284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

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 is 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

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

LAB CHRONICLE

OrderID:	Q1729	**OrderDate:**	4/4/2025 10:46:00 AM
Client:	Chemtech Consulting Group	**Project:**	Weekly Storage Blanks
Contact:	QA Officer	**Location:**	F11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1729-01	**Storage-Blank-SOIL-REF-6**	**Water**			**04/04/25**			**04/04/25**
			VOC- Chemtech Full	8260-Low			04/09/25	
Q1729-02	**Storage-Blank-WATER-REF-5**	**Water**			**04/04/25**			**04/04/25**
			VOC- Chemtech Full	8260-Low			04/09/25	
Q1729-03	**Storage-Blank-WATER-REF-4**	**Water**			**04/04/25**			**04/04/25**
			VOC- Chemtech Full	8260-Low			04/09/25	
Q1729-04	**Storage-Blank-SAMPLE-MANAGEMENT**	**Water**			**04/04/25**			**04/04/25**
			VOC- Chemtech Full	8260-Low			04/09/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q1729

Client: Chemtech Consulting Group

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID:

0

Total Voc :

Total Concentration:

QC SUMMARY

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

Surrogate Summary

SDG No.: Q1729

Client: Chemtech Consulting Group

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1729-01	Storage-Blank-SOIL-REF-6	1,2-Dichloroethane-d4	50	54.8	110	74	125
		Dibromofluoromethane	50	51.6	103	75	124
		Toluene-d8	50	50.5	101	86	113
		4-Bromofluorobenzene	50	52.6	105	77	121
Q1729-02	Storage-Blank-WATER-REF-5	1,2-Dichloroethane-d4	50	53.9	108	74	125
		Dibromofluoromethane	50	51.8	104	75	124
		Toluene-d8	50	50.9	102	86	113
		4-Bromofluorobenzene	50	48.6	97	77	121
Q1729-03	Storage-Blank-WATER-REF-4	1,2-Dichloroethane-d4	50	55.7	111	74	125
		Dibromofluoromethane	50	51.1	102	75	124
		Toluene-d8	50	50.7	101	86	113
		4-Bromofluorobenzene	50	52.6	105	77	121
Q1729-04	Storage-Blank-SAMPLE-MANAGEME	1,2-Dichloroethane-d4	50	56.3	113	74	125
		Dibromofluoromethane	50	51.9	104	75	124
		Toluene-d8	50	50.8	102	86	113
		4-Bromofluorobenzene	50	51.6	103	77	121
VX0409WBL01	VX0409WBL01	1,2-Dichloroethane-d4	50	53.5	107	74	125
		Dibromofluoromethane	50	51.3	103	75	124
		Toluene-d8	50	50.5	101	86	113
		4-Bromofluorobenzene	50	49.9	100	77	121
VX0409WBS01	VX0409WBS01	1,2-Dichloroethane-d4	50	53.5	107	74	125
		Dibromofluoromethane	50	54.5	109	75	124
		Toluene-d8	50	53.1	106	86	113
		4-Bromofluorobenzene	50	52.6	105	77	121
VX0409WBSD0	VX0409WBSD01	1,2-Dichloroethane-d4	50	54.1	108	74	125
		Dibromofluoromethane	50	53.8	108	75	124
		Toluene-d8	50	53.1	106	86	113
		4-Bromofluorobenzene	50	54.3	109	77	121

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1729

Client: Chemtech Consulting Group

Analytical Method: SW8260-Low **Datafile :** VX045667.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0409WBS01	Dichlorodifluoromethane	20	20.1	ug/L	101			69	116	
	Chloromethane	20	18.7	ug/L	94			65	116	
	Vinyl chloride	20	18.5	ug/L	93			65	117	
	Ethyl Acetate	20	18.1	ug/L	91			75	115	
	Bromomethane	20	18.2	ug/L	91			58	125	
	Chloroethane	20	20.4	ug/L	102			56	128	
	Trichlorofluoromethane	20	19.7	ug/L	99			73	115	
	1,1,2-Trichlorotrifluoroethane	20	20.4	ug/L	102			80	112	
	Tert butyl alcohol	100	96.8	ug/L	97			73	124	
	1,1-Dichloroethene	20	18.4	ug/L	92			74	110	
	Acrolein	100	80.6	ug/L	81			51	143	
	Acrylonitrile	100	93.4	ug/L	93			73	113	
	Acetone	100	93.3	ug/L	93			60	125	
	Carbon disulfide	20	16.5	ug/L	83			64	112	
	Methyl tert-butyl Ether	20	19.3	ug/L	97			78	114	
	Methyl Acetate	20	20.2	ug/L	101			67	125	
	Methylene Chloride	20	18.3	ug/L	92			72	114	
	trans-1,2-Dichloroethene	20	18.4	ug/L	92			75	108	
	Vinyl Acetate	100	94.7	ug/L	95			76	115	
	1,1-Dichloroethane	20	19.1	ug/L	96			78	112	
	Cyclohexane	20	18.5	ug/L	93			75	110	
	2-Butanone	100	94.6	ug/L	95			65	122	
	Carbon Tetrachloride	20	20.1	ug/L	101			77	113	
	2,2-Dichloropropane	20	21.3	ug/L	106			75	116	
	cis-1,2-Dichloroethene	20	18.6	ug/L	93			77	110	
	Bromochloromethane	20	19.8	ug/L	99			70	124	
	Chloroform	20	19.3	ug/L	97			79	113	
	1,1,1-Trichloroethane	20	19.2	ug/L	96			80	108	
	Methylcyclohexane	20	19.5	ug/L	98			72	115	
	1,1-Dichloropropene	20	19.7	ug/L	99			79	110	
	Benzene	20	19.3	ug/L	97			82	109	
	1,2-Dichloroethane	20	20.4	ug/L	102			80	115	
	Trichloroethene	20	19.2	ug/L	96			77	113	
	1,2-Dichloropropane	20	19.6	ug/L	98			83	111	
	Dibromomethane	20	19.4	ug/L	97			82	110	
	Bromodichloromethane	20	19.6	ug/L	98			83	110	
	4-Methyl-2-Pentanone	100	100	ug/L	100			74	118	
	Toluene	20	19.3	ug/L	97			82	110	
	t-1,3-Dichloropropene	20	18.7	ug/L	94			79	110	
	cis-1,3-Dichloropropene	20	20.3	ug/L	102			82	110	
	1,1,2-Trichloroethane	20	19.9	ug/L	100			83	112	
	1,3-Dichloropropane	20	19.7	ug/L	99			83	111	
	2-Chloroethyl vinyl ether	100	98.2	ug/L	98			75	124	
	2-Hexanone	100	100	ug/L	100			73	117	
	Dibromochloromethane	20	19.8	ug/L	99			82	110	
	1,2-Dibromoethane	20	19.8	ug/L	99			81	110	
	Tetrachloroethene	20	20.9	ug/L	104			67	123	
	Chlorobenzene	20	20.3	ug/L	102			82	109	

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1729

Client: Chemtech Consulting Group

Analytical Method: SW8260-Low **Datafile :** VX045667.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0409WBS01	1,1,1,2-Tetrachloroethane	20	19.6	ug/L	98			84	111	
	Hexachloroethane	20	19.9	ug/L	100			80	113	
	Ethyl Benzene	20	20.0	ug/L	100			83	109	
	m/p-Xylenes	40	40.5	ug/L	101			82	110	
	o-Xylene	20	20.2	ug/L	101			83	109	
	Styrene	20	20.3	ug/L	102			80	111	
	Bromoform	20	19.5	ug/L	98			79	109	
	Isopropylbenzene	20	20.3	ug/L	102			83	112	
	1,1,2,2-Tetrachloroethane	20	19.9	ug/L	100			76	118	
	1,2,3-Trichloropropane	20	20.2	ug/L	101			75	112	
	Bromobenzene	20	20.3	ug/L	102			77	116	
	N-propylbenzene	20	20.3	ug/L	102			83	112	
	2-Chlorotoluene	20	19.8	ug/L	99			83	110	
	1,3,5-Trimethylbenzene	20	20.7	ug/L	104			85	112	
	4-Chlorotoluene	20	20.6	ug/L	103			82	110	
	tert-Butylbenzene	20	20.2	ug/L	101			83	112	
	1,2,4-Trimethylbenzene	20	20.2	ug/L	101			85	111	
	Sec-butylbenzene	20	20.7	ug/L	104			81	114	
	p-Isopropyltoluene	20	20.2	ug/L	101			78	116	
	1,3-Dichlorobenzene	20	19.8	ug/L	99			82	108	
	1,4-Dichlorobenzene	20	19.9	ug/L	100			82	107	
	n-Butylbenzene	20	20.1	ug/L	101			75	115	
	1,2-Dichlorobenzene	20	20.6	ug/L	103			82	109	
	1,2-Dibromo-3-Chloropropane	20	20.4	ug/L	102			68	112	
	1,2,4-Trichlorobenzene	20	19.1	ug/L	96			75	113	
	Hexachlorobutadiene	20	20.7	ug/L	104			81	121	
	Naphthalene	20	19.6	ug/L	98			78	119	
	1,2,3-Trichlorobenzene	20	19.7	ug/L	99			76	114	

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1729

Client: Chemtech Consulting Group

Analytical Method: SW8260-Low **Datafile :** VX045668.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0409WBSD01	Dichlorodifluoromethane	20	21.0	ug/L	105	4		69	116	20
	Chloromethane	20	19.1	ug/L	96	2		65	116	20
	Vinyl chloride	20	18.9	ug/L	95	2		65	117	20
	Ethyl Acetate	20	19.8	ug/L	99	8		75	115	20
	Bromomethane	20	19.2	ug/L	96	5		58	125	20
	Chloroethane	20	20.9	ug/L	104	2		56	128	20
	Trichlorofluoromethane	20	21.1	ug/L	106	7		73	115	20
	1,1,2-Trichlorotrifluoroethane	20	21.6	ug/L	108	6		80	112	20
	Tert butyl alcohol	100	100	ug/L	100	3		73	124	20
	1,1-Dichloroethene	20	19.2	ug/L	96	4		74	110	20
	Acrolein	100	86.8	ug/L	87	7		51	143	20
	Acrylonitrile	100	100	ug/L	100	7		73	113	20
	Acetone	100	100	ug/L	100	7		60	125	20
	Carbon disulfide	20	17.4	ug/L	87	5		64	112	20
	Methyl tert-butyl Ether	20	21.1	ug/L	106	9		78	114	20
	Methyl Acetate	20	22.1	ug/L	111	9		67	125	20
	Methylene Chloride	20	20.0	ug/L	100	8		72	114	20
	trans-1,2-Dichloroethene	20	19.9	ug/L	100	8		75	108	20
	Vinyl Acetate	100	100	ug/L	100	5		76	115	20
	1,1-Dichloroethane	20	20.1	ug/L	101	5		78	112	20
	Cyclohexane	20	19.6	ug/L	98	5		75	110	20
	2-Butanone	100	100	ug/L	100	5		65	122	20
	Carbon Tetrachloride	20	21.2	ug/L	106	5		77	113	20
	2,2-Dichloropropane	20	22.6	ug/L	113	6		75	116	20
	cis-1,2-Dichloroethene	20	19.7	ug/L	99	6		77	110	20
	Bromochloromethane	20	22.3	ug/L	112	12		70	124	20
	Chloroform	20	20.8	ug/L	104	7		79	113	20
	1,1,1-Trichloroethane	20	20.3	ug/L	102	6		80	108	20
	Methylcyclohexane	20	20.9	ug/L	104	6		72	115	20
	1,1-Dichloropropene	20	20.7	ug/L	104	5		79	110	20
	Benzene	20	20.4	ug/L	102	5		82	109	20
	1,2-Dichloroethane	20	21.5	ug/L	108	6		80	115	20
	Trichloroethene	20	20.4	ug/L	102	6		77	113	20
	1,2-Dichloropropane	20	20.8	ug/L	104	6		83	111	20
	Dibromomethane	20	21.0	ug/L	105	8		82	110	20
	Bromodichloromethane	20	21.0	ug/L	105	7		83	110	20
	4-Methyl-2-Pentanone	100	110	ug/L	110	10		74	118	20
	Toluene	20	20.3	ug/L	102	5		82	110	20
	t-1,3-Dichloropropene	20	19.3	ug/L	97	3		79	110	20
	cis-1,3-Dichloropropene	20	21.8	ug/L	109	7		82	110	20
	1,1,2-Trichloroethane	20	21.0	ug/L	105	5		83	112	20
	1,3-Dichloropropane	20	21.2	ug/L	106	7		83	111	20
	2-Chloroethyl vinyl ether	100	110	ug/L	110	12		75	124	20
	2-Hexanone	100	110	ug/L	110	10		73	117	20
	Dibromochloromethane	20	21.1	ug/L	106	7		82	110	20
	1,2-Dibromoethane	20	20.9	ug/L	104	5		81	110	20
	Tetrachloroethene	20	22.0	ug/L	110	6		67	123	20
	Chlorobenzene	20	20.9	ug/L	104	2		82	109	20

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1729

Client: Chemtech Consulting Group

Analytical Method: SW8260-Low **Datafile :** VX045668.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0409WBSD01	1,1,1,2-Tetrachloroethane	20	21.0	ug/L	105	7		84	111	20
	Hexachloroethane	20	20.2	ug/L	101	1		80	113	20
	Ethyl Benzene	20	20.9	ug/L	104	4		83	109	20
	m/p-Xylenes	40	42.3	ug/L	106	5		82	110	20
	o-Xylene	20	20.7	ug/L	104	3		83	109	20
	Styrene	20	21.2	ug/L	106	4		80	111	20
	Bromoform	20	20.2	ug/L	101	3		79	109	20
	Isopropylbenzene	20	20.7	ug/L	104	2		83	112	20
	1,1,2,2-Tetrachloroethane	20	20.5	ug/L	103	3		76	118	20
	1,2,3-Trichloropropane	20	20.7	ug/L	104	3		75	112	20
	Bromobenzene	20	20.0	ug/L	100	2		77	116	20
	N-propylbenzene	20	20.6	ug/L	103	1		83	112	20
	2-Chlorotoluene	20	20.3	ug/L	102	3		83	110	20
	1,3,5-Trimethylbenzene	20	21.1	ug/L	106	2		85	112	20
	4-Chlorotoluene	20	20.5	ug/L	103	0		82	110	20
	tert-Butylbenzene	20	20.5	ug/L	103	2		83	112	20
	1,2,4-Trimethylbenzene	20	21.0	ug/L	105	4		85	111	20
	Sec-butylbenzene	20	21.1	ug/L	106	2		81	114	20
	p-Isopropyltoluene	20	20.8	ug/L	104	3		78	116	20
	1,3-Dichlorobenzene	20	20.5	ug/L	103	4		82	108	20
	1,4-Dichlorobenzene	20	20.2	ug/L	101	1		82	107	20
	n-Butylbenzene	20	20.8	ug/L	104	3		75	115	20
	1,2-Dichlorobenzene	20	21.2	ug/L	106	3		82	109	20
	1,2-Dibromo-3-Chloropropane	20	20.8	ug/L	104	2		68	112	20
	1,2,4-Trichlorobenzene	20	20.7	ug/L	104	8		75	113	20
	Hexachlorobutadiene	20	21.3	ug/L	106	2		81	121	20
	Naphthalene	20	20.4	ug/L	102	4		78	119	20
	1,2,3-Trichlorobenzene	20	20.3	ug/L	102	3		76	114	20

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

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0409WBL01

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG NO.: Q1729

Lab File ID: VX045666.D Lab Sample ID: VX0409WBL01

Date Analyzed: 04/09/2025 Time Analyzed: 11:26

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0409WBS01	VX0409WBS01	VX045667.D	04/09/2025
VX0409WBSD01	VX0409WBSD01	VX045668.D	04/09/2025
Storage-Blank-SOIL-REF-6	Q1729-01	VX045673.D	04/09/2025
Storage-Blank-WATER-REF-5	Q1729-02	VX045674.D	04/09/2025
Storage-Blank-WATER-REF-4	Q1729-03	VX045675.D	04/09/2025
Storage-Blank-SAMPLE-MANAGEMENT	Q1729-04	VX045676.D	04/09/2025

COMMENTS:

Raw Data: **VX045524.D**

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG NO.: Q1729

Lab File ID: VX045524.D BFB Injection Date: 04/01/2025

Instrument ID: MSVOA_X BFB Injection Time: 16:15

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

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

1-Value is % mass 174 2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VX045525.D	04/01/2025	17:06
VSTDICC005	VSTDICC005	VX045526.D	04/01/2025	17:29
VSTDICC020	VSTDICC020	VX045527.D	04/01/2025	17:52
VSTDICCC050	VSTDICCC050	VX045528.D	04/01/2025	18:15
VSTDICC100	VSTDICC100	VX045529.D	04/01/2025	18:38
VSTDICC150	VSTDICC150	VX045530.D	04/01/2025	19:02

Raw Data: **VX045663.D**

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG NO.: Q1729

Lab File ID: VX045663.D BFB Injection Date: 04/09/2025

Instrument ID: MSVOA_X BFB Injection Time: 09:38

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.2
75	30.0 - 60.0% of mass 95	59.4
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	1 (1.4) 1
174	50.0 - 100.0% of mass 95	67.4
175	5.0 - 9.0% of mass 174	5.1 (7.5) 1
176	95.0 - 101.0% of mass 174	66.1 (98) 1
177	5.0 - 9.0% of mass 176	4.4 (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	VX045664.D	04/09/2025	10:35
VX0409WBL01	VX0409WBL01	VX045666.D	04/09/2025	11:26
VX0409WBS01	VX0409WBS01	VX045667.D	04/09/2025	11:49
VX0409WBSD01	VX0409WBSD01	VX045668.D	04/09/2025	12:14
Storage-Blank-SOIL-REF-6	Q1729-01	VX045673.D	04/09/2025	14:10
Storage-Blank-WATER-REF-5	Q1729-02	VX045674.D	04/09/2025	14:33
Storage-Blank-WATER-REF-4	Q1729-03	VX045675.D	04/09/2025	14:57
Storage-Blank-SAMPLE-MANAGEMENT	Q1729-04	VX045676.D	04/09/2025	15:20

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG NO.: Q1729

Lab File ID: VX045664.D Date Analyzed: 04/09/2025

Instrument ID: MSVOA_X Time Analyzed: 10:35

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	98594	5.54	170453	6.75	147839	10.05
UPPER LIMIT	197188	6.044	340906	7.251	295678	10.549
LOWER LIMIT	49297	5.044	85226.5	6.251	73919.5	9.549
EPA SAMPLE NO.						
Storage-Blank-SOIL-REF-6	69265	5.54	137524	6.76	129942	10.05
Storage-Blank-WATER-REF-5	65035	5.55	125882	6.76	112707	10.05
Storage-Blank-WATER-REF-4	65953	5.55	130944	6.76	122026	10.05
Storage-Blank-SAMPLE-MANAGEMEN	65080	5.55	130751	6.76	120674	10.05
VX0409WBL01	69921	5.54	138334	6.76	127856	10.05
VX0409WBS01	94074	5.54	163361	6.76	141398	10.05
VX0409WBSD01	83922	5.54	147335	6.76	129399	10.05

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG NO.: Q1729

Lab File ID: VX045664.D Date Analyzed: 04/09/2025

Instrument ID: MSVOA_X Time Analyzed: 10:35

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	71972	12.018				
UPPER LIMIT	143944	12.518				
LOWER LIMIT	35986	11.518				
EPA SAMPLE NO.						
Storage-Blank-SOIL-REF-6	55157	12.02				
Storage-Blank-WATER-REF-5	43137	12.02				
Storage-Blank-WATER-REF-4	51915	12.02				
Storage-Blank-SAMPLE-MANAGEME	50479	12.02				
VX0409WBL01	50474	12.02				
VX0409WBS01	64175	12.02				
VX0409WBSD01	60456	12.02				

IS4 = 1,4-Dichlorobenzene-d4

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

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

SAMPLE DATA

Raw Data: **VX045673.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SOIL-REF-6	SDG No.:	Q1729
Lab Sample ID:	Q1729-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045673.D	1		04/09/25 14:10	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.22	U	0.22	1.00	ug/L
74-87-3	Chloromethane	0.32	U	0.32	1.00	ug/L
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
141-78-6	Ethyl Acetate	0.31	U	0.31	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-65-0	Tert butyl alcohol	5.50	U	5.50	25.0	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-02-8	Acrolein	7.10	U	7.10	25.0	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	U	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.27	U	0.27	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.23	U	0.23	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.50	U	1.50	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
594-20-7	2,2-Dichloropropane	0.21	U	0.21	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
108-87-2	Methylcyclohexane	0.16	U	0.16	1.00	ug/L
563-58-6	1,1-Dichloropropene	0.15	U	0.15	1.00	ug/L

Raw Data: **VX045673.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SOIL-REF-6	SDG No.:	Q1729
Lab Sample ID:	Q1729-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045673.D	1		04/09/25 14:10	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
142-28-9	1,3-Dichloropropane	0.19	U	0.19	1.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	0.30	U	0.30	5.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
67-72-1	Hexachloroethane	0.32	U	0.32	0	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	0.24	U	0.24	2.00	ug/L
95-47-6	o-Xylene	0.12	U	0.12	1.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
98-82-8	Isopropylbenzene	0.12	U	0.12	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
108-86-1	Bromobenzene	0.24	U	0.24	1.00	ug/L
103-65-1	n-propylbenzene	0.13	U	0.13	1.00	ug/L
95-49-8	2-Chlorotoluene	0.14	U	0.14	1.00	ug/L

Raw Data: **VX045673.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SOIL-REF-6	SDG No.:	Q1729
Lab Sample ID:	Q1729-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045673.D	1		04/09/25 14:10	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.15	U	0.15	1.00	ug/L
106-43-4	4-Chlorotoluene	0.13	U	0.13	1.00	ug/L
98-06-6	tert-Butylbenzene	0.14	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.14	U	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	0.13	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	0.13	U	0.13	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
104-51-8	n-Butylbenzene	0.15	U	0.15	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
87-68-3	Hexachlorobutadiene	0.30	U	0.30	1.00	ug/L
91-20-3	Naphthalene	0.20	U	0.20	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.8		74 - 125	110%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	50.5		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.7		77 - 121	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	69300	5.543			
540-36-3	1,4-Difluorobenzene	138000	6.757			
3114-55-4	Chlorobenzene-d5	130000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	55200	12.018			

Raw Data: **VX045673.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SOIL-REF-6	SDG No.:	Q1729
Lab Sample ID:	Q1729-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045673.D	1		04/09/25 14:10	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045673.D
Acq On : 09 Apr 2025 14:10
Operator : JC/MD
Sample : Q1729-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SOIL-REF-6

Quant Time: Apr 10 01:35:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

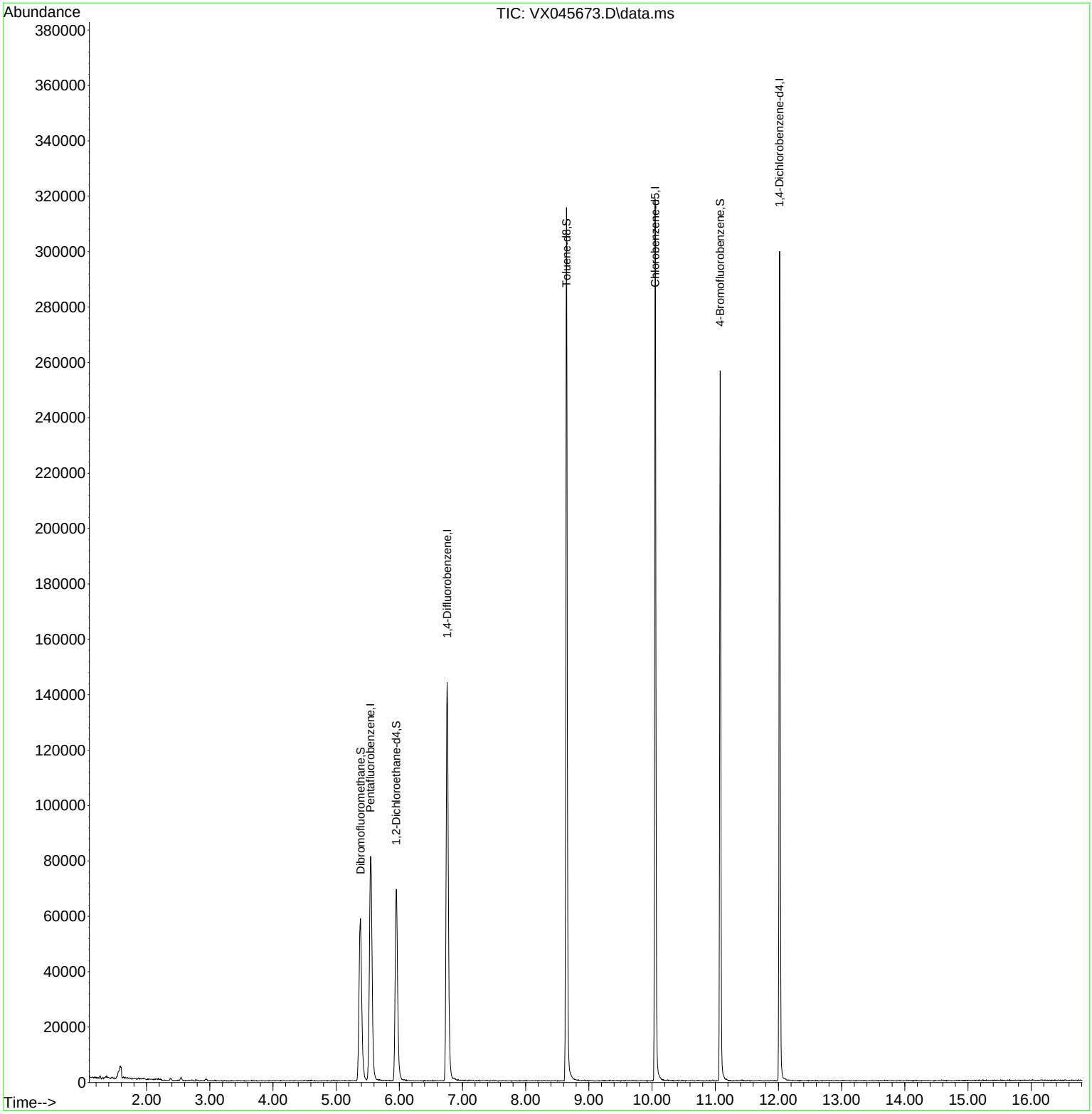
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.543	168	69265	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	137524	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	129942	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	55157	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	69450	54.829	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 109.660%			
35) Dibromofluoromethane	5.385	113	50384	51.637	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.280%			
50) Toluene-d8	8.647	98	171987	50.500	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.000%			
62) 4-Bromofluorobenzene	11.079	95	65317	52.653	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 105.300%			
Target Compounds						Qvalue

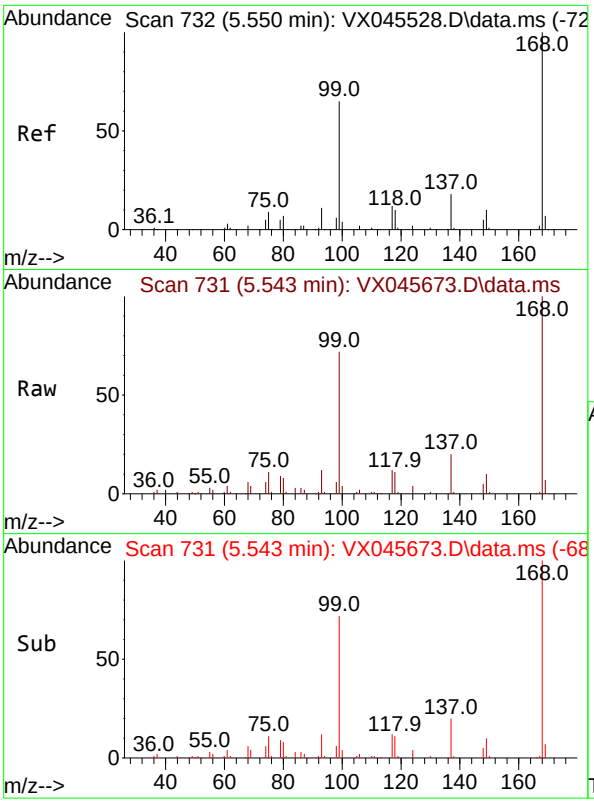
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045673.D
Acq On : 09 Apr 2025 14:10
Operator : JC/MD
Sample : Q1729-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SOIL-REF-6

Quant Time: Apr 10 01:35:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



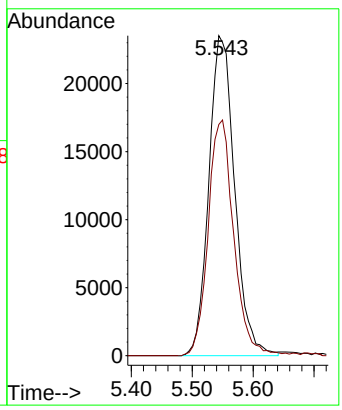


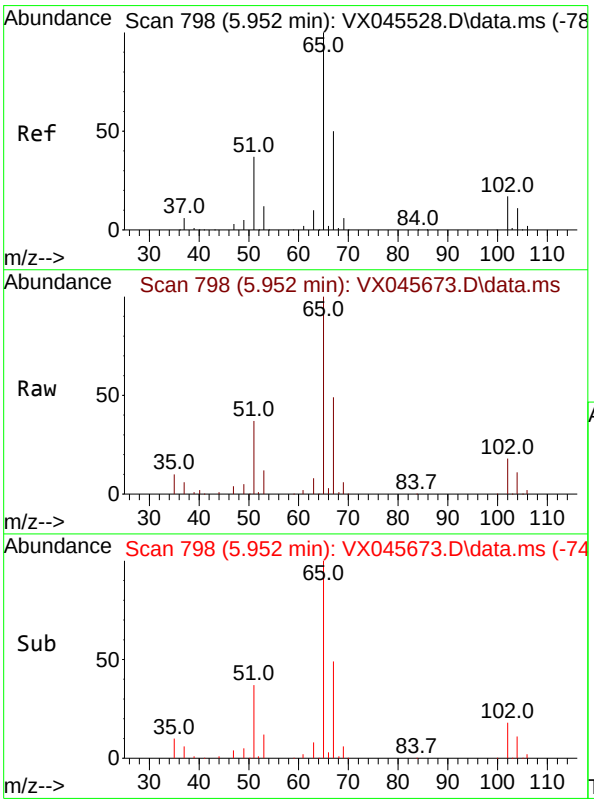
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.543 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SOIL-REF-6

Tgt Ion:168 Resp: 69265

Ion	Ratio	Lower	Upper
168	100		
99	72.2	52.3	78.5

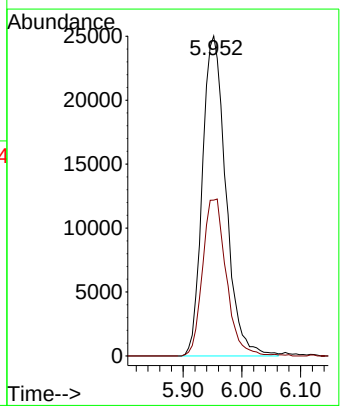


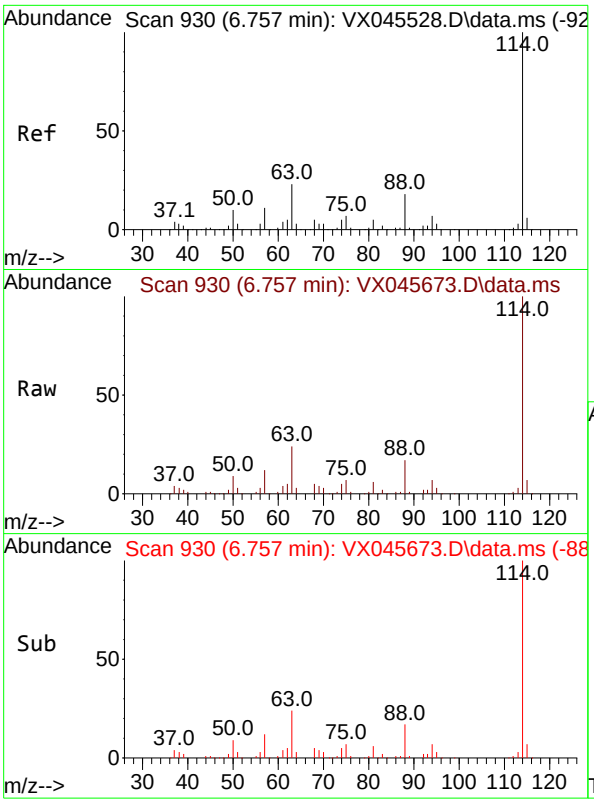


#33
1,2-Dichloroethane-d4
Concen: 54.829 ug/l
RT: 5.952 min Scan# 798
Delta R.T. -0.000 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Tgt Ion: 65 Resp: 69450

Ion	Ratio	Lower	Upper
65	100		
67	49.7	0.0	99.0



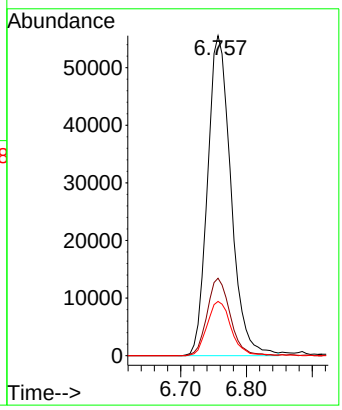


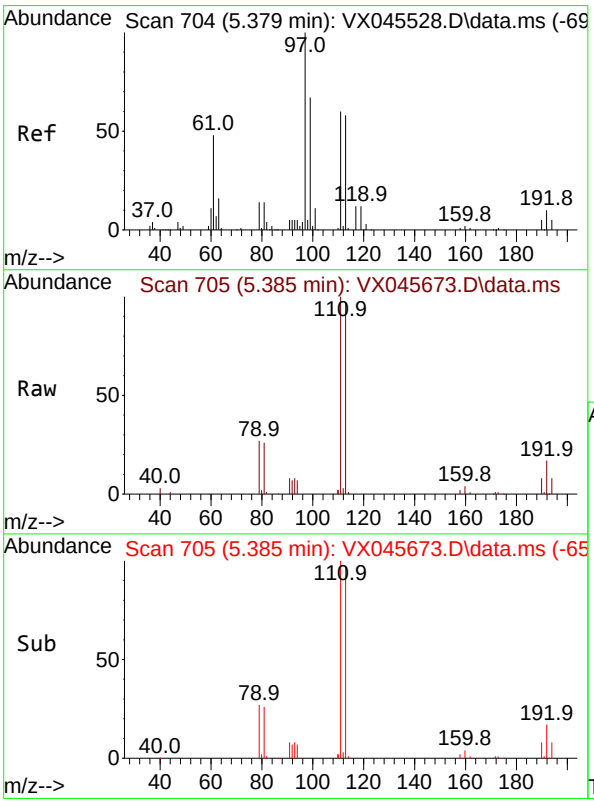
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 9
Delta R.T. -0.000 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SOIL-REF-6

Tgt Ion:114 Resp: 137524

Ion	Ratio	Lower	Upper
114	100		
63	24.2	0.0	46.8
88	17.0	0.0	35.4

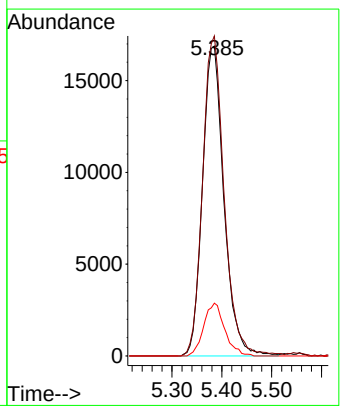


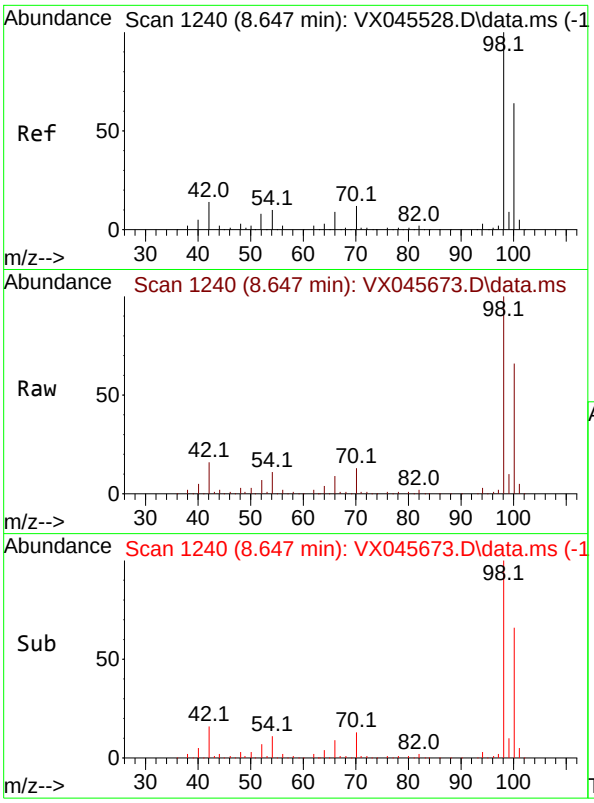


#35
Dibromofluoromethane
Concen: 51.637 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.006 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Tgt Ion:113 Resp: 50384

Ion	Ratio	Lower	Upper
113	100		
111	104.0	81.8	122.6
192	16.7	13.8	20.6



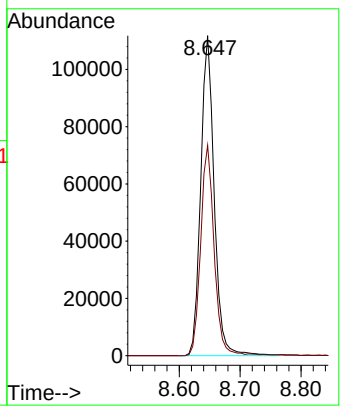


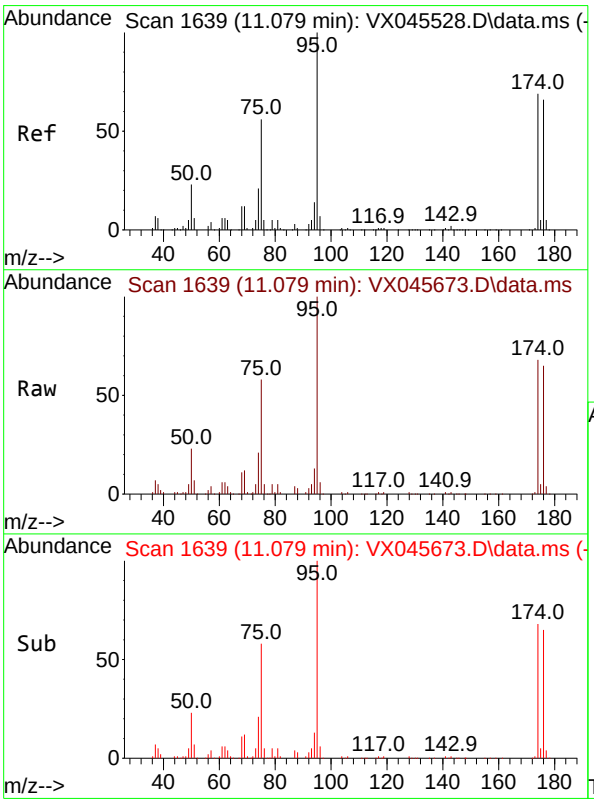
#50
Toluene-d8
Concen: 50.500 ug/l
RT: 8.647 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SOIL-REF-6

Tgt Ion: 98 Resp: 171987

Ion	Ratio	Lower	Upper
98	100		
100	66.1	52.2	78.4

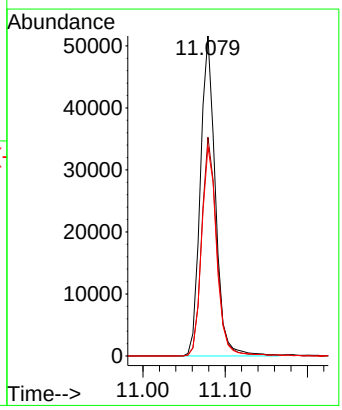


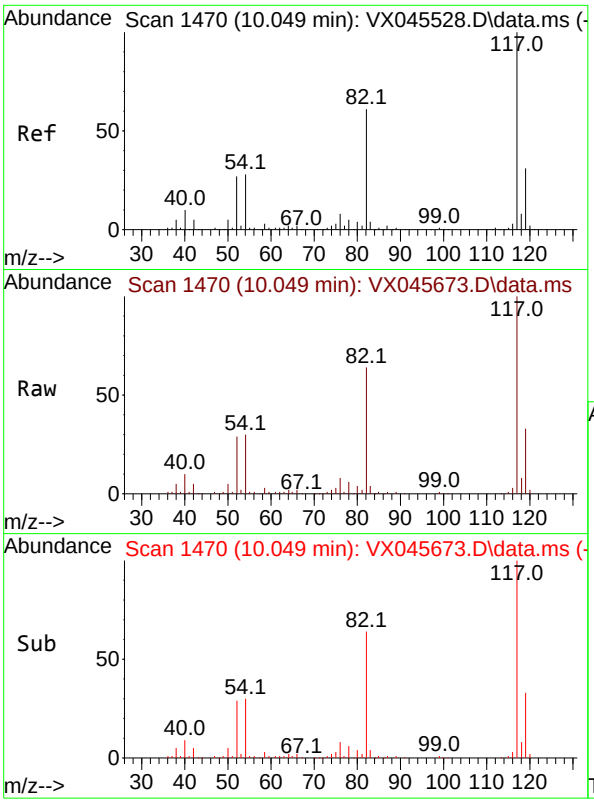


#62
4-Bromofluorobenzene
Concen: 52.653 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Tgt Ion: 95 Resp: 65317

Ion	Ratio	Lower	Upper
95	100		
174	68.9	0.0	135.8
176	66.1	0.0	131.4



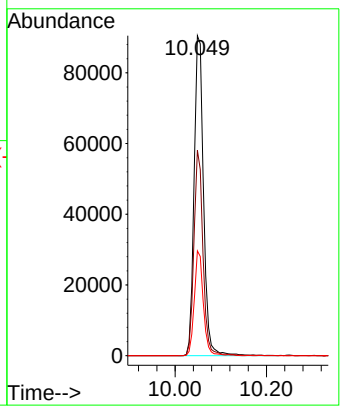


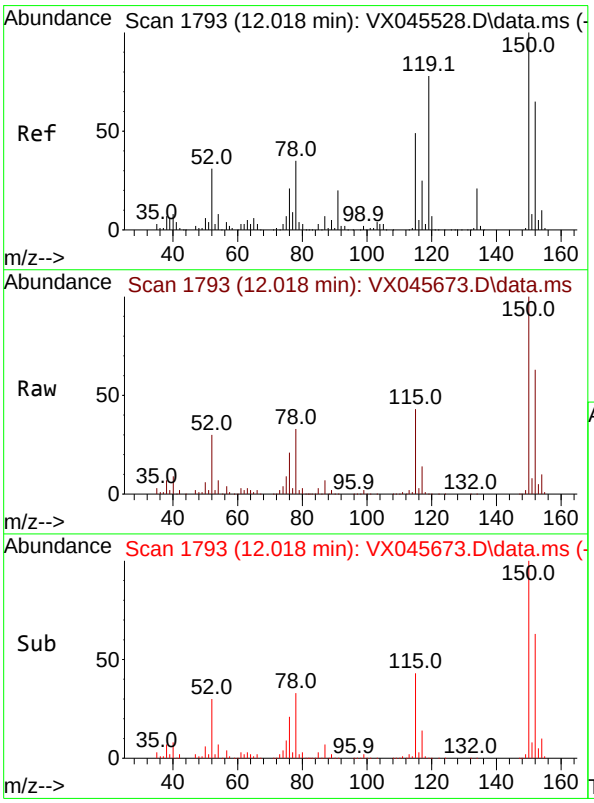
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.049 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SOIL-REF-6

