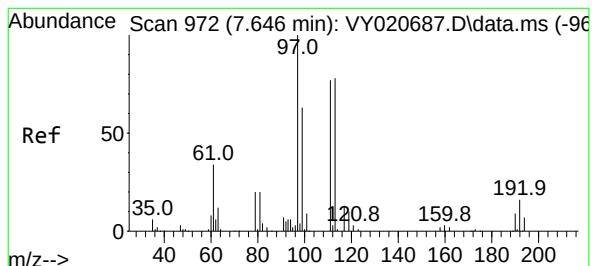
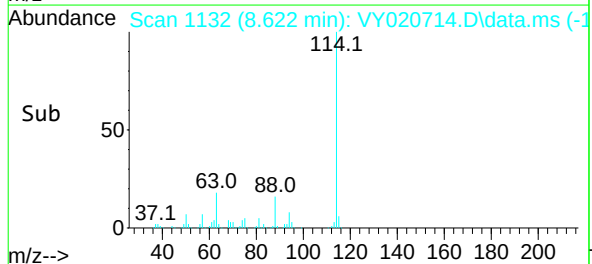
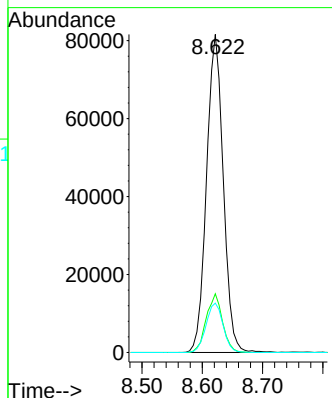
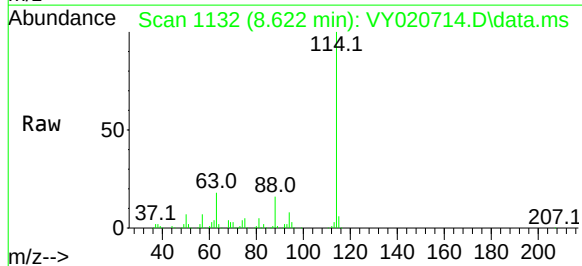
Tgt Ion:114 Resp: 157271

Ion Ratio Lower Upper

114 100

63 18.5 0.0 38.4

88 15.5 0.0 30.4



#35

Dibromofluoromethane

Concen: 57.586 ug/l

RT: 7.640 min Scan# 971

Delta R.T. -0.006 min

Lab File: VY020714.D

Acq: 26 Dec 2024 13:56

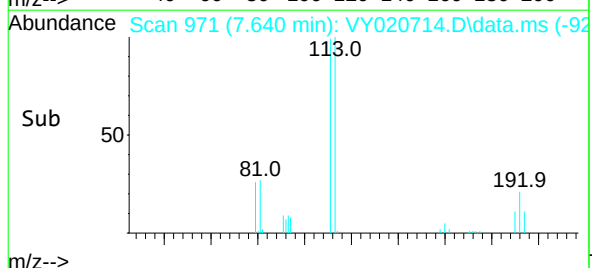
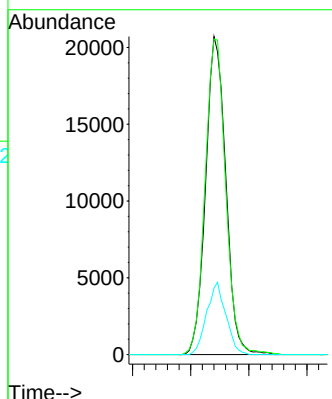
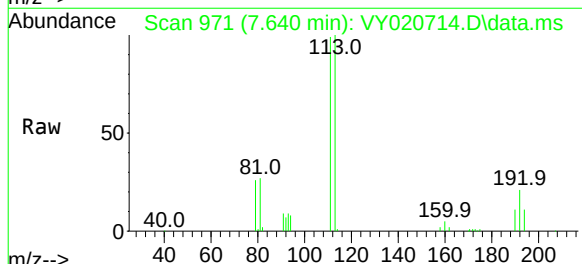
Tgt Ion:113 Resp: 49885

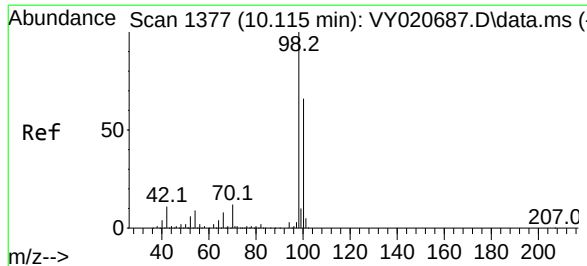
Ion Ratio Lower Upper

113 100

111 101.3 79.8 119.8

192 21.7 17.0 25.6





#50

Toluene-d8

Concen: 52.569 ug/l

RT: 10.109 min Scan# 1376

Delta R.T. -0.006 min

Lab File: VY020714.D

Acq: 26 Dec 2024 13:56

Instrument :

MSVOA_Y

ClientSampleId :

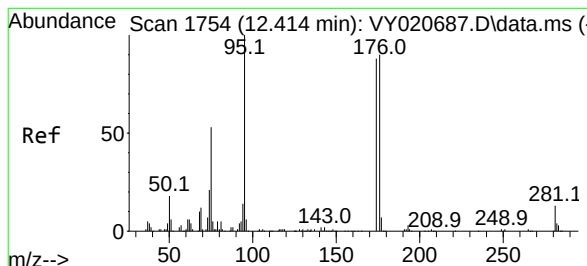
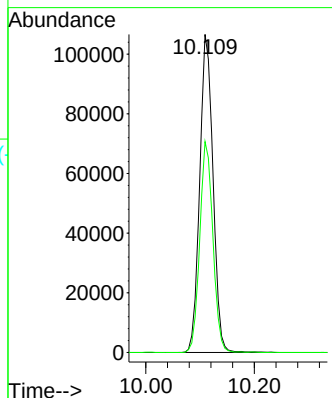
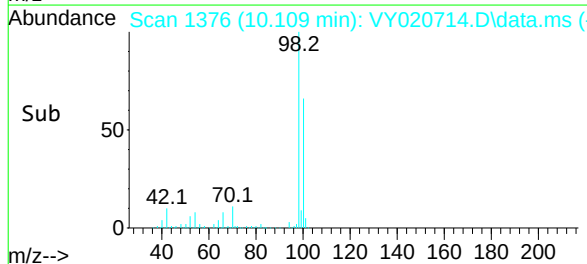
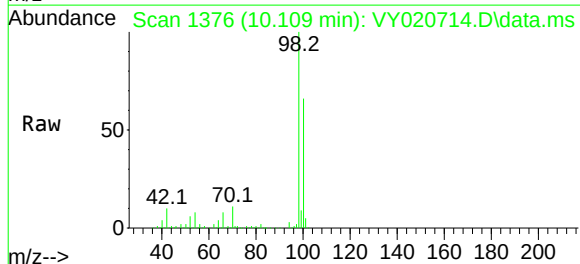
VY1226SBL01

Tgt Ion: 98 Resp: 181408

Ion Ratio Lower Upper

98 100

100 65.6 52.2 78.4



#62

4-Bromofluorobenzene

Concen: 50.981 ug/l

RT: 12.407 min Scan# 1753

Delta R.T. -0.007 min

Lab File: VY020714.D

Acq: 26 Dec 2024 13:56

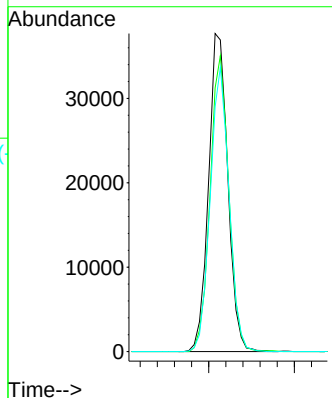
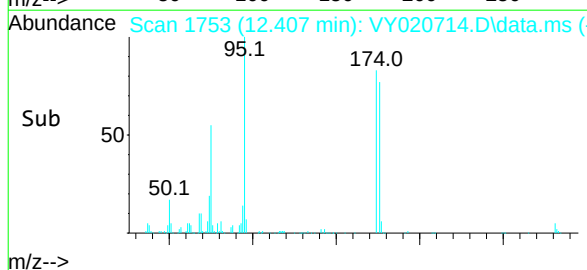
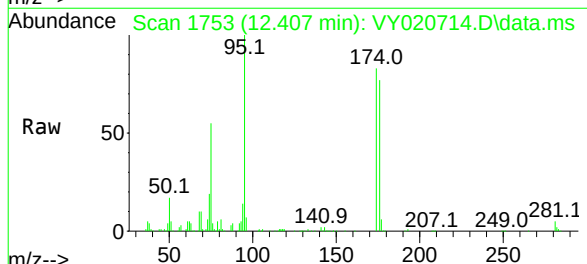
Tgt Ion: 95 Resp: 58692

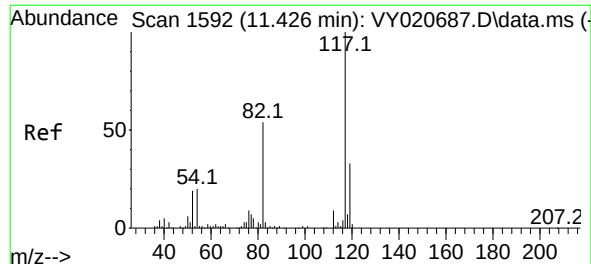
Ion Ratio Lower Upper

95 100

174 90.7 0.0 179.2

176 87.5 0.0 179.8





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1592

Delta R.T. -0.006 min

Lab File: VY020714.D

Acq: 26 Dec 2024 13:56

Instrument :

MSVOA_Y

ClientSampleId :

VY1226SBL01

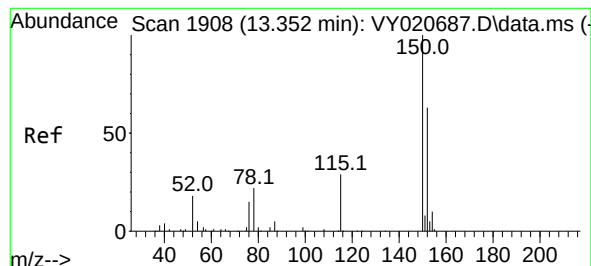
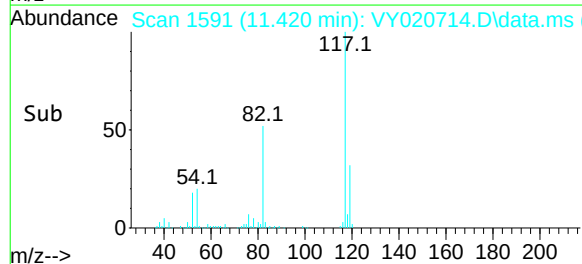
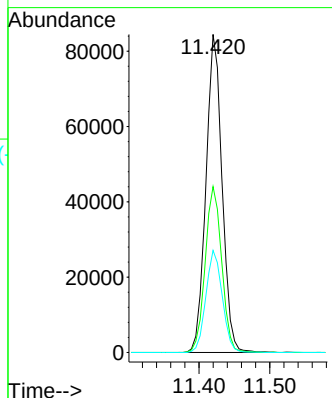
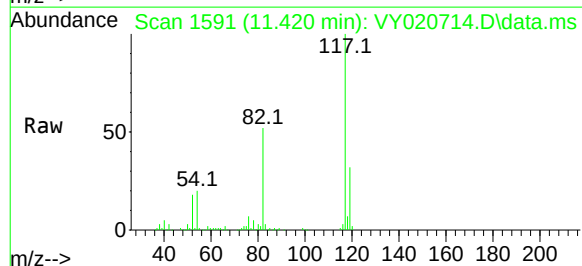
Tgt Ion:117 Resp: 133794

Ion Ratio Lower Upper

117 100

82 52.2 43.4 65.2

119 32.1 26.6 39.8



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.352 min Scan# 1908

Delta R.T. 0.000 min

Lab File: VY020714.D

Acq: 26 Dec 2024 13:56

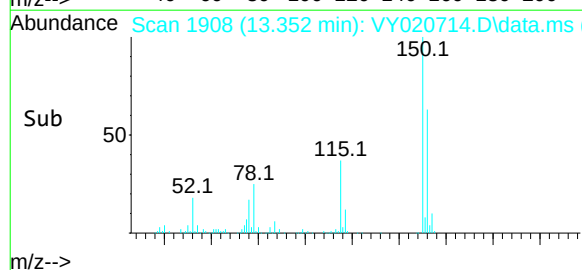
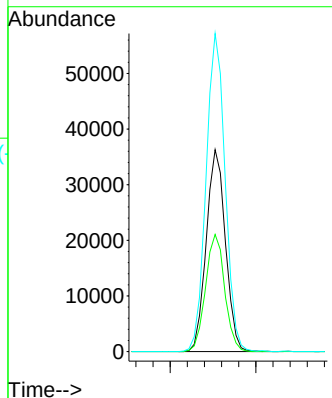
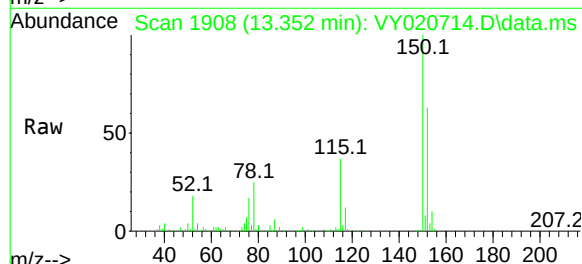
Tgt Ion:152 Resp: 56315

Ion Ratio Lower Upper

152 100

115 57.9 30.3 90.9

150 156.9 0.0 349.0



Report of Analysis

Client:	Kleinfelder	Date Collected:	
Project:	Comegys School	Date Received:	
Client Sample ID:	VY1227SBL01	SDG No.:	P5382
Lab Sample ID:	VY1227SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020731.D	1		12/27/24 11:24	VY122724

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	0.61	U	0.61	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.78	U	0.78	5.00	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.00	ug/Kg
79-01-6	Trichloroethene	0.75	U	0.75	5.00	ug/Kg
108-88-3	Toluene	0.67	U	0.67	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.62	U	0.62	5.00	ug/Kg
1330-20-7	Total Xylenes	2.10	U	2.10	15.0	ug/Kg
98-82-8	Isopropylbenzene	0.67	U	0.67	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	63.5		50 - 163	127%	SPK: 50
1868-53-7	Dibromofluoromethane	57.1		54 - 147	114%	SPK: 50
2037-26-5	Toluene-d8	53.3		58 - 134	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		29 - 146	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	113000	7.719			
540-36-3	1,4-Difluorobenzene	181000	8.622			
3114-55-4	Chlorobenzene-d5	153000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	62500	13.352			

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_Y\Data\VY122724\
 Data File : VY020731.D
 Acq On : 27 Dec 2024 11:24
 Operator : SY/MD
 Sample : VY1227SBL01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1227SBL01

Quant Time: Dec 28 02:59:57 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	112620	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	180909	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	153112	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.352	152	62475	50.000	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	58576	63.500	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	127.000%
35) Dibromofluoromethane	7.646	113	56931	57.133	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	114.260%
50) Toluene-d8	10.115	98	211551	53.270	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	106.540%
62) 4-Bromofluorobenzene	12.408	95	63919	48.267	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	96.540%

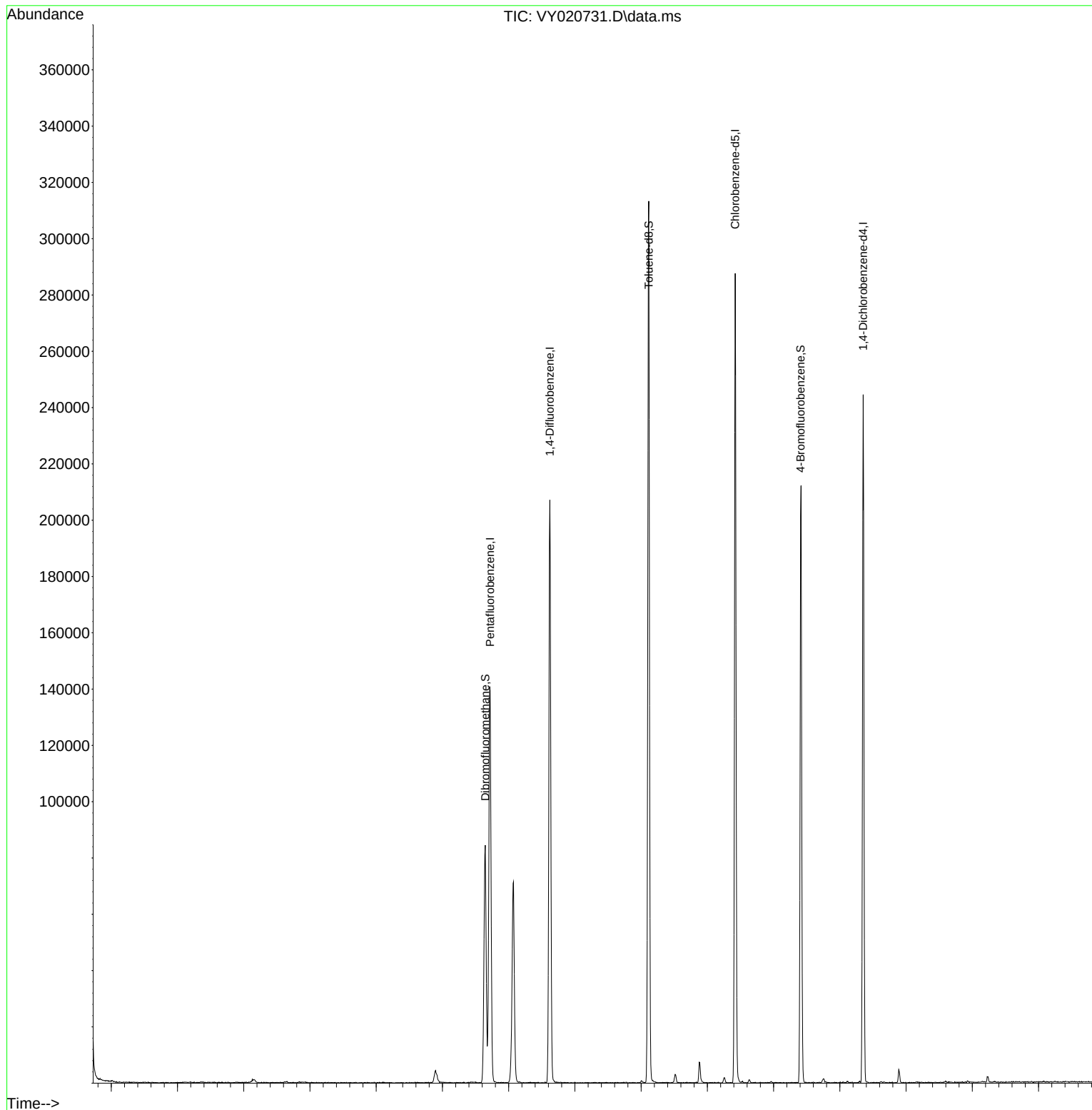
Target Compounds	Qvalue

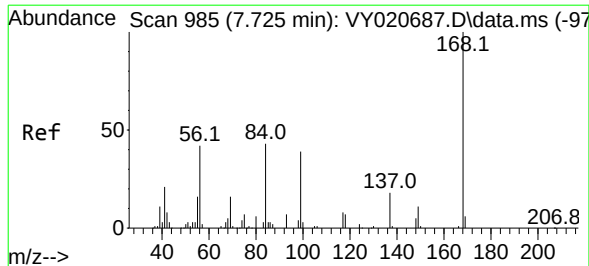
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020731.D
Acq On : 27 Dec 2024 11:24
Operator : SY/MD
Sample : VY1227SBL01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1227SBL01

Quant Time: Dec 28 02:59:57 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration

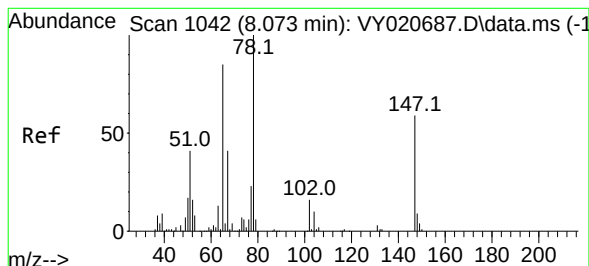
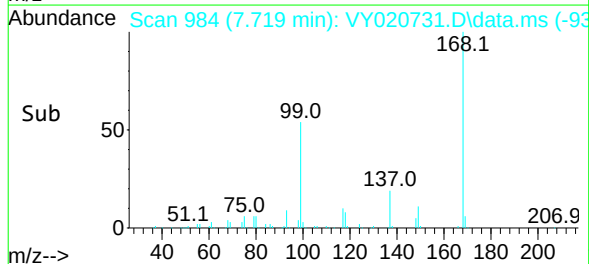
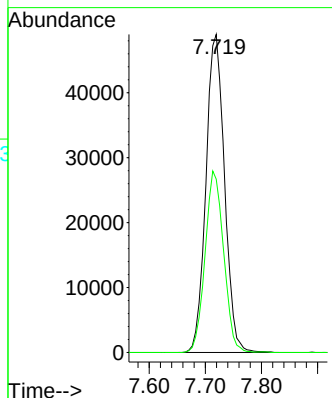
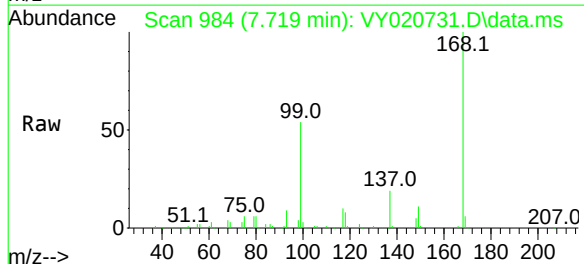




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.719 min Scan# 985
Delta R.T. -0.006 min
Lab File: VY020731.D
Acq: 27 Dec 2024 11:24

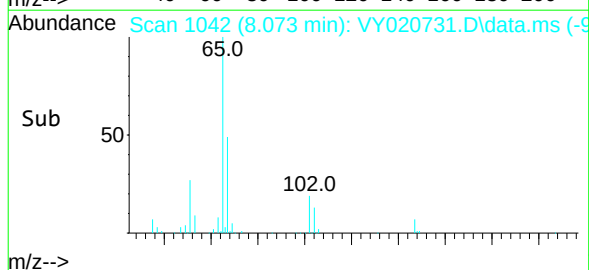
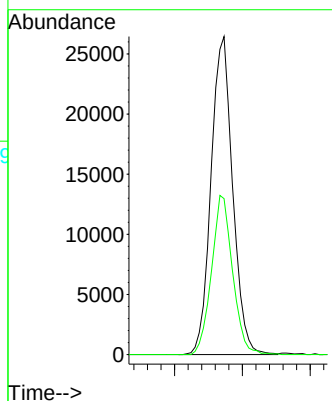
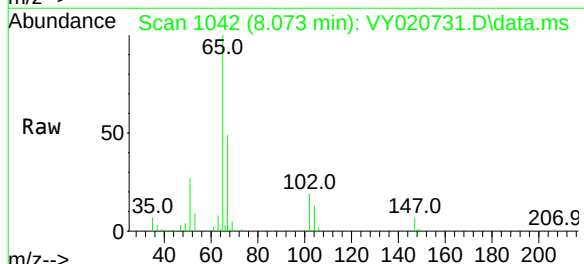
Instrument :
MSVOA_Y
ClientSampleId :
VY1227SBL01

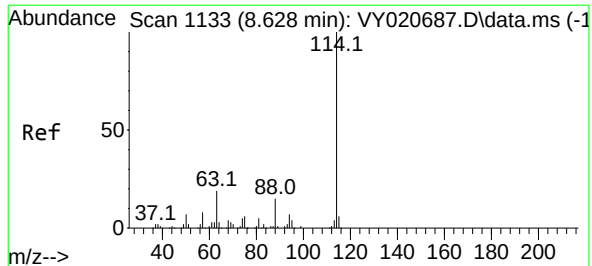
Tgt Ion:168 Resp: 112620
Ion Ratio Lower Upper
168 100
99 54.5 43.8 65.6



#33
1,2-Dichloroethane-d4
Concen: 63.500 ug/l
RT: 8.073 min Scan# 1042
Delta R.T. -0.000 min
Lab File: VY020731.D
Acq: 27 Dec 2024 11:24

Tgt Ion: 65 Resp: 58576
Ion Ratio Lower Upper
65 100
67 48.8 0.0 98.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.622 min Scan# 11

Delta R.T. -0.006 min

Lab File: VY020731.D

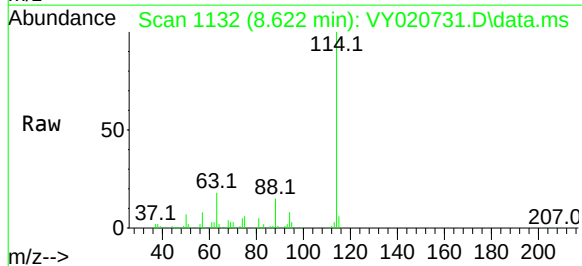
Acq: 27 Dec 2024 11:24

Instrument :

MSVOA_Y

ClientSampleId :

VY1227SBL01



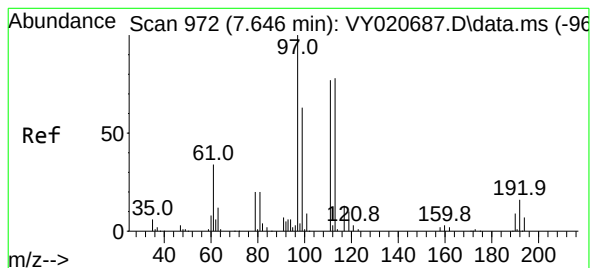
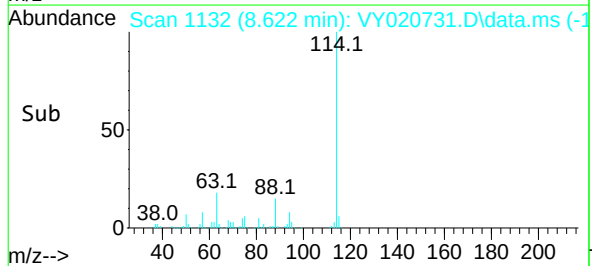
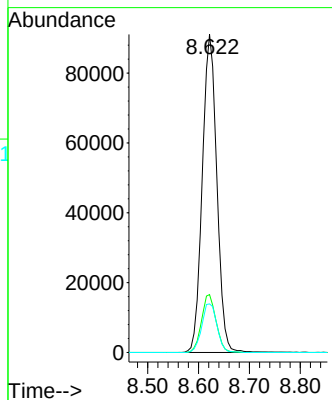
Tgt Ion:114 Resp: 180909

