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:	Q1236	**OrderDate:**	1/30/2025 12:48:00 PM
Client:	Sciacca General Contractors, LLC	**Project:**	1063 Lafayette Ave, Hawthorne, NJ
Contact:	Daniel Scirica	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1236-02	**VOC**	**SOIL**			**01/30/25**			**01/30/25**
			VOC-TCLVOA-10	8260D			02/04/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q1236

Client: Sciacca General Contractors, LLC

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.: Q1236

Client: Sciacca General Contractors, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
Q1236-02	VOC	1,2-Dichloroethane-d4	50	71.6	143	*	70 (50)	130 (163)
		Dibromofluoromethane	50	61.0	122		70 (54)	130 (147)
		Toluene-d8	50	39.6	79		70 (58)	130 (134)
		4-Bromofluorobenzene	50	39.5	79		70 (29)	130 (146)
VD0204SBL01	VD0204SBL01	1,2-Dichloroethane-d4	50	53.8	108		70 (50)	130 (163)
		Dibromofluoromethane	50	51.4	103		70 (54)	130 (147)
		Toluene-d8	50	48.5	97		70 (58)	130 (134)
		4-Bromofluorobenzene	50	44.2	88		70 (29)	130 (146)
VD0204SBS01	VD0204SBS01	1,2-Dichloroethane-d4	50	52.8	106		70 (50)	130 (163)
		Dibromofluoromethane	50	55.5	111		70 (54)	130 (147)
		Toluene-d8	50	56.8	114		70 (58)	130 (134)
		4-Bromofluorobenzene	50	58.7	117		70 (29)	130 (146)
VD0204SBSD01	VD0204SBSD01	1,2-Dichloroethane-d4	50	56.2	112		70 (50)	130 (163)
		Dibromofluoromethane	50	54.7	109		70 (54)	130 (147)
		Toluene-d8	50	56.4	113		70 (58)	130 (134)
		4-Bromofluorobenzene	50	58.2	116		70 (29)	130 (146)

( ) = LABORATORY INHOUSE LIMIT

( ) = LABORATORY INHOUSE LIMIT

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.: Q1236

Client: Sciacca General Contractors, LLC

Analytical Method: SW8260D **Datafile :** VD080235.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VD0204SBS01	Dichlorodifluoromethane	20	24.6	ug/Kg	123			40 (64)	160 (136)	
	Chloromethane	20	22.6	ug/Kg	113			40 (70)	160 (130)	
	Vinyl chloride	20	21.6	ug/Kg	108			70 (72)	130 (129)	
	Bromomethane	20	20.8	ug/Kg	104			40 (58)	160 (141)	
	Chloroethane	20	22.4	ug/Kg	112			40 (69)	160 (130)	
	Trichlorofluoromethane	20	20.7	ug/Kg	104			40 (69)	160 (134)	
	1,1,2-Trichlorotrifluoroethane	20	21.6	ug/Kg	108			70 (81)	130 (123)	
	1,1-Dichloroethene	20	20.2	ug/Kg	101			70 (79)	130 (121)	
	Acetone	100	100	ug/Kg	100			40 (60)	160 (131)	
	Carbon disulfide	20	20.4	ug/Kg	102			40 (45)	160 (154)	
	Methyl tert-butyl Ether	20	20.3	ug/Kg	102			70 (77)	130 (129)	
	Methyl Acetate	20	22.7	ug/Kg	114			70 (69)	130 (149)	
	Methylene Chloride	20	21.0	ug/Kg	105			70 (56)	130 (174)	
	trans-1,2-Dichloroethene	20	21.1	ug/Kg	106			70 (80)	130 (123)	
	1,1-Dichloroethane	20	21.0	ug/Kg	105			70 (82)	130 (123)	
	Cyclohexane	20	20.0	ug/Kg	100			70 (76)	130 (122)	
	2-Butanone	100	100	ug/Kg	100			40 (69)	160 (131)	
	Carbon Tetrachloride	20	21.1	ug/Kg	106			70 (76)	130 (129)	
	cis-1,2-Dichloroethene	20	20.2	ug/Kg	101			70 (82)	130 (123)	
	Bromochloromethane	20	19.5	ug/Kg	98			70 (80)	130 (127)	
	Chloroform	20	21.4	ug/Kg	107			70 (82)	130 (125)	
	1,1,1-Trichloroethane	20	20.2	ug/Kg	101			70 (80)	130 (126)	
	Methylcyclohexane	20	19.6	ug/Kg	98			70 (77)	130 (123)	
	Benzene	20	21.1	ug/Kg	106			70 (84)	130 (121)	
	1,2-Dichloroethane	20	21.3	ug/Kg	106			70 (81)	130 (126)	
	Trichloroethene	20	21.4	ug/Kg	107			70 (83)	130 (122)	
	1,2-Dichloropropane	20	21.6	ug/Kg	108			70 (83)	130 (122)	
	Bromodichloromethane	20	21.0	ug/Kg	105			70 (82)	130 (123)	
	4-Methyl-2-Pentanone	100	110	ug/Kg	110			40 (70)	160 (135)	
	Toluene	20	22.4	ug/Kg	112			70 (83)	130 (122)	
	t-1,3-Dichloropropene	20	22.1	ug/Kg	111			70 (78)	130 (124)	
	cis-1,3-Dichloropropene	20	21.5	ug/Kg	108			70 (81)	130 (122)	
	1,1,2-Trichloroethane	20	21.4	ug/Kg	107			70 (82)	130 (125)	
	2-Hexanone	100	110	ug/Kg	110			40 (66)	160 (138)	
	Dibromochloromethane	20	22.6	ug/Kg	113			70 (79)	130 (125)	
	1,2-Dibromoethane	20	21.8	ug/Kg	109			70 (80)	130 (125)	
	Tetrachloroethene	20	19.9	ug/Kg	100			70 (83)	130 (125)	
	Chlorobenzene	20	20.4	ug/Kg	102			70 (84)	130 (122)	
	Ethyl Benzene	20	19.8	ug/Kg	99			70 (82)	130 (124)	
	m/p-Xylenes	40	40.7	ug/Kg	102			70 (83)	130 (124)	
	o-Xylene	20	20.0	ug/Kg	100			70 (83)	130 (123)	
	Styrene	20	20.5	ug/Kg	103			70 (82)	130 (124)	
	Bromoform	20	21.4	ug/Kg	107			70 (75)	130 (127)	
	Isopropylbenzene	20	18.4	ug/Kg	92			70 (82)	130 (124)	
	1,1,2,2-Tetrachloroethane	20	19.6	ug/Kg	98			70 (77)	130 (127)	
	1,3-Dichlorobenzene	20	20.3	ug/Kg	102			70 (83)	130 (122)	
	1,4-Dichlorobenzene	20	20.5	ug/Kg	103			70 (84)	130 (121)	
	1,2-Dichlorobenzene	20	20.3	ug/Kg	102			70 (83)	130 (124)	

( ) = LABORATORY INHOUSE LIMIT

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.: Q1236

Client: Sciacca General Contractors, LLC

Analytical Method: SW8260D **Datafile :** VD080235.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0204SBS01	1,2-Dibromo-3-Chloropropane	20	19.8	ug/Kg	99			40 (66)	160 (134)	
	1,2,4-Trichlorobenzene	20	18.6	ug/Kg	93			70 (78)	130 (127)	
	1,2,3-Trichlorobenzene	20	19.6	ug/Kg	98			70 (70)	130 (137)	

( ) = LABORATORY INHOUSE LIMIT

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.: Q1236

Client: Sciacca General Contractors, LLC

Analytical Method: SW8260D **Datafile :** VD080236.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0204SBSD01	Dichlorodifluoromethane	20	23.5	ug/Kg	117	5		40 (64)	160 (136)	30 (20)
	Chloromethane	20	22.4	ug/Kg	112	1		40 (70)	160 (130)	30 (20)
	Vinyl chloride	20	21.5	ug/Kg	108	0		70 (72)	130 (129)	30 (20)
	Bromomethane	20	21.3	ug/Kg	106	2		40 (58)	160 (141)	30 (20)
	Chloroethane	20	21.1	ug/Kg	106	6		40 (69)	160 (130)	30 (20)
	Trichlorofluoromethane	20	20.4	ug/Kg	102	2		40 (69)	160 (134)	30 (20)
	1,1,2-Trichlorotrifluoroethane	20	20.8	ug/Kg	104	4		70 (81)	130 (123)	30 (20)
	1,1-Dichloroethene	20	20.2	ug/Kg	101	0		70 (79)	130 (121)	30 (20)
	Acetone	100	120	ug/Kg	120	18		40 (60)	160 (131)	30 (20)
	Carbon disulfide	20	19.4	ug/Kg	97	5		40 (45)	160 (154)	30 (20)
	Methyl tert-butyl Ether	20	21.4	ug/Kg	107	5		70 (77)	130 (129)	30 (20)
	Methyl Acetate	20	23.4	ug/Kg	117	3		70 (69)	130 (149)	30 (20)
	Methylene Chloride	20	21.8	ug/Kg	109	4		70 (56)	130 (174)	30 (20)
	trans-1,2-Dichloroethene	20	20.0	ug/Kg	100	6		70 (80)	130 (123)	30 (20)
	1,1-Dichloroethane	20	21.4	ug/Kg	107	2		70 (82)	130 (123)	30 (20)
	Cyclohexane	20	19.2	ug/Kg	96	4		70 (76)	130 (122)	30 (20)
	2-Butanone	100	110	ug/Kg	110	10		40 (69)	160 (131)	30 (20)
	Carbon Tetrachloride	20	19.3	ug/Kg	97	9		70 (76)	130 (129)	30 (20)
	cis-1,2-Dichloroethene	20	19.7	ug/Kg	99	2		70 (82)	130 (123)	30 (20)
	Bromochloromethane	20	21.9	ug/Kg	110	12		70 (80)	130 (127)	30 (20)
	Chloroform	20	20.5	ug/Kg	103	4		70 (82)	130 (125)	30 (20)
	1,1,1-Trichloroethane	20	19.9	ug/Kg	100	1		70 (80)	130 (126)	30 (20)
	Methylcyclohexane	20	18.4	ug/Kg	92	6		70 (77)	130 (123)	30 (20)
	Benzene	20	19.8	ug/Kg	99	7		70 (84)	130 (121)	30 (20)
	1,2-Dichloroethane	20	20.9	ug/Kg	104	2		70 (81)	130 (126)	30 (20)
	Trichloroethene	20	20.3	ug/Kg	102	5		70 (83)	130 (122)	30 (20)
	1,2-Dichloropropane	20	20.9	ug/Kg	104	4		70 (83)	130 (122)	30 (20)
	Bromodichloromethane	20	21.4	ug/Kg	107	2		70 (82)	130 (123)	30 (20)
	4-Methyl-2-Pentanone	100	120	ug/Kg	120	9		40 (70)	160 (135)	30 (20)
	Toluene	20	20.7	ug/Kg	104	7		70 (83)	130 (122)	30 (20)
	t-1,3-Dichloropropene	20	21.5	ug/Kg	108	3		70 (78)	130 (124)	30 (20)
	cis-1,3-Dichloropropene	20	20.8	ug/Kg	104	4		70 (81)	130 (122)	30 (20)
	1,1,2-Trichloroethane	20	22.7	ug/Kg	114	6		70 (82)	130 (125)	30 (20)
	2-Hexanone	100	120	ug/Kg	120	9		40 (66)	160 (138)	30 (20)
	Dibromochloromethane	20	21.3	ug/Kg	106	6		70 (79)	130 (125)	30 (20)
	1,2-Dibromoethane	20	22.1	ug/Kg	111	2		70 (80)	130 (125)	30 (20)
	Tetrachloroethene	20	19.5	ug/Kg	98	2		70 (83)	130 (125)	30 (20)
	Chlorobenzene	20	19.4	ug/Kg	97	5		70 (84)	130 (122)	30 (20)
	Ethyl Benzene	20	18.7	ug/Kg	94	5		70 (82)	130 (124)	30 (20)
	m/p-Xylenes	40	37.5	ug/Kg	94	8		70 (83)	130 (124)	30 (20)
	o-Xylene	20	18.4	ug/Kg	92	8		70 (83)	130 (123)	30 (20)
	Styrene	20	19.4	ug/Kg	97	6		70 (82)	130 (124)	30 (20)
	Bromoform	20	21.1	ug/Kg	106	1		70 (75)	130 (127)	30 (20)
	Isopropylbenzene	20	17.4	ug/Kg	87	6		70 (82)	130 (124)	30 (20)
	1,1,2,2-Tetrachloroethane	20	20.7	ug/Kg	104	6		70 (77)	130 (127)	30 (20)
	1,3-Dichlorobenzene	20	19.4	ug/Kg	97	5		70 (83)	130 (122)	30 (20)
	1,4-Dichlorobenzene	20	20.1	ug/Kg	101	2		70 (84)	130 (121)	30 (20)
	1,2-Dichlorobenzene	20	19.8	ug/Kg	99	3		70 (83)	130 (124)	30 (20)

( ) = LABORATORY INHOUSE LIMIT

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.: Q1236

Client: Sciacca General Contractors, LLC

Analytical Method: SW8260D **Datafile :** VD080236.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VD0204SBSD01	1,2-Dibromo-3-Chloropropane	20	20.3	ug/Kg	102	3		40 (66)	160 (134)	30 (20)
	1,2,4-Trichlorobenzene	20	18.6	ug/Kg	93	0		70 (78)	130 (127)	30 (20)
	1,2,3-Trichlorobenzene	20	18.5	ug/Kg	93	5		70 (70)	130 (137)	30 (20)

( ) = LABORATORY INHOUSE LIMIT

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

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VD0204SBL01

Lab Name: CHEMTECH Contract: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG NO.: Q1236

Lab File ID: VD080234.D Lab Sample ID: VD0204SBL01

Date Analyzed: 02/04/2025 Time Analyzed: 12:31

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_D

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VD0204SBS01	VD0204SBS01	VD080235.D	02/04/2025
VD0204SBSD01	VD0204SBSD01	VD080236.D	02/04/2025
VOC	Q1236-02	VD080238.D	02/04/2025

COMMENTS:

Raw Data: **VD080218.D**

Alliance TECHNICAL GROUP
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: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG NO.: Q1236

Lab File ID: VD080218.D BFB Injection Date: 02/03/2025

Instrument ID: MSVOA_D BFB Injection Time: 09:37

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	52.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.8 (0.9) 1
174	50.0 - 100.0% of mass 95	88.1
175	5.0 - 9.0% of mass 174	7.2 (8.2) 1
176	95.0 - 101.0% of mass 174	86.4 (98) 1
177	5.0 - 9.0% of mass 176	5.9 (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
VSTDICC005	VSTDICC005	VD080219.D	02/03/2025	10:27
VSTDICC010	VSTDICC010	VD080220.D	02/03/2025	10:54
VSTDICC020	VSTDICC020	VD080221.D	02/03/2025	11:21
VSTDICCC050	VSTDICCC050	VD080222.D	02/03/2025	11:48
VSTDICC100	VSTDICC100	VD080223.D	02/03/2025	12:15
VSTDICC150	VSTDICC150	VD080224.D	02/03/2025	12:42

Raw Data: **VD080232.D**

Alliance TECHNICAL GROUP
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: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG NO.: Q1236

Lab File ID: VD080232.D BFB Injection Date: 02/04/2025

Instrument ID: MSVOA_D BFB Injection Time: 09:25

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	50.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	1.3 (1.5) 1
174	50.0 - 100.0% of mass 95	88.6
175	5.0 - 9.0% of mass 174	7.1 (8.1) 1
176	95.0 - 101.0% of mass 174	88.3 (99.6) 1
177	5.0 - 9.0% of mass 176	5.4 (6.1) 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	VD080233.D	02/04/2025	11:55
VD0204SBL01	VD0204SBL01	VD080234.D	02/04/2025	12:31
VD0204SBS01	VD0204SBS01	VD080235.D	02/04/2025	13:02
VD0204SBSD01	VD0204SBSD01	VD080236.D	02/04/2025	13:30
VOC	Q1236-02	VD080238.D	02/04/2025	15:53

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: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG NO.: Q1236

Lab File ID: VD080233.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_D Time Analyzed: 11:55

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	144407	7.88	231304	8.78	218761	11.58
UPPER LIMIT	288814	8.375	462608	9.281	437522	12.081
LOWER LIMIT	72203.5	7.375	115652	8.281	109381	11.081
EPA SAMPLE NO.						
VOC	7896 *	7.88	14310 *	8.78	13671 *	11.58
VD0204SBL01	108713	7.88	188910	8.78	172019	11.58
VD0204SBS01	120560	7.88	198480	8.78	187950	11.58
VD0204SBSD01	119247	7.88	199616	8.78	189350	11.58

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: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG NO.: Q1236

Lab File ID: VD080233.D Date Analyzed: 02/04/2025

Instrument ID: MSVOA_D Time Analyzed: 11:55

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #		RT #				
12 HOUR STD	115890		13.516				
UPPER LIMIT	231780		14.016				
LOWER LIMIT	57945		13.016				
EPA SAMPLE NO.							
VOC	5396	*	13.52				
VD0204SBL01	79252		13.52				
VD0204SBS01	104981		13.52				
VD0204SBSD01	105681		13.52				

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

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	01/30/25
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	01/30/25
Client Sample ID:	VOC	SDG No.:	Q1236
Lab Sample ID:	Q1236-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	82.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080238.D	1		02/04/25 15:53	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	2.00	U	2.00	6.00	ug/Kg
74-87-3	Chloromethane	1.40	U	1.40	6.00	ug/Kg
75-01-4	Vinyl Chloride	0.93	U	0.93	6.00	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	6.00	ug/Kg
75-00-3	Chloroethane	1.20	U	1.20	6.00	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	6.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.30	U	1.30	6.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.94	U	0.94	6.00	ug/Kg
67-64-1	Acetone	7.50	U	7.50	30.2	ug/Kg
75-15-0	Carbon Disulfide	1.50	U	1.50	6.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.81	U	0.81	6.00	ug/Kg
79-20-9	Methyl Acetate	2.20	U	2.20	6.00	ug/Kg
75-09-2	Methylene Chloride	4.10	U	4.10	12.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	1.00	U	1.00	6.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.76	U	0.76	6.00	ug/Kg
110-82-7	Cyclohexane	0.83	U	0.83	6.00	ug/Kg
78-93-3	2-Butanone	6.90	U	6.90	30.2	ug/Kg
56-23-5	Carbon Tetrachloride	1.10	U	1.10	6.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.74	U	0.74	6.00	ug/Kg
74-97-5	Bromochloromethane	2.90	U	2.90	6.00	ug/Kg
67-66-3	Chloroform	0.81	U	0.81	6.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.94	U	0.94	6.00	ug/Kg
108-87-2	Methylcyclohexane	1.10	U	1.10	6.00	ug/Kg
71-43-2	Benzene	0.87	U	0.87	6.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.74	U	0.74	6.00	ug/Kg
79-01-6	Trichloroethene	0.91	U	0.91	6.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.80	U	0.80	6.00	ug/Kg
75-27-4	Bromodichloromethane	0.68	U	0.68	6.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	5.30	U	5.30	30.2	ug/Kg
108-88-3	Toluene	0.81	U	0.81	6.00	ug/Kg

Raw Data: **VD080238.D**

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	01/30/25
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	01/30/25
Client Sample ID:	VOC	SDG No.:	Q1236
Lab Sample ID:	Q1236-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	82.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080238.D	1		02/04/25 15:53	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	0.72	U	0.72	6.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.69	U	0.69	6.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	1.00	U	1.00	6.00	ug/Kg
591-78-6	2-Hexanone	5.80	U	5.80	30.2	ug/Kg
124-48-1	Dibromochloromethane	0.79	U	0.79	6.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.95	U	0.95	6.00	ug/Kg
127-18-4	Tetrachloroethene	1.10	U	1.10	6.00	ug/Kg
108-90-7	Chlorobenzene	0.89	U	0.89	6.00	ug/Kg
100-41-4	Ethyl Benzene	0.75	U	0.75	6.00	ug/Kg
179601-23-1	m/p-Xylenes	1.60	U	1.60	12.1	ug/Kg
95-47-6	o-Xylene	0.85	U	0.85	6.00	ug/Kg
100-42-5	Styrene	0.72	U	0.72	6.00	ug/Kg
75-25-2	Bromoform	0.98	U	0.98	6.00	ug/Kg
98-82-8	Isopropylbenzene	0.81	U	0.81	6.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	6.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.89	U	0.89	6.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.97	U	0.97	6.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.71	U	0.71	6.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.90	U	1.90	6.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.95	U	0.95	6.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	0.94	U	0.94	6.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	71.6	*	70 (50) - 130 (163)	143%	SPK: 50
1868-53-7	Dibromofluoromethane	61.0		70 (54) - 130 (147)	122%	SPK: 50
2037-26-5	Toluene-d8	39.6		70 (58) - 130 (134)	79%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.5		70 (29) - 130 (146)	79%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	7900	7.875			
540-36-3	1,4-Difluorobenzene	14300	8.775			
3114-55-4	Chlorobenzene-d5	13700	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	5400	13.516			

Raw Data: **VD080238.D**

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	01/30/25
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	01/30/25
Client Sample ID:	VOC	SDG No.:	Q1236
Lab Sample ID:	Q1236-02	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	82.3
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080238.D	1		02/04/25 15:53	VD020425

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_D\Data\VD020425\
Data File : VD080238.D
Acq On : 04 Feb 2025 15:53
Operator : RP/MD
Sample : Q1236-02
Misc : 5.03G/5ml/MSVOA_D/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VOC

Quant Time: Feb 05 00:42:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

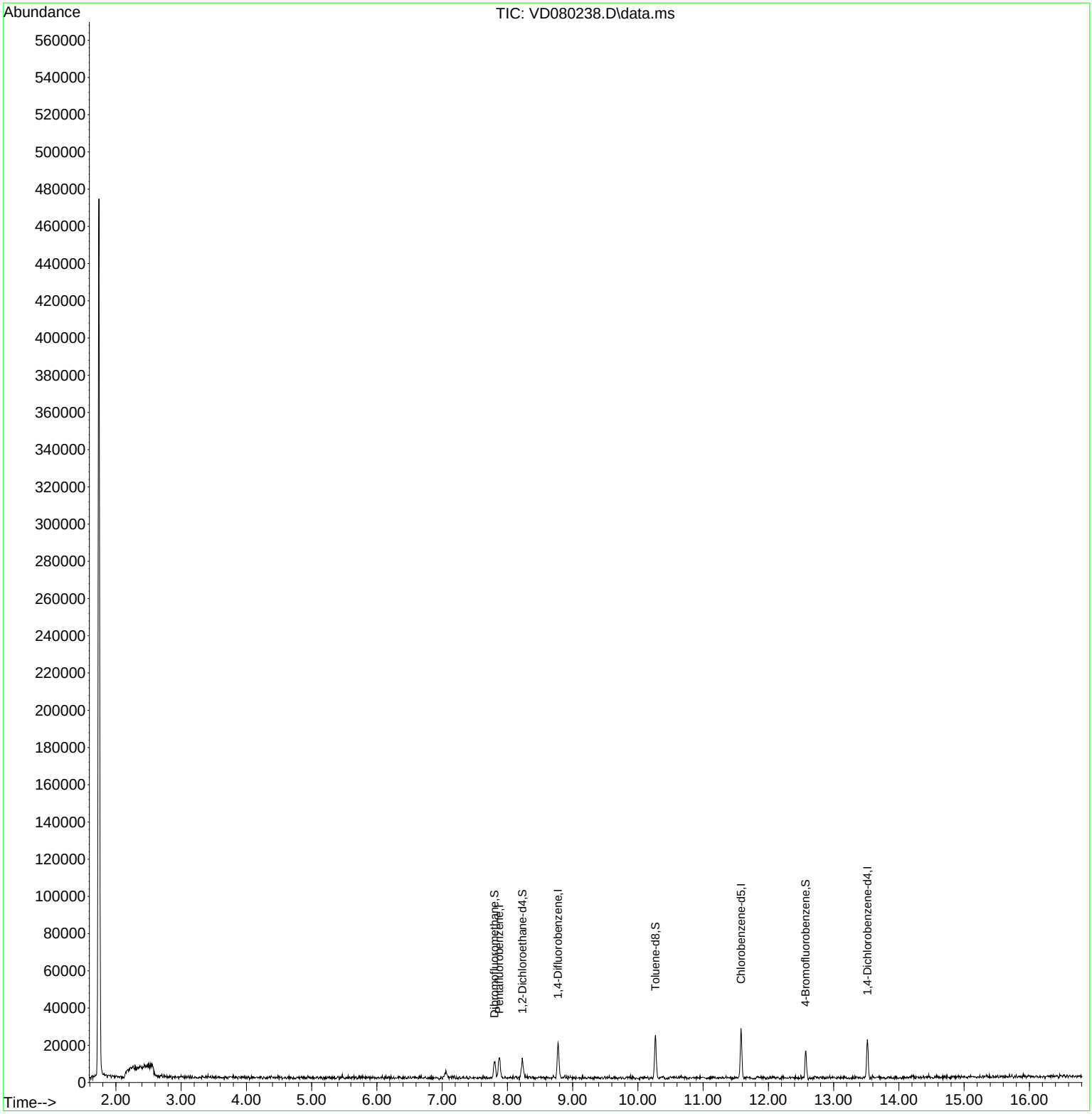
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	7896	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	14310	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	13671	50.000	ug/l	# 0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	5396	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	7351	71.570	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 143.140%			
35) Dibromofluoromethane	7.799	113	6183	60.965	ug/l	-0.01
Spiked Amount 50.000	Range 54 - 147		Recovery = 121.920%			
50) Toluene-d8	10.269	98	14890	39.590	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 79.180%			
62) 4-Bromofluorobenzene	12.569	95	4762	39.460	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 78.920%			
Target Compounds						Qvalue

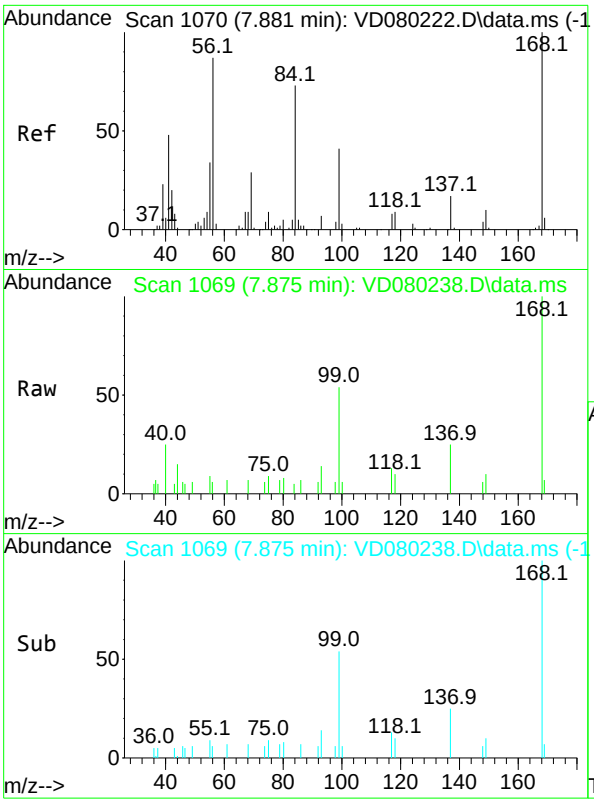
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080238.D
Acq On : 04 Feb 2025 15:53
Operator : RP/MD
Sample : Q1236-02
Misc : 5.03G/5ml/MSVOA_D/SOIL/B
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VOC