Tgt Ion:117 Resp: 129942

Ion	Ratio	Lower	Upper
117	100		
82	64.2	49.2	73.8
119	32.8	25.1	37.7

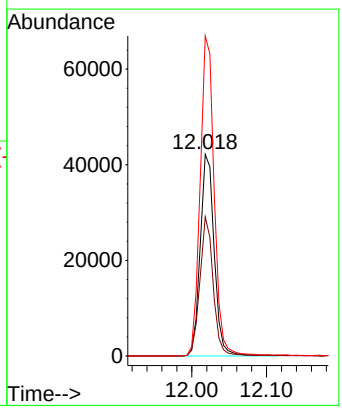




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VX045673.D
Acq: 09 Apr 2025 14:10

Tgt Ion:152 Resp: 55157

Ion	Ratio	Lower	Upper
152	100		
115	65.3	46.9	140.7
150	158.0	0.0	349.4



Raw Data: **VX045674.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-5	SDG No.:	Q1729
Lab Sample ID:	Q1729-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045674.D	1		04/09/25 14:33	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.22	U	0.22	1.00	ug/L
74-87-3	Chloromethane	0.32	U	0.32	1.00	ug/L
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
141-78-6	Ethyl Acetate	0.31	U	0.31	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-65-0	Tert butyl alcohol	5.50	U	5.50	25.0	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-02-8	Acrolein	7.10	U	7.10	25.0	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	U	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.27	U	0.27	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.23	U	0.23	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.50	U	1.50	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
594-20-7	2,2-Dichloropropane	0.21	U	0.21	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
108-87-2	Methylcyclohexane	0.16	U	0.16	1.00	ug/L
563-58-6	1,1-Dichloropropene	0.15	U	0.15	1.00	ug/L

Raw Data: **VX045674.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-5	SDG No.:	Q1729
Lab Sample ID:	Q1729-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045674.D	1		04/09/25 14:33	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
142-28-9	1,3-Dichloropropane	0.19	U	0.19	1.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	0.30	U	0.30	5.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
67-72-1	Hexachloroethane	0.32	U	0.32	0	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	0.24	U	0.24	2.00	ug/L
95-47-6	o-Xylene	0.12	U	0.12	1.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
98-82-8	Isopropylbenzene	0.12	U	0.12	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
108-86-1	Bromobenzene	0.24	U	0.24	1.00	ug/L
103-65-1	n-propylbenzene	0.13	U	0.13	1.00	ug/L
95-49-8	2-Chlorotoluene	0.14	U	0.14	1.00	ug/L

Raw Data: **VX045674.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-5	SDG No.:	Q1729
Lab Sample ID:	Q1729-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045674.D	1		04/09/25 14:33	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.15	U	0.15	1.00	ug/L
106-43-4	4-Chlorotoluene	0.13	U	0.13	1.00	ug/L
98-06-6	tert-Butylbenzene	0.14	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.14	U	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	0.13	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	0.13	U	0.13	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
104-51-8	n-Butylbenzene	0.15	U	0.15	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
87-68-3	Hexachlorobutadiene	0.30	U	0.30	1.00	ug/L
91-20-3	Naphthalene	0.20	U	0.20	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.9		74 - 125	108%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	50.9		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		77 - 121	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	65000	5.55			
540-36-3	1,4-Difluorobenzene	126000	6.757			
3114-55-4	Chlorobenzene-d5	113000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	43100	12.018			

Raw Data: **VX045674.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-5	SDG No.:	Q1729
Lab Sample ID:	Q1729-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045674.D	1		04/09/25 14:33	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045674.D
Acq On : 09 Apr 2025 14:33
Operator : JC/MD
Sample : Q1729-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-5

Quant Time: Apr 10 01:35:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

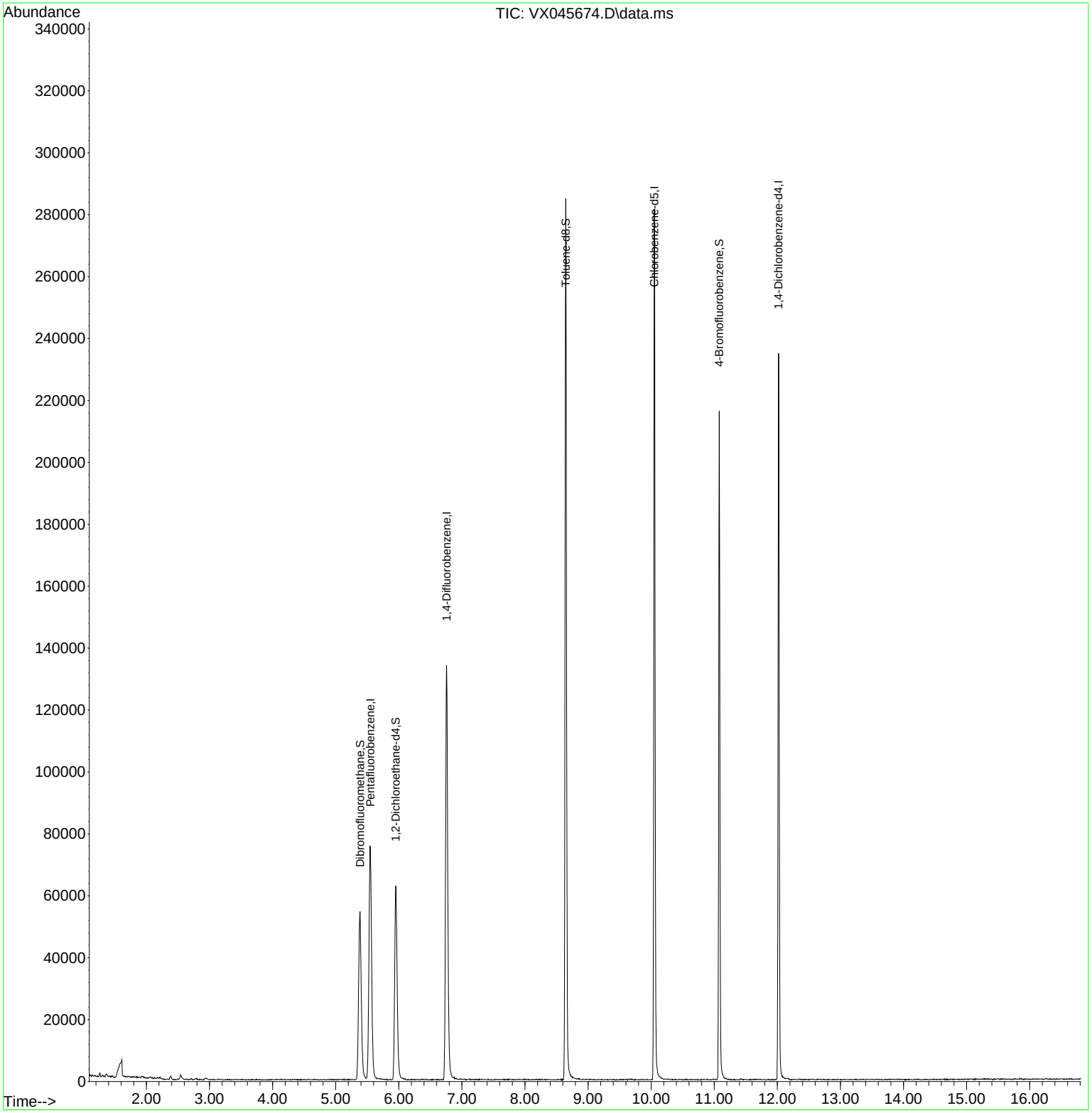
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.550	168	65035	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	125882	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	112707	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	43137	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	64053	53.857	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 107.720%			
35) Dibromofluoromethane	5.385	113	46234	51.766	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.540%			
50) Toluene-d8	8.647	98	158645	50.890	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.780%			
62) 4-Bromofluorobenzene	11.079	95	55228	48.637	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 97.280%			
Target Compounds						Qvalue

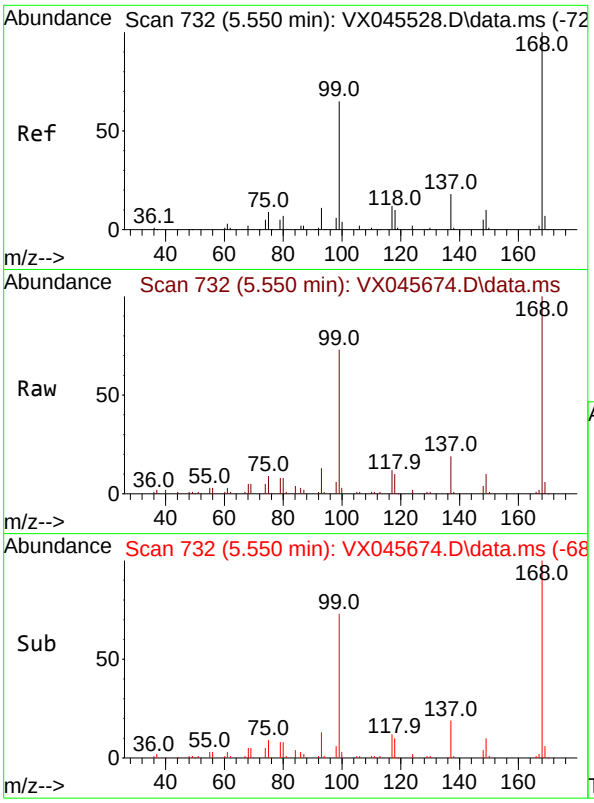
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045674.D
Acq On : 09 Apr 2025 14:33
Operator : JC/MD
Sample : Q1729-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-5

Quant Time: Apr 10 01:35:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



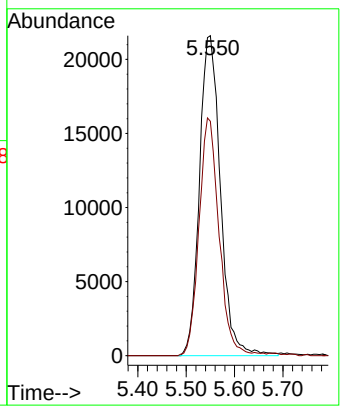


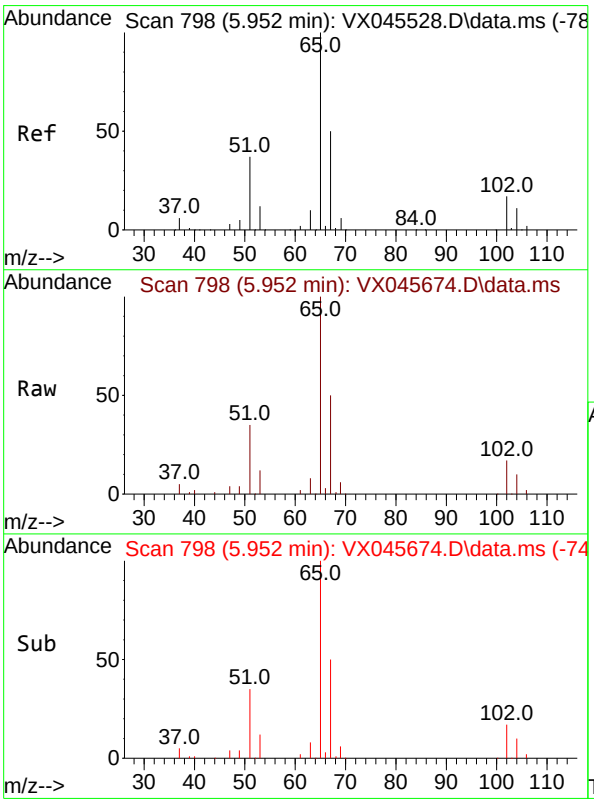
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-5

Tgt Ion:168 Resp: 65035

Ion	Ratio	Lower	Upper
168	100		
99	73.3	52.3	78.5

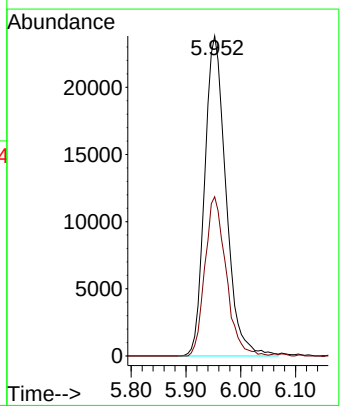


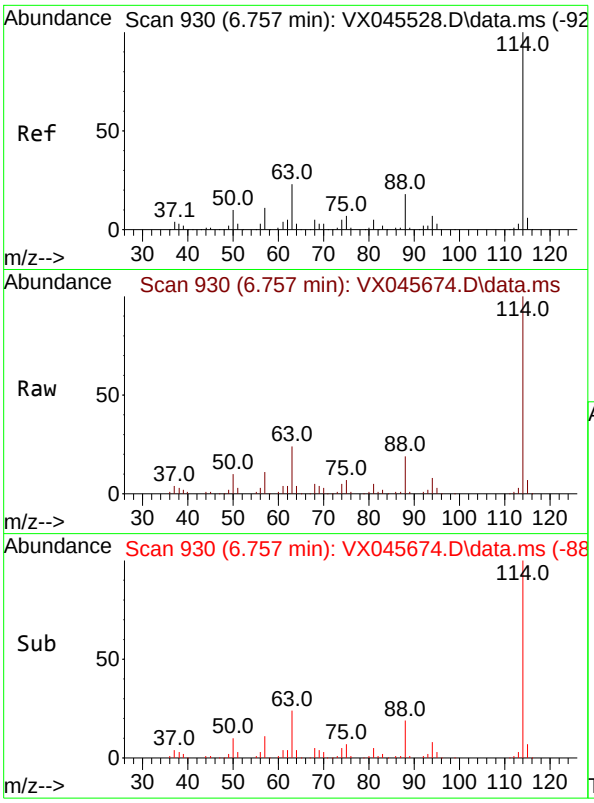


#33
1,2-Dichloroethane-d4
Concen: 53.857 ug/l
RT: 5.952 min Scan# 798
Delta R.T. 0.000 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Tgt Ion: 65 Resp: 64053

Ion	Ratio	Lower	Upper
65	100		
67	49.5	0.0	99.0



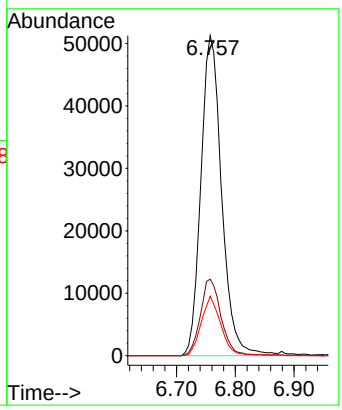


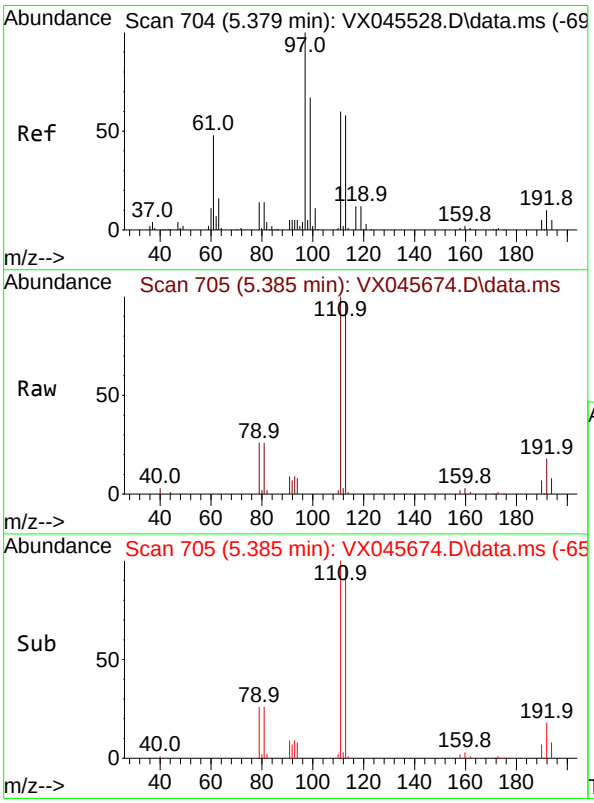
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-5

Tgt Ion:114 Resp: 125882

Ion	Ratio	Lower	Upper
114	100		
63	23.9	0.0	46.8
88	18.5	0.0	35.4

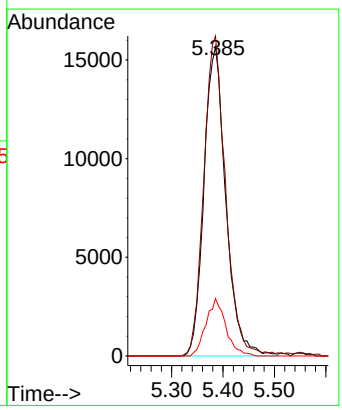


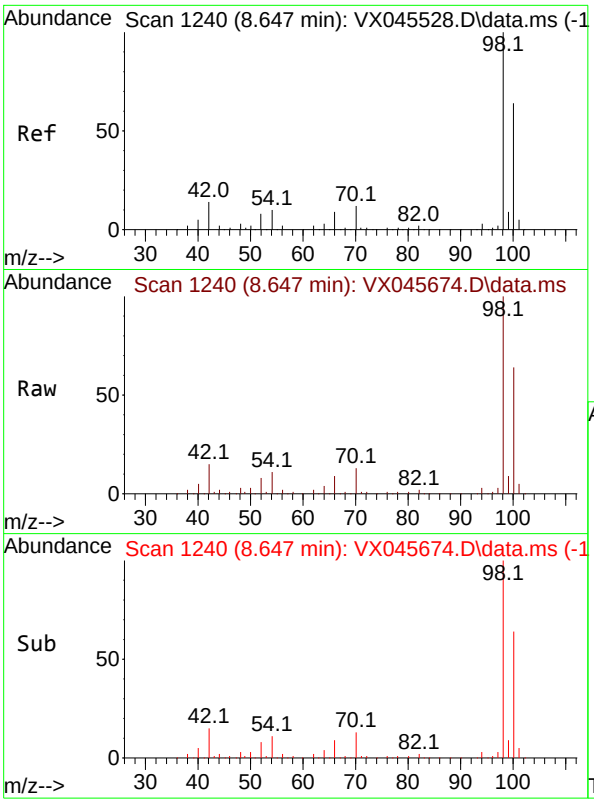


#35
Dibromofluoromethane
Concen: 51.766 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.006 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Tgt Ion:113 Resp: 46234

Ion	Ratio	Lower	Upper
113	100		
111	103.8	81.8	122.6
192	16.9	13.8	20.6



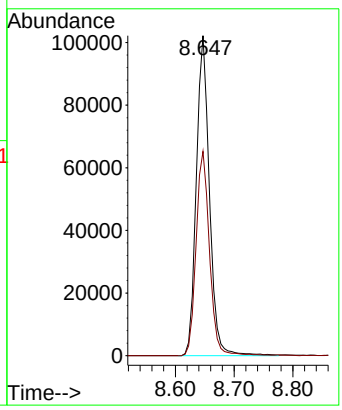


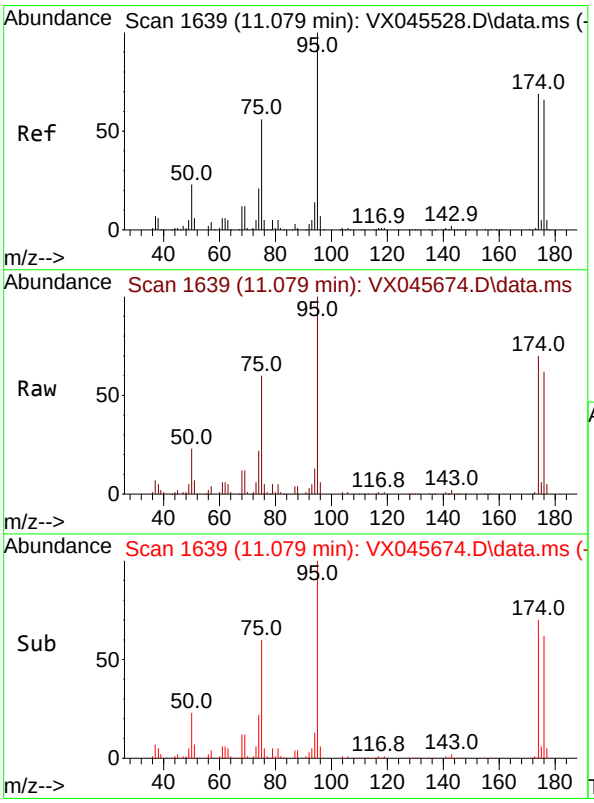
#50
Toluene-d8
Concen: 50.890 ug/l
RT: 8.647 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-5

Tgt Ion: 98 Resp: 158645

Ion	Ratio	Lower	Upper
98	100		
100	65.3	52.2	78.4

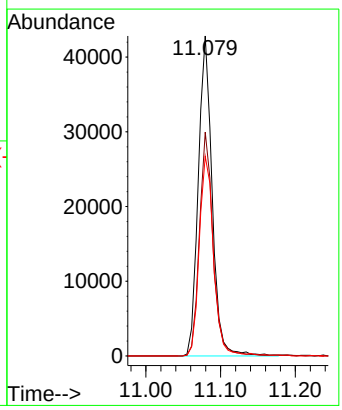


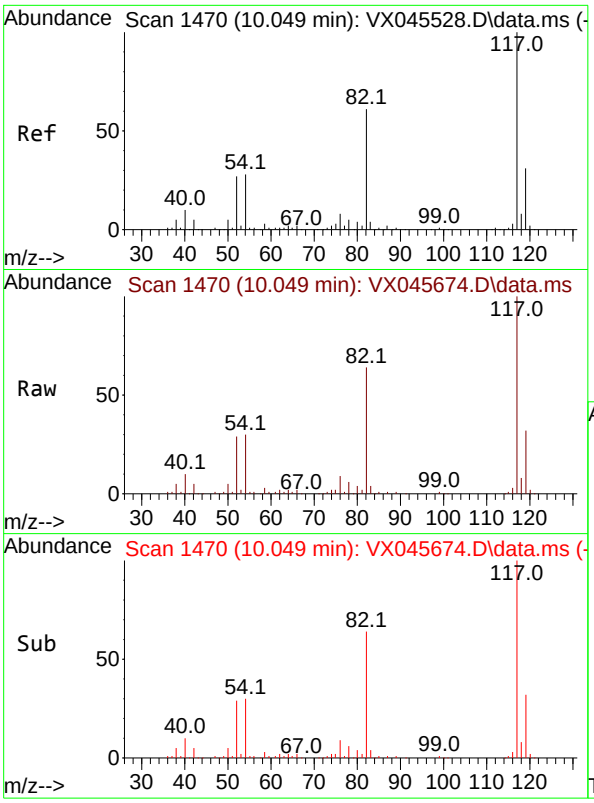


#62
4-Bromofluorobenzene
Concen: 48.637 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Tgt Ion: 95 Resp: 55228

Ion	Ratio	Lower	Upper
95	100		
174	68.5	0.0	135.8
176	64.7	0.0	131.4



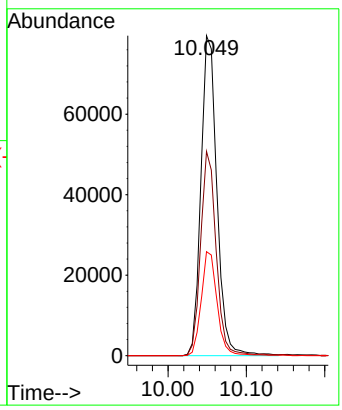


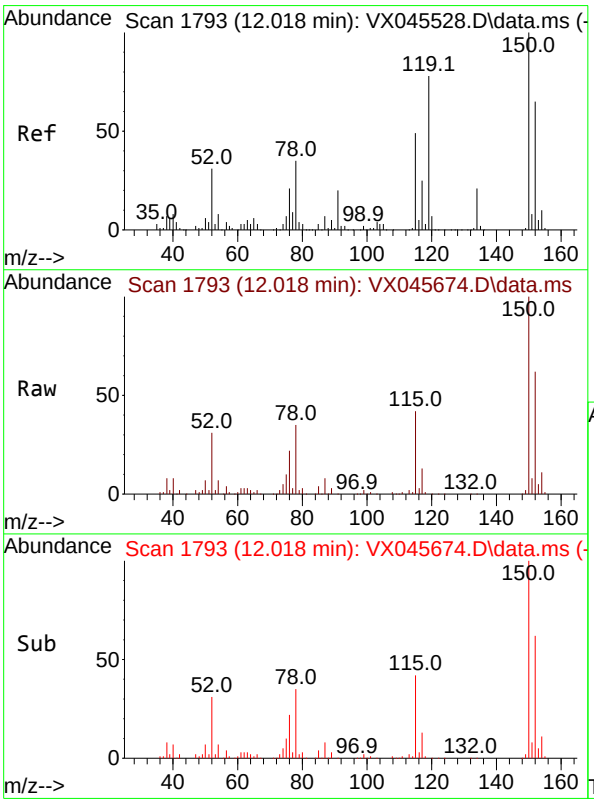
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.049 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-5

Tgt Ion:117 Resp: 112707

Ion	Ratio	Lower	Upper
117	100		
82	63.9	49.2	73.8
119	32.5	25.1	37.7

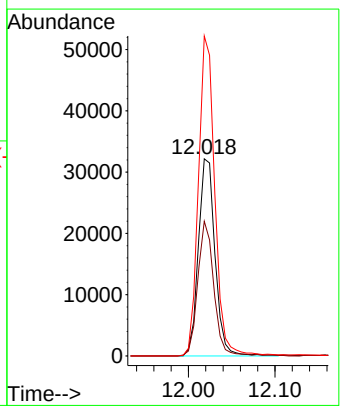




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX045674.D
Acq: 09 Apr 2025 14:33

Tgt Ion:152 Resp: 43137

Ion	Ratio	Lower	Upper
152	100		
115	65.8	46.9	140.7
150	159.1	0.0	349.4



Raw Data: **VX045675.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-4	SDG No.:	Q1729
Lab Sample ID:	Q1729-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045675.D	1		04/09/25 14:57	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.22	U	0.22	1.00	ug/L
74-87-3	Chloromethane	0.32	U	0.32	1.00	ug/L
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
141-78-6	Ethyl Acetate	0.31	U	0.31	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-65-0	Tert butyl alcohol	5.50	U	5.50	25.0	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-02-8	Acrolein	7.10	U	7.10	25.0	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	U	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.27	U	0.27	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.23	U	0.23	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.50	U	1.50	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
594-20-7	2,2-Dichloropropane	0.21	U	0.21	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
108-87-2	Methylcyclohexane	0.16	U	0.16	1.00	ug/L
563-58-6	1,1-Dichloropropene	0.15	U	0.15	1.00	ug/L

Raw Data: **VX045675.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-4	SDG No.:	Q1729
Lab Sample ID:	Q1729-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045675.D	1		04/09/25 14:57	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
142-28-9	1,3-Dichloropropane	0.19	U	0.19	1.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	0.30	U	0.30	5.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
67-72-1	Hexachloroethane	0.32	U	0.32	0	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	0.24	U	0.24	2.00	ug/L
95-47-6	o-Xylene	0.12	U	0.12	1.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
98-82-8	Isopropylbenzene	0.12	U	0.12	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
108-86-1	Bromobenzene	0.24	U	0.24	1.00	ug/L
103-65-1	n-propylbenzene	0.13	U	0.13	1.00	ug/L
95-49-8	2-Chlorotoluene	0.14	U	0.14	1.00	ug/L

Raw Data: **VX045675.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-4	SDG No.:	Q1729
Lab Sample ID:	Q1729-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045675.D	1		04/09/25 14:57	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.15	U	0.15	1.00	ug/L
106-43-4	4-Chlorotoluene	0.13	U	0.13	1.00	ug/L
98-06-6	tert-Butylbenzene	0.14	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.14	U	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	0.13	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	0.13	U	0.13	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
104-51-8	n-Butylbenzene	0.15	U	0.15	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
87-68-3	Hexachlorobutadiene	0.30	U	0.30	1.00	ug/L
91-20-3	Naphthalene	0.20	U	0.20	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.7		74 - 125	111%	SPK: 50
1868-53-7	Dibromofluoromethane	51.1		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	50.7		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.6		77 - 121	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	66000	5.55			
540-36-3	1,4-Difluorobenzene	131000	6.757			
3114-55-4	Chlorobenzene-d5	122000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	51900	12.018			

Raw Data: **VX045675.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-WATER-REF-4	SDG No.:	Q1729
Lab Sample ID:	Q1729-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045675.D	1		04/09/25 14:57	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

Sample Results: **VX045675.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045675.D
Acq On : 09 Apr 2025 14:57
Operator : JC/MD
Sample : Q1729-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-4

Quant Time: Apr 10 01:35:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

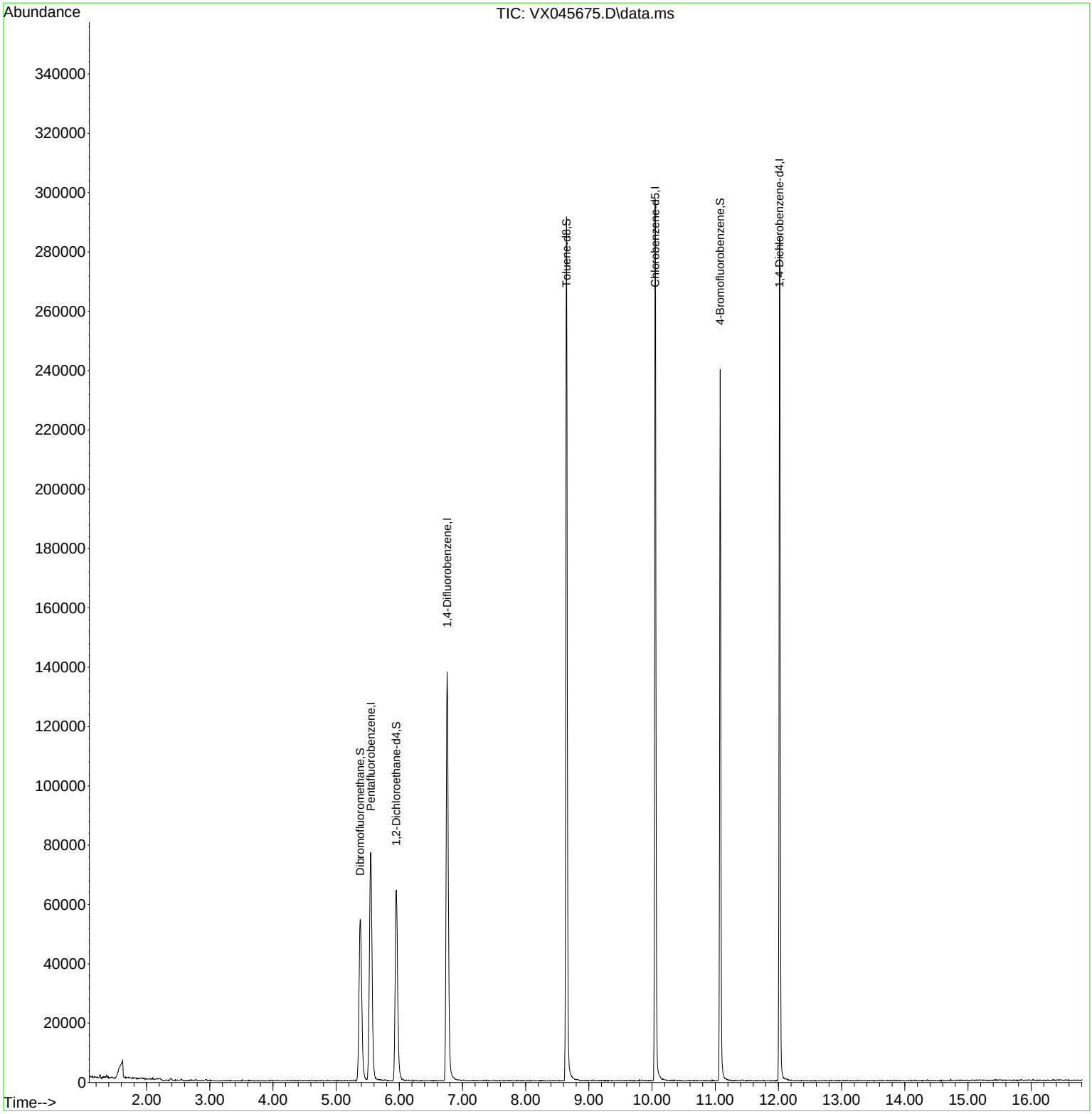
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.550	168	65953	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	130944	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	122026	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	51915	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	67218	55.731	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 111.460%			
35) Dibromofluoromethane	5.379	113	47437	51.060	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.120%			
50) Toluene-d8	8.647	98	164442	50.711	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.420%			
62) 4-Bromofluorobenzene	11.079	95	62105	52.579	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 105.160%			
Target Compounds						Qvalue

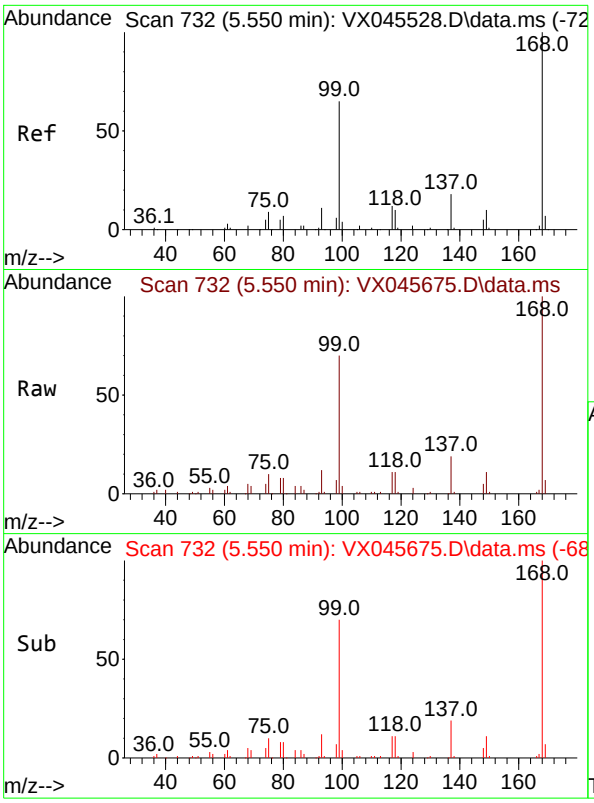
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045675.D
Acq On : 09 Apr 2025 14:57
Operator : JC/MD
Sample : Q1729-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-4

Quant Time: Apr 10 01:35:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



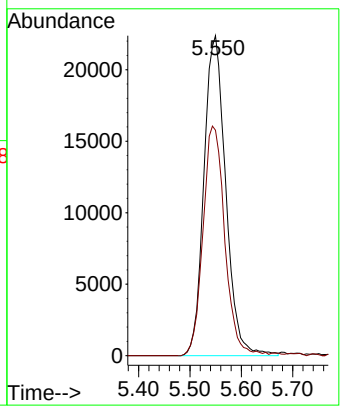


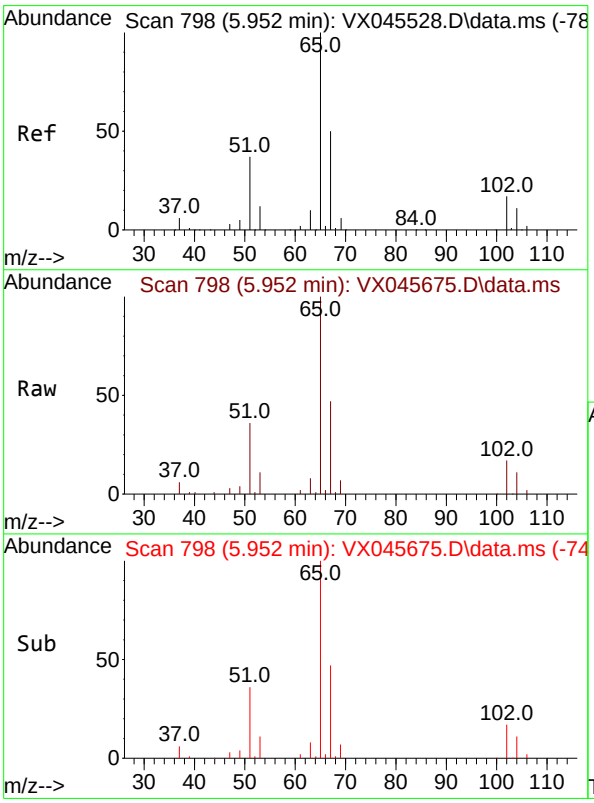
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-4

Tgt Ion:168 Resp: 65953

Ion	Ratio	Lower	Upper
168	100		
99	70.5	52.3	78.5

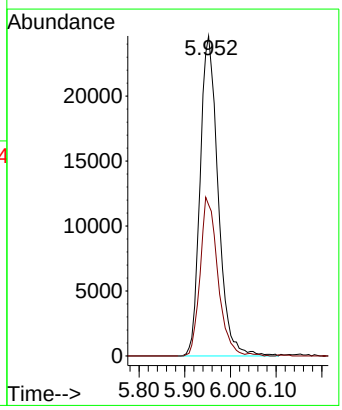


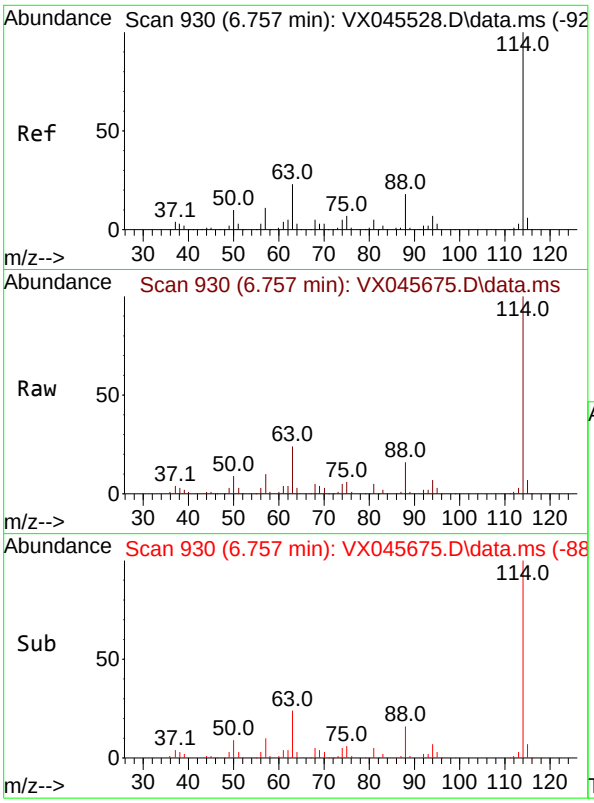


#33
1,2-Dichloroethane-d4
Concen: 55.731 ug/l
RT: 5.952 min Scan# 798
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Tgt Ion: 65 Resp: 67218

Ion	Ratio	Lower	Upper
65	100		
67	48.5	0.0	99.0



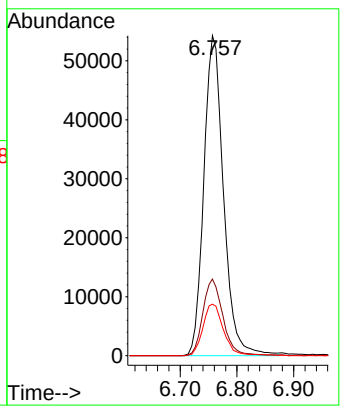


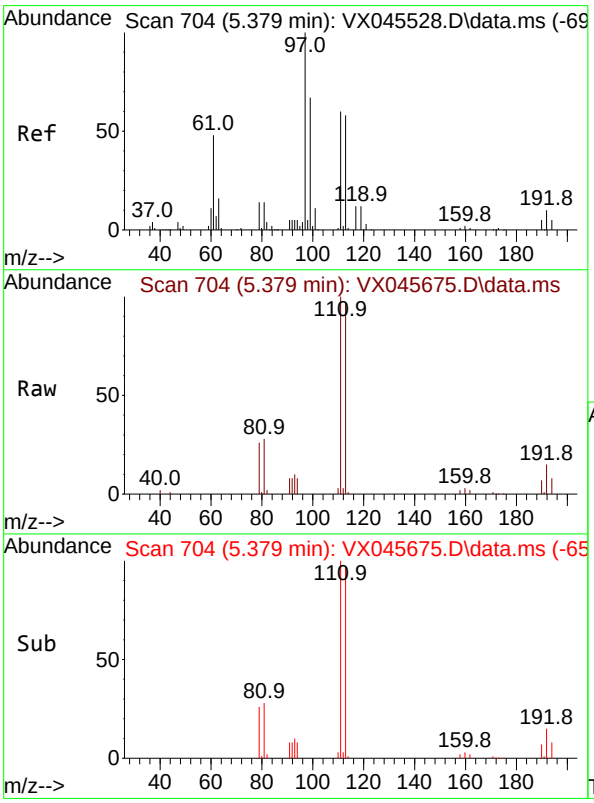
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 9
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-4

Tgt Ion:114 Resp: 130944

Ion	Ratio	Lower	Upper
114	100		
63	24.0	0.0	46.8
88	16.1	0.0	35.4

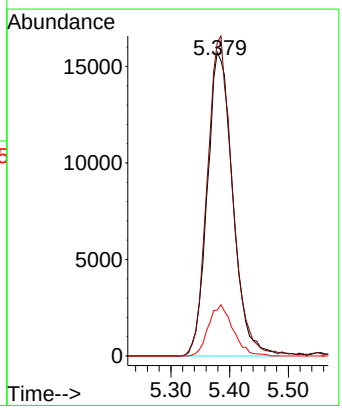


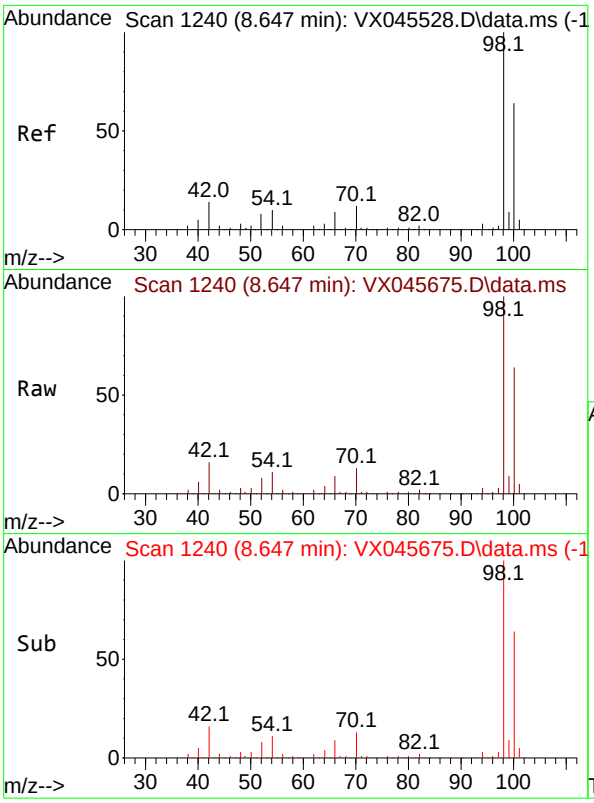


#35
Dibromofluoromethane
Concen: 51.060 ug/l
RT: 5.379 min Scan# 704
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Tgt Ion:113 Resp: 47437

Ion	Ratio	Lower	Upper
113	100		
111	103.8	81.8	122.6
192	16.2	13.8	20.6



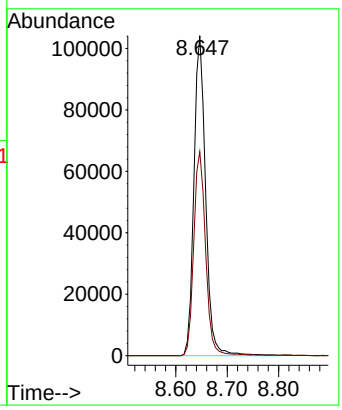


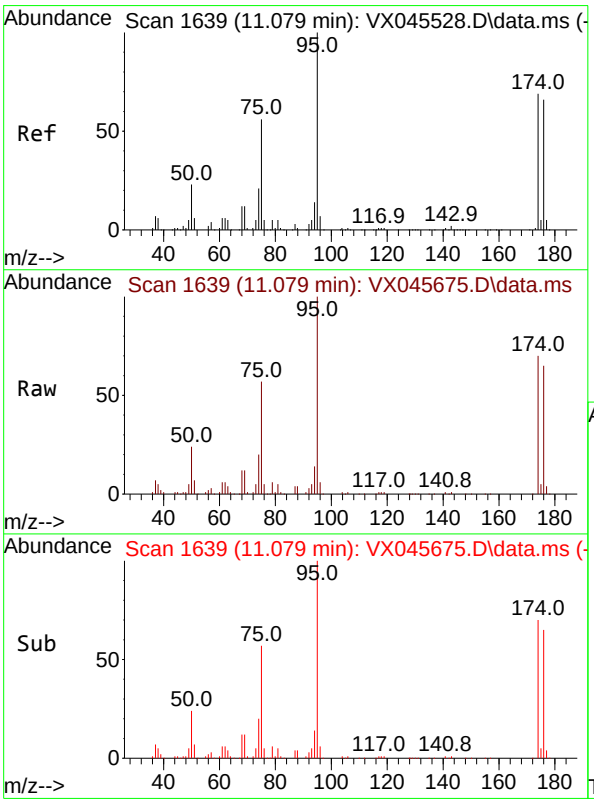
#50
Toluene-d8
Concen: 50.711 ug/l
RT: 8.647 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-4