Ion Ratio Lower Upper

114 100

63 18.2 0.0 38.4

88 15.3 0.0 30.4



#35

Dibromofluoromethane

Concen: 57.133 ug/l

RT: 7.646 min Scan# 972

Delta R.T. 0.000 min

Lab File: VY020731.D

Acq: 27 Dec 2024 11:24

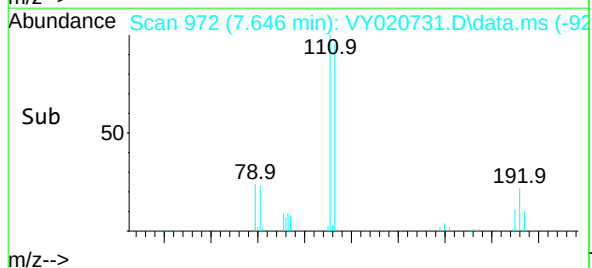
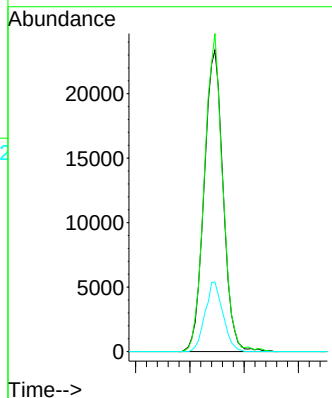
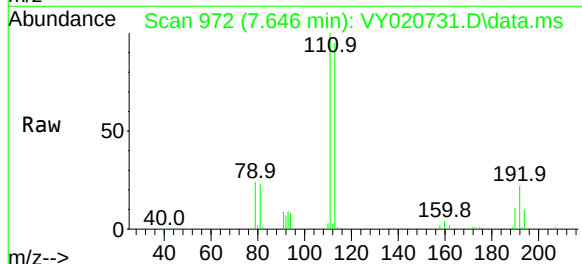
Tgt Ion:113 Resp: 56931

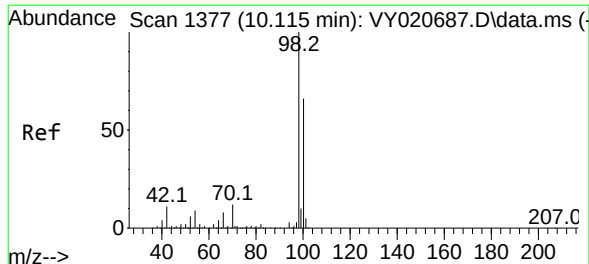
Ion Ratio Lower Upper

113 100

111 101.7 79.8 119.8

192 21.7 17.0 25.6





#50

Toluene-d8

Concen: 53.270 ug/l

RT: 10.115 min Scan# 1377

Delta R.T. 0.000 min

Lab File: VY020731.D

Acq: 27 Dec 2024 11:24

Instrument :

MSVOA_Y

ClientSampleId :

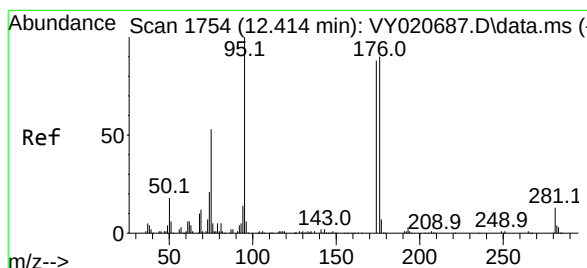
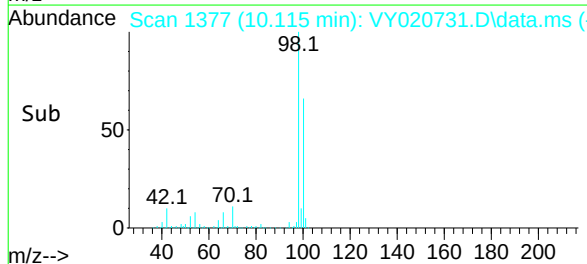
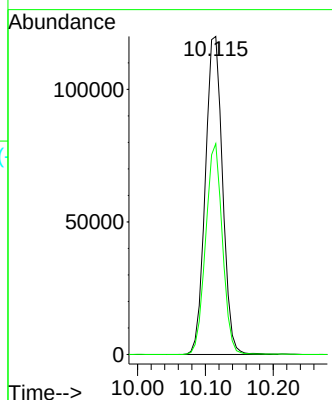
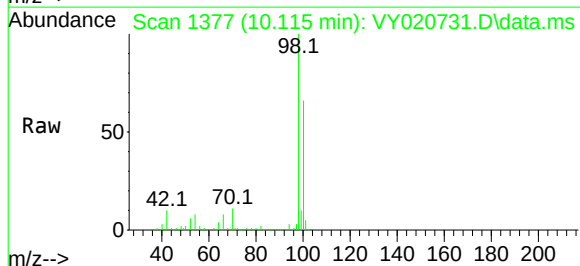
VY1227SBL01

Tgt Ion: 98 Resp: 211551

Ion Ratio Lower Upper

98 100

100 64.6 52.2 78.4



#62

4-Bromofluorobenzene

Concen: 48.267 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. -0.006 min

Lab File: VY020731.D

Acq: 27 Dec 2024 11:24

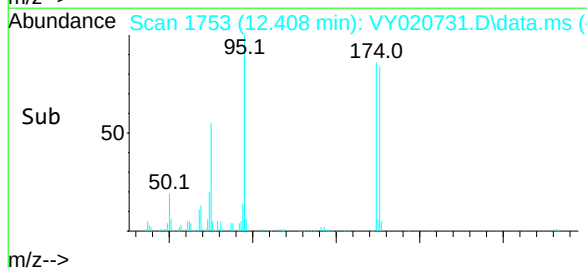
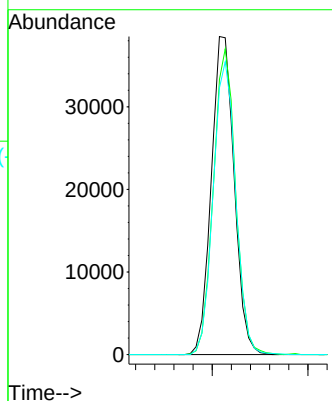
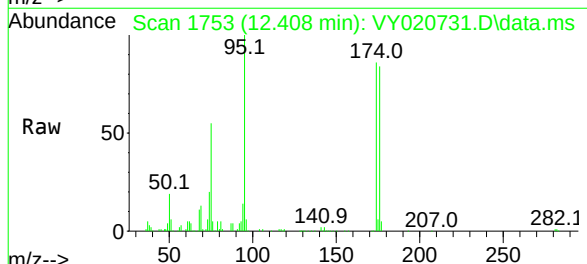
Tgt Ion: 95 Resp: 63919

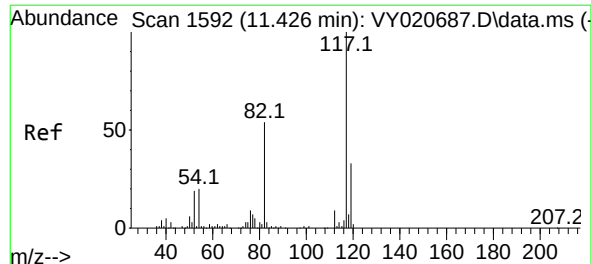
Ion Ratio Lower Upper

95 100

174 93.1 0.0 179.2

176 90.8 0.0 179.8





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 1592

Delta R.T. -0.006 min

Lab File: VY020731.D

Acq: 27 Dec 2024 11:24

Instrument :

MSVOA_Y

ClientSampleId :

VY1227SBL01

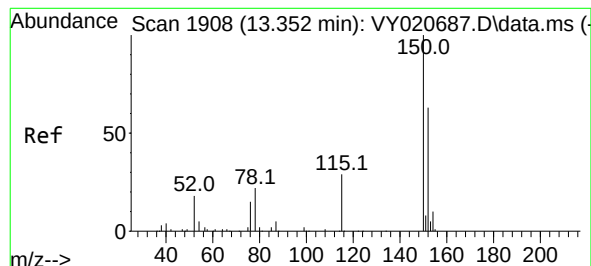
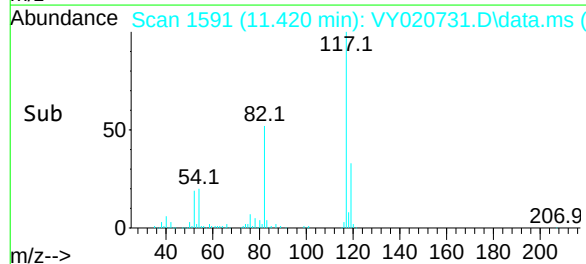
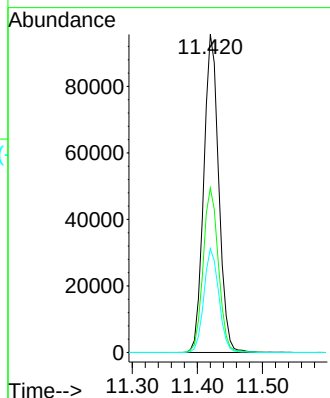
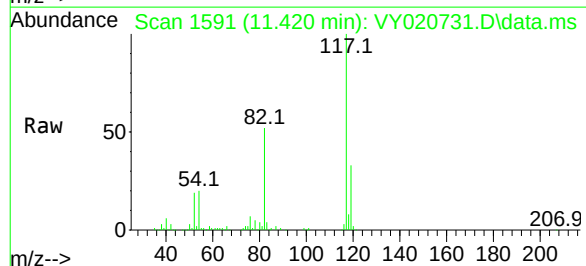
Tgt Ion:117 Resp: 153112

Ion Ratio Lower Upper

117 100

82 51.7 43.4 65.2

119 32.7 26.6 39.8



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.352 min Scan# 1908

Delta R.T. 0.000 min

Lab File: VY020731.D

Acq: 27 Dec 2024 11:24

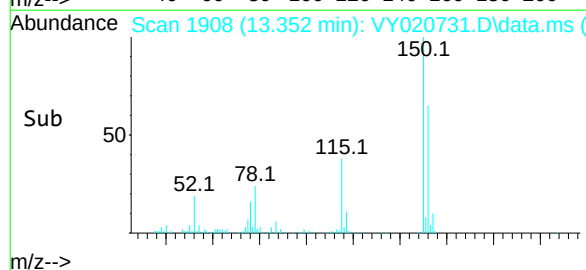
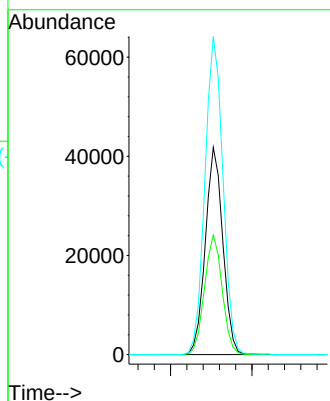
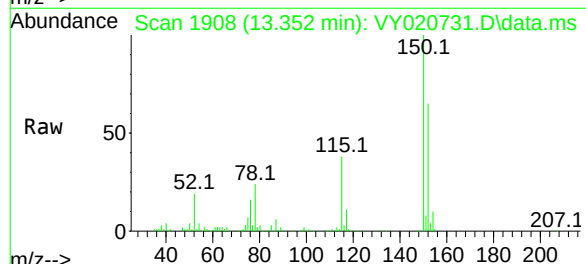
Tgt Ion:152 Resp: 62475

Ion Ratio Lower Upper

152 100

115 58.2 30.3 90.9

150 157.9 0.0 349.0



Report of Analysis

Client:	Kleinfelder	Date Collected:	
Project:	Comegys School	Date Received:	
Client Sample ID:	VY1226SBS01	SDG No.:	P5382
Lab Sample ID:	VY1226SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020715.D	1		12/26/24 14:32	VY122624

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	19.3		0.61	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.4		0.78	5.00	ug/Kg
71-43-2	Benzene	20.0		0.72	5.00	ug/Kg
79-01-6	Trichloroethene	19.4		0.75	5.00	ug/Kg
108-88-3	Toluene	20.3		0.67	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.2		0.62	5.00	ug/Kg
1330-20-7	Total Xylenes	62.3		2.10	15.0	ug/Kg
98-82-8	Isopropylbenzene	19.8		0.67	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.0		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	52.1		54 - 147	104%	SPK: 50
2037-26-5	Toluene-d8	50.6		58 - 134	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.8		29 - 146	104%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	120000	7.72			
540-36-3	1,4-Difluorobenzene	166000	8.622			
3114-55-4	Chlorobenzene-d5	139000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	74000	13.353			

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_Y\Data\VY122624\
 Data File : VY020715.D
 Acq On : 26 Dec 2024 14:32
 Operator : SY/MD
 Sample : VY1226SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1226SBS01

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:19:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.720	168	120044	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	165739	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	139363	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	74040	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.067	65	54084	55.004	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	110.000%
35) Dibromofluoromethane	7.640	113	47566	52.103	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	104.200%
50) Toluene-d8	10.115	98	183793	50.606	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	101.220%
62) 4-Bromofluorobenzene	12.414	95	62876	51.825	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	103.660%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.873	85	18836	19.935	ug/l	98
3) Chloromethane	2.074	50	6770	19.212	ug/l	93
4) Vinyl Chloride	2.214	62	7714	17.668	ug/l	89
5) Bromomethane	2.598	94	6509	19.745	ug/l	90
6) Chloroethane	2.745	64	4700	17.944	ug/l	96
7) Trichlorofluoromethane	3.074	101	32224	19.192	ug/l	99
8) Diethyl Ether	3.464	74	8143	20.381	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.830	101	18072	19.606	ug/l	98
10) Methyl Iodide	4.019	142	17304	17.167	ug/l	97
11) Tert butyl alcohol	4.860	59	7980	119.075	ug/l #	84
12) 1,1-Dichloroethene	3.806	96	15688	19.122	ug/l	87
13) Acrolein	3.659	56	2794	135.930	ug/l	97
14) Allyl chloride	4.397	41	18840	19.623	ug/l	96
15) Acrylonitrile	5.068	53	15561	100.820	ug/l	98
16) Acetone	3.885	43	11775	94.398	ug/l	96
17) Carbon Disulfide	4.117	76	37004	18.386	ug/l	99
18) Methyl Acetate	4.397	43	6995	20.720	ug/l	98
19) Methyl tert-butyl Ether	5.135	73	44886	19.629	ug/l	98
20) Methylene Chloride	4.629	84	16773	20.675	ug/l	89
21) trans-1,2-Dichloroethene	5.122	96	16777	18.976	ug/l	91
22) Diisopropyl ether	6.031	45	39231	20.101	ug/l	98
23) Vinyl Acetate	5.970	43	118423	101.585	ug/l	98
24) 1,1-Dichloroethane	5.933	63	28874	19.732	ug/l	97
25) 2-Butanone	6.909	43	17840	105.875	ug/l	98
26) 2,2-Dichloropropane	6.896	77	34412	19.214	ug/l	100
27) cis-1,2-Dichloroethene	6.909	96	20436	19.302	ug/l	99
28) Bromochloromethane	7.256	49	6829	17.648	ug/l	98
29) Tetrahydrofuran	7.268	42	10899	105.377	ug/l	97
30) Chloroform	7.433	83	37760	20.060	ug/l	94
31) Cyclohexane	7.713	56	24445	19.354	ug/l #	90
32) 1,1,1-Trichloroethane	7.628	97	39114	19.385	ug/l	99
36) 1,1-Dichloropropene	7.841	75	23598	19.569	ug/l	98
37) Ethyl Acetate	7.000	43	8566	21.556	ug/l	98
38) Carbon Tetrachloride	7.823	117	39187	19.734	ug/l	99
39) Methylcyclohexane	9.116	83	30514	19.742	ug/l	96
40) Benzene	8.091	78	69851	19.987	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
 Data File : VY020715.D
 Acq On : 26 Dec 2024 14:32
 Operator : SY/MD
 Sample : VY1226SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1226SBS01

Manual Integrations
 APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
 Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:19:58 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.232	41	3741m	18.637	ug/l	
42) 1,2-Dichloroethane	8.165	62	22857	20.396	ug/l	99
43) Isopropyl Acetate	8.207	43	16685	19.754	ug/l #	90
44) Trichloroethene	8.872	130	20214	19.365	ug/l	96
45) 1,2-Dichloropropane	9.146	63	14072	19.891	ug/l	96
46) Dibromomethane	9.238	93	9956	20.339	ug/l	98
47) Bromodichloromethane	9.433	83	27211	19.608	ug/l	99
48) Methyl methacrylate	9.231	41	7854	19.912	ug/l	96
49) 1,4-Dioxane	9.238	88	2078	445.671	ug/l	95
51) 4-Methyl-2-Pentanone	10.006	43	42819	105.031	ug/l	100
52) Toluene	10.176	92	48544	20.266	ug/l	98
53) t-1,3-Dichloropropene	10.402	75	24065	19.744	ug/l	99
54) cis-1,3-Dichloropropene	9.859	75	26207	19.616	ug/l	99
55) 1,1,2-Trichloroethane	10.579	97	12505	20.014	ug/l	94
56) Ethyl methacrylate	10.445	69	16177	19.708	ug/l	97
57) 1,3-Dichloropropane	10.725	76	21343	21.046	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.719	63	27555	96.265	ug/l	100
59) 2-Hexanone	10.768	43	28183	104.703	ug/l	98
60) Dibromochloromethane	10.920	129	19953	19.763	ug/l	97
61) 1,2-Dibromoethane	11.024	107	11889	20.222	ug/l	100
64) Tetrachloroethene	10.652	164	19878	20.877	ug/l	97
65) Chlorobenzene	11.451	112	54119	19.832	ug/l	98
66) 1,1,1,2-Tetrachloroethane	11.524	131	21666	20.493	ug/l	98
67) Ethyl Benzene	11.524	91	96550	20.244	ug/l	99
68) m/p-Xylenes	11.633	106	75635	41.573	ug/l	97
69) o-Xylene	11.963	106	35970	20.693	ug/l	98
70) Styrene	11.975	104	59026	20.228	ug/l	99
71) Bromoform	12.139	173	12535	20.623	ug/l #	99
73) Isopropylbenzene	12.261	105	101462	19.780	ug/l	99
74) N-amyl acetate	12.079	43	14718	20.191	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.511	83	13746	20.903	ug/l	96
76) 1,2,3-Trichloropropane	12.566	75	10539m	22.380	ug/l	
77) Bromobenzene	12.536	156	22761	19.276	ug/l	99
78) n-propylbenzene	12.603	91	114949	19.993	ug/l	99
79) 2-Chlorotoluene	12.688	91	65099	19.862	ug/l	99
80) 1,3,5-Trimethylbenzene	12.743	105	84854	19.855	ug/l	100
81) trans-1,4-Dichloro-2-b...	12.310	75	4908	20.601	ug/l	98
82) 4-Chlorotoluene	12.786	91	67579	19.951	ug/l	100
83) tert-Butylbenzene	13.005	119	78963	19.784	ug/l	100
84) 1,2,4-Trimethylbenzene	13.048	105	83301	20.030	ug/l	98
85) sec-Butylbenzene	13.182	105	107364	19.960	ug/l	100
86) p-Isopropyltoluene	13.298	119	94876	19.792	ug/l	99
87) 1,3-Dichlorobenzene	13.292	146	45455	19.696	ug/l	98
88) 1,4-Dichlorobenzene	13.371	146	45797	19.948	ug/l	98
89) n-Butylbenzene	13.627	91	79827	19.949	ug/l	98
90) Hexachloroethane	13.889	117	17599	19.307	ug/l	98
91) 1,2-Dichlorobenzene	13.670	146	40158	20.294	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.279	75	2581	20.237	ug/l	94
93) 1,2,4-Trichlorobenzene	14.926	180	23946	19.039	ug/l	98
94) Hexachlorobutadiene	15.029	225	18496	20.177	ug/l	98
95) Naphthalene	15.151	128	40300	20.005	ug/l	99
96) 1,2,3-Trichlorobenzene	15.340	180	21103	20.151	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020715.D
Acq On : 26 Dec 2024 14:32
Operator : SY/MD
Sample : VY1226SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1226SBS01

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024

Quant Time: Dec 26 16:19:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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

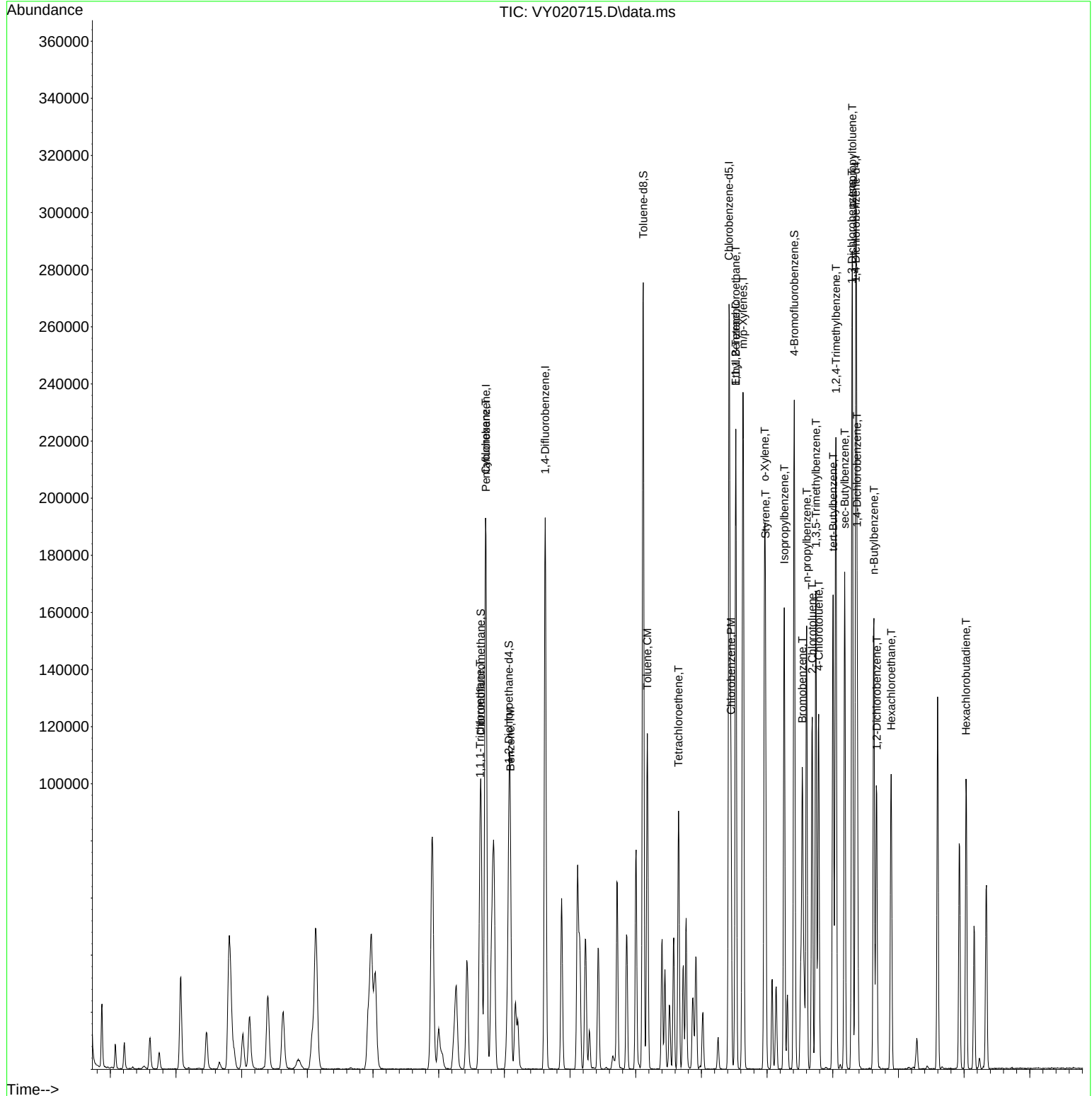
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122624\
Data File : VY020715.D
Acq On : 26 Dec 2024 14:32
Operator : SY/MD
Sample : VY1226SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 26 16:19:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration

Instrument :
MSVOA_Y
ClientSampleId :
VY1226SBS01

Manual Integrations
APPROVED

Reviewed By :Mahesh Dadoda 12/27/2024
Supervised By :Semsettin Yesilyurt 12/27/2024



Report of Analysis

Client:	Kleinfelder	Date Collected:	
Project:	Comegys School	Date Received:	
Client Sample ID:	VY1227SBS01	SDG No.:	P5382
Lab Sample ID:	VY1227SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020732.D	1		12/27/24 12:03	VY122724

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	20.4		0.61	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.3		0.78	5.00	ug/Kg
71-43-2	Benzene	20.7		0.72	5.00	ug/Kg
79-01-6	Trichloroethene	19.9		0.75	5.00	ug/Kg
108-88-3	Toluene	20.4		0.67	5.00	ug/Kg
100-41-4	Ethyl Benzene	20.7		0.62	5.00	ug/Kg
1330-20-7	Total Xylenes	62.5		2.10	15.0	ug/Kg
98-82-8	Isopropylbenzene	20.2		0.67	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.8		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	54.3		54 - 147	109%	SPK: 50
2037-26-5	Toluene-d8	52.7		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.1		29 - 146	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	137000	7.719			
540-36-3	1,4-Difluorobenzene	195000	8.622			
3114-55-4	Chlorobenzene-d5	164000	11.426			
3855-82-1	1,4-Dichlorobenzene-d4	85000	13.359			

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_Y\Data\VY122724\
 Data File : VY020732.D
 Acq On : 27 Dec 2024 12:03
 Operator : SY/MD
 Sample : VY1227SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1227SBS01

Quant Time: Dec 28 03:00:18 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
 Supervised By :Mahesh Dadoda 12/30/2024