Quant Time: Feb 05 00:42:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration



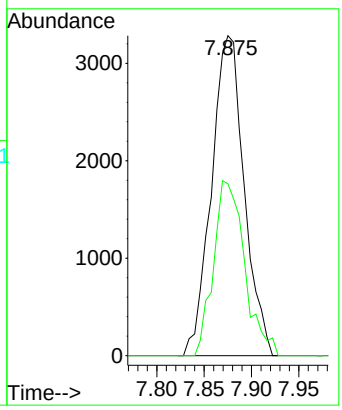


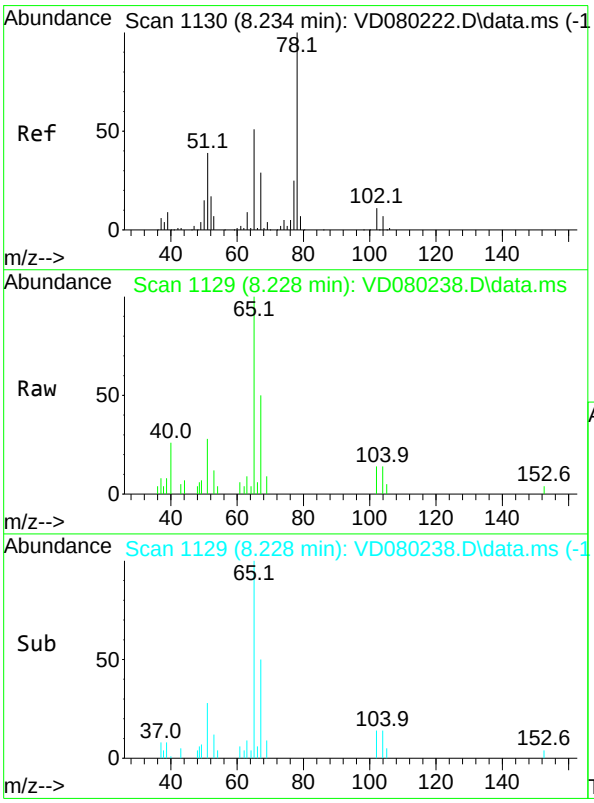
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Instrument :
MSVOA_D
ClientSampleId :
VOC

Tgt Ion:168 Resp: 7896

Ion	Ratio	Lower	Upper
168	100		
99	53.7	44.4	66.6

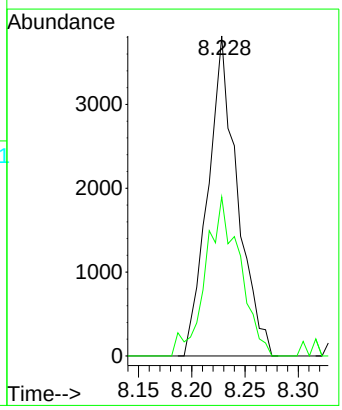


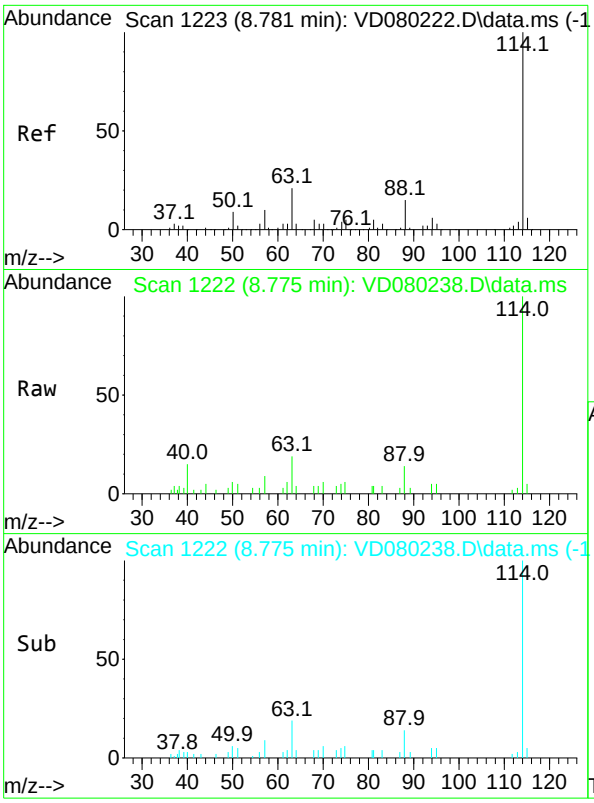


#33
1,2-Dichloroethane-d4
Concen: 71.570 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.006 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Tgt Ion: 65 Resp: 7351

Ion	Ratio	Lower	Upper
65	100		
67	57.8	0.0	107.6



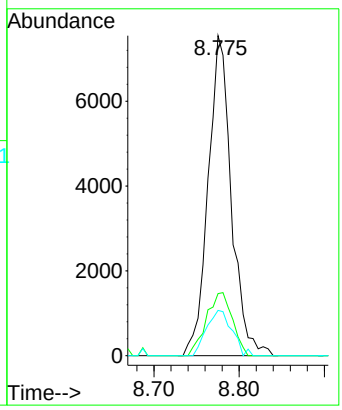


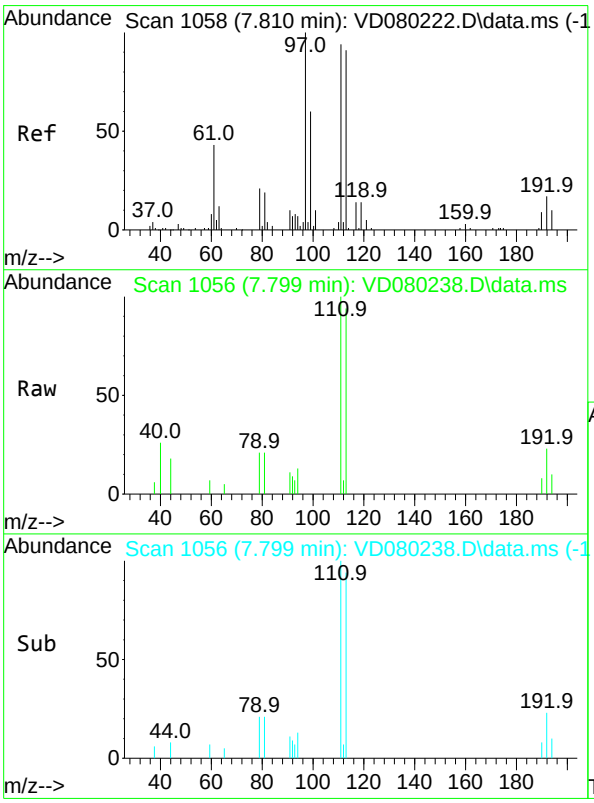
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.775 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Instrument :
MSVOA_D
ClientSampleId :
VOC

Tgt Ion:114 Resp: 14310

Ion	Ratio	Lower	Upper
114	100		
63	19.4	0.0	41.8
88	14.1	0.0	30.4

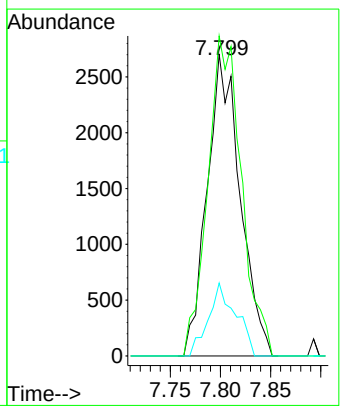


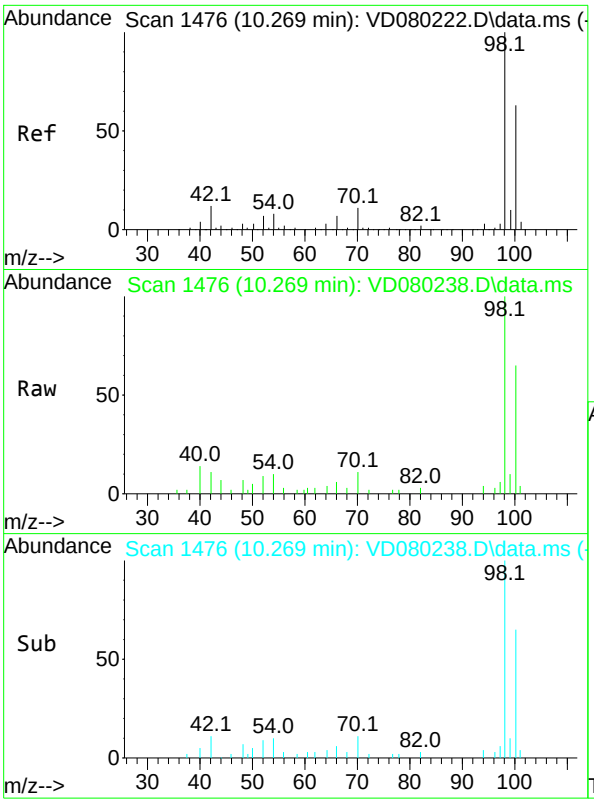


#35
Dibromofluoromethane
Concen: 60.965 ug/l
RT: 7.799 min Scan# 1056
Delta R.T. -0.012 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Tgt Ion:113 Resp: 6183

Ion	Ratio	Lower	Upper
113	100		
111	108.0	85.0	127.4
192	20.0	15.5	23.3



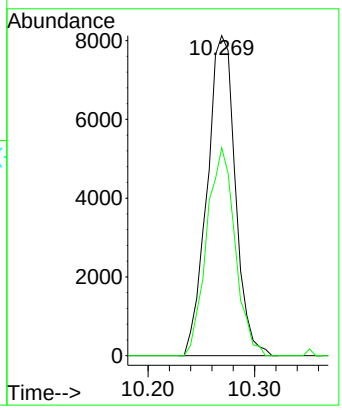


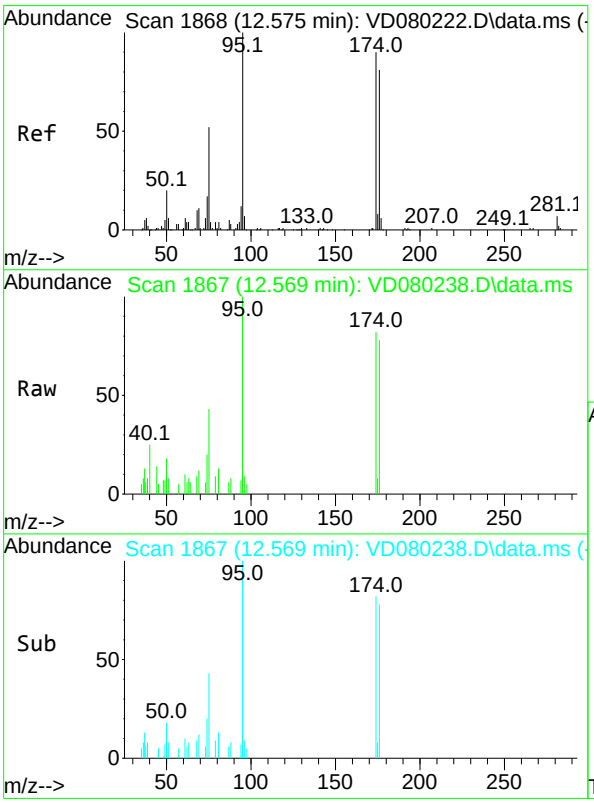
#50
Toluene-d8
Concen: 39.590 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Instrument :
MSVOA_D
ClientSampleId :
VOC

Tgt Ion: 98 Resp: 14890

Ion	Ratio	Lower	Upper
98	100		
100	65.4	50.2	75.4

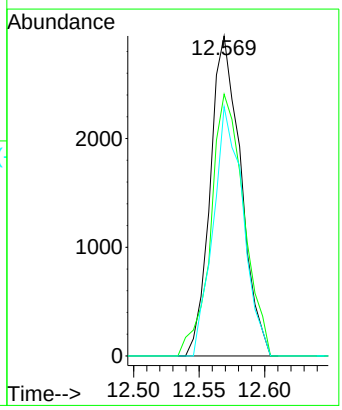


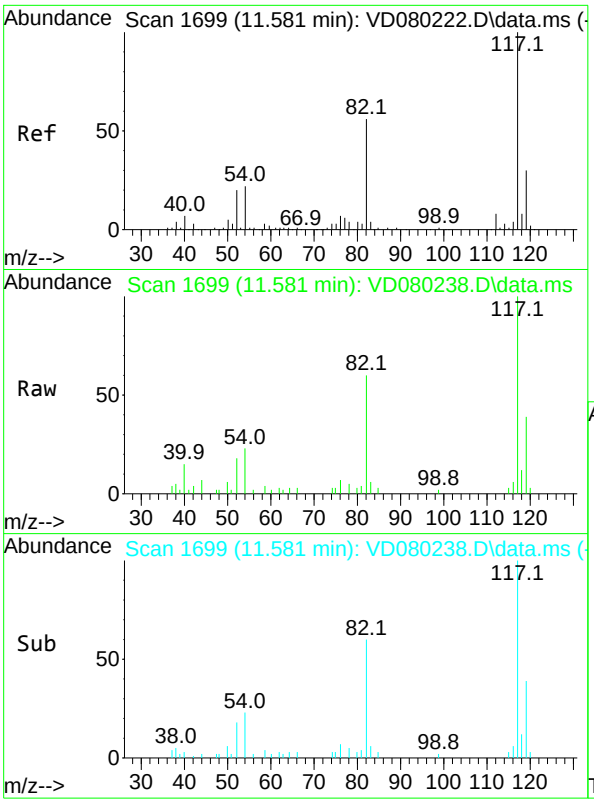


#62
4-Bromofluorobenzene
Concen: 39.460 ug/l
RT: 12.569 min Scan# 1867
Delta R.T. -0.006 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Tgt Ion: 95 Resp: 4762

Ion	Ratio	Lower	Upper
95	100		
174	88.7	0.0	171.8
176	76.3	0.0	159.6



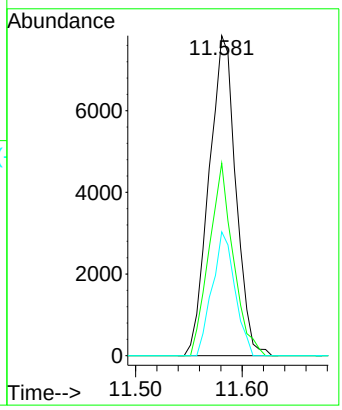


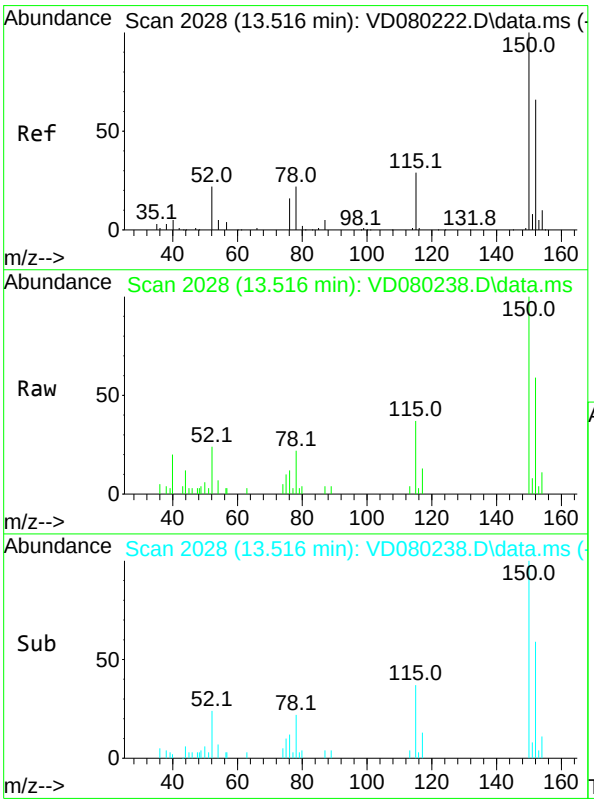
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Instrument :
MSVOA_D
ClientSampleId :
VOC

Tgt Ion:117 Resp: 13671

Ion	Ratio	Lower	Upper
117	100		
82	60.2	45.0	67.6
119	38.7	24.3	36.5#

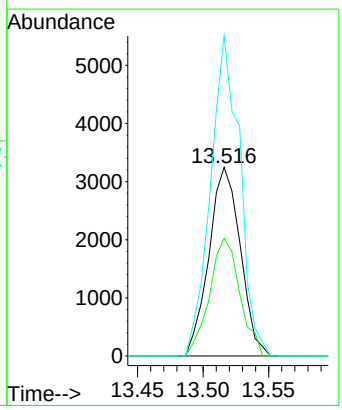




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. 0.000 min
Lab File: VD080238.D
Acq: 04 Feb 2025 15:53

Tgt Ion:152 Resp: 5396

Ion	Ratio	Lower	Upper
152	100		
115	60.4	30.0	90.1
150	158.8	0.0	350.4



CALIBRATION SUMMARY

Raw Data

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG No.: Q1236

Instrument ID: MSVOA_D Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:27 12:42

GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID: RRF005 = VD080219.D RRF010 = VD080220.D RRF020 = VD080221.D
RRF050 = VD080222.D RRF100 = VD080223.D RRF150 = VD080224.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.759	0.718	0.656	0.479	0.437	0.497	0.591	23.2
Chloromethane	1.147	1.142	1.148	0.989	0.860	0.963	1.042	11.7
Vinyl Chloride	1.371	1.377	1.336	1.196	1.060	1.220	1.260	9.9
Bromomethane	1.251	1.141	1.021	0.836	0.725	0.855	0.972	20.7
Chloroethane	0.955	0.909	0.853	0.808	0.706	0.805	0.839	10.4
Trichlorofluoromethane	1.228	1.125	1.086	0.980	0.852	0.995	1.044	12.5
1,1,2-Trichlorotrifluoroethane	0.705	0.658	0.613	0.547	0.538	0.565	0.604	11
1,1-Dichloroethene	0.608	0.563	0.593	0.537	0.545	0.588	0.573	4.9
Acetone	0.122	0.109	0.106	0.094	0.097	0.101	0.105	9.5
Carbon Disulfide	2.292	2.207	2.211	1.930	1.763	1.987	2.065	9.9
Methyl tert-butyl Ether	0.990	1.096	1.231	1.373	1.322	1.552	1.261	16
Methyl Acetate	0.318	0.367	0.348	0.353	0.348	0.389	0.354	6.7
Methylene Chloride	0.795	0.755	0.746	0.678	0.613	0.681	0.711	9.3
trans-1,2-Dichloroethene	0.624	0.634	0.635	0.689	0.620	0.700	0.650	5.4
1,1-Dichloroethane	1.206	1.226	1.224	1.246	1.100	1.219	1.204	4.3
Cyclohexane	1.007	0.985	0.941	0.897	0.973	0.979	0.964	4.1
2-Butanone	0.135	0.143	0.160	0.166	0.175	0.197	0.163	13.7
Carbon Tetrachloride	0.544	0.559	0.550	0.529	0.533	0.466	0.530	6.3
cis-1,2-Dichloroethene	0.684	0.699	0.704	0.730	0.749	0.844	0.735	7.9
Bromochloromethane	0.580	0.541	0.574	0.562	0.505	0.535	0.549	5.1
Chloroform	1.249	1.271	1.257	1.180	1.204	1.223	1.231	2.8
1,1,1-Trichloroethane	1.087	1.072	1.034	0.968	1.003	1.014	1.030	4.3
Methylcyclohexane	0.507	0.530	0.528	0.543	0.628	0.573	0.551	7.8
Benzene	1.506	1.538	1.568	1.649	1.642	1.644	1.591	3.9
1,2-Dichloroethane	0.451	0.471	0.446	0.454	0.451	0.443	0.453	2.1
Trichloroethene	0.347	0.373	0.381	0.362	0.390	0.352	0.368	4.6
1,2-Dichloropropane	0.401	0.405	0.414	0.405	0.418	0.359	0.400	5.3
Bromodichloromethane	0.577	0.588	0.574	0.566	0.574	0.494	0.562	6.1
4-Methyl-2-Pentanone	0.176	0.207	0.234	0.243	0.259	0.221	0.223	13.2
Toluene	0.835	0.924	0.962	0.946	1.019	0.898	0.931	6.7

* 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: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG No.: Q1236

Instrument ID: MSVOA_D Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:27 12:42

GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID: RRF005 = VD080219.D RRF010 = VD080220.D RRF020 = VD080221.D
RRF050 = VD080222.D RRF100 = VD080223.D RRF150 = VD080224.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
t-1,3-Dichloropropene	0.410	0.470	0.510	0.470	0.538	0.477	0.479	9
cis-1,3-Dichloropropene	0.485	0.583	0.605	0.636	0.634	0.555	0.583	9.8
1,1,2-Trichloroethane	0.312	0.298	0.296	0.274	0.289	0.270	0.290	5.4
2-Hexanone	0.108	0.131	0.151	0.147	0.178	0.165	0.147	17
Dibromochloromethane	0.343	0.363	0.374	0.349	0.366	0.348	0.357	3.4
1,2-Dibromoethane	0.259	0.270	0.269	0.254	0.267	0.264	0.264	2.4
Tetrachloroethene	0.368	0.358	0.358	0.290	0.376	0.345	0.349	8.8
Chlorobenzene	1.134	1.156	1.167	1.101	1.167	1.151	1.146	2.2
Ethyl Benzene	1.683	1.725	1.855	1.865	2.060	2.253	1.907	11.3
m/p-Xylenes	0.639	0.657	0.745	0.685	0.782	0.932	0.740	14.7
o-Xylene	0.550	0.617	0.657	0.631	0.722	0.872	0.675	16.5
Styrene	0.968	1.068	1.198	1.147	1.282	1.545	1.201	16.6
Bromoform	0.246	0.221	0.231	0.234	0.223	0.264	0.236	6.8
Isopropylbenzene	2.915	2.868	3.333	3.322	3.612	4.242	3.382	15
1,1,2,2-Tetrachloroethane	0.688	0.656	0.730	0.674	0.742	0.732	0.704	5.1
1,3-Dichlorobenzene	1.689	1.625	1.694	1.615	1.832	1.855	1.718	5.9
1,4-Dichlorobenzene	1.824	1.736	1.742	1.615	1.764	1.753	1.739	3.9
1,2-Dichlorobenzene	1.498	1.500	1.498	1.478	1.547	1.563	1.514	2.2
1,2-Dibromo-3-Chloropropane	0.120	0.106	0.105	0.118	0.113	0.110	0.112	5.3
1,2,4-Trichlorobenzene	0.884	0.826	0.855	0.991	1.055	1.180	0.965	14.1
1,2,3-Trichlorobenzene	0.762	0.754	0.789	0.910	0.915	1.096	0.871	15.1
1,2-Dichloroethane-d4	0.684	0.597	0.683	0.630	0.627	0.681	0.650	5.7
Dibromofluoromethane	0.367	0.343	0.389	0.347	0.362	0.319	0.354	6.7
Toluene-d8	1.239	1.258	1.386	1.392	1.407	1.203	1.314	6.9
4-Bromofluorobenzene	0.422	0.403	0.428	0.440	0.408	0.429	0.422	3.2

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

Response Factor Report MSVOA_D

Method Path : Z:\voasrv\HPCHEM1\MSVOA_D\Method\
Method File : 82D020325S.M
Title : SW846 8260
Last Update : Tue Feb 04 05:44:14 2025
Response Via : Initial Calibration

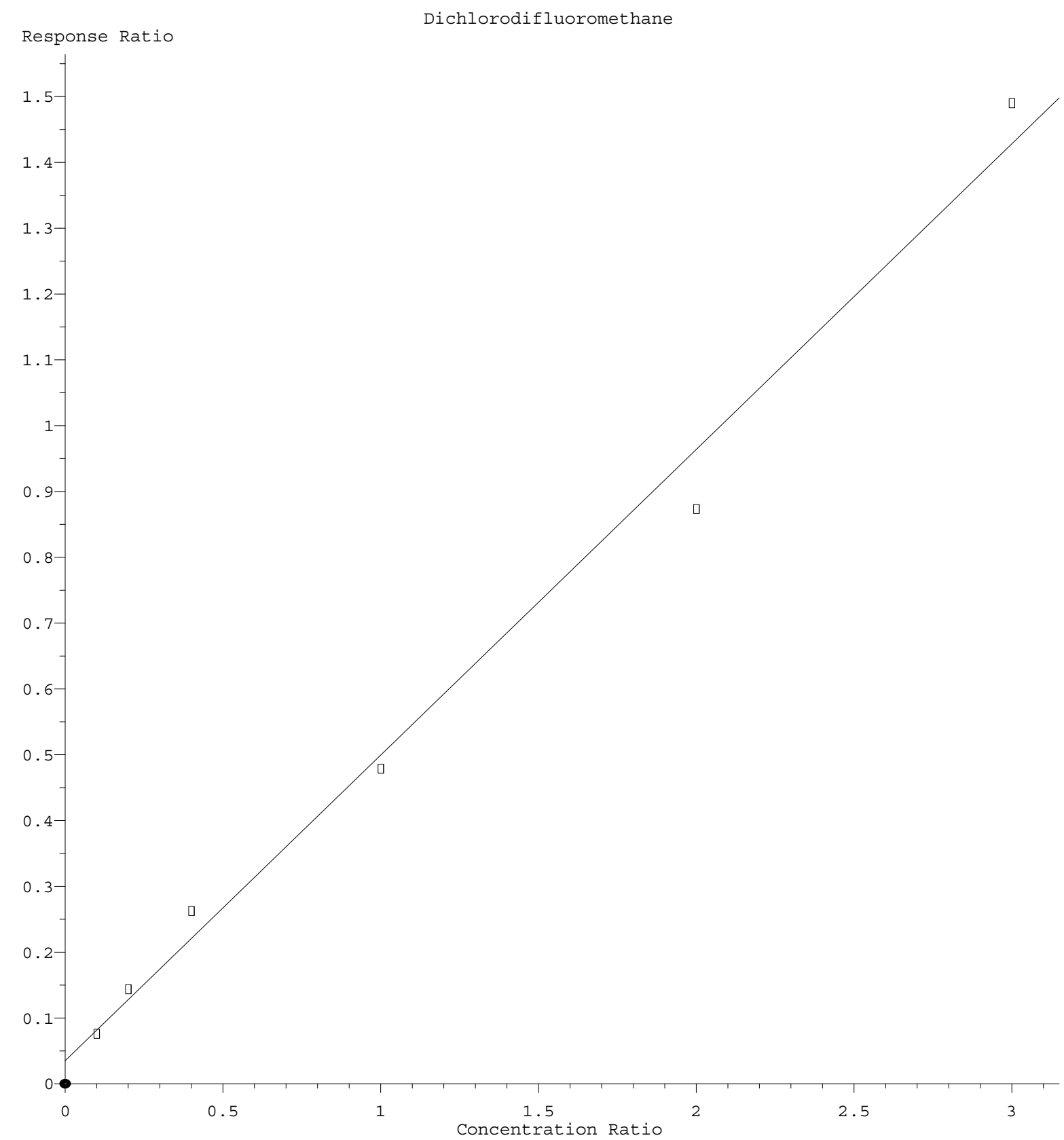
Calibration Files
5 =VD080219.D 10 =VD080220.D 20 =VD080221.D 50 =VD080222.D 100 =VD080223.D 150 =VD080224.D