Tgt Ion: 98 Resp: 164442

Ion	Ratio	Lower	Upper
98	100		
100	64.9	52.2	78.4

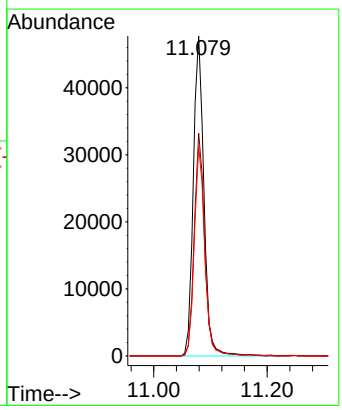


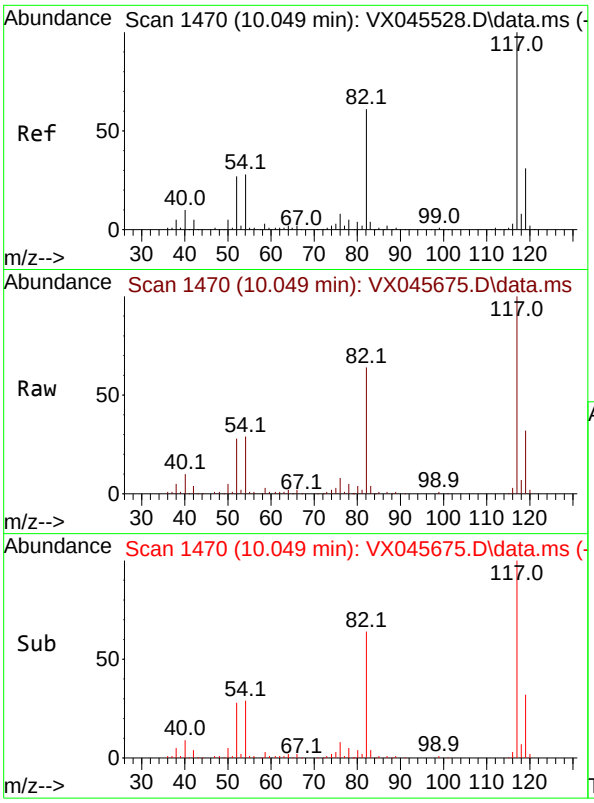


#62
4-Bromofluorobenzene
Concen: 52.579 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Tgt Ion: 95 Resp: 62105

Ion	Ratio	Lower	Upper
95	100		
174	68.3	0.0	135.8
176	64.9	0.0	131.4



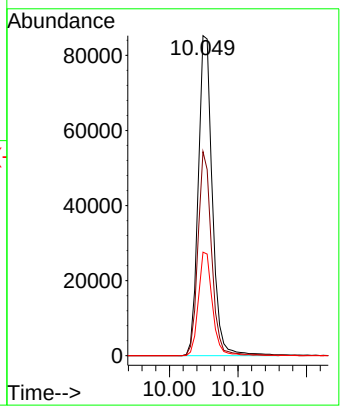


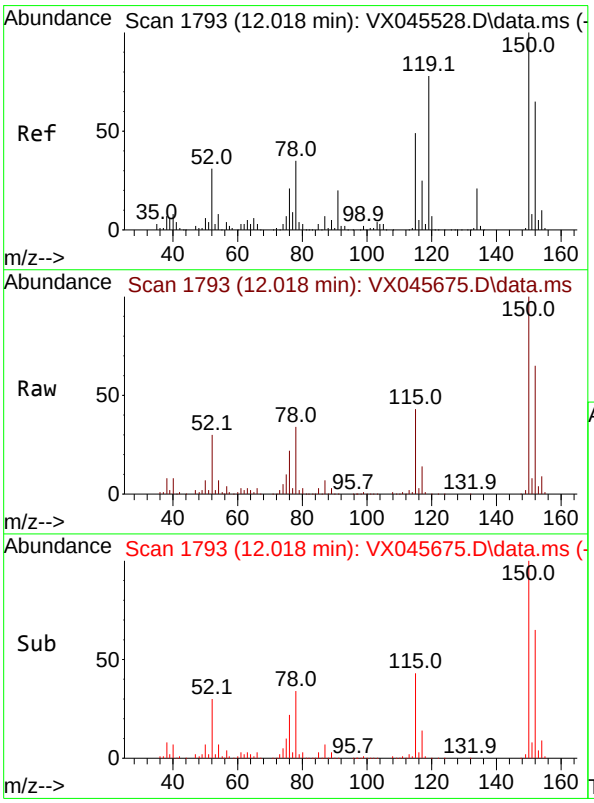
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.049 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-WATER-REF-4

Tgt Ion:117 Resp: 122026

Ion	Ratio	Lower	Upper
117	100		
82	63.8	49.2	73.8
119	32.3	25.1	37.7

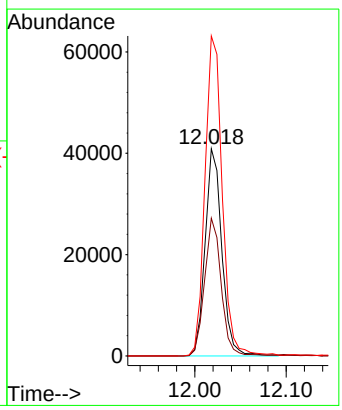




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VX045675.D
Acq: 09 Apr 2025 14:57

Tgt Ion:152 Resp: 51915

Ion	Ratio	Lower	Upper
152	100		
115	66.0	46.9	140.7
150	159.1	0.0	349.4



Raw Data: **VX045676.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SAMPLE-MANAGEMENT	SDG No.:	Q1729
Lab Sample ID:	Q1729-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045676.D	1		04/09/25 15:20	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.22	U	0.22	1.00	ug/L
74-87-3	Chloromethane	0.32	U	0.32	1.00	ug/L
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
141-78-6	Ethyl Acetate	0.31	U	0.31	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-65-0	Tert butyl alcohol	5.50	U	5.50	25.0	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-02-8	Acrolein	7.10	U	7.10	25.0	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	U	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.27	U	0.27	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.23	U	0.23	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.50	U	1.50	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
594-20-7	2,2-Dichloropropane	0.21	U	0.21	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
108-87-2	Methylcyclohexane	0.16	U	0.16	1.00	ug/L
563-58-6	1,1-Dichloropropene	0.15	U	0.15	1.00	ug/L

Raw Data: **VX045676.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SAMPLE-MANAGEMENT	SDG No.:	Q1729
Lab Sample ID:	Q1729-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045676.D	1		04/09/25 15:20	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
142-28-9	1,3-Dichloropropane	0.19	U	0.19	1.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	0.30	U	0.30	5.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
67-72-1	Hexachloroethane	0.32	U	0.32	0	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	0.24	U	0.24	2.00	ug/L
95-47-6	o-Xylene	0.12	U	0.12	1.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
98-82-8	Isopropylbenzene	0.12	U	0.12	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
108-86-1	Bromobenzene	0.24	U	0.24	1.00	ug/L
103-65-1	n-propylbenzene	0.13	U	0.13	1.00	ug/L
95-49-8	2-Chlorotoluene	0.14	U	0.14	1.00	ug/L

Raw Data: **VX045676.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SAMPLE-MANAGEMENT	SDG No.:	Q1729
Lab Sample ID:	Q1729-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045676.D	1		04/09/25 15:20	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.15	U	0.15	1.00	ug/L
106-43-4	4-Chlorotoluene	0.13	U	0.13	1.00	ug/L
98-06-6	tert-Butylbenzene	0.14	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.14	U	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	0.13	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	0.13	U	0.13	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
104-51-8	n-Butylbenzene	0.15	U	0.15	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
87-68-3	Hexachlorobutadiene	0.30	U	0.30	1.00	ug/L
91-20-3	Naphthalene	0.20	U	0.20	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.3		74 - 125	113%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	50.8		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.6		77 - 121	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	65100	5.55			
540-36-3	1,4-Difluorobenzene	131000	6.757			
3114-55-4	Chlorobenzene-d5	121000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	50500	12.018			

Raw Data: **VX045676.D**

Alliance TECHNICAL GROUP

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	04/04/25
Project:	Weekly Storage Blanks	Date Received:	04/04/25
Client Sample ID:	Storage-Blank-SAMPLE-MANAGEMENT	SDG No.:	Q1729
Lab Sample ID:	Q1729-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045676.D	1		04/09/25 15:20	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045676.D
Acq On : 09 Apr 2025 15:20
Operator : JC/MD
Sample : Q1729-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SAMPLE-MANAGEMENT

Quant Time: Apr 10 01:35:50 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

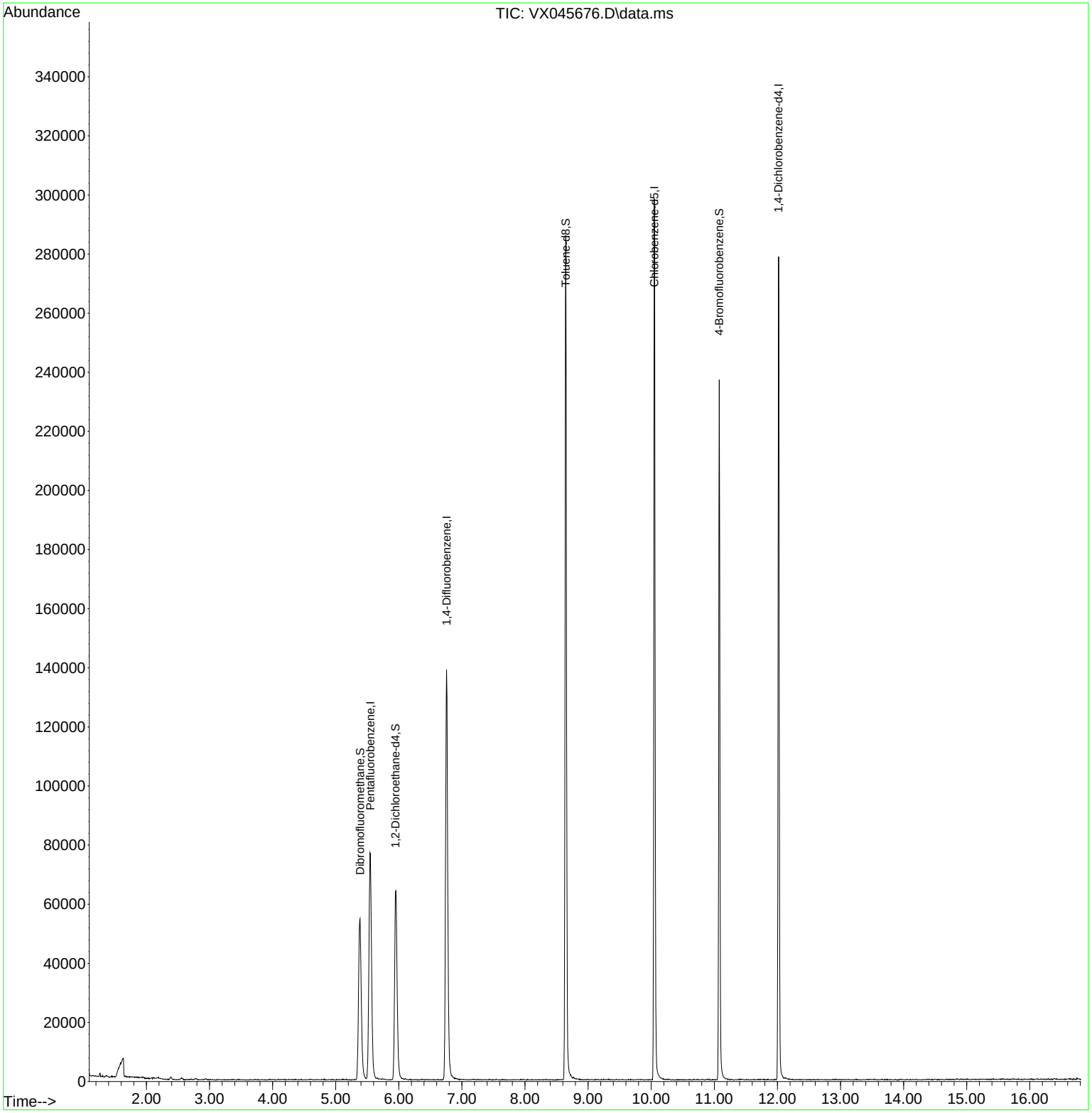
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.550	168	65080	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	130751	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	120674	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	50479	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.946	65	67056	56.343	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 112.680%			
35) Dibromofluoromethane	5.385	113	48124	51.876	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.760%			
50) Toluene-d8	8.647	98	164460	50.791	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.580%			
62) 4-Bromofluorobenzene	11.079	95	60865	51.605	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 103.220%			
Target Compounds						Qvalue

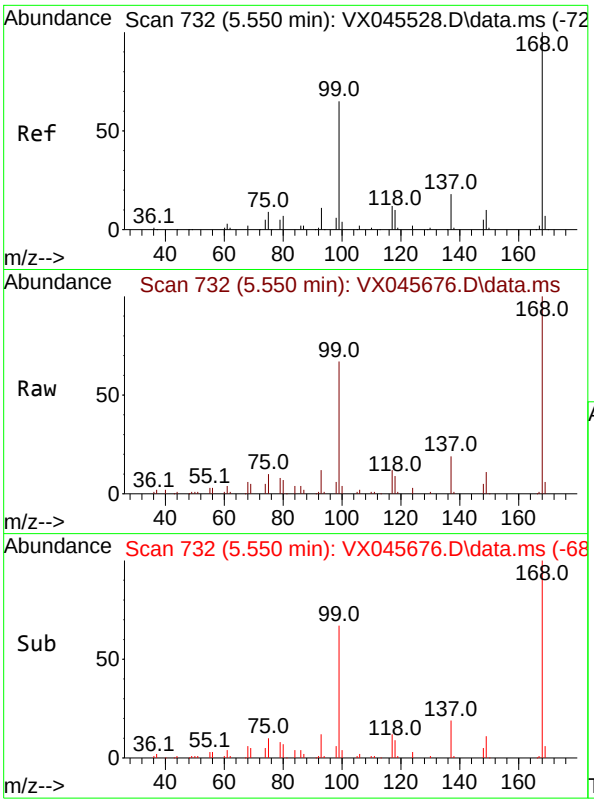
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045676.D
Acq On : 09 Apr 2025 15:20
Operator : JC/MD
Sample : Q1729-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SAMPLE-MANAGEMENT

Quant Time: Apr 10 01:35:50 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



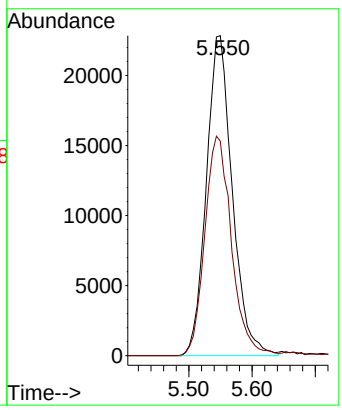


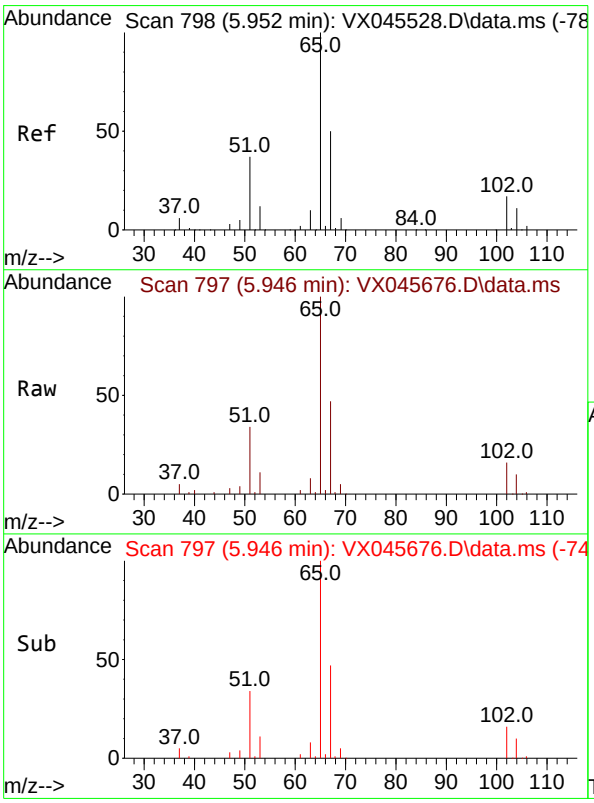
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SAMPLE-MANAGEMENT

Tgt Ion:168 Resp: 65080

Ion	Ratio	Lower	Upper
168	100		
99	67.0	52.3	78.5

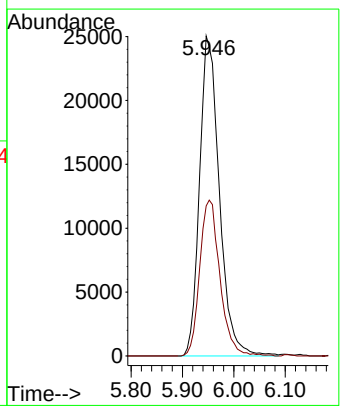


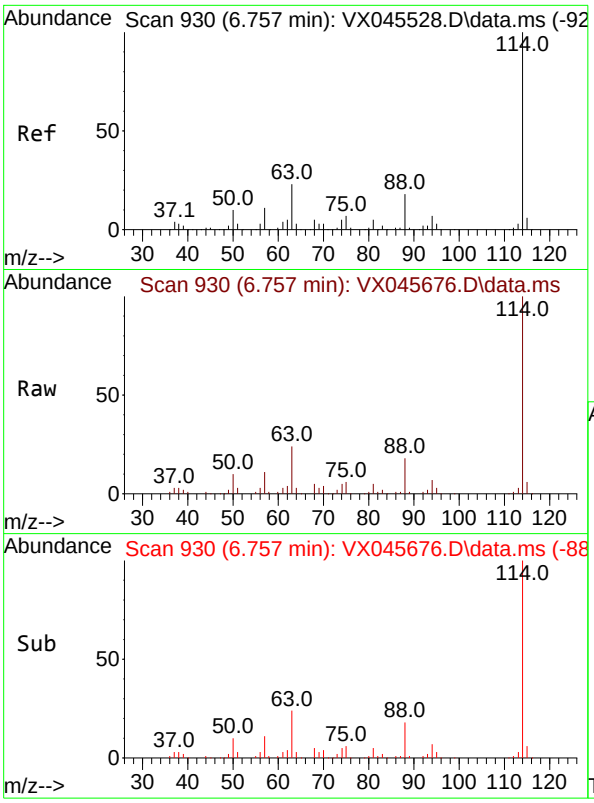


#33
1,2-Dichloroethane-d4
Concen: 56.343 ug/l
RT: 5.946 min Scan# 797
Delta R.T. -0.006 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Tgt Ion: 65 Resp: 67056

Ion	Ratio	Lower	Upper
65	100		
67	49.7	0.0	99.0



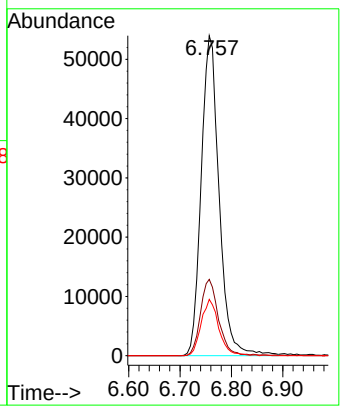


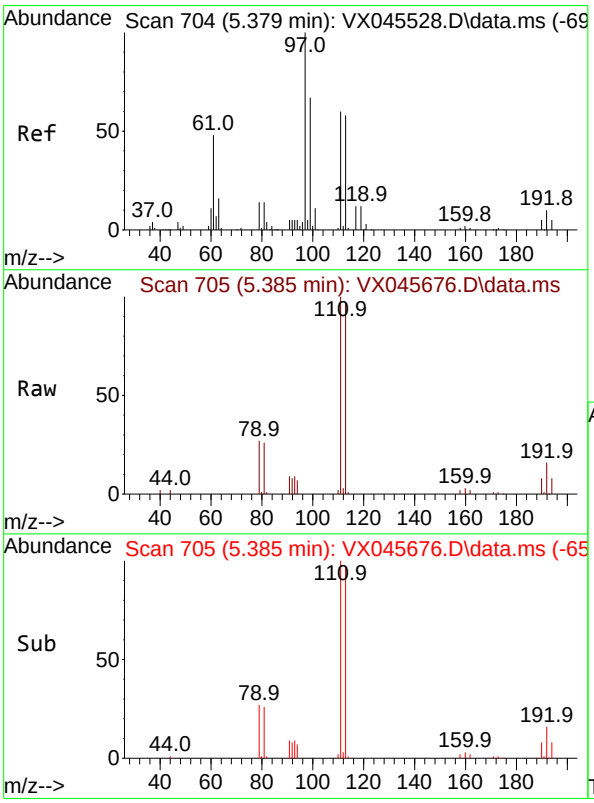
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 9
Delta R.T. -0.000 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SAMPLE-MANAGEMENT

Tgt Ion:114 Resp: 130751

Ion	Ratio	Lower	Upper
114	100		
63	23.9	0.0	46.8
88	17.6	0.0	35.4

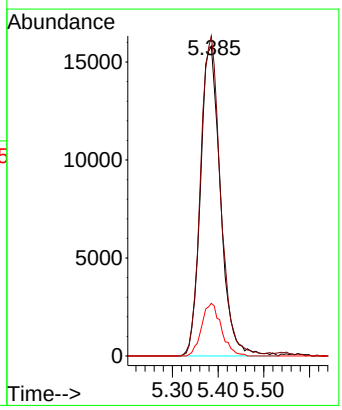


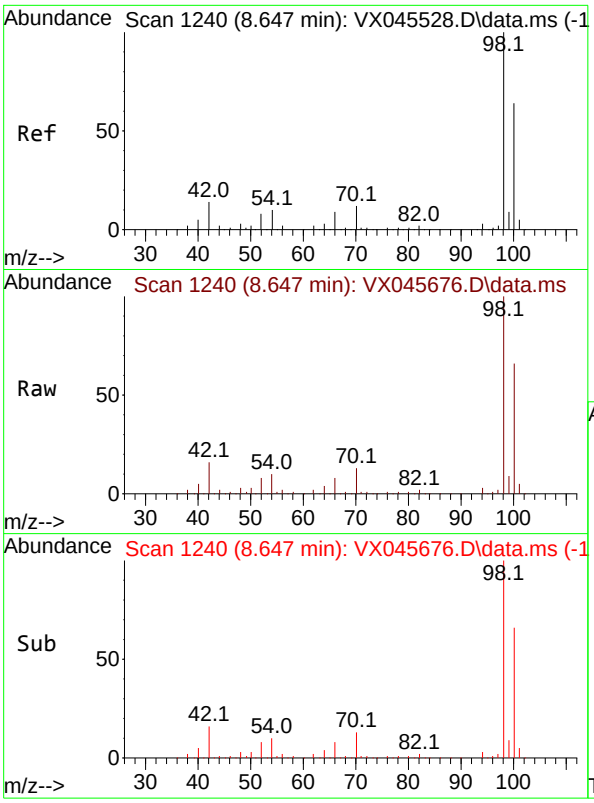


#35
Dibromofluoromethane
Concen: 51.876 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.006 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Tgt Ion:113 Resp: 48124

Ion	Ratio	Lower	Upper
113	100		
111	102.7	81.8	122.6
192	16.7	13.8	20.6



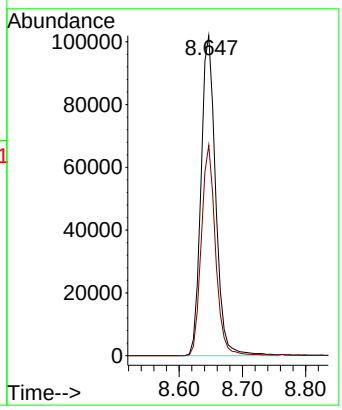


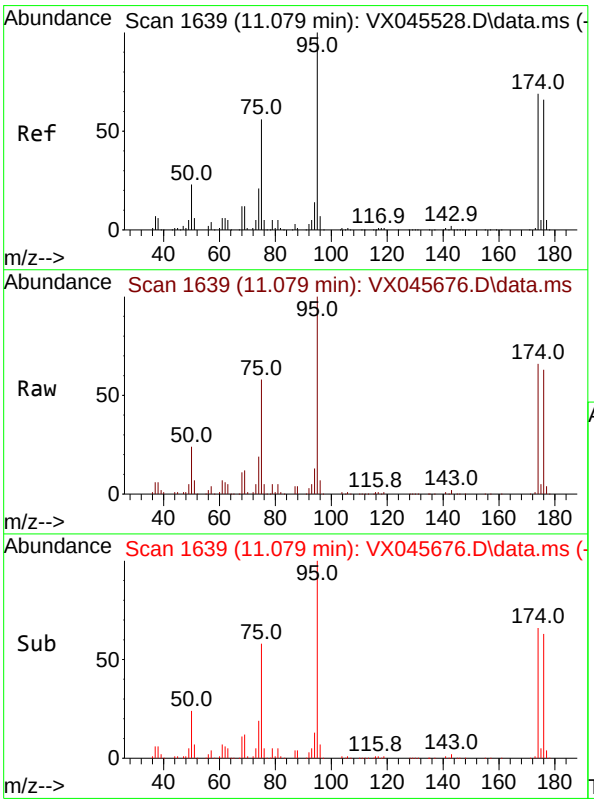
#50
Toluene-d8
Concen: 50.791 ug/l
RT: 8.647 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SAMPLE-MANAGEMENT

Tgt Ion: 98 Resp: 164460

Ion	Ratio	Lower	Upper
98	100		
100	63.9	52.2	78.4

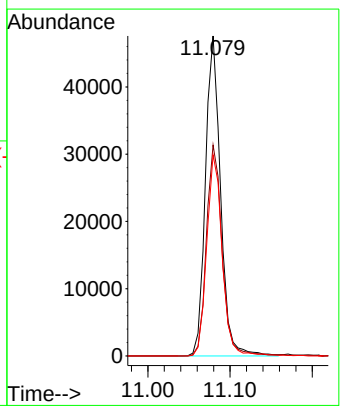


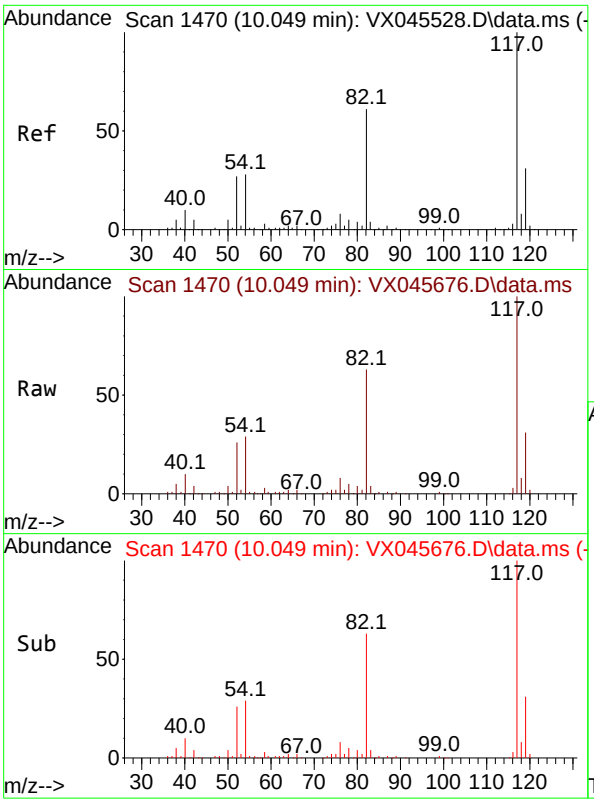


#62
4-Bromofluorobenzene
Concen: 51.605 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Tgt Ion: 95 Resp: 60865

Ion	Ratio	Lower	Upper
95	100		
174	68.4	0.0	135.8
176	64.4	0.0	131.4



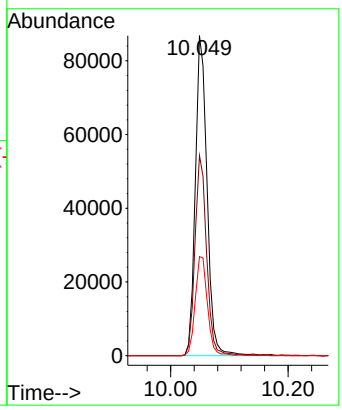


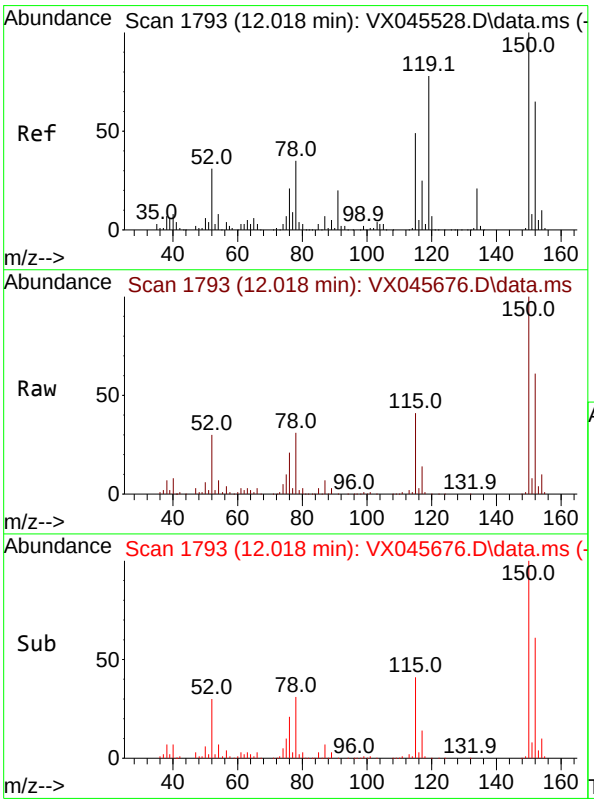
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.049 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Instrument :
MSVOA_X
ClientSampleId :
Storage-Blank-SAMPLE-MANAGEMENT

Tgt Ion:117 Resp: 120674

Ion	Ratio	Lower	Upper
117	100		
82	62.6	49.2	73.8
119	30.9	25.1	37.7

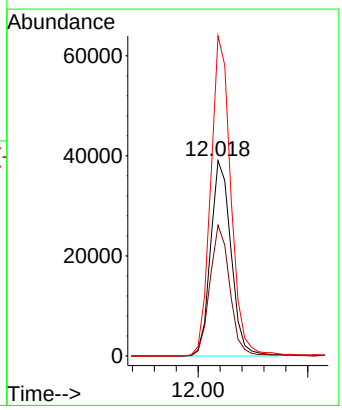




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VX045676.D
Acq: 09 Apr 2025 15:20

Tgt Ion:152 Resp: 50479

Ion	Ratio	Lower	Upper
152	100		
115	65.5	46.9	140.7
150	162.5	0.0	349.4



CALIBRATION SUMMARY

Raw Data

Alliance TECHNICAL GROUP

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG No.: Q1729

Instrument ID: MSVOA_X Calibration Date(s): 04/01/2025 04/01/2025

Heated Purge: (Y/N) N Calibration Time(s): 17:06 19:02

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

LAB FILE ID: RRF001 = VX045525.D RRF005 = VX045526.D RRF020 = VX045527.D
RRF050 = VX045528.D RRF100 = VX045529.D RRF150 = VX045530.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.615	0.695	0.700	0.820	0.837	0.820	0.748	12.1
Chloromethane	0.764	0.734	0.777	0.784	0.815	0.734	0.768	4.1
Vinyl Chloride	0.671	0.662	0.701	0.716	0.738	0.730	0.703	4.4
Ethyl Acetate	0.582	0.565	0.609	0.623	0.629	0.614	0.604	4.1
Bromomethane		0.342	0.327	0.330	0.341	0.327	0.333	2.2
Chloroethane	0.378	0.397	0.390	0.398	0.355	0.319	0.373	8.3
Trichlorofluoromethane	1.051	0.999	1.075	1.086	1.089	0.989	1.048	4.2
1,1,2-Trichlorotrifluoroethane	0.575	0.599	0.635	0.621	0.621	0.634	0.614	3.7
Tert butyl alcohol		0.111	0.124	0.127	0.128	0.124	0.123	5.4
1,1-Dichloroethene	0.563	0.588	0.612	0.604	0.618	0.616	0.600	3.5
Acrolein		0.176	0.161	0.167	0.170	0.172	0.169	3.4
Acrylonitrile	0.356	0.382	0.413	0.407	0.394	0.376	0.388	5.4
Acetone	0.400	0.369	0.387	0.378	0.365	0.355	0.375	4.3
Carbon Disulfide	1.334	1.327	1.434	1.553	1.604	1.642	1.483	9.2
Methyl tert-butyl Ether	1.915	1.964	2.169	2.118	2.217	2.216	2.100	6.2
Methyl Acetate	0.901	0.863	0.864	0.857	0.855	0.846	0.864	2.2
Methylene Chloride	0.692	0.695	0.726	0.709	0.705	0.690	0.703	2
trans-1,2-Dichloroethene	0.574	0.594	0.636	0.624	0.621	0.630	0.613	3.9
Vinyl Acetate	1.542	1.693	2.005	2.087	2.147	2.156	1.938	13.3
1,1-Dichloroethane	1.211	1.240	1.318	1.269	1.283	1.292	1.269	3
Cyclohexane		1.044	1.148	1.123	1.145	1.149	1.122	4
2-Butanone	0.474	0.537	0.582	0.586	0.571	0.548	0.550	7.5
Carbon Tetrachloride	0.450	0.497	0.521	0.536	0.545	0.556	0.518	7.5
2,2-Dichloropropane	0.676	0.757	0.802	0.847	0.903	0.933	0.820	11.7
cis-1,2-Dichloroethene	0.762	0.696	0.760	0.751	0.754	0.760	0.747	3.4
Bromochloromethane	0.671	0.608	0.617	0.596	0.610	0.576	0.613	5.2
Chloroform	1.244	1.309	1.348	1.315	1.309	1.309	1.306	2.6
1,1,1-Trichloroethane	1.028	1.052	1.120	1.109	1.153	1.167	1.105	5
Methylcyclohexane	0.519	0.527	0.596	0.622	0.628	0.632	0.587	8.8
1,1-Dichloropropene	0.477	0.443	0.474	0.485	0.496	0.499	0.479	4.3

* 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.

Raw Data

Alliance TECHNICAL GROUP

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG No.: Q1729

Instrument ID: MSVOA_X Calibration Date(s): 04/01/2025 04/01/2025

Heated Purge: (Y/N) N Calibration Time(s): 17:06 19:02

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

LAB FILE ID: RRF001 = VX045525.D RRF005 = VX045526.D RRF020 = VX045527.D
RRF050 = VX045528.D RRF100 = VX045529.D RRF150 = VX045530.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Benzene	1.414	1.416	1.519	1.481	1.483	1.465	1.463	2.8
1,2-Dichloroethane	0.533	0.585	0.649	0.622	0.620	0.617	0.604	6.7
Trichloroethene	0.349	0.322	0.356	0.351	0.351	0.356	0.348	3.7
1,2-Dichloropropane	0.309	0.365	0.388	0.376	0.379	0.374	0.365	7.8
Dibromomethane	0.237	0.287	0.297	0.292	0.286	0.282	0.280	7.8
Bromodichloromethane	0.521	0.519	0.576	0.572	0.587	0.583	0.560	5.6
4-Methyl-2-Pentanone	0.499	0.578	0.661	0.663	0.647	0.589	0.606	10.6
Toluene	0.817	0.866	0.939	0.910	0.905	0.875	0.885	4.8
t-1,3-Dichloropropene	0.316	0.400	0.465	0.508	0.555	0.558	0.467	20.3
cis-1,3-Dichloropropene	0.371	0.474	0.546	0.568	0.597	0.600	0.526	16.9
1,1,2-Trichloroethane	0.337	0.346	0.376	0.359	0.358	0.340	0.353	4.1
1,3-Dichloropropane	0.555	0.614	0.652	0.633	0.630	0.601	0.614	5.5
2-Chloroethyl Vinyl ether	0.221	0.257	0.286	0.298	0.301	0.293	0.276	11.3
2-Hexanone	0.363	0.429	0.488	0.492	0.484	0.439	0.449	11.1
Dibromochloromethane	0.313	0.352	0.404	0.412	0.421	0.405	0.385	11.1
1,2-Dibromoethane	0.294	0.351	0.380	0.373	0.380	0.364	0.357	9.1
Tetrachloroethene	0.346	0.373	0.371	0.347	0.333	0.347	0.353	4.5
Chlorobenzene	0.951	1.054	1.123	1.084	1.086	1.112	1.068	5.8
1,1,1,2-Tetrachloroethane	0.368	0.344	0.372	0.373	0.379	0.390	0.371	4.2
Hexachloroethane	0.493	0.493	0.556	0.597	0.623	0.661	0.571	12.1
Ethyl Benzene	1.608	1.819	2.002	2.007	1.993	2.053	1.914	8.9
m/p-Xylenes	0.594	0.669	0.732	0.728	0.723	0.729	0.696	7.9
o-Xylene	0.562	0.676	0.725	0.719	0.716	0.714	0.686	9.2
Styrene	0.897	1.043	1.202	1.216	1.230	1.202	1.132	11.8
Bromoform	0.220	0.252	0.272	0.296	0.307	0.315	0.277	13.1
Isopropylbenzene	3.581	3.850	4.224	4.181	4.043	4.151	4.005	6.2
1,1,2,2-Tetrachloroethane	1.457	1.428	1.461	1.384	1.354	1.358	1.407	3.4
1,2,3-Trichloropropane	1.221	1.257	1.251	1.225	1.192	1.171	1.220	2.7
Bromobenzene	0.877	0.927	0.953	0.938	0.925	0.932	0.925	2.8
n-propylbenzene	3.734	4.346	5.012	4.896	4.819	4.872	4.613	10.6

* 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.

Raw Data

Alliance TECHNICAL GROUP

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG No.: Q1729

Instrument ID: MSVOA_X Calibration Date(s): 04/01/2025 04/01/2025

Heated Purge: (Y/N) N Calibration Time(s): 17:06 19:02

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

LAB FILE ID: RRF001 = VX045525.D RRF005 = VX045526.D RRF020 = VX045527.D
RRF050 = VX045528.D RRF100 = VX045529.D RRF150 = VX045530.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
2-Chlorotoluene	2.894	2.873	3.130	2.966	2.915	2.918	2.949	3.2
1,3,5-Trimethylbenzene	2.931	3.119	3.571	3.511	3.367	3.371	3.312	7.3
4-Chlorotoluene	2.961	3.156	3.470	3.449	3.350	3.343	3.288	5.9
tert-Butylbenzene	2.894	3.124	3.437	3.427	3.387	3.405	3.279	6.8
1,2,4-Trimethylbenzene	2.906	3.129	3.529	3.523	3.438	3.420	3.324	7.6
sec-Butylbenzene	3.195	3.828	4.316	4.300	4.232	4.292	4.027	11.1
p-Isopropyltoluene	2.734	3.157	3.515	3.524	3.506	3.484	3.320	9.6
1,3-Dichlorobenzene	1.658	1.605	1.726	1.699	1.714	1.706	1.684	2.7
1,4-Dichlorobenzene	1.671	1.724	1.768	1.703	1.674	1.706	1.708	2.1
n-Butylbenzene	2.117	2.486	2.974	3.160	3.256	3.283	2.879	16.5
1,2-Dichlorobenzene	1.644	1.645	1.750	1.678	1.665	1.667	1.675	2.3
1,2-Dibromo-3-Chloropropane	0.196	0.260	0.312	0.316	0.333	0.349	0.294	19.4
1,2,4-Trichlorobenzene	0.727	0.844	0.948	0.947	1.045	1.083	0.932	14.1
Hexachlorobutadiene	0.379	0.389	0.401	0.404	0.415	0.422	0.402	4
Naphthalene	2.544	3.070	3.630	3.722	3.867	3.982	3.469	15.9
1,2,3-Trichlorobenzene	0.782	0.916	0.999	1.000	1.063	1.097	0.976	11.6
1,2-Dichloroethane-d4		0.962	0.900	0.868	0.904	0.937	0.914	3.9
Dibromofluoromethane		0.372	0.342	0.345	0.353	0.362	0.355	3.5
Toluene-d8		1.257	1.233	1.214	1.230	1.257	1.238	1.5
4-Bromofluorobenzene		0.413	0.448	0.453	0.481	0.460	0.451	5.5

* 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.