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

Internal Standards						
1) Pentafluorobenzene	7.719	168	136570	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	194898	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.426	117	164208	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.359	152	85032	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.073	65	61288	54.788	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 109.580%			
35) Dibromofluoromethane	7.646	113	58304	54.311	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 108.620%			
50) Toluene-d8	10.115	98	225185	52.654	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 105.300%			
62) 4-Bromofluorobenzene	12.414	95	75736	53.086	ug/l	0.00
Spiked Amount 50.000	Range 29 - 146		Recovery = 106.180%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.873	85	20617	19.179	ug/l	95
3) Chloromethane	2.080	50	8371	20.880	ug/l	98
4) Vinyl Chloride	2.214	62	9756	19.641	ug/l	98
5) Bromomethane	2.605	94	7445	19.852	ug/l	97
6) Chloroethane	2.745	64	6050	20.304	ug/l	90
7) Trichlorofluoromethane	3.074	101	35014	18.330	ug/l	99
8) Diethyl Ether	3.464	74	9185	20.207	ug/l	91
9) 1,1,2-Trichlorotrifluo...	3.836	101	21341	20.351	ug/l	99
10) Methyl Iodide	4.019	142	22125	19.294	ug/l	96
11) Tert butyl alcohol	4.879	59	7516	94.705	ug/l #	85
12) 1,1-Dichloroethene	3.806	96	18283	19.588	ug/l	91
13) Acrolein	3.671	56	2960	126.581	ug/l	94
14) Allyl chloride	4.397	41	24398	22.337	ug/l	89
15) Acrylonitrile	5.074	53	18364	104.583	ug/l	95
16) Acetone	3.885	43	12917	91.023	ug/l	90
17) Carbon Disulfide	4.123	76	43450	18.977	ug/l	97
18) Methyl Acetate	4.409	43	8490	22.105	ug/l	96
19) Methyl tert-butyl Ether	5.135	73	52162	20.050	ug/l	96
20) Methylene Chloride	4.635	84	18994	20.579	ug/l	96
21) trans-1,2-Dichloroethene	5.135	96	20359	20.241	ug/l	97
22) Diisopropyl ether	6.037	45	50468	22.729	ug/l #	96
23) Vinyl Acetate	5.970	43	142300	107.296	ug/l	99
24) 1,1-Dichloroethane	5.933	63	35357	21.239	ug/l	96
25) 2-Butanone	6.909	43	19876	103.684	ug/l	99
26) 2,2-Dichloropropane	6.896	77	39768	19.517	ug/l	100
27) cis-1,2-Dichloroethene	6.909	96	24594	20.418	ug/l	99
28) Bromochloromethane	7.256	49	8410	19.103	ug/l	98
29) Tetrahydrofuran	7.274	42	12370	105.127	ug/l	97
30) Chloroform	7.433	83	44041	20.565	ug/l	94
31) Cyclohexane	7.713	56	28692	19.967	ug/l	98
32) 1,1,1-Trichloroethane	7.628	97	44263	19.282	ug/l	97
36) 1,1-Dichloropropene	7.848	75	28796	20.307	ug/l	97
37) Ethyl Acetate	6.994	43	9754	20.874	ug/l	99
38) Carbon Tetrachloride	7.829	117	43483	18.621	ug/l	94
39) Methylcyclohexane	9.116	83	35984	19.798	ug/l	97
40) Benzene	8.091	78	84932	20.666	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
 Data File : VY020732.D
 Acq On : 27 Dec 2024 12:03
 Operator : SY/MD
 Sample : VY1227SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1227SBS01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
 Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 03:00:18 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.226	41	4064	17.217	ug/l #	68
42) 1,2-Dichloroethane	8.171	62	25446	19.309	ug/l	98
43) Isopropyl Acetate	8.207	43	20192	20.330	ug/l #	82
44) Trichloroethene	8.878	130	24446	19.915	ug/l	86
45) 1,2-Dichloropropane	9.152	63	17969	21.600	ug/l	98
46) Dibromomethane	9.244	93	11176	19.416	ug/l	97
47) Bromodichloromethane	9.426	83	32107	19.674	ug/l	91
48) Methyl methacrylate	9.231	41	9360	20.180	ug/l	92
49) 1,4-Dioxane	9.244	88	2003	365.315	ug/l #	81
51) 4-Methyl-2-Pentanone	10.006	43	49210	102.648	ug/l	100
52) Toluene	10.182	92	57392	20.375	ug/l	97
53) t-1,3-Dichloropropene	10.402	75	28139	19.632	ug/l	97
54) cis-1,3-Dichloropropene	9.865	75	31092	19.790	ug/l	97
55) 1,1,2-Trichloroethane	10.579	97	15127	20.588	ug/l	95
56) Ethyl methacrylate	10.445	69	18880	19.559	ug/l	94
57) 1,3-Dichloropropane	10.725	76	25218	21.147	ug/l	99
58) 2-Chloroethyl Vinyl ether	9.719	63	15490	46.019	ug/l	99
59) 2-Hexanone	10.768	43	31912	100.819	ug/l	99
60) Dibromochloromethane	10.920	129	23437	19.740	ug/l	99
61) 1,2-Dibromoethane	11.024	107	13756	19.897	ug/l	98
64) Tetrachloroethene	10.652	164	22452	20.013	ug/l	94
65) Chlorobenzene	11.451	112	66254	20.606	ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.524	131	25379	20.373	ug/l	98
67) Ethyl Benzene	11.524	91	116126	20.664	ug/l	95
68) m/p-Xylenes	11.633	106	89907	41.941	ug/l	97
69) o-Xylene	11.963	106	42101	20.556	ug/l	99
70) Styrene	11.975	104	72046	20.955	ug/l	97
71) Bromoform	12.139	173	14274	19.931	ug/l #	100
73) Isopropylbenzene	12.261	105	118788	20.164	ug/l	100
74) N-amyl acetate	12.078	43	17064	20.383	ug/l	99
75) 1,1,2,2-Tetrachloroethane	12.511	83	15441	20.446	ug/l	97
76) 1,2,3-Trichloropropane	12.566	75	12753m	23.581	ug/l	
77) Bromobenzene	12.536	156	27416	20.216	ug/l	99
78) n-propylbenzene	12.603	91	136035	20.602	ug/l	99
79) 2-Chlorotoluene	12.688	91	76331	20.279	ug/l	99
80) 1,3,5-Trimethylbenzene	12.743	105	97448	19.854	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.310	75	5233	19.126	ug/l	95
82) 4-Chlorotoluene	12.786	91	78159	20.092	ug/l	99
83) tert-Butylbenzene	13.005	119	92005	20.072	ug/l	97
84) 1,2,4-Trimethylbenzene	13.054	105	97726	20.461	ug/l	100
85) sec-Butylbenzene	13.182	105	125729	20.352	ug/l	99
86) p-Isopropyltoluene	13.298	119	110840	20.133	ug/l	99
87) 1,3-Dichlorobenzene	13.298	146	54011	20.378	ug/l	99
88) 1,4-Dichlorobenzene	13.377	146	52879	20.056	ug/l	98
89) n-Butylbenzene	13.627	91	93412	20.326	ug/l	99
90) Hexachloroethane	13.889	117	20938	20.001	ug/l	98
91) 1,2-Dichlorobenzene	13.670	146	45733	20.124	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.285	75	2614	17.846	ug/l	95
93) 1,2,4-Trichlorobenzene	14.932	180	26948	18.656	ug/l	99
94) Hexachlorobutadiene	15.035	225	20142	19.132	ug/l	99
95) Naphthalene	15.151	128	42514	18.376	ug/l	98
96) 1,2,3-Trichlorobenzene	15.340	180	22719	18.890	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020732.D
Acq On : 27 Dec 2024 12:03
Operator : SY/MD
Sample : VY1227SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1227SBS01

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 03:00:18 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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

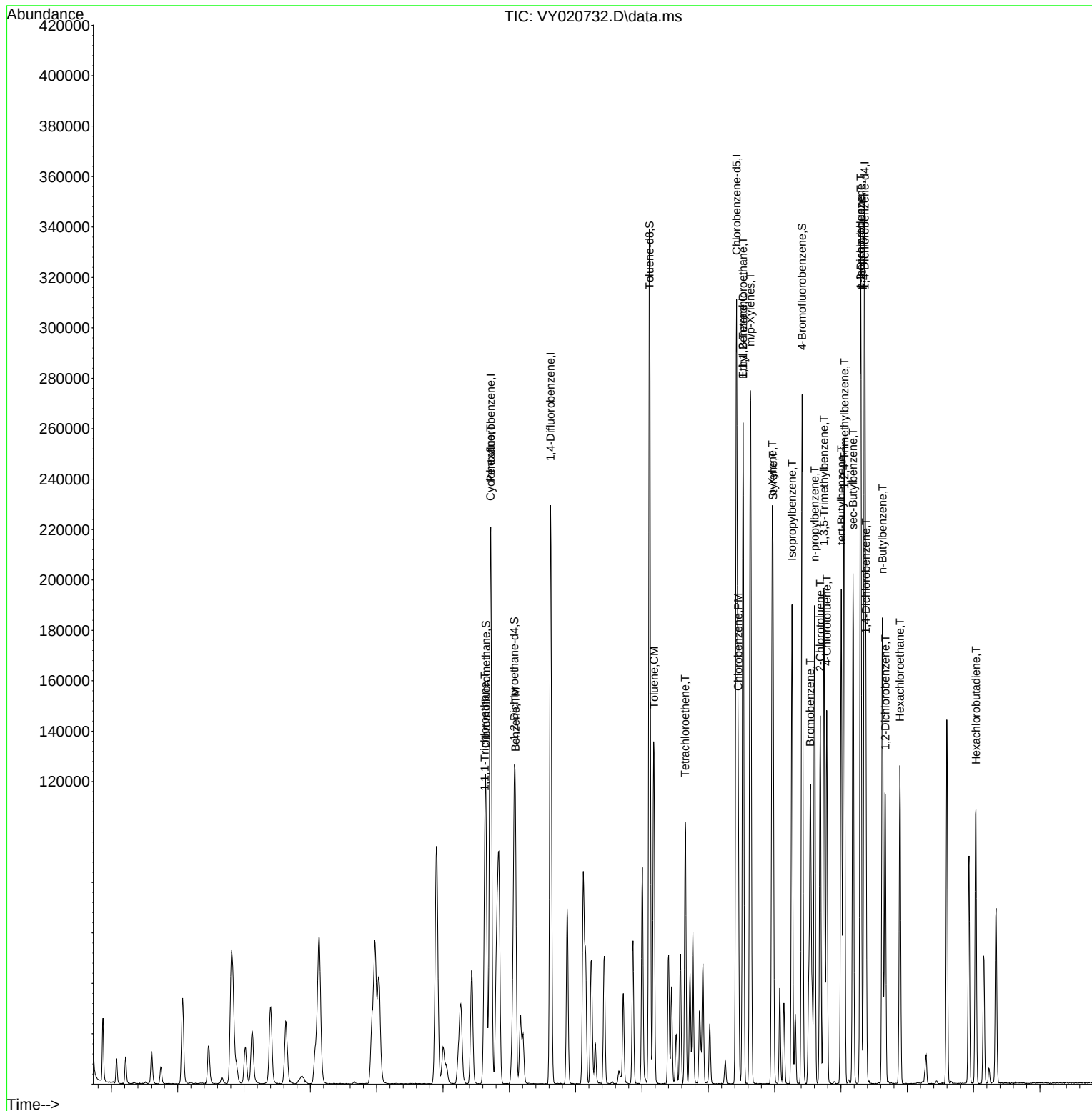
Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020732.D
Acq On : 27 Dec 2024 12:03
Operator : SY/MD
Sample : VY1227SBS01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1227SBS01

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 12/30/2024
Supervised By : Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 03:00:18 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration



Report of Analysis

Client:	Kleinfelder	Date Collected:	
Project:	Comegys School	Date Received:	
Client Sample ID:	VY1227SBS01	SDG No.:	P5382
Lab Sample ID:	VY1227SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY020733.D	1		12/27/24 12:26	VY122724

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
156-59-2	cis-1,2-Dichloroethene	21.4		0.61	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.7		0.78	5.00	ug/Kg
71-43-2	Benzene	21.2		0.72	5.00	ug/Kg
79-01-6	Trichloroethene	20.6		0.75	5.00	ug/Kg
108-88-3	Toluene	21.1		0.67	5.00	ug/Kg
100-41-4	Ethyl Benzene	21.1		0.62	5.00	ug/Kg
1330-20-7	Total Xylenes	63.4		2.10	15.0	ug/Kg
98-82-8	Isopropylbenzene	21.2		0.67	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.9		50 - 163	112%	SPK: 50
1868-53-7	Dibromofluoromethane	53.6		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	52.7		58 - 134	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.2		29 - 146	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	129000	7.72			
540-36-3	1,4-Difluorobenzene	186000	8.622			
3114-55-4	Chlorobenzene-d5	158000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	79100	13.353			

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_Y\Data\VY122724\
 Data File : VY020733.D
 Acq On : 27 Dec 2024 12:26
 Operator : SY/MD
 Sample : VY1227SBSD01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1227SBSD01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
 Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 03:01:10 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Pentafluorobenzene	7.720	168	129413	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	186352	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	158160	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.353	152	79149	50.000	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	8.073	65	59243	55.889	ug/l	0.00
Spiked Amount	50.000	Range	50 - 163	Recovery	=	111.780%
35) Dibromofluoromethane	7.640	113	55021	53.603	ug/l	0.00
Spiked Amount	50.000	Range	54 - 147	Recovery	=	107.200%
50) Toluene-d8	10.109	98	215701	52.746	ug/l	0.00
Spiked Amount	50.000	Range	58 - 134	Recovery	=	105.500%
62) 4-Bromofluorobenzene	12.408	95	72611	53.229	ug/l	0.00
Spiked Amount	50.000	Range	29 - 146	Recovery	=	106.460%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.867	85	19975	19.610	ug/l	92
3) Chloromethane	2.074	50	8689	22.872	ug/l	95
4) Vinyl Chloride	2.214	62	9331	19.824	ug/l	93
5) Bromomethane	2.605	94	7379	20.764	ug/l	99
6) Chloroethane	2.739	64	6014	21.299	ug/l #	86
7) Trichlorofluoromethane	3.068	101	33875	18.715	ug/l	97
8) Diethyl Ether	3.464	74	9258	21.494	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.824	101	20789	20.921	ug/l	98
10) Methyl Iodide	4.013	142	21673	19.945	ug/l	98
11) Tert butyl alcohol	4.879	59	8443	116.445	ug/l	100
12) 1,1-Dichloroethene	3.799	96	18053	20.411	ug/l	98
13) Acrolein	3.659	56	3505	158.176	ug/l	95
14) Allyl chloride	4.397	41	23099	22.317	ug/l	92
15) Acrylonitrile	5.074	53	18890	113.528	ug/l	97
16) Acetone	3.879	43	13905	103.404	ug/l	96
17) Carbon Disulfide	4.117	76	42853	19.751	ug/l	99
18) Methyl Acetate	4.397	43	8386	23.042	ug/l	99
19) Methyl tert-butyl Ether	5.129	73	51019	20.695	ug/l	100
20) Methylene Chloride	4.623	84	18611	21.280	ug/l	90
21) trans-1,2-Dichloroethene	5.122	96	19728	20.699	ug/l	98
22) Diisopropyl ether	6.025	45	49974	23.751	ug/l	98
23) Vinyl Acetate	5.970	43	141793	112.826	ug/l	100
24) 1,1-Dichloroethane	5.921	63	34737	22.020	ug/l	97
25) 2-Butanone	6.903	43	21027	115.755	ug/l	97
26) 2,2-Dichloropropane	6.896	77	39062	20.231	ug/l	98
27) cis-1,2-Dichloroethene	6.903	96	24416	21.392	ug/l	99
28) Bromochloromethane	7.256	49	8041	19.275	ug/l	99
29) Tetrahydrofuran	7.268	42	13347	119.703	ug/l	98
30) Chloroform	7.427	83	44126	21.745	ug/l	100
31) Cyclohexane	7.707	56	27969	20.540	ug/l #	93
32) 1,1,1-Trichloroethane	7.628	97	45099	20.733	ug/l	99
36) 1,1-Dichloropropene	7.841	75	27889	20.569	ug/l	99
37) Ethyl Acetate	6.994	43	10313	23.082	ug/l	99
38) Carbon Tetrachloride	7.829	117	43183	19.341	ug/l	95
39) Methylcyclohexane	9.116	83	35058	20.173	ug/l	96
40) Benzene	8.085	78	83465	21.240	ug/l	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
 Data File : VY020733.D
 Acq On : 27 Dec 2024 12:26
 Operator : SY/MD
 Sample : VY1227SBS01
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 VY1227SBS01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
 Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 03:01:10 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
 Quant Title : SW846 8260
 QLast Update : Thu Dec 26 16:12:28 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	7.226	41	4599m	20.377	ug/l	
42) 1,2-Dichloroethane	8.165	62	25498	20.236	ug/l	99
43) Isopropyl Acetate	8.201	43	20040	21.102	ug/l #	88
44) Trichloroethene	8.872	130	24167	20.591	ug/l	90
45) 1,2-Dichloropropane	9.146	63	17474	21.968	ug/l	100
46) Dibromomethane	9.238	93	11329	20.584	ug/l	98
47) Bromodichloromethane	9.427	83	32115	20.582	ug/l	97
48) Methyl methacrylate	9.225	41	9774	22.039	ug/l	94
49) 1,4-Dioxane	9.231	88	2199	419.455	ug/l #	85
51) 4-Methyl-2-Pentanone	10.000	43	51510	112.373	ug/l	100
52) Toluene	10.176	92	56698	21.052	ug/l	99
53) t-1,3-Dichloropropene	10.396	75	28098	20.503	ug/l	98
54) cis-1,3-Dichloropropene	9.859	75	30822	20.518	ug/l	95
55) 1,1,2-Trichloroethane	10.579	97	15234	21.684	ug/l	90
56) Ethyl methacrylate	10.445	69	19587	21.222	ug/l	97
57) 1,3-Dichloropropane	10.719	76	25216	22.115	ug/l	100
58) 2-Chloroethyl Vinyl ether	9.713	63	34970	108.656	ug/l	98
59) 2-Hexanone	10.762	43	32879	108.637	ug/l	98
60) Dibromochloromethane	10.914	129	23351	20.570	ug/l	98
61) 1,2-Dibromoethane	11.018	107	13663	20.669	ug/l	100
64) Tetrachloroethene	10.652	164	22493	20.816	ug/l	92
65) Chlorobenzene	11.444	112	64038	20.678	ug/l	96
66) 1,1,1,2-Tetrachloroethane	11.524	131	25358	21.135	ug/l	96
67) Ethyl Benzene	11.524	91	114075	21.076	ug/l	100
68) m/p-Xylenes	11.633	106	87611	42.432	ug/l	97
69) o-Xylene	11.957	106	41401	20.987	ug/l	98
70) Styrene	11.975	104	69293	20.925	ug/l	98
71) Bromoform	12.139	173	14328	20.771	ug/l #	99
73) Isopropylbenzene	12.261	105	116466	21.239	ug/l	99
74) N-amyl acetate	12.078	43	17162	22.024	ug/l	98
75) 1,1,2,2-Tetrachloroethane	12.511	83	15699	22.332	ug/l	98
76) 1,2,3-Trichloropropane	12.560	75	13640m	27.096	ug/l	
77) Bromobenzene	12.536	156	26425	20.934	ug/l	99
78) n-propylbenzene	12.597	91	130855	21.291	ug/l	100
79) 2-Chlorotoluene	12.682	91	74872	21.370	ug/l	100
80) 1,3,5-Trimethylbenzene	12.743	105	96868	21.203	ug/l	99
81) trans-1,4-Dichloro-2-b...	12.310	75	5753	22.589	ug/l	92
82) 4-Chlorotoluene	12.780	91	77903	21.514	ug/l	99
83) tert-Butylbenzene	12.999	119	91029	21.335	ug/l	98
84) 1,2,4-Trimethylbenzene	13.048	105	94951	21.357	ug/l	99
85) sec-Butylbenzene	13.182	105	121641	21.154	ug/l	98
86) p-Isopropyltoluene	13.298	119	107600	20.997	ug/l	99
87) 1,3-Dichlorobenzene	13.292	146	51752	20.977	ug/l	96
88) 1,4-Dichlorobenzene	13.371	146	51614	21.031	ug/l	99
89) n-Butylbenzene	13.621	91	90120	21.067	ug/l	99
90) Hexachloroethane	13.883	117	20125	20.653	ug/l	100
91) 1,2-Dichlorobenzene	13.664	146	43886	20.746	ug/l	98
92) 1,2-Dibromo-3-Chloropr...	14.279	75	2700	19.803	ug/l	96
93) 1,2,4-Trichlorobenzene	14.926	180	26417	19.647	ug/l	99
94) Hexachlorobutadiene	15.029	225	19308	19.703	ug/l	98
95) Naphthalene	15.151	128	42532	19.750	ug/l	99
96) 1,2,3-Trichlorobenzene	15.334	180	22351	19.965	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020733.D
Acq On : 27 Dec 2024 12:26
Operator : SY/MD
Sample : VY1227SBSD01
Misc : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
VY1227SBSD01

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 03:01:10 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
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