		Compound	5	10	20	50	100	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluo...	0.759	0.718	0.656	0.479	0.437	0.497	0.591	23.19
3)	P	Chloromethane	1.147	1.142	1.148	0.989	0.860	0.963	1.042	11.71
4)	C	Vinyl Chloride	1.371	1.377	1.336	1.196	1.060	1.220	1.260	9.87#
5)	T	Bromomethane	1.251	1.141	1.021	0.836	0.725	0.855	0.972	20.67
6)	T	Chloroethane	0.955	0.909	0.853	0.808	0.706	0.805	0.839	10.40
7)	T	Trichlorofluor...	1.228	1.125	1.086	0.980	0.852	0.995	1.044	12.52
8)	T	Diethyl Ether	0.255	0.267	0.288	0.297	0.281	0.325	0.286	8.57
9)	T	1,1,2-Trichlor...	0.705	0.658	0.613	0.547	0.538	0.565	0.604	11.02
10)	T	Methyl Iodide	0.140	0.247	0.400	0.540	0.591	0.673	0.432	48.15
11)	T	Tert butyl alc...	0.037	0.037	0.037	0.036	0.032	0.037	0.036	5.22
12)	CM	1,1-Dichloroet...	0.608	0.563	0.593	0.537	0.545	0.588	0.573	4.95#
13)	T	Acrolein	0.060	0.065	0.072	0.067	0.067	0.076	0.068	8.23
14)	T	Allyl chloride	0.777	0.880	0.858	0.892	0.889	0.999	0.882	8.10
15)	T	Acrylonitrile	0.117	0.128	0.136	0.150	0.143	0.151	0.137	9.61
16)	T	Acetone	0.122	0.109	0.106	0.094	0.097	0.101	0.105	9.46
17)	T	Carbon Disulfide	2.292	2.207	2.211	1.930	1.763	1.987	2.065	9.88
18)	T	Methyl Acetate	0.318	0.367	0.348	0.353	0.348	0.389	0.354	6.66
19)	T	Methyl tert-bu...	0.990	1.096	1.231	1.373	1.322	1.552	1.261	15.95
20)	T	Methylene Chlo...	0.795	0.755	0.746	0.678	0.613	0.681	0.711	9.28
21)	T	trans-1,2-Dich...	0.624	0.634	0.635	0.689	0.620	0.700	0.650	5.36
22)	T	Diisopropyl ether	1.416	1.695	1.922	2.074	1.832	2.080	1.836	13.78
23)	T	Vinyl Acetate	0.802	0.926	1.067	1.205	1.102	1.260	1.060	16.20
24)	P	1,1-Dichloroet...	1.206	1.226	1.224	1.246	1.100	1.219	1.204	4.34
25)	T	2-Butanone	0.135	0.143	0.160	0.166	0.175	0.197	0.163	13.73
26)	T	2,2-Dichloropr...	1.137	1.050	0.998	1.004	0.979	1.097	1.044	5.96
27)	T	cis-1,2-Dichlo...	0.684	0.699	0.704	0.730	0.749	0.844	0.735	7.91
28)	T	Bromochloromet...	0.580	0.541	0.574	0.562	0.505	0.535	0.549	5.08
29)	T	Tetrahydrofuran	0.085	0.094	0.106	0.111	0.118	0.125	0.106	14.16
30)	C	Chloroform	1.249	1.271	1.257	1.180	1.204	1.223	1.231	2.82#
31)	T	Cyclohexane	1.007	0.985	0.941	0.897	0.973	0.979	0.964	4.05
32)	T	1,1,1-Trichlor...	1.087	1.072	1.034	0.968	1.003	1.014	1.030	4.30
33)	S	1,2-Dichloroet...	0.684	0.597	0.683	0.630	0.627	0.681	0.650	5.75
34)	I	1,4-Difluorobenzene	----------ISTD----------							
35)	S	Dibromofluorom...	0.367	0.343	0.389	0.347	0.362	0.319	0.354	6.72
36)	T	1,1-Dichloropr...	0.487	0.513	0.525	0.510	0.542	0.468	0.508	5.24
37)	T	Ethyl Acetate	0.215	0.242	0.265	0.252	0.262	0.258	0.249	7.39
38)	T	Carbon Tetrach...	0.544	0.559	0.550	0.529	0.533	0.466	0.530	6.31
39)	T	Methylcyclohexane	0.507	0.530	0.528	0.543	0.628	0.573	0.551	7.85
40)	TM	Benzene	1.506	1.538	1.568	1.649	1.642	1.644	1.591	3.91
41)	T	Methacrylonitrile	0.102	0.133	0.154	0.137	0.155	0.140	0.137	14.00
42)	TM	1,2-Dichloroet...	0.451	0.471	0.446	0.454	0.451	0.443	0.453	2.12
43)	T	Isopropyl Acetate	0.367	0.409	0.440	0.443	0.494	0.498	0.442	11.40
44)	TM	Trichloroethene	0.347	0.373	0.381	0.362	0.390	0.352	0.368	4.58
45)	C	1,2-Dichloropr...	0.401	0.405	0.414	0.405	0.418	0.359	0.400	5.30#
46)	T	Dibromomethane	0.225	0.233	0.228	0.232	0.227	0.193	0.223	6.76
47)	T	Bromodichlorom...	0.577	0.588	0.574	0.566	0.574	0.494	0.562	6.09
48)	T	Methyl methacr...	0.186	0.167	0.209	0.217	0.240	0.209	0.204	12.38
49)	T	1,4-Dioxane	0.002	0.003	0.002	0.003	0.003	0.002	0.002	16.05
50)	S	Toluene-d8	1.239	1.258	1.386	1.392	1.407	1.203	1.314	6.89
51)	T	4-Methyl-2-Pen...	0.176	0.207	0.234	0.243	0.259	0.221	0.223	13.24
52)	CM	Toluene	0.835	0.924	0.962	0.946	1.019	0.898	0.931	6.65#
53)	T	t-1,3-Dichloro...	0.410	0.470	0.510	0.470	0.538	0.477	0.479	9.03
54)	T	cis-1,3-Dichlo...	0.485	0.583	0.605	0.636	0.634	0.555	0.583	9.80
55)	T	1,1,2-Trichlor...	0.312	0.298	0.296	0.274	0.289	0.270	0.290	5.44
56)	T	Ethyl methacry...	0.250	0.300	0.318	0.338	0.417	0.360	0.331	17.07

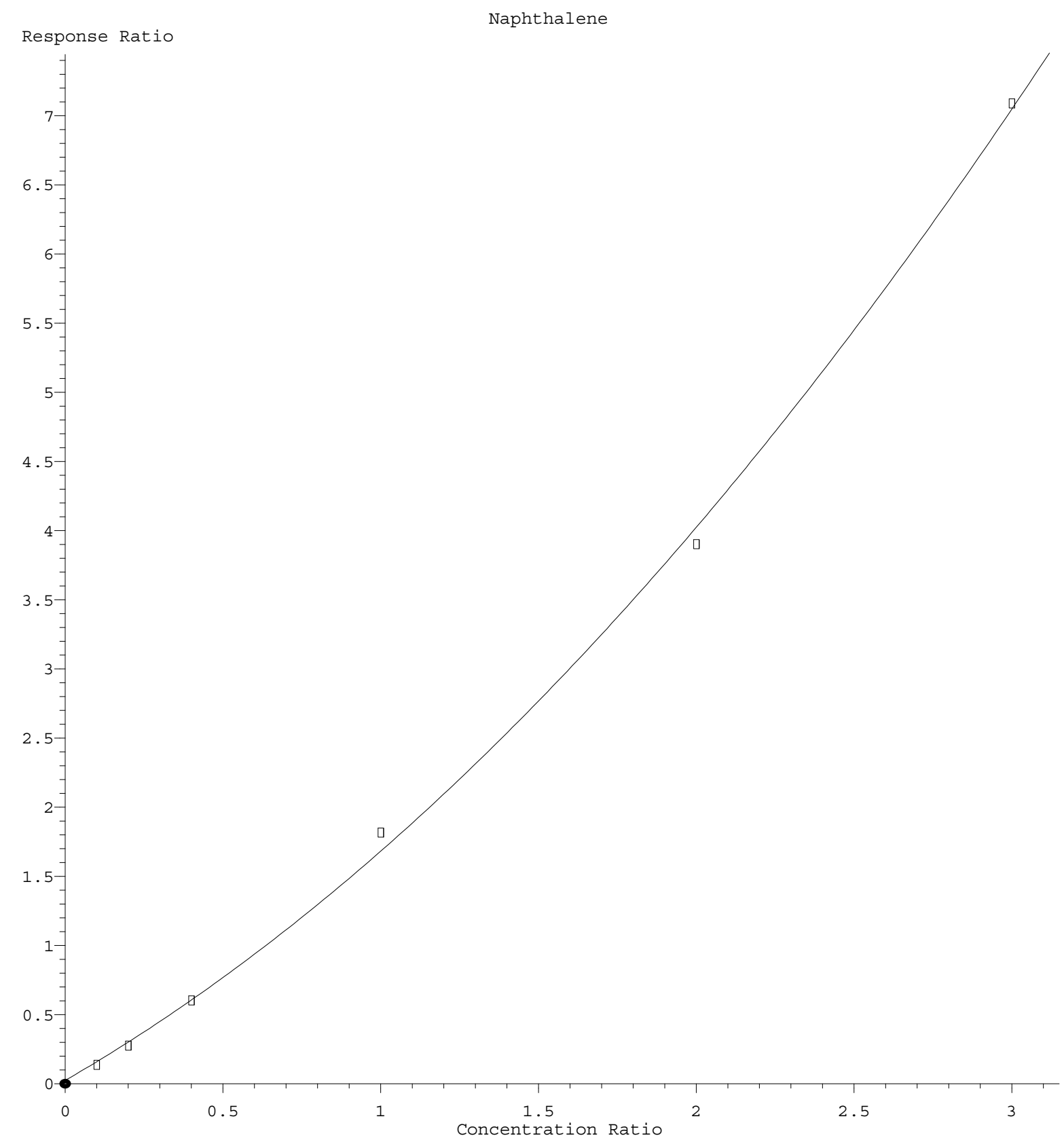
Method Path : Z:\voasrv\HPCHEM1\MSVOA_D\Method\
Method File : 82D020325S.M

57)	T	1,3-Dichloropr...	0.461	0.464	0.497	0.463	0.510	0.479	0.479	4.27
58)	T	2-Chloroethyl ...	0.106	0.125	0.134	0.167	0.169	0.146	0.141	17.57
59)	T	2-Hexanone	0.108	0.131	0.151	0.147	0.178	0.165	0.147	17.01
60)	T	Dibromochlorom...	0.343	0.363	0.374	0.349	0.366	0.348	0.357	3.37
61)	T	1,2-Dibromoethane	0.259	0.270	0.269	0.254	0.267	0.264	0.264	2.42
62)	S	4-Bromofluorob...	0.422	0.403	0.428	0.440	0.408	0.429	0.422	3.24
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.368	0.358	0.358	0.290	0.376	0.345	0.349	8.80
65)	PM	Chlorobenzene	1.134	1.156	1.167	1.101	1.167	1.151	1.146	2.21
66)	T	1,1,1,2-Tetrac...	0.408	0.405	0.406	0.377	0.390	0.420	0.401	3.76
67)	C	Ethyl Benzene	1.682	1.725	1.855	1.865	2.060	2.253	1.907	11.28#
68)	T	m/p-Xylenes	0.639	0.657	0.745	0.685	0.782	0.932	0.740	14.65
69)	T	o-Xylene	0.550	0.617	0.657	0.631	0.722	0.872	0.675	16.54
70)	T	Styrene	0.968	1.068	1.198	1.147	1.282	1.545	1.201	16.64
71)	P	Bromoform	0.246	0.221	0.231	0.234	0.223	0.264	0.236	6.76
72)	I	1,4-Dichlorobenzen...	----------ISTD----------							
73)	T	Isopropylbenzene	2.915	2.868	3.333	3.322	3.612	4.242	3.382	14.97
74)	T	N-amyl acetate	0.700	0.756	0.916	0.860	0.953	1.148	0.889	17.87
75)	P	1,1,2,2-Tetrac...	0.688	0.656	0.730	0.674	0.742	0.732	0.704	5.06
76)	T	1,2,3-Trichlor...	0.554	0.540	0.495	0.452	0.480	0.513	0.506	7.52
77)	T	Bromobenzene	0.778	0.808	0.892	0.828	0.972	0.956	0.872	9.21
78)	T	n-propylbenzene	3.721	3.660	4.293	4.387	4.900	4.874	4.306	12.47
79)	T	2-Chlorotoluene	2.173	2.215	2.457	2.417	2.746	2.669	2.446	9.48
80)	T	1,3,5-Trimethy...	2.404	2.462	2.882	2.803	3.226	3.195	2.828	12.35
81)	T	trans-1,4-Dich...	0.221	0.213	0.252	0.244	0.263	0.292	0.247	11.65
82)	T	4-Chlorotoluene	2.283	2.400	2.751	2.528	2.847	2.788	2.600	8.84
83)	T	tert-Butylbenzene	2.176	1.938	2.191	2.186	2.648	2.733	2.312	13.39
84)	T	1,2,4-Trimethy...	2.492	2.438	2.765	3.089	3.195	3.294	2.879	12.75
85)	T	sec-Butylbenzene	3.186	3.222	3.435	3.421	3.931	4.017	3.535	10.06
86)	T	p-Isopropyltol...	2.707	2.633	2.858	2.909	3.438	3.568	3.019	12.92
87)	T	1,3-Dichlorobe...	1.689	1.625	1.694	1.615	1.832	1.855	1.718	5.94
88)	T	1,4-Dichlorobe...	1.824	1.736	1.742	1.615	1.764	1.753	1.739	3.94
89)	T	n-Butylbenzene	2.955	2.524	2.756	2.762	3.245	3.360	2.934	10.87
90)	T	Hexachloroethane	0.704	0.638	0.645	0.624	0.740	0.674	0.671	6.62
91)	T	1,2-Dichlorobe...	1.498	1.500	1.498	1.478	1.547	1.563	1.514	2.18
92)	T	1,2-Dibromo-3-...	0.120	0.106	0.105	0.118	0.113	0.110	0.112	5.29
93)	T	1,2,4-Trichlor...	0.884	0.826	0.855	0.991	1.055	1.180	0.965	14.13
94)	T	Hexachlorobuta...	0.529	0.451	0.464	0.517	0.550	0.625	0.523	12.01
95)	T	Naphthalene	1.370	1.378	1.507	1.816	1.951	2.363	1.731	22.53
96)	T	1,2,3-Trichlor...	0.762	0.754	0.789	0.910	0.915	1.096	0.871	15.07

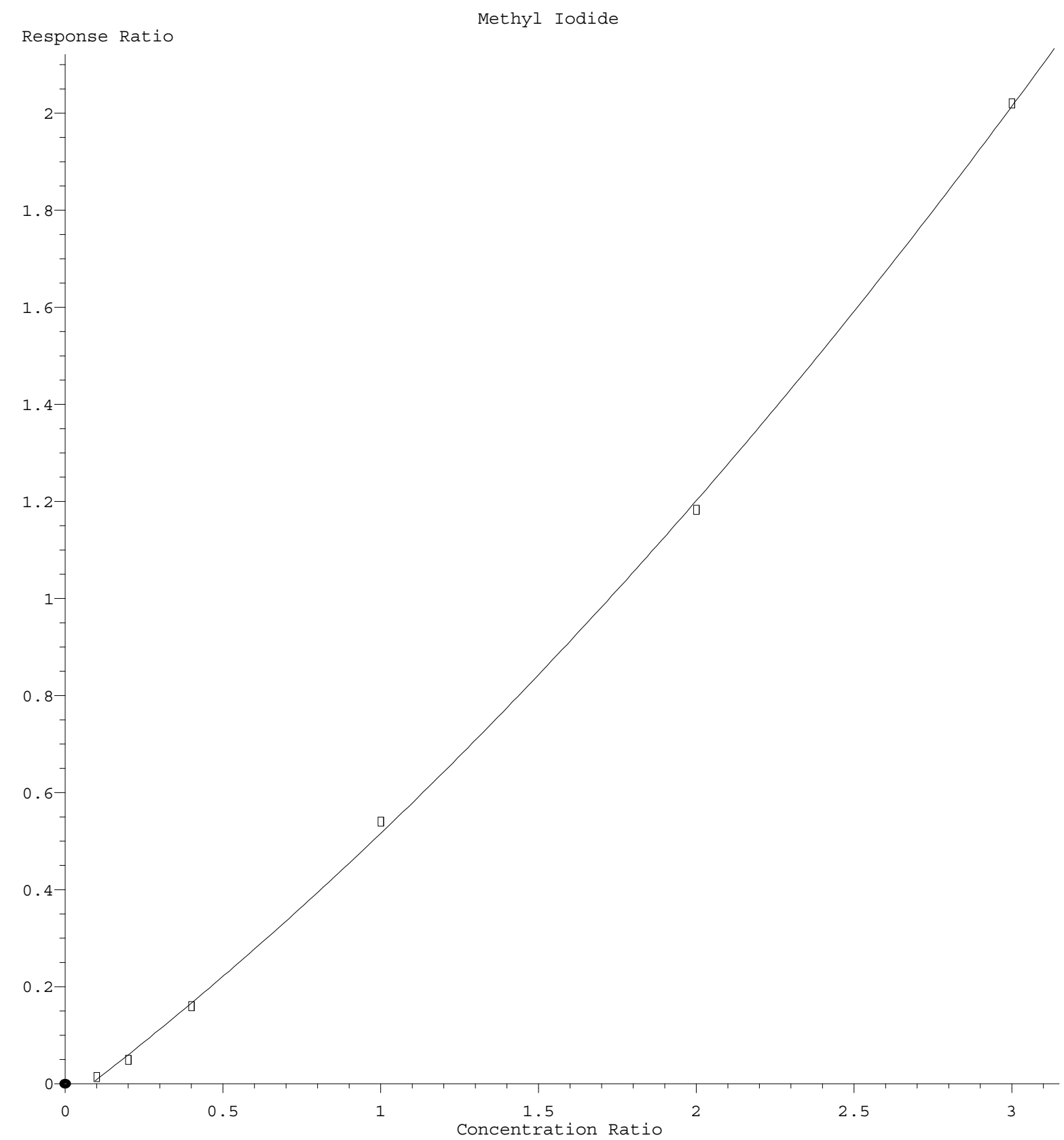
(#) = Out of Range



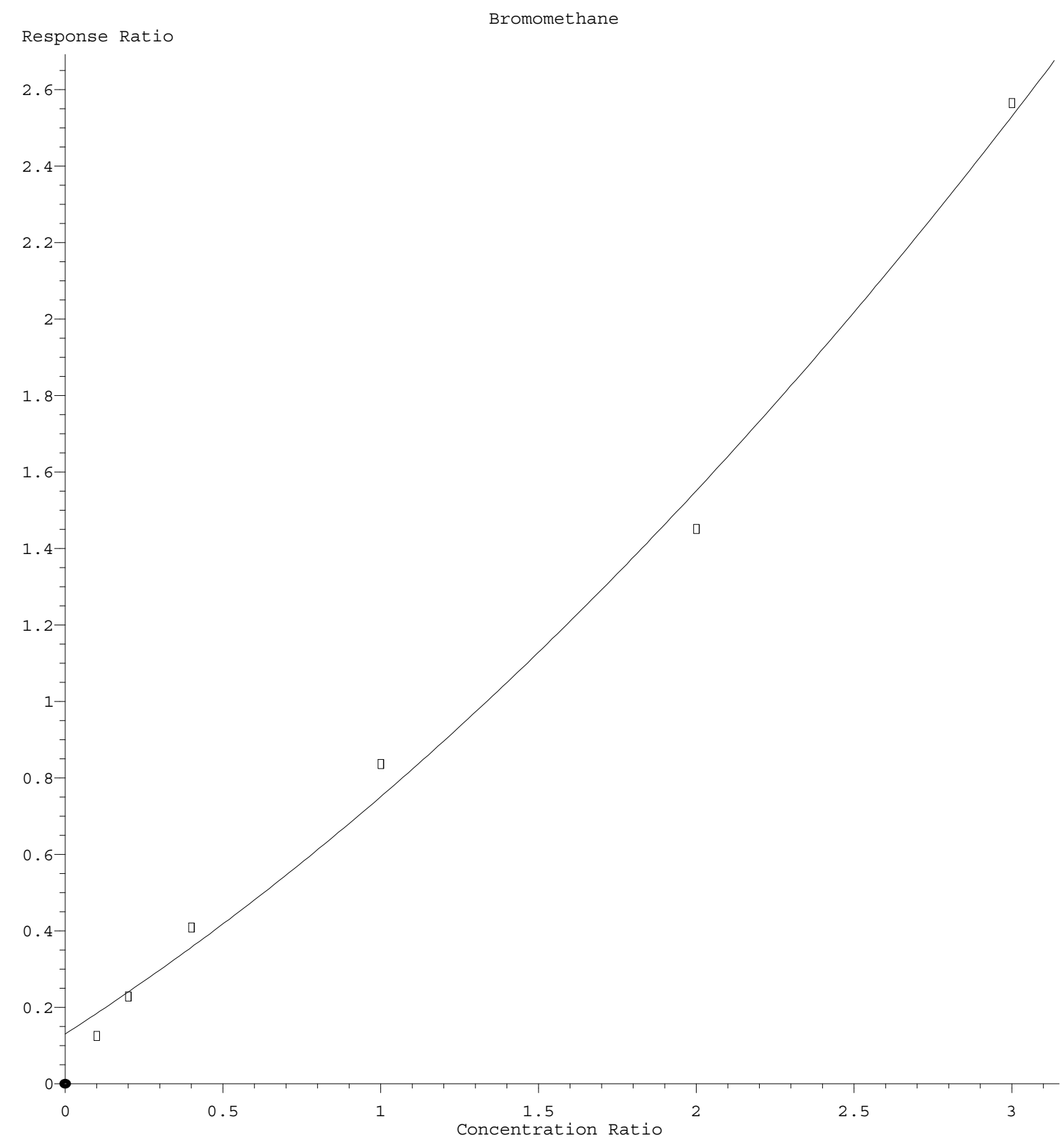
Response = 4.644e-001 * Amt + 3.537e-002
Coef of Det (r^2) = 0.990143 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Calibration Table Last Updated: Tue Feb 04 05:44:14 2025



R = 3.419e-001 A*A + 1.316e+000 A + 2.464e-002
Coef of Det (r^2) = 0.999052 Curve Fit: Quadratic
Method Name: Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Calibration Table Last Updated: Tue Feb 04 05:44:14 2025



R = 6.383e-002 A*A + 4.938e-001 A - 4.157e-002
Coef of Det (r^2) = 0.999640 Curve Fit: Quadratic
Method Name: Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Calibration Table Last Updated: Tue Feb 04 05:44:14 2025



R = 8.966e-002 A*A + 5.311e-001 A + 1.301e-001
Coef of Det (r^2) = 0.994333 Curve Fit: Quadratic
Method Name: Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Calibration Table Last Updated: Tue Feb 04 05:44:14 2025

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080219.D
Acq On : 03 Feb 2025 10:27
Operator : RP/MD
Sample : VSTDICC005
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:40:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:40:32 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	7.881	168	121220	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	8.781	114	206585	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.581	117	194009	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.522	152	100564	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.234	65	8296	5.261	ug/l		0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 10.520%#				
35) Dibromofluoromethane	7.811	113	7578	5.176	ug/l		0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 10.360%#				
50) Toluene-d8	10.269	98	25598	4.715	ug/l		0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 9.420%#				
62) 4-Bromofluorobenzene	12.569	95	8724	5.008	ug/l		0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 10.020%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.940	85	9203	4.365	ug/l		91
3) Chloromethane	2.152	50	13905	5.507	ug/l		97
4) Vinyl Chloride	2.287	62	16622	5.441	ug/l		96
5) Bromomethane	2.699	94	15161	6.437	ug/l		99
6) Chloroethane	2.846	64	11574	5.688	ug/l		94
7) Trichlorofluoromethane	3.175	101	14882	5.879	ug/l		93
8) Diethyl Ether	3.605	74	3091	4.463	ug/l		83
9) 1,1,2-Trichlorotrifluo...	3.970	101	8543	5.830	ug/l		99
10) Methyl Iodide	4.181	142	1693	5.544	ug/l	#	88
11) Tert butyl alcohol	5.058	59	2250m	25.832	ug/l		
12) 1,1-Dichloroethene	3.946	96	7374	5.312	ug/l		81
13) Acrolein	3.799	56	3614	22.005	ug/l		92
14) Allyl chloride	4.575	41	9413	4.400	ug/l		95
15) Acrylonitrile	5.258	53	7106	21.356	ug/l	#	95
16) Acetone	4.034	43	7365	28.982	ug/l		91
17) Carbon Disulfide	4.270	76	27783	5.549	ug/l		99
18) Methyl Acetate	4.564	43	3855	4.496	ug/l	#	88
19) Methyl tert-butyl Ether	5.322	73	12006	3.929	ug/l		92
20) Methylene Chloride	4.811	84	9634	5.586	ug/l	#	91
21) trans-1,2-Dichloroethene	5.322	96	7565	4.797	ug/l		91
22) Diisopropyl ether	6.222	45	17160	3.854	ug/l	#	93
23) Vinyl Acetate	6.158	43	48590	18.904	ug/l	#	86
24) 1,1-Dichloroethane	6.116	63	14623	5.010	ug/l		95
25) 2-Butanone	7.093	43	8195	20.790	ug/l	#	88
26) 2,2-Dichloropropane	7.087	77	13782	5.445	ug/l		98
27) cis-1,2-Dichloroethene	7.087	96	8289	4.653	ug/l		97
28) Bromochloromethane	7.428	49	7025	5.275	ug/l	#	93
29) Tetrahydrofuran	7.452	42	5133	19.882	ug/l	#	81
30) Chloroform	7.593	83	15145	5.076	ug/l		93
31) Cyclohexane	7.875	56	12203	5.223	ug/l	#	77
32) 1,1,1-Trichloroethane	7.793	97	13177	5.279	ug/l		99
36) 1,1-Dichloropropene	8.011	75	10067	4.800	ug/l		94
37) Ethyl Acetate	7.181	43	4446	4.324	ug/l	#	87
38) Carbon Tetrachloride	7.999	117	11247	5.135	ug/l		87
39) Methylcyclohexane	9.269	83	10484	4.602	ug/l		96
40) Benzene	8.252	78	31105	4.732	ug/l		95