Response Factor Report MSVOA_X2

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

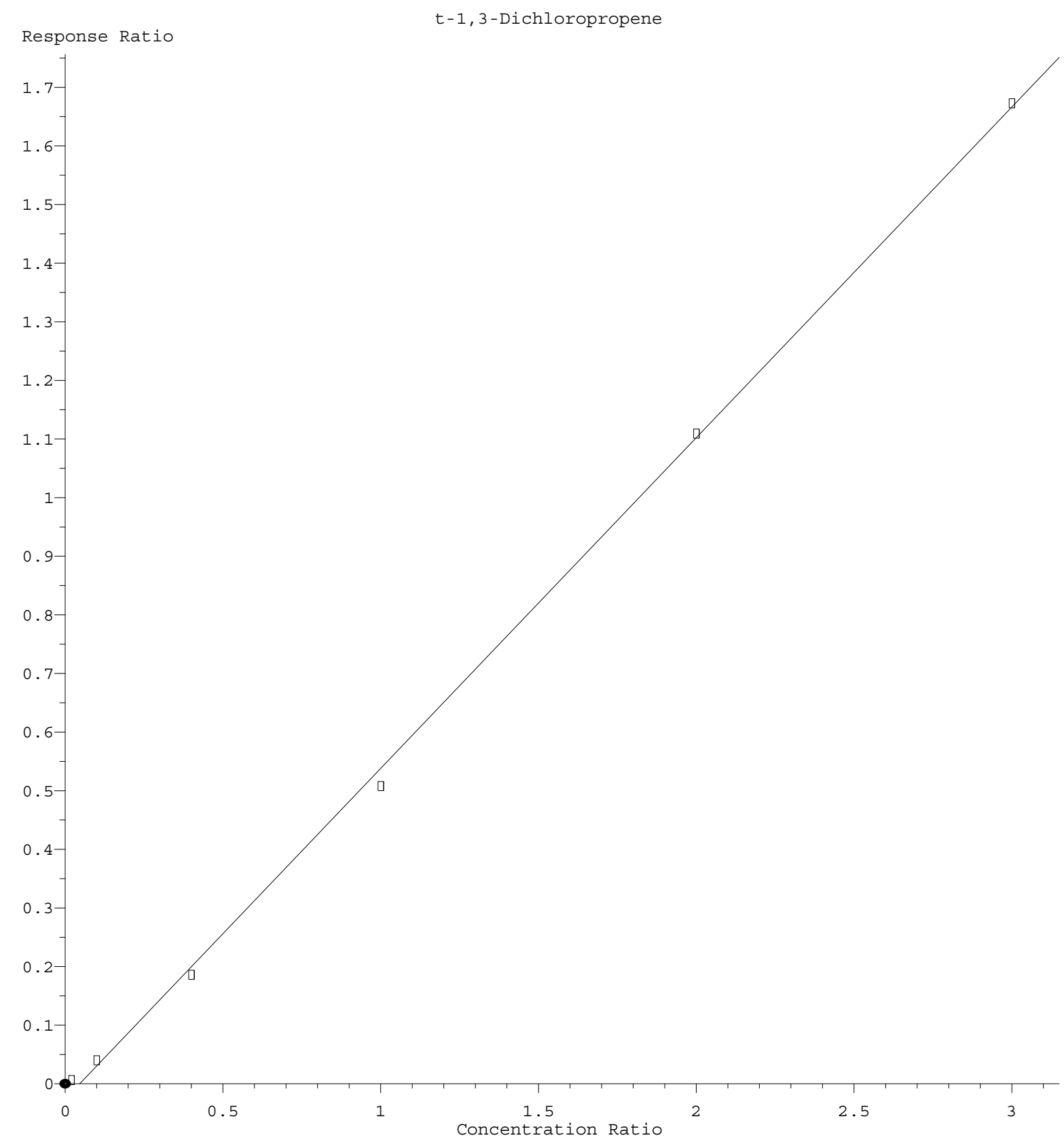
Calibration Files
1 =VX045525.D 5 =VX045526.D 20 =VX045527.D 50 =VX045528.D 100 =VX045529.D 150 =VX045530.D

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

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

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

(#) = Out of Range



Response = 5.639e-001 * Amt - 2.582e-002
Coef of Det (r^2) = 0.999232 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA X\Method\82X040225W.M
Calibration Table Last Updated: Wed Apr 02 03:11:43 2025

Quantitation Report (QT Reviewed)

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

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

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

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.544	168	96737	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	6.757	114	175266	50.000	ug/l		0.00
63) Chlorobenzene-d5	10.049	117	153312	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	61114	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	0.000	65	0d	0.000	ug/l		
Spiked Amount 50.000	Range 74 - 125		Recovery =	0.000%#			
35) Dibromofluoromethane	0.000	113	0d	0.000	ug/l		
Spiked Amount 50.000	Range 75 - 124		Recovery =	0.000%#			
50) Toluene-d8	0.000	98	0d	0.000	ug/l		
Spiked Amount 50.000	Range 86 - 113		Recovery =	0.000%#			
62) 4-Bromofluorobenzene	0.000	95	0d	0.000	ug/l		
Spiked Amount 50.000	Range 77 - 121		Recovery =	0.000%#			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.167	85	1189	0.822	ug/l		94
3) Chloromethane	1.307	50	1479	0.995	ug/l	#	86
4) Vinyl Chloride	1.374	62	1299	0.955	ug/l		98
6) Chloroethane	1.673	64	732	1.014	ug/l	#	67
7) Trichlorofluoromethane	1.880	101	2034	1.003	ug/l		93
8) Diethyl Ether	2.130	74	668	0.981	ug/l		83
9) 1,1,2-Trichlorotrifluo...	2.325	101	1113	0.936	ug/l		94
12) 1,1-Dichloroethene	2.313	96	1090	0.939	ug/l		95
14) Allyl chloride	2.660	41	2113	0.959	ug/l		93
15) Acrylonitrile	3.075	53	3446	4.592	ug/l		95
16) Acetone	2.380	43	3867	5.323	ug/l		98
17) Carbon Disulfide	2.508	76	2580	0.899	ug/l	#	95
18) Methyl Acetate	2.703	43	1744	1.043	ug/l		91
19) Methyl tert-butyl Ether	3.117	73	3705	0.912	ug/l		92
20) Methylene Chloride	2.782	84	1338	0.984	ug/l		91
21) trans-1,2-Dichloroethene	3.087	96	1111	0.936	ug/l	#	93
22) Diisopropyl ether	3.758	45	3875	0.893	ug/l	#	59
23) Vinyl Acetate	3.727	43	14921	3.979	ug/l		95
24) 1,1-Dichloroethane	3.611	63	2343	0.954	ug/l	#	90
25) 2-Butanone	4.581	43	4590	4.317	ug/l		92
26) 2,2-Dichloropropane	4.471	77	1307	0.824	ug/l		85
27) cis-1,2-Dichloroethene	4.495	96	1475	1.020	ug/l		80
28) Bromochloromethane	4.891	49	1298	1.094	ug/l	#	97
29) Tetrahydrofuran	5.032	42	3276	4.752	ug/l		97
30) Chloroform	5.093	83	2406	0.953	ug/l		84
32) 1,1,1-Trichloroethane	5.385	97	1989	0.931	ug/l	#	53
36) 1,1-Dichloropropene	5.696	75	1671	0.995	ug/l	#	89
37) Ethyl Acetate	4.751	43	2040	0.964	ug/l	#	76
38) Carbon Tetrachloride	5.672	117	1578	0.870	ug/l	#	91
39) Methylcyclohexane	7.379	83	1818	0.883	ug/l	#	89
40) Benzene	6.038	78	4957	0.967	ug/l		97
41) Methacrylonitrile	4.952	41	883m	0.784	ug/l		
42) 1,2-Dichloroethane	6.092	62	1867	0.882	ug/l		86
43) Isopropyl Acetate	6.361	43	2578	0.804	ug/l	#	86
44) Trichloroethene	7.123	130	1224	1.004	ug/l		87
45) 1,2-Dichloropropane	7.434	63	1082	0.846	ug/l		90

Quantitation Report (QT Reviewed)

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

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

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

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

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

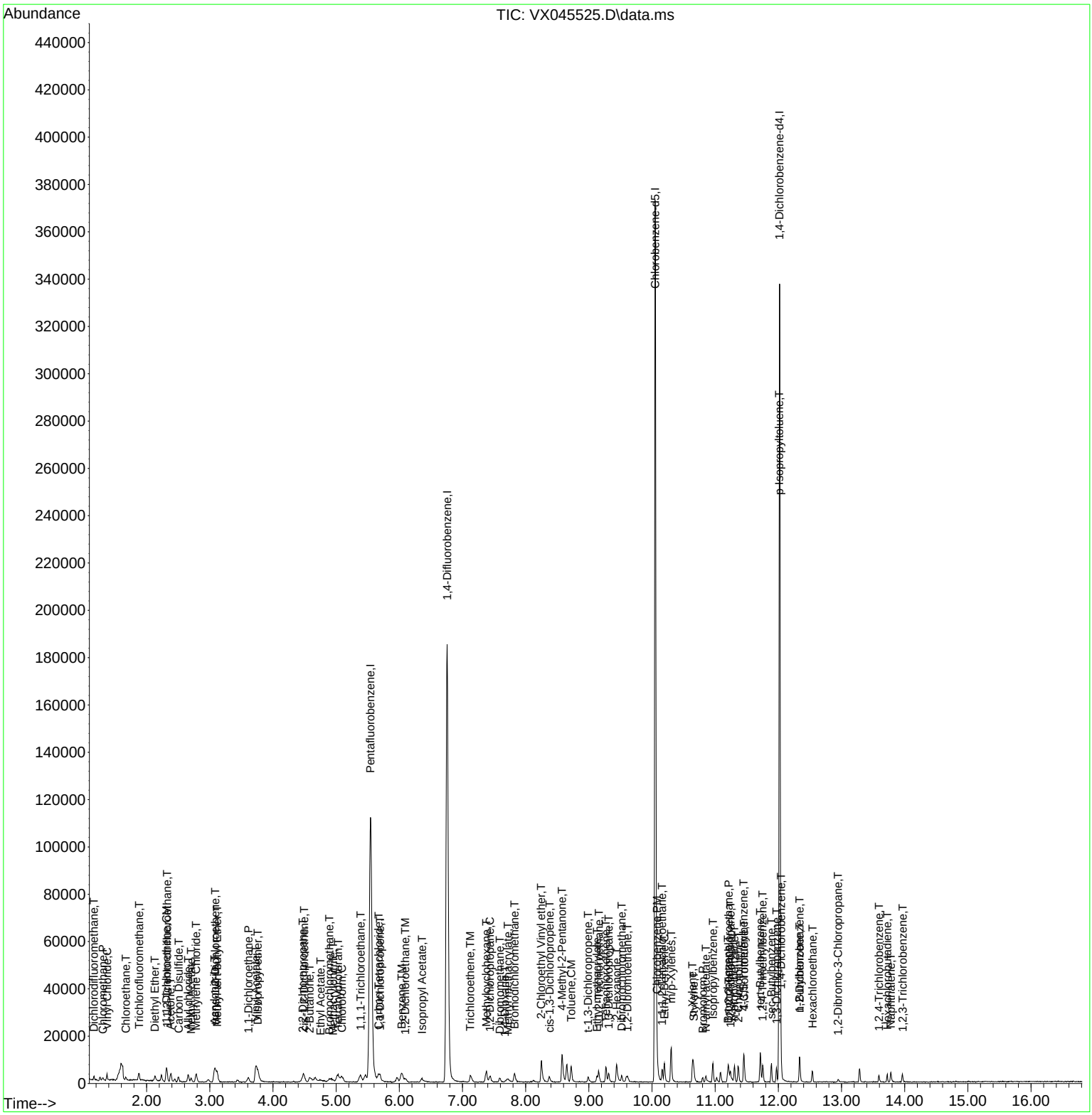
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045525.D
Acq On : 01 Apr 2025 17:06
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

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



Quantitation Report (QT Reviewed)

ICAL Form

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

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

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

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

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

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

ICAL Form

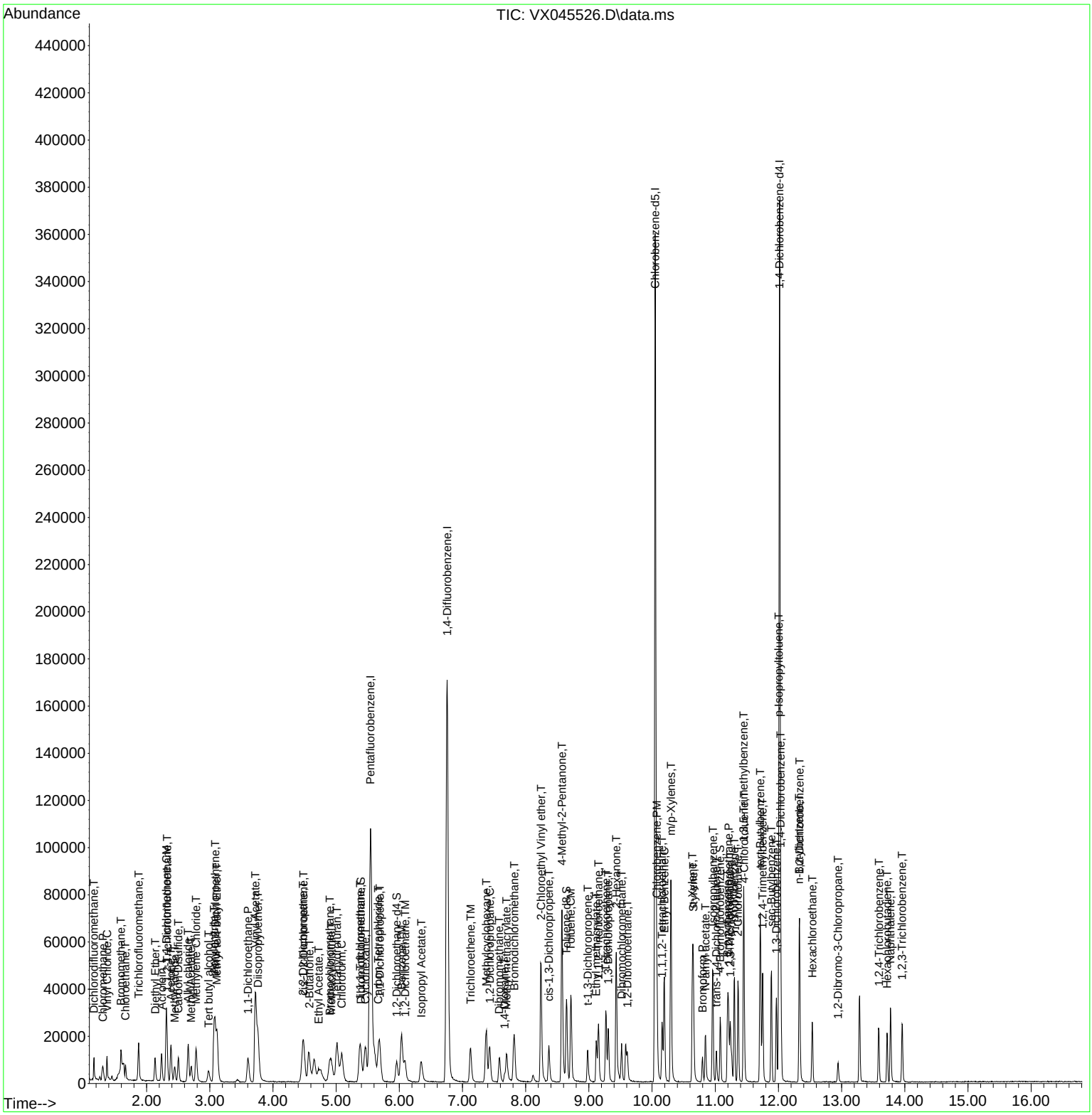
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045526.D
Acq On : 01 Apr 2025 17:29
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

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



Quantitation Report (QT Reviewed)

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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

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

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

ICAL Form

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

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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

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

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

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

ICAL Form

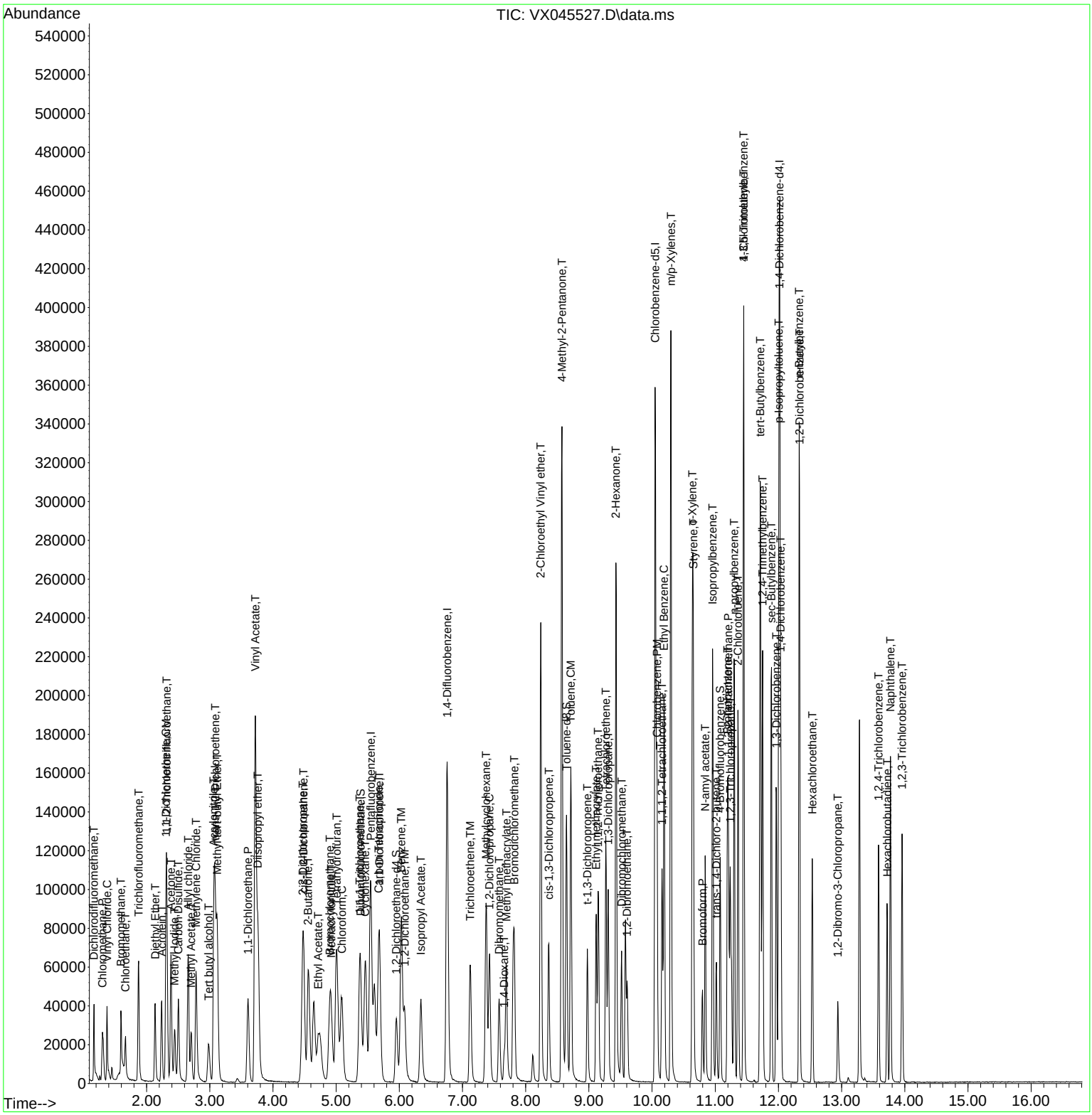
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045527.D
Acq On : 01 Apr 2025 17:52
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

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



Quantitation Report (QT Reviewed)

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

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

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

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

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

ICAL Form

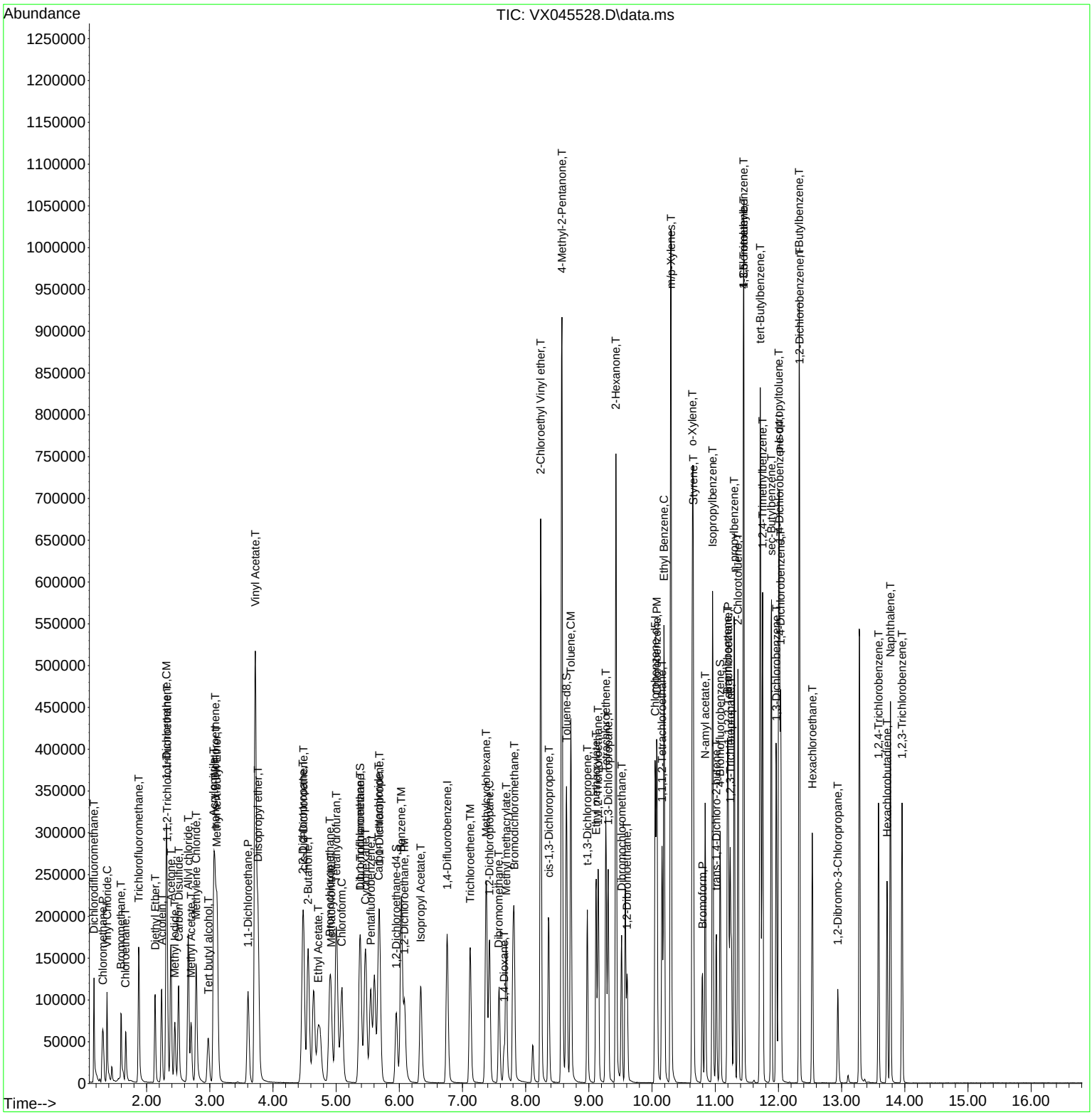
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045528.D
Acq On : 01 Apr 2025 18:15
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

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



Quantitation Report (QT Reviewed)

ICAL Form

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

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

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

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

ICAL Form

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

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

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

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

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

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

ICAL Form

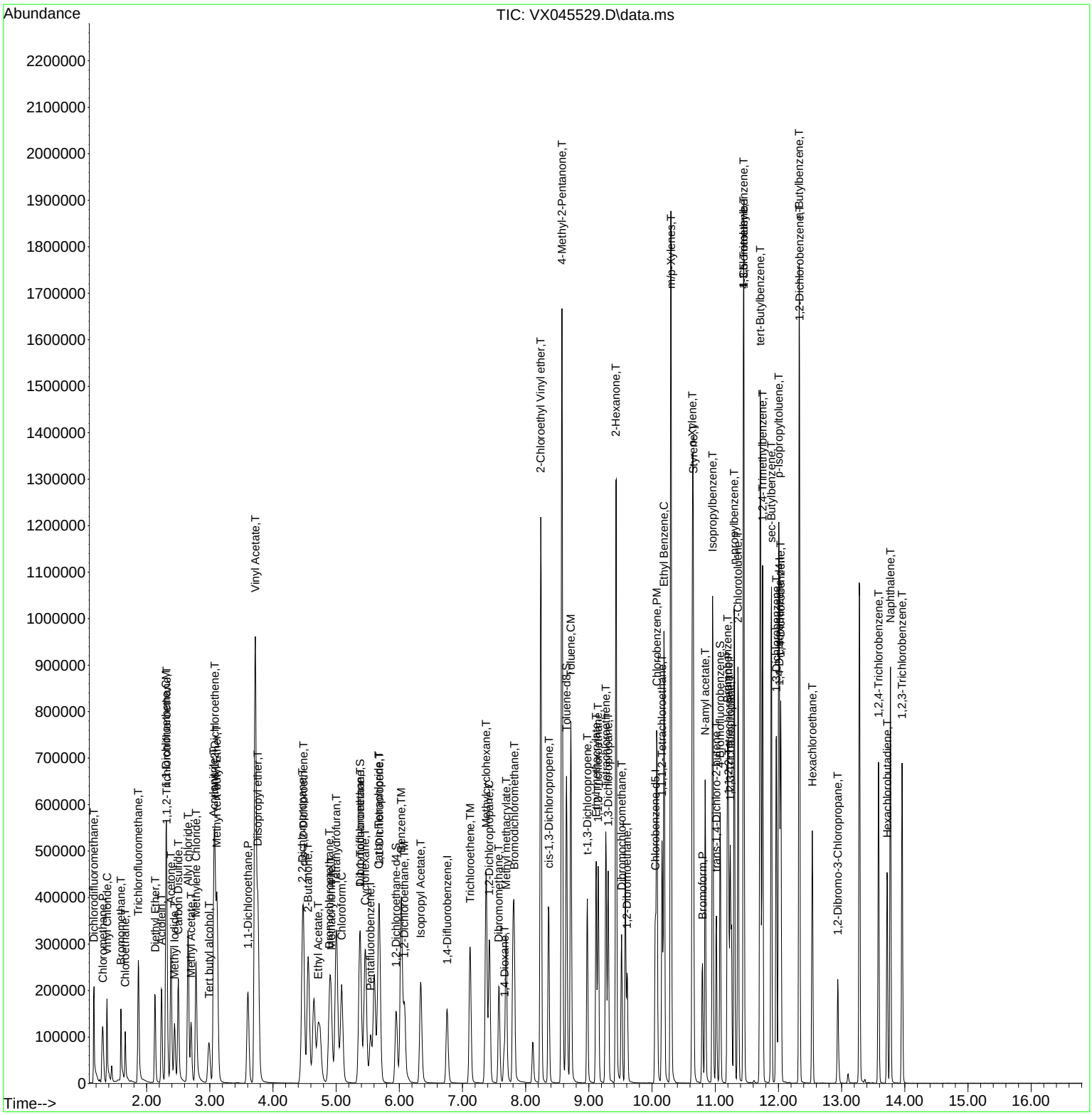
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045529.D
Acq On : 01 Apr 2025 18:38
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

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



Quantitation Report (QT Reviewed)

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

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

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

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

ICAL Form

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

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

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

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

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

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

ICAL Form

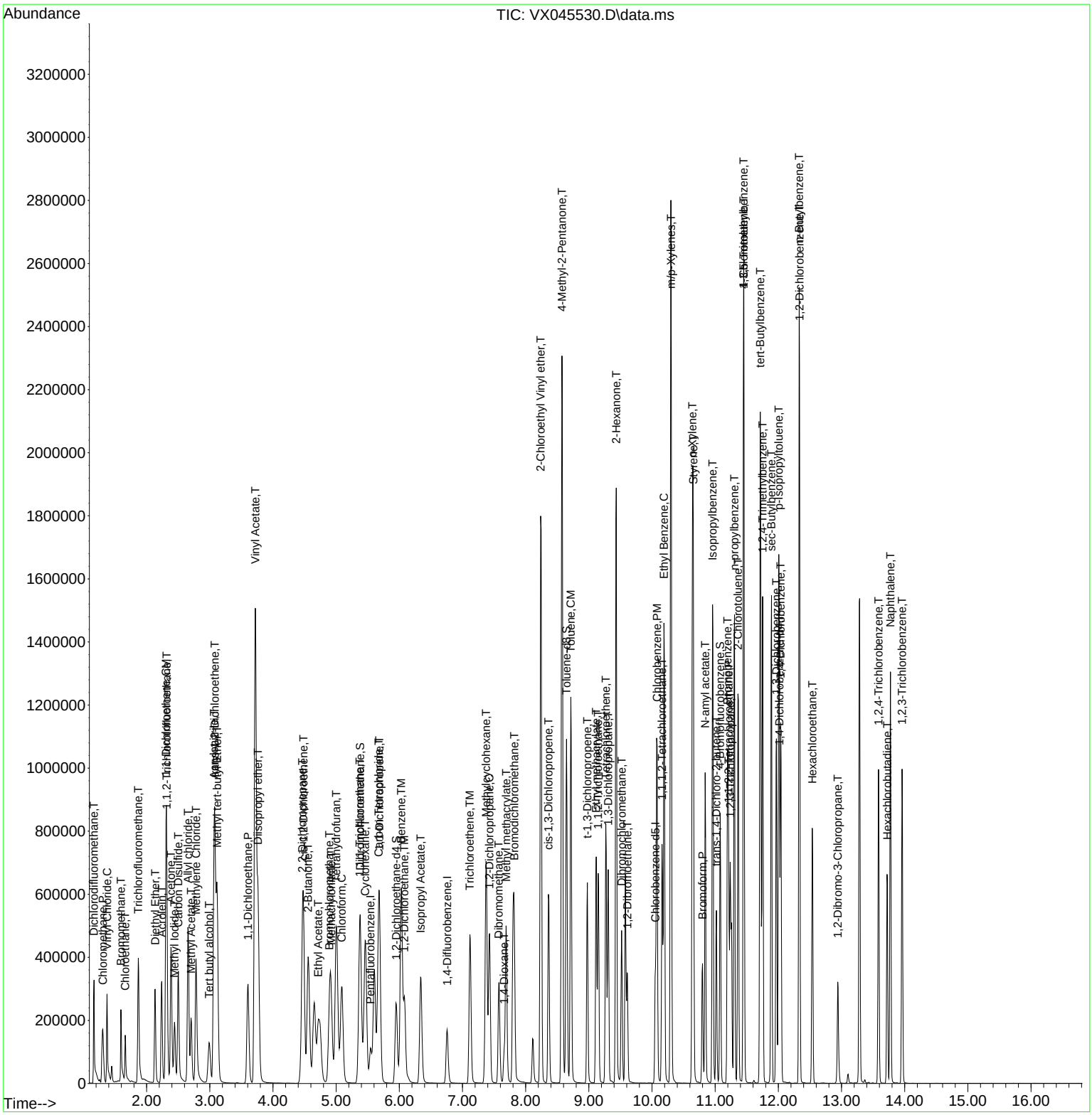
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045530.D
Acq On : 01 Apr 2025 19:02
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

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

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

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



Quantitation Report (QT Reviewed)

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Manual Integrations APPROVED

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Manual Integrations APPROVED

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Manual Integrations APPROVED

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

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

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

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

ICAL Form

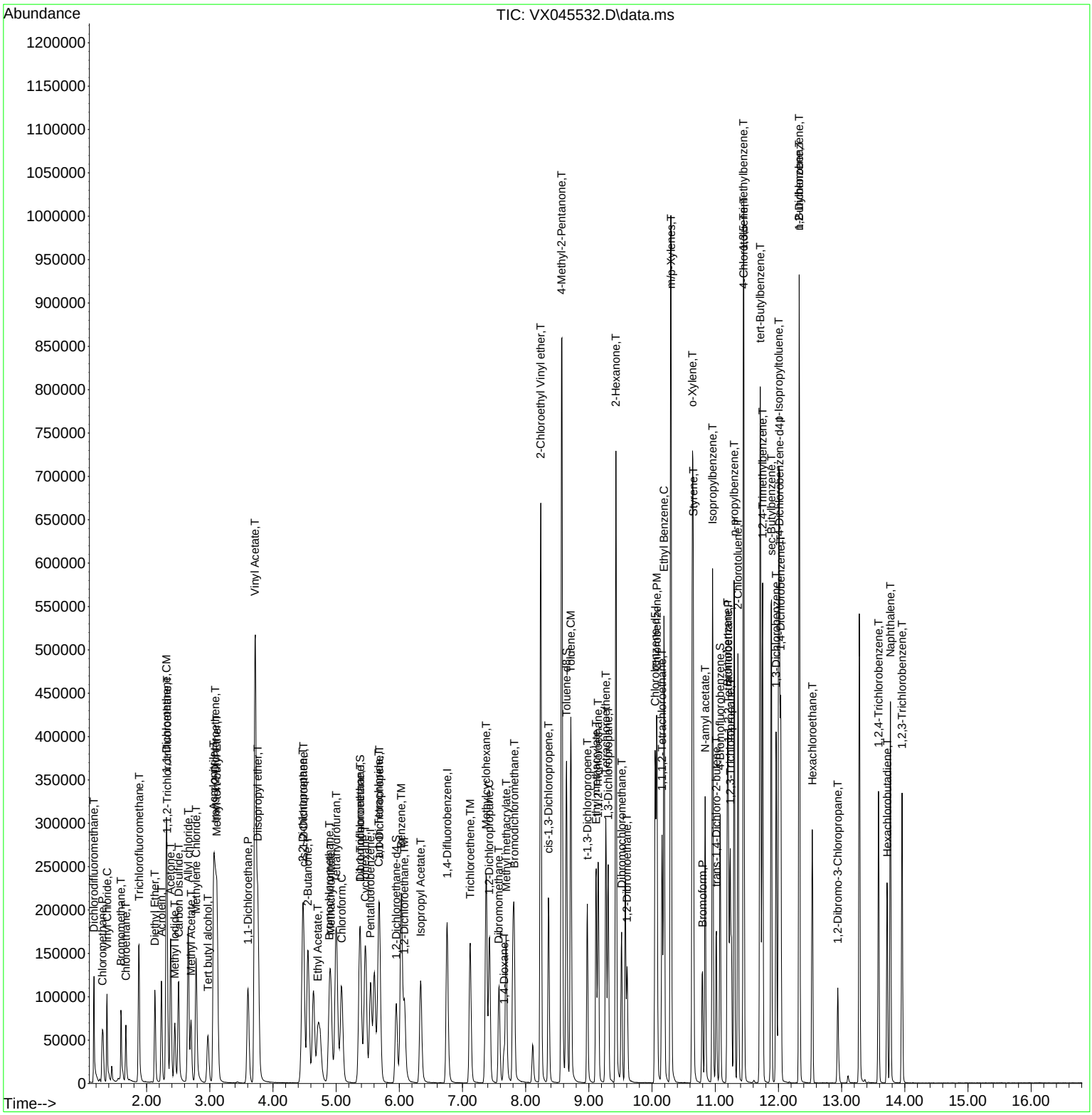
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040225\
Data File : VX045532.D
Acq On : 01 Apr 2025 19:48
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

Manual Integrations APPROVED

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



Evaluate Continuing Calibration Report

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

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

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

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

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

Evaluate Continuing Calibration Report

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

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

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

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

ICAL Form

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

Instrument :
MSVOA_X
ClientSampleId :
ICVVX040225

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

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

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

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

Raw Data: **VX045664.D**

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG No.: Q1729

Instrument ID: MSVOA_X Calibration Date/Time: 04/09/2025 10:35

Lab File ID: VX045664.D Init. Calib. Date(s): 04/01/2025 04/01/2025

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

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.748	0.814		8.82	20
Chloromethane	0.768	0.744	0.1	-3.13	20
Vinyl Chloride	0.703	0.690		-1.85	20
Ethyl Acetate	0.604	0.588		-2.65	20
Bromomethane	0.333	0.317		-4.8	20
Chloroethane	0.373	0.395		5.9	20
Trichlorofluoromethane	1.048	1.090		4.01	20
1,1,2-Trichlorotrifluoroethane	0.614	0.649		5.7	20
Tert butyl alcohol	0.123	0.123		0	20
1,1-Dichloroethene	0.600	0.586		-2.33	20
Acrolein	0.169	0.146		-13.61	20
Acrylonitrile	0.388	0.372		-4.12	20
Acetone	0.375	0.349		-6.93	20
Carbon Disulfide	1.483	1.375		-7.28	20
Methyl tert-butyl Ether	2.100	2.157		2.71	20
Methyl Acetate	0.864	0.925		7.06	20
Methylene Chloride	0.703	0.685		-2.56	20
trans-1,2-Dichloroethene	0.613	0.609		-0.65	20
Vinyl Acetate	1.938	2.006		3.51	20
1,1-Dichloroethane	1.269	1.251	0.1	-1.42	20
Cyclohexane	1.122	1.092		-2.67	20
2-Butanone	0.550	0.538		-2.18	20
Carbon Tetrachloride	0.518	0.553		6.76	20
2,2-Dichloropropane	0.820	0.954		16.34	20
cis-1,2-Dichloroethene	0.747	0.734		-1.74	20
Bromochloromethane	0.613	0.565		-7.83	20
Chloroform	1.306	1.317		0.84	20
1,1,1-Trichloroethane	1.105	1.107		0.18	20
Methylcyclohexane	0.587	0.631		7.5	20
1,1-Dichloropropene	0.479	0.485		1.25	20
Benzene	1.463	1.461		-0.14	20
1,2-Dichloroethane	0.604	0.626		3.64	20
Trichloroethene	0.348	0.351		0.86	20
1,2-Dichloropropane	0.365	0.373		2.19	20
Dibromomethane	0.280	0.286		2.14	20
Bromodichloromethane	0.560	0.583		4.11	20
4-Methyl-2-Pentanone	0.606	0.631		4.13	20
Toluene	0.885	0.899		1.58	20

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

Raw Data: **VX045664.D**

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG No.: Q1729

Instrument ID: MSVOA_X Calibration Date/Time: 04/09/2025 10:35

Lab File ID: VX045664.D Init. Calib. Date(s): 04/01/2025 04/01/2025

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

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
t-1,3-Dichloropropene	0.467	0.527		12.85	20
cis-1,3-Dichloropropene	0.526	0.585		11.22	20
1,1,2-Trichloroethane	0.353	0.360		1.98	20
1,3-Dichloropropane	0.614	0.631		2.77	20
2-Chloroethyl Vinyl ether	0.276	0.357		29.35	20
2-Hexanone	0.449	0.470		4.68	20
Dibromochloromethane	0.385	0.409		6.23	20
1,2-Dibromoethane	0.357	0.371		3.92	20
Tetrachloroethene	0.353	0.373		5.67	20
Chlorobenzene	1.068	1.118	0.3	4.68	20
1,1,1,2-Tetrachloroethane	0.371	0.386		4.04	20
Hexachloroethane	0.571	0.600		5.08	20
Ethyl Benzene	1.914	2.034		6.27	20
m/p-Xylenes	0.696	0.742		6.61	20
o-Xylene	0.686	0.716		4.37	20
Styrene	1.132	1.225		8.22	20
Bromoform	0.277	0.302	0.1	9.02	20
Isopropylbenzene	4.005	3.959		-1.15	20
1,1,2,2-Tetrachloroethane	1.407	1.337	0.3	-4.97	20
1,2,3-Trichloropropane	1.220	1.187		-2.7	20
Bromobenzene	0.925	0.910		-1.62	20
n-propylbenzene	4.613	4.697		1.82	20
2-Chlorotoluene	2.949	2.874		-2.54	20
1,3,5-Trimethylbenzene	3.312	3.381		2.08	20
4-Chlorotoluene	3.288	3.348		1.83	20
tert-Butylbenzene	3.279	3.296		0.52	20
1,2,4-Trimethylbenzene	3.324	3.456		3.97	20
sec-Butylbenzene	4.027	4.202		4.35	20
p-Isopropyltoluene	3.320	3.518		5.96	20
1,3-Dichlorobenzene	1.684	1.702		1.07	20
1,4-Dichlorobenzene	1.708	1.690		-1.05	20
n-Butylbenzene	2.879	3.214		11.64	20
1,2-Dichlorobenzene	1.675	1.704		1.73	20
1,2-Dibromo-3-Chloropropane	0.294	0.316		7.48	20
1,2,4-Trichlorobenzene	0.932	1.015		8.91	20
Hexachlorobutadiene	0.402	0.436		8.46	20
Naphthalene	3.469	3.684		6.2	20
1,2,3-Trichlorobenzene	0.976	1.020		4.51	20

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

Raw Data: **VX045664.D**

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CHEM02

Lab Code: CHEM Case No.: Q1729 SAS No.: Q1729 SDG No.: Q1729

Instrument ID: MSVOA_X Calibration Date/Time: 04/09/2025 10:35

Lab File ID: VX045664.D Init. Calib. Date(s): 04/01/2025 04/01/2025

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

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,2-Dichloroethane-d4	0.914	0.945		3.39	20
Dibromofluoromethane	0.355	0.379		6.76	20
Toluene-d8	1.238	1.272		2.75	20
4-Bromofluorobenzene	0.451	0.501		11.09	20

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.544	168	98594	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.751	114	170453	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	147839	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	71972	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.946	65	93178	51.679	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 103.360%			
35) Dibromofluoromethane	5.373	113	64676	53.479	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 106.960%			
50) Toluene-d8	8.641	98	216891	51.382	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 102.760%			
62) 4-Bromofluorobenzene	11.079	95	85383	55.532	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 111.060%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	80223	54.408	ug/l	98
3) Chloromethane	1.300	50	73364	48.432	ug/l	99
4) Vinyl Chloride	1.374	62	68070	49.103	ug/l	100
5) Bromomethane	1.593	94	31282	47.592	ug/l	97
6) Chloroethane	1.666	64	38924	52.923	ug/l	99
7) Trichlorofluoromethane	1.874	101	107491	51.999	ug/l	98
8) Diethyl Ether	2.130	74	34540	49.768	ug/l	96
9) 1,1,2-Trichlorotrifluo...	2.319	101	64030	52.860	ug/l	97
10) Methyl Iodide	2.441	142	75341	49.865	ug/l	98
11) Tert butyl alcohol	2.977	59	60760	250.751	ug/l	99
12) 1,1-Dichloroethene	2.306	96	57773	48.810	ug/l	98
13) Acrolein	2.233	56	71940	215.595	ug/l	98
14) Allyl chloride	2.654	41	114031	50.776	ug/l	100
15) Acrylonitrile	3.062	53	183477	239.873	ug/l	99
16) Acetone	2.380	43	172243	232.643	ug/l	99
17) Carbon Disulfide	2.501	76	135575	46.377	ug/l	100
18) Methyl Acetate	2.703	43	91155	53.475	ug/l	100
19) Methyl tert-butyl Ether	3.111	73	212677	51.365	ug/l	99
20) Methylene Chloride	2.782	84	67547	48.733	ug/l	98
21) trans-1,2-Dichloroethene	3.081	96	60067	49.674	ug/l	98
22) Diisopropyl ether	3.757	45	226945	51.300	ug/l	98
23) Vinyl Acetate	3.715	43	988964	258.743	ug/l	100
24) 1,1-Dichloroethane	3.605	63	123311	49.288	ug/l	100
25) 2-Butanone	4.550	43	265392	244.882	ug/l	99
26) 2,2-Dichloropropane	4.465	77	94027	58.169	ug/l	100
27) cis-1,2-Dichloroethene	4.477	96	72325	49.093	ug/l	98
28) Bromochloromethane	4.885	49	55670	46.046	ug/l	100
29) Tetrahydrofuran	4.995	42	168691	240.083	ug/l	99
30) Chloroform	5.086	83	129858	50.443	ug/l	97
31) Cyclohexane	5.458	56	107701	48.695	ug/l	96
32) 1,1,1-Trichloroethane	5.373	97	109187	50.125	ug/l	100
36) 1,1-Dichloropropene	5.684	75	82704	50.649	ug/l	99
37) Ethyl Acetate	4.708	43	100204	48.695	ug/l	99
38) Carbon Tetrachloride	5.666	117	94233	53.397	ug/l	99
39) Methylcyclohexane	7.373	83	107571	53.743	ug/l	95
40) Benzene	6.025	78	248974	49.925	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.916	41	58179	53.585	ug/l		97
42) 1,2-Dichloroethane	6.080	62	106676	51.791	ug/l		100
43) Isopropyl Acetate	6.336	43	163987	52.580	ug/l		99
44) Trichloroethene	7.116	130	59881	50.518	ug/l		91
45) 1,2-Dichloropropane	7.421	63	63615	51.125	ug/l		98
46) Dibromomethane	7.574	93	48718	51.004	ug/l		99
47) Bromodichloromethane	7.818	83	99424	52.121	ug/l		96
48) Methyl methacrylate	7.690	41	85929	53.362	ug/l		99
49) 1,4-Dioxane	7.659	88	31096	1067.317	ug/l		99
51) 4-Methyl-2-Pentanone	8.567	43	537477	259.961	ug/l		100
52) Toluene	8.714	92	153268	50.790	ug/l		99
53) t-1,3-Dichloropropene	8.976	75	89889	49.048	ug/l		97
54) cis-1,3-Dichloropropene	8.360	75	99782	55.664	ug/l		98
55) 1,1,2-Trichloroethane	9.147	97	61409	51.068	ug/l		97
56) Ethyl methacrylate	9.116	69	100629	54.073	ug/l		98
57) 1,3-Dichloropropane	9.305	76	107582	51.377	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.238	63	304462	323.406	ug/l		100
59) 2-Hexanone	9.427	43	400757	261.752	ug/l		100
60) Dibromochloromethane	9.518	129	69798	53.243	ug/l		99
61) 1,2-Dibromoethane	9.604	107	63194	51.914	ug/l		99
64) Tetrachloroethene	9.269	164	55185	52.870	ug/l		97
65) Chlorobenzene	10.073	112	165320	52.332	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.159	131	57001	51.972	ug/l		99
67) Ethyl Benzene	10.189	91	300677	53.143	ug/l		99
68) m/p-Xylenes	10.299	106	219352	106.594	ug/l		100
69) o-Xylene	10.640	106	105799	52.190	ug/l		97
70) Styrene	10.652	104	181071	54.118	ug/l		99
71) Bromoform	10.799	173	44695	54.578	ug/l	#	97
73) Isopropylbenzene	10.957	105	284951	49.428	ug/l		99
74) N-amyl acetate	10.841	43	146100	52.979	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.207	83	96249	47.526	ug/l		100
76) 1,2,3-Trichloropropane	11.238	75	85411m	48.651	ug/l		
77) Bromobenzene	11.195	156	65498	49.171	ug/l		100
78) n-propylbenzene	11.299	91	338085	50.914	ug/l		100
79) 2-Chlorotoluene	11.360	91	206840	48.724	ug/l		99
80) 1,3,5-Trimethylbenzene	11.451	105	243354	51.048	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	26806	51.822	ug/l		98
82) 4-Chlorotoluene	11.451	91	240935	50.904	ug/l		100
83) tert-Butylbenzene	11.713	119	237194	50.257	ug/l		99
84) 1,2,4-Trimethylbenzene	11.750	105	248759	51.990	ug/l		100
85) sec-Butylbenzene	11.890	105	302409	52.168	ug/l		100
86) p-Isopropyltoluene	12.006	119	253229	52.986	ug/l		100
87) 1,3-Dichlorobenzene	11.969	146	122497	50.521	ug/l		100
88) 1,4-Dichlorobenzene	12.036	146	121623	49.477	ug/l		97
89) n-Butylbenzene	12.329	91	231337	55.821	ug/l		99
90) Hexachloroethane	12.536	117	43183	52.576	ug/l		98
91) 1,2-Dichlorobenzene	12.335	146	122650	50.878	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	22753	53.721	ug/l		99
93) 1,2,4-Trichlorobenzene	13.585	180	73080	54.462	ug/l		98
94) Hexachlorobutadiene	13.725	225	31389	54.285	ug/l		98
95) Naphthalene	13.774	128	265127	53.094	ug/l		100
96) 1,2,3-Trichlorobenzene	13.957	180	73391	52.232	ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