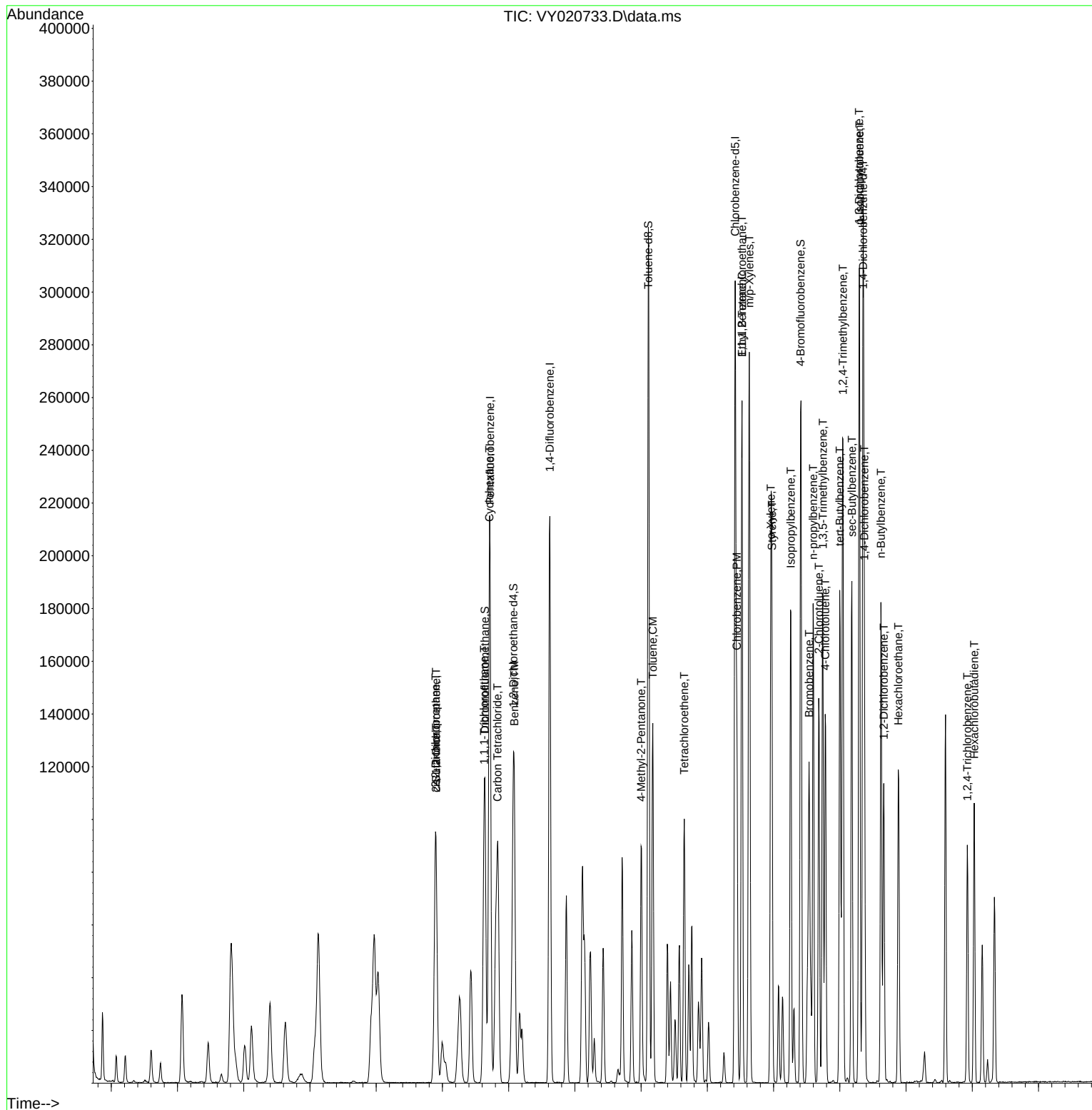
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY122724\
Data File : VY020733.D
Acq On    : 27 Dec 2024 12:26
Operator  : SY/MD
Sample    : VY1227SBS01
Misc      : 5.00g/5.0mL/MSVOA_Y/SOIL
ALS Vial  : 6 Sample Multiplier: 1
```

Instrument :
MSVOA_Y
ClientSampleId :
VY1227SBSD01

Manual Integrations APPROVED

Reviewed By :Semsettin Yesilyurt 12/30/2024
Supervised By :Mahesh Dadoda 12/30/2024

Quant Time: Dec 28 03:01:10 2024
Quant Method : Z:\voasrv\HPCHEM1\MSSVOA_Y\methods\82Y122624S.M
Quant Title : SW846 8260
QLast Update : Thu Dec 26 16:12:28 2024
Response via : Initial Calibration



Manual Integration Report

Sequence:	VY122624	Instrument	MSVOA_y
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDIC005	VY020706.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:16 AM	SAM	12/27/2024 9:59:40 AM	Peak Integrated by Software
VSTDIC005	VY020706.D	Methylene Chloride	MMDadoda	12/27/2024 9:56:16 AM	SAM	12/27/2024 9:59:40 AM	Peak Integrated by Software
VSTDIC005	VY020706.D	Tert butyl alcohol	MMDadoda	12/27/2024 9:56:16 AM	SAM	12/27/2024 9:59:40 AM	Peak Integrated by Software
VSTDIC010	VY020707.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:18 AM	SAM	12/27/2024 9:59:42 AM	Peak Integrated by Software
VSTDIC020	VY020708.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:21 AM	SAM	12/27/2024 9:59:45 AM	Peak Integrated by Software
VSTDICCC050	VY020709.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:23 AM	SAM	12/27/2024 9:59:47 AM	Peak Integrated by Software
VSTDIC150	VY020710.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:26 AM	SAM	12/27/2024 9:59:49 AM	Peak Integrated by Software
VSTDIC100	VY020711.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:28 AM	SAM	12/27/2024 9:59:51 AM	Peak Integrated by Software
VSTDICV050	VY020713.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:30 AM	SAM	12/27/2024 9:59:53 AM	Peak Integrated by Software
VY1226SBS01	VY020715.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:31 AM	SAM	12/27/2024 9:59:55 AM	Peak Integrated by Software
VY1226SBS01	VY020715.D	Methacrylonitrile	MMDadoda	12/27/2024 9:56:31 AM	SAM	12/27/2024 9:59:55 AM	Peak Integrated by Software
VSTDCCC050	VY020728.D	1,2,3-Trichloropropane	MMDadoda	12/27/2024 9:56:37 AM	SAM	12/27/2024 10:00:00 AM	Peak Integrated by Software



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

Manual Integration Report

Sequence:

VY122624

Instrument

MSVOA_y

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:

VY122724

Instrument

MSVOA_y

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VY020730.D	1,2,3-Trichloropropane	SAM	12/30/2024 8:42:25 AM	MMDadoda	12/30/2024 12:44:09 PM	Peak Integrated by Software
VY1227SBS01	VY020732.D	1,2,3-Trichloropropane	SAM	12/30/2024 8:42:29 AM	MMDadoda	12/30/2024 12:44:11 PM	Peak Integrated by Software
VY1227SBSD0 1	VY020733.D	1,2,3-Trichloropropane	SAM	12/30/2024 8:42:34 AM	MMDadoda	12/30/2024 12:44:13 PM	Peak Integrated by Software
VY1227SBSD0 1	VY020733.D	Methacrylonitrile	SAM	12/30/2024 8:42:34 AM	MMDadoda	12/30/2024 12:44:13 PM	Peak Integrated by Software
VSTDCCC050	VY020749.D	1,2,3-Trichloropropane	SAM	12/30/2024 8:42:45 AM	MMDadoda	12/30/2024 12:44:16 PM	Peak Integrated by Software

Instrument ID: **MSVOA_Y**

Daily Analysis Runlog For Sequence/QC Batch ID # VY122624

Review By	Maresh Dadoda	Review On	12/27/2024 9:56:45 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	12/27/2024 10:00:03 AM		
SubDirectory	VY122624	HP Acquire Method	MSVOA_Y	HP Processing Method	82Y122624S.M
STD. NAME		STD REF.#			
Tune/Reschk		VP132321			
Initial Calibration Stds		VP132326,VP132327,VP132328,VP132329,VP132330,VP132331			
CCC		VP132333,VP132334			
Internal Standard/PEM					
ICV/I.BLK		VP132332			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	Sampleld	Data File Name	Date-Time	Operator	Status
1	BFB	VY020705.D	26 Dec 2024 08:29	SY/MD	Ok
2	VSTDICC005	VY020706.D	26 Dec 2024 09:31	SY/MD	Ok,M
3	VSTDICC010	VY020707.D	26 Dec 2024 09:53	SY/MD	Ok,M
4	VSTDICC020	VY020708.D	26 Dec 2024 10:16	SY/MD	Ok,M
5	VSTDICCC050	VY020709.D	26 Dec 2024 10:39	SY/MD	Ok,M
6	VSTDICC150	VY020710.D	26 Dec 2024 11:01	SY/MD	Ok,M
7	VSTDICC100	VY020711.D	26 Dec 2024 11:51	SY/MD	Ok,M
8	VIBLK	VY020712.D	26 Dec 2024 12:13	SY/MD	Ok
9	VSTDICV050	VY020713.D	26 Dec 2024 12:51	SY/MD	Ok,M
10	VY1226SBL01	VY020714.D	26 Dec 2024 13:56	SY/MD	Ok
11	VY1226SBS01	VY020715.D	26 Dec 2024 14:32	SY/MD	Ok,M
12	VY1226SBSD01	VY020716.D	26 Dec 2024 14:54	SY/MD	Ok,M
13	P5383-01	VY020717.D	26 Dec 2024 15:18	SY/MD	Not Ok
14	P5316-01	VY020718.D	26 Dec 2024 15:41	SY/MD	Ok
15	P5383-01	VY020719.D	26 Dec 2024 16:04	SY/MD	ReRun
16	P5316-02	VY020720.D	26 Dec 2024 16:28	SY/MD	Ok
17	P5383-01	VY020721.D	26 Dec 2024 16:51	SY/MD	Ok
18	P5316-03	VY020722.D	26 Dec 2024 17:15	SY/MD	Ok
19	P5342-01RE	VY020723.D	26 Dec 2024 17:38	SY/MD	Confirms
20	P5342-03RE	VY020724.D	26 Dec 2024 18:01	SY/MD	Confirms
21	P5342-05RE	VY020725.D	26 Dec 2024 18:25	SY/MD	Confirms

Instrument ID: **MSVOA_Y**

Daily Analysis Runlog For Sequence/QC Batch ID # VY122624

Review By	Mahesh Dadoda	Review On	12/27/2024 9:56:45 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	12/27/2024 10:00:03 AM		
SubDirectory	VY122624	HP Acquire Method	MSVOA_Y	HP Processing Method	82Y122624S.M
STD. NAME		STD REF.#			
Tune/Reschk		VP132321			
Initial Calibration Stds		VP132326,VP132327,VP132328,VP132329,VP132330,VP132331			
CCC		VP132333,VP132334			
Internal Standard/PEM					
ICV/I.BLK		VP132332			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

22	P5318-01	VY020726.D	26 Dec 2024 18:48	SY/MD	ReRun
23	P5382-01	VY020727.D	26 Dec 2024 19:12	SY/MD	Ok
24	VSTDCCC050	VY020728.D	26 Dec 2024 19:34	SY/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_Y**

Daily Analysis Runlog For Sequence/QC Batch ID # VY122724

Review By	Mahesh Dadoda	Review On	12/30/2024 12:44:21 PM		
Supervise By	Semsettin Yesilyurt	Supervise On	12/30/2024 12:46:36 PM		
SubDirectory	VY122724	HP Acquire Method	MSVOA_Y	HP Processing Method	82Y122624S.M
STD. NAME		STD REF.#			
Tune/Reschk Initial Calibration Stds		VP132344			
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard		VP132345,VP132346			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VY020729.D	27 Dec 2024 09:05	SY/MD	Ok
2	VSTDCCC050	VY020730.D	27 Dec 2024 10:20	SY/MD	Ok,M
3	VY1227SBL01	VY020731.D	27 Dec 2024 11:24	SY/MD	Ok
4	VY1227SBS01	VY020732.D	27 Dec 2024 12:03	SY/MD	Ok,M
5	VY1227SBSD01	VY020733.D	27 Dec 2024 12:26	SY/MD	Ok,M
6	P5382-02	VY020734.D	27 Dec 2024 12:55	SY/MD	Ok
7	P5382-03	VY020735.D	27 Dec 2024 13:18	SY/MD	Ok
8	P5387-01	VY020736.D	27 Dec 2024 14:00	SY/MD	Not Ok
9	P5318-01	VY020737.D	27 Dec 2024 14:24	SY/MD	Not Ok
10	P5362-01	VY020738.D	27 Dec 2024 14:47	SY/MD	Ok
11	P5387-01	VY020739.D	27 Dec 2024 15:10	SY/MD	Not Ok
12	P5386-01	VY020740.D	27 Dec 2024 15:34	SY/MD	Dilution
13	VIBLK	VY020741.D	27 Dec 2024 15:57	SY/MD	Ok
14	VIBLK	VY020742.D	27 Dec 2024 16:21	SY/MD	Ok
15	P5318-01	VY020743.D	27 Dec 2024 16:44	SY/MD	Ok
16	VIBLK	VY020744.D	27 Dec 2024 17:07	SY/MD	Ok
17	P5387-01	VY020745.D	27 Dec 2024 17:31	SY/MD	Ok
18	P5390-01	VY020746.D	27 Dec 2024 17:54	SY/MD	ReRun
19	P5391-01	VY020747.D	27 Dec 2024 18:18	SY/MD	Not Ok
20	VIBLK	VY020748.D	27 Dec 2024 18:41	SY/MD	Ok
21	VSTDCCC050	VY020749.D	27 Dec 2024 19:04	SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY122624

Review By	Mahesh Dadoda	Review On	12/27/2024 9:56:45 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	12/27/2024 10:00:03 AM		
SubDirectory	VY122624	HP Acquire Method	MSVOA_Y	HP Processing Method	82Y122624S.M

STD. NAME	STD REF.#
Tune/Reschk	VP132321
Initial Calibration Stds	VP132326,VP132327,VP132328,VP132329,VP132330,VP132331
CCC	VP132333,VP132334
Internal Standard/PEM	
ICV/I.BLK	VP132332
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY020705.D	26 Dec 2024 08:29		SY/MD	Ok
2	VSTDICC005	VSTDICC005	VY020706.D	26 Dec 2024 09:31	Fail for acroline	SY/MD	Ok,M
3	VSTDICC010	VSTDICC010	VY020707.D	26 Dec 2024 09:53	LR-11,50	SY/MD	Ok,M
4	VSTDICC020	VSTDICC020	VY020708.D	26 Dec 2024 10:16		SY/MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VY020709.D	26 Dec 2024 10:39		SY/MD	Ok,M
6	VSTDICC150	VSTDICC150	VY020710.D	26 Dec 2024 11:01		SY/MD	Ok,M
7	VSTDICC100	VSTDICC100	VY020711.D	26 Dec 2024 11:51		SY/MD	Ok,M
8	VIBLK	VIBLK	VY020712.D	26 Dec 2024 12:13		SY/MD	Ok
9	VSTDICV050	ICVVY122624	VY020713.D	26 Dec 2024 12:51		SY/MD	Ok,M
10	VY1226SBL01	VY1226SBL01	VY020714.D	26 Dec 2024 13:56		SY/MD	Ok
11	VY1226SBS01	VY1226SBS01	VY020715.D	26 Dec 2024 14:32		SY/MD	Ok,M
12	VY1226SBSD01	VY1226SBSD01	VY020716.D	26 Dec 2024 14:54		SY/MD	Ok,M
13	P5383-01	OK-02-12232024	VY020717.D	26 Dec 2024 15:18	Not purged,wrong purge	SY/MD	Not Ok
14	P5316-01	TT-304-IDWSO-202412	VY020718.D	26 Dec 2024 15:41	vial B	SY/MD	Ok
15	P5383-01	OK-02-12232024	VY020719.D	26 Dec 2024 16:04	ISTD Fail.vial B	SY/MD	ReRun
16	P5316-02	TT-304-IDWSO-202412	VY020720.D	26 Dec 2024 16:28	vial B	SY/MD	Ok
17	P5383-01	OK-02-12232024	VY020721.D	26 Dec 2024 16:51	vial A	SY/MD	Ok
18	P5316-03	TT-304-IDWSO-202412	VY020722.D	26 Dec 2024 17:15	vial B	SY/MD	Ok

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY122624

Review By	Mahesh Dadoda	Review On	12/27/2024 9:56:45 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	12/27/2024 10:00:03 AM		
SubDirectory	VY122624	HP Acquire Method	MSVOA_Y	HP Processing Method	82Y122624S.M
STD. NAME		STD REF.#			
Tune/Reschk		VP132321			
Initial Calibration Stds		VP132326,VP132327,VP132328,VP132329,VP132330,VP132331			
CCC		VP132333,VP132334			
Internal Standard/PEM					
ICV/I.BLK		VP132332			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

19	P5342-01RE	CHRT26634RE	VY020723.D	26 Dec 2024 17:38	Internal Standard Fail ;Surrogate fail,vial B	SY/MD	Confirms
20	P5342-03RE	HT2651RE	VY020724.D	26 Dec 2024 18:01	Internal Standard Fail,surrogate fail,vial B	SY/MD	Confirms
21	P5342-05RE	RB21198RE	VY020725.D	26 Dec 2024 18:25	Internal Standard Fail,vial B	SY/MD	Confirms
22	P5318-01	AU-06-122024	VY020726.D	26 Dec 2024 18:48	Internal Standard Fail,vial A	SY/MD	ReRun
23	P5382-01	COMP-1	VY020727.D	26 Dec 2024 19:12	vial A	SY/MD	Ok
24	VSTDCCC050	VSTDCCC050EC	VY020728.D	26 Dec 2024 19:34		SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY122724

Review By	Mahesh Dadoda	Review On	12/30/2024 12:44:21 PM		
Supervise By	Semsettin Yesilyurt	Supervise On	12/30/2024 12:46:36 PM		
SubDirectory	VY122724	HP Acquire Method	MSVOA_Y	HP Processing Method	82Y122624S.M

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP132344
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP132345,VP132346

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VY020729.D	27 Dec 2024 09:05		SY/MD	Ok
2	VSTDCCC050	VSTDCCC050	VY020730.D	27 Dec 2024 10:20		SY/MD	Ok,M
3	VY1227SBL01	VY1227SBL01	VY020731.D	27 Dec 2024 11:24		SY/MD	Ok
4	VY1227SBS01	VY1227SBS01	VY020732.D	27 Dec 2024 12:03		SY/MD	Ok,M
5	VY1227SBSD01	VY1227SBSD01	VY020733.D	27 Dec 2024 12:26		SY/MD	Ok,M
6	P5382-02	COMP-2	VY020734.D	27 Dec 2024 12:55	vial A	SY/MD	Ok
7	P5382-03	COMP-3	VY020735.D	27 Dec 2024 13:18	vial A	SY/MD	Ok
8	P5387-01	TR-05-122624	VY020736.D	27 Dec 2024 14:00	NOT PURGE	SY/MD	Not Ok
9	P5318-01	AU-06-122024	VY020737.D	27 Dec 2024 14:24	NOT PURGE	SY/MD	Not Ok
10	P5362-01	WC-SOIL-20241219	VY020738.D	27 Dec 2024 14:47	vial A	SY/MD	Ok
11	P5387-01	TR-05-122624	VY020739.D	27 Dec 2024 15:10	NOT PURGE	SY/MD	Not Ok
12	P5386-01	MOO-24-00398	VY020740.D	27 Dec 2024 15:34	Need MeOH,vial A	SY/MD	Dilution
13	VIBLK	VIBLK	VY020741.D	27 Dec 2024 15:57		SY/MD	Ok
14	VIBLK	VIBLK	VY020742.D	27 Dec 2024 16:21		SY/MD	Ok
15	P5318-01	AU-06-122024	VY020743.D	27 Dec 2024 16:44	Internal standard fail,vial B	SY/MD	Ok
16	VIBLK	VIBLK	VY020744.D	27 Dec 2024 17:07		SY/MD	Ok
17	P5387-01	TR-05-122624	VY020745.D	27 Dec 2024 17:31	vial A	SY/MD	Ok
18	P5390-01	EO-01-12272024	VY020746.D	27 Dec 2024 17:54	Internal Standard Fail,vial A	SY/MD	ReRun

Instrument ID: MSVOA_Y

Daily Analysis Runlog For Sequence/QC Batch ID # VY122724

Review By	Mahesh Dadoda	Review On	12/30/2024 12:44:21 PM		
Supervise By	Semsettin Yesilyurt	Supervise On	12/30/2024 12:46:36 PM		
SubDirectory	VY122724	HP Acquire Method	MSVOA_Y	HP Processing Method	82Y122624S.M

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	VP132344
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP132345,VP132346

19	P5391-01	NB-07-12272024	VY020747.D	27 Dec 2024 18:18	NOT PURGE	SY/MD	Not Ok
20	VIBLK	VIBLK	VY020748.D	27 Dec 2024 18:41		SY/MD	Ok
21	VSTDCCC050	VSTDCCC050EC	VY020749.D	27 Dec 2024 19:04		SY/MD	Ok,M

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/27/2024

OVENTEMP IN Celsius(°C): 106
Time IN: 17:15
In Date: 12/26/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 12/27/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB134080

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
P5380-01	TAPIAL3-IDW-SOIL-122024-T1	1	1.15	8.48	9.63	8.47	86.3	
P5382-01	COMP-1	2	1.19	8.60	9.79	8.31	82.8	
P5382-02	COMP-2	3	1.15	8.82	9.97	8.43	82.5	
P5382-03	COMP-3	4	1.16	8.76	9.92	8.41	82.8	
P5382-04	SB-1	5	1.15	8.80	9.95	8.47	83.2	
P5382-05	SB-2	6	1.18	8.75	9.93	8.4	82.5	
P5382-06	SB-3	7	1.17	8.80	9.97	8.27	80.7	
P5382-07	SB-4	8	1.19	8.53	9.72	8.02	80.1	
P5382-08	SB-5	9	1.15	8.80	9.95	8.73	86.1	
P5382-09	SB-6	10	1.19	8.50	9.69	7.75	77.2	
P5382-10	SB-7	11	1.14	8.69	9.83	7.86	77.3	
P5382-11	SB-8	12	1.13	8.82	9.95	8.55	84.1	
P5382-12	SB-9	13	1.11	8.73	9.84	8.29	82.2	
P5382-13	SB-10	14	1.19	8.78	9.97	8.16	79.4	
P5382-14	SB-11	15	1.19	8.40	9.59	7.98	80.8	
P5382-15	SB-12	16	1.19	8.51	9.7	8.28	83.3	
P5383-01	OK-02-12232024	17	1.15	8.82	9.97	9.3	92.4	
P5383-02	OK-02-12232024-E2	18	1.13	8.81	9.94	9.54	95.5	
P5384-01	ORA-2066	19	1.00	1.00	2.00	2.00	100.0	wipe sample
P5384-02	ORA-2067	20	1.00	1.00	2.00	2.00	100.0	wipe sample
P5386-01	MOO-24-00398	21	1.15	8.44	9.59	8.99	92.9	
P5386-03	MOO-24-00395-96	22	1.00	1.00	2.00	2.00	100.0	debris
P5387-01	TR-05-122624	23	1.13	8.66	9.79	8.86	89.3	
P5387-02	TR-05-122624-E2	24	1.14	8.80	9.94	8.91	88.3	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

JB 134020

WorkList Name : %1-122624

WorkList ID : 186590

Department : Wet-Chemistry

Date : 12-26-2024 07:48:31

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5380-01	TAPIAL3-IDW-SOIL-122024-T1	Solid	Percent Solids	Cool 4 deg C	WEST04	N31	12/20/2024	Chemtech -SO
P5382-01	COMP-1	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-02	COMP-2	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-03	COMP-3	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-04	SB-1	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-05	SB-2	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-06	SB-3	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-07	SB-4	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-08	SB-5	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-09	SB-6	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-10	SB-7	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-11	SB-8	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-12	SB-9	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-13	SB-10	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-14	SB-11	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5382-15	SB-12	Solid	Percent Solids	Cool 4 deg C	POWE02	N31	12/20/2024	Chemtech -SO
P5383-01	OK-02-12232024	Solid	Percent Solids	Cool 4 deg C	PSEG05	K31	12/23/2024	Chemtech -SO
P5383-02	OK-02-12232024-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	K31	12/23/2024	Chemtech -SO
P5384-01	ORA-2066	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	12/26/2024	Chemtech -SO
P5384-02	ORA-2067	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	12/26/2024	Chemtech -SO
P5386-01	MOO-24-00398	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	12/26/2024	Chemtech -SO

Date/Time 12/26/24 16:00
 Raw Sample Received by: JB WWC
 Raw Sample Relinquished by: JB WWC

WORKLIST(Hardcopy Internal Chain)

JB 134080

WorkList Name : %1-122624 WorkList ID : 186590 Department : Wet-Chemistry Date : 12-26-2024 07:48:31

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5386-03	MOO-24-00395-96	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	12/26/2024	Chemtech -SO
P5387-01	TR-05-122624	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	12/26/2024	Chemtech -SO
P5387-02	TR-05-122624-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	12/26/2024	Chemtech -SO

Date/Time 12/26/24
 Raw Sample Received by: JB WEL
 Raw Sample Relinquished by: JB WEL

Date/Time 12/26/24
 Raw Sample Received by: JB WEL
 Raw Sample Relinquished by: JB WEL

Prep Standard - Chemical Standard Summary

Order ID : P5382

Test : VOCMS Group1

Prepbatch ID :

Sequence ID/Qc Batch ID: VY122624,VY122724,

Standard ID :

VP129195,VP130432,VP130434,VP130435,VP131767,VP131783,VP131864,VP131865,VP131985,VP131987,VP131988,VP131989,VP131990,VP132005,VP132006,VP132007,VP132008,VP132035,VP132036,VP132037,VP132038,VP132097,VP132098,VP132099,VP132101,VP132102,VP132321,VP132326,VP132327,VP132328,VP132329,VP132330,VP132331,VP132332,VP132333,VP132334,VP132344,VP132345,VP132346,

Chemical ID :

V12966,V13391,V13445,V13449,V13465,V13466,V13582,V13707,V13806,V13820,V13918,V14020,V14021,V14096,V14105,V14106,V14125,V14143,V14145,V14152,V14154,V14173,V14174,V14178,V14192,V14194,V14201,V14289,V14424,V14434,V14437,V14461,V14614,V14630,V14631,V14632,V14633,V14650,V14651,V14652,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>
262	8260 Working STD (BCM)-Second source, 100PPM	VP129195	07/22/2024	01/22/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
07/26/2024								

FROM 1.00000ml of V12966 + 9.00000ml of V14143 = Final Quantity: 10.000 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>