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080219.D
Acq On : 03 Feb 2025 10:27
Operator : RP/MD
Sample : VSTDICC005
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:40:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:40:32 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.393	41	2116	3.733	ug/l	#	56
42) 1,2-Dichloroethane	8.328	62	9317	4.981	ug/l		96
43) Isopropyl Acetate	8.363	43	7573	4.150	ug/l	#	60
44) Trichloroethene	9.028	130	7165	4.718	ug/l		90
45) 1,2-Dichloropropane	9.310	63	8278	5.007	ug/l		96
46) Dibromomethane	9.393	93	4651	5.049	ug/l		94
47) Bromodichloromethane	9.587	83	11910	5.127	ug/l		86
48) Methyl methacrylate	9.387	41	3835	4.541	ug/l		89
49) 1,4-Dioxane	9.381	88	717	71.552	ug/l	#	85
51) 4-Methyl-2-Pentanone	10.157	43	18133	19.649	ug/l		95
52) Toluene	10.334	92	17254	4.488	ug/l		100
53) t-1,3-Dichloropropene	10.557	75	8473	4.279	ug/l	#	83
54) cis-1,3-Dichloropropene	10.016	75	10021	4.160	ug/l		96
55) 1,1,2-Trichloroethane	10.734	97	6436	5.377	ug/l	#	83
56) Ethyl methacrylate	10.599	69	5170	3.786	ug/l		91
57) 1,3-Dichloropropane	10.881	76	9522	4.810	ug/l		97
58) 2-Chloroethyl Vinyl ether	9.869	63	10941	18.770	ug/l		97
59) 2-Hexanone	10.922	43	11107	18.342	ug/l		99
60) Dibromochloromethane	11.069	129	7090	4.806	ug/l		94
61) 1,2-Dibromoethane	11.181	107	5351	4.909	ug/l		94
64) Tetrachloroethene	10.810	164	7147	5.273	ug/l		84
65) Chlorobenzene	11.604	112	22008	4.949	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.681	131	7909	5.084	ug/l		97
67) Ethyl Benzene	11.687	91	32642	4.412	ug/l		95
68) m/p-Xylenes	11.799	106	24792	8.632	ug/l		90
69) o-Xylene	12.122	106	10672	4.075	ug/l		96
70) Styrene	12.134	104	18781	4.029	ug/l		98
71) Bromoform	12.299	173	4766	5.197	ug/l	#	95
73) Isopropylbenzene	12.422	105	29314	4.310	ug/l		95
74) N-amyl acetate	12.234	43	7041	3.938	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.675	83	6917	4.887	ug/l		97
76) 1,2,3-Trichloropropane	12.722	75	5570m	5.476	ug/l		
77) Bromobenzene	12.704	156	7827	4.461	ug/l		93
78) n-propylbenzene	12.763	91	37418	4.321	ug/l		99
79) 2-Chlorotoluene	12.851	91	21852	4.441	ug/l		97
80) 1,3,5-Trimethylbenzene	12.904	105	24173	4.249	ug/l		96
81) trans-1,4-Dichloro-2-b...	12.475	75	2218	4.459	ug/l		90
82) 4-Chlorotoluene	12.946	91	22963	4.392	ug/l		99
83) tert-Butylbenzene	13.163	119	21883	4.705	ug/l		95
84) 1,2,4-Trimethylbenzene	13.210	105	25062	4.328	ug/l		99
85) sec-Butylbenzene	13.346	105	32039	4.506	ug/l		98
86) p-Isopropyltoluene	13.463	119	27223	4.484	ug/l		99
87) 1,3-Dichlorobenzene	13.457	146	16985	4.915	ug/l		98
88) 1,4-Dichlorobenzene	13.540	146	18347	5.245	ug/l		94
89) n-Butylbenzene	13.787	91	29720	5.037	ug/l		94
90) Hexachloroethane	14.051	117	7078	5.245	ug/l		91
91) 1,2-Dichlorobenzene	13.834	146	15067	4.948	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.451	75	1205	5.351	ug/l		89
93) 1,2,4-Trichlorobenzene	15.098	180	8886	4.578	ug/l		99
94) Hexachlorobutadiene	15.204	225	5322	5.063	ug/l		99
95) Naphthalene	15.328	128	13776	4.179	ug/l	#	91
96) 1,2,3-Trichlorobenzene	15.522	180	7665	4.376	ug/l		93

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080219.D
Acq On : 03 Feb 2025 10:27
Operator : RP/MD
Sample : VSTDICC005
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:40:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:40:32 2025
Response via : Initial Calibration

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

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

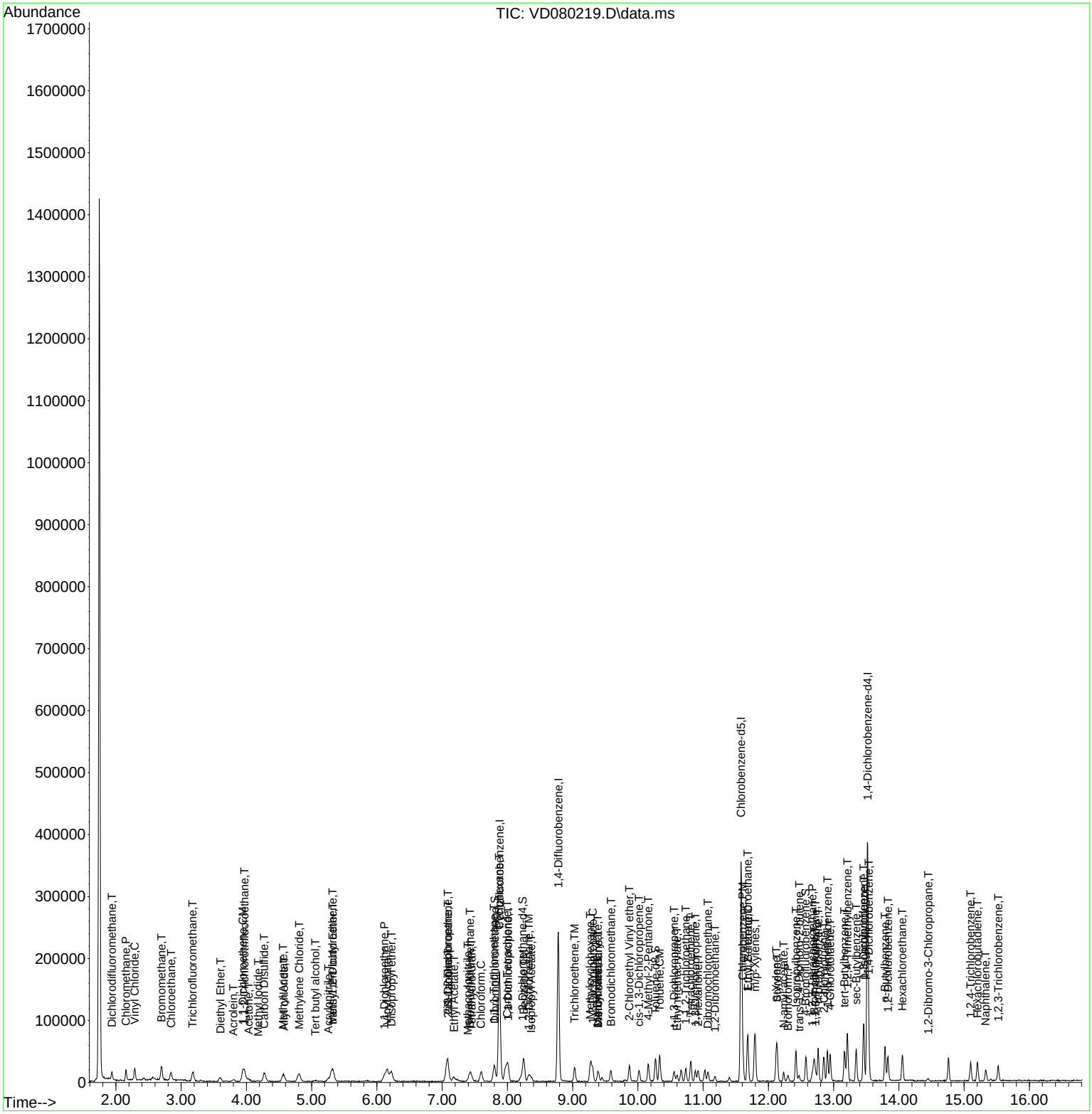
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080219.D
Acq On : 03 Feb 2025 10:27
Operator : RP/MD
Sample : VSTDICC005
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 04 05:40:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:40:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080220.D
Acq On : 03 Feb 2025 10:54
Operator : RP/MD
Sample : VSTDICC010
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:30:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.881	168	134384	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	223619	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	210746	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	115886	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	16035	9.173	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	18.340%#		
35) Dibromofluoromethane	7.810	113	15350	9.685	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	19.380%#		
50) Toluene-d8	10.269	98	56251	9.571	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	19.140%#		
62) 4-Bromofluorobenzene	12.575	95	18038	9.565	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	19.140%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	19288	11.644	ug/l	94
3) Chloromethane	2.152	50	30702	10.968	ug/l	100
4) Vinyl Chloride	2.287	62	36998	10.925	ug/l	99
5) Bromomethane	2.693	94	30663	8.959	ug/l	96
6) Chloroethane	2.834	64	24419	10.826	ug/l	96
7) Trichlorofluoromethane	3.175	101	30229	10.771	ug/l	94
8) Diethyl Ether	3.599	74	7187	9.361	ug/l	89
9) 1,1,2-Trichlorotrifluo...	3.969	101	17682	10.884	ug/l	98
10) Methyl Iodide	4.169	142	6633	8.998	ug/l	98
11) Tert butyl alcohol	5.081	59	4936	51.118	ug/l #	92
12) 1,1-Dichloroethene	3.940	96	15137	9.836	ug/l	88
13) Acrolein	3.805	56	8722	47.905	ug/l	95
14) Allyl chloride	4.563	41	23641	9.969	ug/l	97
15) Acrylonitrile	5.263	53	17137	46.458	ug/l	97
16) Acetone	4.022	43	14697	52.168	ug/l #	78
17) Carbon Disulfide	4.275	76	59312	10.686	ug/l	100
18) Methyl Acetate	4.575	43	9856	10.368	ug/l	97
19) Methyl tert-butyl Ether	5.328	73	29449	8.692	ug/l	96
20) Methylene Chloride	4.811	84	20300	10.618	ug/l	94
21) trans-1,2-Dichloroethene	5.316	96	17049	9.752	ug/l	98
22) Diisopropyl ether	6.222	45	45553	9.230	ug/l	97
23) Vinyl Acetate	6.163	43	124384	43.652	ug/l	96
24) 1,1-Dichloroethane	6.116	63	32964	10.189	ug/l	97
25) 2-Butanone	7.087	43	19186	43.906	ug/l	92
26) 2,2-Dichloropropane	7.075	77	28226	10.058	ug/l	99
27) cis-1,2-Dichloroethene	7.087	96	18783	9.510	ug/l	99
28) Bromochloromethane	7.434	49	14528	9.840	ug/l #	100
29) Tetrahydrofuran	7.452	42	12623	44.104	ug/l	99
30) Chloroform	7.599	83	34170	10.330	ug/l	95
31) Cyclohexane	7.881	56	26473	10.221	ug/l #	86
32) 1,1,1-Trichloroethane	7.793	97	28807	10.409	ug/l	99
36) 1,1-Dichloropropene	8.010	75	22925	10.099	ug/l	98
37) Ethyl Acetate	7.169	43	10821	9.721	ug/l #	97
38) Carbon Tetrachloride	7.999	117	24981	10.536	ug/l	93
39) Methylcyclohexane	9.275	83	23716	9.617	ug/l	94
40) Benzene	8.252	78	68769	9.665	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080220.D
Acq On : 03 Feb 2025 10:54
Operator : RP/MD
Sample : VSTDICC010
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:30:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	5958m	9.710	ug/l		
42) 1,2-Dichloroethane	8.328	62	21053	10.398	ug/l		100
43) Isopropyl Acetate	8.363	43	18279	9.253	ug/l	#	85
44) Trichloroethene	9.028	130	16670	10.142	ug/l		92
45) 1,2-Dichloropropane	9.310	63	18112	10.120	ug/l		98
46) Dibromomethane	9.399	93	10401	10.431	ug/l		97
47) Bromodichloromethane	9.581	83	26307	10.462	ug/l	#	87
48) Methyl methacrylate	9.381	41	7457	8.157	ug/l		98
49) 1,4-Dioxane	9.393	88	2433	224.302	ug/l	#	84
51) 4-Methyl-2-Pentanone	10.157	43	46283	46.333	ug/l		96
52) Toluene	10.334	92	41315	9.927	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	21031	9.811	ug/l	#	89
54) cis-1,3-Dichloropropene	10.016	75	26053	9.992	ug/l		98
55) 1,1,2-Trichloroethane	10.734	97	13313	10.276	ug/l		94
56) Ethyl methacrylate	10.598	69	13412	9.073	ug/l		98
57) 1,3-Dichloropropane	10.881	76	20759	9.687	ug/l		96
58) 2-Chloroethyl Vinyl ether	9.869	63	27857	44.151	ug/l		98
59) 2-Hexanone	10.922	43	29279	44.667	ug/l		95
60) Dibromochloromethane	11.069	129	16216	10.155	ug/l		93
61) 1,2-Dibromoethane	11.181	107	12090	10.246	ug/l		99
64) Tetrachloroethene	10.810	164	15097	10.255	ug/l		96
65) Chlorobenzene	11.610	112	48732	10.088	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.681	131	17065	10.098	ug/l		95
67) Ethyl Benzene	11.681	91	72692	9.046	ug/l		99
68) m/p-Xylenes	11.792	106	55402	17.759	ug/l		100
69) o-Xylene	12.122	106	26014	9.144	ug/l		99
70) Styrene	12.134	104	45028	8.892	ug/l		97
71) Bromoform	12.298	173	9315	9.350	ug/l	#	97
73) Isopropylbenzene	12.422	105	66469	8.480	ug/l		100
74) N-amyl acetate	12.234	43	17530	8.508	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.669	83	15213	9.327	ug/l		98
76) 1,2,3-Trichloropropane	12.722	75	12525m	10.685	ug/l		
77) Bromobenzene	12.698	156	18720	9.259	ug/l		93
78) n-propylbenzene	12.763	91	84826	8.500	ug/l		99
79) 2-Chlorotoluene	12.845	91	51327	9.053	ug/l		100
80) 1,3,5-Trimethylbenzene	12.904	105	57051	8.703	ug/l		97
81) trans-1,4-Dichloro-2-b...	12.469	75	4935	8.609	ug/l		88
82) 4-Chlorotoluene	12.945	91	55636	9.234	ug/l		98
83) tert-Butylbenzene	13.163	119	44922	8.382	ug/l		98
84) 1,2,4-Trimethylbenzene	13.210	105	56511	8.469	ug/l		99
85) sec-Butylbenzene	13.345	105	74667	9.112	ug/l		99
86) p-Isopropyltoluene	13.457	119	61023	8.722	ug/l		100
87) 1,3-Dichlorobenzene	13.457	146	37674	9.460	ug/l		99
88) 1,4-Dichlorobenzene	13.534	146	40228	9.981	ug/l		98
89) n-Butylbenzene	13.787	91	58489	8.603	ug/l		98
90) Hexachloroethane	14.051	117	14795	9.514	ug/l		95
91) 1,2-Dichlorobenzene	13.834	146	34756	9.905	ug/l		96
92) 1,2-Dibromo-3-Chloropr...	14.451	75	2468	9.510	ug/l		88
93) 1,2,4-Trichlorobenzene	15.098	180	19133	8.554	ug/l		99
94) Hexachlorobutadiene	15.198	225	10464	8.638	ug/l		97
95) Naphthalene	15.333	128	31944	9.107	ug/l		97
96) 1,2,3-Trichlorobenzene	15.516	180	17473	8.656	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080220.D
Acq On : 03 Feb 2025 10:54
Operator : RP/MD
Sample : VSTDICC010
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:30:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 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

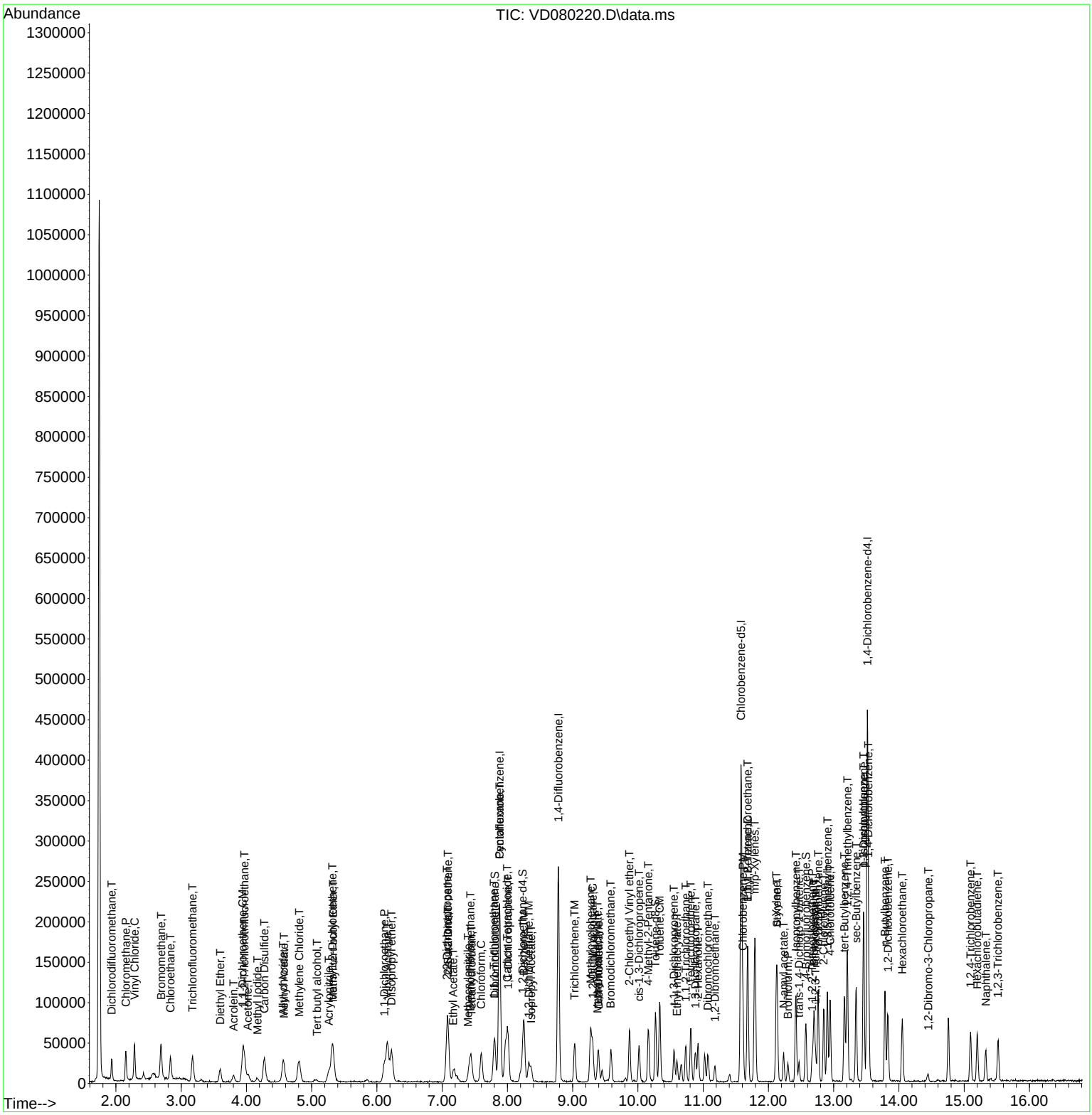
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080220.D
Acq On : 03 Feb 2025 10:54
Operator : RP/MD
Sample : VSTDICC010
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 04 05:30:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080221.D
Acq On : 03 Feb 2025 11:21
Operator : RP/MD
Sample : VSTDICC020
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:31:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	133247	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	220065	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	201909	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	101736	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	36387	20.993	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery =	41.980%#		
35) Dibromofluoromethane	7.811	113	34223	21.942	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery =	43.880%#		
50) Toluene-d8	10.269	98	122045	21.101	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery =	42.200%#		
62) 4-Bromofluorobenzene	12.575	95	37635	20.279	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery =	40.560%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	34967	24.445	ug/l	97
3) Chloromethane	2.152	50	61174	22.039	ug/l	98
4) Vinyl Chloride	2.281	62	71211	21.207	ug/l	99
5) Bromomethane	2.676	94	54429	24.223	ug/l	100
6) Chloroethane	2.828	64	45447	20.320	ug/l	94
7) Trichlorofluoromethane	3.170	101	57892	20.804	ug/l	100
8) Diethyl Ether	3.599	74	15366	20.184	ug/l	96
9) 1,1,2-Trichlorotrifluo...	3.970	101	32684	20.290	ug/l	97
10) Methyl Iodide	4.158	142	21299	19.419	ug/l	98
11) Tert butyl alcohol	5.052	59	9728	101.604	ug/l	100
12) 1,1-Dichloroethene	3.934	96	31611	20.717	ug/l	94
13) Acrolein	3.799	56	19110	105.857	ug/l	97
14) Allyl chloride	4.564	41	45720	19.443	ug/l	96
15) Acrylonitrile	5.258	53	36115	98.742	ug/l	96
16) Acetone	4.028	43	28252	101.138	ug/l	88
17) Carbon Disulfide	4.270	76	117841	21.413	ug/l	99
18) Methyl Acetate	4.570	43	18538	19.668	ug/l	96
19) Methyl tert-butyl Ether	5.328	73	65597	19.527	ug/l	92
20) Methylene Chloride	4.805	84	39761	20.975	ug/l #	94
21) trans-1,2-Dichloroethene	5.311	96	33861	19.533	ug/l	94
22) Diisopropyl ether	6.222	45	102438	20.932	ug/l	98
23) Vinyl Acetate	6.158	43	284407	100.664	ug/l	97
24) 1,1-Dichloroethane	6.111	63	65221	20.331	ug/l	97
25) 2-Butanone	7.087	43	42535	98.170	ug/l	96
26) 2,2-Dichloropropane	7.081	77	53170	19.109	ug/l	98
27) cis-1,2-Dichloroethene	7.081	96	37511	19.154	ug/l	98
28) Bromochloromethane	7.428	49	30601	20.903	ug/l #	99
29) Tetrahydrofuran	7.446	42	28333	99.839	ug/l	98
30) Chloroform	7.599	83	66987	20.424	ug/l	96
31) Cyclohexane	7.875	56	50180	19.540	ug/l #	94
32) 1,1,1-Trichloroethane	7.793	97	55104	20.081	ug/l	99
36) 1,1-Dichloropropene	8.011	75	46228	20.694	ug/l	96
37) Ethyl Acetate	7.169	43	23316	21.285	ug/l #	79
38) Carbon Tetrachloride	7.993	117	48435	20.758	ug/l #	90
39) Methylcyclohexane	9.275	83	46434	19.133	ug/l	95
40) Benzene	8.252	78	138015	19.710	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080221.D
Acq On : 03 Feb 2025 11:21
Operator : RP/MD
Sample : VSTDICC020
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:31:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.411	41	13551	22.441	ug/l	#	86
42) 1,2-Dichloroethane	8.328	62	39294	19.720	ug/l		96
43) Isopropyl Acetate	8.363	43	38746	19.930	ug/l		98
44) Trichloroethene	9.028	130	33558	20.745	ug/l		95
45) 1,2-Dichloropropane	9.305	63	36430	20.684	ug/l		99
46) Dibromomethane	9.393	93	20049	20.432	ug/l		97
47) Bromodichloromethane	9.587	83	50544	20.426	ug/l		94
48) Methyl methacrylate	9.381	41	18387	20.438	ug/l		90
49) 1,4-Dioxane	9.381	88	4101	384.183	ug/l	#	93
51) 4-Methyl-2-Pentanone	10.157	43	102940	104.715	ug/l		98
52) Toluene	10.334	92	84644	20.666	ug/l		99
53) t-1,3-Dichloropropene	10.552	75	44852	21.262	ug/l		90
54) cis-1,3-Dichloropropene	10.016	75	53290	20.768	ug/l		98
55) 1,1,2-Trichloroethane	10.734	97	26092	20.465	ug/l		94
56) Ethyl methacrylate	10.599	69	27975	19.230	ug/l		94
57) 1,3-Dichloropropane	10.875	76	43729	20.736	ug/l		98
58) 2-Chloroethyl Vinyl ether	9.869	63	58818	94.728	ug/l		95
59) 2-Hexanone	10.922	43	66419	102.963	ug/l		97
60) Dibromochloromethane	11.075	129	32908	20.940	ug/l		95
61) 1,2-Dibromoethane	11.175	107	23651	20.368	ug/l		96
64) Tetrachloroethene	10.810	164	28898	20.488	ug/l		88
65) Chlorobenzene	11.604	112	94289	20.373	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.681	131	32824	20.273	ug/l		97
67) Ethyl Benzene	11.681	91	149799	19.457	ug/l		96
68) m/p-Xylenes	11.793	106	120381	40.276	ug/l		99
69) o-Xylene	12.122	106	53055	19.466	ug/l		100
70) Styrene	12.134	104	96771	19.946	ug/l		99
71) Bromoform	12.299	173	18655	19.545	ug/l	#	95
73) Isopropylbenzene	12.422	105	135640	19.711	ug/l		100
74) N-amyl acetate	12.234	43	37273	20.606	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.669	83	29713	20.750	ug/l		99
76) 1,2,3-Trichloropropane	12.716	75	20131m	19.563	ug/l		
77) Bromobenzene	12.698	156	36319	20.461	ug/l		99
78) n-propylbenzene	12.763	91	174717	19.942	ug/l		99
79) 2-Chlorotoluene	12.846	91	100001	20.091	ug/l		97
80) 1,3,5-Trimethylbenzene	12.904	105	117266	20.377	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.463	75	10265	20.397	ug/l		98
82) 4-Chlorotoluene	12.946	91	111940	21.163	ug/l		99
83) tert-Butylbenzene	13.163	119	89175	18.954	ug/l		99
84) 1,2,4-Trimethylbenzene	13.210	105	112504	19.206	ug/l		99
85) sec-Butylbenzene	13.346	105	139797	19.434	ug/l		99
86) p-Isopropyltoluene	13.457	119	116302	18.934	ug/l		100
87) 1,3-Dichlorobenzene	13.457	146	68932	19.717	ug/l		99
88) 1,4-Dichlorobenzene	13.534	146	70892	20.035	ug/l		99
89) n-Butylbenzene	13.787	91	112138	18.787	ug/l		99
90) Hexachloroethane	14.051	117	26254	19.232	ug/l		97
91) 1,2-Dichlorobenzene	13.828	146	60954	19.787	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.445	75	4283	18.800	ug/l		94
93) 1,2,4-Trichlorobenzene	15.098	180	34807	17.726	ug/l		97
94) Hexachlorobutadiene	15.204	225	18879	17.752	ug/l		99
95) Naphthalene	15.334	128	61307	19.904	ug/l		97
96) 1,2,3-Trichlorobenzene	15.516	180	32108	18.119	ug/l		97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080221.D
Acq On : 03 Feb 2025 11:21
Operator : RP/MD
Sample : VSTDICC020
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:31:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