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

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

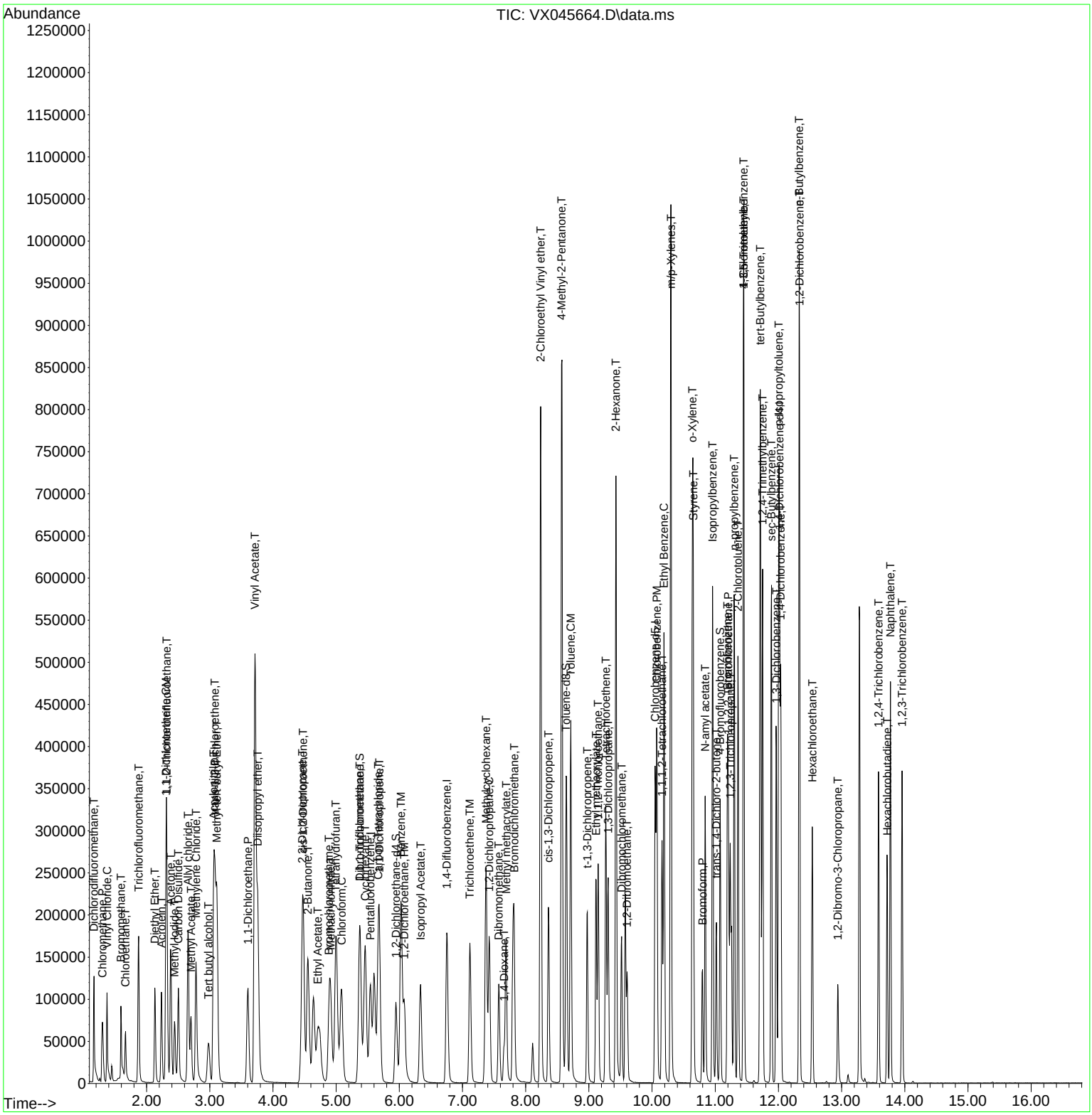
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025



Sample Results: **VX045664.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	103	0.00
2	T	Dichlorodifluoromethane	0.748	0.814	-8.8	102	0.00
3	P	Chloromethane	0.768	0.744	3.1	98	0.00
4	C	Vinyl Chloride	0.703	0.690	1.8#	99	0.00
5	T	Bromomethane	0.333	0.317	4.8	99	0.00
6	T	Chloroethane	0.373	0.395	-5.9	102	0.00
7	T	Trichlorofluoromethane	1.048	1.090	-4.0	103	0.00
8	T	Diethyl Ether	0.352	0.350	0.6	102	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.614	0.649	-5.7	108	0.00
10	T	Methyl Iodide	0.766	0.764	0.3	99	0.00
11	T	Tert butyl alcohol	0.123	0.123	0.0	100	0.00
12	CM	1,1-Dichloroethene	0.600	0.586	2.3#	100	0.00
13	T	Acrolein	0.169	0.146	13.6	90	0.00
14	T	Allyl chloride	1.139	1.157	-1.6	102	0.00
15	T	Acrylonitrile	0.388	0.372	4.1	94	0.00
16	T	Acetone	0.375	0.349	6.9	95	0.00
17	T	Carbon Disulfide	1.483	1.375	7.3	91	0.00
18	T	Methyl Acetate	0.864	0.925	-7.1	111	0.00
19	T	Methyl tert-butyl Ether	2.100	2.157	-2.7	105	0.00
20	T	Methylene Chloride	0.703	0.685	2.6	100	0.00
21	T	trans-1,2-Dichloroethene	0.613	0.609	0.7	101	0.00
22	T	Diisopropyl ether	2.243	2.302	-2.6	103	0.00
23	T	Vinyl Acetate	1.938	2.006	-3.5	99	0.00
24	P	1,1-Dichloroethane	1.269	1.251	1.4	102	0.00
25	T	2-Butanone	0.550	0.538	2.2	95	0.00
26	T	2,2-Dichloropropane	0.820	0.954	-16.3	116	0.00
27	T	cis-1,2-Dichloroethene	0.747	0.734	1.7	101	0.00
28	T	Bromochloromethane	0.613	0.565	7.8	98	-0.01
29	T	Tetrahydrofuran	0.356	0.342	3.9	95	0.00
30	C	Chloroform	1.306	1.317	-0.8#	103	0.00
31	T	Cyclohexane	1.122	1.092	2.7	100	0.00
32	T	1,1,1-Trichloroethane	1.105	1.107	-0.2	103	0.00
33	S	1,2-Dichloroethane-d4	0.914	0.945	-3.4	112	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	101	0.00
35	S	Dibromofluoromethane	0.355	0.379	-6.8	111	0.00
36	T	1,1-Dichloropropene	0.479	0.485	-1.3	101	0.00
37	T	Ethyl Acetate	0.604	0.588	2.6	96	0.00
38	T	Carbon Tetrachloride	0.518	0.553	-6.8	104	0.00
39	T	Methylcyclohexane	0.587	0.631	-7.5	103	0.00
40	TM	Benzene	1.463	1.461	0.1	100	0.00
41	T	Methacrylonitrile	0.318	0.341	-7.2	98	0.00
42	TM	1,2-Dichloroethane	0.604	0.626	-3.6	102	0.00
43	T	Isopropyl Acetate	0.915	0.962	-5.1	100	0.00
44	TM	Trichloroethene	0.348	0.351	-0.9	101	0.00
45	C	1,2-Dichloropropane	0.365	0.373	-2.2#	100	0.00
46	T	Dibromomethane	0.280	0.286	-2.1	99	0.00
47	T	Bromodichloromethane	0.560	0.583	-4.1	103	0.00
48	T	Methyl methacrylate	0.472	0.504	-6.8	101	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	0.009	0.009	0.0	100	0.00
50	S	Toluene-d8	1.238	1.272	-2.7	106	0.00
51	T	4-Methyl-2-Pentanone	0.606	0.631	-4.1	96	0.00
52	CM	Toluene	0.885	0.899	-1.6#	100	0.00
53	T	t-1,3-Dichloropropene	0.467	0.527	-12.8	105	0.00
54	T	cis-1,3-Dichloropropene	0.526	0.585	-11.2	104	0.00
55	T	1,1,2-Trichloroethane	0.353	0.360	-2.0	102	0.00
56	T	Ethyl methacrylate	0.546	0.590	-8.1	100	0.00
57	T	1,3-Dichloropropane	0.614	0.631	-2.8	101	0.00
58	T	2-Chloroethyl Vinyl ether	0.276	0.357	-29.3#	122	0.00
59	T	2-Hexanone	0.449	0.470	-4.7	97	0.00
60	T	Dibromochloromethane	0.385	0.409	-6.2	101	0.00
61	T	1,2-Dibromoethane	0.357	0.371	-3.9	101	0.00
62	S	4-Bromofluorobenzene	0.451	0.501	-11.1	112	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
64	T	Tetrachloroethene	0.353	0.373	-5.7	106	0.00
65	PM	Chlorobenzene	1.068	1.118	-4.7	102	0.00
66	T	1,1,1,2-Tetrachloroethane	0.371	0.386	-4.0	102	0.00
67	C	Ethyl Benzene	1.914	2.034	-6.3#	100	0.00
68	T	m/p-Xylenes	0.696	0.742	-6.6	100	0.00
69	T	o-Xylene	0.686	0.716	-4.4	98	0.00
70	T	Styrene	1.132	1.225	-8.2	99	0.00
71	P	Bromoform	0.277	0.302	-9.0	101	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00
73	T	Isopropylbenzene	4.005	3.959	1.1	99	0.00
74	T	N-amyl acetate	1.916	2.030	-5.9	103	0.00
75	P	1,1,2,2-Tetrachloroethane	1.407	1.337	5.0	101	0.00
76	T	1,2,3-Trichloropropane	1.220	1.187	2.7	101	0.00
77	T	Bromobenzene	0.925	0.910	1.6	102	0.00
78	T	n-propylbenzene	4.613	4.697	-1.8	100	0.00
79	T	2-Chlorotoluene	2.949	2.874	2.5	101	0.00
80	T	1,3,5-Trimethylbenzene	3.312	3.381	-2.1	101	0.00
81	T	trans-1,4-Dichloro-2-butene	0.359	0.372	-3.6	105	0.00
82	T	4-Chlorotoluene	3.288	3.348	-1.8	102	0.00
83	T	tert-Butylbenzene	3.279	3.296	-0.5	101	0.00
84	T	1,2,4-Trimethylbenzene	3.324	3.456	-4.0	103	0.00
85	T	sec-Butylbenzene	4.027	4.202	-4.3	102	0.00
86	T	p-Isopropyltoluene	3.320	3.518	-6.0	104	0.00
87	T	1,3-Dichlorobenzene	1.684	1.702	-1.1	105	0.00
88	T	1,4-Dichlorobenzene	1.708	1.690	1.1	104	0.00
89	T	n-Butylbenzene	2.879	3.214	-11.6	106	0.00
90	T	Hexachloroethane	0.571	0.600	-5.1	105	0.00
91	T	1,2-Dichlorobenzene	1.675	1.704	-1.7	106	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.294	0.316	-7.5	105	0.00
93	T	1,2,4-Trichlorobenzene	0.932	1.015	-8.9	112	0.00
94	T	Hexachlorobutadiene	0.402	0.436	-8.5	113	0.00
95	T	Naphthalene	3.469	3.684	-6.2	104	0.00

Sample Results: **VX045664.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.976	1.020	-4.5	107	0.00

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

Sample Results: **VX045664.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	103	0.00
2	T	Dichlorodifluoromethane	50.000	54.408	-8.8	102	0.00
3	P	Chloromethane	50.000	48.432	3.1	98	0.00
4	C	Vinyl Chloride	50.000	49.103	1.8#	99	0.00
5	T	Bromomethane	50.000	47.592	4.8	99	0.00
6	T	Chloroethane	50.000	52.923	-5.8	102	0.00
7	T	Trichlorofluoromethane	50.000	51.999	-4.0	103	0.00
8	T	Diethyl Ether	50.000	49.768	0.5	102	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	52.860	-5.7	108	0.00
10	T	Methyl Iodide	50.000	49.865	0.3	99	0.00
11	T	Tert butyl alcohol	250.000	250.751	-0.3	100	0.00
12	CM	1,1-Dichloroethene	50.000	48.810	2.4#	100	0.00
13	T	Acrolein	250.000	215.595	13.8	90	0.00
14	T	Allyl chloride	50.000	50.776	-1.6	102	0.00
15	T	Acrylonitrile	250.000	239.873	4.1	94	0.00
16	T	Acetone	250.000	232.643	6.9	95	0.00
17	T	Carbon Disulfide	50.000	46.377	7.2	91	0.00
18	T	Methyl Acetate	50.000	53.475	-7.0	111	0.00
19	T	Methyl tert-butyl Ether	50.000	51.365	-2.7	105	0.00
20	T	Methylene Chloride	50.000	48.733	2.5	100	0.00
21	T	trans-1,2-Dichloroethene	50.000	49.674	0.7	101	0.00
22	T	Diisopropyl ether	50.000	51.300	-2.6	103	0.00
23	T	Vinyl Acetate	250.000	258.743	-3.5	99	0.00
24	P	1,1-Dichloroethane	50.000	49.288	1.4	102	0.00
25	T	2-Butanone	250.000	244.882	2.0	95	0.00
26	T	2,2-Dichloropropane	50.000	58.169	-16.3	116	0.00
27	T	cis-1,2-Dichloroethene	50.000	49.093	1.8	101	0.00
28	T	Bromochloromethane	50.000	46.046	7.9	98	-0.01
29	T	Tetrahydrofuran	250.000	240.083	4.0	95	0.00
30	C	Chloroform	50.000	50.443	-0.9#	103	0.00
31	T	Cyclohexane	50.000	48.695	2.6	100	0.00
32	T	1,1,1-Trichloroethane	50.000	50.125	-0.3	103	0.00
33	S	1,2-Dichloroethane-d4	50.000	51.679	-3.4	112	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	101	0.00
35	S	Dibromofluoromethane	50.000	53.479	-7.0	111	0.00
36	T	1,1-Dichloropropene	50.000	50.649	-1.3	101	0.00
37	T	Ethyl Acetate	50.000	48.695	2.6	96	0.00
38	T	Carbon Tetrachloride	50.000	53.397	-6.8	104	0.00
39	T	Methylcyclohexane	50.000	53.743	-7.5	103	0.00
40	TM	Benzene	50.000	49.925	0.2	100	0.00
41	T	Methacrylonitrile	50.000	53.585	-7.2	98	0.00
42	TM	1,2-Dichloroethane	50.000	51.791	-3.6	102	0.00
43	T	Isopropyl Acetate	50.000	52.580	-5.2	100	0.00
44	TM	Trichloroethene	50.000	50.518	-1.0	101	0.00
45	C	1,2-Dichloropropane	50.000	51.125	-2.3#	100	0.00
46	T	Dibromomethane	50.000	51.004	-2.0	99	0.00
47	T	Bromodichloromethane	50.000	52.121	-4.2	103	0.00
48	T	Methyl methacrylate	50.000	53.362	-6.7	101	0.00

Sample Results: **VX045664.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	1000.000	1067.317	-6.7	100	0.00
50	S	Toluene-d8	50.000	51.382	-2.8	106	0.00
51	T	4-Methyl-2-Pentanone	250.000	259.961	-4.0	96	0.00
52	CM	Toluene	50.000	50.790	-1.6#	100	0.00
53	T	t-1,3-Dichloropropene	50.000	49.048	1.9	105	0.00
54	T	cis-1,3-Dichloropropene	50.000	55.664	-11.3	104	0.00
55	T	1,1,2-Trichloroethane	50.000	51.068	-2.1	102	0.00
56	T	Ethyl methacrylate	50.000	54.073	-8.1	100	0.00
57	T	1,3-Dichloropropane	50.000	51.377	-2.8	101	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	323.406	-29.4#	122	0.00
59	T	2-Hexanone	250.000	261.752	-4.7	97	0.00
60	T	Dibromochloromethane	50.000	53.243	-6.5	101	0.00
61	T	1,2-Dibromoethane	50.000	51.914	-3.8	101	0.00
62	S	4-Bromofluorobenzene	50.000	55.532	-11.1	112	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	98	0.00
64	T	Tetrachloroethene	50.000	52.870	-5.7	106	0.00
65	PM	Chlorobenzene	50.000	52.332	-4.7	102	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	51.972	-3.9	102	0.00
67	C	Ethyl Benzene	50.000	53.143	-6.3#	100	0.00
68	T	m/p-Xylenes	100.000	106.594	-6.6	100	0.00
69	T	o-Xylene	50.000	52.190	-4.4	98	0.00
70	T	Styrene	50.000	54.118	-8.2	99	0.00
71	P	Bromoform	50.000	54.578	-9.2	101	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	105	0.00
73	T	Isopropylbenzene	50.000	49.428	1.1	99	0.00
74	T	N-amyl acetate	50.000	52.979	-6.0	103	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	47.526	4.9	101	0.00
76	T	1,2,3-Trichloropropane	50.000	48.651	2.7	101	0.00
77	T	Bromobenzene	50.000	49.171	1.7	102	0.00
78	T	n-propylbenzene	50.000	50.914	-1.8	100	0.00
79	T	2-Chlorotoluene	50.000	48.724	2.6	101	0.00
80	T	1,3,5-Trimethylbenzene	50.000	51.048	-2.1	101	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	51.822	-3.6	105	0.00
82	T	4-Chlorotoluene	50.000	50.904	-1.8	102	0.00
83	T	tert-Butylbenzene	50.000	50.257	-0.5	101	0.00
84	T	1,2,4-Trimethylbenzene	50.000	51.990	-4.0	103	0.00
85	T	sec-Butylbenzene	50.000	52.168	-4.3	102	0.00
86	T	p-Isopropyltoluene	50.000	52.986	-6.0	104	0.00
87	T	1,3-Dichlorobenzene	50.000	50.521	-1.0	105	0.00
88	T	1,4-Dichlorobenzene	50.000	49.477	1.0	104	0.00
89	T	n-Butylbenzene	50.000	55.821	-11.6	106	0.00
90	T	Hexachloroethane	50.000	52.576	-5.2	105	0.00
91	T	1,2-Dichlorobenzene	50.000	50.878	-1.8	106	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	53.721	-7.4	105	0.00
93	T	1,2,4-Trichlorobenzene	50.000	54.462	-8.9	112	0.00
94	T	Hexachlorobutadiene	50.000	54.285	-8.6	113	0.00
95	T	Naphthalene	50.000	53.094	-6.2	104	0.00

Sample Results: **VX045664.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045664.D
Acq On : 09 Apr 2025 10:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Apr 10 01:33:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	52.232	-4.5	107	0.00

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

QC SAMPLE DATA

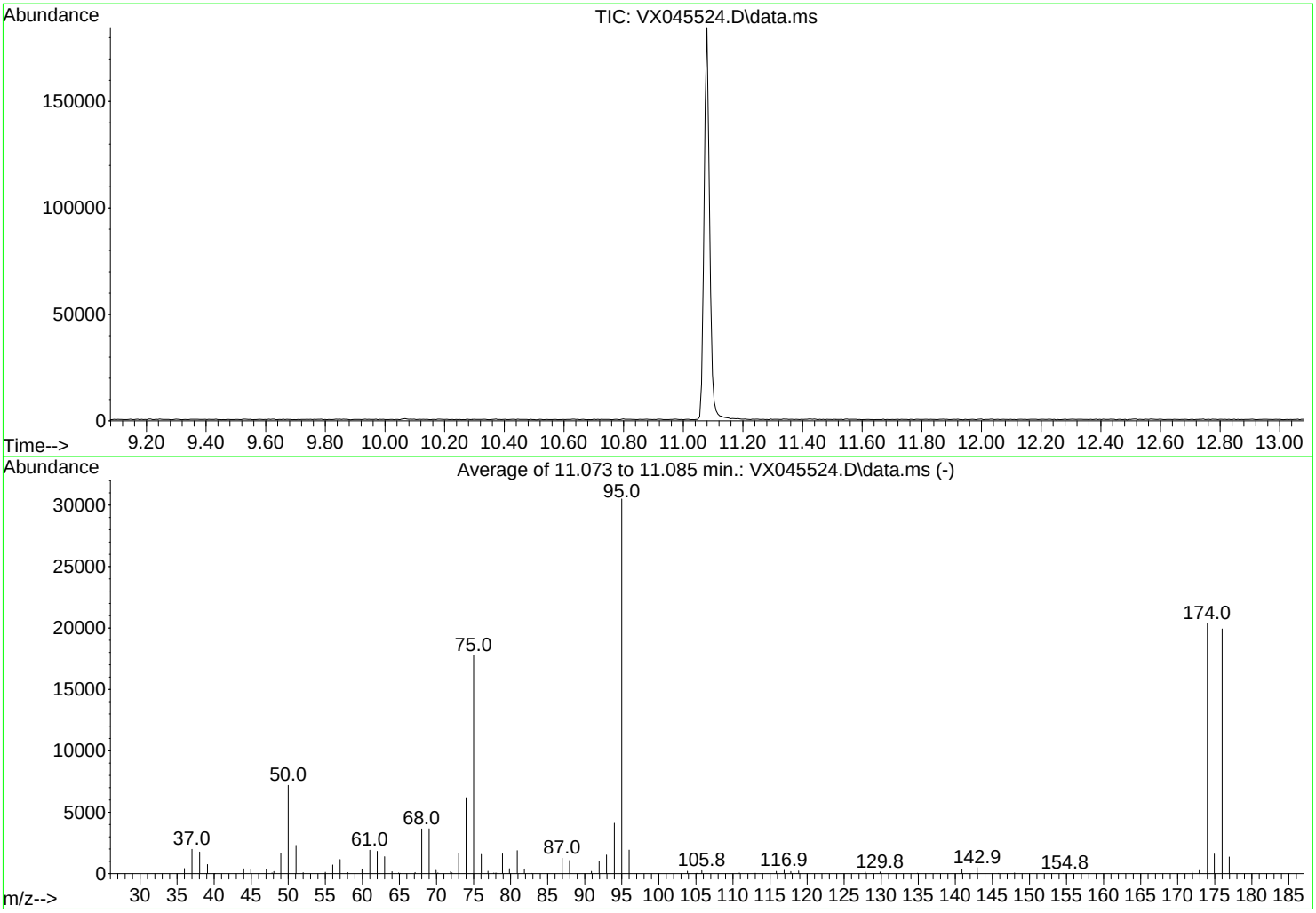
Sample Results: **VX045524.D**

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

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

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



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

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

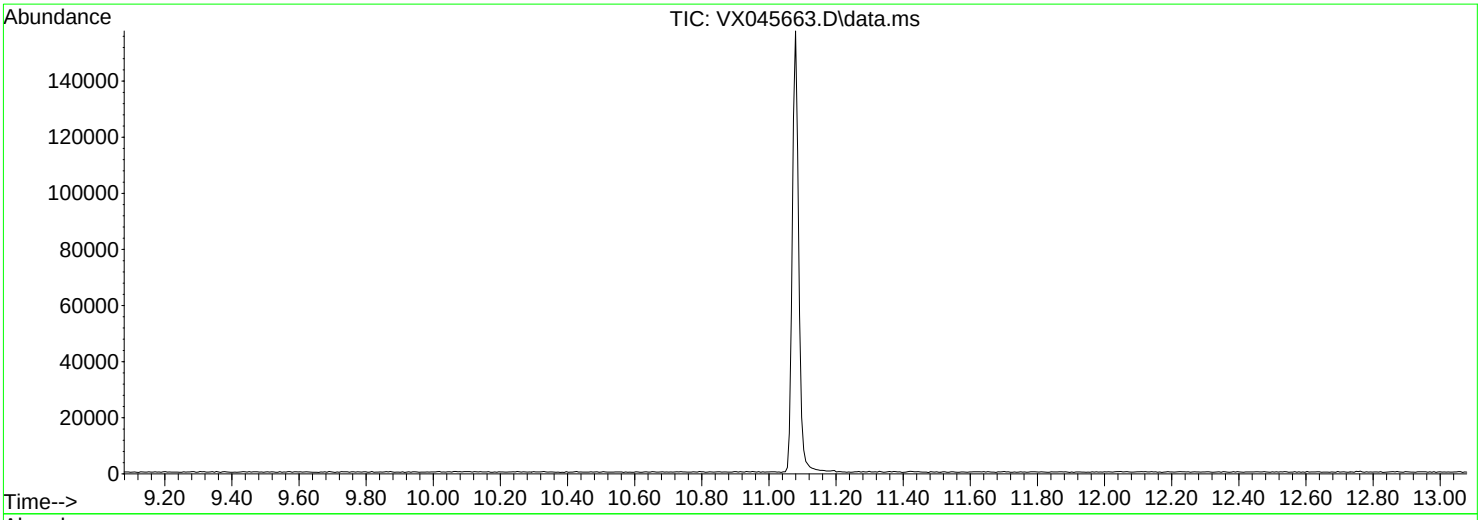
Sample Results: **VX045663.D**

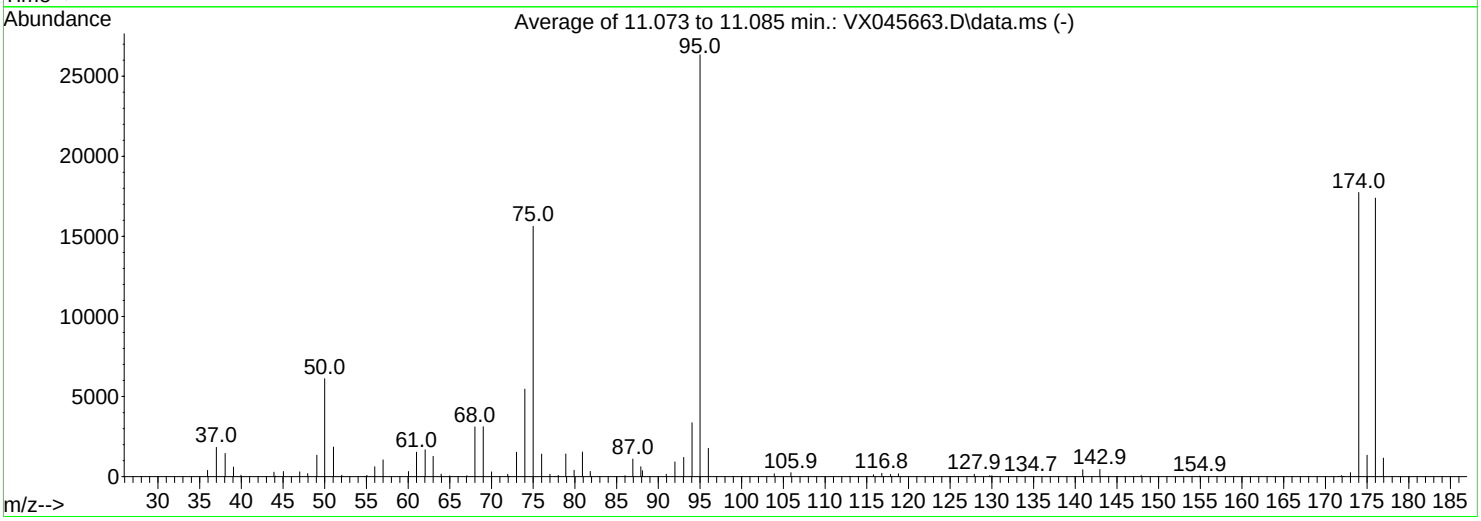
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045663.D
Acq On : 09 Apr 2025 09:38
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

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





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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.2	6109	PASS
75	95	30	60	59.4	15637	PASS
95	95	100	100	100.0	26333	PASS
96	95	5	9	6.7	1772	PASS
173	174	0.00	2	1.4	252	PASS
174	95	50	100	67.4	17742	PASS
175	174	5	9	7.5	1336	PASS
176	174	95	101	98.0	17394	PASS
177	176	5	9	6.7	1162	PASS

Raw Data: **VX045666.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBL01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045666.D	1		04/09/25 11:26	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.22	U	0.22	1.00	ug/L
74-87-3	Chloromethane	0.32	U	0.32	1.00	ug/L
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
141-78-6	Ethyl Acetate	0.31	U	0.31	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-65-0	Tert butyl alcohol	5.50	U	5.50	25.0	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
107-02-8	Acrolein	7.10	U	7.10	25.0	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	5.00	ug/L
67-64-1	Acetone	1.50	U	1.50	5.00	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
79-20-9	Methyl Acetate	0.27	U	0.27	1.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.23	U	0.23	1.00	ug/L
108-05-4	Vinyl Acetate	0.66	U	0.66	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.50	U	1.50	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
594-20-7	2,2-Dichloropropane	0.21	U	0.21	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	1.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
108-87-2	Methylcyclohexane	0.16	U	0.16	1.00	ug/L
563-58-6	1,1-Dichloropropene	0.15	U	0.15	1.00	ug/L

Raw Data: **VX045666.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBL01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045666.D	1		04/09/25 11:26	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	1.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	1.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	5.00	ug/L
108-88-3	Toluene	0.14	U	0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
142-28-9	1,3-Dichloropropane	0.19	U	0.19	1.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	0.30	U	0.30	5.00	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	1.00	ug/L
67-72-1	Hexachloroethane	0.32	U	0.32	0	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	0.24	U	0.24	2.00	ug/L
95-47-6	o-Xylene	0.12	U	0.12	1.00	ug/L
100-42-5	Styrene	0.15	U	0.15	1.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	1.00	ug/L
98-82-8	Isopropylbenzene	0.12	U	0.12	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	1.00	ug/L
108-86-1	Bromobenzene	0.24	U	0.24	1.00	ug/L
103-65-1	n-propylbenzene	0.13	U	0.13	1.00	ug/L
95-49-8	2-Chlorotoluene	0.14	U	0.14	1.00	ug/L

Raw Data: **VX045666.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBL01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045666.D	1		04/09/25 11:26	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.15	U	0.15	1.00	ug/L
106-43-4	4-Chlorotoluene	0.13	U	0.13	1.00	ug/L
98-06-6	tert-Butylbenzene	0.14	U	0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.14	U	0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	0.13	U	0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	0.13	U	0.13	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
104-51-8	n-Butylbenzene	0.15	U	0.15	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
87-68-3	Hexachlorobutadiene	0.30	U	0.30	1.00	ug/L
91-20-3	Naphthalene	0.20	U	0.20	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.20	U	0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.5		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	50.5		86 - 113	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.9		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	69900	5.544			
540-36-3	1,4-Difluorobenzene	138000	6.757			
3114-55-4	Chlorobenzene-d5	128000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	50500	12.018			

Raw Data: **VX045666.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBL01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045666.D	1		04/09/25 11:26	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045666.D
Acq On : 09 Apr 2025 11:26
Operator : JC/MD
Sample : VX0409WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBL01

Quant Time: Apr 10 01:33:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.544	168	69921	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	138334	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	127856	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	50474	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	68376	53.474	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 106.940%			
35) Dibromofluoromethane	5.379	113	50392	51.343	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.680%			
50) Toluene-d8	8.647	98	172860	50.459	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.920%			
62) 4-Bromofluorobenzene	11.079	95	62262	49.896	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 99.800%			

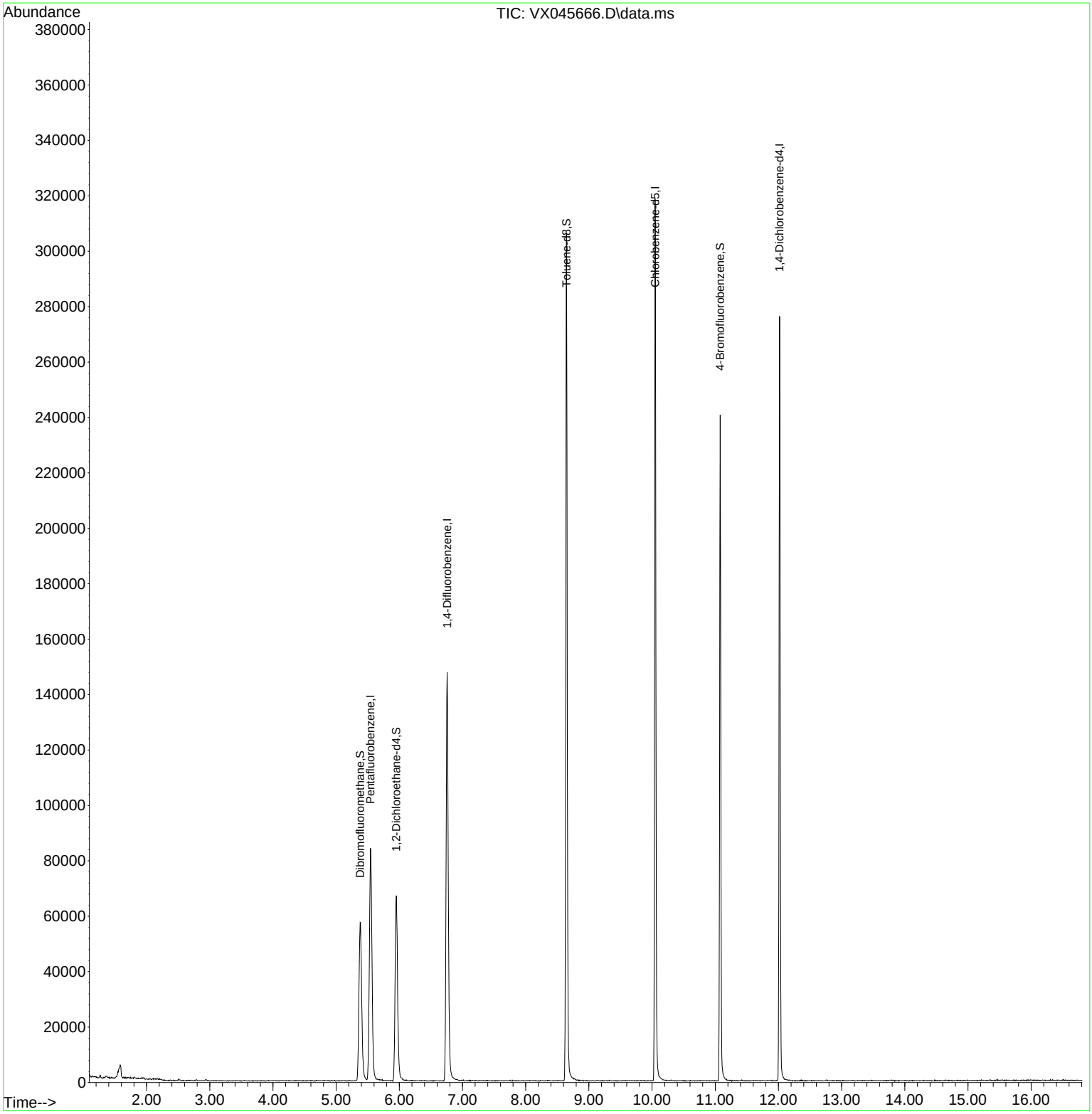
Target Compounds Qvalue

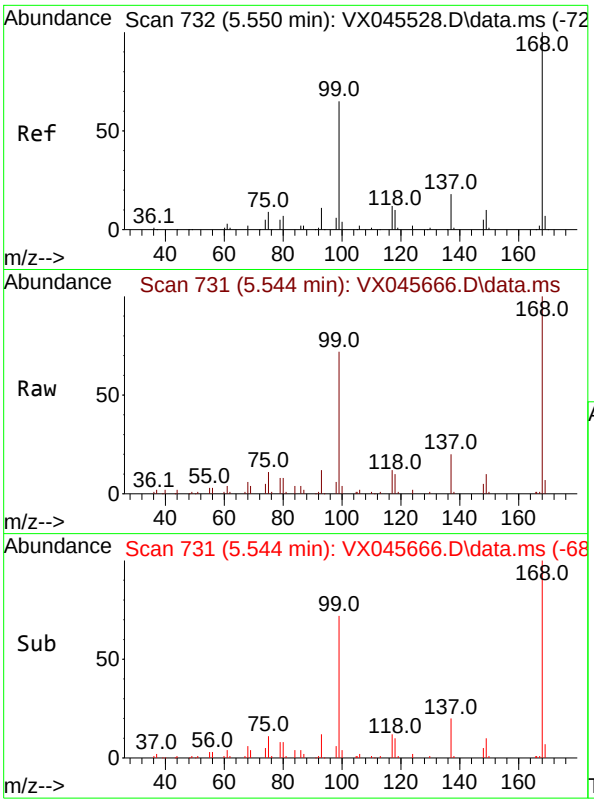
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045666.D
Acq On : 09 Apr 2025 11:26
Operator : JC/MD
Sample : VX0409WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBL01

Quant Time: Apr 10 01:33:38 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration



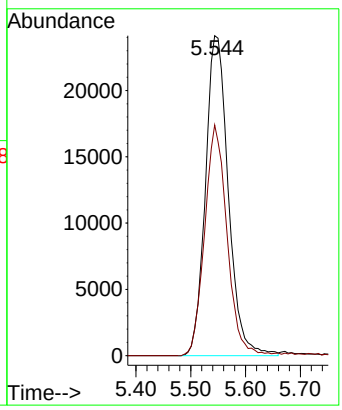


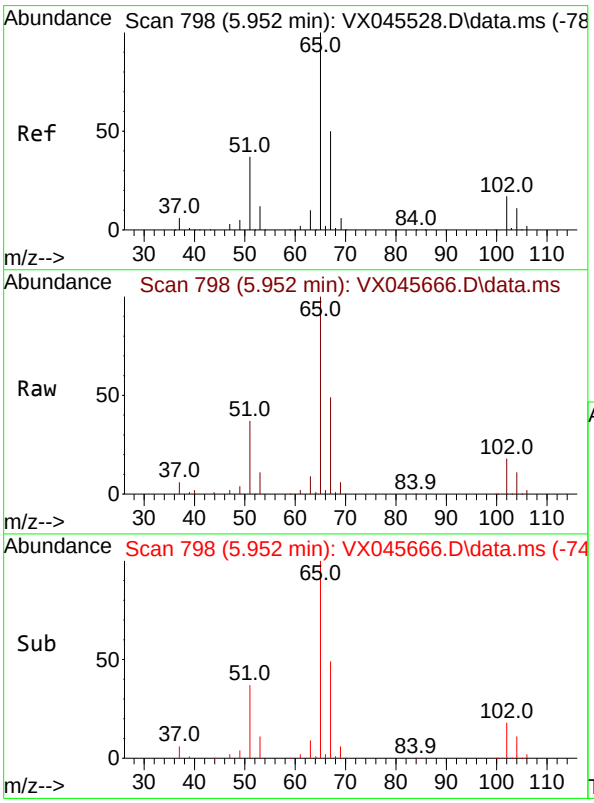
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.544 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBL01

Tgt Ion:168 Resp: 69921

Ion	Ratio	Lower	Upper
168	100		
99	72.1	52.3	78.5

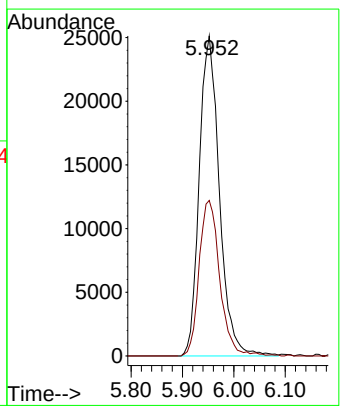


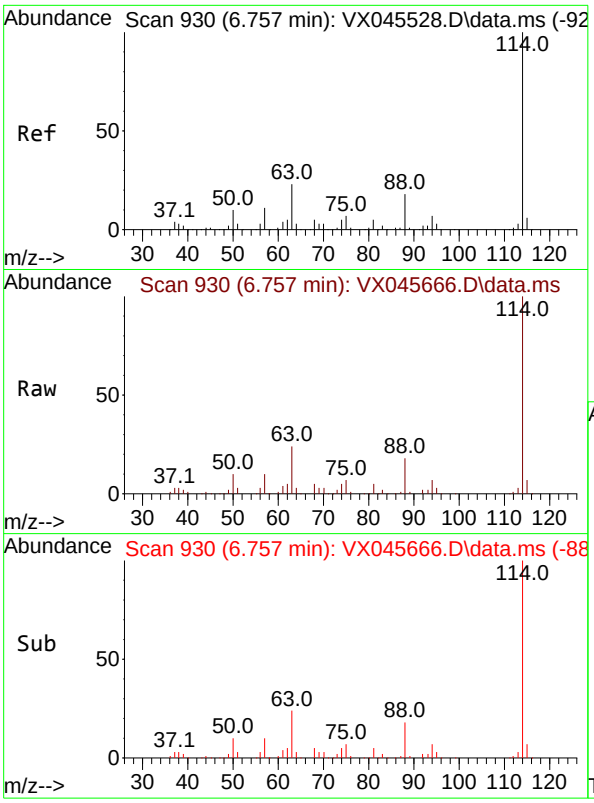


#33
1,2-Dichloroethane-d4
Concen: 53.474 ug/l
RT: 5.952 min Scan# 798
Delta R.T. -0.000 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Tgt Ion: 65 Resp: 68376

Ion	Ratio	Lower	Upper
65	100		
67	49.7	0.0	99.0



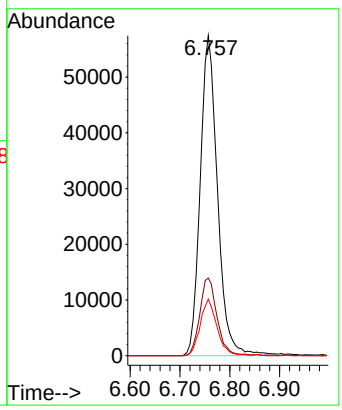


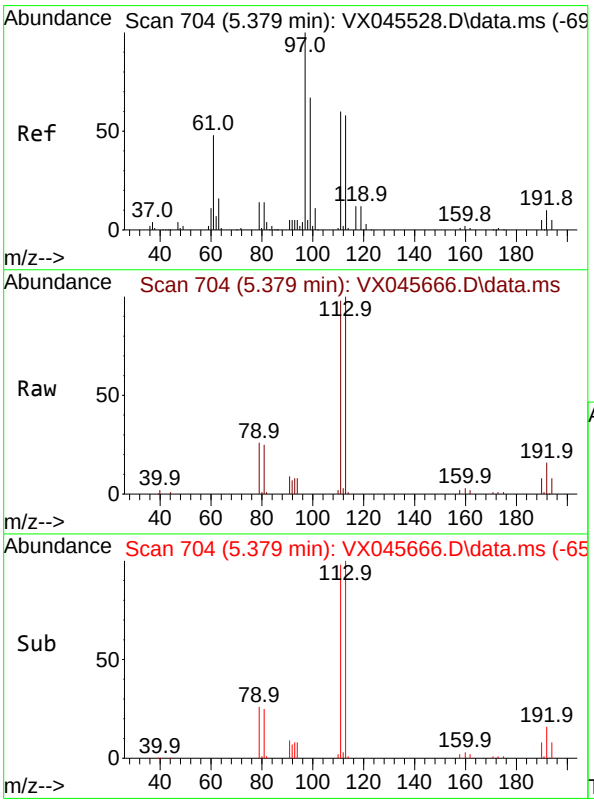
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 9
Delta R.T. -0.000 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBL01