249	8260 Surrogate, 100PPM	VP130432	09/20/2024	02/28/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
09/26/2024								

FROM 0.10000ml of V13707 + 24.90000ml of V14145 = 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>
1738	8260 surrogate 20 ppm	VP130434	09/20/2024	02/28/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								10/02/2024

FROM 0.02000ml of V13707 + 24.99000ml of V14145 = 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>
250	8260 Surrogate, 10PPM	VP130435	09/20/2024	02/28/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								10/02/2024

FROM 9.00000ml of V14145 + 1.00000ml of VP130432 = Final Quantity: 10.000 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>
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>
1917	8260 Internal standard 50 ppm	VP131783	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
11/27/2024								

FROM 0.02000ml of V14289 + 9.98000ml of V14154 = Final Quantity: 10.000 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>
259	8260 Calibration Working STD Mix-Second source, 160PPM	VP131864	12/02/2024	01/11/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda 12/03/2024
<u>FROM</u>	0.16000ml of V13449 + 0.80000ml of V13820 + 0.80000ml of V14096 + 0.80000ml of V14125 + 0.80000ml of V14178 + 0.80000ml of V14424 + 1.60000ml of V13918 + 4.24000ml of V14461 = Final Quantity: 10.000 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>
260	8260 Calibration Working STD Mix-Second source, 100PPM	VP131865	12/02/2024	01/11/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/03/2024
<u>FROM</u> 1.87500ml of V14461 + 3.12500ml of VP131864 = Final Quantity: 5.000 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>
264	8260 Working STD (Acrolein)-Second source,	VP131985	12/06/2024	01/04/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda
500PPM FROM 1.87500ml of V14152 = Final Quantity: 5.000 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	VP131987	12/06/2024	01/05/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/12/2024
<u>FROM</u> 1.00000ml of V14652 + 1.50000ml of V14650 + 1.50000ml of V14651 + 21.00000ml of V14152 = 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>
56	8260 Working STD (Acrolein) -first source, 500PPM	VP131988	12/06/2024	01/05/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/12/2024

FROM 5.62500ml of V14152 + 9.37500ml of VP131987 = Final Quantity: 15.000 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>
180	8260 Working STD (Acrolein)-First source, 100PPM	VP131989	12/06/2024	01/05/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/12/2024

FROM 17.50000ml of V14152 + 2.50000ml of VP131987 = Final Quantity: 20.000 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>
181	8260 Working STD (Acrolein)-First source, 50PPM	VP131990	12/06/2024	01/05/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/12/2024

FROM 9.37500ml of V14152 + 0.62500ml of VP131987 = Final Quantity: 10.000 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>
257	8260 Calibration Working STD Mix-First source, 160PPM	VP132005	12/09/2024	01/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/12/2024

FROM 0.40000ml of V13445 + 1.00000ml of V13806 + 1.00000ml of V14020 + 1.00000ml of V14021 + 1.00000ml of V14105 + 1.00000ml of V14106 + 1.00000ml of V14173 + 1.00000ml of V14174 + 1.00000ml of V14194 + 1.00000ml of V14434 + 1.00000ml of V14437 + 1.50000ml of V14192 + 1.50000ml of V14201 + 10.60000ml of V14152 = 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>
244	8260 Calibration Working STD Mix-First source, 100PPM	VP132006	12/09/2024	01/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda 12/12/2024

FROM 5.62500ml of V14152 + 9.37500ml of VP132005 = Final Quantity: 15.000 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>
245	8260 Calibration Working STD Mix-First source, 20PPM	VP132007	12/09/2024	01/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda 12/12/2024

FROM 17.50000ml of V14152 + 2.50000ml of VP132005 = Final Quantity: 20.000 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>
246	8260 Calibration Working STD Mix-First source, 10PPM	VP132008	12/09/2024	01/18/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda 12/12/2024

FROM 9.37500ml of V14152 + 0.62500ml of VP132005 = Final Quantity: 10.000 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	Maresh 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

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>
1811	8260 Working Std(2-CVE)-500ppm	VP132036	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/12/2024

FROM 7.50000ml of V14614 + 12.50000ml of VP132035 = Final Quantity: 20.000 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>
1812	8260 Working Std(2-CVE)-100ppm	VP132037	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/12/2024

FROM 0.25000ml of V14633 + 24.75000ml 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>
1813	8260 Working Std(2-CVE)-50ppm	VP132038	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/12/2024

FROM 20.00000ml of V14614 + 1.25000ml of VP132035 = Final Quantity: 20.000 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>
253	8260 Working STD (BCM)-First source, 20PPM	VP132097	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/19/2024

FROM 0.50000ml of V13466 + 49.50000ml of V14614 = Final Quantity: 50.000 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>
252	8260 Working STD (BCM)-First source, 100PPM	VP132098	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/19/2024

FROM 1.25000ml of V13466 + 23.75000ml of V14614 = 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>
254	8260 Working STD (BCM)-First source, 10PPM	VP132099	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/19/2024

FROM 0.05000ml of V13465 + 9.95000ml of V14614 = Final Quantity: 10.000 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>
1817	8260 Working Std(2-CVE)-SS, 800ppm	VP132101	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
12/19/2024								

FROM 0.80000ml of V13582 + 9.20000ml of V14614 = Final Quantity: 10.000 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>
1819	8260 Working Std(2-CVE)-SS, 500ppm	VP132102	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Maresh Dadoda
12/19/2024								

FROM 1.87500ml of V14614 + 3.12500ml of VP132101 = Final Quantity: 5.000 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>
732	BFB TUNE CHECK - SOIL	VP132321	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Maresh Dadoda 12/27/2024

FROM 4.99800ml of W3112 + 0.00200ml of VP131767 = Final Quantity: 5.000 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>
267	5 PPB ICC, 8260-SOIL	VP132326	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Maresh Dadoda 12/27/2024

FROM 4.98000ml of W3112 + 0.00250ml of VP130435 + 0.00250ml of VP131990 + 0.00250ml of VP132008 + 0.00250ml of VP132038
+ 0.00250ml of VP132099 + 0.00500ml of VP131783 = Final Quantity: 5.000 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>
269	10 PPB ICC, 8260-SOIL	VP132327	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u> 4.98000ml of W3112 + 0.00250ml of VP130434 + 0.00250ml of VP131989 + 0.00250ml of VP132007 + 0.00250ml of VP132037 + 0.00250ml of VP132097 + 0.00500ml of VP131783 = Final Quantity: 5.000 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>
270	20 PPB ICC, 8260-SOIL	VP132328	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
FROM 4.96500ml of W3112 + 0.00500ml of VP130434 + 0.00500ml of VP131783 + 0.00500ml of VP131989 + 0.00500ml of VP132007 + 0.00500ml of VP132037 + 0.00500ml of VP132097 = Final Quantity: 5.000 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>
273	50 PPB ICC, 8260-SOIL	VP132329	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u> 4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP131988 + 0.00250ml of VP132006 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00500ml of VP131783 = Final Quantity: 5.000 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>
280	100 PPB ICC, 8260-SOIL	VP132330	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u> 4.96500ml of W3112 + 0.00500ml of VP130432 + 0.00500ml of VP131783 + 0.00500ml of VP131988 + 0.00500ml of VP132006 + 0.00500ml of VP132036 + 0.00500ml of VP132098 = Final Quantity: 5.000 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>
1653	150 PPB ICC,8260-SOIL	VP132331	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u> 4.95000ml of W3112 + 0.00500ml of VP131783 + 0.00750ml of VP130432 + 0.00750ml of VP131988 + 0.00750ml of VP132006 + 0.00750ml of VP132036 + 0.00750ml of VP132098 = Final Quantity: 5.000 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>
287	50 PPB ICV, 8260-SOIL	VP132332	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u>	4.98000ml of W3112 + 0.00250ml of VP129195 + 0.00250ml of VP130432 + 0.00250ml of VP131865 + 0.00250ml of VP131985 + 0.00250ml of VP132102 + 0.00500ml of VP131783 = Final Quantity: 5.000 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>
773	50 PPB CCC, 8260-SOIL	VP132333	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u>	4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP131988 + 0.00250ml of VP132006 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00500ml of VP131783 = Final Quantity: 5.000 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>
773	50 PPB CCC, 8260-SOIL	VP132334	12/26/2024	12/27/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u>	4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP131988 + 0.00250ml of VP132006 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00500ml of VP131783 = Final Quantity: 5.000 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>
732	BFB TUNE CHECK - SOIL	VP132344	12/27/2024	12/28/2024	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/27/2024

FROM 4.99800ml of W3112 + 0.00200ml of VP131767 = Final Quantity: 5.000 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>
773	50 PPB CCC, 8260-SOIL	VP132345	12/27/2024	12/28/2024	Semsettin Yesilyurt	None	None	Maresh Dadoda
								12/27/2024

FROM 4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP131988 + 0.00250ml of VP132006 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00500ml of VP131783 = Final Quantity: 5.000 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>
773	50 PPB CCC, 8260-SOIL	VP132346	12/27/2024	12/28/2024	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/27/2024
<u>FROM</u>	4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP131988 + 0.00250ml of VP132006 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00500ml of VP131783 = Final Quantity: 5.000 ml							

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	70046 / Bromochloromethane Std. sol/methanol 1000ppm	070122	01/22/2025	07/22/2024 / SAM	07/06/2022 / SAM	V12966

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	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0181905	02/28/2025	11/26/2024 / SAM	01/23/2023 / SAM	V13445

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	A0191703	06/02/2025	12/02/2024 / SAM	01/23/2023 / SAM	V13449

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	111722	11/17/2025	12/12/2024 / SAM	01/30/2023 / SAM	V13582

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	06/10/2025	06/10/2024 / SAM	04/12/2023 / SAM	V13707

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	A0194279	03/16/2025	09/16/2024 / SAM	05/31/2023 / SAM	V13806

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	A0197644	04/14/2025	10/14/2024 / SAM	05/31/2023 / SAM	V13820

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	A0193887	04/17/2025	10/17/2024 / SAM	07/24/2023 / SAM	V13918

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)	032922	03/29/2025	11/26/2024 / SAM	11/22/2023 / SAM	V14020

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)	032922	03/29/2025	11/26/2024 / SAM	11/22/2023 / SAM	V14021

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	A0205177	03/04/2025	09/04/2024 / SAM	12/22/2023 / SAM	V14096

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	A0205179	05/26/2025	11/26/2024 / SAM	12/22/2023 / SAM	V14105

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	A0205179	05/26/2025	11/26/2024 / SAM	12/22/2023 / SAM	V14106

LOTS

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)	011624	04/17/2025	10/17/2024 / SAM	01/17/2024 / SAM	V14125

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	01/22/2025	07/22/2024 / SAM	02/06/2024 / SAM	V14143

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	02/28/2025	08/29/2024 / SAM	02/06/2024 / SAM	V14145

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	04/14/2025	10/14/2024 / SAM	02/06/2024 / SAM	V14152

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 #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	05/26/2025	11/26/2024 / SAM	02/20/2024 / SAM	V14173

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	05/26/2025	11/26/2024 / SAM	02/20/2024 / SAM	V14174

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)	021524	04/17/2025	10/17/2024 / SAM	02/20/2024 / SAM	V14178

CHEMICAL RECEIPT LOG BOOK

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	A0200785	05/26/2025	11/26/2024 / SAM	02/28/2024 / SAM	V14192

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	A0200785	05/26/2025	11/26/2024 / SAM	02/28/2024 / SAM	V14194

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	A0200785	05/26/2025	11/26/2024 / SAM	02/28/2024 / SAM	V14201

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	A0205013	06/02/2025	12/02/2024 / SAM	08/15/2024 / SAM	V14424

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	05/26/2025	11/26/2024 / SAM	08/15/2024 / SAM	V14434

CHEMICAL RECEIPT LOG BOOK

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	05/26/2025	11/26/2024 / SAM	08/15/2024 / SAM	V14437

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)	23I0762004	05/26/2025	11/26/2024 / pedro	08/16/2024 / SAM	V14461

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 #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14630

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

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	V14633

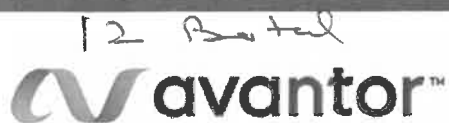
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	120524	01/05/2025	12/06/2024 / SAM	12/06/2024 / SAM	V14650

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	120524	01/05/2025	12/06/2024 / SAM	12/06/2024 / SAM	V14651

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	120524	01/05/2025	12/06/2024 / SAM	12/06/2024 / SAM	V14652

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



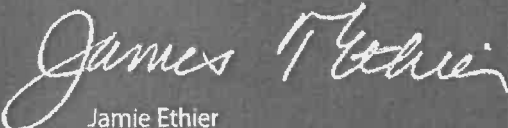
Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

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



CERTIFIED WEIGHT REPORT

Part Number: 95319
Lot Number: 011624
Description: Revised Additions Mix
 11 components
 011627
 Refrigerate (4 °C)
 Varied
 6UTB
 5E-05 Balance Uncertainty
 0.021 Flask Uncertainty

Weight(s) shown below were combined and diluted to (mL): 100.0

Formulated By: Prashant Chauhan
 DATE: 01/16/24
Reviewed By: Pedro L. Rentas
 DATE: 01/16/24

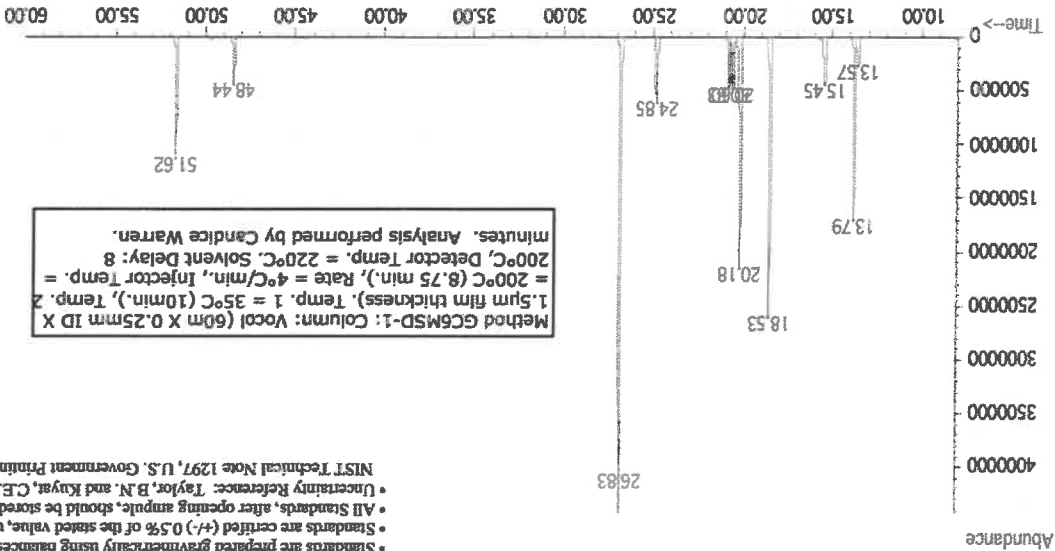
SDS Information

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)	CAS#	OSHA PEL (TWA)	LD50
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1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01035	1.01080	10004.4	40.6	107-13-1	N/A	or-rat 78 mg/kg
2. 1-Chlorobutane	1072	MKCM5711	2000	99.99	0.2	0.20007	0.20035	2002.8	8.1	109-69-3	N/A	or-rat 2670mg/kg
3. Cyclohexane	1023	28930	2000	99	0.2	0.20207	0.20222	2001.5	8.2	110-82-7	N/A	or-rat 12705mg/kg
4. Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20207	0.20227	2002.0	8.2	108-20-3	500 ppm (2100mg/m3/8h)	or-rat 8470mg/kg
5. 1,4-Dioxane	373	03953KE	40000	99	0.2	4.04142	4.04213	40007.0	162.5	123-91-1	25 ppm (90mg/m3/8h)(skdn)	or-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20207	0.20221	2001.4	8.2	67-72-1	1 ppm (10mg/m3/8h)(skdn)	or-gp 4870mg/kg
7. Methylcyclohexane	1627	SHBG0199V	2000	99	0.2	0.20207	0.20230	2002.3	8.2	108-87-2	N/A	or-mus 2250mg/kg
8. Methyl tert-butyl ether (MTBE)	209	21880	2000	99	0.2	0.20207	0.20227	2002.0	8.2	1634-04-4	N/A	or-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02071	2.02150	20007.8	81.3	107-12-0	N/A	or-rat 39mg/kg
10. Tetrahydrofuran	380	SHBH8330	10000	99.9	0.2	1.00125	1.00200	10007.5	40.3	109-99-9	20 ppm (590mg/m3/8h)	or-rat 1650mg/kg
11. 1,2,3,4-Tetramethylbenzene	481	AP01	2000	93	0.2	0.21511	0.21522	2001.0	8.7	488-23-3	N/A	or-rat 6408mg/kg

• 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).

TC: 95319.D



MSD RT	Name	(min.)
13.56	Methyl tert-butyl ether (MTBE)	
13.79	Acrylonitrile	
15.44	Di-isopropyl ether	
18.53	Propionitrile	
20.17	Tetrahydrofuran	
20.58	Cyclohexane	
20.83	1-Chlorobutane	
24.84	Methylcyclohexane	
26.84	1,4-Dioxane	
48.44	Hexachloroethane	
51.62	1,2,3,4-Tetramethylbenzene	



CERTIFIED WEIGHT REPORT

Part Number: **95317**
Lot Number: **021524**
Description: **Universal VOA Megamix**
69 components
Expiration Date: 021527
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: BUTB

Solvent(s): **Methanol**
Lot#: **EG359-USQ12**

		021524
Formulated By:	Mario Luis	DATE
		021524
Reviewed By:	Pedro L. Rentes	DATE

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

														SDS Information		
														(Solvent Safety Info. On Attached pg.)		
Compound	(RM#)	Lot	Dr.	Initial	Initial	Nominal	Purity	Purity	Uncertainty	Target	Actual	Actual	Expanded	CAS#	OSHA PEL (TWA)	LD50