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

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

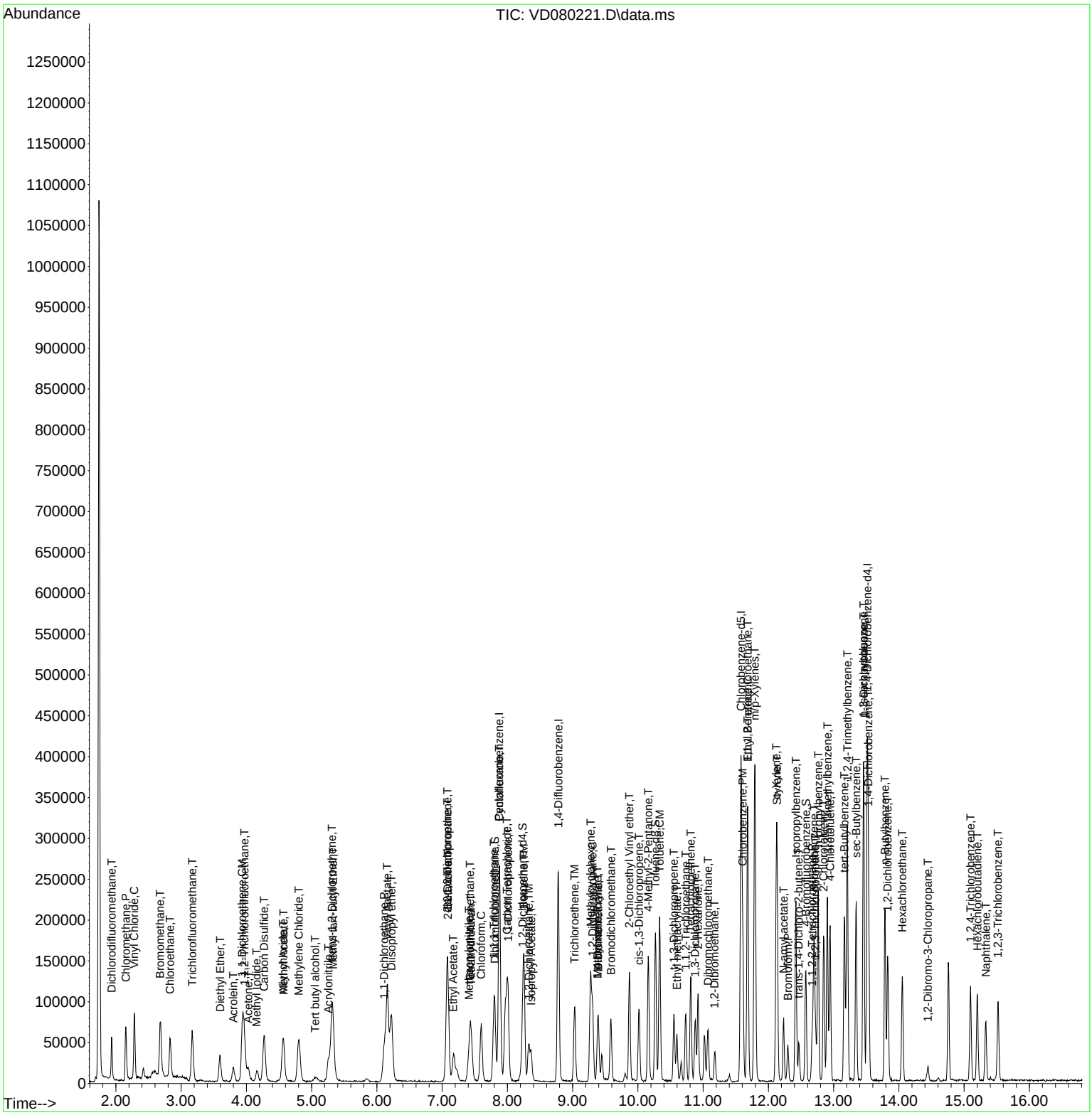
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080221.D
Acq On : 03 Feb 2025 11:21
Operator : RP/MD
Sample : VSTDICC020
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 04 05:31:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080222.D
Acq On : 03 Feb 2025 11:48
Operator : RP/MD
Sample : VSTDICCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:32:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.881	168	129468	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	212040	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	219380	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	108230	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	81583	48.443	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 96.880%			
35) Dibromofluoromethane	7.810	113	73531	48.930	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 97.860%			
50) Toluene-d8	10.269	98	295092	52.950	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 105.900%			
62) 4-Bromofluorobenzene	12.575	95	93259	52.154	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 104.300%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	61985	47.737	ug/l	100
3) Chloromethane	2.152	50	128023	47.469	ug/l	100
4) Vinyl Chloride	2.287	62	154907	47.478	ug/l	100
5) Bromomethane	2.693	94	108247	55.906	ug/l	100
6) Chloroethane	2.834	64	104576	48.122	ug/l	100
7) Trichlorofluoromethane	3.175	101	126817	46.903	ug/l	100
8) Diethyl Ether	3.599	74	38388	51.898	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.969	101	70880	45.287	ug/l	100
10) Methyl Iodide	4.164	142	69937	51.932	ug/l	100
11) Tert butyl alcohol	5.058	59	23203	249.418	ug/l	100
12) 1,1-Dichloroethene	3.940	96	69572	46.926	ug/l	100
13) Acrolein	3.805	56	43449	247.705	ug/l	100
14) Allyl chloride	4.569	41	115481	50.543	ug/l	100
15) Acrylonitrile	5.263	53	96898	272.662	ug/l	100
16) Acetone	4.028	43	61005	224.764	ug/l	100
17) Carbon Disulfide	4.275	76	249934	46.741	ug/l	100
18) Methyl Acetate	4.569	43	45653	49.850	ug/l	100
19) Methyl tert-butyl Ether	5.322	73	177789	54.469	ug/l	100
20) Methylene Chloride	4.805	84	87793	47.666	ug/l	100
21) trans-1,2-Dichloroethene	5.316	96	89249	52.988	ug/l	100
22) Diisopropyl ether	6.222	45	268517	56.471	ug/l	100
23) Vinyl Acetate	6.158	43	780008	284.136	ug/l	100
24) 1,1-Dichloroethane	6.116	63	161364	51.768	ug/l	100
25) 2-Butanone	7.081	43	107570	255.516	ug/l	100
26) 2,2-Dichloropropane	7.075	77	129993	48.082	ug/l	100
27) cis-1,2-Dichloroethene	7.081	96	94480	49.652	ug/l	100
28) Bromochloromethane	7.428	49	72705	51.113	ug/l	100
29) Tetrahydrofuran	7.452	42	71625	259.758	ug/l	100
30) Chloroform	7.599	83	152799	47.947	ug/l	100
31) Cyclohexane	7.881	56	116074	46.518	ug/l	100
32) 1,1,1-Trichloroethane	7.799	97	125355	47.016	ug/l	100
36) 1,1-Dichloropropene	8.010	75	108235	50.285	ug/l	100
37) Ethyl Acetate	7.175	43	53361	50.556	ug/l	100
38) Carbon Tetrachloride	7.993	117	112153	49.884	ug/l	100
39) Methylcyclohexane	9.275	83	115039	49.194	ug/l	100
40) Benzene	8.252	78	349631	51.821	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080222.D
Acq On : 03 Feb 2025 11:48
Operator : RP/MD
Sample : VSTDICCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:32:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.405	41	29085	49.989	ug/l		100
42) 1,2-Dichloroethane	8.328	62	96229	50.121	ug/l		100
43) Isopropyl Acetate	8.363	43	93837	50.094	ug/l		100
44) Trichloroethene	9.028	130	76757	49.247	ug/l		100
45) 1,2-Dichloropropane	9.304	63	85890	50.612	ug/l		100
46) Dibromomethane	9.393	93	49252	52.093	ug/l		100
47) Bromodichloromethane	9.587	83	120021	50.339	ug/l		100
48) Methyl methacrylate	9.381	41	45927	52.982	ug/l		100
49) 1,4-Dioxane	9.387	88	11678	1135.403	ug/l		100
51) 4-Methyl-2-Pentanone	10.157	43	258081	272.466	ug/l		100
52) Toluene	10.334	92	200571	50.824	ug/l		100
53) t-1,3-Dichloropropene	10.551	75	99646	49.026	ug/l		100
54) cis-1,3-Dichloropropene	10.016	75	134885	54.557	ug/l		100
55) 1,1,2-Trichloroethane	10.734	97	58023	47.231	ug/l		100
56) Ethyl methacrylate	10.599	69	71751	51.187	ug/l		100
57) 1,3-Dichloropropane	10.881	76	98225	48.341	ug/l		100
58) 2-Chloroethyl Vinyl ether	9.869	63	177557	296.782	ug/l		100
59) 2-Hexanone	10.922	43	156154	251.231	ug/l		100
60) Dibromochloromethane	11.075	129	74028	48.888	ug/l		100
61) 1,2-Dibromoethane	11.181	107	53805	48.091	ug/l		100
64) Tetrachloroethene	10.810	164	63656	41.537	ug/l		100
65) Chlorobenzene	11.604	112	241490	48.023	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.681	131	82727	47.026	ug/l		100
67) Ethyl Benzene	11.681	91	409063	48.901	ug/l		100
68) m/p-Xylenes	11.793	106	300763	92.613	ug/l		100
69) o-Xylene	12.122	106	138458	46.754	ug/l		100
70) Styrene	12.134	104	251582	47.726	ug/l		100
71) Bromoform	12.298	173	51308	49.476	ug/l	#	100
73) Isopropylbenzene	12.422	105	359494	49.107	ug/l		100
74) N-amyl acetate	12.234	43	93129	48.396	ug/l		100
75) 1,1,2,2-Tetrachloroethane	12.669	83	72965	47.898	ug/l		100
76) 1,2,3-Trichloropropane	12.722	75	48938m	44.703	ug/l		
77) Bromobenzene	12.698	156	89598	47.449	ug/l		100
78) n-propylbenzene	12.763	91	474841	50.946	ug/l		100
79) 2-Chlorotoluene	12.845	91	261636	49.411	ug/l		100
80) 1,3,5-Trimethylbenzene	12.904	105	303348	49.548	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.469	75	26362	49.240	ug/l		100
82) 4-Chlorotoluene	12.945	91	273595	48.621	ug/l		100
83) tert-Butylbenzene	13.163	119	236633	47.278	ug/l		100
84) 1,2,4-Trimethylbenzene	13.210	105	334353	53.654	ug/l		100
85) sec-Butylbenzene	13.345	105	370228	48.379	ug/l		100
86) p-Isopropyltoluene	13.457	119	314858	48.184	ug/l		100
87) 1,3-Dichlorobenzene	13.457	146	174781	46.994	ug/l		100
88) 1,4-Dichlorobenzene	13.534	146	174821	46.441	ug/l		100
89) n-Butylbenzene	13.787	91	298883	47.069	ug/l		100
90) Hexachloroethane	14.051	117	67522	46.494	ug/l		100
91) 1,2-Dichlorobenzene	13.828	146	160006	48.824	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	14.439	75	12721	52.488	ug/l		100
93) 1,2,4-Trichlorobenzene	15.098	180	107294	51.362	ug/l		100
94) Hexachlorobutadiene	15.204	225	55962	49.464	ug/l		100
95) Naphthalene	15.334	128	196562	53.309	ug/l		100
96) 1,2,3-Trichlorobenzene	15.522	180	98445	52.220	ug/l		100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080222.D
Acq On : 03 Feb 2025 11:48
Operator : RP/MD
Sample : VSTDICCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:32:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 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

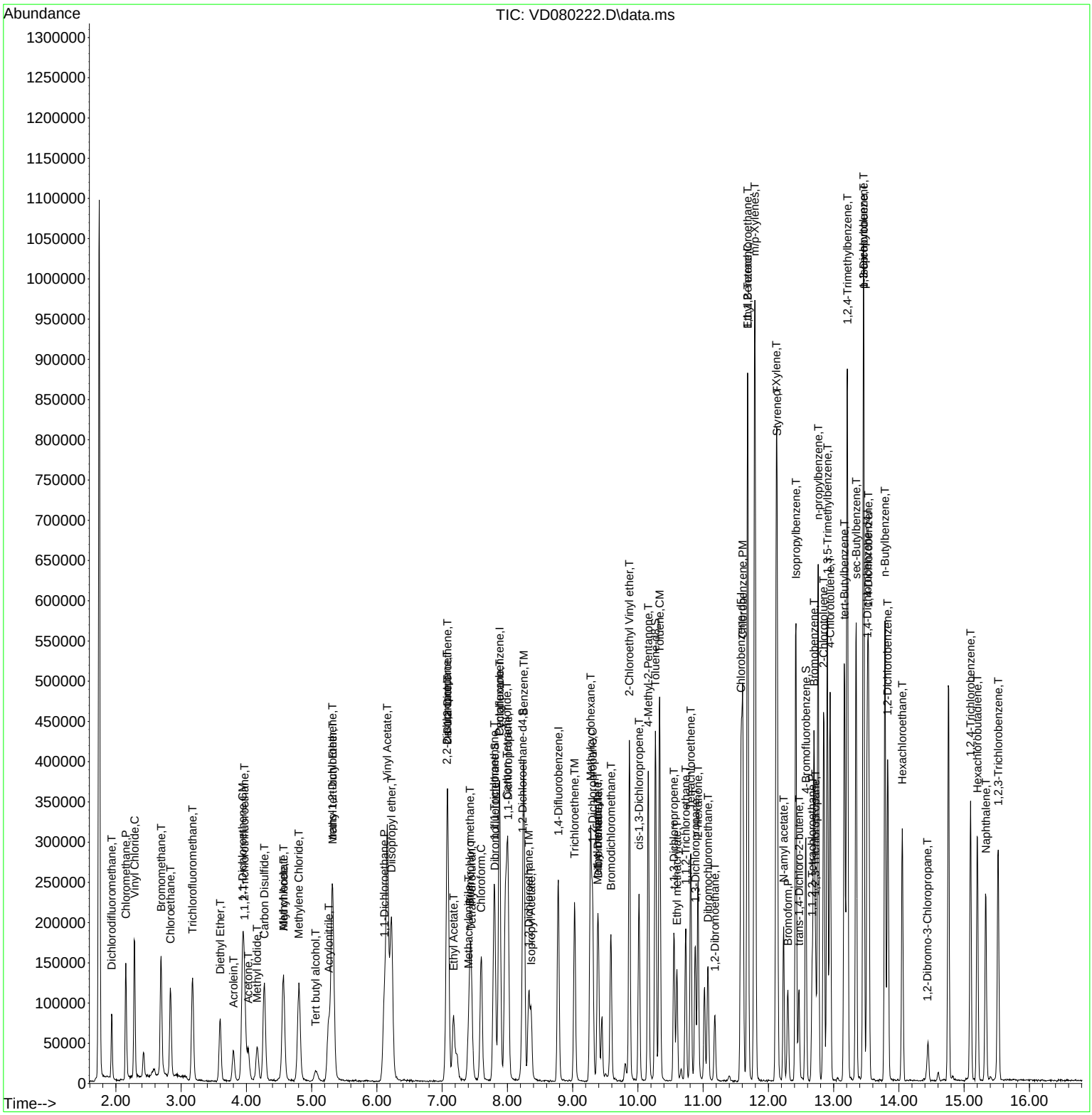
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080222.D
Acq On : 03 Feb 2025 11:48
Operator : RP/MD
Sample : VSTDICCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 04 05:32:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080223.D
Acq On : 03 Feb 2025 12:15
Operator : RP/MD
Sample : VSTDICC100
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 04 05:33:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	151914	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	243367	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.580	117	209729	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	107070	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	190601	96.453	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 192.900%#			
35) Dibromofluoromethane	7.810	113	176078	102.085	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 204.160%#			
50) Toluene-d8	10.269	98	684672	107.041	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 214.080%#			
62) 4-Bromofluorobenzene	12.569	95	198659	96.796	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 193.600%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	132659	90.208	ug/l	100
3) Chloromethane	2.152	50	261439	82.615	ug/l	97
4) Vinyl Chloride	2.281	62	322064	84.126	ug/l	97
5) Bromomethane	2.681	94	220415	94.309	ug/l	99
6) Chloroethane	2.828	64	214642	84.177	ug/l	100
7) Trichlorofluoromethane	3.169	101	258797	81.573	ug/l	100
8) Diethyl Ether	3.593	74	85491	98.500	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.963	101	163497	89.027	ug/l	99
10) Methyl Iodide	4.163	142	179664	98.748	ug/l	99
11) Tert butyl alcohol	5.057	59	48954	448.474	ug/l #	91
12) 1,1-Dichloroethene	3.940	96	165680	95.238	ug/l	97
13) Acrolein	3.798	56	102198	496.548	ug/l	97
14) Allyl chloride	4.557	41	270243	100.802	ug/l	98
15) Acrylonitrile	5.257	53	216494	519.182	ug/l	99
16) Acetone	4.022	43	147079	461.824	ug/l	90
17) Carbon Disulfide	4.269	76	535745	85.388	ug/l	99
18) Methyl Acetate	4.563	43	105645	98.312	ug/l	100
19) Methyl tert-butyl Ether	5.322	73	401552	104.845	ug/l	99
20) Methylene Chloride	4.798	84	186233	86.172	ug/l	98
21) trans-1,2-Dichloroethene	5.310	96	188324	95.289	ug/l	95
22) Diisopropyl ether	6.216	45	556522	99.747	ug/l	98
23) Vinyl Acetate	6.157	43	1674122	519.732	ug/l	100
24) 1,1-Dichloroethane	6.116	63	334335	91.412	ug/l	99
25) 2-Butanone	7.087	43	265625	537.726	ug/l	98
26) 2,2-Dichloropropane	7.081	77	297539	93.794	ug/l	98
27) cis-1,2-Dichloroethene	7.081	96	227715	101.989	ug/l	98
28) Bromochloromethane	7.428	49	153580	92.016	ug/l #	96
29) Tetrahydrofuran	7.445	42	179433	554.588	ug/l	100
30) Chloroform	7.598	83	365691	97.796	ug/l	97
31) Cyclohexane	7.881	56	295560	100.948	ug/l	96
32) 1,1,1-Trichloroethane	7.792	97	304879	97.454	ug/l	99
36) 1,1-Dichloropropene	8.010	75	263860	106.806	ug/l	98
37) Ethyl Acetate	7.169	43	127282	105.069	ug/l	100
38) Carbon Tetrachloride	7.992	117	259547	100.582	ug/l	98
39) Methylcyclohexane	9.275	83	305731	113.911	ug/l	96
40) Benzene	8.251	78	799131	103.198	ug/l	97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080223.D
Acq On : 03 Feb 2025 12:15
Operator : RP/MD
Sample : VSTDICC100
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:33:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.398	41	75592	113.197	ug/l		94
42) 1,2-Dichloroethane	8.328	62	219544	99.630	ug/l		100
43) Isopropyl Acetate	8.363	43	240605	111.911	ug/l		99
44) Trichloroethene	9.028	130	189876	106.141	ug/l		98
45) 1,2-Dichloropropane	9.304	63	203250	104.352	ug/l		99
46) Dibromomethane	9.392	93	110577	101.900	ug/l		99
47) Bromodichloromethane	9.581	83	279614	102.179	ug/l		99
48) Methyl methacrylate	9.381	41	116643	117.240	ug/l		90
49) 1,4-Dioxane	9.386	88	26145	2214.758	ug/l		96
51) 4-Methyl-2-Pentanone	10.157	43	631249	580.649	ug/l		100
52) Toluene	10.333	92	495854	109.474	ug/l		96
53) t-1,3-Dichloropropene	10.551	75	262056	112.335	ug/l		95
54) cis-1,3-Dichloropropene	10.016	75	308617	108.759	ug/l		97
55) 1,1,2-Trichloroethane	10.733	97	140701	99.789	ug/l		97
56) Ethyl methacrylate	10.598	69	202878	126.103	ug/l		99
57) 1,3-Dichloropropane	10.880	76	248409	106.516	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.869	63	411717	599.590	ug/l		100
59) 2-Hexanone	10.922	43	433461	607.612	ug/l		98
60) Dibromochloromethane	11.075	129	177991	102.415	ug/l		97
61) 1,2-Dibromoethane	11.180	107	130136	101.343	ug/l		100
64) Tetrachloroethene	10.810	164	157571	107.551	ug/l		97
65) Chlorobenzene	11.610	112	489394	101.799	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.680	131	163519	97.229	ug/l		97
67) Ethyl Benzene	11.680	91	864077	108.048	ug/l		98
68) m/p-Xylenes	11.792	106	655759	211.218	ug/l		99
69) o-Xylene	12.122	106	302955	107.008	ug/l		100
70) Styrene	12.133	104	537877	106.732	ug/l		99
71) Bromoform	12.298	173	93545	94.356	ug/l	#	99
73) Isopropylbenzene	12.422	105	773437	106.797	ug/l		99
74) N-amyl acetate	12.233	43	204012	107.166	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.669	83	158949	105.473	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	102814m	94.934	ug/l		
77) Bromobenzene	12.698	156	208048	111.371	ug/l		99
78) n-propylbenzene	12.763	91	1049231	113.791	ug/l		100
79) 2-Chlorotoluene	12.845	91	587930	112.236	ug/l		100
80) 1,3,5-Trimethylbenzene	12.904	105	690712	114.042	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.469	75	56335	106.365	ug/l		97
82) 4-Chlorotoluene	12.945	91	609732	109.531	ug/l		100
83) tert-Butylbenzene	13.163	119	567074	114.527	ug/l		96
84) 1,2,4-Trimethylbenzene	13.210	105	684126	110.973	ug/l		100
85) sec-Butylbenzene	13.345	105	841852	111.199	ug/l		100
86) p-Isopropyltoluene	13.457	119	736112	113.871	ug/l		98
87) 1,3-Dichlorobenzene	13.457	146	392200	106.594	ug/l		98
88) 1,4-Dichlorobenzene	13.539	146	377690	101.420	ug/l		99
89) n-Butylbenzene	13.786	91	694879	110.617	ug/l		99
90) Hexachloroethane	14.051	117	158551	110.357	ug/l		97
91) 1,2-Dichlorobenzene	13.827	146	331306	102.190	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.445	75	24237	101.087	ug/l		98
93) 1,2,4-Trichlorobenzene	15.098	180	225879	109.299	ug/l		99
94) Hexachlorobutadiene	15.204	225	117727	105.184	ug/l		98
95) Naphthalene	15.327	128	417802	97.719	ug/l		98
96) 1,2,3-Trichlorobenzene	15.521	180	196011	105.099	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080223.D
Acq On : 03 Feb 2025 12:15
Operator : RP/MD
Sample : VSTDICC100
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:33:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 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

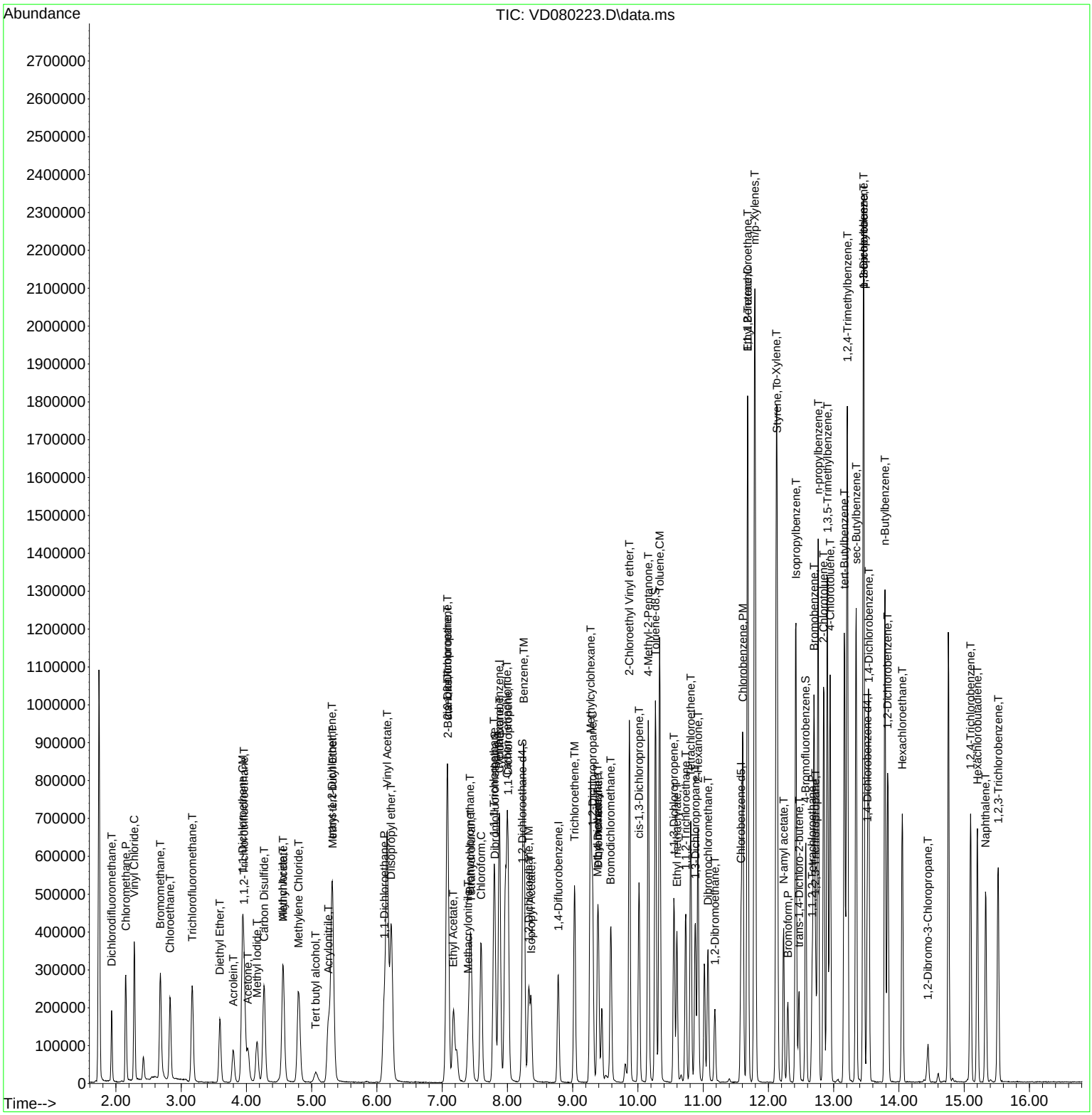
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080223.D
Acq On : 03 Feb 2025 12:15
Operator : RP/MD
Sample : VSTDICC100
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 04 05:33:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080224.D
Acq On : 03 Feb 2025 12:42
Operator : RP/MD
Sample : VSTDICC150
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:34:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	7.875	168	141977	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	8.781	114	256601	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.581	117	219575	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	112282	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.234	65	290163	157.113	ug/l		0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 314.220%#				
35) Dibromofluoromethane	7.810	113	245443	134.962	ug/l		0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 269.920%#				
50) Toluene-d8	10.269	98	926189	137.332	ug/l		0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 274.660%#				
62) 4-Bromofluorobenzene	12.575	95	330097	152.544	ug/l		0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 305.080%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.934	85	211536	156.601	ug/l		100
3) Chloromethane	2.152	50	410099	138.663	ug/l		100
4) Vinyl Chloride	2.281	62	519575	145.216	ug/l		98
5) Bromomethane	2.669	94	364126	151.597	ug/l		99
6) Chloroethane	2.828	64	342999	143.930	ug/l		95
7) Trichlorofluoromethane	3.169	101	423949	142.981	ug/l		100
8) Diethyl Ether	3.593	74	138601	170.868	ug/l		99
9) 1,1,2-Trichlorotrifluo...	3.969	101	240755	140.271	ug/l		99
10) Methyl Iodide	4.163	142	286814	150.330	ug/l		98
11) Tert butyl alcohol	5.069	59	79091	775.275	ug/l	#	94
12) 1,1-Dichloroethene	3.940	96	250517	154.084	ug/l		97
13) Acrolein	3.799	56	161460	839.390	ug/l		98
14) Allyl chloride	4.563	41	425481	169.814	ug/l		98
15) Acrylonitrile	5.258	53	321564	825.127	ug/l		99
16) Acetone	4.028	43	215038	722.471	ug/l		91
17) Carbon Disulfide	4.269	76	846261	144.319	ug/l		100
18) Methyl Acetate	4.569	43	165786	165.076	ug/l		98
19) Methyl tert-butyl Ether	5.322	73	660907	184.640	ug/l		98
20) Methylene Chloride	4.805	84	289967	143.561	ug/l		99
21) trans-1,2-Dichloroethene	5.310	96	298146	161.416	ug/l		96
22) Diisopropyl ether	6.222	45	885898	169.895	ug/l		98
23) Vinyl Acetate	6.157	43	2682586	891.099	ug/l		100
24) 1,1-Dichloroethane	6.116	63	519419	151.956	ug/l		98
25) 2-Butanone	7.087	43	419323	908.281	ug/l		99
26) 2,2-Dichloropropane	7.081	77	467037	157.530	ug/l		98
27) cis-1,2-Dichloroethene	7.081	96	359280	172.178	ug/l		98
28) Bromochloromethane	7.434	49	227782	146.026	ug/l	#	97
29) Tetrahydrofuran	7.452	42	266705	882.022	ug/l		99
30) Chloroform	7.599	83	520936	149.063	ug/l		97
31) Cyclohexane	7.881	56	417180	152.459	ug/l		98
32) 1,1,1-Trichloroethane	7.799	97	431747	147.666	ug/l		98
36) 1,1-Dichloropropene	8.010	75	360068	138.233	ug/l		99
37) Ethyl Acetate	7.175	43	198701	155.564	ug/l		99
38) Carbon Tetrachloride	7.993	117	358375	131.718	ug/l		96
39) Methylcyclohexane	9.275	83	440784	155.759	ug/l		99
40) Benzene	8.251	78	1265353	154.978	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080224.D
Acq On : 03 Feb 2025 12:42
Operator : RP/MD
Sample : VSTDICC150
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:34:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	107714	152.980	ug/l		95
42) 1,2-Dichloroethane	8.328	62	341308	146.899	ug/l		98
43) Isopropyl Acetate	8.363	43	383324	169.098	ug/l		98
44) Trichloroethene	9.028	130	271200	143.783	ug/l		97
45) 1,2-Dichloropropane	9.304	63	276212	134.498	ug/l		98
46) Dibromomethane	9.393	93	148381	129.686	ug/l		98
47) Bromodichloromethane	9.587	83	380202	131.771	ug/l		97
48) Methyl methacrylate	9.381	41	160837	153.323	ug/l		93
49) 1,4-Dioxane	9.387	88	35837	2879.205	ug/l		95
51) 4-Methyl-2-Pentanone	10.157	43	850296	741.799	ug/l		98
52) Toluene	10.334	92	691478	144.790	ug/l		95
53) t-1,3-Dichloropropene	10.551	75	367509	149.415	ug/l		95
54) cis-1,3-Dichloropropene	10.016	75	427061	142.738	ug/l		96
55) 1,1,2-Trichloroethane	10.734	97	207665	139.685	ug/l		95
56) Ethyl methacrylate	10.598	69	277178	163.400	ug/l		100
57) 1,3-Dichloropropane	10.881	76	369015	150.071	ug/l		98
58) 2-Chloroethyl Vinyl ether	9.869	63	560691	774.430	ug/l		98
59) 2-Hexanone	10.922	43	633650	842.421	ug/l		100
60) Dibromochloromethane	11.075	129	267844	146.167	ug/l		97
61) 1,2-Dibromoethane	11.181	107	203070	149.984	ug/l		98
64) Tetrachloroethene	10.810	164	227587	148.374	ug/l		100
65) Chlorobenzene	11.604	112	758273	150.656	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.681	131	276514	157.044	ug/l		97
67) Ethyl Benzene	11.687	91	1483961	177.240	ug/l		99
68) m/p-Xylenes	11.792	106	1228363	377.910	ug/l		98
69) o-Xylene	12.122	106	574507	193.825	ug/l		98
70) Styrene	12.134	104	1017681	192.886	ug/l		100
71) Bromoform	12.298	173	173637	167.288	ug/l	#	97
73) Isopropylbenzene	12.422	105	1429028	188.162	ug/l		99
74) N-amyl acetate	12.234	43	386829	193.766	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.669	83	246479	155.963	ug/l		100
76) 1,2,3-Trichloropropane	12.722	75	172872m	152.214	ug/l		
77) Bromobenzene	12.698	156	322107	164.425	ug/l		99
78) n-propylbenzene	12.763	91	1641879	169.799	ug/l		100
79) 2-Chlorotoluene	12.851	91	899200	163.690	ug/l		100
80) 1,3,5-Trimethylbenzene	12.904	105	1076221	169.444	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.469	75	98230	176.857	ug/l		98
82) 4-Chlorotoluene	12.945	91	938983	160.848	ug/l		100
83) tert-Butylbenzene	13.163	119	920741	177.322	ug/l		96
84) 1,2,4-Trimethylbenzene	13.210	105	1109644	171.641	ug/l		100
85) sec-Butylbenzene	13.345	105	1353251	170.452	ug/l		100
86) p-Isopropyltoluene	13.457	119	1201930	177.299	ug/l		99
87) 1,3-Dichlorobenzene	13.457	146	624688	161.900	ug/l		99
88) 1,4-Dichlorobenzene	13.534	146	590540	151.216	ug/l		99
89) n-Butylbenzene	13.786	91	1131823	171.811	ug/l		99
90) Hexachloroethane	14.051	117	227001	150.667	ug/l		96
91) 1,2-Dichlorobenzene	13.828	146	526400	154.829	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.445	75	36891	146.722	ug/l		99
93) 1,2,4-Trichlorobenzene	15.098	180	397415	183.377	ug/l		99
94) Hexachlorobutadiene	15.204	225	210389	179.248	ug/l		98
95) Naphthalene	15.328	128	795921	150.585	ug/l		99
96) 1,2,3-Trichlorobenzene	15.522	180	369034	188.687	ug/l		100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080224.D
Acq On : 03 Feb 2025 12:42
Operator : RP/MD
Sample : VSTDICC150
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:34:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 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