Tgt Ion:114 Resp: 138334

Ion	Ratio	Lower	Upper
114	100		
63	24.3	0.0	46.8
88	17.7	0.0	35.4

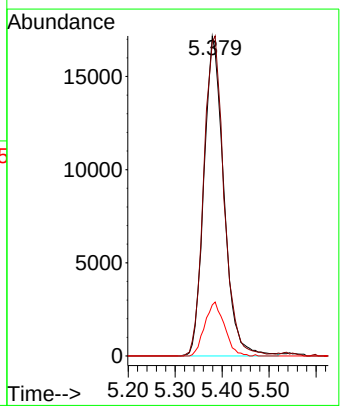


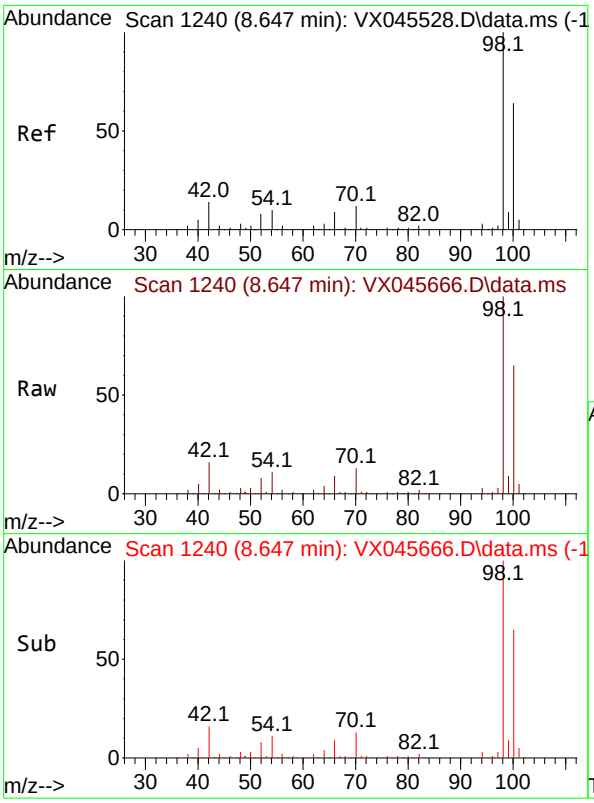


#35
Dibromofluoromethane
Concen: 51.343 ug/l
RT: 5.379 min Scan# 704
Delta R.T. -0.000 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Tgt Ion:113 Resp: 50392

Ion	Ratio	Lower	Upper
113	100		
111	101.8	81.8	122.6
192	16.7	13.8	20.6



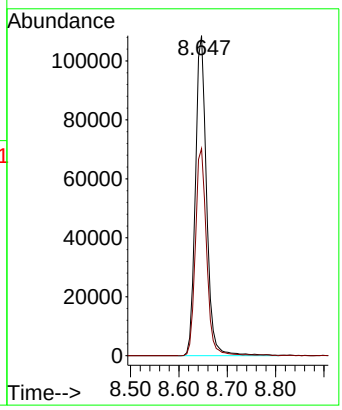


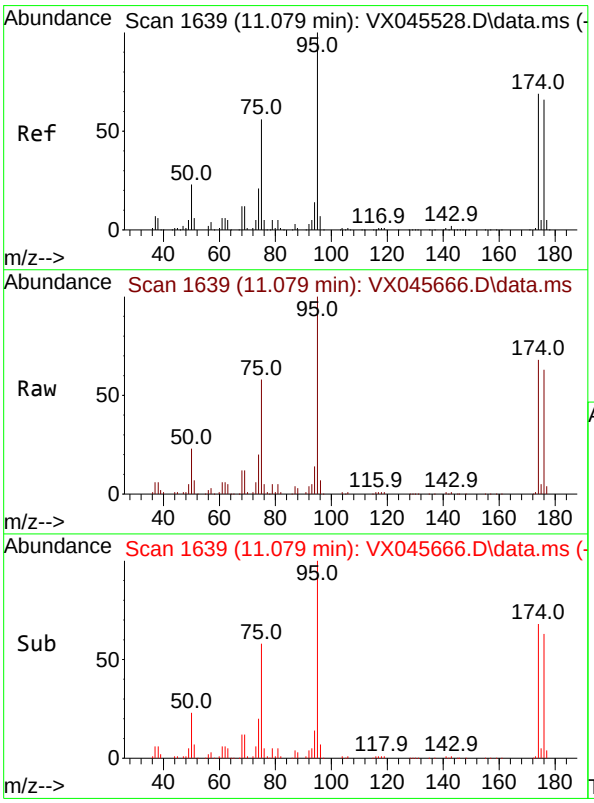
#50
Toluene-d8
Concen: 50.459 ug/l
RT: 8.647 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBL01

Tgt Ion: 98 Resp: 172860

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.2	78.4

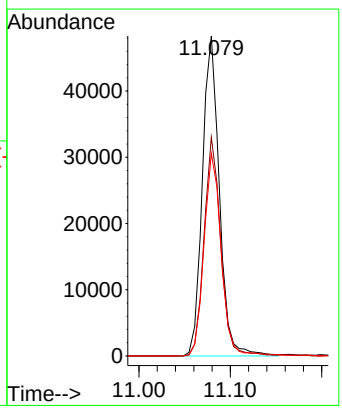


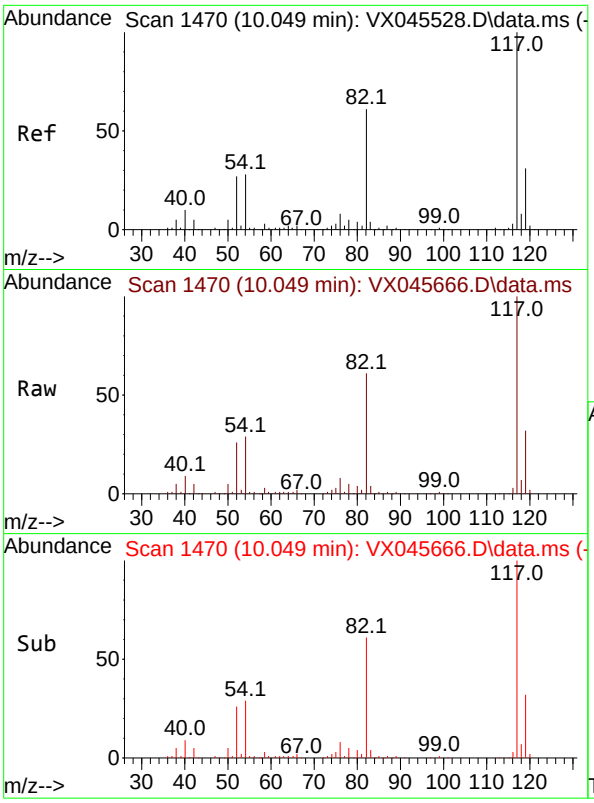


#62
4-Bromofluorobenzene
Concen: 49.896 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Tgt Ion: 95 Resp: 62262

Ion	Ratio	Lower	Upper
95	100		
174	67.0	0.0	135.8
176	63.9	0.0	131.4



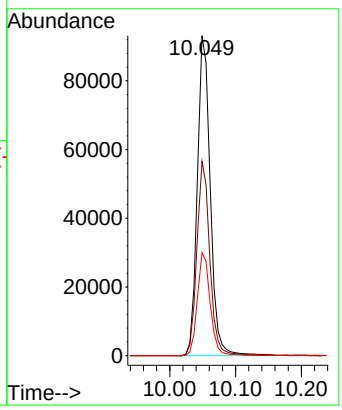


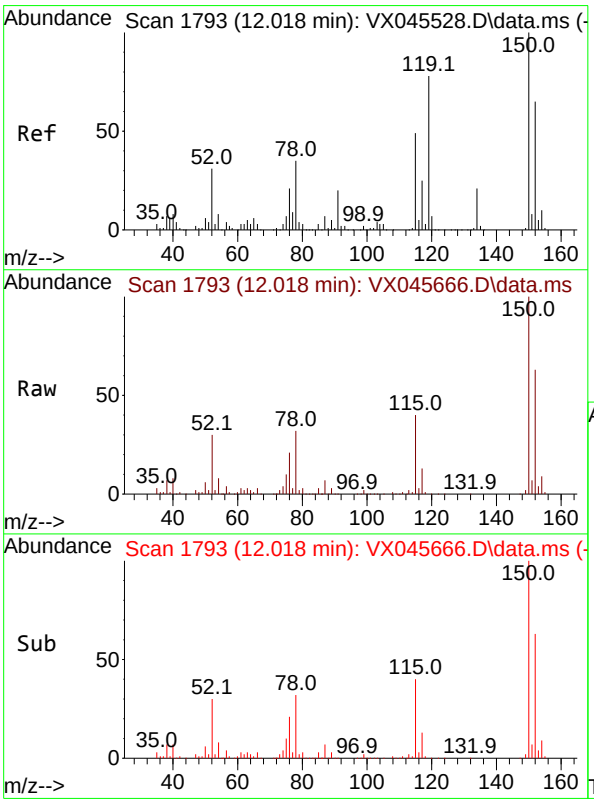
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.049 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBL01

Tgt Ion:117 Resp: 127856

Ion	Ratio	Lower	Upper
117	100		
82	60.7	49.2	73.8
119	32.2	25.1	37.7

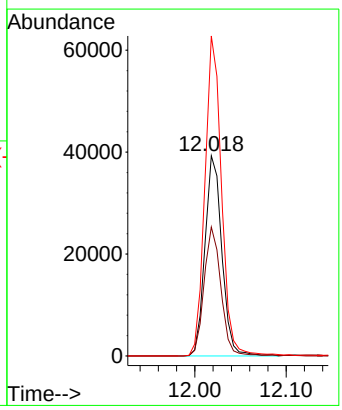




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VX045666.D
Acq: 09 Apr 2025 11:26

Tgt Ion:152 Resp: 50474

Ion	Ratio	Lower	Upper
152	100		
115	64.3	46.9	140.7
150	157.2	0.0	349.4



Raw Data: **VX045667.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBS01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045667.D	1		04/09/25 11:49	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	20.1		0.22	1.00	ug/L
74-87-3	Chloromethane	18.7		0.32	1.00	ug/L
75-01-4	Vinyl Chloride	18.5		0.26	1.00	ug/L
141-78-6	Ethyl Acetate	18.1		0.31	1.00	ug/L
74-83-9	Bromomethane	18.2		1.40	5.00	ug/L
75-00-3	Chloroethane	20.4		0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.7		0.33	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	20.4		0.25	1.00	ug/L
75-65-0	Tert butyl alcohol	96.8		5.50	25.0	ug/L
75-35-4	1,1-Dichloroethene	18.4		0.23	1.00	ug/L
107-02-8	Acrolein	80.6		7.10	25.0	ug/L
107-13-1	Acrylonitrile	93.4		0.83	5.00	ug/L
67-64-1	Acetone	93.3		1.50	5.00	ug/L
75-15-0	Carbon Disulfide	16.5		0.21	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.3		0.16	1.00	ug/L
79-20-9	Methyl Acetate	20.2		0.27	1.00	ug/L
75-09-2	Methylene Chloride	18.3		0.28	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.4		0.23	1.00	ug/L
108-05-4	Vinyl Acetate	94.7		0.66	5.00	ug/L
75-34-3	1,1-Dichloroethane	19.1		0.23	1.00	ug/L
110-82-7	Cyclohexane	18.5		1.50	5.00	ug/L
78-93-3	2-Butanone	94.6		0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	20.1		0.25	1.00	ug/L
594-20-7	2,2-Dichloropropane	21.3		0.21	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.6		0.19	1.00	ug/L
74-97-5	Bromochloromethane	19.8		0.22	1.00	ug/L
67-66-3	Chloroform	19.3		0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.2		0.20	1.00	ug/L
108-87-2	Methylcyclohexane	19.5		0.16	1.00	ug/L
563-58-6	1,1-Dichloropropene	19.7		0.15	1.00	ug/L

Raw Data: **VX045667.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBS01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045667.D	1		04/09/25 11:49	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
71-43-2	Benzene	19.3		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.4		0.22	1.00	ug/L
79-01-6	Trichloroethene	19.2		0.090	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.6		0.20	1.00	ug/L
74-95-3	Dibromomethane	19.4		0.25	1.00	ug/L
75-27-4	Bromodichloromethane	19.6		0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		0.68	5.00	ug/L
108-88-3	Toluene	19.3		0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.7		0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.3		0.16	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.9		0.21	1.00	ug/L
142-28-9	1,3-Dichloropropane	19.7		0.19	1.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	98.2		0.30	5.00	ug/L
591-78-6	2-Hexanone	100		0.89	5.00	ug/L
124-48-1	Dibromochloromethane	19.8		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.8		0.15	1.00	ug/L
127-18-4	Tetrachloroethene	20.9		0.23	1.00	ug/L
108-90-7	Chlorobenzene	20.3		0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	19.6		0.19	1.00	ug/L
67-72-1	Hexachloroethane	19.9		0.32	0	ug/L
100-41-4	Ethyl Benzene	20.0		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	40.5		0.24	2.00	ug/L
95-47-6	o-Xylene	20.2		0.12	1.00	ug/L
100-42-5	Styrene	20.3		0.15	1.00	ug/L
75-25-2	Bromoform	19.5		0.19	1.00	ug/L
98-82-8	Isopropylbenzene	20.3		0.12	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.9		0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	20.2		0.35	1.00	ug/L
108-86-1	Bromobenzene	20.3		0.24	1.00	ug/L
103-65-1	n-propylbenzene	20.3		0.13	1.00	ug/L
95-49-8	2-Chlorotoluene	19.8		0.14	1.00	ug/L

Raw Data: **VX045667.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBS01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045667.D	1		04/09/25 11:49	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	20.7		0.15	1.00	ug/L
106-43-4	4-Chlorotoluene	20.6		0.13	1.00	ug/L
98-06-6	tert-Butylbenzene	20.2		0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.2		0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	20.7		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	20.2		0.13	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.8		0.16	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.9		0.19	1.00	ug/L
104-51-8	n-Butylbenzene	20.1		0.15	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	20.6		0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	20.4		0.53	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	19.1		0.20	1.00	ug/L
87-68-3	Hexachlorobutadiene	20.7		0.30	1.00	ug/L
91-20-3	Naphthalene	19.6		0.20	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.7		0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.5		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	54.5		75 - 124	109%	SPK: 50
2037-26-5	Toluene-d8	53.1		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.6		77 - 121	105%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	94100	5.544			
540-36-3	1,4-Difluorobenzene	163000	6.757			
3114-55-4	Chlorobenzene-d5	141000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	64200	12.018			

Raw Data: **VX045667.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBS01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045667.D	1		04/09/25 11:49	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045667.D
Acq On : 09 Apr 2025 11:49
Operator : JC/MD
Sample : VX0409WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 10 01:33:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.544	168	94074	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	163361	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	141398	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	64175	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.952	65	92053	53.508	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 107.020%			
35) Dibromofluoromethane	5.379	113	63174	54.505	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 109.020%			
50) Toluene-d8	8.647	98	214655	53.060	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 106.120%			
62) 4-Bromofluorobenzene	11.079	95	77473	52.574	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 105.140%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	28296	20.113	ug/l	99
3) Chloromethane	1.301	50	27094	18.746	ug/l	96
4) Vinyl Chloride	1.374	62	24425	18.466	ug/l	98
5) Bromomethane	1.593	94	11395	18.169	ug/l	98
6) Chloroethane	1.672	64	14346	20.443	ug/l	100
7) Trichlorofluoromethane	1.880	101	38861	19.702	ug/l	96
8) Diethyl Ether	2.130	74	12161	18.364	ug/l	91
9) 1,1,2-Trichlorotrifluo...	2.319	101	23620	20.436	ug/l	95
10) Methyl Iodide	2.447	142	26699	18.520	ug/l	98
11) Tert butyl alcohol	2.965	59	22380	96.798	ug/l	97
12) 1,1-Dichloroethene	2.313	96	20770	18.391	ug/l	96
13) Acrolein	2.233	56	25659	80.591	ug/l	99
14) Allyl chloride	2.660	41	41579	19.404	ug/l	98
15) Acrylonitrile	3.062	53	68147	93.374	ug/l	99
16) Acetone	2.380	43	65896	93.280	ug/l	95
17) Carbon Disulfide	2.508	76	46029	16.502	ug/l	99
18) Methyl Acetate	2.703	43	32926	20.244	ug/l	100
19) Methyl tert-butyl Ether	3.111	73	76110	19.265	ug/l	100
20) Methylene Chloride	2.782	84	24229	18.320	ug/l	91
21) trans-1,2-Dichloroethene	3.087	96	21257	18.424	ug/l	97
22) Diisopropyl ether	3.757	45	79613	18.861	ug/l #	83
23) Vinyl Acetate	3.721	43	345218	94.659	ug/l	100
24) 1,1-Dichloroethane	3.605	63	45684	19.137	ug/l	99
25) 2-Butanone	4.556	43	97809	94.586	ug/l	98
26) 2,2-Dichloropropane	4.471	77	32813	21.275	ug/l	99
27) cis-1,2-Dichloroethene	4.489	96	26125	18.585	ug/l	97
28) Bromochloromethane	4.891	49	22802	19.766	ug/l	99
29) Tetrahydrofuran	5.007	42	62847	93.742	ug/l	99
30) Chloroform	5.086	83	47524	19.348	ug/l	98
31) Cyclohexane	5.458	56	39121	18.537	ug/l	95
32) 1,1,1-Trichloroethane	5.379	97	39802	19.150	ug/l	99
36) 1,1-Dichloropropene	5.684	75	30850	19.713	ug/l	98
37) Ethyl Acetate	4.715	43	35720	18.112	ug/l	99
38) Carbon Tetrachloride	5.666	117	33982	20.092	ug/l	96
39) Methylcyclohexane	7.373	83	37396	19.494	ug/l	95
40) Benzene	6.031	78	92251	19.301	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045667.D
Acq On : 09 Apr 2025 11:49
Operator : JC/MD
Sample : VX0409WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 10 01:33:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.916	41	21224	20.397	ug/l		97
42) 1,2-Dichloroethane	6.086	62	40264	20.397	ug/l		99
43) Isopropyl Acetate	6.336	43	57645	19.285	ug/l		100
44) Trichloroethene	7.123	130	21805	19.194	ug/l		97
45) 1,2-Dichloropropane	7.428	63	23339	19.571	ug/l		100
46) Dibromomethane	7.580	93	17802	19.446	ug/l		98
47) Bromodichloromethane	7.818	83	35828	19.598	ug/l		98
48) Methyl methacrylate	7.690	41	30321	19.647	ug/l		99
49) 1,4-Dioxane	7.659	88	11977	428.937	ug/l		97
51) 4-Methyl-2-Pentanone	8.568	43	200067	100.967	ug/l		99
52) Toluene	8.714	92	55913	19.333	ug/l		99
53) t-1,3-Dichloropropene	8.976	75	30206	18.684	ug/l		99
54) cis-1,3-Dichloropropene	8.360	75	34931	20.333	ug/l		98
55) 1,1,2-Trichloroethane	9.147	97	22964	19.926	ug/l		96
56) Ethyl methacrylate	9.116	69	35297	19.790	ug/l		99
57) 1,3-Dichloropropane	9.305	76	39607	19.736	ug/l		98
58) 2-Chloroethyl Vinyl ether	8.238	63	88591	98.189	ug/l		100
59) 2-Hexanone	9.427	43	148084	100.919	ug/l		99
60) Dibromochloromethane	9.519	129	24830	19.763	ug/l		98
61) 1,2-Dibromoethane	9.604	107	23143	19.837	ug/l		99
64) Tetrachloroethene	9.269	164	20900	20.935	ug/l		98
65) Chlorobenzene	10.073	112	61480	20.348	ug/l		96
66) 1,1,1,2-Tetrachloroethane	10.159	131	20527	19.568	ug/l		99
67) Ethyl Benzene	10.189	91	108358	20.024	ug/l		98
68) m/p-Xylenes	10.299	106	79752	40.521	ug/l		99
69) o-Xylene	10.640	106	39137	20.186	ug/l		99
70) Styrene	10.653	104	64826	20.258	ug/l		98
71) Bromoform	10.799	173	15275	19.502	ug/l	#	100
73) Isopropylbenzene	10.957	105	104506	20.330	ug/l		99
74) N-amyl acetate	10.842	43	49023	19.937	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.207	83	35954	19.910	ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	31590m	20.180	ug/l		
77) Bromobenzene	11.195	156	24141	20.325	ug/l		98
78) n-propylbenzene	11.299	91	120369	20.329	ug/l		100
79) 2-Chlorotoluene	11.360	91	74998	19.813	ug/l		100
80) 1,3,5-Trimethylbenzene	11.451	105	88053	20.715	ug/l		99
81) trans-1,4-Dichloro-2-b...	11.018	75	8674	18.806	ug/l		95
82) 4-Chlorotoluene	11.451	91	86832	20.575	ug/l		100
83) tert-Butylbenzene	11.713	119	84807	20.152	ug/l		99
84) 1,2,4-Trimethylbenzene	11.750	105	86160	20.195	ug/l		99
85) sec-Butylbenzene	11.890	105	106901	20.682	ug/l		100
86) p-Isopropyltoluene	12.006	119	86083	20.201	ug/l		99
87) 1,3-Dichlorobenzene	11.969	146	42896	19.841	ug/l		99
88) 1,4-Dichlorobenzene	12.036	146	43700	19.938	ug/l		97
89) n-Butylbenzene	12.329	91	74429	20.141	ug/l		99
90) Hexachloroethane	12.536	117	14599	19.934	ug/l		98
91) 1,2-Dichlorobenzene	12.335	146	44205	20.565	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	7722	20.447	ug/l		96
93) 1,2,4-Trichlorobenzene	13.585	180	22901	19.140	ug/l		99
94) Hexachlorobutadiene	13.725	225	10679	20.712	ug/l		98
95) Naphthalene	13.774	128	87230	19.591	ug/l		99
96) 1,2,3-Trichlorobenzene	13.957	180	24734	19.742	ug/l		99

Sample Results: **VX045667.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045667.D
Acq On : 09 Apr 2025 11:49
Operator : JC/MD
Sample : VX0409WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 10 01:33:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

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

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

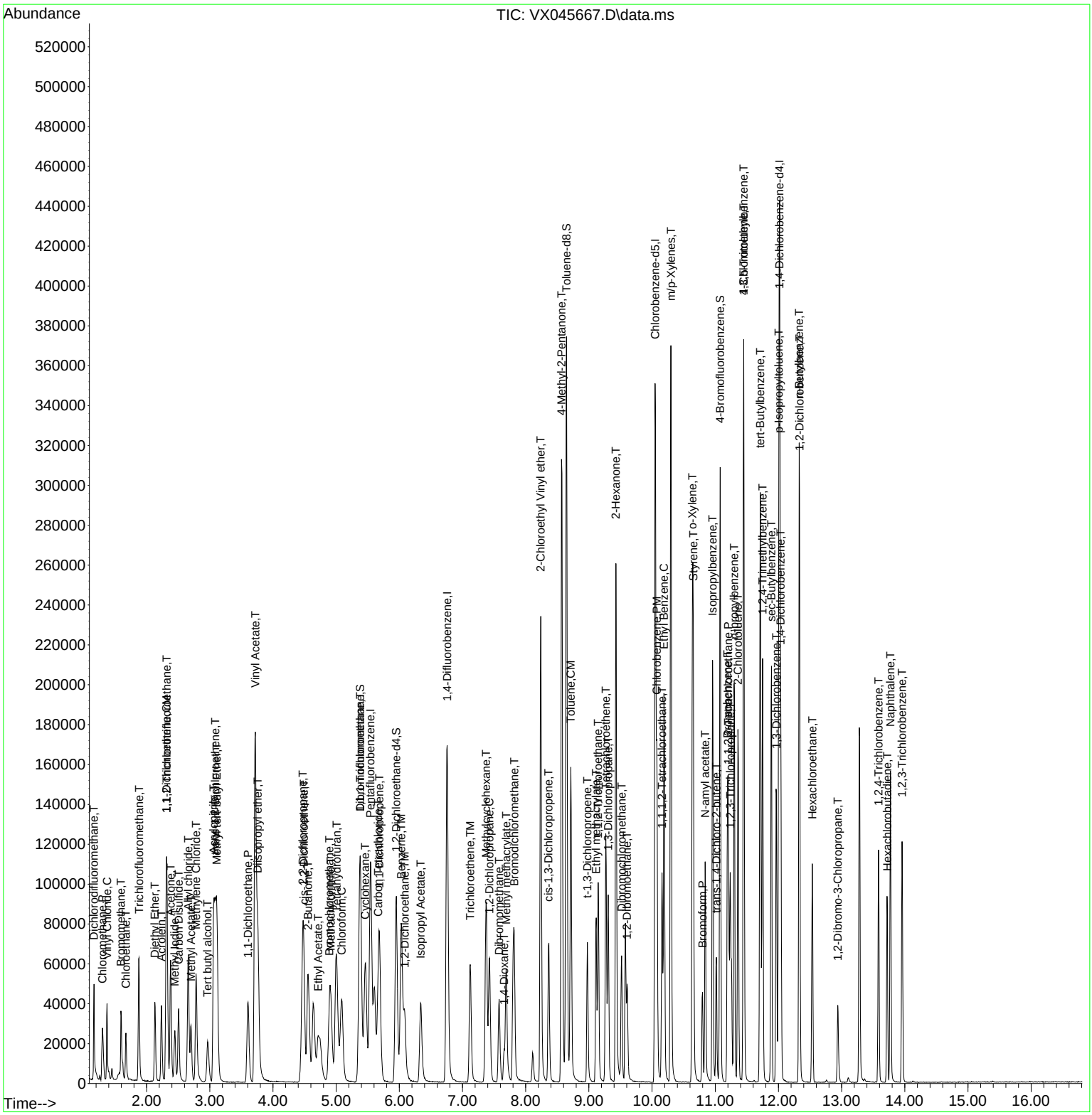
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045667.D
Acq On : 09 Apr 2025 11:49
Operator : JC/MD
Sample : VX0409WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 10 01:33:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025



Raw Data: **VX045668.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBSD01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045668.D	1		04/09/25 12:14	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	21.0		0.22	1.00	ug/L
74-87-3	Chloromethane	19.1		0.32	1.00	ug/L
75-01-4	Vinyl Chloride	18.9		0.26	1.00	ug/L
141-78-6	Ethyl Acetate	19.8		0.31	1.00	ug/L
74-83-9	Bromomethane	19.2		1.40	5.00	ug/L
75-00-3	Chloroethane	20.9		0.47	1.00	ug/L
75-69-4	Trichlorofluoromethane	21.1		0.33	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	21.6		0.25	1.00	ug/L
75-65-0	Tert butyl alcohol	100		5.50	25.0	ug/L
75-35-4	1,1-Dichloroethene	19.2		0.23	1.00	ug/L
107-02-8	Acrolein	86.8		7.10	25.0	ug/L
107-13-1	Acrylonitrile	100		0.83	5.00	ug/L
67-64-1	Acetone	100		1.50	5.00	ug/L
75-15-0	Carbon Disulfide	17.4		0.21	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	21.1		0.16	1.00	ug/L
79-20-9	Methyl Acetate	22.1		0.27	1.00	ug/L
75-09-2	Methylene Chloride	20.0		0.28	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.9		0.23	1.00	ug/L
108-05-4	Vinyl Acetate	100		0.66	5.00	ug/L
75-34-3	1,1-Dichloroethane	20.1		0.23	1.00	ug/L
110-82-7	Cyclohexane	19.6		1.50	5.00	ug/L
78-93-3	2-Butanone	100		0.98	5.00	ug/L
56-23-5	Carbon Tetrachloride	21.2		0.25	1.00	ug/L
594-20-7	2,2-Dichloropropane	22.6		0.21	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.7		0.19	1.00	ug/L
74-97-5	Bromochloromethane	22.3		0.22	1.00	ug/L
67-66-3	Chloroform	20.8		0.25	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	20.3		0.20	1.00	ug/L
108-87-2	Methylcyclohexane	20.9		0.16	1.00	ug/L
563-58-6	1,1-Dichloropropene	20.7		0.15	1.00	ug/L

Raw Data: **VX045668.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBSD01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045668.D	1		04/09/25 12:14	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
71-43-2	Benzene	20.4		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	21.5		0.22	1.00	ug/L
79-01-6	Trichloroethene	20.4		0.090	1.00	ug/L
78-87-5	1,2-Dichloropropane	20.8		0.20	1.00	ug/L
74-95-3	Dibromomethane	21.0		0.25	1.00	ug/L
75-27-4	Bromodichloromethane	21.0		0.22	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		0.68	5.00	ug/L
108-88-3	Toluene	20.3		0.14	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.3		0.17	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	21.8		0.16	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	21.0		0.21	1.00	ug/L
142-28-9	1,3-Dichloropropane	21.2		0.19	1.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	110		0.30	5.00	ug/L
591-78-6	2-Hexanone	110		0.89	5.00	ug/L
124-48-1	Dibromochloromethane	21.1		0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	20.9		0.15	1.00	ug/L
127-18-4	Tetrachloroethene	22.0		0.23	1.00	ug/L
108-90-7	Chlorobenzene	20.9		0.12	1.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	21.0		0.19	1.00	ug/L
67-72-1	Hexachloroethane	20.2		0.32	0	ug/L
100-41-4	Ethyl Benzene	20.9		0.13	1.00	ug/L
179601-23-1	m/p-Xylenes	42.3		0.24	2.00	ug/L
95-47-6	o-Xylene	20.7		0.12	1.00	ug/L
100-42-5	Styrene	21.2		0.15	1.00	ug/L
75-25-2	Bromoform	20.2		0.19	1.00	ug/L
98-82-8	Isopropylbenzene	20.7		0.12	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.5		0.26	1.00	ug/L
96-18-4	1,2,3-Trichloropropane	20.7		0.35	1.00	ug/L
108-86-1	Bromobenzene	20.0		0.24	1.00	ug/L
103-65-1	n-propylbenzene	20.6		0.13	1.00	ug/L
95-49-8	2-Chlorotoluene	20.3		0.14	1.00	ug/L

Raw Data: **VX045668.D**

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBSD01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045668.D	1		04/09/25 12:14	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	21.1		0.15	1.00	ug/L
106-43-4	4-Chlorotoluene	20.5		0.13	1.00	ug/L
98-06-6	tert-Butylbenzene	20.5		0.14	1.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	21.0		0.14	1.00	ug/L
135-98-8	sec-Butylbenzene	21.1		0.13	1.00	ug/L
99-87-6	p-Isopropyltoluene	20.8		0.13	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.5		0.16	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	20.2		0.19	1.00	ug/L
104-51-8	n-Butylbenzene	20.8		0.15	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	21.2		0.16	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	20.8		0.53	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	20.7		0.20	1.00	ug/L
87-68-3	Hexachlorobutadiene	21.3		0.30	1.00	ug/L
91-20-3	Naphthalene	20.4		0.20	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	20.3		0.20	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.1		74 - 125	108%	SPK: 50
1868-53-7	Dibromofluoromethane	53.8		75 - 124	108%	SPK: 50
2037-26-5	Toluene-d8	53.1		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.3		77 - 121	109%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	83900	5.544			
540-36-3	1,4-Difluorobenzene	147000	6.757			
3114-55-4	Chlorobenzene-d5	129000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	60500	12.018			

Raw Data: **VX045668.D**

Alliance TECHNICAL GROUP

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

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	
Project:	Weekly Storage Blanks	Date Received:	
Client Sample ID:	VX0409WBSD01	SDG No.:	Q1729
Lab Sample ID:	VX0409WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045668.D	1		04/09/25 12:14	VX040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045668.D
Acq On : 09 Apr 2025 12:14
Operator : JC/MD
Sample : VX0409WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 10 01:34:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.544	168	83922	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.757	114	147335	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	129399	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	60456	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.946	65	83081	54.134	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 108.260%			
35) Dibromofluoromethane	5.379	113	56225	53.786	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 107.580%			
50) Toluene-d8	8.647	98	193619	53.066	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 106.140%			
62) 4-Bromofluorobenzene	11.079	95	72225	54.344	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 108.680%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	26359	21.002	ug/l	97
3) Chloromethane	1.301	50	24598	19.078	ug/l	96
4) Vinyl Chloride	1.374	62	22249	18.856	ug/l	98
5) Bromomethane	1.593	94	10738	19.193	ug/l	96
6) Chloroethane	1.672	64	13084	20.900	ug/l	96
7) Trichlorofluoromethane	1.874	101	37130	21.102	ug/l	98
8) Diethyl Ether	2.130	74	12288	20.801	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.319	101	22284	21.613	ug/l	98
10) Methyl Iodide	2.447	142	25440	19.781	ug/l	98
11) Tert butyl alcohol	2.971	59	21640	104.919	ug/l	97
12) 1,1-Dichloroethene	2.313	96	19384	19.240	ug/l	96
13) Acrolein	2.233	56	24667	86.848	ug/l	100
14) Allyl chloride	2.660	41	38545	20.164	ug/l	100
15) Acrylonitrile	3.062	53	66469	102.092	ug/l	98
16) Acetone	2.380	43	63148	100.204	ug/l	100
17) Carbon Disulfide	2.502	76	43259	17.385	ug/l	98
18) Methyl Acetate	2.703	43	32001	22.055	ug/l	99
19) Methyl tert-butyl Ether	3.111	73	74214	21.058	ug/l	99
20) Methylene Chloride	2.782	84	23629	20.028	ug/l	98
21) trans-1,2-Dichloroethene	3.081	96	20510	19.927	ug/l	95
22) Diisopropyl ether	3.757	45	76032	20.192	ug/l #	84
23) Vinyl Acetate	3.715	43	337495	103.736	ug/l	100
24) 1,1-Dichloroethane	3.605	63	42727	20.064	ug/l	98
25) 2-Butanone	4.556	43	93998	101.897	ug/l	98
26) 2,2-Dichloropropane	4.471	77	31085	22.593	ug/l	99
27) cis-1,2-Dichloroethene	4.483	96	24738	19.727	ug/l	97
28) Bromochloromethane	4.891	49	22944	22.295	ug/l	95
29) Tetrahydrofuran	5.001	42	60710	101.509	ug/l	99
30) Chloroform	5.086	83	45617	20.818	ug/l	95
31) Cyclohexane	5.464	56	36967	19.636	ug/l	97
32) 1,1,1-Trichloroethane	5.373	97	37694	20.330	ug/l	99
36) 1,1-Dichloropropene	5.684	75	29168	20.666	ug/l	97
37) Ethyl Acetate	4.715	43	35265	19.826	ug/l	99
38) Carbon Tetrachloride	5.666	117	32304	21.177	ug/l	96
39) Methylcyclohexane	7.373	83	36184	20.914	ug/l	97
40) Benzene	6.031	78	88084	20.434	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045668.D
Acq On : 09 Apr 2025 12:14
Operator : JC/MD
Sample : VX0409WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 10 01:34:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	4.916	41	19925	21.231 ug/l		98
42) 1,2-Dichloroethane	6.080	62	38327	21.527 ug/l		98
43) Isopropyl Acetate	6.336	43	56680	21.025 ug/l		99
44) Trichloroethene	7.117	130	20859	20.359 ug/l		98
45) 1,2-Dichloropropane	7.421	63	22357	20.787 ug/l		97
46) Dibromomethane	7.580	93	17307	20.962 ug/l		99
47) Bromodichloromethane	7.818	83	34699	21.045 ug/l		97
48) Methyl methacrylate	7.690	41	29460	21.165 ug/l		99
49) 1,4-Dioxane	7.659	88	12023	477.420 ug/l		97
51) 4-Methyl-2-Pentanone	8.568	43	193392	108.215 ug/l		99
52) Toluene	8.714	92	53050	20.338 ug/l		100
53) t-1,3-Dichloropropene	8.976	75	28240	19.284 ug/l		98
54) cis-1,3-Dichloropropene	8.360	75	33764	21.791 ug/l		96
55) 1,1,2-Trichloroethane	9.147	97	21842	21.014 ug/l		97
56) Ethyl methacrylate	9.116	69	34262	21.299 ug/l		99
57) 1,3-Dichloropropane	9.305	76	38282	21.151 ug/l		99
58) 2-Chloroethyl Vinyl ether	8.238	63	86030	105.722 ug/l		99
59) 2-Hexanone	9.427	43	144024	108.828 ug/l		100
60) Dibromochloromethane	9.519	129	23898	21.090 ug/l		100
61) 1,2-Dibromoethane	9.604	107	22040	20.947 ug/l		100
64) Tetrachloroethene	9.269	164	20103	22.004 ug/l		98
65) Chlorobenzene	10.073	112	57784	20.898 ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.159	131	20170	21.011 ug/l		99
67) Ethyl Benzene	10.189	91	103577	20.915 ug/l		97
68) m/p-Xylenes	10.299	106	76264	42.342 ug/l		99
69) o-Xylene	10.640	106	36814	20.748 ug/l		97
70) Styrene	10.653	104	62023	21.179 ug/l		99
71) Bromoform	10.799	173	14473	20.192 ug/l	#	96
73) Isopropylbenzene	10.957	105	100080	20.667 ug/l		100
74) N-amyl acetate	10.842	43	48343	20.869 ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.207	83	34910	20.522 ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	30554m	20.719 ug/l		
77) Bromobenzene	11.195	156	22419	20.037 ug/l		99
78) n-propylbenzene	11.299	91	114673	20.559 ug/l		100
79) 2-Chlorotoluene	11.360	91	72313	20.279 ug/l		100
80) 1,3,5-Trimethylbenzene	11.451	105	84415	21.081 ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	8233	18.948 ug/l		91
82) 4-Chlorotoluene	11.451	91	81662	20.540 ug/l		99
83) tert-Butylbenzene	11.713	119	81324	20.513 ug/l		99
84) 1,2,4-Trimethylbenzene	11.750	105	84218	20.954 ug/l		98
85) sec-Butylbenzene	11.890	105	102552	21.061 ug/l		99
86) p-Isopropyltoluene	12.006	119	83431	20.783 ug/l		99
87) 1,3-Dichlorobenzene	11.969	146	41742	20.495 ug/l		98
88) 1,4-Dichlorobenzene	12.036	146	41769	20.229 ug/l		97
89) n-Butylbenzene	12.329	91	72507	20.828 ug/l		99
90) Hexachloroethane	12.536	117	13954	20.226 ug/l		97
91) 1,2-Dichlorobenzene	12.335	146	42899	21.185 ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	7403	20.808 ug/l		98
93) 1,2,4-Trichlorobenzene	13.585	180	23347	20.713 ug/l		98
94) Hexachlorobutadiene	13.725	225	10328	21.264 ug/l		99
95) Naphthalene	13.774	128	85609	20.410 ug/l		99
96) 1,2,3-Trichlorobenzene	13.957	180	23965	20.305 ug/l		99

Sample Results: **VX045668.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045668.D
Acq On : 09 Apr 2025 12:14
Operator : JC/MD
Sample : VX0409WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025

Quant Time: Apr 10 01:34:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

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

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

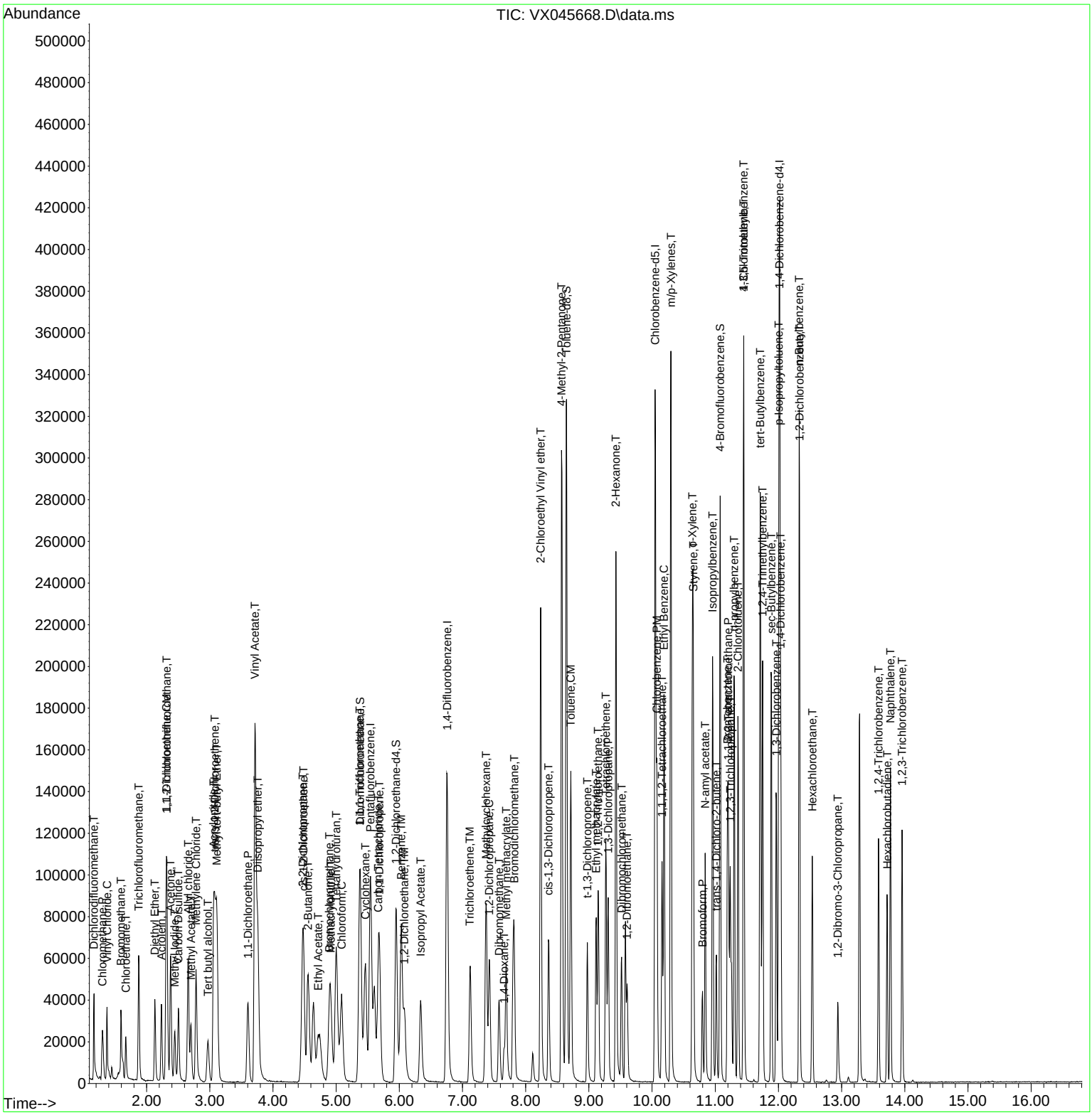
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX040925\
Data File : VX045668.D
Acq On : 09 Apr 2025 12:14
Operator : JC/MD
Sample : VX0409WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 10 01:34:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X040225W.M
Quant Title : SW846 8260
QLast Update : Wed Apr 02 03:11:43 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0409WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 04/10/2025
Supervised By :Mahesh Dadoda 04/10/2025



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

Manual Integration Report

Sequence:	VX040225	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VX045525.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDICC001	VX045525.D	1,4-Dichlorobenzene	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDICC001	VX045525.D	1,4-Dioxane	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDICC001	VX045525.D	Ethyl methacrylate	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDICC001	VX045525.D	Methacrylonitrile	Amit	4/2/2025 2:14:20 PM	MMDadoda	4/2/2025 2:16:05 PM	Peak Integrated by Software
VSTDICC005	VX045526.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:22 PM	MMDadoda	4/2/2025 2:16:07 PM	Peak Integrated by Software
VSTDICC020	VX045527.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:25 PM	MMDadoda	4/2/2025 2:16:09 PM	Peak Integrated by Software
VSTDICCC050	VX045528.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:26 PM	MMDadoda	4/2/2025 2:16:11 PM	Peak Integrated by Software
VSTDICC100	VX045529.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:28 PM	MMDadoda	4/2/2025 2:16:15 PM	Peak Integrated by Software
VSTDICC150	VX045530.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:30 PM	MMDadoda	4/2/2025 2:16:46 PM	Peak Integrated by Software
VSTDICV050	VX045532.D	1,2,3-Trichloropropane	Amit	4/2/2025 2:14:32 PM	MMDadoda	4/2/2025 2:17:50 PM	Peak Integrated by Software
VSTDCCC050	VX045534.D	1,2,3-Trichloropropane	JOHN	4/3/2025 10:04:10 AM	MMDadoda	4/3/2025 1:12:02 PM	Peak Integrated by Software
VSTDCCC050	VX045557.D	1,2,3-Trichloropropane	JOHN	4/3/2025 10:04:58 AM	MMDadoda	4/3/2025 1:12:08 PM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	VX040225	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason

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

Manual Integration Report

Sequence:	vx040925	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX045664.D	1,2,3-Trichloropropane	JOHN	4/10/2025 9:50:23 AM	MMDadoda	4/10/2025 10:14:42 AM	Peak Integrated by Software
VX0409WBS01	VX045667.D	1,2,3-Trichloropropane	JOHN	4/10/2025 9:50:27 AM	MMDadoda	4/10/2025 10:14:37 AM	Peak Integrated by Software
VX0409WBSD01	VX045668.D	1,2,3-Trichloropropane	JOHN	4/10/2025 9:50:33 AM	MMDadoda	4/10/2025 10:14:34 AM	Peak Integrated by Software
VSTDCCC050	VX045684.D	1,2,3-Trichloropropane	JOHN	4/10/2025 9:50:38 AM	MMDadoda	4/10/2025 10:14:29 AM	Peak Integrated by Software

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040225

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

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

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045524.D	01 Apr 2025 16:15	JC/MD	Ok
2	VSTDICC001	VX045525.D	01 Apr 2025 17:06	JC/MD	Ok,M
3	VSTDICC005	VX045526.D	01 Apr 2025 17:29	JC/MD	Ok,M
4	VSTDICC020	VX045527.D	01 Apr 2025 17:52	JC/MD	Ok,M
5	VSTDICCC050	VX045528.D	01 Apr 2025 18:15	JC/MD	Ok,M
6	VSTDICC100	VX045529.D	01 Apr 2025 18:38	JC/MD	Ok,M
7	VSTDICC150	VX045530.D	01 Apr 2025 19:02	JC/MD	Ok,M
8	IBLK	VX045531.D	01 Apr 2025 19:25	JC/MD	Ok
9	VSTDICV050	VX045532.D	01 Apr 2025 19:48	JC/MD	Ok,M
10	BFB	VX045533.D	02 Apr 2025 09:30	JC/MD	Ok
11	VSTDCCC050	VX045534.D	02 Apr 2025 10:02	JC/MD	Ok,M
12	VX0402MBL01	VX045535.D	02 Apr 2025 10:30	JC/MD	Ok
13	VX0402WBL01	VX045536.D	02 Apr 2025 10:53	JC/MD	Ok
14	VX0402WBS01	VX045537.D	02 Apr 2025 11:16	JC/MD	Ok,M
15	VX0402WBSD01	VX045538.D	02 Apr 2025 11:44	JC/MD	Ok,M
16	Q1697-01	VX045539.D	02 Apr 2025 12:07	JC/MD	Dilution
17	Q1697-02	VX045540.D	02 Apr 2025 12:30	JC/MD	Dilution
18	IBLK	VX045541.D	02 Apr 2025 12:54	JC/MD	Ok
19	Q1697-01DL	VX045542.D	02 Apr 2025 13:21	JC/MD	Ok
20	Q1697-02DL	VX045543.D	02 Apr 2025 13:44	JC/MD	Ok
21	Q1697-03	VX045544.D	02 Apr 2025 14:07	JC/MD	Not Ok

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040225

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

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

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

M : Manual Integration

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040925

Review By	John Carlone	Review On	4/10/2025 9:52:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	4/10/2025 10:14:57 AM		
SubDirectory	VX040925	HP Acquire Method		HP Processing Method	82X040225W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133622
Initial Calibration Stds	
CCC	VP133623,VP133624
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045663.D	09 Apr 2025 09:38	JC/MD	Ok
2	VSTDCCC050	VX045664.D	09 Apr 2025 10:35	JC/MD	Ok,M
3	VX0409MBL01	VX045665.D	09 Apr 2025 11:03	JC/MD	Ok
4	VX0409WBL01	VX045666.D	09 Apr 2025 11:26	JC/MD	Ok
5	VX0409WBS01	VX045667.D	09 Apr 2025 11:49	JC/MD	Ok,M
6	VX0409WBSD01	VX045668.D	09 Apr 2025 12:14	JC/MD	Ok,M
7	Q1739-01	VX045669.D	09 Apr 2025 12:38	JC/MD	Ok
8	Q1739-02	VX045670.D	09 Apr 2025 13:01	JC/MD	Ok
9	PB167487TB	VX045671.D	09 Apr 2025 13:24	JC/MD	Ok
10	IBLK	VX045672.D	09 Apr 2025 13:47	JC/MD	Ok
11	Q1729-01	VX045673.D	09 Apr 2025 14:10	JC/MD	Ok
12	Q1729-02	VX045674.D	09 Apr 2025 14:33	JC/MD	Ok
13	Q1729-03	VX045675.D	09 Apr 2025 14:57	JC/MD	Ok
14	Q1729-04	VX045676.D	09 Apr 2025 15:20	JC/MD	Ok
15	PB167492TB	VX045677.D	09 Apr 2025 15:43	JC/MD	Ok
16	Q1746-02	VX045678.D	09 Apr 2025 16:06	JC/MD	Ok
17	Q1746-04	VX045679.D	09 Apr 2025 16:29	JC/MD	Ok
18	IBLK	VX045680.D	09 Apr 2025 16:52	JC/MD	Ok
19	Q1762-01	VX045681.D	09 Apr 2025 17:16	JC/MD	Dilution
20	Q1762-02	VX045682.D	09 Apr 2025 17:39	JC/MD	Ok
21	IBLK	VX045683.D	09 Apr 2025 18:02	JC/MD	Ok

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040925

Review By	John Carlone	Review On	4/10/2025 9:52:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	4/10/2025 10:14:57 AM		
SubDirectory	VX040925	HP Acquire Method		HP Processing Method	82X040225W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133622
Initial Calibration Stds	
CCC	VP133623,VP133624
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	VSTDCCC050	VX045684.D	09 Apr 2025 18:25	JC/MD	Ok,M

M : Manual Integration

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040225

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

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

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045524.D	01 Apr 2025 16:15		JC/MD	Ok
2	VSTDICC001	VSTDICC001	VX045525.D	01 Apr 2025 17:06	%D failed for Comp. #53 in 01PPB	JC/MD	Ok,M
3	VSTDICC005	VSTDICC005	VX045526.D	01 Apr 2025 17:29		JC/MD	Ok,M
4	VSTDICC020	VSTDICC020	VX045527.D	01 Apr 2025 17:52		JC/MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VX045528.D	01 Apr 2025 18:15		JC/MD	Ok,M
6	VSTDICC100	VSTDICC100	VX045529.D	01 Apr 2025 18:38		JC/MD	Ok,M
7	VSTDICC150	VSTDICC150	VX045530.D	01 Apr 2025 19:02		JC/MD	Ok,M
8	IBLK	IBLK	VX045531.D	01 Apr 2025 19:25		JC/MD	Ok
9	VSTDICV050	ICVVX040225	VX045532.D	01 Apr 2025 19:48		JC/MD	Ok,M
10	BFB	BFB	VX045533.D	02 Apr 2025 09:30		JC/MD	Ok
11	VSTDCCC050	VSTDCCC050	VX045534.D	02 Apr 2025 10:02	pH#Lot#V12668	JC/MD	Ok,M
12	VX0402MBL01	VX0402MBL01	VX045535.D	02 Apr 2025 10:30		JC/MD	Ok
13	VX0402WBL01	VX0402WBL01	VX045536.D	02 Apr 2025 10:53		JC/MD	Ok
14	VX0402WBS01	VX0402WBS01	VX045537.D	02 Apr 2025 11:16		JC/MD	Ok,M
15	VX0402WBSD01	VX0402WBSD01	VX045538.D	02 Apr 2025 11:44		JC/MD	Ok,M
16	Q1697-01	MW-19B-72-040125	VX045539.D	02 Apr 2025 12:07	vial A pH<2 Need 200X	JC/MD	Dilution
17	Q1697-02	IW-01-55-040125	VX045540.D	02 Apr 2025 12:30	vial A pH<2 Need 10X	JC/MD	Dilution

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040225

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

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

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

M : Manual Integration

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040925

Review By	John Carlone	Review On	4/10/2025 9:52:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	4/10/2025 10:14:57 AM		
SubDirectory	VX040925	HP Acquire Method		HP Processing Method	82X040225W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133622
Initial Calibration Stds	
CCC	VP133623,VP133624
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045663.D	09 Apr 2025 09:38		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX045664.D	09 Apr 2025 10:35	pH#Lot#V12668	JC/MD	Ok,M
3	VX0409MBL01	VX0409MBL01	VX045665.D	09 Apr 2025 11:03		JC/MD	Ok
4	VX0409WBL01	VX0409WBL01	VX045666.D	09 Apr 2025 11:26		JC/MD	Ok
5	VX0409WBS01	VX0409WBS01	VX045667.D	09 Apr 2025 11:49		JC/MD	Ok,M
6	VX0409WBSD01	VX0409WBSD01	VX045668.D	09 Apr 2025 12:14		JC/MD	Ok,M
7	Q1739-01	WC-LIQUID-20250404	VX045669.D	09 Apr 2025 12:38	vial A pH<2 oily sample	JC/MD	Ok
8	Q1739-02	WC-LIQUID-20250404	VX045670.D	09 Apr 2025 13:01	vial A pH<2 oily sample	JC/MD	Ok
9	PB167487TB	PB167487TB	VX045671.D	09 Apr 2025 13:24		JC/MD	Ok
10	IBLK	IBLK	VX045672.D	09 Apr 2025 13:47		JC/MD	Ok
11	Q1729-01	Storage-Blank-SOIL-RE	VX045673.D	09 Apr 2025 14:10	vial A pH<2	JC/MD	Ok
12	Q1729-02	Storage-Blank-WATER-	VX045674.D	09 Apr 2025 14:33	vial A pH<2	JC/MD	Ok
13	Q1729-03	Storage-Blank-WATER-	VX045675.D	09 Apr 2025 14:57	vial A pH<2	JC/MD	Ok
14	Q1729-04	Storage-Blank-SAMPLE	VX045676.D	09 Apr 2025 15:20	vial A pH<2	JC/MD	Ok
15	PB167492TB	PB167492TB	VX045677.D	09 Apr 2025 15:43		JC/MD	Ok
16	Q1746-02	B-149-SB01	VX045678.D	09 Apr 2025 16:06	vial A pH#5.0	JC/MD	Ok
17	Q1746-04	B-149-SB02	VX045679.D	09 Apr 2025 16:29	vial A pH#5.0	JC/MD	Ok
18	IBLK	IBLK	VX045680.D	09 Apr 2025 16:52		JC/MD	Ok

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX040925

Review By	John Carlone	Review On	4/10/2025 9:52:48 AM		
Supervise By	Mahesh Dadoda	Supervise On	4/10/2025 10:14:57 AM		
SubDirectory	VX040925	HP Acquire Method		HP Processing Method	82X040225W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133622
Initial Calibration Stds	
CCC	VP133623,VP133624
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q1762-01	MW4	VX045681.D	09 Apr 2025 17:16	vial A pH<2 Need 5X	JC/MD	Dilution
20	Q1762-02	MW5	VX045682.D	09 Apr 2025 17:39	vial A pH<2	JC/MD	Ok
21	IBLK	IBLK	VX045683.D	09 Apr 2025 18:02		JC/MD	Ok
22	VSTDCCC050	VSTDCCC050EC	VX045684.D	09 Apr 2025 18:25		JC/MD	Ok,M

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 4/7/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 04/04/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:25
Out Date: 04/05/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135307

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
Q1729-05	SVOC-GPC-BLANK	1	1.00	1.00	2.00	2.00	100.0	
Q1729-06	PEST-GPC-BLANK	2	1.00	1.00	2.00	2.00	100.0	
Q1729-07	PEST-GPC-BLANK-SPIKE	3	1.00	1.00	2.00	2.00	100.0	
Q1729-08	PCB-GPC-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q1729-09	PCB-GPC-BLANK-SPIKE	5	1.00	1.00	2.00	2.00	100.0	
Q1729-10	SVOC-GPC2-BLANK	6	1.00	1.00	2.00	2.00	100.0	
Q1729-11	PEST-GPC2-BLANK	7	1.00	1.00	2.00	2.00	100.0	
Q1729-12	PEST-GPC2-BLANK-SPIKE	8	1.00	1.00	2.00	2.00	100.0	
Q1729-13	PCB-GPC2-BLANK	9	1.00	1.00	2.00	2.00	100.0	
Q1729-14	PCB-GPC2-BLANK-SPIKE	10	1.00	1.00	2.00	2.00	100.0	
Q1730-01	OU4-VSL-15-040325	11	1.14	10.58	11.72	11.39	96.9	
Q1730-03	OU4-VSL-16-040325	12	1.15	10.28	11.43	10.86	94.5	
Q1730-05	OU4-VSL-17-040325	13	1.16	11.32	12.48	11.62	92.4	
Q1730-07	OU4-PCS-TC-21-040325	14	1.18	10.92	12.1	10.9	89.0	
Q1730-09	OU4-PCS-TC-22-040325	15	1.16	11.79	12.95	11.87	90.8	
Q1730-11	OU4-PCS-TC-23-040325	16	1.19	11.24	12.43	11.41	90.9	
Q1730-13	OU4-PCS-TC-24-040325	17	1.18	10.42	11.6	10.69	91.3	
Q1730-15	OU4-PCS-TC-25-040325	18	1.14	11.13	12.27	11.43	92.5	
Q1730-17	OU4-PCS-TC-26-040325	19	1.15	10.84	11.99	11.13	92.1	
Q1730-19	OU4-CF-15-040325	20	1.15	10.74	11.89	11.23	93.9	
Q1732-01	TT-8	21	1.15	10.40	11.55	10.48	89.7	
Q1732-02	TT-8-EPH	22	1.15	10.33	11.48	10.34	89.0	
Q1732-03	TT-8-VOC	23	1.19	10.01	11.2	10.11	89.1	
Q1733-01	ETGI-328	24	1.18	10.19	11.37	8.37	70.6	
Q1733-02	ETGI-328-E2	25	1.18	10.29	11.47	8.27	68.9	
Q1734-01	HEH6237-1-1	26	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-02	HEH6237-1-2	27	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-03	STJ23-1-1	28	1.00	1.00	2.00	2.00	100.0	pilc

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 4/7/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 04/04/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:25
Out Date: 04/05/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135307

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
Q1734-04	STJ23-1-2	29	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-05	HIA989S-1-1	30	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-06	HIA989S-1-2	31	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-07	HED302R-1-1	32	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-08	HED302R-1-2	33	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-09	HED302R-2-1	34	1.00	1.00	2.00	2.00	100.0	pilc
Q1734-10	HED302R-2-2	35	1.00	1.00	2.00	2.00	100.0	pilc
Q1735-01	50660-50661-50662-5663 -COMP	36	1.18	10.92	12.1	10.42	84.6	
Q1736-01	GST1	37	1.18	10.04	11.22	9.07	78.6	
Q1736-02	GST2	38	1.18	10.93	12.11	9.98	80.5	
Q1737-01	RT3069	39	1.19	11.58	12.77	11.34	87.7	
Q1738-01	OK-02-040425	40	1.16	10.34	11.5	10.06	86.1	
Q1738-02	OK-02-040425-E2	41	1.19	10.54	11.73	10.37	87.1	

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

WORKLIST(Hardcopy Internal Chain)

VB 135307

WorkList Name : %1-040425 **WorkList ID :** 188724 **Department :** Wet-Chemistry **Date :** 04-04-2025 08:12:22

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1736-01	GST1	Solid	Percent Solids	Cool 4 deg C	GENV01	L21	04/04/2025	Chemtech -SO
Q1736-02	GST2	Solid	Percent Solids	Cool 4 deg C	GENV01	L21	04/04/2025	Chemtech -SO
Q1730-01	OU4-VSL-15-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-03	OU4-VSL-16-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-05	OU4-VSL-17-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-07	OU4-PCS-TC-21-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-09	OU4-PCS-TC-22-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-11	OU4-PCS-TC-23-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-13	OU4-PCS-TC-24-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-15	OU4-PCS-TC-25-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-17	OU4-PCS-TC-26-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1730-19	OU4-CF-15-040325	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1729-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	NOBI03	L31	04/03/2025	Chemtech -SO
Q1729-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1729-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1729-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1729-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1729-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1729-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1729-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1729-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO

Date/Time 04/04/25 1520

Raw Sample Received by: JB CCDC

Raw Sample Relinquished by: SM

Date/Time 04/04/25 17:15

Raw Sample Received by: SM

Raw Sample Relinquished by: JB CCDC

WORKLIST(Hardcopy Internal Chain)

WP135307

WorkList Name : %1-040425 **WorkList ID :** 188724 **Department :** Wet-Chemistry **Date :** 04-04-2025 08:12:22

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1729-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	04/04/2025	Chemtech -SO
Q1732-01	TT-8	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1732-02	TT-8-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1732-03	TT-8-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1733-01	ETGI-328	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1733-02	ETGI-328-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I31	04/04/2025	Chemtech -SO
Q1734-01	HEH6237-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	I31	04/04/2025	Chemtech -SO
Q1734-08	HED302R-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-09	HED302R-2-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-10	HED302R-2-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1735-01	50660-50661-50662-5663-COM	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1737-01	RT3069	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-02	HEH6237-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-03	STJ23-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-04	STJ23-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-05	HIA989S-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-06	HIA989S-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1734-07	HED302R-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1738-01	OK-02-040425	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/04/2025	Chemtech -SO
Q1738-02	OK-02-040425-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L31	04/04/2025	Chemtech -SO
Q1738-02	OK-02-040425-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L31	04/04/2025	Chemtech -SO

Date/Time 04/04/25 15:20

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

Date/Time 04/04/25 17:15

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

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

Prep Standard - Chemical Standard Summary

Order ID : Q1729

Test : VOC- Chemtech Full

Prepbatch ID :

Sequence ID/Qc Batch ID: vx040925,

Standard ID :
VP131746,VP131767,VP132035,VP132096,VP133174,VP133342,VP133544,VP133622,VP133623,VP133624,

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

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

VOC STANDARD PREPARATION LOG

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

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

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

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

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

VOC STANDARD PREPARATION LOG

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

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

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

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

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

VOC STANDARD PREPARATION LOG

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

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

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

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

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

VOC STANDARD PREPARATION LOG

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

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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP133622	04/09/2025	04/10/2025	John Carlone	None	None	Mahesh Dadoda 04/11/2025

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

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

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP133623	04/09/2025	04/10/2025	John Carlone	None	None	Mahesh Dadoda 04/11/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP132096 + 0.00500ml of VP133174 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP133342 + 0.01250ml of VP133544 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP133624	04/09/2025	04/10/2025	John Carlone	None	None	Mahesh Dadoda 04/11/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP132096 + 0.00500ml of VP133174 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP133342 + 0.01250ml of VP133544 = Final Quantity: 40.000 ml

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

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 LOTS	A0220471	09/20/2025	03/20/2025 / SAM	01/08/2025 / SAM	V14805

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

12 Bottles

avantor™ | J.T.Baker®

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_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable 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

James Ethier

Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

12 Bottles

avantor™ | J.T.Baker®

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_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable 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

James Ethier

Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

12 Bottles

avantor™ | J.T.Baker®

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_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable 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

James Ethier

Jamie Ethier
Vice President Global Quality

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

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

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/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)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0466)	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)	IK18CAS0000	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-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)	orl-rat 2460mg/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)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-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)	orl-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)	orl-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)	orl-rat 720mg/kg
15. 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
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-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	orl-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	orl-rat 846mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-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	orl-rat 820mg/kg
22. 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)	orl-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)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-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)	orl-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-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	orl-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	594-20-7	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)	orl-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)	orl-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	96-12-8	0.001 ppm	orl-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	106-93-4	20 ppm (8H)	orl-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)	orl-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)	orl-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	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	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	40017.6	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)	orl-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	orl-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)	orl-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)	orl-rat 836mg/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)	orl-mus 2402mg/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)	orl-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	orl-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-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)	orl-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	99-87-6	N/A	orl-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)	orl-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	orl-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	orl-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 1390mg/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)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-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	orl-rat 5000mg/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	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	1999.8	22.9	135-98-8	N/A	orl-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)	orl-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	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-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	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 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	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 8040mg/kg
68. o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	101923	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.5	22.9	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

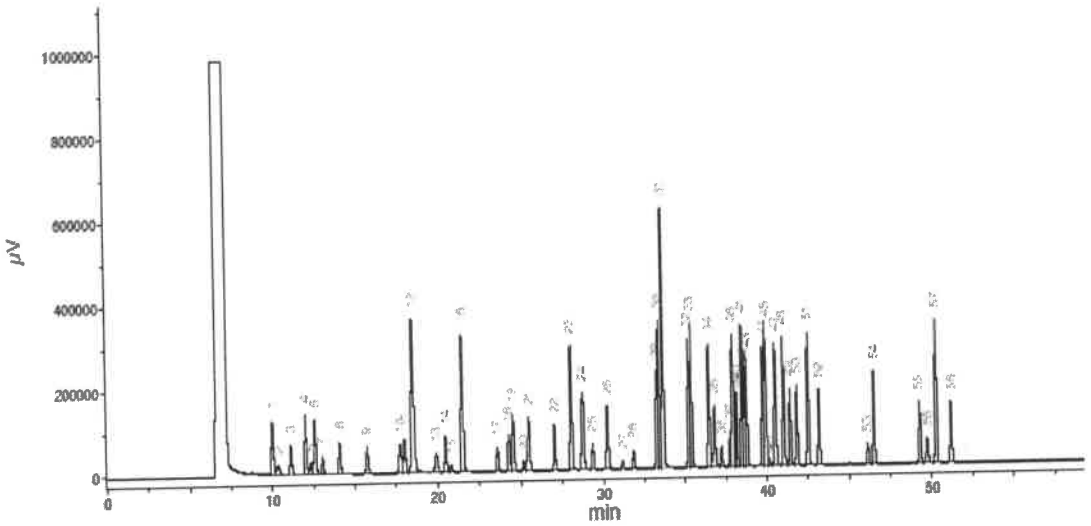
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, 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).

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., Hydogen(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-1,2,3-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	15.74
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	18.91
14	1,1-Dichloropropene	19.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.07
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.33
33	Styrene	35.50
34	Isopropylbenzene/Bromoform	35.48
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	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.12
50	1,4-Dichlorobenzene	41.63
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.46
58	1,2,3-Trichlorobenzene	51.16

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

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

Section II - Hazards Identification

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

H225	**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 sheild**
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. 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 (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

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)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

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

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/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)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0466)	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)	IK18CAS0000	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-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)	orl-rat 2460mg/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)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-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)	orl-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)	orl-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)	orl-rat 720mg/kg
15. 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
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-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	orl-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	orl-rat 846mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-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	orl-rat 820mg/kg
22. 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)	orl-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)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-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)	orl-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-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	orl-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	594-20-7	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)	orl-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)	orl-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	96-12-8	0.001 ppm	orl-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	106-93-4	20 ppm (8H)	orl-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)	orl-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)	orl-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	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	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	40017.6	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)	orl-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	orl-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)	orl-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)	orl-rat 836mg/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)	orl-mus 2402mg/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)	orl-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	orl-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-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)	orl-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	99-87-6	N/A	orl-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)	orl-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	orl-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	orl-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 1390mg/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)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-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	orl-rat 5000mg/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	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	1999.8	22.9	135-98-8	N/A	orl-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)	orl-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	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-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	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 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	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 8040mg/kg
68. o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	101923	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.5	22.9	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

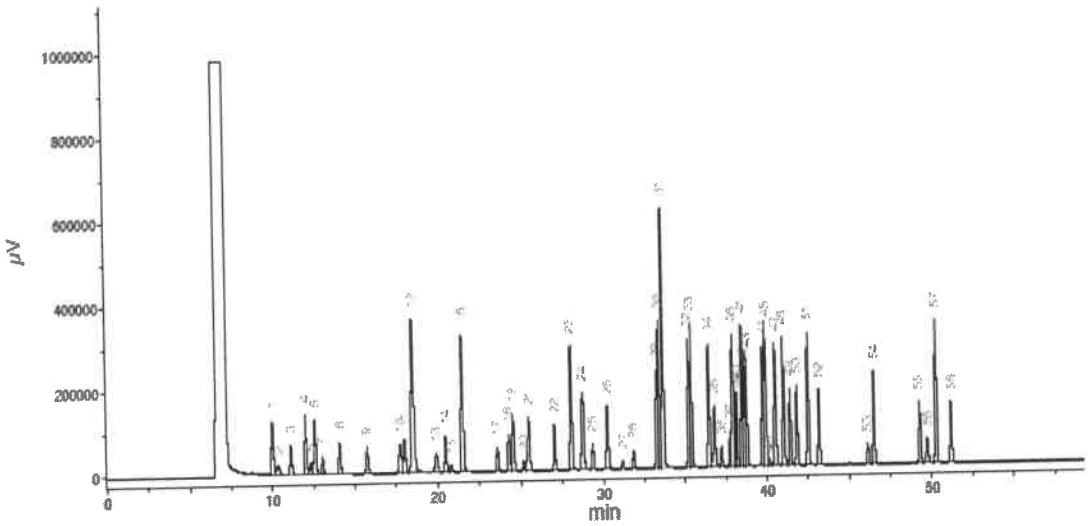
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, 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).

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., Hydogen(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-1,2,3-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	15.74
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	18.91
14	1,1-Dichloropropene	19.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.07
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.33
33	Styrene	35.50
34	Isopropylbenzene/Bromoform	35.48
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	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.12
50	1,4-Dichlorobenzene	41.63
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.46
58	1,2,3-Trichlorobenzene	51.16

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

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

Section II - Hazards Identification

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

H225	**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 sheild**
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. 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 (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

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)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Exp 03/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

5 vial

Part Number:	91980
Lot Number:	031725
Description:	Acrolein
Expiration Date:	041725
Recommended Storage:	Refrigerate (4 °C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

Solvent(s): **Lot#**
Water 072324Q

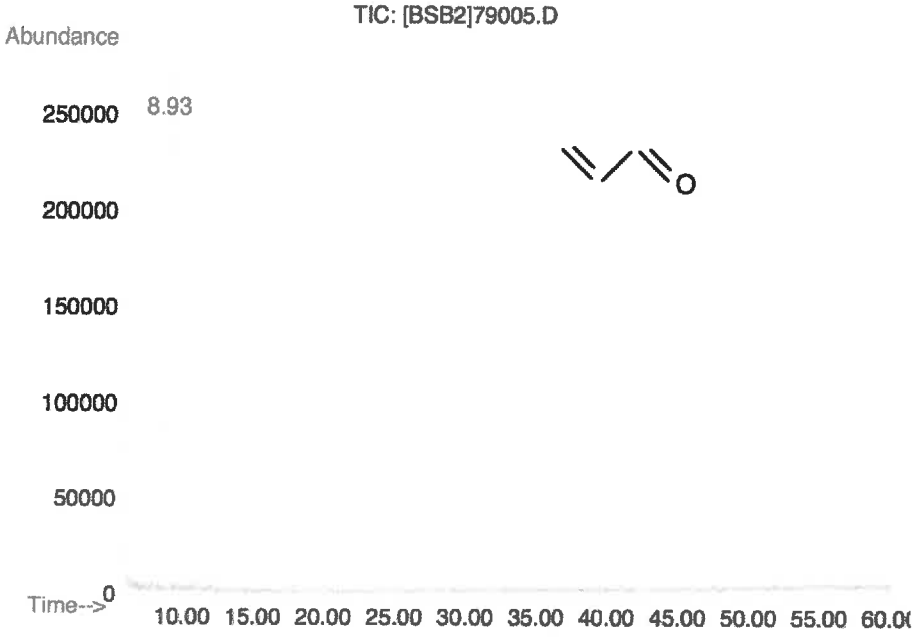
V14895 to V14899

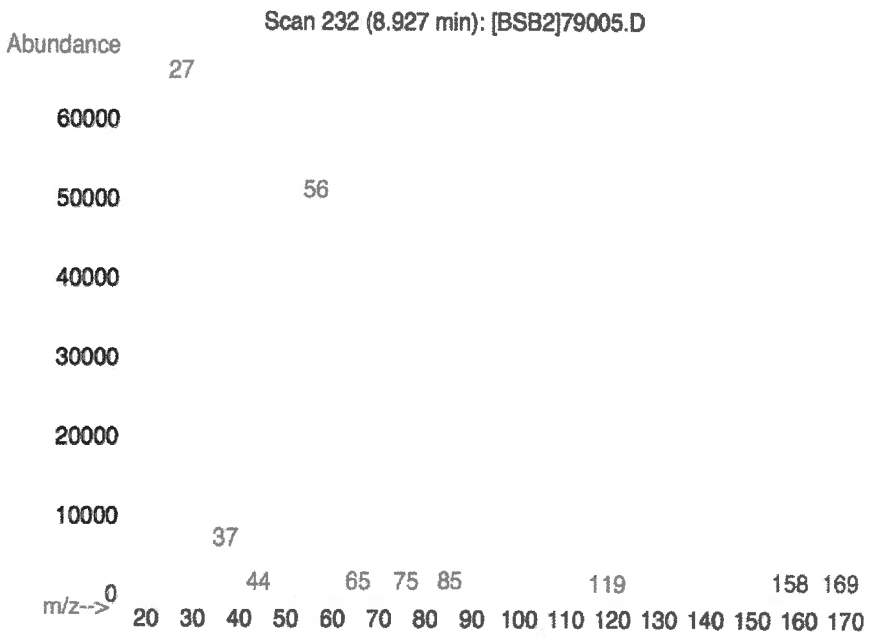
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Lawrence Barry	031725 DATE
Reviewed By:	Pedro L. Rentas	031725 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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions 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 certifed (+/-) 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).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

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

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 sheild**
		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)
Water	CAS#: 7732-18-5	> 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 (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

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

Section X. STABILITY AND REACTIVITY

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

Section XI. TOXICOLOGICAL INFORMATION

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

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

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

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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

Section XVI. Misc. INFORMATION

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Exp 03/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

5 vial

Part Number:	91980
Lot Number:	031725
Description:	Acrolein
Expiration Date:	041725
Recommended Storage:	Refrigerate (4 °C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

Solvent(s): **Lot#**
Water 072324Q

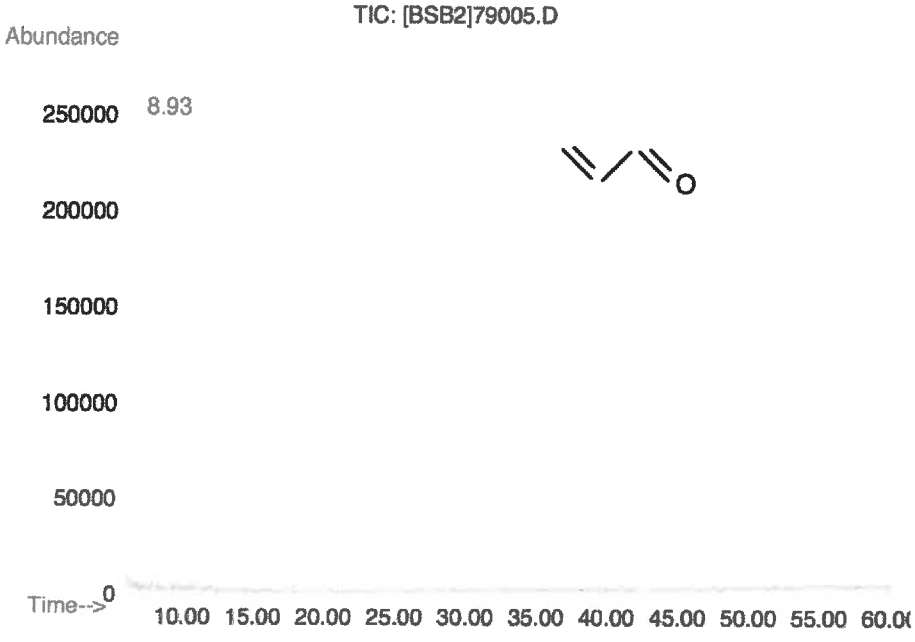
V14895 to V14899

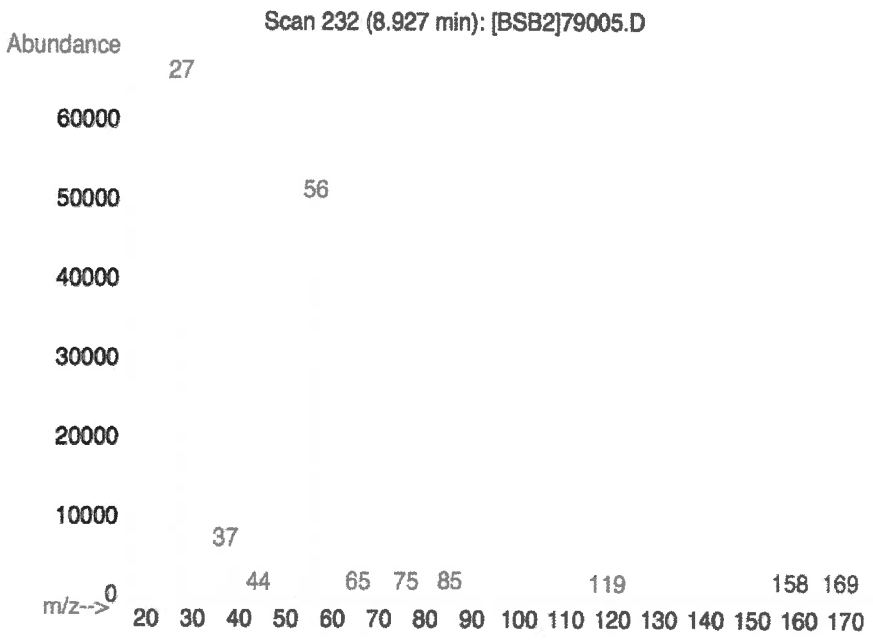
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Lawrence Barry	031725 DATE
Reviewed By:	Pedro L. Rentas	031725 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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions 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 certifed (+/-) 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).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

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

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 sheild**
		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)
Water	CAS#: 7732-18-5	> 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 (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

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

Section X. STABILITY AND REACTIVITY

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

Section XI. TOXICOLOGICAL INFORMATION

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

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

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

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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

Section XVI. Misc. INFORMATION

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Exp 03/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

5 vial

Part Number:	91980
Lot Number:	031725
Description:	Acrolein
Expiration Date:	041725
Recommended Storage:	Refrigerate (4 °C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

Solvent(s): **Lot#**
Water 072324Q

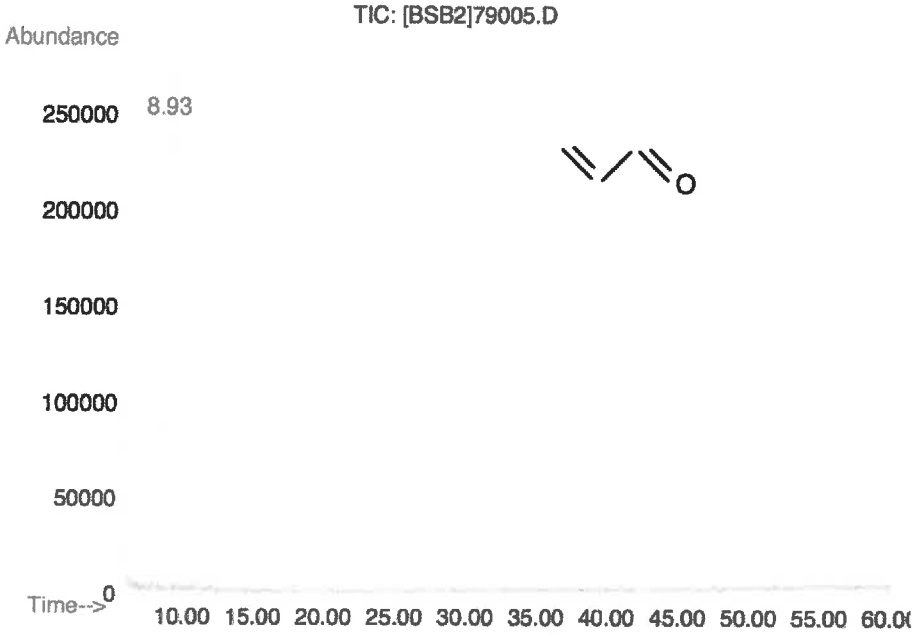
V14895 to V14899

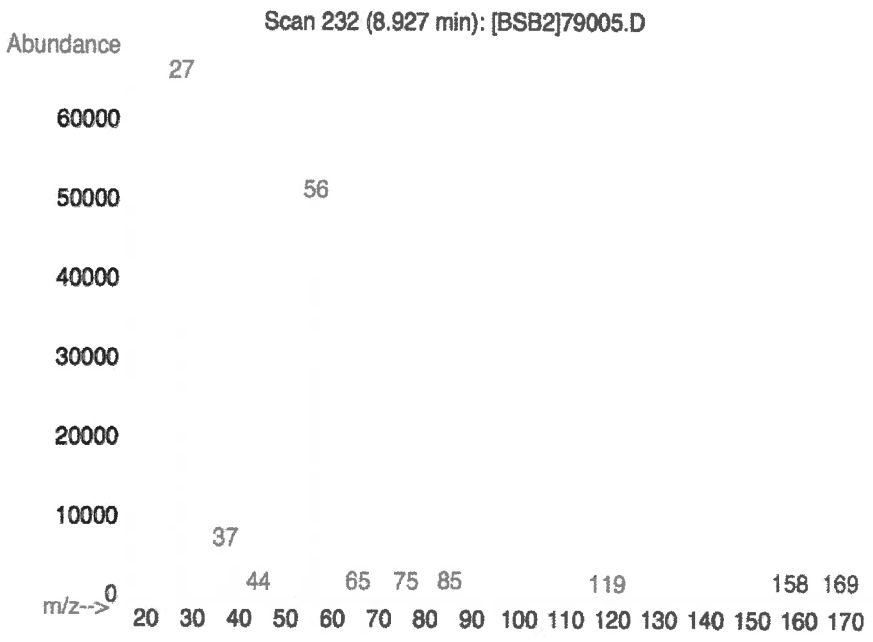
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Lawrence Barry	031725 DATE
Reviewed By:	Pedro L. Rentas	031725 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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions 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 certifed (+/-) 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).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

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

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 sheild**
		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)
Water	CAS#: 7732-18-5	> 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 (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

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

Section X. STABILITY AND REACTIVITY

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

Section XI. TOXICOLOGICAL INFORMATION

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

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

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

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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

Section XVI. Misc. INFORMATION

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Exp 03/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

5 vial

Part Number:	91980
Lot Number:	031725
Description:	Acrolein
Expiration Date:	041725
Recommended Storage:	Refrigerate (4 °C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

Solvent(s): **Lot#**
Water 072324Q

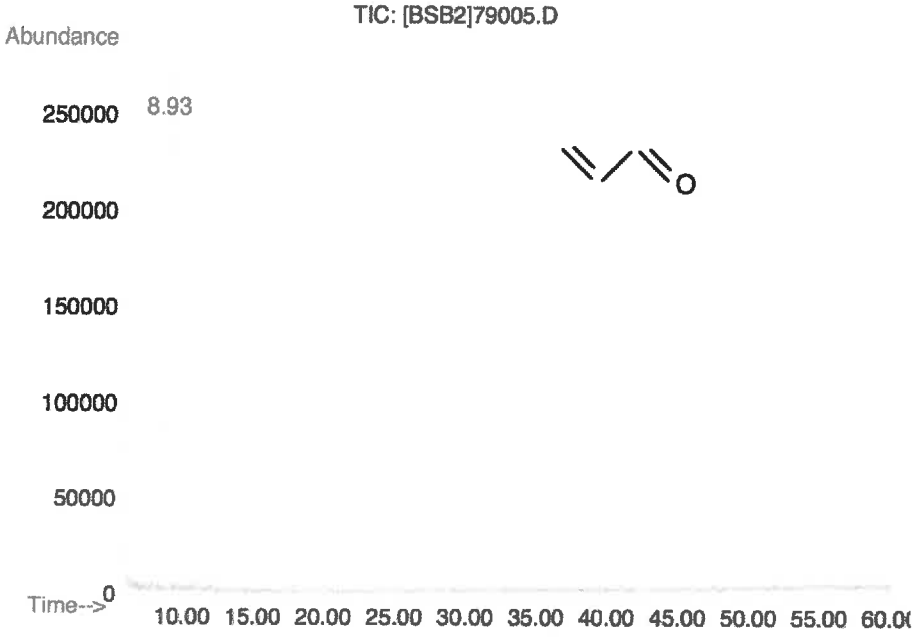
V14895 to V14899

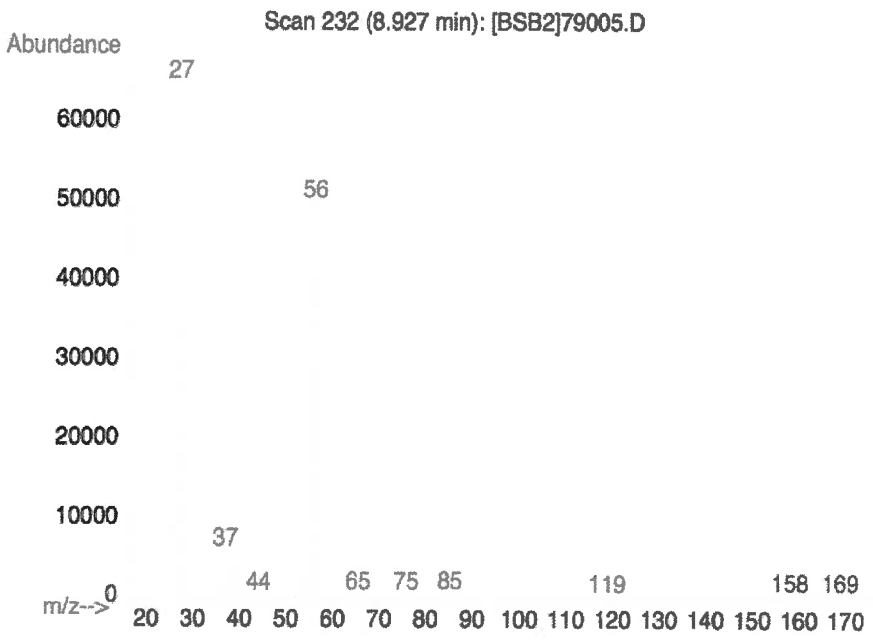
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Formulated By:	Lawrence Barry	031725 DATE
Reviewed By:	Pedro L. Rentas	031725 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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05170	5004.1	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions 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 certifed (+/-) 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).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

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

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 sheild**
		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)
Water	CAS#: 7732-18-5	> 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 (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

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

Section X. STABILITY AND REACTIVITY

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

Section XI. TOXICOLOGICAL INFORMATION

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

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

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

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

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

Section XVI. Misc. INFORMATION

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

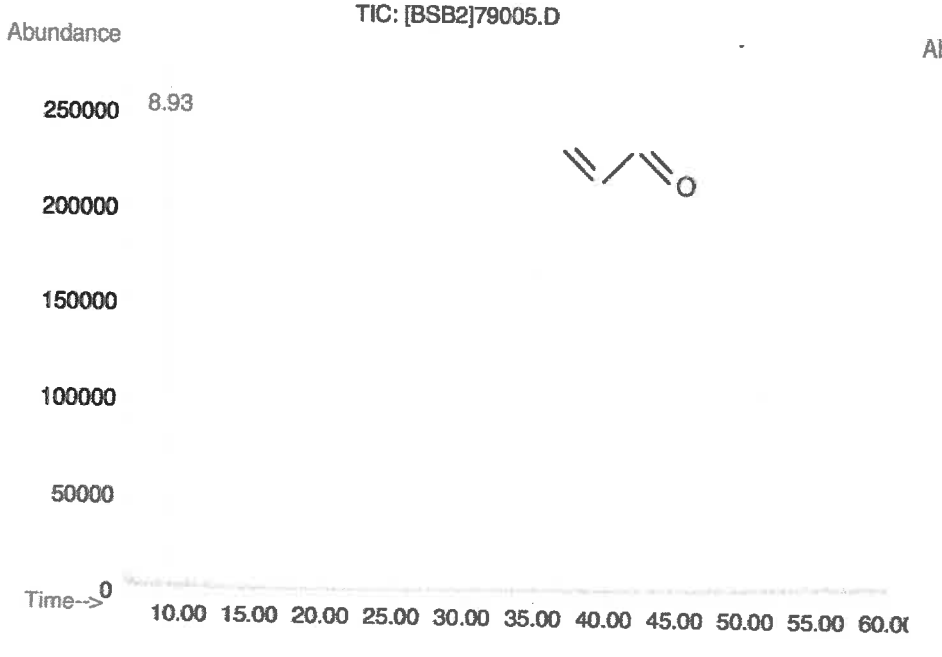
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