	Part Number	Number	Factor	Vol. (mL)	Conc. (µg/mL)	Conc. (µg/mL)	(%)	Uncertainty	Pipette (mL)	Weight(g)	Weight(g)	Conc. (µg/mL)	(+/-) (µg/mL)			
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20022	2001.5	8.1	75-05-8	40 ppm (70mg/m3/8h)	or-rat 2450mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102398	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20222	2001.5	8.2	107-05-1	1 ppm (3mg/m3/8h)	or-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCR8581	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	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	0.21058	0.21080	2000.2	8.5	1478-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0466)	MKBP8041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20734	2000.3	8.4	110-57-5	N/A	N/A
6. Diethyl ether	(0153)	JK18CASA000K	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20042	2001.7	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	061826PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20231	2002.4	8.2	97-83-2	N/A	or-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8716V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20118	2001.2	8.1	74-88-4	5 ppm (28mg/m3/8h) (skin)	or-rat 76mg/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 2450mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20209	2000.2	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	0.20042	2001.7	8.1	96-33-3	10 ppm (35mg/m3/8h) (skin)	or-rat 277mg/kg
12. Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20030	2000.5	8.1	80-62-6	100 ppm (410mg/m3/8h)	or-rat 787mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	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	0.20670	2001.0	8.3	79-46-9	10 ppm (35mg/m3/8h)	or-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20415	2000.2	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	0.20210	2000.3	8.2	78-13-1	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 916mg/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-Dichloroethane	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-60-2	N/A	N/A
20. trans-1,2-Dichloroethane	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	or-rat 1235mg/kg
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 800mg/kg
22. 1,1-Dichloroethane	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-36-4	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 930mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.8mg/m3/8h)	or-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	or-rat 900mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-06-3	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	20.5	75-34-3	100 ppm	or-rat 725mg/kg
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	894-20-7	N/A	N/A
29. Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.6	127-18-4	25 ppm (170mg/m3/8h) (final)	or-rat 262mg/kg
30. 1,1,1-Trichloroethane	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
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40018.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	or-rat 170mg/kg
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	108-93-4	20 ppm (8h)	or-rat 108mg/kg
33. 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
34. 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
35. 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	ure-mus 3600mg/kg
36. 1,1-Dichloropropane	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-56-6	N/A	N/A
37. cis-1,3-Dichloropropene	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
38. trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. 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
40. 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
41. 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
42. 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 836mg/kg
43. Trichloroethane	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 2400mg/kg
44. 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
45. Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	or-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-1	N/A	or-rat 2699mg/kg
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48. Ethyl 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
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-8	N/A	or-rat 4750mg/kg
50. Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8h)	or-rat 490mg/kg
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 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	1999.7	22.9	87-61-6	N/A	ipr-mus 1300mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 750mg/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	95-63-6	N/A	or-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	or-rat 5000mg/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.6	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8h)	or-rat 5g/kg
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	or-rat 2240mg/kg
60. Chlorobenzene	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 2290mg/kg
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-5	50 ppm (250mg/m3/8h)	or-rat 3900mg/kg
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA</						

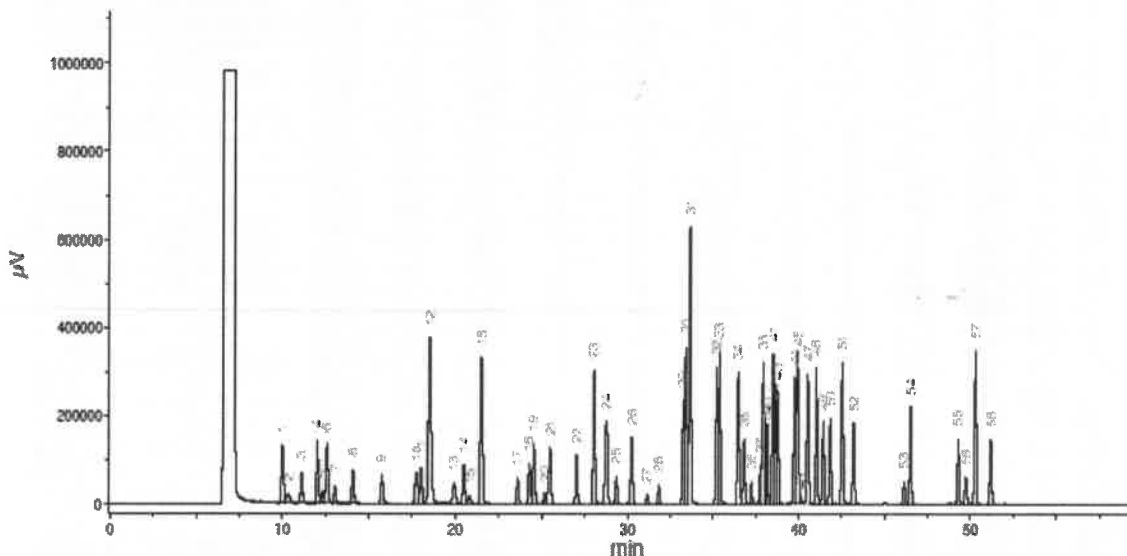


Run 17, "P95317 L021524 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 10:04:27 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocool 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	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.34
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	19.91
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	22.58
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.52
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,2-Dichloropropane	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropane	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.18
28	1,2-Dibromomethane	31.84
29	Chlorobenzene	33.39
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.66
32	o-Xylene	33.72
33	Styrene	35.39
34	Isopropylbenzene/Bromoform	36.48
35	cis-1,4-Dichloro-2-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.32
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	43.10
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.48
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

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#: 8UTB

Solvent(s): **Methanol**
Lot#: **EG359-USQ12**

Weight(s) shown below were combined and diluted to (mL): **100.0** **0.021** Balance Uncertainty: **5E-05** Flask Uncertainty: **0.021**

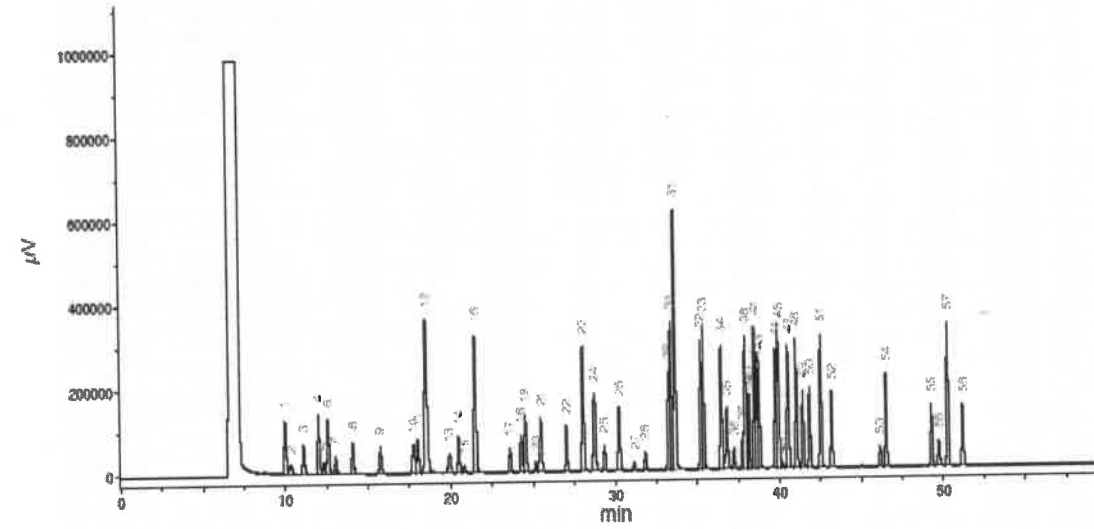
Formulated By: <i>Prashant Chauhan</i>		021624
		DATE
Reviewed By: <i>Pedro L. Rentes</i>		021624
		DATE

Compound	(RM#)	Lot Number	Di. Factor	Initial Vol. (mL)	Initial Conc. (µg/mL)	Nominal Conc. (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
														CAS#	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 2400mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102395	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 disulphide	(0060)	MKCR8581	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	(1198)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	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	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CA5000K	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)	06126PK	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	N/A
8. Iodomethane	(0489)	5HBF8718V	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 14800mg/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 70mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 1200mg/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)	MKBW5137V	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	79-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg
15. Perfluorooctane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	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 (7800mg/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 916mg/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 840mg/kg
19. cis-1,2-Dichloroethane	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-Dichloroethane	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	or-rat 1235mg/kg
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 820mg/kg
22. 1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.6	22.9	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 930mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	or-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-68-3	50 ppm (240mg/m3) (CL)	or-rat 900mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-85-3	N/A	or-rat 105mg/kg
27. 1,1-Dichloroethane	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 108mg/kg
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	or-rat 725mg/kg
29. Tetrachloroethane	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg
30. 1,1,1-Trichloroethane	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
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-6	0.001 ppm	or-rat 170mg/kg
32. 1,2-Dibromomethane	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
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-08-2	50 ppm (8H)	or-rat 870mg/kg
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-57-5	75 ppm (350mg/m3/8H)	or-rat 1947mg/kg
35. 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	un-rat 3600mg/kg
36. 1,1-Dichloropropane	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	22.9	563-56-6	N/A	N/A
37. cis-1,3-Dichloropropene	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
38. trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	22.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	or-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	or-rat 670mg/kg
41. 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
42. 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 (46mg/m3/8H) (skin)	or-rat 830mg/kg
43. 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-rat 2400mg/kg
44. 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 (50mg/m3/8H)	or-rat 149.6mg/kg
45. Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	or-rat 4694mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	99-87-6	N/A	or-rat 4750mg/kg
49. 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
50. Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg
51. Styrene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	106-98-3	200 ppm	or-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	or-rat 1390mg/kg
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 750mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	23.0	95-63-6	N/A	or-rat 5g/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.8	22.9	106-57-8	N/A	or-rat 5000mg/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	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	98-06-6	N/A	N/A
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	or-rat 2240mg/kg
59. 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
60. 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
61. 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
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	541-73-1	50 ppm (300mg/m3) (CL)	or-rat 500mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.6	23.0	96-46-7	78 ppm (450mg/m3/8H)	or-rat 900mg/kg
64. 1,3-Dichlorobenzene	35163	101923	0.0													

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	10.33
3	1,1-Dichloroethane	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethane	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.24
11	cis-1,2-Dichloroethane	18.00
12	Methacrylonitrile/methyl acrylate/Chloroform	18.46
13	Isobutane/1,1,1-Trichloroethane	19.01
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethane	23.58
18	1,2-Dichloropropane	24.38
19	Methyl methacrylate	24.52
20	Bromochloromethane	25.13
21	Dibromomethane/2-Hitropropane	25.46
22	cis-1,3-Dichloropropane	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropane	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromomethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.66
32	o-Xylene	35.22
33	Styrene	35.39
34	Isopropylbenzene/Bromoforn	36.18
35	cis-1,4-Dichloro-3-butene	36.48
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.93
39	trans-1,4-Dichloro-3-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.74
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	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
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, 2023

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	CAS#: 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.



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#: 8UTB

Solvent(s): **Methanol**
Lot#: **EG359-USQ12**

Weight(s) shown below were combined and diluted to (mL): **100.0** **0.021** Balance Uncertainty: **5E-05** Flask Uncertainty: **0.021**

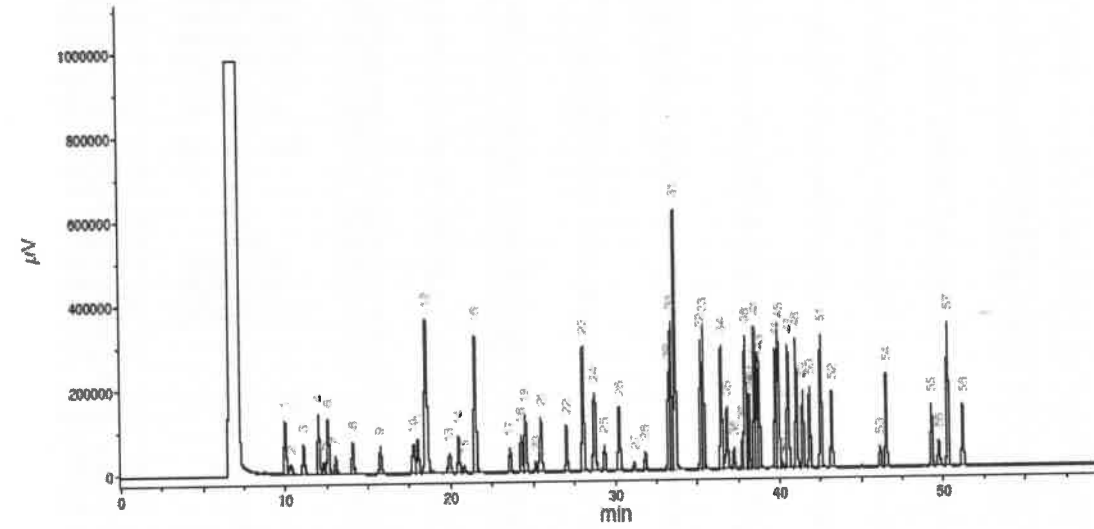
		021624
Formulated By:	Prashant Chauhan	DATE
		021624
Reviewed By:	Pedro L. Rentes	DATE

Compound	(RM#)	Lot	Di.	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)	(+/-) (µg/mL)	CAS#	(Solvent Safety Info. On Attached pg.)	
															OSHA PEL (TWA)	LD50
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 2400mg/kg
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
Carbon disulfide	(0060)	MKCR8581	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
cis-1,4-Dichloro-2-butene	(1198)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
Diethyl ether	(0153)	IK18CA5000K	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
Ethyl methacrylate	(0381)	06126PK	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
Iodomethane	(0489)	5HBF8718V	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 70mg/kg
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 3480mg/kg
Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H) (skin)	or-rat 1200mg/kg
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
Methyl methacrylate	(0404)	MKBW5137V	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
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 700mg/kg
2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	or-rat 720mg/kg
Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A
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 (7800mg/m3/8H)	or-rat 43g/kg
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 910mg/kg
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 840mg/kg
cis-1,2-Dichloroethane	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
trans-1,2-Dichloroethane	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	N/A
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
1,1-Dichloroethene	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
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 930mg/kg
Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	or-rat 2350mg/kg
Chloroform	95321	020724	0.10	10.00	20002.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	67-68-3	50 ppm (240mg/m3) (CL)	or-rat 900mg/kg
Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-85-3	N/A	or-rat 105mg/kg
1,1-Dichloroethane	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
2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
Tetrachloroethane	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.8	127-18-4	25 ppm (170mg/m3/8H) (final)	or-rat 2629mg/kg
1,1,1-Trichloroethane	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
1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-6	0.001 ppm	or-rat 170mg/kg
1,2-Dibromomethane	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
1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-08-2	50 ppm (8H)	or-rat 870mg/kg
1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2000.2	22.9	78-57-5	75 ppm (350mg/m3/8H)	or-rat 1947mg/kg
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	un-rat 3600mg/kg
1,1-Dichloropropane	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-56-6	N/A	N/A
cis-1,3-Dichloropropene	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
trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
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
1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	or-rat 670mg/kg
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
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 (46mg/m3/8H) (skin)	or-rat 836mg/kg
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-rat 2400mg/kg
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 (50mg/m3/8H)	or-rat 149.6mg/kg
Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	or-rat 4694mg/kg
Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	or-rat 2650mg/kg
n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	or-rat >2000mg/kg
Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	99-87-6	N/A	or-rat 4750mg/kg
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
Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	or-rat 5000mg/kg
Styrene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	106-98-3	200 ppm	or-rat 5000mg/kg
Toluene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	or-rat 1390mg/kg
1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	120-82-1	5 ppm (CL) (40mg/m3)	or-rat 750mg/kg
1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	23.0	95-63-6	N/A	or-rat 5g/kg
1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.8	22.9	106-57-8	N/A	or-rat 5000mg/kg
1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	or-rat 5g/kg
m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	98-06-6	N/A	N/A
tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	or-rat 2240mg/kg
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
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
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
Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	541-73-1	50 ppm (300mg/m3) (CL)	or-rat 500mg/kg