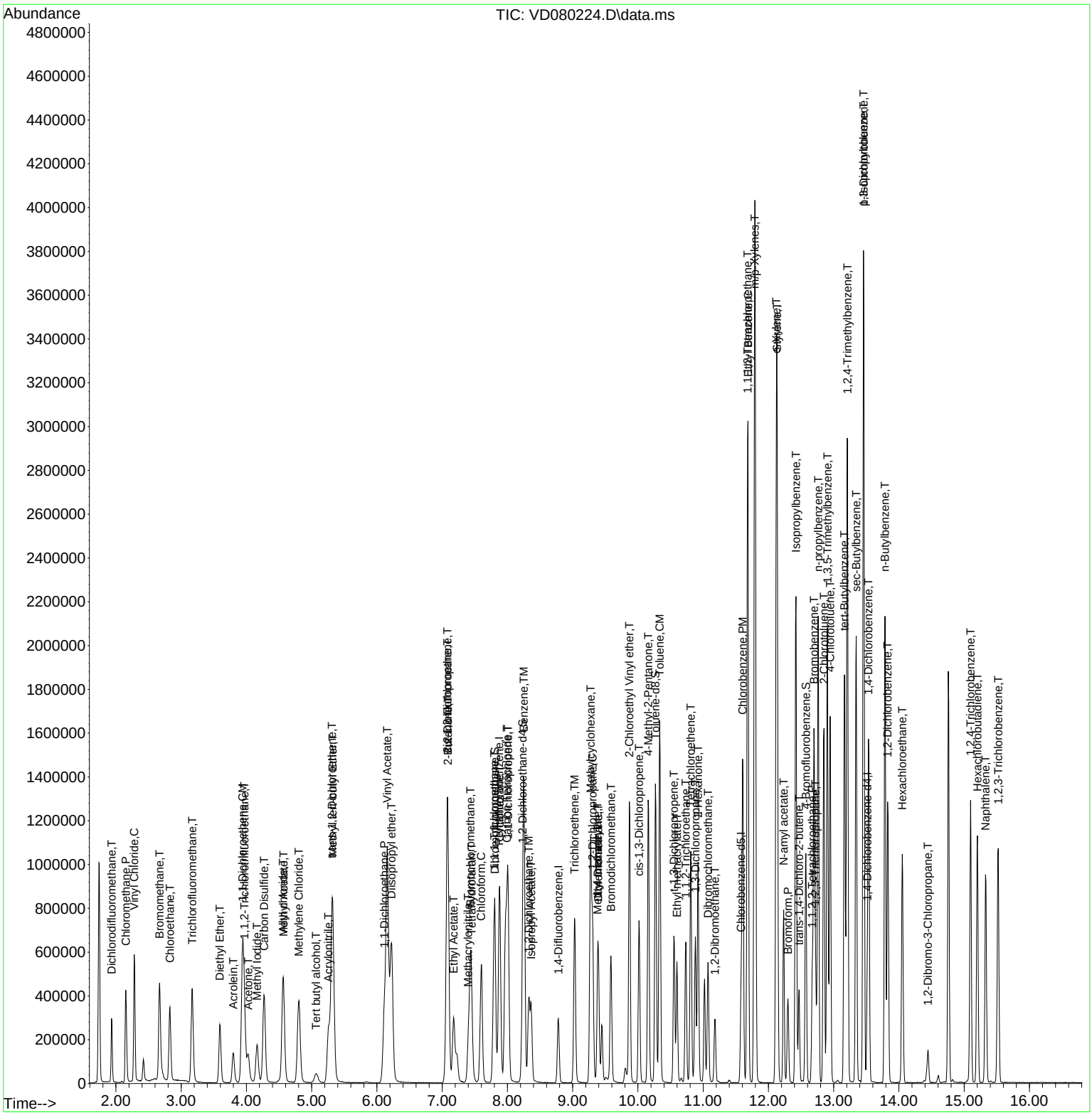
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080224.D
Acq On : 03 Feb 2025 12:42
Operator : RP/MD
Sample : VSTDICC150
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 04 05:34:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:30:02 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	140800	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	231086	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	239624	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	113817	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.234	65	87110	47.561	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 95.120%			
35) Dibromofluoromethane	7.810	113	80498	49.151	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 98.300%			
50) Toluene-d8	10.269	98	347282	57.179	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 114.360%			
62) 4-Bromofluorobenzene	12.575	95	115056	59.040	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 118.080%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	59958	42.038	ug/l	96
3) Chloromethane	2.152	50	125607	42.825	ug/l	95
4) Vinyl Chloride	2.281	62	153005	43.121	ug/l	95
5) Bromomethane	2.687	94	102801	48.530	ug/l	98
6) Chloroethane	2.834	64	102471	43.359	ug/l	96
7) Trichlorofluoromethane	3.169	101	119713	40.712	ug/l	99
8) Diethyl Ether	3.593	74	36591	45.487	ug/l	97
9) 1,1,2-Trichlorotrifluo...	3.963	101	70571	41.460	ug/l	99
10) Methyl Iodide	4.163	142	76290	52.063	ug/l	98
11) Tert butyl alcohol	5.069	59	23918	236.412	ug/l #	91
12) 1,1-Dichloroethene	3.940	96	71158	44.133	ug/l	97
13) Acrolein	3.799	56	54078	283.488	ug/l	99
14) Allyl chloride	4.558	41	118027	47.500	ug/l	99
15) Acrylonitrile	5.263	53	91551	236.882	ug/l	100
16) Acetone	4.028	43	69875	236.724	ug/l	95
17) Carbon Disulfide	4.269	76	264995	45.569	ug/l	98
18) Methyl Acetate	4.563	43	49526	49.726	ug/l	97
19) Methyl tert-butyl Ether	5.316	73	171912	48.429	ug/l	99
20) Methylene Chloride	4.805	84	91275	45.568	ug/l	98
21) trans-1,2-Dichloroethene	5.316	96	82265	44.910	ug/l	97
22) Diisopropyl ether	6.216	45	263504	50.957	ug/l	98
23) Vinyl Acetate	6.157	43	790188	264.678	ug/l	100
24) 1,1-Dichloroethane	6.110	63	163703	48.292	ug/l	96
25) 2-Butanone	7.087	43	103332	225.695	ug/l	98
26) 2,2-Dichloropropane	7.075	77	122537	41.677	ug/l	98
27) cis-1,2-Dichloroethene	7.081	96	89167	43.089	ug/l	98
28) Bromochloromethane	7.428	49	78077	50.472	ug/l #	98
29) Tetrahydrofuran	7.446	42	74802	249.446	ug/l	99
30) Chloroform	7.599	83	159982	46.161	ug/l	98
31) Cyclohexane	7.881	56	116390	42.891	ug/l	96
32) 1,1,1-Trichloroethane	7.793	97	127321	43.910	ug/l	99
36) 1,1-Dichloropropene	8.010	75	105785	45.096	ug/l	99
37) Ethyl Acetate	7.175	43	56117	48.785	ug/l	99
38) Carbon Tetrachloride	7.993	117	111248	45.403	ug/l	92
39) Methylcyclohexane	9.275	83	119579	46.921	ug/l	91
40) Benzene	8.251	78	346570	47.134	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	33973m	53.656	ug/l		
42) 1,2-Dichloroethane	8.328	62	102556	49.014	ug/l		100
43) Isopropyl Acetate	8.363	43	109229	53.505	ug/l		99
44) Trichloroethene	9.028	130	78494	46.210	ug/l		98
45) 1,2-Dichloropropane	9.304	63	83713	45.264	ug/l		97
46) Dibromomethane	9.393	93	46152	44.791	ug/l		97
47) Bromodichloromethane	9.587	83	116932	45.001	ug/l		95
48) Methyl methacrylate	9.387	41	44821	47.445	ug/l		91
49) 1,4-Dioxane	9.387	88	9669	862.596	ug/l	#	83
51) 4-Methyl-2-Pentanone	10.157	43	289217	280.172	ug/l		100
52) Toluene	10.334	92	226477	52.658	ug/l		96
53) t-1,3-Dichloropropene	10.551	75	119266	53.843	ug/l		96
54) cis-1,3-Dichloropropene	10.016	75	141719	52.597	ug/l		98
55) 1,1,2-Trichloroethane	10.734	97	67394	50.338	ug/l		95
56) Ethyl methacrylate	10.598	69	87932	57.561	ug/l		98
57) 1,3-Dichloropropane	10.881	76	116923	52.800	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.869	63	197752	303.294	ug/l		100
59) 2-Hexanone	10.922	43	196117	289.521	ug/l		100
60) Dibromochloromethane	11.075	129	83325	50.493	ug/l		97
61) 1,2-Dibromoethane	11.181	107	62427	51.198	ug/l		98
64) Tetrachloroethene	10.810	164	73174	43.714	ug/l		95
65) Chlorobenzene	11.610	112	242354	44.123	ug/l		95
66) 1,1,1,2-Tetrachloroethane	11.681	131	82629	43.002	ug/l		97
67) Ethyl Benzene	11.687	91	429646	47.022	ug/l		99
68) m/p-Xylenes	11.792	106	330064	93.049	ug/l		99
69) o-Xylene	12.122	106	150955	46.667	ug/l		98
70) Styrene	12.134	104	271437	47.142	ug/l		99
71) Bromoform	12.298	173	48677	42.973	ug/l	#	99
73) Isopropylbenzene	12.422	105	394911	51.297	ug/l		99
74) N-amyl acetate	12.234	43	110956	54.829	ug/l		97
75) 1,1,2,2-Tetrachloroethane	12.675	83	79326	49.518	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	54217m	47.094	ug/l		
77) Bromobenzene	12.698	156	97556	49.127	ug/l		98
78) n-propylbenzene	12.763	91	496015	50.605	ug/l		99
79) 2-Chlorotoluene	12.851	91	284939	51.171	ug/l		99
80) 1,3,5-Trimethylbenzene	12.904	105	332449	51.636	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.469	75	30199	53.638	ug/l		98
82) 4-Chlorotoluene	12.945	91	306497	51.795	ug/l		99
83) tert-Butylbenzene	13.169	119	267135	50.753	ug/l		97
84) 1,2,4-Trimethylbenzene	13.210	105	318285	48.569	ug/l		99
85) sec-Butylbenzene	13.345	105	391554	48.654	ug/l		99
86) p-Isopropyltoluene	13.457	119	318735	46.383	ug/l		100
87) 1,3-Dichlorobenzene	13.457	146	177139	45.290	ug/l		99
88) 1,4-Dichlorobenzene	13.539	146	171071	43.214	ug/l		99
89) n-Butylbenzene	13.786	91	298208	44.657	ug/l		99
90) Hexachloroethane	14.051	117	63799	41.774	ug/l		97
91) 1,2-Dichlorobenzene	13.828	146	151591	43.986	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.445	75	10750	42.178	ug/l		95
93) 1,2,4-Trichlorobenzene	15.098	180	94581	43.053	ug/l		98
94) Hexachlorobutadiene	15.204	225	49682	41.757	ug/l		99
95) Naphthalene	15.333	128	168465	44.853	ug/l		99
96) 1,2,3-Trichlorobenzene	15.522	180	85104	42.927	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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

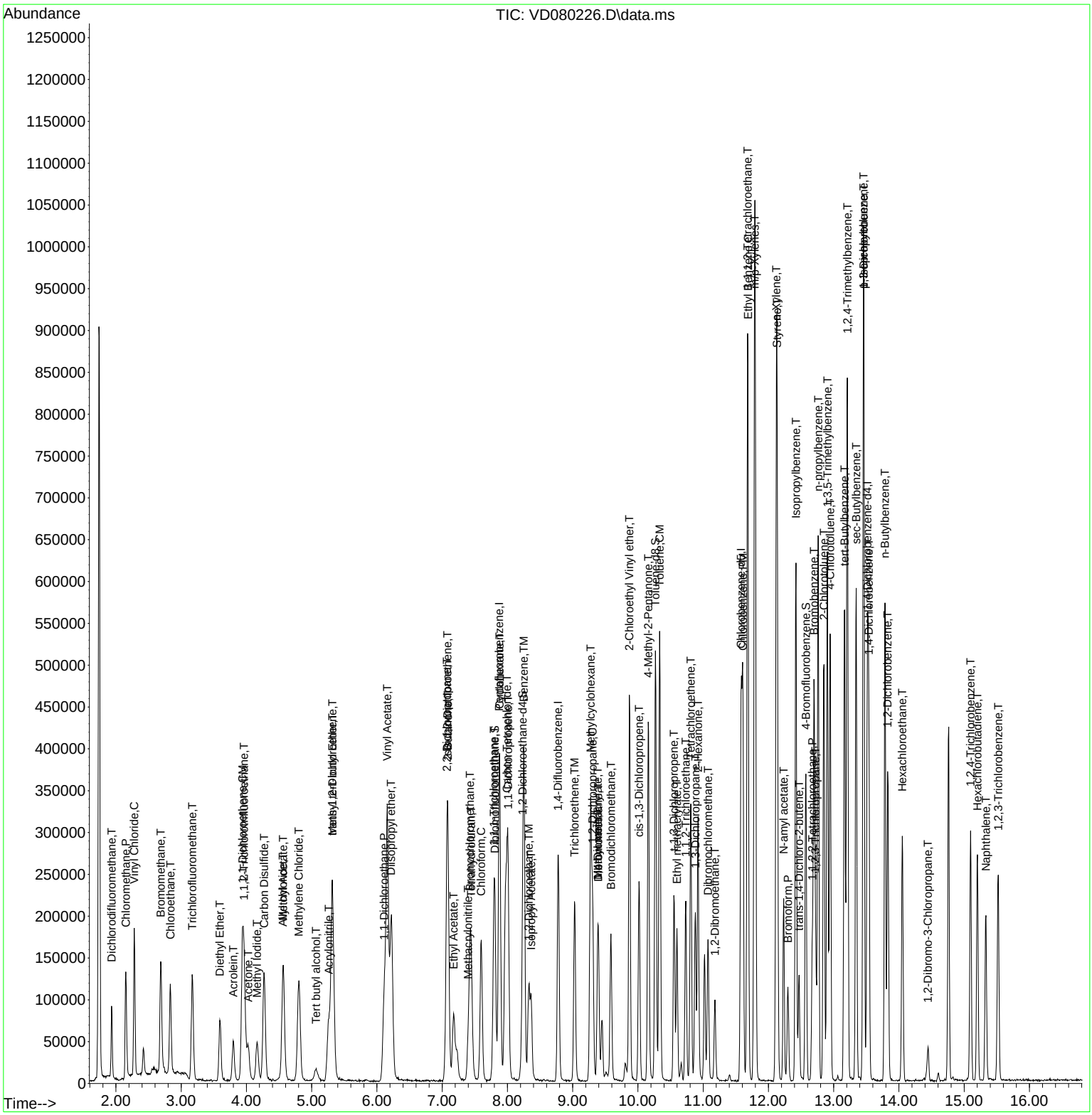
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/04/2025
Supervised By :Semsettin Yesilyurt 02/04/2025



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	109	0.00
2	T	Dichlorodifluoromethane	0.591	0.426	27.9#	97	0.00
3	P	Chloromethane	1.042	0.892	14.4	98	0.00
4	C	Vinyl Chloride	1.260	1.087	13.7#	99	0.00
5	T	Bromomethane	0.972	0.730	24.9	95	0.00
6	T	Chloroethane	0.839	0.728	13.2	98	0.00
7	T	Trichlorofluoromethane	1.044	0.850	18.6	94	0.00
8	T	Diethyl Ether	0.286	0.260	9.1	95	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.604	0.501	17.1	100	0.00
10	T	Methyl Iodide	0.432	0.542	-25.5#	109	0.00
11	T	Tert butyl alcohol	0.036	0.034	5.6	103	0.01
12	CM	1,1-Dichloroethene	0.573	0.505	11.9#	102	0.00
13	T	Acrolein	0.068	0.077	-13.2	124	0.00
14	T	Allyl chloride	0.882	0.838	5.0	102	-0.01
15	T	Acrylonitrile	0.137	0.130	5.1	94	0.00
16	T	Acetone	0.105	0.099	5.7	115	0.00
17	T	Carbon Disulfide	2.065	1.882	8.9	106	0.00
18	T	Methyl Acetate	0.354	0.352	0.6	108	0.00
19	T	Methyl tert-butyl Ether	1.261	1.221	3.2	97	0.00
20	T	Methylene Chloride	0.711	0.648	8.9	104	0.00
21	T	trans-1,2-Dichloroethene	0.650	0.584	10.2	92	0.00
22	T	Diisopropyl ether	1.836	1.871	-1.9	98	0.00
23	T	Vinyl Acetate	1.060	1.122	-5.8	101	0.00
24	P	1,1-Dichloroethane	1.204	1.163	3.4	101	0.00
25	T	2-Butanone	0.163	0.147	9.8	96	0.00
26	T	2,2-Dichloropropane	1.044	0.870	16.7	94	0.00
27	T	cis-1,2-Dichloroethene	0.735	0.633	13.9	94	0.00
28	T	Bromochloromethane	0.549	0.555	-1.1	107	0.00
29	T	Tetrahydrofuran	0.106	0.106	0.0	104	0.00
30	C	Chloroform	1.231	1.136	7.7#	105	0.00
31	T	Cyclohexane	0.964	0.827	14.2	100	0.00
32	T	1,1,1-Trichloroethane	1.030	0.904	12.2	102	0.00
33	S	1,2-Dichloroethane-d4	0.650	0.619	4.8	107	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00
35	S	Dibromofluoromethane	0.354	0.348	1.7	109	0.00
36	T	1,1-Dichloropropene	0.508	0.458	9.8	98	0.00
37	T	Ethyl Acetate	0.249	0.243	2.4	105	0.00
38	T	Carbon Tetrachloride	0.530	0.481	9.2	99	0.00
39	T	Methylcyclohexane	0.551	0.517	6.2	104	0.00
40	TM	Benzene	1.591	1.500	5.7	99	0.00
41	T	Methacrylonitrile	0.137	0.147	-7.3	117	0.00
42	TM	1,2-Dichloroethane	0.453	0.444	2.0	107	0.00
43	T	Isopropyl Acetate	0.442	0.473	-7.0	116	0.00
44	TM	Trichloroethene	0.368	0.340	7.6	102	0.00
45	C	1,2-Dichloropropane	0.400	0.362	9.5#	97	0.00
46	T	Dibromomethane	0.223	0.200	10.3	94	0.00
47	T	Bromodichloromethane	0.562	0.506	10.0	97	0.00
48	T	Methyl methacrylate	0.204	0.194	4.9	98	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	0.002	0.002	0.0	83	0.00
50	S	Toluene-d8	1.314	1.503	-14.4	118	0.00
51	T	4-Methyl-2-Pentanone	0.223	0.250	-12.1	112	0.00
52	CM	Toluene	0.931	0.980	-5.3#	113	0.00
53	T	t-1,3-Dichloropropene	0.479	0.516	-7.7	120	0.00
54	T	cis-1,3-Dichloropropene	0.583	0.613	-5.1	105	0.00
55	T	1,1,2-Trichloroethane	0.290	0.292	-0.7	116	0.00
56	T	Ethyl methacrylate	0.331	0.381	-15.1	123	0.00
57	T	1,3-Dichloropropane	0.479	0.506	-5.6	119	0.00
58	T	2-Chloroethyl Vinyl ether	0.141	0.171	-21.3	111	0.00
59	T	2-Hexanone	0.147	0.170	-15.6	126	0.00
60	T	Dibromochloromethane	0.357	0.361	-1.1	113	0.00
61	T	1,2-Dibromoethane	0.264	0.270	-2.3	116	0.00
62	S	4-Bromofluorobenzene	0.422	0.498	-18.0	123	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	109	0.00
64	T	Tetrachloroethene	0.349	0.305	12.6	115	0.00
65	PM	Chlorobenzene	1.146	1.011	11.8	100	0.00
66	T	1,1,1,2-Tetrachloroethane	0.401	0.345	14.0	100	0.00
67	C	Ethyl Benzene	1.907	1.793	6.0#	105	0.00
68	T	m/p-Xylenes	0.740	0.689	6.9	110	0.00
69	T	o-Xylene	0.675	0.630	6.7	109	0.00
70	T	Styrene	1.201	1.133	5.7	108	0.00
71	P	Bromoform	0.236	0.203	14.0	95	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00
73	T	Isopropylbenzene	3.382	3.470	-2.6	110	0.00
74	T	N-amyl acetate	0.889	0.975	-9.7	119	0.00
75	P	1,1,2,2-Tetrachloroethane	0.704	0.697	1.0	109	0.00
76	T	1,2,3-Trichloropropane	0.506	0.476	5.9	111	0.00
77	T	Bromobenzene	0.872	0.857	1.7	109	0.00
78	T	n-propylbenzene	4.306	4.358	-1.2	104	0.00
79	T	2-Chlorotoluene	2.446	2.503	-2.3	109	0.00
80	T	1,3,5-Trimethylbenzene	2.828	2.921	-3.3	110	0.00
81	T	trans-1,4-Dichloro-2-butene	0.247	0.265	-7.3	115	0.00
82	T	4-Chlorotoluene	2.600	2.693	-3.6	112	0.00
83	T	tert-Butylbenzene	2.312	2.347	-1.5	113	0.00
84	T	1,2,4-Trimethylbenzene	2.879	2.796	2.9	95	0.00
85	T	sec-Butylbenzene	3.535	3.440	2.7	106	0.00
86	T	p-Isopropyltoluene	3.019	2.800	7.3	101	0.00
87	T	1,3-Dichlorobenzene	1.718	1.556	9.4	101	0.00
88	T	1,4-Dichlorobenzene	1.739	1.503	13.6	98	0.00
89	T	n-Butylbenzene	2.934	2.620	10.7	100	0.00
90	T	Hexachloroethane	0.671	0.561	16.4	94	0.00
91	T	1,2-Dichlorobenzene	1.514	1.332	12.0	95	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.112	0.094	16.1	85	0.00
93	T	1,2,4-Trichlorobenzene	0.965	0.831	13.9	88	0.00
94	T	Hexachlorobutadiene	0.523	0.437	16.4	89	0.00
95	T	Naphthalene	1.731	1.480	14.5	86	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	0.871	0.748	14.1	86	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_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	109	0.00
2	T	Dichlorodifluoromethane	50.000	42.038	15.9	97	0.00
3	P	Chloromethane	50.000	42.825	14.3	98	0.00
4	C	Vinyl Chloride	50.000	43.121	13.8#	99	0.00
5	T	Bromomethane	50.000	48.530	2.9	95	0.00
6	T	Chloroethane	50.000	43.359	13.3	98	0.00
7	T	Trichlorofluoromethane	50.000	40.712	18.6	94	0.00
8	T	Diethyl Ether	50.000	45.487	9.0	95	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	41.460	17.1	100	0.00
10	T	Methyl Iodide	50.000	52.063	-4.1	109	0.00
11	T	Tert butyl alcohol	250.000	236.412	5.4	103	0.01
12	CM	1,1-Dichloroethene	50.000	44.133	11.7#	102	0.00
13	T	Acrolein	250.000	283.488	-13.4	124	0.00
14	T	Allyl chloride	50.000	47.500	5.0	102	-0.01
15	T	Acrylonitrile	250.000	236.882	5.2	94	0.00
16	T	Acetone	250.000	236.724	5.3	115	0.00
17	T	Carbon Disulfide	50.000	45.569	8.9	106	0.00
18	T	Methyl Acetate	50.000	49.726	0.5	108	0.00
19	T	Methyl tert-butyl Ether	50.000	48.429	3.1	97	0.00
20	T	Methylene Chloride	50.000	45.568	8.9	104	0.00
21	T	trans-1,2-Dichloroethene	50.000	44.910	10.2	92	0.00
22	T	Diisopropyl ether	50.000	50.957	-1.9	98	0.00
23	T	Vinyl Acetate	250.000	264.678	-5.9	101	0.00
24	P	1,1-Dichloroethane	50.000	48.292	3.4	101	0.00
25	T	2-Butanone	250.000	225.695	9.7	96	0.00
26	T	2,2-Dichloropropane	50.000	41.677	16.6	94	0.00
27	T	cis-1,2-Dichloroethene	50.000	43.089	13.8	94	0.00
28	T	Bromochloromethane	50.000	50.472	-0.9	107	0.00
29	T	Tetrahydrofuran	250.000	249.446	0.2	104	0.00
30	C	Chloroform	50.000	46.161	7.7#	105	0.00
31	T	Cyclohexane	50.000	42.891	14.2	100	0.00
32	T	1,1,1-Trichloroethane	50.000	43.910	12.2	102	0.00
33	S	1,2-Dichloroethane-d4	50.000	47.561	4.9	107	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	109	0.00
35	S	Dibromofluoromethane	50.000	49.151	1.7	109	0.00
36	T	1,1-Dichloropropene	50.000	45.096	9.8	98	0.00
37	T	Ethyl Acetate	50.000	48.785	2.4	105	0.00
38	T	Carbon Tetrachloride	50.000	45.403	9.2	99	0.00
39	T	Methylcyclohexane	50.000	46.921	6.2	104	0.00
40	TM	Benzene	50.000	47.134	5.7	99	0.00
41	T	Methacrylonitrile	50.000	53.656	-7.3	117	0.00
42	TM	1,2-Dichloroethane	50.000	49.014	2.0	107	0.00
43	T	Isopropyl Acetate	50.000	53.505	-7.0	116	0.00
44	TM	Trichloroethene	50.000	46.210	7.6	102	0.00
45	C	1,2-Dichloropropane	50.000	45.264	9.5#	97	0.00
46	T	Dibromomethane	50.000	44.791	10.4	94	0.00
47	T	Bromodichloromethane	50.000	45.001	10.0	97	0.00
48	T	Methyl methacrylate	50.000	47.445	5.1	98	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	862.596	13.7	83	0.00
50	S	Toluene-d8	50.000	57.179	-14.4	118	0.00
51	T	4-Methyl-2-Pentanone	250.000	280.172	-12.1	112	0.00
52	CM	Toluene	50.000	52.658	-5.3#	113	0.00
53	T	t-1,3-Dichloropropene	50.000	53.843	-7.7	120	0.00
54	T	cis-1,3-Dichloropropene	50.000	52.597	-5.2	105	0.00
55	T	1,1,2-Trichloroethane	50.000	50.338	-0.7	116	0.00
56	T	Ethyl methacrylate	50.000	57.561	-15.1	123	0.00
57	T	1,3-Dichloropropane	50.000	52.800	-5.6	119	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	303.294	-21.3	111	0.00
59	T	2-Hexanone	250.000	289.521	-15.8	126	0.00
60	T	Dibromochloromethane	50.000	50.493	-1.0	113	0.00
61	T	1,2-Dibromoethane	50.000	51.198	-2.4	116	0.00
62	S	4-Bromofluorobenzene	50.000	59.040	-18.1	123	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	109	0.00
64	T	Tetrachloroethene	50.000	43.714	12.6	115	0.00
65	PM	Chlorobenzene	50.000	44.123	11.8	100	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	43.002	14.0	100	0.00
67	C	Ethyl Benzene	50.000	47.022	6.0#	105	0.00
68	T	m/p-Xylenes	100.000	93.049	7.0	110	0.00
69	T	o-Xylene	50.000	46.667	6.7	109	0.00
70	T	Styrene	50.000	47.142	5.7	108	0.00
71	P	Bromoform	50.000	42.973	14.1	95	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	105	0.00
73	T	Isopropylbenzene	50.000	51.297	-2.6	110	0.00
74	T	N-amyl acetate	50.000	54.829	-9.7	119	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.518	1.0	109	0.00
76	T	1,2,3-Trichloropropane	50.000	47.094	5.8	111	0.00
77	T	Bromobenzene	50.000	49.127	1.7	109	0.00
78	T	n-propylbenzene	50.000	50.605	-1.2	104	0.00
79	T	2-Chlorotoluene	50.000	51.171	-2.3	109	0.00
80	T	1,3,5-Trimethylbenzene	50.000	51.636	-3.3	110	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	53.638	-7.3	115	0.00
82	T	4-Chlorotoluene	50.000	51.795	-3.6	112	0.00
83	T	tert-Butylbenzene	50.000	50.753	-1.5	113	0.00
84	T	1,2,4-Trimethylbenzene	50.000	48.569	2.9	95	0.00
85	T	sec-Butylbenzene	50.000	48.654	2.7	106	0.00
86	T	p-Isopropyltoluene	50.000	46.383	7.2	101	0.00
87	T	1,3-Dichlorobenzene	50.000	45.290	9.4	101	0.00
88	T	1,4-Dichlorobenzene	50.000	43.214	13.6	98	0.00
89	T	n-Butylbenzene	50.000	44.657	10.7	100	0.00
90	T	Hexachloroethane	50.000	41.774	16.5	94	0.00
91	T	1,2-Dichlorobenzene	50.000	43.986	12.0	95	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	42.178	15.6	85	0.00
93	T	1,2,4-Trichlorobenzene	50.000	43.053	13.9	88	0.00
94	T	Hexachlorobutadiene	50.000	41.757	16.5	89	0.00
95	T	Naphthalene	50.000	44.853	10.3	86	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080226.D
Acq On : 03 Feb 2025 14:15
Operator : RP/MD
Sample : VSTDICV050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
ICVVD020325