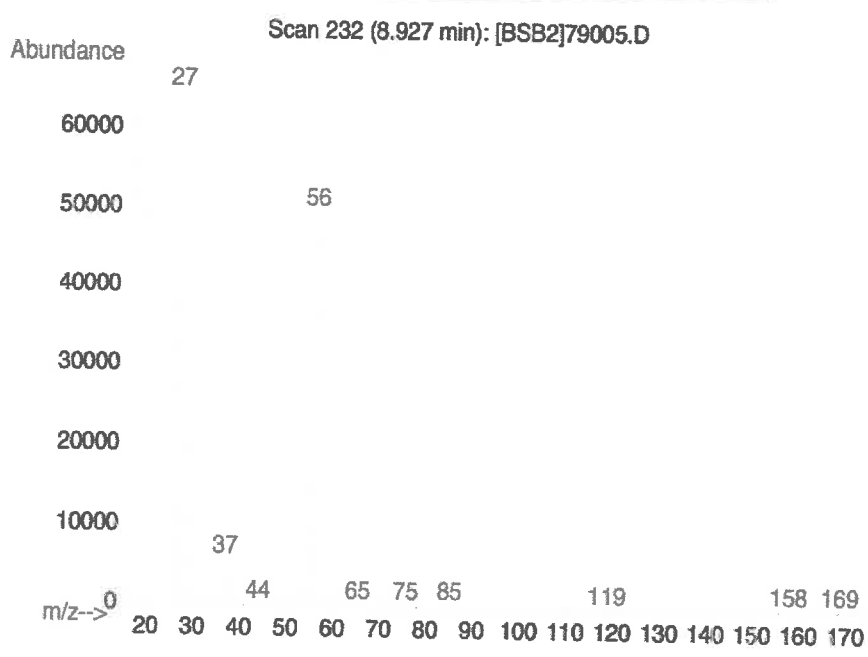
Formulated By: Justin Dippold 091424 DATE

Reviewed By: Pedro L. Rentas 091424 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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions 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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

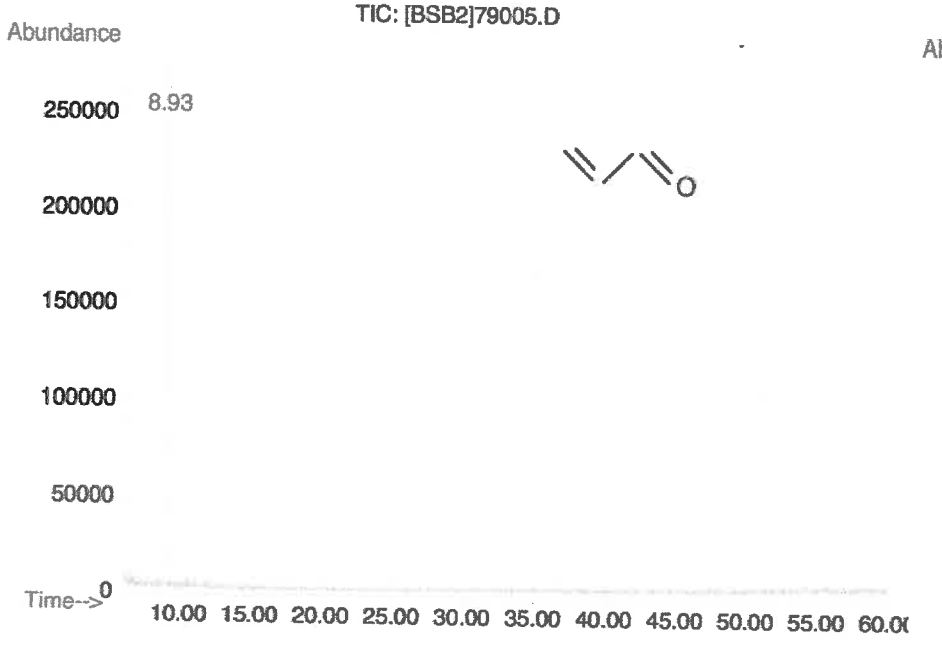
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

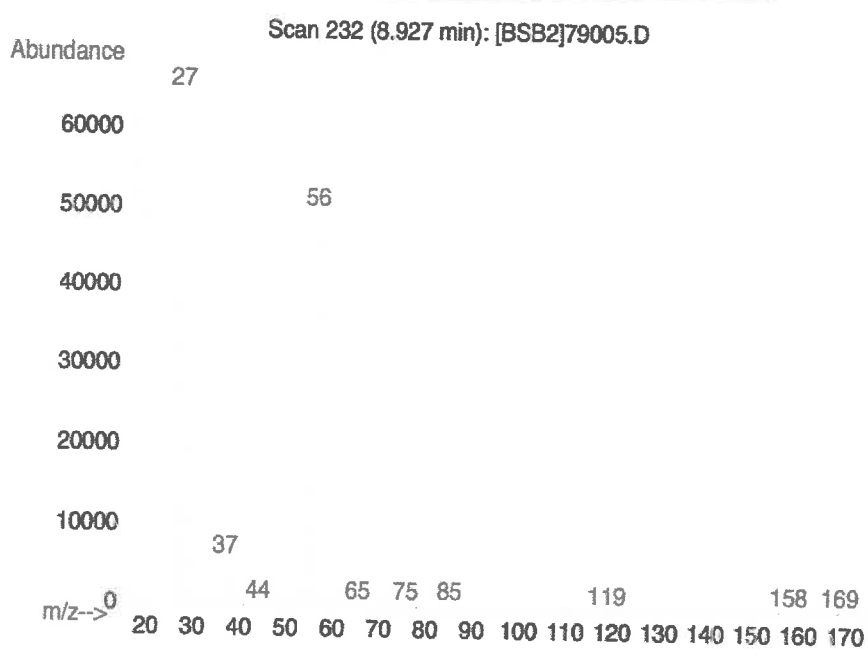
Formulated By: Justin Dippold 091424 DATE

Reviewed By: Pedro L. Rentas 091424 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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions 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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

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

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

Solvent(s): Methanol **Lot#** EJ143-US

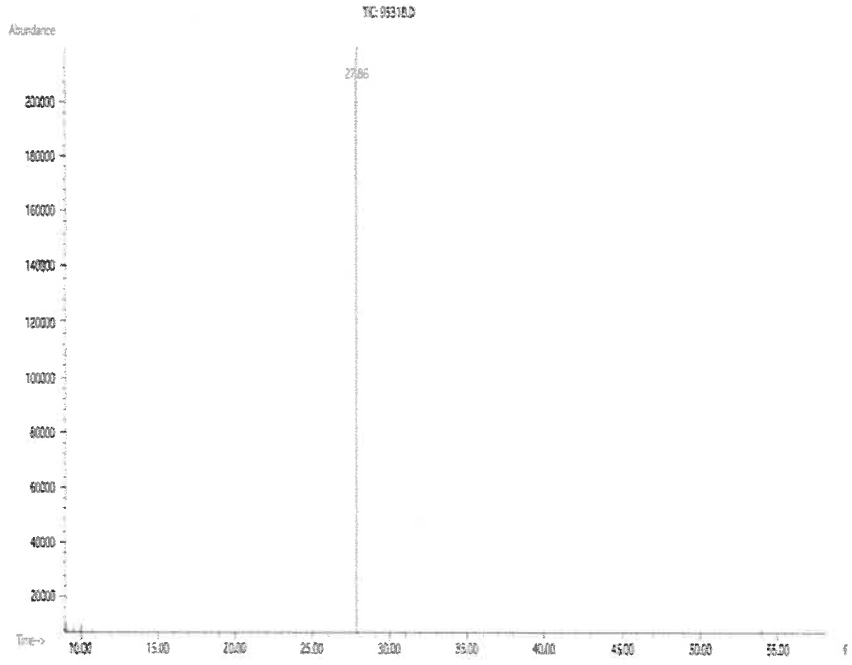
V14630 to V14649

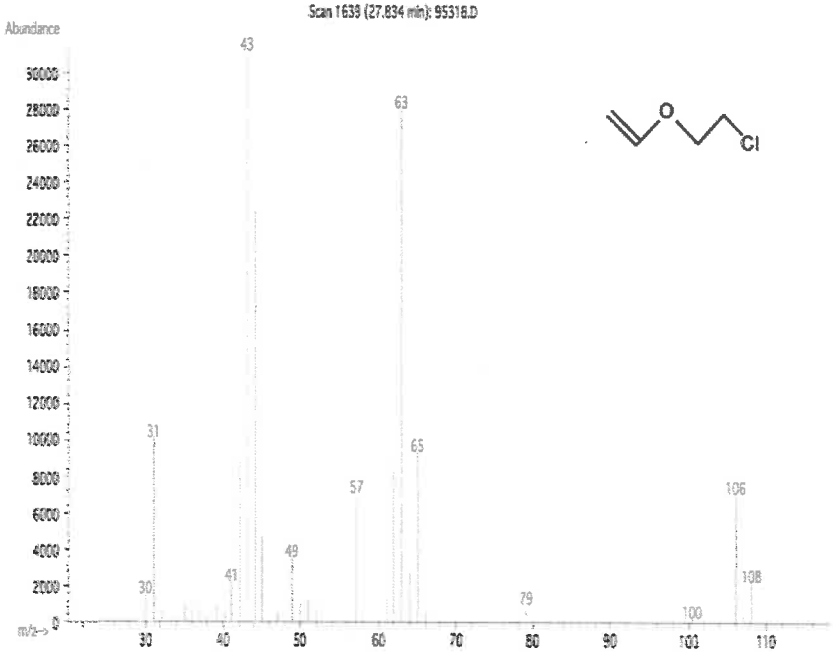
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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	0.50536	0.50550	10002.9	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 certifed (+/-) 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).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

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 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 sheild**
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. 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 (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

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)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

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

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

Solvent(s): Methanol **Lot#** EJ143-US

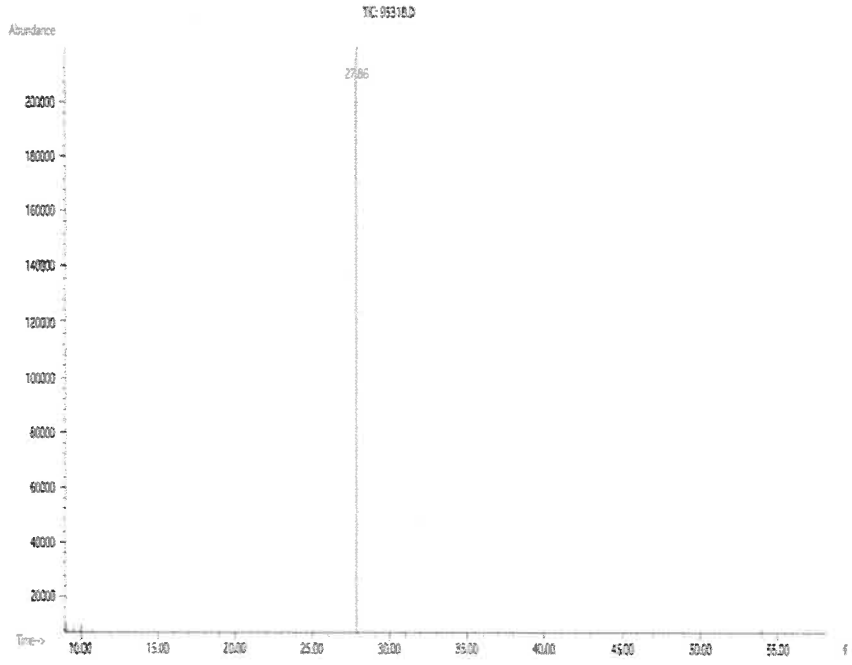
V14630 to V14649

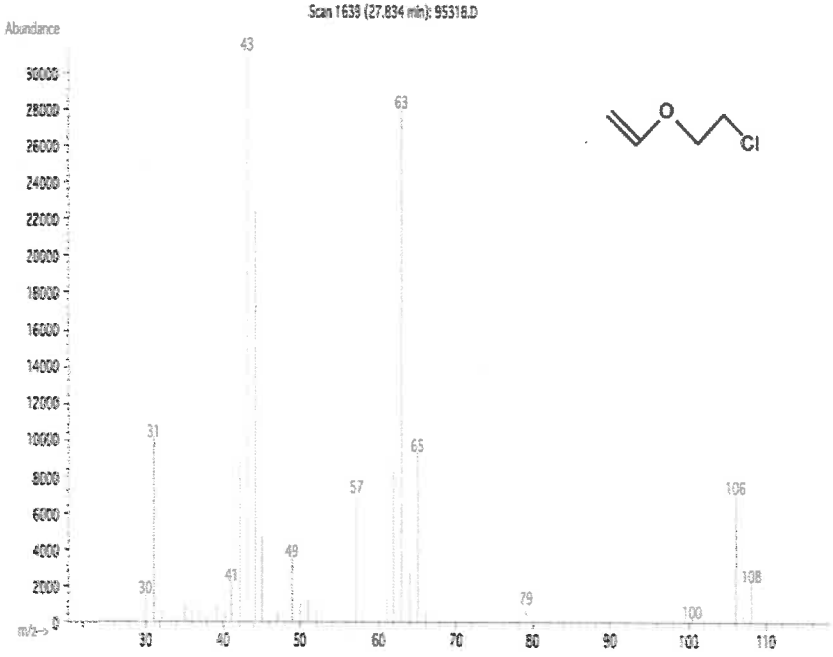
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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	0.50536	0.50550	10002.9	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 certifed (+/-) 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).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

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 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 sheild**
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. 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 (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

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)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

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

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

Solvent(s): Methanol **Lot#** EJ143-US

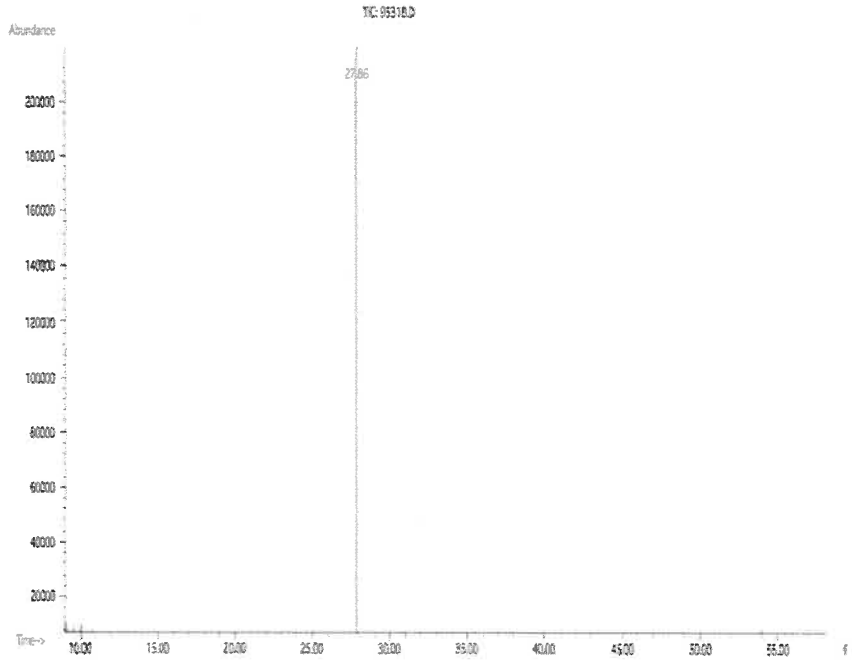
V14630 to V14649

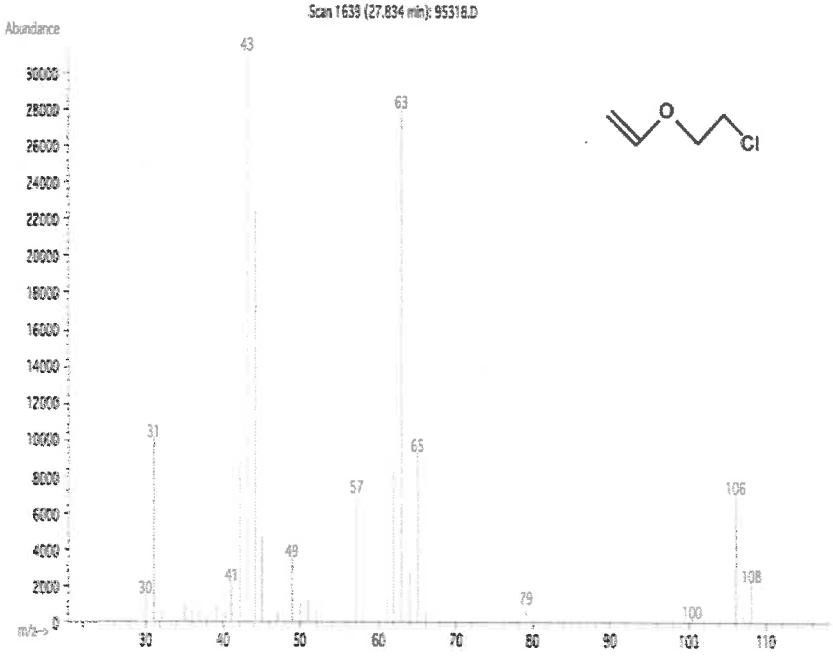
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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	0.50536	0.50550	10002.9	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 certifed (+/-) 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).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

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 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 sheild**
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. 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 (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

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)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

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

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

Solvent(s): Methanol **Lot#** EJ143-US

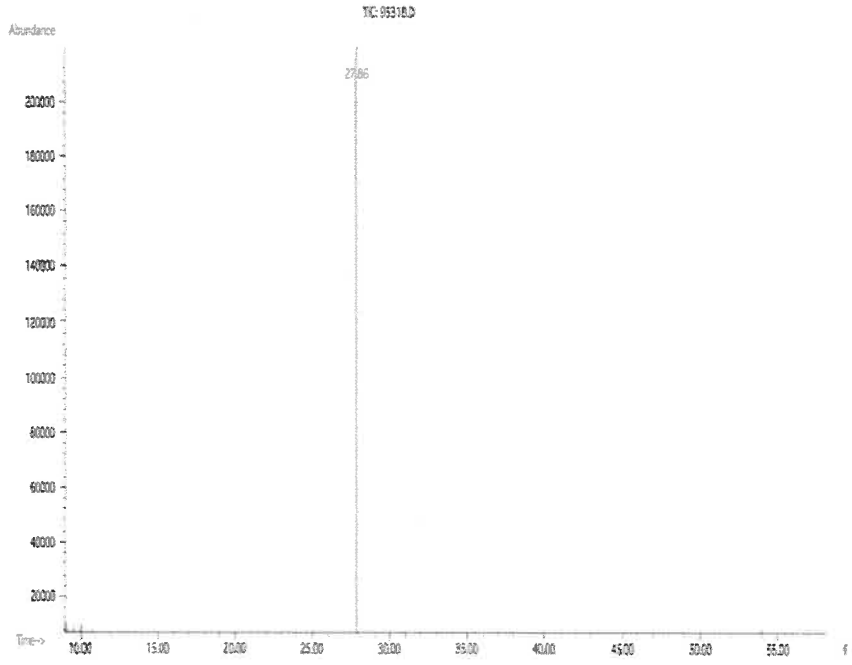
V14630 to V14649

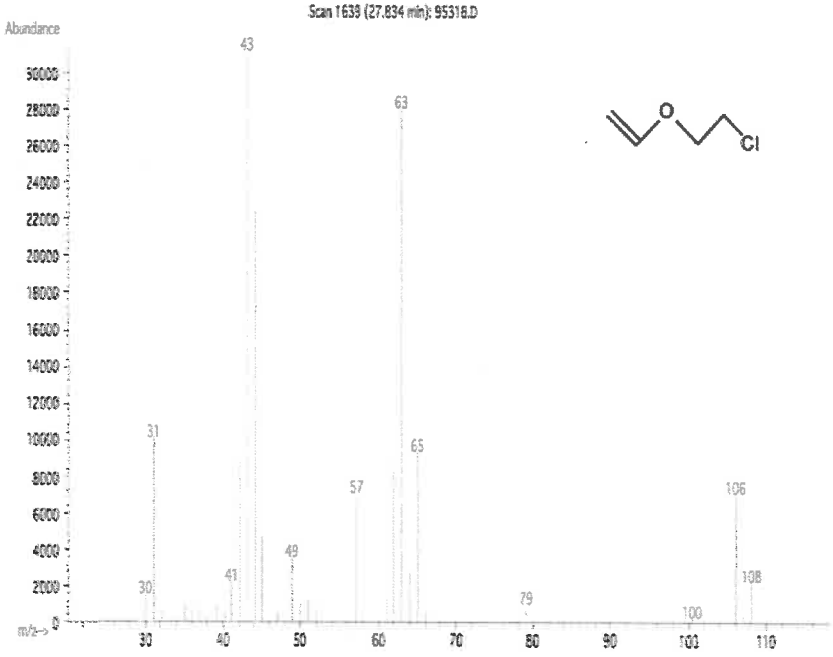
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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	0.50536	0.50550	10002.9	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 certifed (+/-) 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).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

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 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 sheild**
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. 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 (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

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)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.)

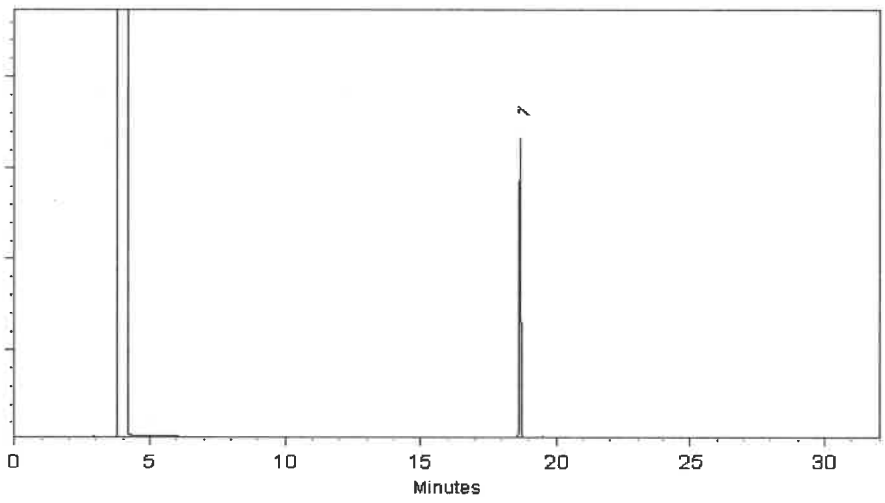
Inj. Temp:
200°C

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:

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Bromochloromethane Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

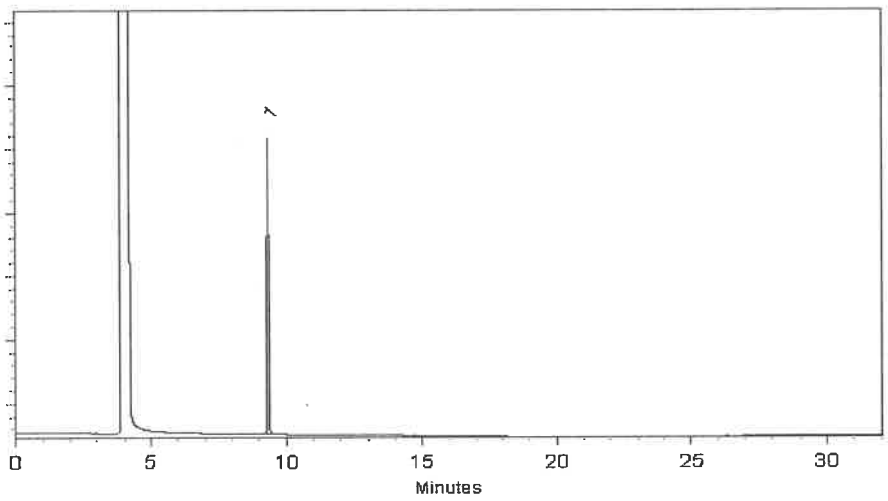
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Tom Suckar - Mix Technician

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

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Bromochloromethane Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

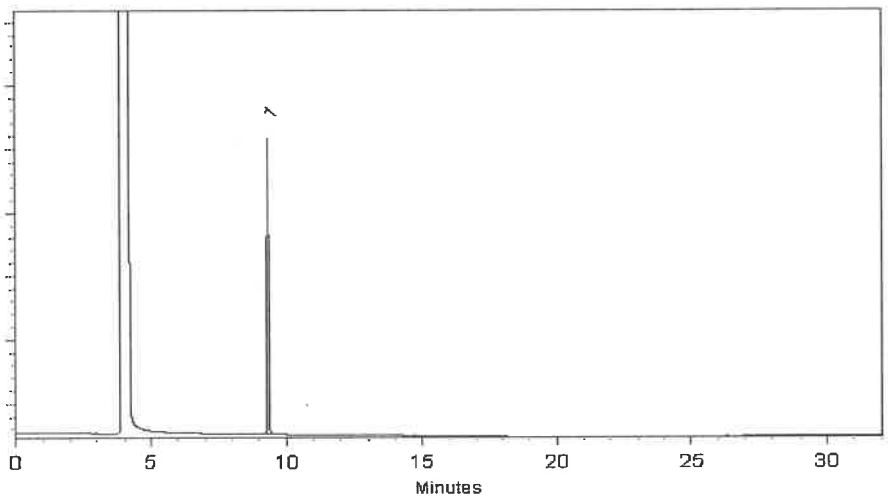
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Tom Suckar - Mix Technician

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

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Bromochloromethane Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

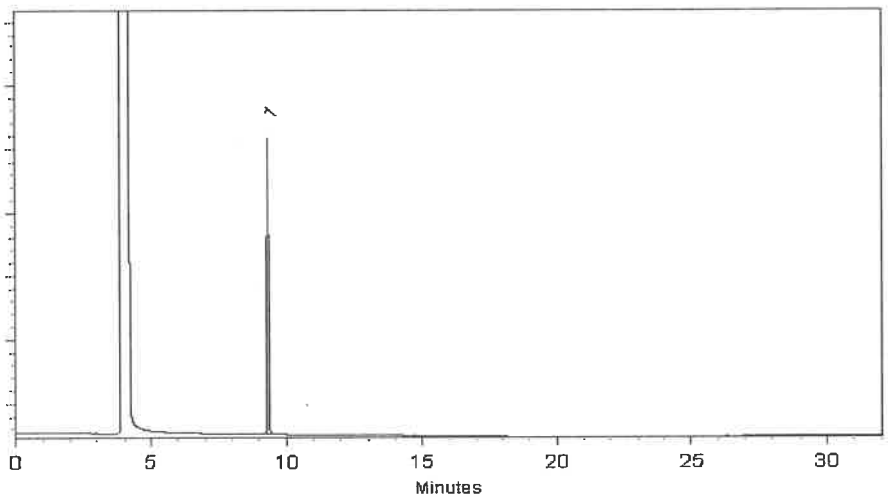
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Tom Suckar - Mix Technician

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

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Bromochloromethane Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

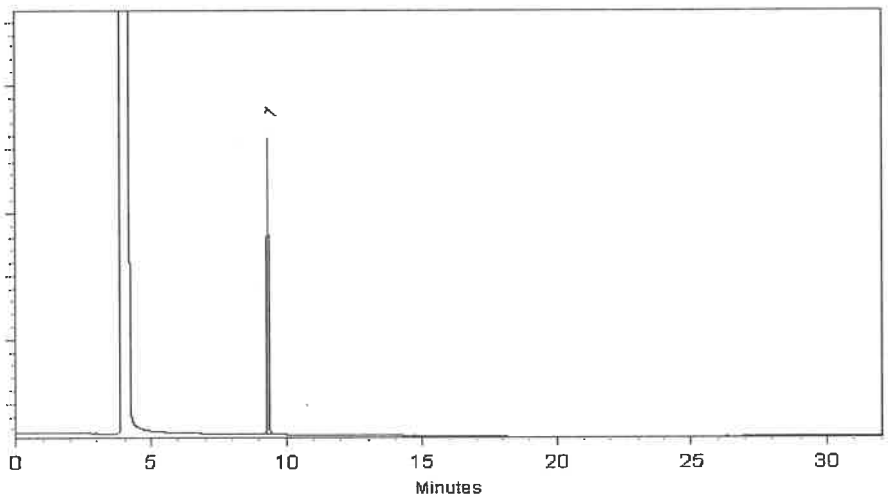
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Tom Suckar - Mix Technician

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

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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:

- 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:

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.)

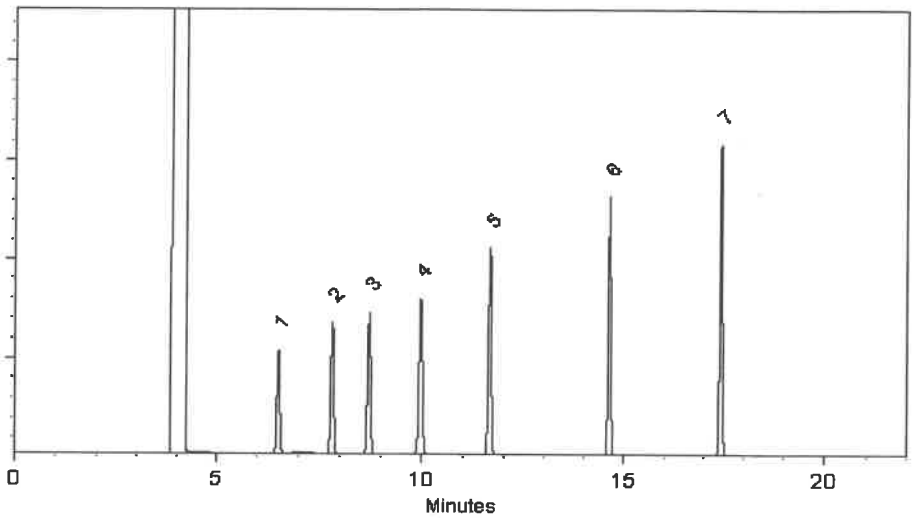
Inj. Temp:
200°C

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 - Operations Tech I

Date Mixed: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.)

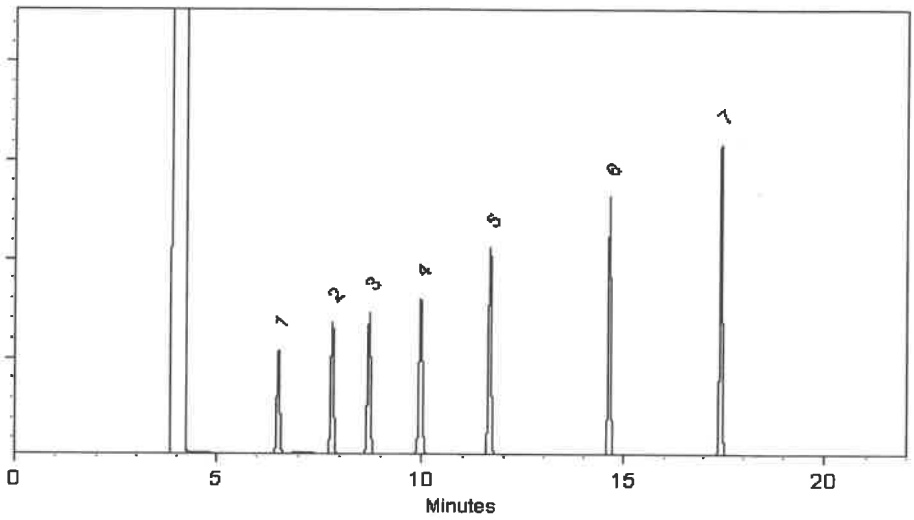
Inj. Temp:
200°C

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 - Operations Tech I

Date Mixed: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 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:

- 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:

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

  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.

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

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

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

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

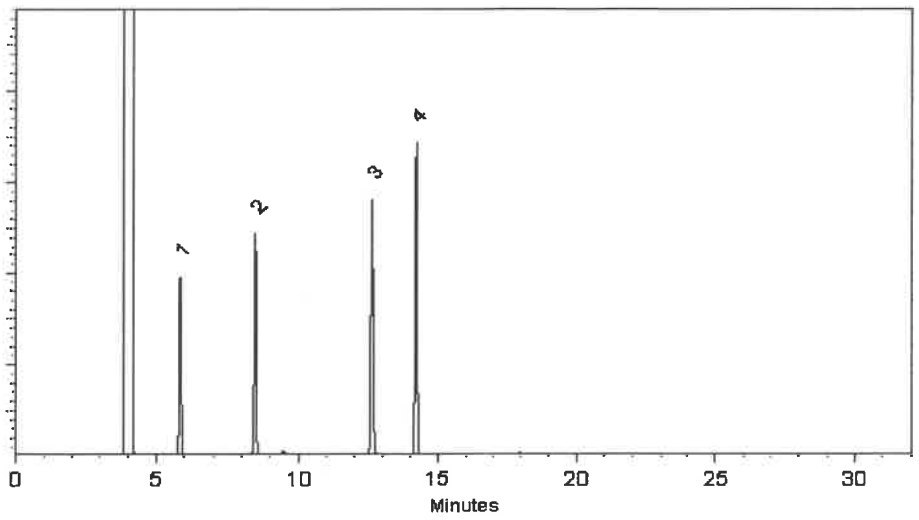
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

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

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

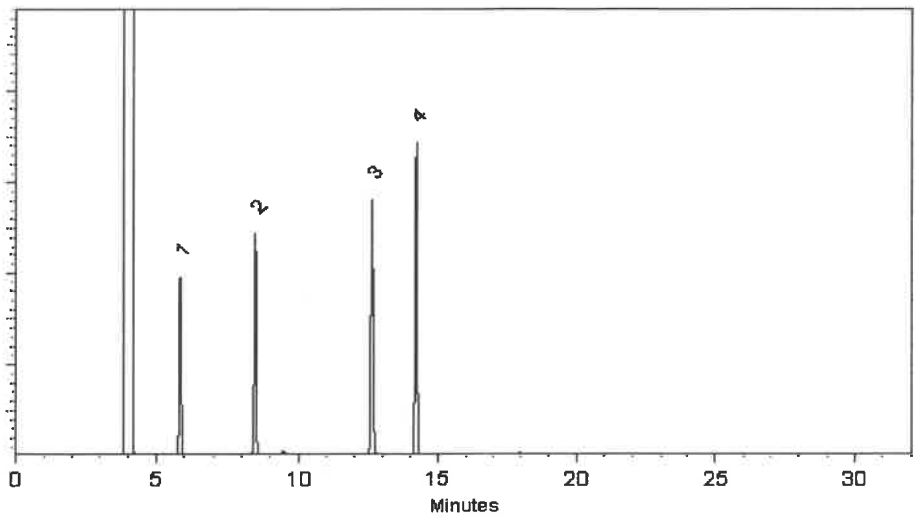
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

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

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

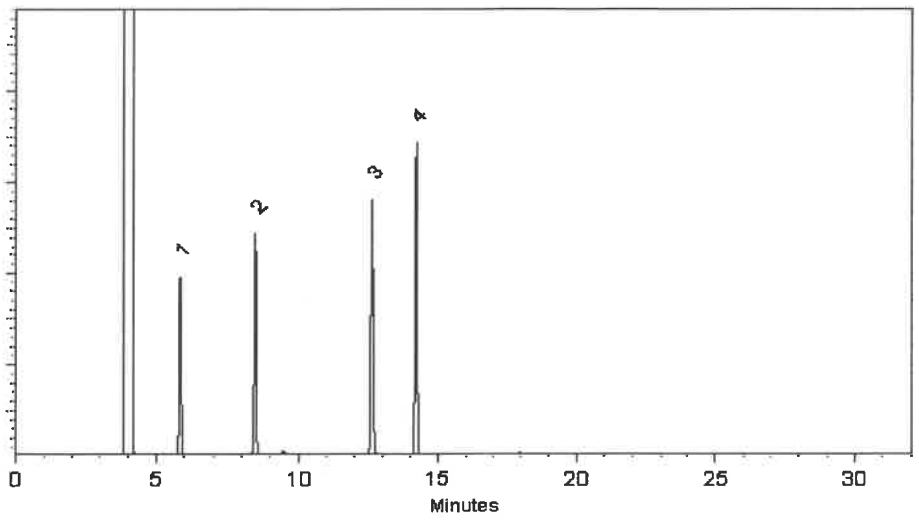
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30042 **Lot No.:** A0216826

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

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

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

Quality Confirmation Test

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

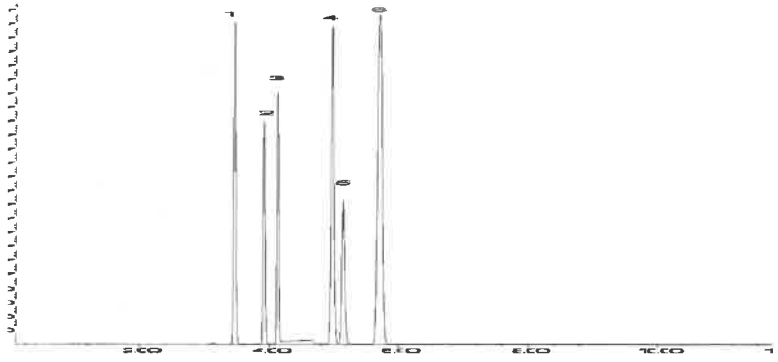
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

Inj. Vol
1µl



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

Tom Suckar - Mix Technician

Date Mixed: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

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

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30042 **Lot No.:** A0216826

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

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

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

Quality Confirmation Test

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

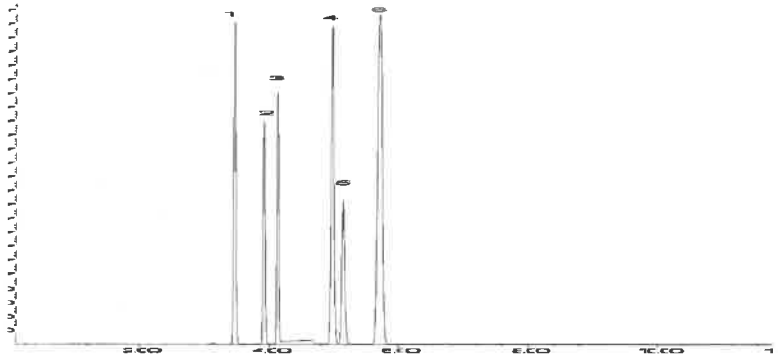
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

Inj. Vol
1µl



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

Tom Suckar - Mix Technician

Date Mixed: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.

RESTEK

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

J14842 to 14846

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30470 **Lot No.:** A0217535

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	tert-Butanol (TBA)	75-65-0	SHBQ8002-1	99%	50,007.5 µg/mL	+/- 717.6137

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

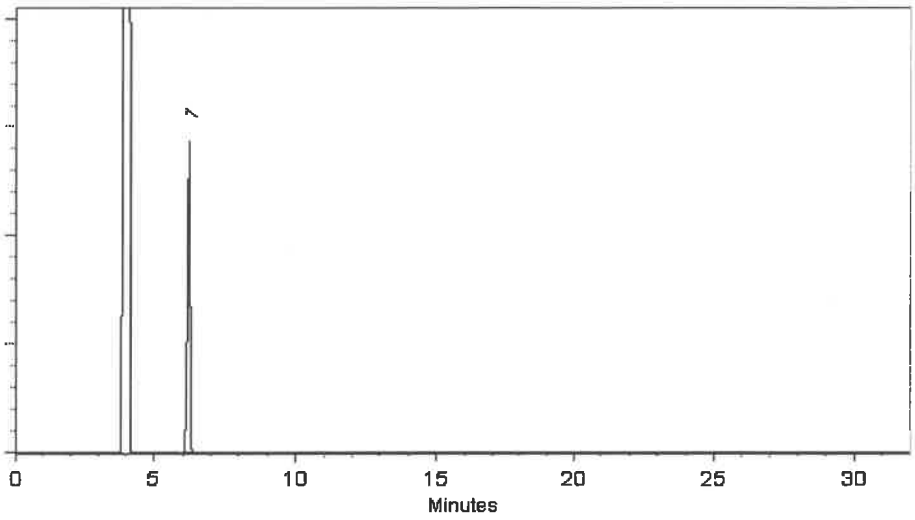
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Aaron Enyart - Operations Tech I

Date Mixed: 07-Oct-2024 **Balance Serial #** B251644995

Brittany Federinko - Operations Tech I

Date Passed: 09-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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:

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

  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.

Zoviny Rec 01/08/21

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 555408-SL **Lot No.:** A0220471

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : June 30, 2026 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

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

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

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

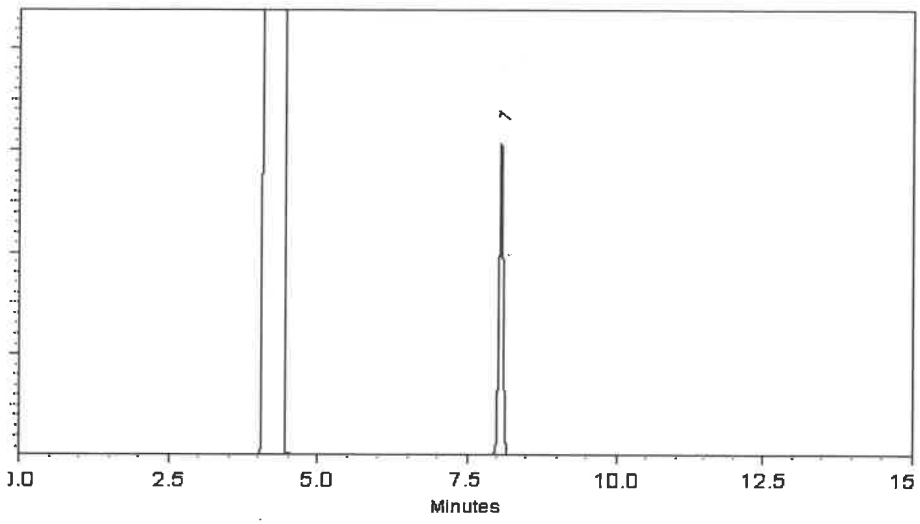
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

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:

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

  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.

Zoviny Rec 01/08/21

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 555408-SL **Lot No.:** A0220471

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : June 30, 2026 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

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

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

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

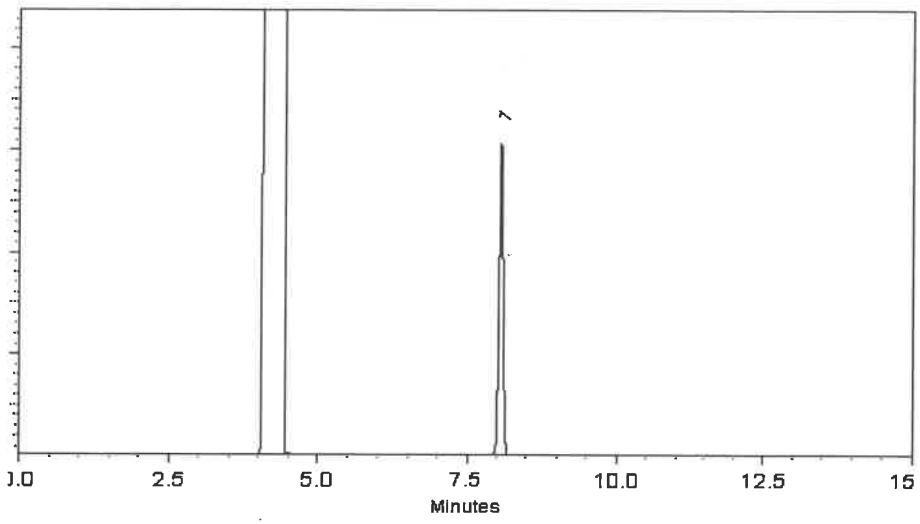
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

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:

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

  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.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

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_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable 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

James T Ethier

Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

V14883
V14884

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_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable 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

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

SHIPPING DOCUMENTS

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

QA Control Code: A2070148