1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-50-1	75 ppm (450mg/m3/8H)	or-rat 900mg/kg
1,3-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-rat 1065mg/kg
1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA>					

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	10.33
3	1,1-Dichloroethane	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethane	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.24
11	cis-1,2-Dichloroethane	18.00
12	Methacrylonitrile/methyl acrylate/Chloroform	18.46
13	Isobutane/1,1,1-Trichloroethane	19.01
14	1,1-Dichloropropane	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethane	23.58
18	1,2-Dichloropropane	24.38
19	Methyl methacrylate	24.52
20	Bromochloromethane	25.13
21	Dibromomethane/2-Hydropropane	25.46
22	cis-1,3-Dichloropropane	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropane	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromomethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.66
32	o-Xylene	35.22
33	Styrene	35.39
34	Isopropylbenzene/Bromoforn	36.18
35	cis-1,4-Dichloro-3-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.93
39	trans-1,4-Dichloro-3-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.74
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	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
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, 2023

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	CAS#: 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.



CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

95319
032922
Revised Additions Mix

Solvent(s):
Methanol
Lot#
EC592-US

11 components

Expiration Date:

Recommended Storage:
Refrigerate (4 °C)

Nominal Concentration (µg/mL):
Varied

NIST Test ID#:
6UTB

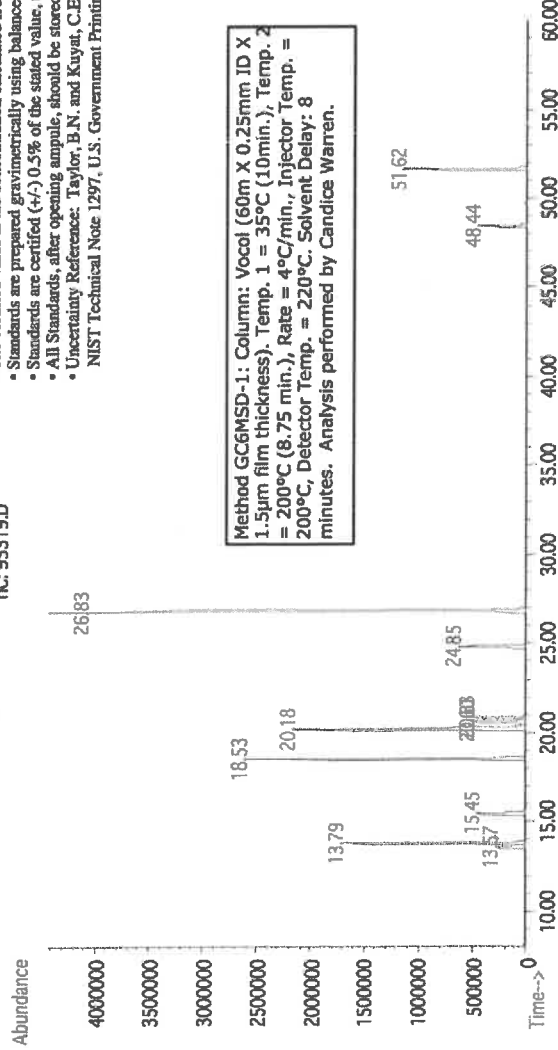
Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty
0.012 Flask Uncertainty

Formulated By:	Prashant Chauhan	032922	DATE
Reviewed By:	Pedro L. Rentas	032922	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)	SDS Information		
										(Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)
1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01015	1.01030	10001.5	40.5	107-13-1	N/A	orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	MKCM5711	2000	99.99	0.2	0.20003	0.20020	2001.7	8.1	109-69-3	N/A	orl-rat 2870mg/kg
3. Cyclohexane	1023	28930	2000	99	0.2	0.20203	0.20215	2001.2	8.2	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4. Di-Isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20203	0.20215	2001.2	8.2	109-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04060	4.04100	40004.0	161.9	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20203	0.20213	2001.0	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4870mg/kg
7. Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20203	0.20215	2001.2	8.2	108-87-2	N/A	N/A
8. Methyl tert-butyl ether (MTBE)	209	02197LJ	2000	99.8	0.2	0.20041	0.20055	2001.4	8.1	1634-04-4	N/A	orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02030	2.02045	20001.5	81.0	107-12-0	N/A	orl-rat 38mg/kg
10. Tetrahydrofuran	380	SHBH8330	10000	99.9	0.2	1.00105	1.00120	10001.5	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 1650mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21506	0.21520	2001.3	8.7	488-23-3	N/A	orl-rat 6408mg/kg

TIC: 95319.D



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, 2023

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:

CAS#:	LD50 Oral - Rat	OSHA PEL	% (optional)
67-56-1	2,769 mg/kg	200 ppm	> 99

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 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.

In case of skin contact

In case of eye contact

If swallowed

Section V. FIREFIGHTING MEASURES

Flammability

Suitable extinguishing media
Protective equipment for fire
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.
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
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.
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).

Environmental precautions

Clean up

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

Methanol

67-56-1 TWA 200 ppm
TWA 200 ppm

Skin notation

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 (H2O = 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				
CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.				
Appearance and Odor				

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CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

95319
032922
Revised Additions Mix
11 components

Solvent(s):
Methanol
Lot#
EC592-US

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

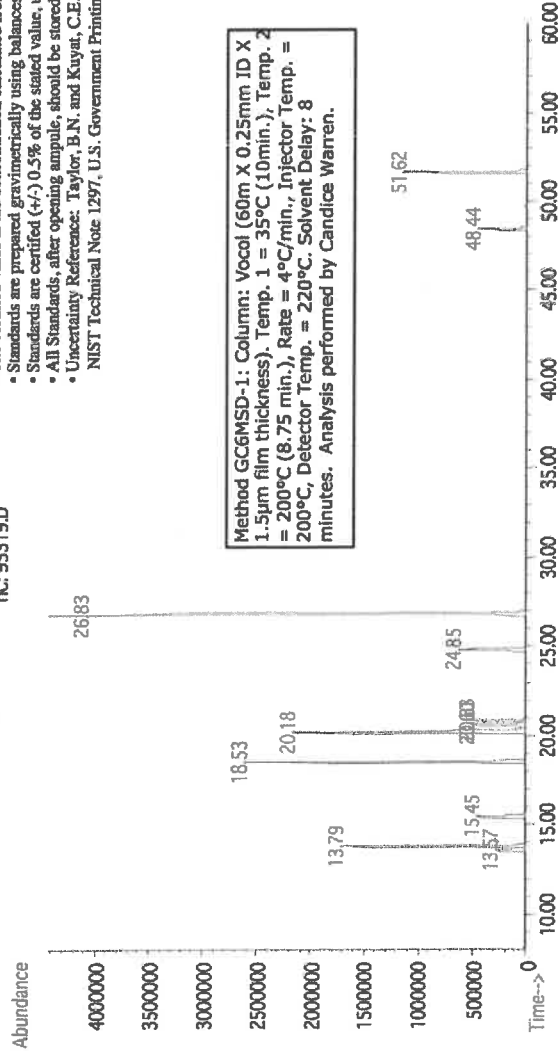
032925
Refrigerate (4 °C)
Varied
6UTB
5E-05 Balance Uncertainty
0.012 Flask Uncertainty

Weight(s) shown below were combined and diluted to (mL): 100.0

Formulated By:	Prashant Chauhan	032922	DATE
Reviewed By:	Pedro L. Rentas	032922	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)	SDS Information	
										(Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA) LD50
1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01015	1.01030	10001.5	40.5	107-13-1	N/A orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	MKCM5711	2000	99.99	0.2	0.20003	0.20020	2001.7	8.1	109-69-3	N/A orl-rat 2870mg/kg
3. Cyclohexane	1023	28930	2000	99	0.2	0.20203	0.20215	2001.2	8.2	110-82-7	300 ppm (1050mg/m3/8H) orl-rat 12705mg/kg
4. Di-Isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20203	0.20215	2001.2	8.2	109-20-3	500 ppm (2100mg/m3/8H) orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04060	4.04100	40004.0	161.9	123-91-1	25 ppm (90mg/m3/8H)(skin) orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20203	0.20213	2001.0	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin) orl-gpg 4970mg/kg
7. Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20203	0.20215	2001.2	8.2	108-87-2	N/A
8. Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20041	0.20055	2001.4	8.1	1634-04-4	N/A orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02030	2.02045	20001.5	81.0	107-12-0	N/A orl-rat 38mg/kg
10. Tetrahydrofuran	380	SHBH8330	10000	99.9	0.2	1.00105	1.00120	10001.5	40.1	109-99-9	20 ppm (590mg/m3/8H) orl-rat 1650mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21506	0.21520	2001.3	8.7	488-23-3	N/A orl-rat 6408mg/kg

TIC: 95319.D



Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

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, 2023

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:	CAS#:	LD50 Oral - Rat	OSHA PEL	% (optional)
Methanol	67-56-1	2,769 mg/kg	200 ppm	> 99

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 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

Flammability
Suitable extinguishing media
Protective equipment for fire
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.
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
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.
Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).
Clean up

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.
Storage Conditions

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol
67-56-1 TWA 200 ppm
TWA 200 ppm
Skin notation
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

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

Section XI. TOXICOLOGICAL INFORMATION	
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 XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.	
LD50 Oral - rat - 5,628 mg/kg LC50 Inhalation - rat - 4 h - 6400 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 XIII. DISPOSAL CONSIDERATIONS	
LC50 15,400 mg/l - 96 h EC50 24,500.00 mg/l - 48 h EC100 10,000.00 mg/l - 24 h	

Section XIV. TRANSPORT INFORMATION	
DOT (US)	IATA
UN number: 1280 Class: 3 Packing group: II	UN number: 1280 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 chemicals or 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.	



CERTIFIED WEIGHT REPORT

Part Number: **95318**
Lot Number: **111722**
Description: **2-Chloroethyl vinyl ether**

Solvent(s): **Lot#**
Methanol **EB679-US**

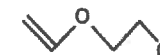
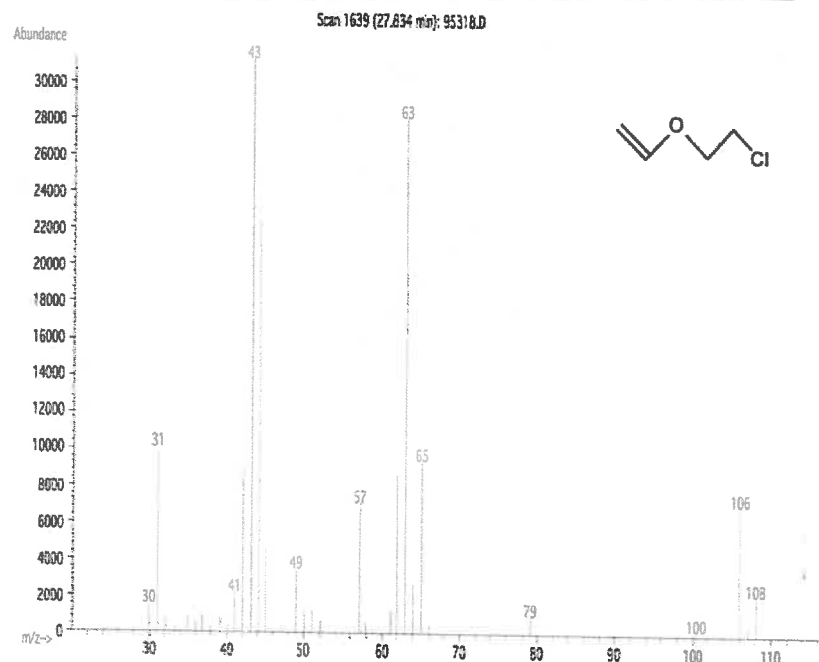
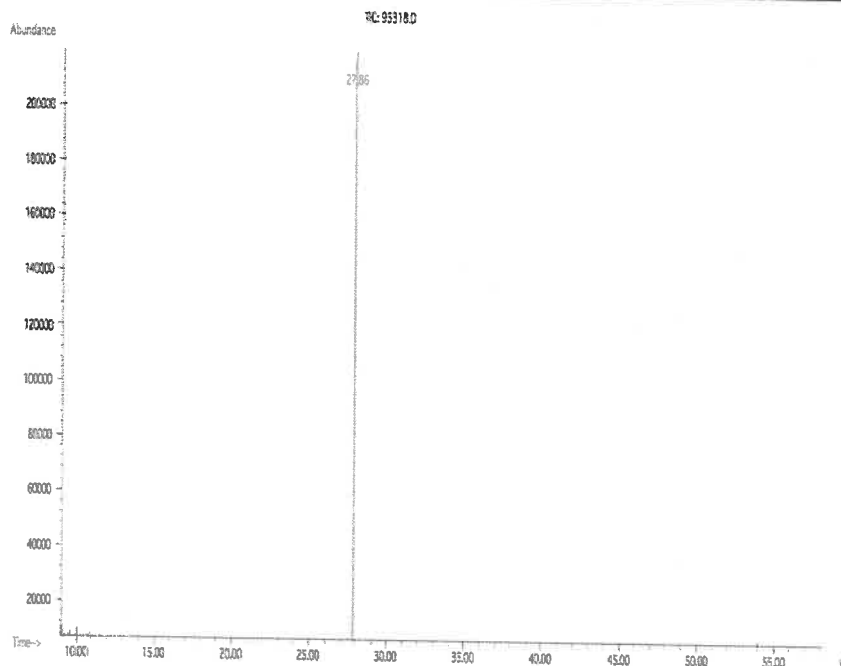
Expiration Date: **111725**
Recommended Storage: **Refrigerate (4 °C)**
Nominal Concentration (µg/mL): **10000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **50.0**
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

<i>Eli Aliaga</i>		111722
Formulated By:	Eli Aliaga	DATE
<i>Pedro L. Rentas</i>		111722
Reviewed By:	Pedro L. Rentas	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.)		
										CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50541	0.50551	10001.9	40.5	110-75-8	N/A	ori-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).



See 1216124
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):

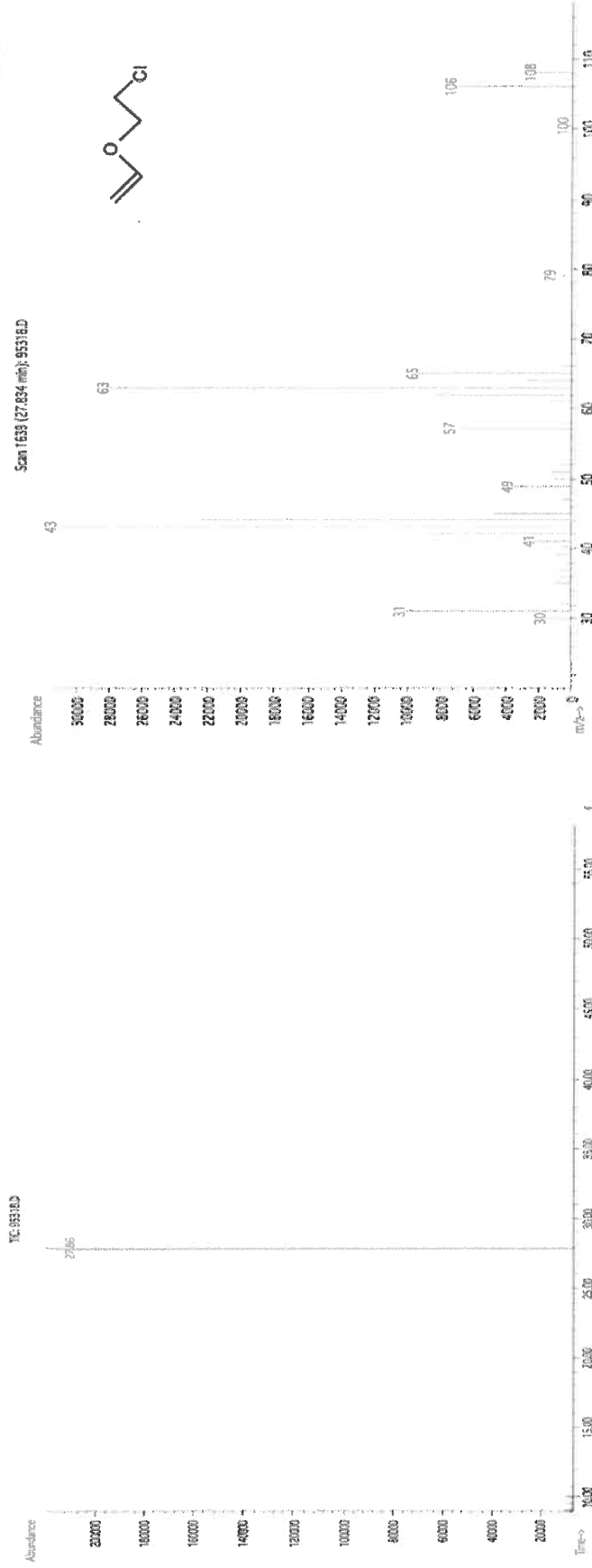
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

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)	or-rat 250mg/kg
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	N/A

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

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

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

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

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

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.

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.

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).

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.

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.



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

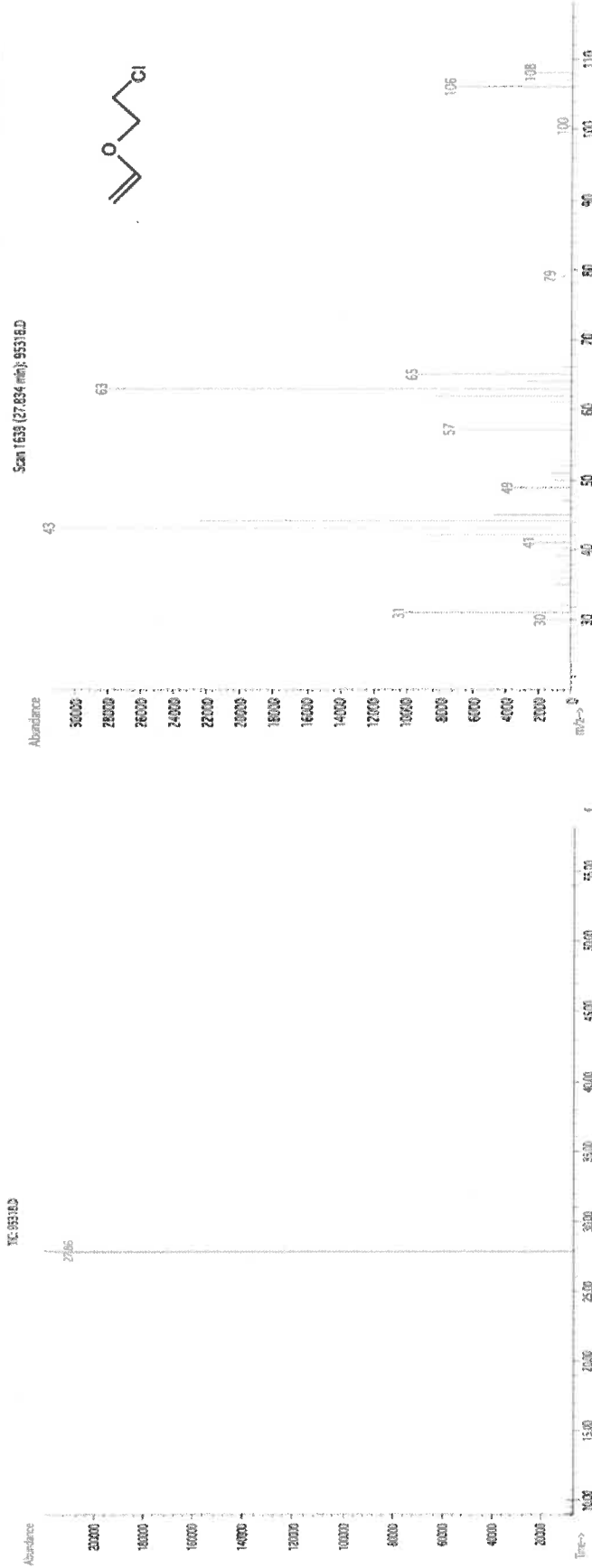
✓ 14630 to
✓ 14649

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)	SDS Information (Solvent Safety Info. On Attached pg.)
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).

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 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	CAS#: 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.		

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

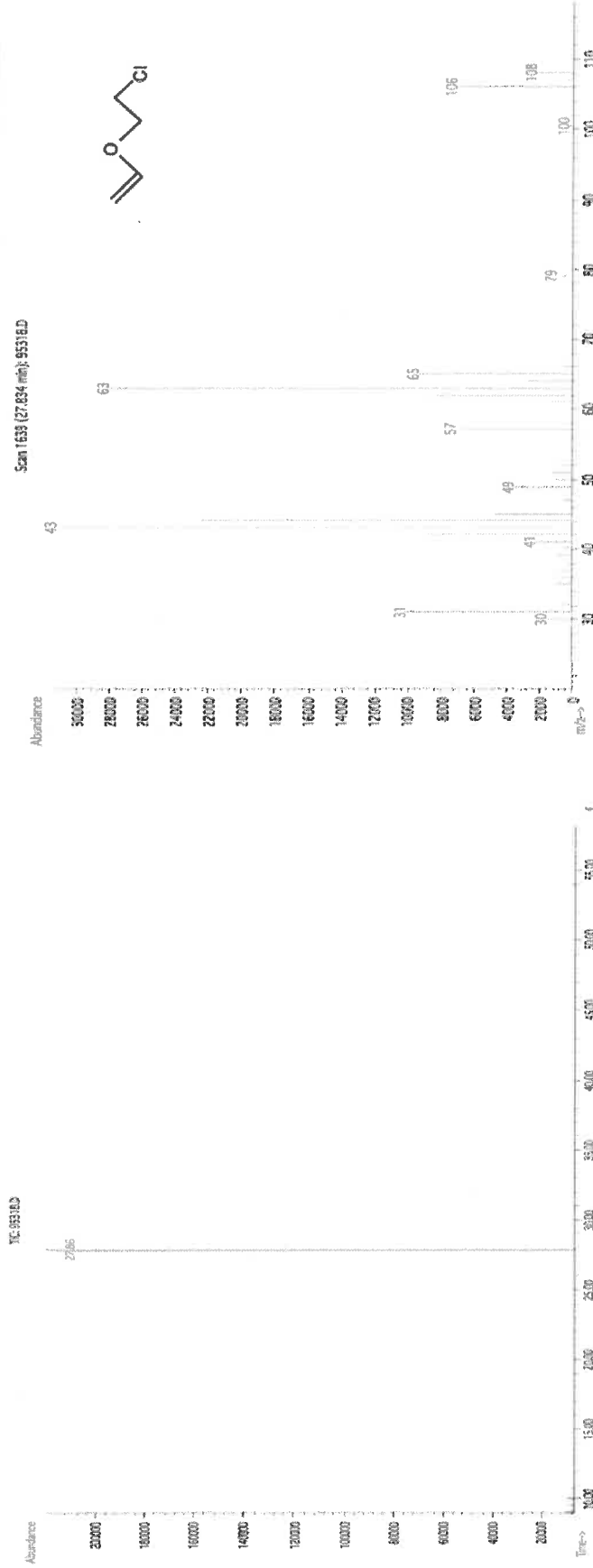
✓ 14630 to
✓ 14649

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)	SDS Information (Solvent Safety Info. On Attached pg.)
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):

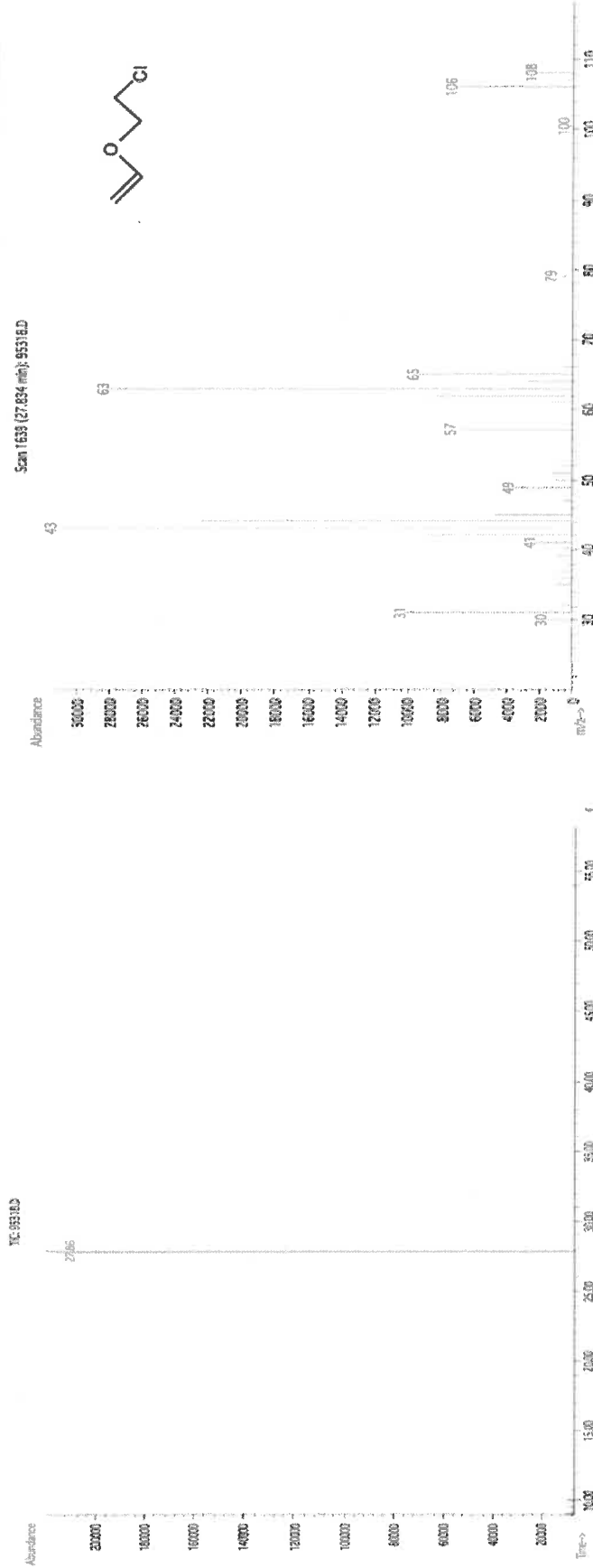
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

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))		% (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.



Certified Reference Material CRM

See 1216124



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 120524
Description: Acrolein
Expiration Date: 01/05/25
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water
Lot# 072324Q
SE-05 Balance Uncertainty
0.002 Flask Uncertainty

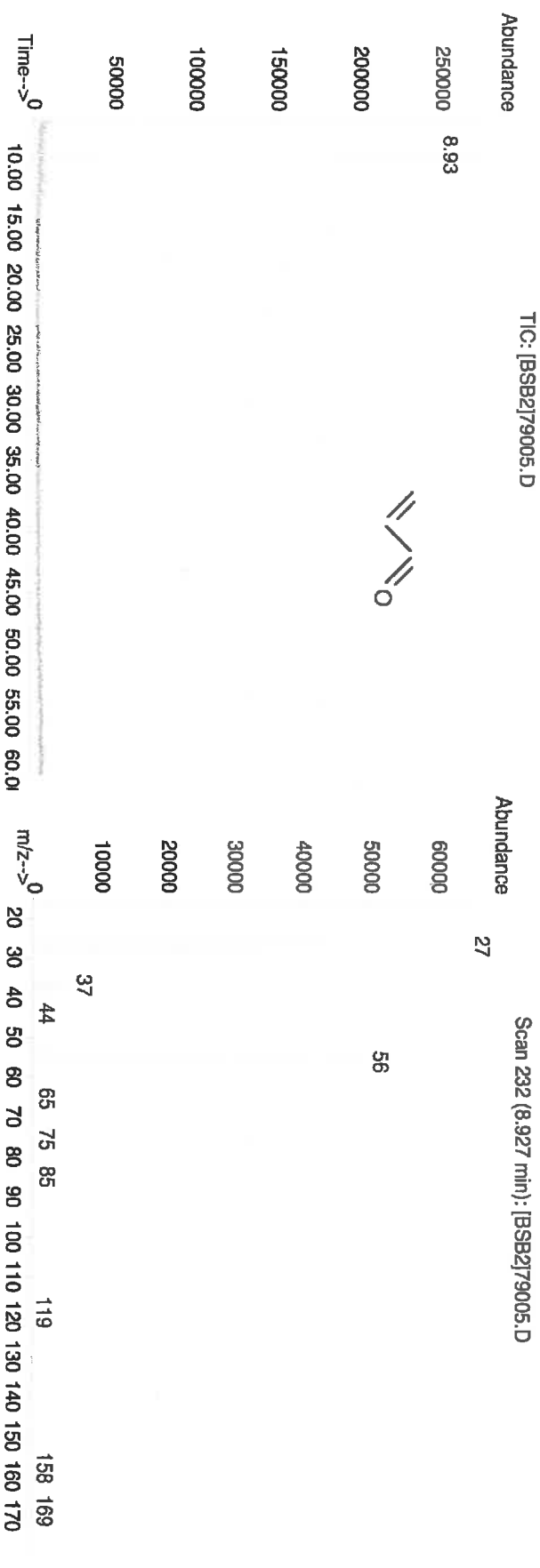
Formulated By:	Prashant Chauhan	120524
Reviewed By:	Pedro L. Rentes	120524
DATE		

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL) (+/-) (µg/mL)	Expanded Uncertainty (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
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1. Acrolein	5	103755R02H	5000	97	0.5	0.10307	0.10320	5006.1	51.8	107-02-8	0.1 ppm	or rat 48mg/kg
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Method: GC/MSD-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 Rentes, NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.



- 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 Rossetto 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)

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

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.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.		Eye protection.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

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

Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water	Completely miscible	NA	NA
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)	IATA
Not dangerous goods	Not dangerous goods
Proper shipping name: Water	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

See 12161224



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 120524
Description: Acrolein
Expiration Date: 01/05/25
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water
Lot# 072324Q
Weight(s) shown below were combined and diluted to (mL): 20.0

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

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

1. Acrolein

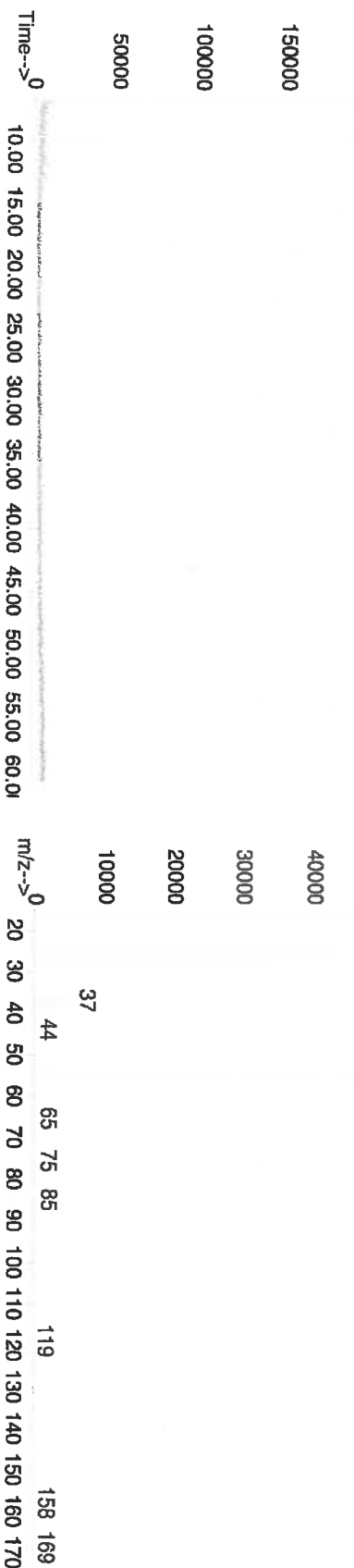
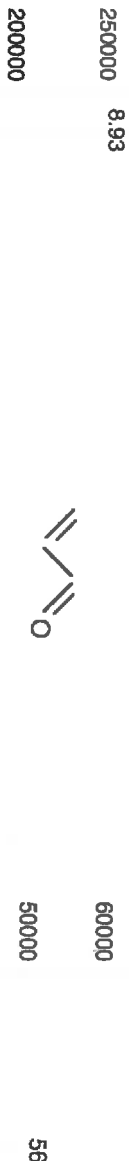
Method: GC/MSD-1, Detector: Mass Selective Detector (Scan mode), Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness), Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C, Analyst: Pedro Rentes, **NOTE:**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

Abundance

TIC: [BSB2]79005.D

Abundance

Scan 232 (8.927 min): [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 Results," 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 Rossetto 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)

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

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)	1
Vapor Pressure (mm Hg)		Melting Point	

Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water	Completely miscible		NA
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)	IATA
Not dangerous goods	Not dangerous goods
Proper shipping name: Water	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

See 1216(24)



CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 120524
Description: Acrolein
Expiration Date: 01/05/25
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

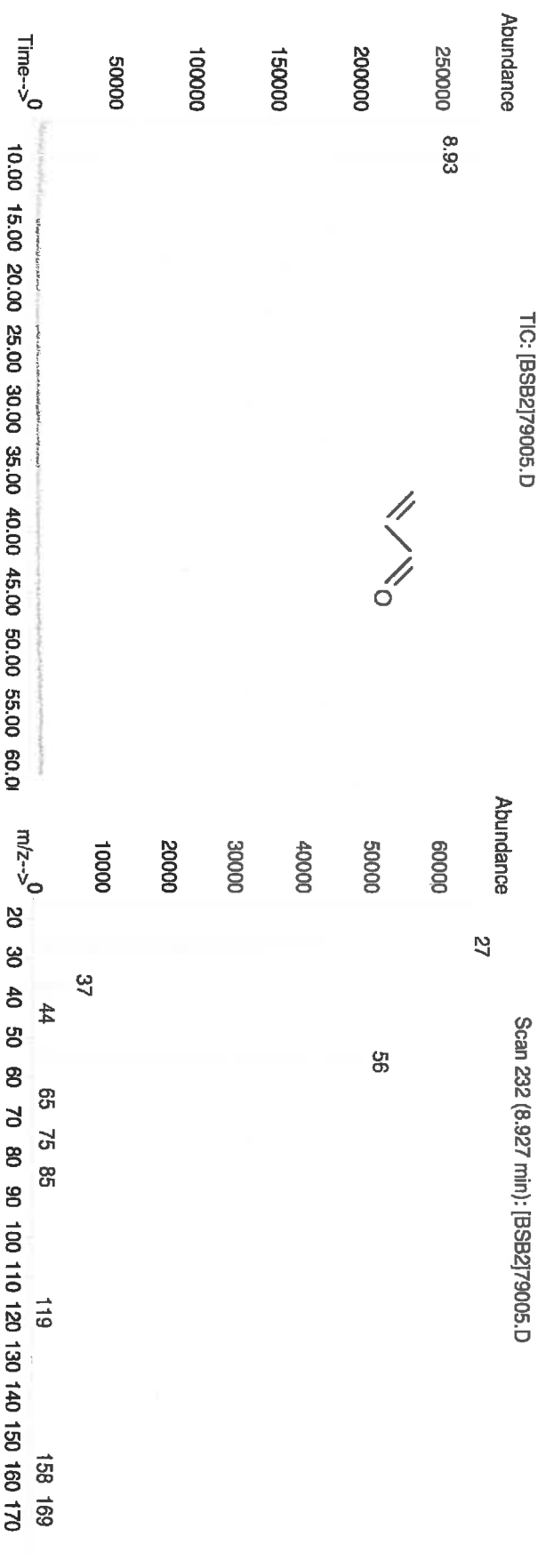
Solvent(s): Water
Lot# 072324Q
SE-05 Balance Uncertainty
0.002 Flask Uncertainty

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL) (+/-) (µg/mL)	Expanded Uncertainty (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
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1. Acrolein 5 103755R02H 5000 97 0.5 0.10307 0.10320 5006.1 51.8 107-02-8 0.1 ppm 0.1 rat 48mg/kg

Method: GC/MSD-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 Rentes, NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.



- 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 Rossetto 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)

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

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)	1
Vapor Pressure (mm Hg)		Melting Point	

Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	0°C
Solubility in Water	Completely miscible	NA	NA
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)	IATA
Not dangerous goods	Not dangerous goods
Proper shipping name: Water	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.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
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	0.5 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.01
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

Ken Koehnlein
Sr. Manager, Quality Assurance



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



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.: A0181905
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 : February 28, 2025 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	tert-Butanol (TBA)	50,126.0 µg/mL	+/-	293.4988	µg/mL	Gravimetric
	CAS # 75-65-0		+/-	1,073.7654	µg/mL	Unstressed
	Purity 99%		+/-	1,104.9494	µg/mL	Stressed

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

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:

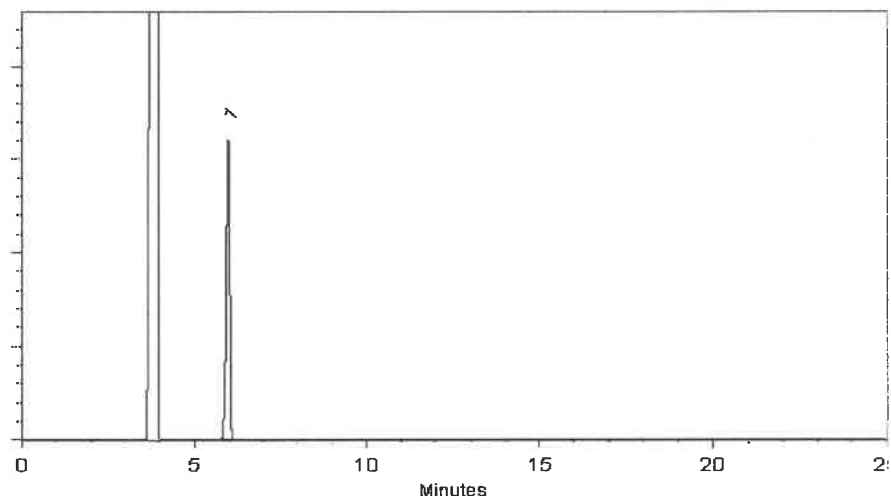
200°C

Det. Temp:

250°C

Det. Type:

FID



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.

John Friedline - Operations Technician I

Date Mixed: 16-Feb-2022

Balance: B442140311

Marlene Cowan - Operations Tech I

Date Passed: 21-Feb-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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



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.: A0191703
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 : November 30, 2025 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	tert-Butanol (TBA) CAS # 75-65-0 Purity 99% (Lot 101619K21F-1)	50,122.0 µg/mL	+/- 293.4753 µg/mL Gravimetric +/- 1,073.6797 µg/mL Unstressed +/- 1,104.8612 µg/mL Stressed

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

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:

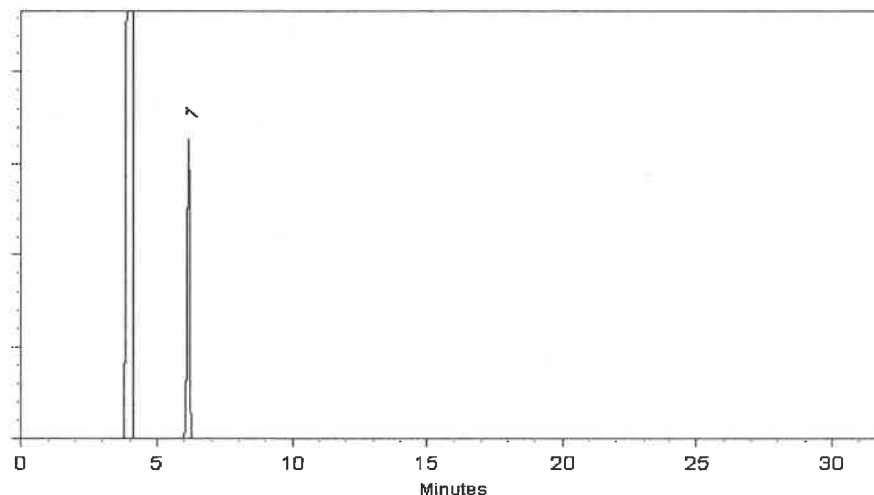
200°C

Det. Temp:

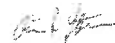
250°C

Det. Type:

FID



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: 15-Nov-2022

Balance: 1127510105


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 17-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/ μ ECD, 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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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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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:

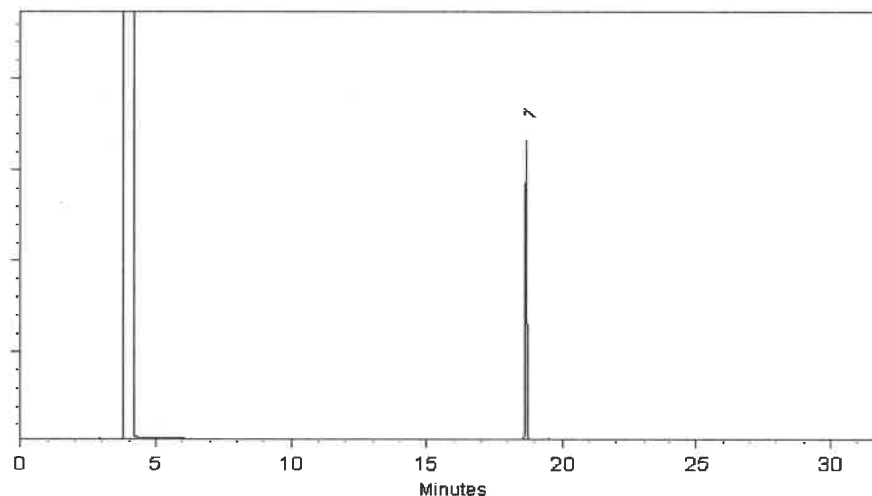
FID

Split Vent:

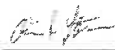
40 ml/min

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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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:

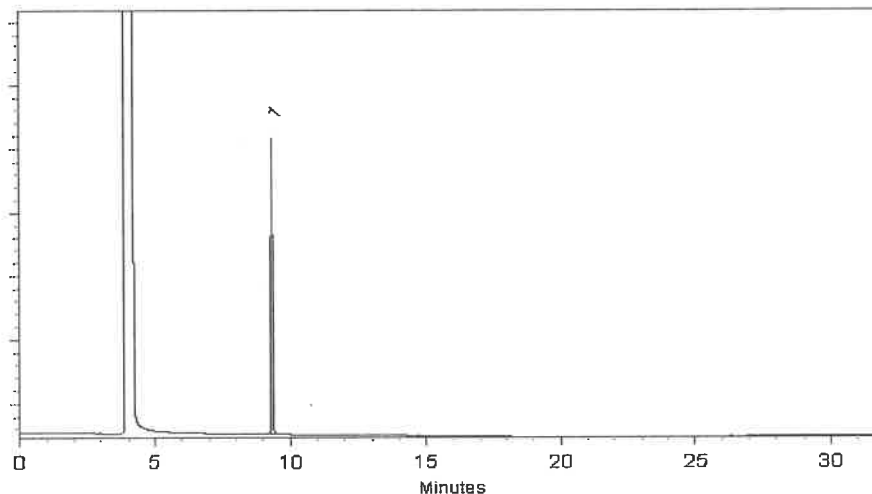
FID

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.
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Purity Notes:

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- Purity values are rounded to the nearest whole number.

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- 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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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:

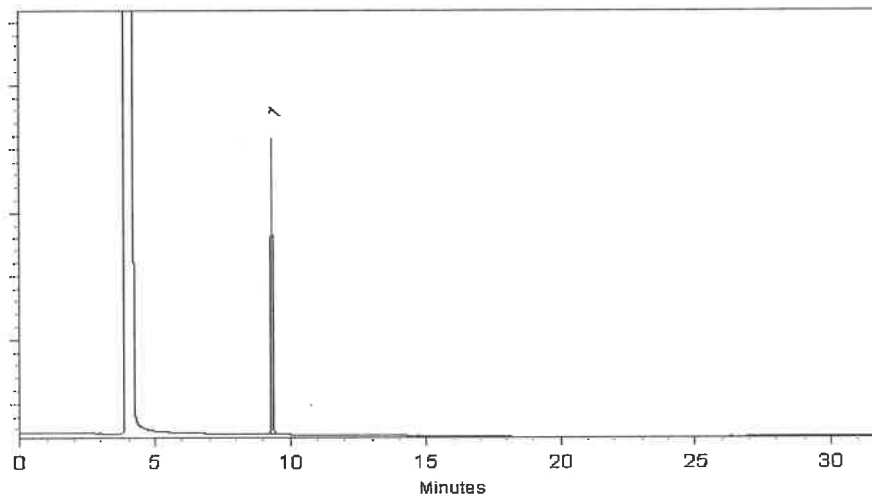
FID

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 values are rounded to the nearest whole number.

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Manufacturing Notes:

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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. : 30006 Lot No.: A0193887
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 : April 30, 2026 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	SHBP8774	99%	5,006.5 µg/mL	+/- 173.0015
2	2-Butanone (MEK)	78-93-3	SHBN9536	99%	5,008.5 µg/mL	+/- 173.0706
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,000.3 µg/mL	+/- 172.7884
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,001.7 µg/mL	+/- 172.8345

* 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:

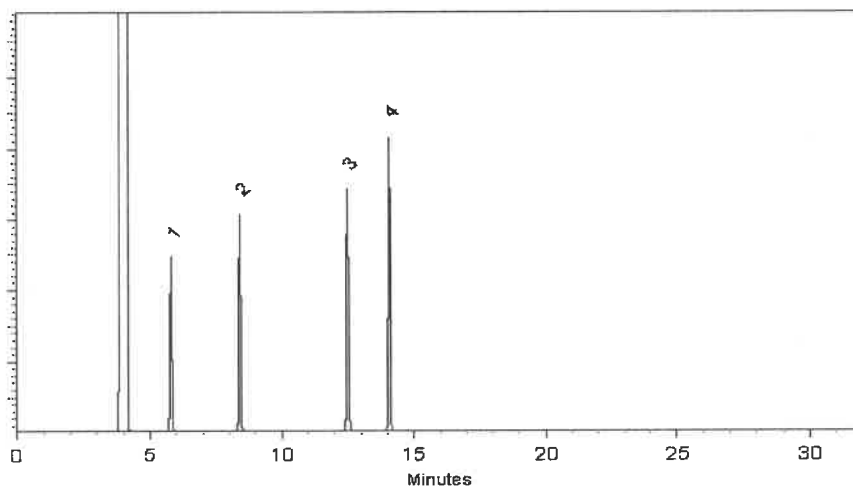
FID

Split Vent:

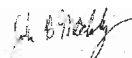
40 ml/min

Inj. Vol

1µl



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Josh McCloskey - Operations Technician I

Date Mixed: 24-Jan-2023

Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 27-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 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%.

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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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- 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. : 30042 **Lot No.:** A0194279

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 : October 31, 2029 **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	00012554	99%	2,001.5 µg/mL	+/- 112.7231
2	Chloromethane (methyl chloride)	74-87-3	SHBK6571	99%	2,001.2 µg/mL	+/- 112.5863
3	Vinyl chloride	75-01-4	00015559	99%	2,001.4 µg/mL	+/- 112.6561
4	Bromomethane (methyl bromide)	74-83-9	101604	99%	2,006.4 µg/mL	+/- 112.8262
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,001.9 µg/mL	+/- 112.5897
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCL8411	99%	2,000.8 µg/mL	+/- 112.6473

* 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:

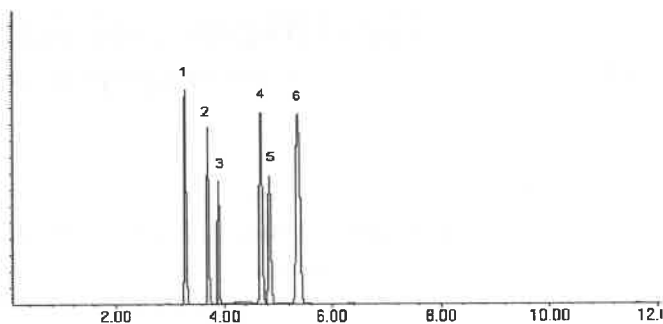
MSD

Split Vent:

Split ratio 10:1

Inj. Vol

1µl



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Tom Suckar - Mix Technician

Date Mixed: 03-Feb-2023

Balance Serial # B707717271


Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Feb-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.

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:

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

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Manufacturing Notes:

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Handling Notes:

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gravimetric



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. : 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:

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Purity Notes:

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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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Catalog No. : 30042 **Lot No.:** A0197644

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 : January 31, 2030 **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	00012554	99%	2,001.6 µg/mL	+/- 112.7159
2	Chloromethane (methyl chloride)	74-87-3	SHBM9611	99%	2,002.0 µg/mL	+/- 112.7840
3	Vinyl chloride	75-01-4	00015559	99%	2,002.2 µg/mL	+/- 112.6713
4	Bromomethane (methyl bromide)	74-83-9	101604	99%	2,006.4 µg/mL	+/- 112.8861
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.9 µg/mL	+/- 112.5990
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCL8411	99%	1,999.2 µg/mL	+/- 112.4861

* 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:

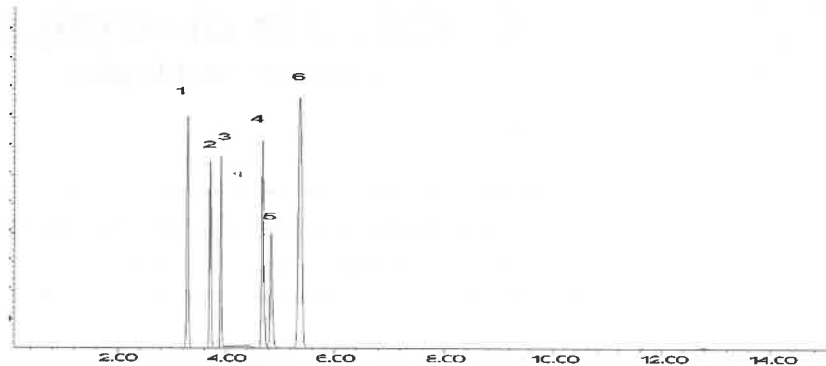
MSD

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.


Brittany Federinko - Operations Tech I

Date Mixed: 02-May-2023

Balance Serial # B707717271


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 08-May-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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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. : 30006 **Lot No.:** A0200785

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 : November 30, 2026 **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	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* 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:

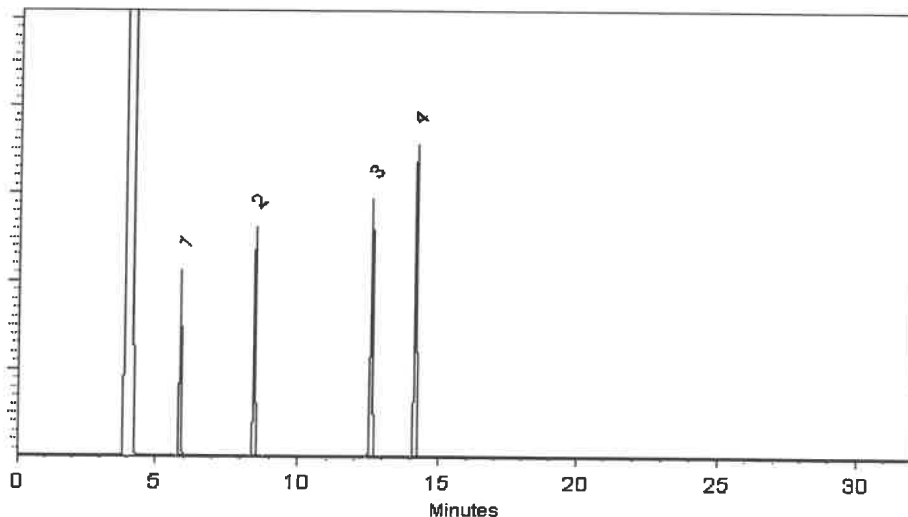
FID

Split Vent:

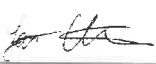
40 ml/min

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.


Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271


Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-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.
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Catalog No. : 30006 **Lot No.:** A0200785

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 : November 30, 2026 **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	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* 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:

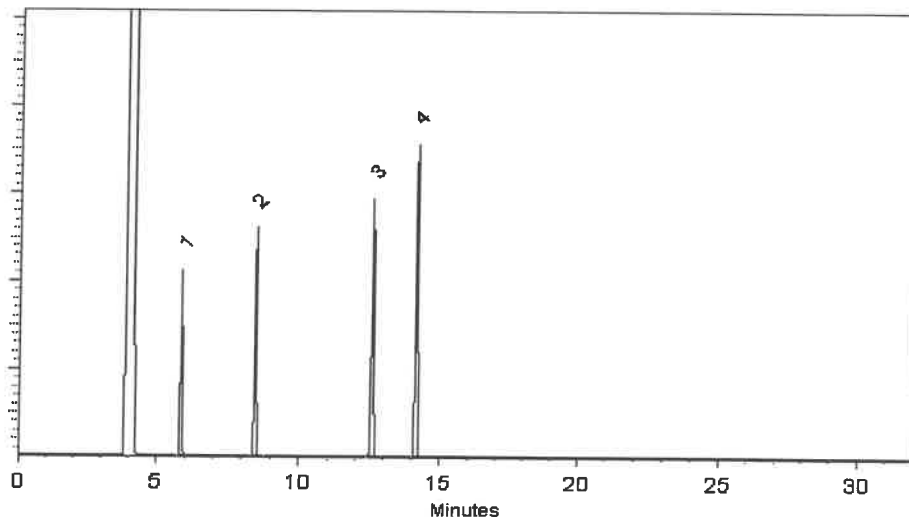
FID

Split Vent:

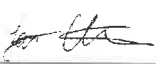
40 ml/min

Inj. Vol

1µl



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Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271


Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-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.

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:

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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. : 30006 **Lot No.:** A0200785

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 : November 30, 2026 **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	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* 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:

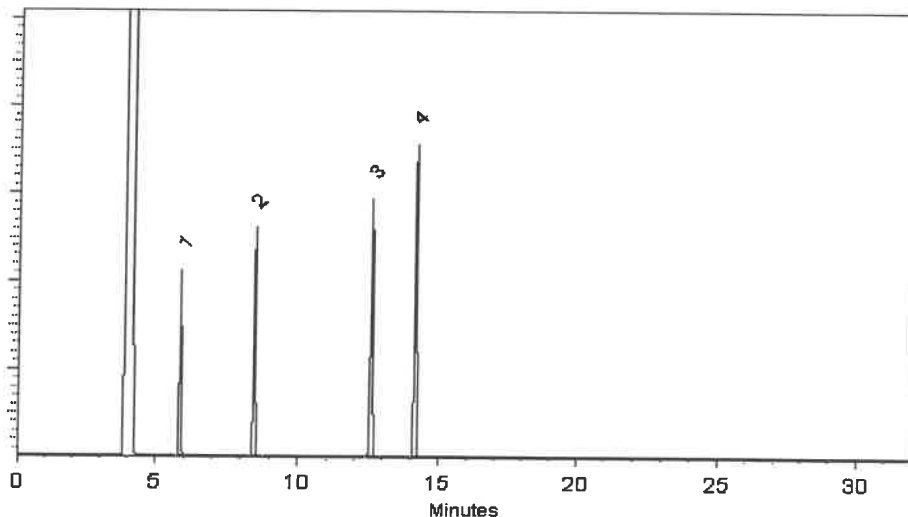
FID

Split Vent:

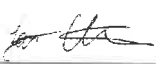
40 ml/min

Inj. Vol

1µl



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Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271


Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-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.
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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.:** A0205013
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 : June 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%	2,012.7 µg/mL	+/- 69.5670
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,017.5 µg/mL	+/- 69.7338
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,020.0 µg/mL	+/- 69.8205
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,018.7 µg/mL	+/- 69.7744
5	Propyl acetate	109-60-4	KLOBM	99%	2,012.0 µg/mL	+/- 69.5439
6	Butyl acetate	123-86-4	SHBP6314	99%	2,020.0 µg/mL	+/- 69.8205
7	Amyl acetate	628-63-7	41325/1	97%	2,019.5 µg/mL	+/- 69.8046

* 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:

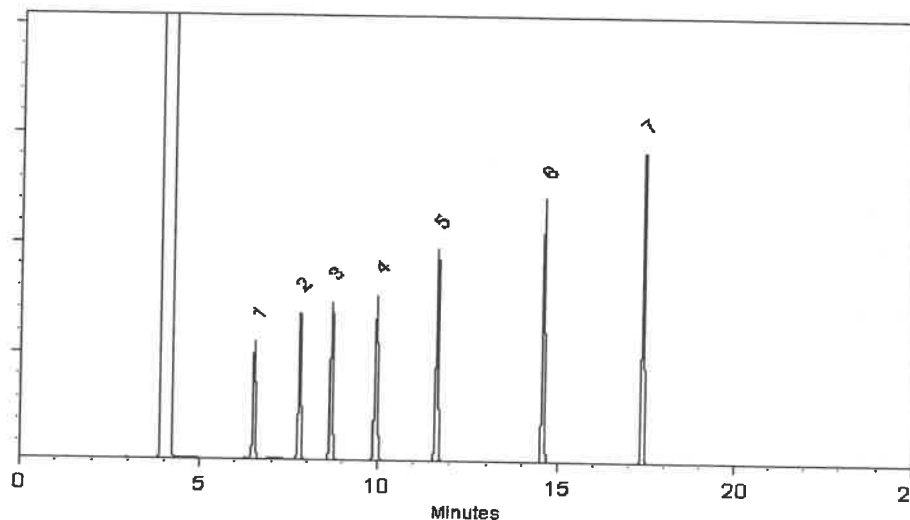
FID

Split Vent:

40 ml/min

Inj. Vol

1µl



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Brittany Federinko - Operations Tech I

Date Mixed: 04-Dec-2023

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 06-Dec-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.
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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. : 555408-FL **Lot No.:** A0205177
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, 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	Vinyl acetate	108-05-4	RP231030CTH	98%	8,047.8 µg/mL	+/- 278.1675

* 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:

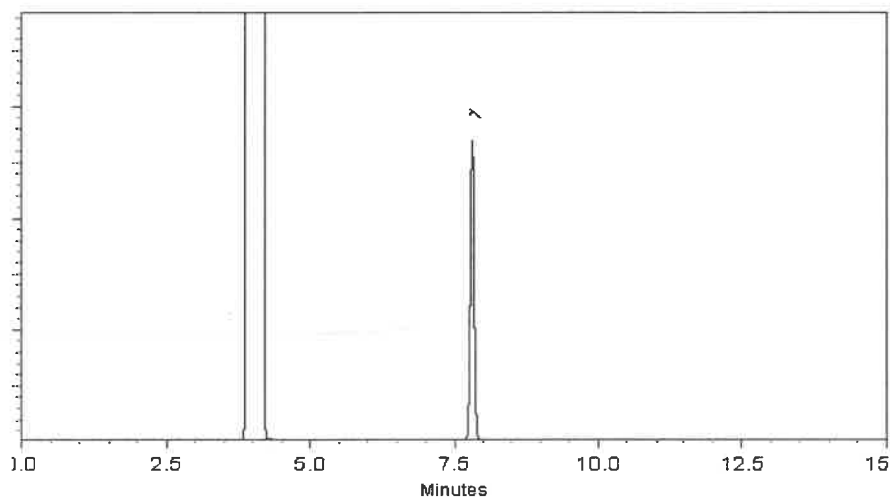
FID

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.

Tom Suckar - Mix Technician

Date Mixed: 06-Dec-2023

Balance Serial # 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Dec-2023

APPROVED
By the Instrumentation Manager, Inc. (RMS)

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

General Certified Reference Material Notes

Expiration Notes:

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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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12
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



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.:** A0205179
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, 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	Vinyl acetate	108-05-4	RP231030CTH	98%	8,075.2 µg/mL	+/- 279.1159

* 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:

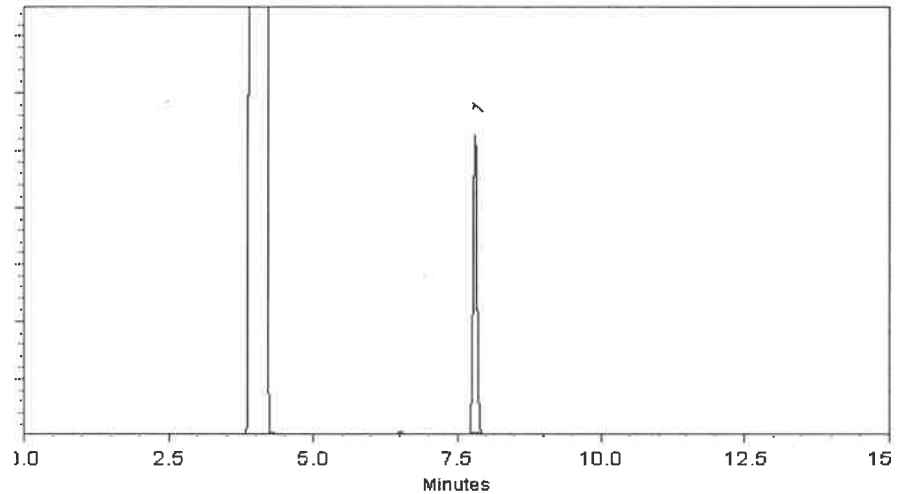
FID

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.


Daniel Wasson - Operations Tech I

Date Mixed: 06-Dec-2023

Balance Serial # 1127510105


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Dec-2023

APPROVED
By: Jennifer Pollino (Date: 11-Dec-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:

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12
CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic



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Catalog No. : 555408-SL **Lot No.:** A0205179
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, 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	Vinyl acetate	108-05-4	RP231030CTH	98%	8,075.2 µg/mL	+/- 279.1159

* 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:

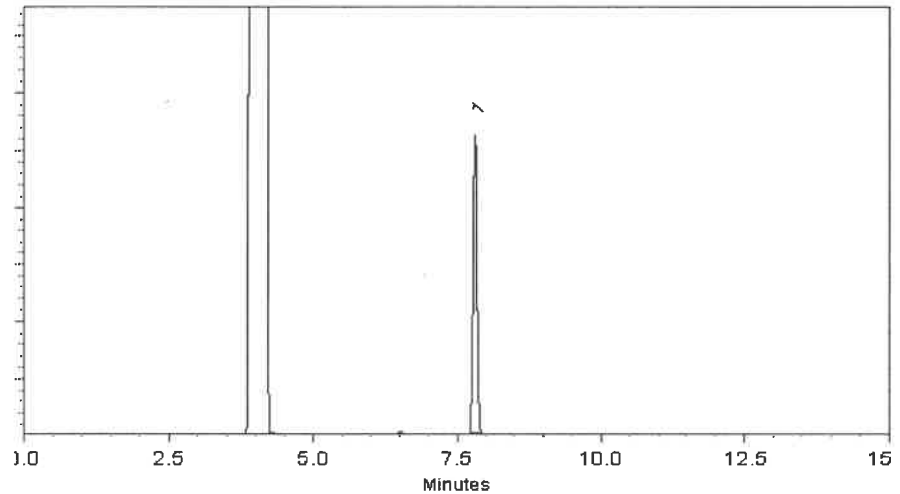
FID

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.


Daniel Wasson - Operations Tech I

Date Mixed: 06-Dec-2023

Balance Serial # 1127510105


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Dec-2023

APPROVED
By: Jennifer Pollino (Date: 11-Dec-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:

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- Purity of isomeric compounds is reported as the sum of the isomers.
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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. : 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:

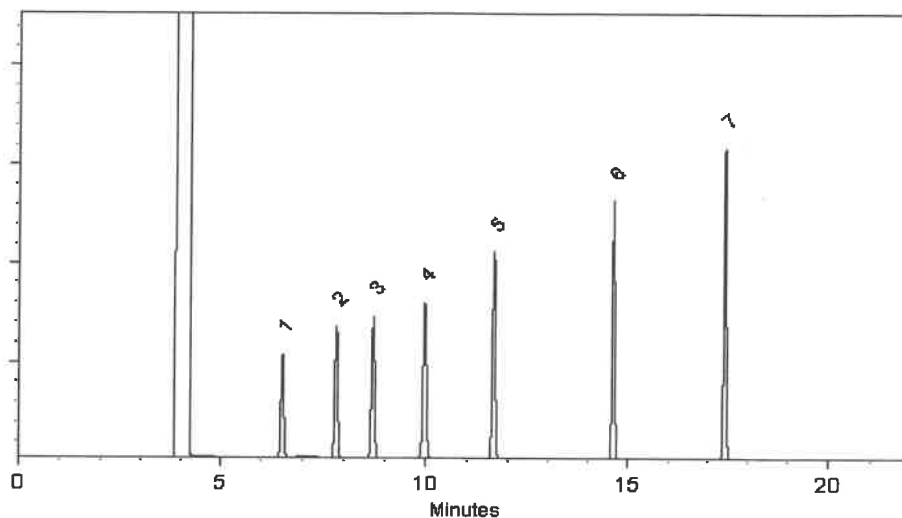
FID

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:

- 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:

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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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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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:

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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:

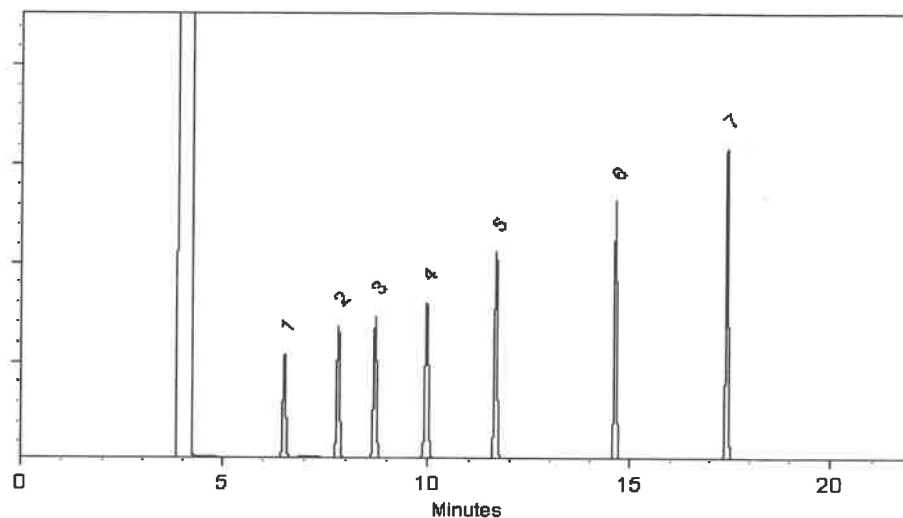
FID

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.
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Purity Notes:

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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:

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Handling Notes:

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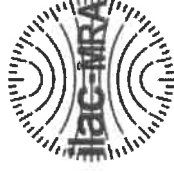
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric



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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: 1127510105



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

General Certified Reference Material Notes

Expiration Notes:

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Manufacturing Notes:

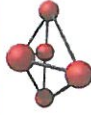
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Certified Reference Material CRM



CERTIFIED WEIGHT REPORT

Part Number: **70046**
Lot Number: **070122**
Description: **Bromochloromethane**

Solvent: **Methanol**
Lot# **EC592-US**

Expiration Date: **070127**
Recommended Storage: **Refrigerate (4 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **25.0**

5E-05 Balance Uncertainty
0.0002 Flask Uncertainty

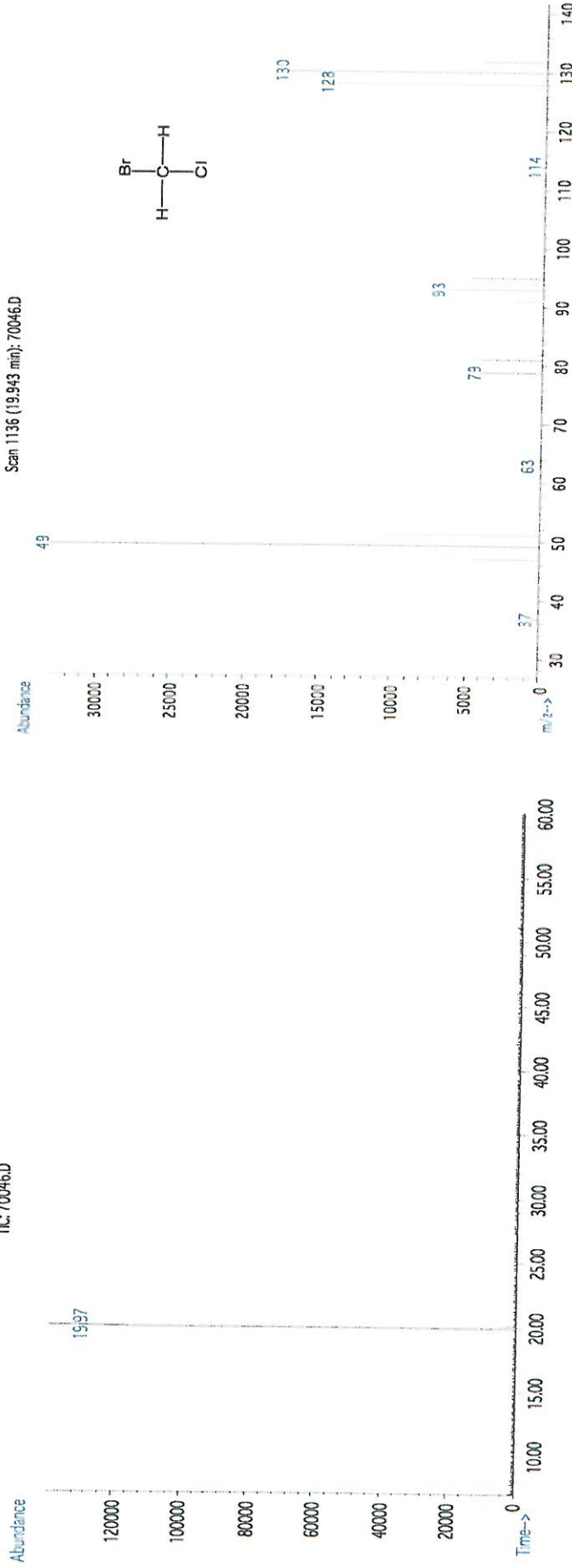
Formulated By:	Gabriel Helland	070122
DATE		
Reviewed By:	Pedro L. Rentas	070122
DATE		

SDS Information

Expanded Uncertainty (Solvent Safety Info. On Attached pg.)
(+/-) (µg/mL) CAS# OSHA PEL (TWA) LD50

Compound	46	AY01	1000	99	0.2	0.02530	0.02540	1004.1	5.7	74-97-5	200 ppm (1050mg/m ³ /8H)	ori-rat 5000mg/kg
1. Bromochloromethane												
Method GC/MSD-1.M: Column : (60m X 0.25mm X 1.5 µm) Temp 1 = 35°C (10min.), Temp 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector B= 200°C, Detector B = 220°C. Analyst:												
Candice Warren												

TIC: 70046.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).

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

Jamie Ethier
Vice President Global Quality



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Kleinfelder
 ADDRESS: 25 Gold Drive
 CITY: Hamilton STATE: NJ ZIP: 08691
 ATTENTION: Mark Warchol
 PHONE: 484-883-3892 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: ~~Mountaintop~~ Comegys School
 PROJECT NO.: 1400513.001 LOCATION: Philadelphia, PA
 PROJECT MANAGER: Mark Warchol
 e-mail: mwarchol@kleinfelder.com
 PHONE: 484-883-3892 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
 ADDRESS: Same
 CITY: STATE: ZIP:
 ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS*
 HARDCOPY (DATA PACKAGE): 5 DAYS*
 EDD: 5 DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

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

1 2 3 4 5 6 7 8 9
 PAPER LIST: Fill
 Level 2: Fill
 On Hold

PRESERVATIVES

COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										COMMENTS
			COMP	GRAB	DATE	TIME		E	E								
1.	COMP-1	Soil	✓		12/20/24	9:15	3	✓									* 1
2.	COMP-2					9:50											* 5
3.	COMP-3		↓			10:35	↓	↓									* 4
4.	SB-1			✓		9:25	1		✓								
5.	SB-2					9:00											
6.	SB-3					9:30											
7.	SB-4					9:10											
8.	SB-5					9:05											
9.	SB-6					8:30											
10.	SB-7					9:40											

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 12/20/24 12:45	RECEIVED BY: 1. <i>[Signature]</i>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 1.6°C °C
RELINQUISHED BY SAMPLER: 2. FedEx	DATE/TIME: 1128 12/23/24	RECEIVED BY: 2. <i>[Signature]</i>	Comments:
RELINQUISHED BY SAMPLER: 3.	DATE/TIME:	RECEIVED BY: 3.	Page 1 of 2 CLIENT: ☐ Hand Delivered ☒ Other FedEx CHEMTECH: ☐ Picked Up ☐ Field Sampling Shipment Complete ☐ YES ☐ NO

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 • Fax (908) 789-8922

www.chemtech.net

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number

P5382

2041560

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Kleinfelder
ADDRESS: 2 S Gold Drive
CITY: Hamilton STATE: NJ ZIP: 08691
ATTENTION: Mark Warchol
PHONE: 484-883-3892 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Comegys School
PROJECT NO.: 24005163.001A LOCATION: Philadelphia, PA
PROJECT MANAGER: Marks Warchol
e-mail: mwarchol@kleinfelder.com
PHONE: 484-883-3892 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#: Same
ADDRESS: Same
CITY: Same STATE: Same ZIP: Same
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS*
HARDCOPY (DATA PACKAGE): 5 DAYS*
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*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

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 _____

On Hold

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS		
			COMP	GRAB	DATE	TIME		F	1	2	3	4	5	6	7	8	9	← Specify Preservatives	
																		A-HCl	D-NaOH
																		B-HNO3	E-ICE
																		C-H2SO4	F-OTHER
1.	SB-8	Soil		✓	12/20/24	9:45	1	✓											
2.	SB-9	↓		↓	↓	10:00	↓	↓											
3.	SB-10	↓		↓	↓	10:15	↓	↓											
4.	SB-11	↓		↓	↓	10:30	↓	↓											
5.	SB-12	↓		↓	↓	10:05	↓	↓											
6.																			
7.																			
8.																			
9.																			
10.																			

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>1.6°C</u> °C
1. <u>Jul</u>	<u>12/20/24 12:45</u>	1. <u></u>	Comments:
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
2. <u>FedEx</u>	<u>12/23/24</u>	2. <u></u>	
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
3. <u></u>	<u></u>	3. <u></u>	
Page <u>2</u> of <u>2</u>			CLIENT: ☐ Hand Delivered ☒ Other <u>FedEx</u>
CHEMTECH: ☐ Picked Up ☐ Field Sampling			Shipment Complete ☐ YES ☐ NO



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

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 : P5382	POWE02	Order Date : 12/23/2024 11:39:00 AM	Project Mgr :
Client Name : Kleinfelder		Project Name : Tanner G. Duckrey Public S	Report Type : Results+QC
Client Contact : Mark Warchol		Receive DateTime : 12/23/2024 11:28:00 AM	EDD Type : EXCEL NOCLEANUP
Invoice Name : Kleinfelder		Purchase Order :	Hard Copy Date :
Invoice Contact : Mark Warchol			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P5382-01	COMP-1	Solid	12/20/2024	09:15					
					VOCMS Group1		8260D		5 Bus. Days
P5382-02	COMP-2	Solid	12/20/2024	09:50					
					VOCMS Group1		8260D		5 Bus. Days
P5382-03	COMP-3	Solid	12/20/2024	10:35					
					VOCMS Group1		8260D		5 Bus. Days
~~P5382-06~~	~~SB-5~~	~~Solid~~	~~12/20/2024~~	~~09:05~~	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>
					VOCMS Group1		8260D		5 Bus. Days

Relinquished By :

Date / Time : 12/23/24 12:40

Received By :

Date / Time : 12-23-24 12:40

Storage Area : VOA Refridgerator Room