Quant Time: Feb 04 05:44:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	42.927	14.1	86	0.00

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

Raw Data: **VD080233.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: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG No.: Q1236

Instrument ID: MSVOA_D Calibration Date/Time: 02/04/2025 11:55

Lab File ID: VD080233.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:27 12:42

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.591	0.440		-25.55	20
Chloromethane	1.042	0.913	0.1	-12.38	20
Vinyl Chloride	1.260	1.116		-11.43	20
Bromomethane	0.972	0.726		-25.31	20
Chloroethane	0.839	0.749		-10.73	20
Trichlorofluoromethane	1.044	0.991		-5.08	20
1,1,2-Trichlorotrifluoroethane	0.604	0.589		-2.48	20
1,1-Dichloroethene	0.573	0.592		3.32	20
Acetone	0.105	0.104		-0.95	20
Carbon Disulfide	2.065	1.959		-5.13	20
Methyl tert-butyl Ether	1.261	1.393		10.47	20
Methyl Acetate	0.354	0.392		10.73	20
Methylene Chloride	0.711	0.706		-0.7	20
trans-1,2-Dichloroethene	0.650	0.667		2.62	20
1,1-Dichloroethane	1.204	1.208	0.1	0.33	20
Cyclohexane	0.964	0.960		-0.41	20
2-Butanone	0.163	0.176		7.97	20
Carbon Tetrachloride	0.530	0.549		3.59	20
cis-1,2-Dichloroethene	0.735	0.747		1.63	20
Bromochloromethane	0.549	0.540		-1.64	20
Chloroform	1.231	1.239		0.65	20
1,1,1-Trichloroethane	1.030	1.016		-1.36	20
Methylcyclohexane	0.551	0.615		11.61	20
Benzene	1.591	1.653		3.9	20
1,2-Dichloroethane	0.453	0.474		4.64	20
Trichloroethene	0.368	0.397		7.88	20
1,2-Dichloropropane	0.400	0.430		7.5	20
Bromodichloromethane	0.562	0.593		5.52	20
4-Methyl-2-Pentanone	0.223	0.265		18.83	20
Toluene	0.931	1.035		11.17	20
t-1,3-Dichloropropene	0.479	0.548		14.4	20
cis-1,3-Dichloropropene	0.583	0.652		11.84	20
1,1,2-Trichloroethane	0.290	0.304		4.83	20
2-Hexanone	0.147	0.180		22.45	20
Dibromochloromethane	0.357	0.390		9.24	20
1,2-Dibromoethane	0.264	0.288		9.09	20
Tetrachloroethene	0.349	0.347		-0.57	20
Chlorobenzene	1.146	1.166	0.3	1.75	20

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

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: SCIA01

Lab Code: CHEM Case No.: Q1236 SAS No.: Q1236 SDG No.: Q1236

Instrument ID: MSVOA_D Calibration Date/Time: 02/04/2025 11:55

Lab File ID: VD080233.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:27 12:42

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Ethyl Benzene	1.907	2.058		7.92	20
m/p-Xylenes	0.740	0.799		7.97	20
o-Xylene	0.675	0.734		8.74	20
Styrene	1.201	1.342		11.74	20
Bromoform	0.236	0.240	0.1	1.7	20
Isopropylbenzene	3.382	3.604		6.56	20
1,1,2,2-Tetrachloroethane	0.704	0.737	0.3	4.69	20
1,3-Dichlorobenzene	1.718	1.847		7.51	20
1,4-Dichlorobenzene	1.739	1.779		2.3	20
1,2-Dichlorobenzene	1.514	1.603		5.88	20
1,2-Dibromo-3-Chloropropane	0.112	0.115		2.68	20
1,2,4-Trichlorobenzene	0.965	1.016		5.28	20
1,2,3-Trichlorobenzene	0.871	0.906		4.02	20
1,2-Dichloroethane-d4	0.650	0.633		-2.62	20
Dibromofluoromethane	0.354	0.369		4.24	20
Toluene-d8	1.314	1.410		7.31	20
4-Bromofluorobenzene	0.422	0.465		10.19	20

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda
02/06/2025
Supervised By :Semsettin Yesilyurt
02/06/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	144407	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	231304	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	218761	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	115890	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	91407	48.661	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 97.320%			
35) Dibromofluoromethane	7.805	113	85443	52.121	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 104.240%			
50) Toluene-d8	10.269	98	326193	53.656	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 107.320%			
62) 4-Bromofluorobenzene	12.575	95	107536	55.129	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 110.260%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	63595	43.605	ug/l	99
3) Chloromethane	2.152	50	131802	43.815	ug/l	99
4) Vinyl Chloride	2.281	62	161229	44.304	ug/l	97
5) Bromomethane	2.687	94	104788	48.213	ug/l	99
6) Chloroethane	2.834	64	108151	44.619	ug/l	96
7) Trichlorofluoromethane	3.170	101	143039	47.430	ug/l	96
8) Diethyl Ether	3.593	74	43960	53.282	ug/l	99
9) 1,1,2-Trichlorotrifluo...	3.964	101	85068	48.729	ug/l	99
10) Methyl Iodide	4.158	142	89846	58.391	ug/l	99
11) Tert butyl alcohol	5.064	59	27996	269.808	ug/l #	92
12) 1,1-Dichloroethene	3.934	96	85553	51.735	ug/l	93
13) Acrolein	3.799	56	43257	221.098	ug/l	98
14) Allyl chloride	4.558	41	138269	54.256	ug/l	99
15) Acrylonitrile	5.258	53	103274	260.540	ug/l	97
16) Acetone	4.022	43	75400	249.061	ug/l #	84
17) Carbon Disulfide	4.269	76	282944	47.441	ug/l	99
18) Methyl Acetate	4.564	43	56658	55.466	ug/l	100
19) Methyl tert-butyl Ether	5.322	73	201158	55.253	ug/l	99
20) Methylene Chloride	4.799	84	101946	49.624	ug/l	98
21) trans-1,2-Dichloroethene	5.311	96	96315	51.267	ug/l	95
22) Diisopropyl ether	6.216	45	299432	56.458	ug/l	97
23) Vinyl Acetate	6.158	43	872563	284.970	ug/l	99
24) 1,1-Dichloroethane	6.116	63	174492	50.189	ug/l	97
25) 2-Butanone	7.087	43	127343	271.192	ug/l	95
26) 2,2-Dichloropropane	7.075	77	143069	47.445	ug/l	97
27) cis-1,2-Dichloroethene	7.081	96	107820	50.801	ug/l	99
28) Bromochloromethane	7.422	49	78009	49.168	ug/l	97
29) Tetrahydrofuran	7.452	42	85156	276.881	ug/l	98
30) Chloroform	7.593	83	178969	50.349	ug/l	96
31) Cyclohexane	7.875	56	138599	49.799	ug/l	97
32) 1,1,1-Trichloroethane	7.793	97	146694	49.328	ug/l	99
36) 1,1-Dichloropropene	8.010	75	126888	54.041	ug/l	99
37) Ethyl Acetate	7.169	43	60046	52.152	ug/l	97
38) Carbon Tetrachloride	7.993	117	126878	51.733	ug/l	98
39) Methylcyclohexane	9.275	83	142149	55.725	ug/l	97
40) Benzene	8.252	78	382415	51.960	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda

02/06/2025

Supervised By :Semsettin Yesilyurt

02/06/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	32197	50.803	ug/l		94
42) 1,2-Dichloroethane	8.322	62	109540	52.302	ug/l		99
43) Isopropyl Acetate	8.357	43	117432	57.469	ug/l		98
44) Trichloroethene	9.028	130	91823	54.006	ug/l		99
45) 1,2-Dichloropropane	9.304	63	99400	53.695	ug/l		100
46) Dibromomethane	9.393	93	54387	52.733	ug/l		100
47) Bromodichloromethane	9.587	83	137251	52.771	ug/l		96
48) Methyl methacrylate	9.381	41	55389	58.576	ug/l		91
49) 1,4-Dioxane	9.387	88	13506	1203.768	ug/l		97
51) 4-Methyl-2-Pentanone	10.157	43	306672	296.801	ug/l		99
52) Toluene	10.334	92	239324	55.593	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	126771	57.177	ug/l		96
54) cis-1,3-Dichloropropene	10.016	75	150781	55.908	ug/l		98
55) 1,1,2-Trichloroethane	10.734	97	70386	52.523	ug/l		97
56) Ethyl methacrylate	10.599	69	93312	61.025	ug/l		97
57) 1,3-Dichloropropane	10.881	76	119686	53.997	ug/l		97
58) 2-Chloroethyl Vinyl ether	9.869	63	193036	295.782	ug/l		99
59) 2-Hexanone	10.922	43	208534	307.561	ug/l		99
60) Dibromochloromethane	11.075	129	90095	54.544	ug/l		99
61) 1,2-Dibromoethane	11.181	107	66564	54.540	ug/l		100
64) Tetrachloroethene	10.810	164	76006	49.736	ug/l		97
65) Chlorobenzene	11.604	112	255176	50.888	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.681	131	88584	50.498	ug/l		97
67) Ethyl Benzene	11.681	91	450273	53.979	ug/l		100
68) m/p-Xylenes	11.793	106	349508	107.927	ug/l		99
69) o-Xylene	12.122	106	160619	54.391	ug/l		99
70) Styrene	12.134	104	293593	55.853	ug/l		99
71) Bromoform	12.298	173	52482	50.751	ug/l	#	95
73) Isopropylbenzene	12.422	105	417700	53.287	ug/l		99
74) N-amyl acetate	12.234	43	115792	56.196	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.675	83	85380	52.343	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	58082m	49.549	ug/l		
77) Bromobenzene	12.698	156	104073	51.472	ug/l		99
78) n-propylbenzene	12.763	91	534538	53.560	ug/l		100
79) 2-Chlorotoluene	12.845	91	305293	53.845	ug/l		99
80) 1,3,5-Trimethylbenzene	12.904	105	364806	55.648	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.469	75	31141	54.322	ug/l		94
82) 4-Chlorotoluene	12.945	91	327715	54.390	ug/l		100
83) tert-Butylbenzene	13.163	119	301713	56.297	ug/l		96
84) 1,2,4-Trimethylbenzene	13.210	105	374233	56.085	ug/l		99
85) sec-Butylbenzene	13.345	105	455841	55.629	ug/l		100
86) p-Isopropyltoluene	13.457	119	387005	55.311	ug/l		98
87) 1,3-Dichlorobenzene	13.457	146	214075	53.754	ug/l		99
88) 1,4-Dichlorobenzene	13.540	146	206136	51.141	ug/l		99
89) n-Butylbenzene	13.787	91	372761	54.823	ug/l		99
90) Hexachloroethane	14.057	117	80647	51.861	ug/l		100
91) 1,2-Dichlorobenzene	13.828	146	185826	52.955	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.451	75	13318	51.319	ug/l		95
93) 1,2,4-Trichlorobenzene	15.098	180	117796	52.662	ug/l		100
94) Hexachlorobutadiene	15.204	225	59129	48.808	ug/l		97
95) Naphthalene	15.334	128	216748	54.627	ug/l		97
96) 1,2,3-Trichlorobenzene	15.522	180	104987	52.009	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda
02/06/2025
Supervised By :Semsettin Yesilyurt
02/06/2025

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

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VSTDCCC050

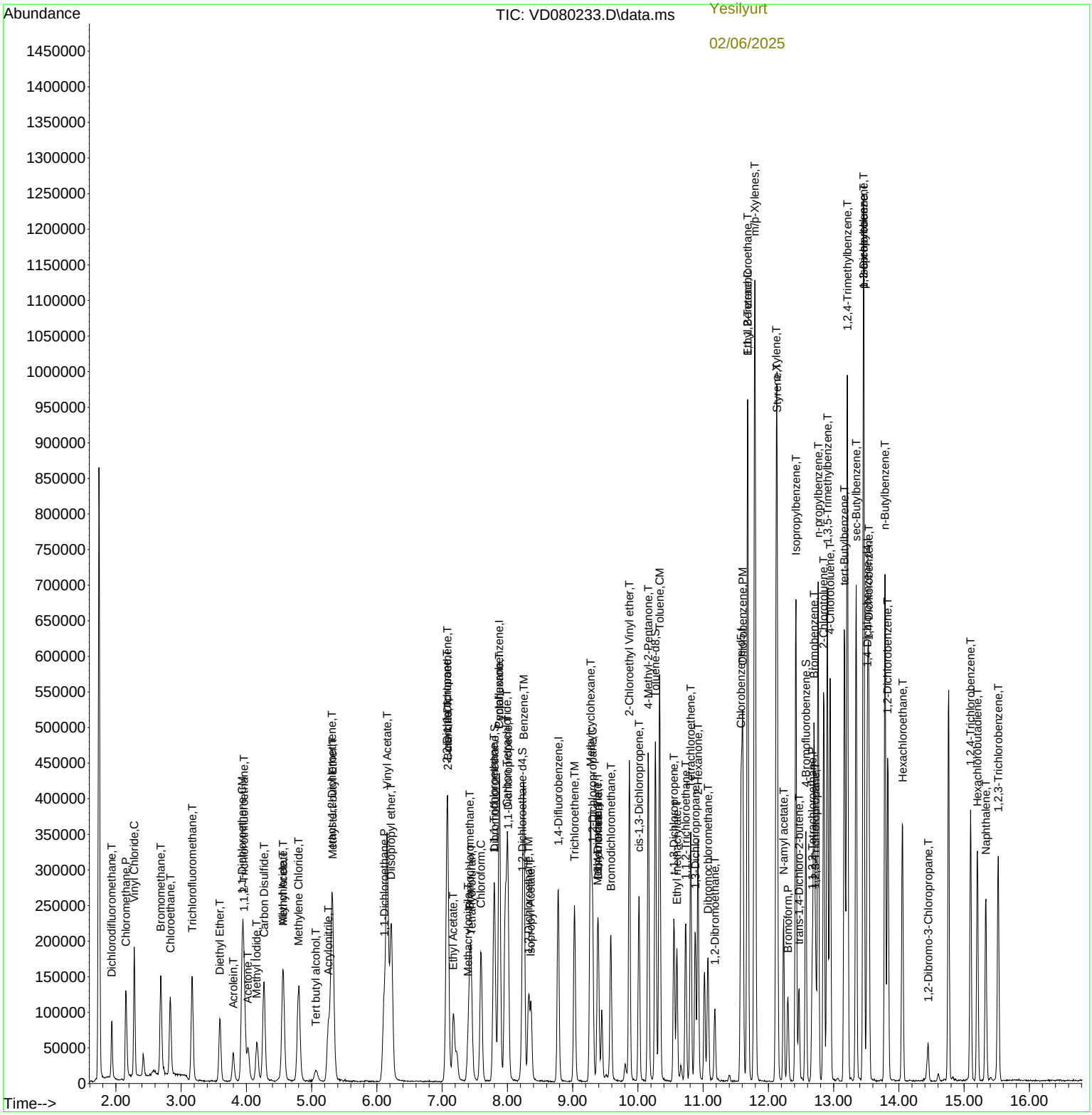
Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda

02/06/2025

Supervised By :Semsettin Yesilyurt

02/06/2025



Evaluate Continuing Calibration Report

Sample Results: **VD080233.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	112	0.00
2	T	Dichlorodifluoromethane	0.591	0.440	25.5#	103	0.00
3	P	Chloromethane	1.042	0.913	12.4	103	0.00
4	C	Vinyl Chloride	1.260	1.116	11.4#	104	0.00
5	T	Bromomethane	0.972	0.726	25.3#	97	0.00
6	T	Chloroethane	0.839	0.749	10.7	103	0.00
7	T	Trichlorofluoromethane	1.044	0.991	5.1	113	0.00
8	T	Diethyl Ether	0.286	0.304	-6.3	115	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.604	0.589	2.5	120	0.00
10	T	Methyl Iodide	0.432	0.622	-44.0#	128	0.00
11	T	Tert butyl alcohol	0.036	0.039	-8.3	121	0.00
12	CM	1,1-Dichloroethene	0.573	0.592	-3.3#	123	0.00
13	T	Acrolein	0.068	0.060	11.8	100	0.00
14	T	Allyl chloride	0.882	0.957	-8.5	120	-0.01
15	T	Acrylonitrile	0.137	0.143	-4.4	107	0.00
16	T	Acetone	0.105	0.104	1.0	124	0.00
17	T	Carbon Disulfide	2.065	1.959	5.1	113	0.00
18	T	Methyl Acetate	0.354	0.392	-10.7	124	0.00
19	T	Methyl tert-butyl Ether	1.261	1.393	-10.5	113	0.00
20	T	Methylene Chloride	0.711	0.706	0.7	116	0.00
21	T	trans-1,2-Dichloroethene	0.650	0.667	-2.6	108	0.00
22	T	Diisopropyl ether	1.836	2.074	-13.0	112	0.00
23	T	Vinyl Acetate	1.060	1.208	-14.0	112	0.00
24	P	1,1-Dichloroethane	1.204	1.208	-0.3	108	0.00
25	T	2-Butanone	0.163	0.176	-8.0	118	0.00
26	T	2,2-Dichloropropane	1.044	0.991	5.1	110	0.00
27	T	cis-1,2-Dichloroethene	0.735	0.747	-1.6	114	0.00
28	T	Bromochloromethane	0.549	0.540	1.6	107	0.00
29	T	Tetrahydrofuran	0.106	0.118	-11.3	119	0.00
30	C	Chloroform	1.231	1.239	-0.6#	117	0.00
31	T	Cyclohexane	0.964	0.960	0.4	119	0.00
32	T	1,1,1-Trichloroethane	1.030	1.016	1.4	117	0.00
33	S	1,2-Dichloroethane-d4	0.650	0.633	2.6	112	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00
35	S	Dibromofluoromethane	0.354	0.369	-4.2	116	0.00
36	T	1,1-Dichloropropene	0.508	0.549	-8.1	117	0.00
37	T	Ethyl Acetate	0.249	0.260	-4.4	113	0.00
38	T	Carbon Tetrachloride	0.530	0.549	-3.6	113	0.00
39	T	Methylcyclohexane	0.551	0.615	-11.6	124	0.00
40	TM	Benzene	1.591	1.653	-3.9	109	0.00
41	T	Methacrylonitrile	0.137	0.139	-1.5	111	0.00
42	TM	1,2-Dichloroethane	0.453	0.474	-4.6	114	0.00
43	T	Isopropyl Acetate	0.442	0.508	-14.9	125	0.00
44	TM	Trichloroethene	0.368	0.397	-7.9	120	0.00
45	C	1,2-Dichloropropane	0.400	0.430	-7.5#	116	0.00
46	T	Dibromomethane	0.223	0.235	-5.4	110	0.00
47	T	Bromodichloromethane	0.562	0.593	-5.5	114	0.00
48	T	Methyl methacrylate	0.204	0.239	-17.2	121	0.00

Sample Results: **VD080233.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	0.002	0.003	-50.0#	116	0.00
50	S	Toluene-d8	1.314	1.410	-7.3	111	0.00
51	T	4-Methyl-2-Pentanone	0.223	0.265	-18.8	119	0.00
52	CM	Toluene	0.931	1.035	-11.2#	119	0.00
53	T	t-1,3-Dichloropropene	0.479	0.548	-14.4	127	0.00
54	T	cis-1,3-Dichloropropene	0.583	0.652	-11.8	112	0.00
55	T	1,1,2-Trichloroethane	0.290	0.304	-4.8	121	0.00
56	T	Ethyl methacrylate	0.331	0.403	-21.8	130	0.00
57	T	1,3-Dichloropropane	0.479	0.517	-7.9	122	0.00
58	T	2-Chloroethyl Vinyl ether	0.141	0.167	-18.4	109	0.00
59	T	2-Hexanone	0.147	0.180	-22.4	134	0.00
60	T	Dibromochloromethane	0.357	0.390	-9.2	122	0.00
61	T	1,2-Dibromoethane	0.264	0.288	-9.1	124	0.00
62	S	4-Bromofluorobenzene	0.422	0.465	-10.2	115	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
64	T	Tetrachloroethene	0.349	0.347	0.6	119	0.00
65	PM	Chlorobenzene	1.146	1.166	-1.7	106	0.00
66	T	1,1,1,2-Tetrachloroethane	0.401	0.405	-1.0	107	0.00
67	C	Ethyl Benzene	1.907	2.058	-7.9#	110	0.00
68	T	m/p-Xylenes	0.740	0.799	-8.0	116	0.00
69	T	o-Xylene	0.675	0.734	-8.7	116	0.00
70	T	Styrene	1.201	1.342	-11.7	117	0.00
71	P	Bromoform	0.236	0.240	-1.7	102	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00
73	T	Isopropylbenzene	3.382	3.604	-6.6	116	0.00
74	T	N-amyl acetate	0.889	0.999	-12.4	124	0.00
75	P	1,1,2,2-Tetrachloroethane	0.704	0.737	-4.7	117	0.00
76	T	1,2,3-Trichloropropane	0.506	0.501	1.0	119	0.00
77	T	Bromobenzene	0.872	0.898	-3.0	116	0.00
78	T	n-propylbenzene	4.306	4.612	-7.1	113	0.00
79	T	2-Chlorotoluene	2.446	2.634	-7.7	117	0.00
80	T	1,3,5-Trimethylbenzene	2.828	3.148	-11.3	120	0.00
81	T	trans-1,4-Dichloro-2-butene	0.247	0.269	-8.9	118	0.00
82	T	4-Chlorotoluene	2.600	2.828	-8.8	120	0.00
83	T	tert-Butylbenzene	2.312	2.603	-12.6	128	0.00
84	T	1,2,4-Trimethylbenzene	2.879	3.229	-12.2	112	0.00
85	T	sec-Butylbenzene	3.535	3.933	-11.3	123	0.00
86	T	p-Isopropyltoluene	3.019	3.339	-10.6	123	0.00
87	T	1,3-Dichlorobenzene	1.718	1.847	-7.5	122	0.00
88	T	1,4-Dichlorobenzene	1.739	1.779	-2.3	118	0.00
89	T	n-Butylbenzene	2.934	3.217	-9.6	125	0.00
90	T	Hexachloroethane	0.671	0.696	-3.7	119	0.00
91	T	1,2-Dichlorobenzene	1.514	1.603	-5.9	116	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.112	0.115	-2.7	105	0.01
93	T	1,2,4-Trichlorobenzene	0.965	1.016	-5.3	110	0.00
94	T	Hexachlorobutadiene	0.523	0.510	2.5	106	0.00
95	T	Naphthalene	1.731	1.870	-8.0	110	0.00

Sample Results: **VD080233.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	0.871	0.906	-4.0	107	0.00

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

Sample Results: **VD080233.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	112	0.00
2	T	Dichlorodifluoromethane	50.000	43.605	12.8	103	0.00
3	P	Chloromethane	50.000	43.815	12.4	103	0.00
4	C	Vinyl Chloride	50.000	44.304	11.4#	104	0.00
5	T	Bromomethane	50.000	48.213	3.6	97	0.00
6	T	Chloroethane	50.000	44.619	10.8	103	0.00
7	T	Trichlorofluoromethane	50.000	47.430	5.1	113	0.00
8	T	Diethyl Ether	50.000	53.282	-6.6	115	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	48.729	2.5	120	0.00
10	T	Methyl Iodide	50.000	58.391	-16.8	128	0.00
11	T	Tert butyl alcohol	250.000	269.808	-7.9	121	0.00
12	CM	1,1-Dichloroethene	50.000	51.735	-3.5#	123	0.00
13	T	Acrolein	250.000	221.098	11.6	100	0.00
14	T	Allyl chloride	50.000	54.256	-8.5	120	-0.01
15	T	Acrylonitrile	250.000	260.540	-4.2	107	0.00
16	T	Acetone	250.000	249.061	0.4	124	0.00
17	T	Carbon Disulfide	50.000	47.441	5.1	113	0.00
18	T	Methyl Acetate	50.000	55.466	-10.9	124	0.00
19	T	Methyl tert-butyl Ether	50.000	55.253	-10.5	113	0.00
20	T	Methylene Chloride	50.000	49.624	0.8	116	0.00
21	T	trans-1,2-Dichloroethene	50.000	51.267	-2.5	108	0.00
22	T	Diisopropyl ether	50.000	56.458	-12.9	112	0.00
23	T	Vinyl Acetate	250.000	284.970	-14.0	112	0.00
24	P	1,1-Dichloroethane	50.000	50.189	-0.4	108	0.00
25	T	2-Butanone	250.000	271.192	-8.5	118	0.00
26	T	2,2-Dichloropropane	50.000	47.445	5.1	110	0.00
27	T	cis-1,2-Dichloroethene	50.000	50.801	-1.6	114	0.00
28	T	Bromochloromethane	50.000	49.168	1.7	107	0.00
29	T	Tetrahydrofuran	250.000	276.881	-10.8	119	0.00
30	C	Chloroform	50.000	50.349	-0.7#	117	0.00
31	T	Cyclohexane	50.000	49.799	0.4	119	0.00
32	T	1,1,1-Trichloroethane	50.000	49.328	1.3	117	0.00
33	S	1,2-Dichloroethane-d4	50.000	48.661	2.7	112	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	109	0.00
35	S	Dibromofluoromethane	50.000	52.121	-4.2	116	0.00
36	T	1,1-Dichloropropene	50.000	54.041	-8.1	117	0.00
37	T	Ethyl Acetate	50.000	52.152	-4.3	113	0.00
38	T	Carbon Tetrachloride	50.000	51.733	-3.5	113	0.00
39	T	Methylcyclohexane	50.000	55.725	-11.5	124	0.00
40	TM	Benzene	50.000	51.960	-3.9	109	0.00
41	T	Methacrylonitrile	50.000	50.803	-1.6	111	0.00
42	TM	1,2-Dichloroethane	50.000	52.302	-4.6	114	0.00
43	T	Isopropyl Acetate	50.000	57.469	-14.9	125	0.00
44	TM	Trichloroethene	50.000	54.006	-8.0	120	0.00
45	C	1,2-Dichloropropane	50.000	53.695	-7.4#	116	0.00
46	T	Dibromomethane	50.000	52.733	-5.5	110	0.00
47	T	Bromodichloromethane	50.000	52.771	-5.5	114	0.00
48	T	Methyl methacrylate	50.000	58.576	-17.2	121	0.00

Sample Results: **VD080233.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	1203.768	-20.4	116	0.00
50	S	Toluene-d8	50.000	53.656	-7.3	111	0.00
51	T	4-Methyl-2-Pentanone	250.000	296.801	-18.7	119	0.00
52	CM	Toluene	50.000	55.593	-11.2#	119	0.00
53	T	t-1,3-Dichloropropene	50.000	57.177	-14.4	127	0.00
54	T	cis-1,3-Dichloropropene	50.000	55.908	-11.8	112	0.00
55	T	1,1,2-Trichloroethane	50.000	52.523	-5.0	121	0.00
56	T	Ethyl methacrylate	50.000	61.025	-22.0	130	0.00
57	T	1,3-Dichloropropane	50.000	53.997	-8.0	122	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	295.782	-18.3	109	0.00
59	T	2-Hexanone	250.000	307.561	-23.0	134	0.00
60	T	Dibromochloromethane	50.000	54.544	-9.1	122	0.00
61	T	1,2-Dibromoethane	50.000	54.540	-9.1	124	0.00
62	S	4-Bromofluorobenzene	50.000	55.129	-10.3	115	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	100	0.00
64	T	Tetrachloroethene	50.000	49.736	0.5	119	0.00
65	PM	Chlorobenzene	50.000	50.888	-1.8	106	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	50.498	-1.0	107	0.00
67	C	Ethyl Benzene	50.000	53.979	-8.0#	110	0.00
68	T	m/p-Xylenes	100.000	107.927	-7.9	116	0.00
69	T	o-Xylene	50.000	54.391	-8.8	116	0.00
70	T	Styrene	50.000	55.853	-11.7	117	0.00
71	P	Bromoform	50.000	50.751	-1.5	102	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	107	0.00
73	T	Isopropylbenzene	50.000	53.287	-6.6	116	0.00
74	T	N-amyl acetate	50.000	56.196	-12.4	124	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	52.343	-4.7	117	0.00
76	T	1,2,3-Trichloropropane	50.000	49.549	0.9	119	0.00
77	T	Bromobenzene	50.000	51.472	-2.9	116	0.00
78	T	n-propylbenzene	50.000	53.560	-7.1	113	0.00
79	T	2-Chlorotoluene	50.000	53.845	-7.7	117	0.00
80	T	1,3,5-Trimethylbenzene	50.000	55.648	-11.3	120	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	54.322	-8.6	118	0.00
82	T	4-Chlorotoluene	50.000	54.390	-8.8	120	0.00
83	T	tert-Butylbenzene	50.000	56.297	-12.6	128	0.00
84	T	1,2,4-Trimethylbenzene	50.000	56.085	-12.2	112	0.00
85	T	sec-Butylbenzene	50.000	55.629	-11.3	123	0.00
86	T	p-Isopropyltoluene	50.000	55.311	-10.6	123	0.00
87	T	1,3-Dichlorobenzene	50.000	53.754	-7.5	122	0.00
88	T	1,4-Dichlorobenzene	50.000	51.141	-2.3	118	0.00
89	T	n-Butylbenzene	50.000	54.823	-9.6	125	0.00
90	T	Hexachloroethane	50.000	51.861	-3.7	119	0.00
91	T	1,2-Dichlorobenzene	50.000	52.955	-5.9	116	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	51.319	-2.6	105	0.01
93	T	1,2,4-Trichlorobenzene	50.000	52.662	-5.3	110	0.00
94	T	Hexachlorobutadiene	50.000	48.808	2.4	106	0.00
95	T	Naphthalene	50.000	54.627	-9.3	110	0.00

Sample Results: **VD080233.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080233.D
Acq On : 04 Feb 2025 11:55
Operator : RP/MD
Sample : VSTDCCC050
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_D
LabSampleId :
VSTDCCC050

Quant Time: Feb 05 00:38:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 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	52.009	-4.0	107	0.00

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

QC SAMPLE DATA

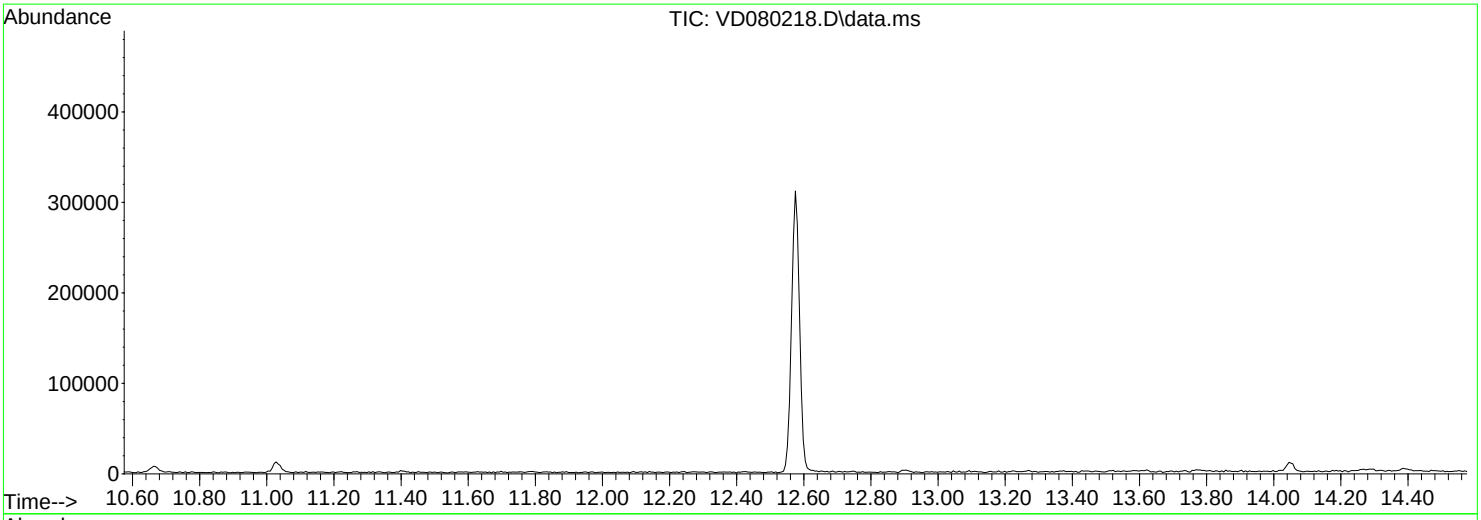
Sample Results: **VD080218.D**

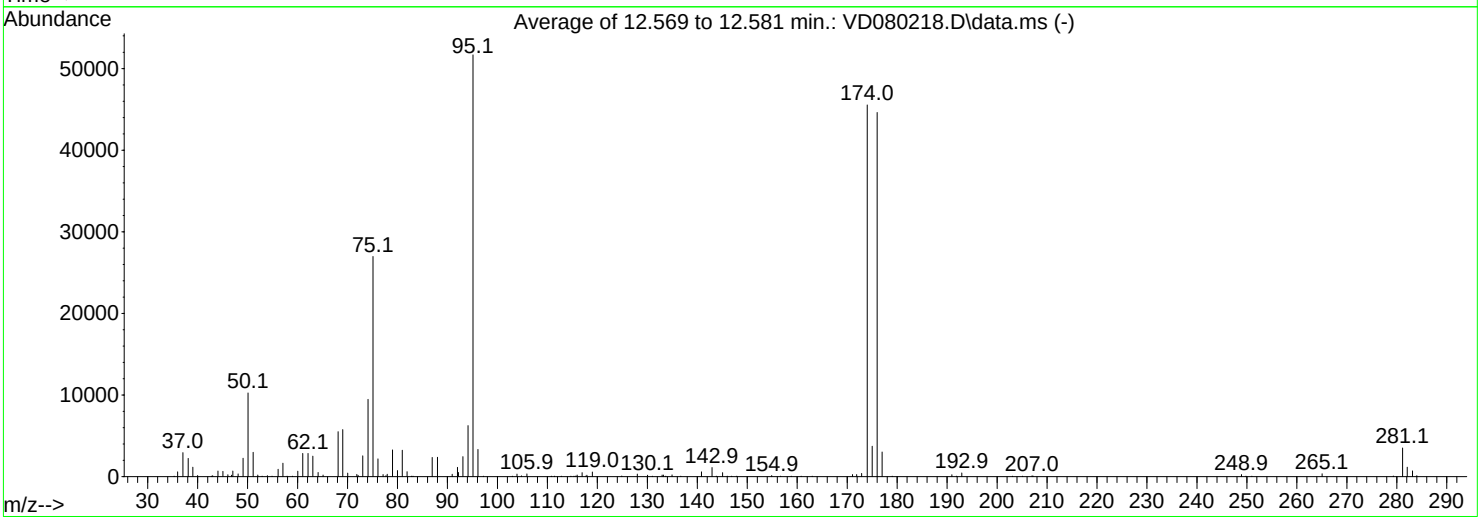
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020325\
Data File : VD080218.D
Acq On : 03 Feb 2025 09:37
Operator : RP/MD
Sample : BFB
Misc : 5.00G/10ml/MSVOA_D/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Title : SW846 8260
Last Update : Tue Feb 04 05:44:14 2025





AutoFind: Scans 1867, 1868, 1869; Background Corrected with Scan 1859

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	10262	PASS
75	95	30	60	52.2	26973	PASS
95	95	100	100	100.0	51680	PASS
96	95	5	9	6.4	3332	PASS
173	174	0.00	2	0.9	403	PASS
174	95	50	100	88.1	45541	PASS
175	174	5	9	8.2	3716	PASS
176	174	95	101	98.0	44629	PASS
177	176	5	9	6.8	3026	PASS

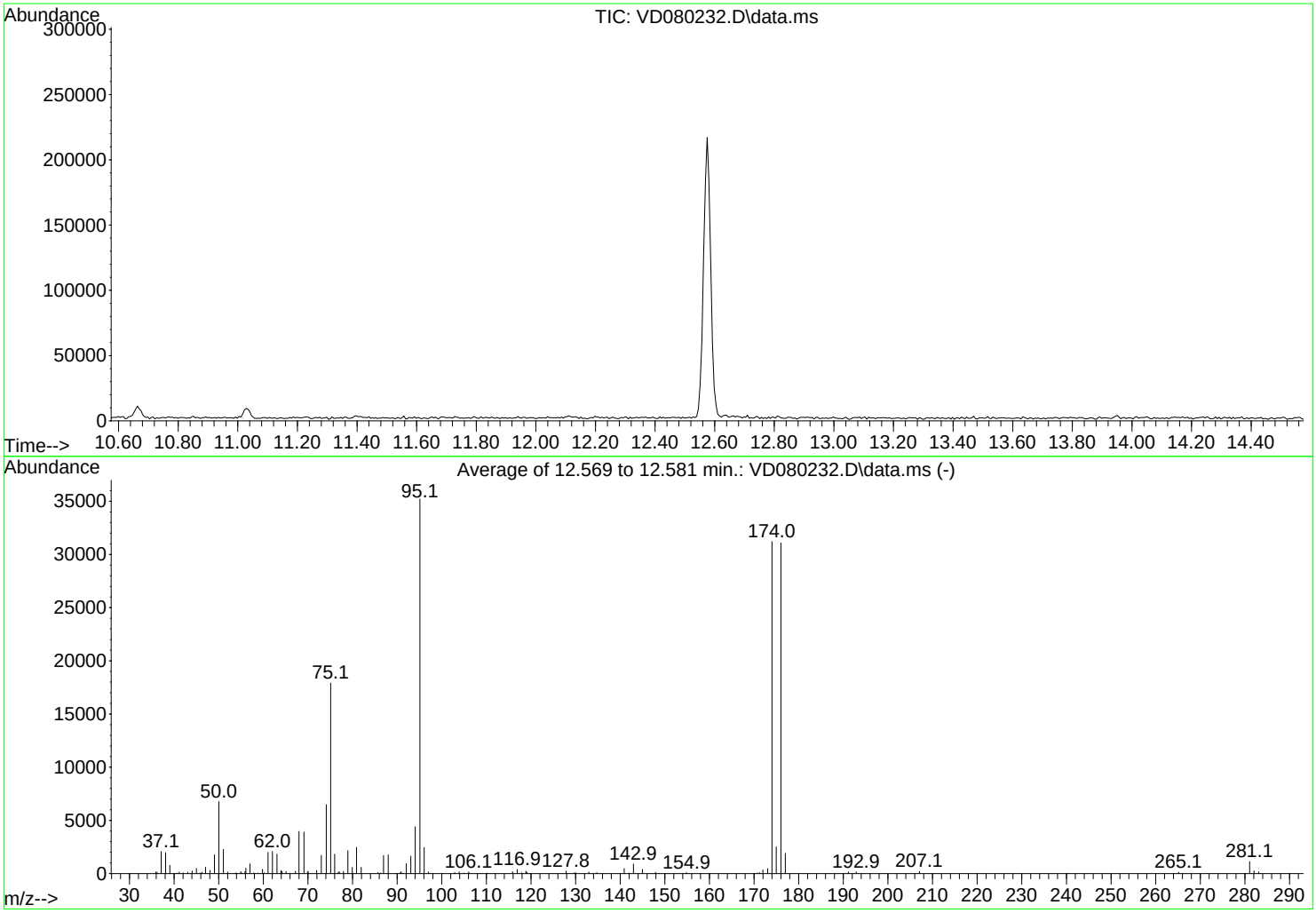
Sample Results: **VD080232.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080232.D
Acq On : 04 Feb 2025 09:25
Operator : RP/MD
Sample : BFB
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Title : SW846 8260
Last Update : Tue Feb 04 05:44:14 2025



AutoFind: Scans 1867, 1868, 1869; Background Corrected with Scan 1859

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	6756	PASS
75	95	30	60	50.9	17917	PASS
95	95	100	100	100.0	35211	PASS
96	95	5	9	7.0	2454	PASS
173	174	0.00	2	1.5	462	PASS
174	95	50	100	88.6	31211	PASS
175	174	5	9	8.1	2514	PASS
176	174	95	101	99.6	31083	PASS
177	176	5	9	6.1	1909	PASS

Raw Data: **VD080234.D**

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBL01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080234.D	1		02/04/25 12:31	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.70	U	1.70	5.00	ug/Kg
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.77	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	1.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	1.00	U	1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	0.91	U	0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.10	U	1.10	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	0.78	U	0.78	5.00	ug/Kg
67-64-1	Acetone	6.20	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	1.30	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.67	U	0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	1.80	U	1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	3.40	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.84	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.63	U	0.63	5.00	ug/Kg
110-82-7	Cyclohexane	0.69	U	0.69	5.00	ug/Kg
78-93-3	2-Butanone	5.70	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.87	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.61	U	0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	2.40	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	0.67	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.78	U	0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.87	U	0.87	5.00	ug/Kg
71-43-2	Benzene	0.72	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.61	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	0.75	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.66	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.56	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.40	U	4.40	25.0	ug/Kg
108-88-3	Toluene	0.67	U	0.67	5.00	ug/Kg

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBL01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080234.D	1		02/04/25 12:31	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	0.60	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.57	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.84	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	4.80	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.65	U	0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.79	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	0.89	U	0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	0.74	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.62	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.40	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	0.70	U	0.70	5.00	ug/Kg
100-42-5	Styrene	0.60	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	0.81	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.67	U	0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	0.74	U	0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	0.80	U	0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	0.59	U	0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.60	U	1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	0.79	U	0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	0.78	U	0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.8		70 (50) - 130 (163)	108%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		70 (54) - 130 (147)	103%	SPK: 50
2037-26-5	Toluene-d8	48.5		70 (58) - 130 (134)	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.2		70 (29) - 130 (146)	88%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	109000	7.875			
540-36-3	1,4-Difluorobenzene	189000	8.781			
3114-55-4	Chlorobenzene-d5	172000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	79300	13.516			

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBL01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080234.D	1		02/04/25 12:31	VD020425

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_D\Data\VD020425\
Data File : VD080234.D
Acq On : 04 Feb 2025 12:31
Operator : RP/MD
Sample : VD0204SBL01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Quant Time: Feb 05 00:39:18 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	108713	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.781	114	188910	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	172019	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	79252	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	76102	53.815	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 107.640%			
35) Dibromofluoromethane	7.805	113	68804	51.390	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 102.780%			
50) Toluene-d8	10.269	98	240894	48.518	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 97.040%			
62) 4-Bromofluorobenzene	12.569	95	70434	44.212	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 88.420%			
Target Compounds						Qvalue

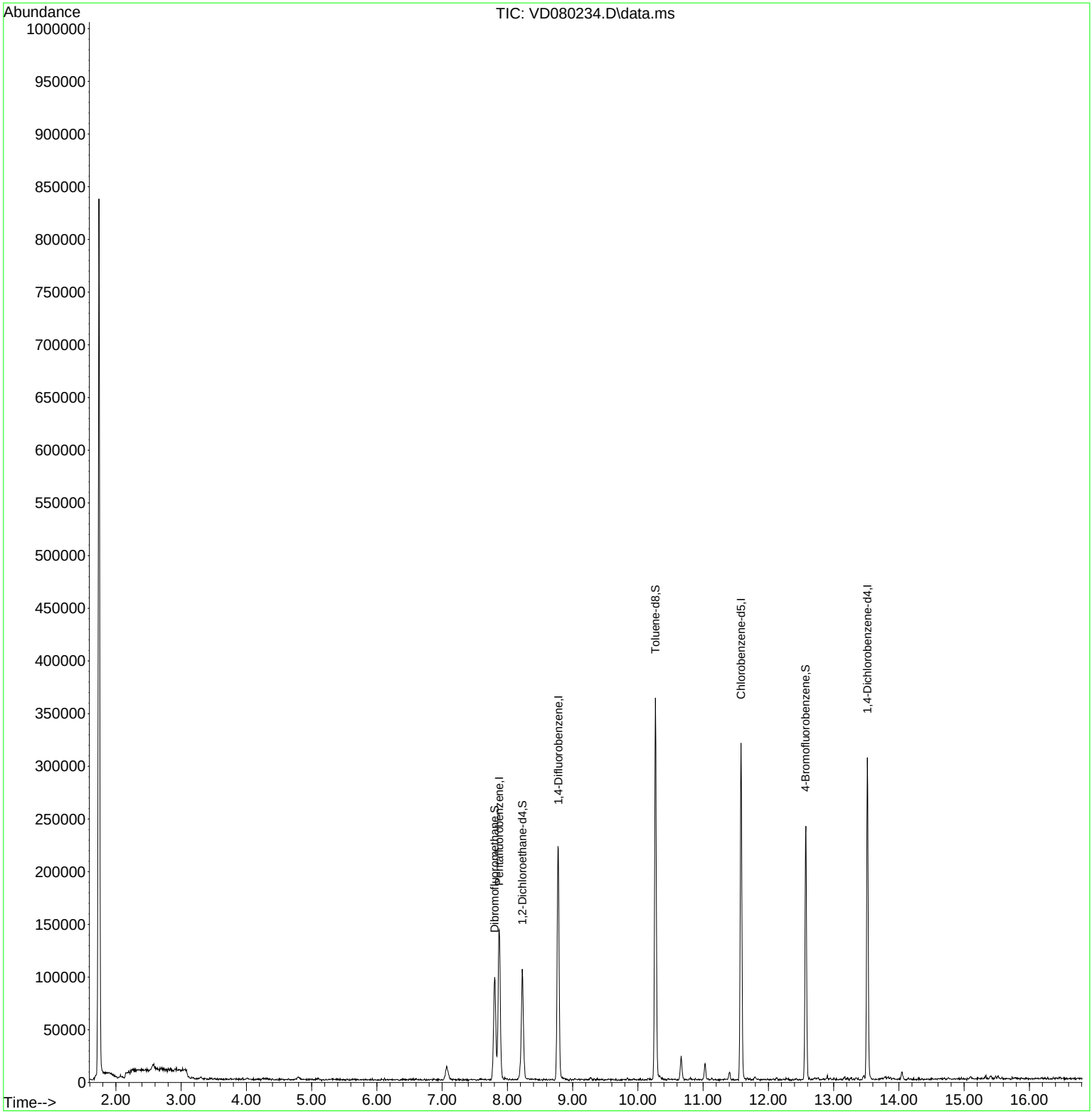
(#) = qualifier out of range (m) = manual integration (+) = signals summed

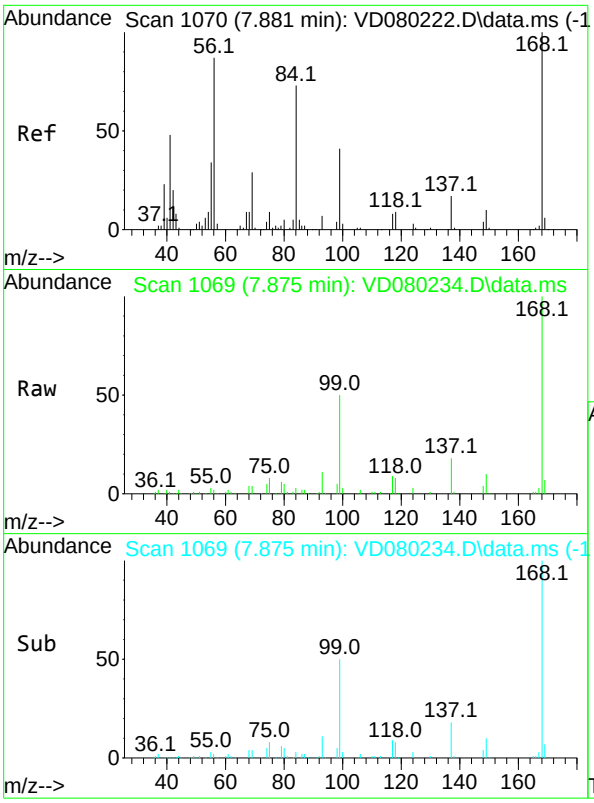
Sample Results: **VD080234.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080234.D
Acq On : 04 Feb 2025 12:31
Operator : RP/MD
Sample : VD0204SBL01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Quant Time: Feb 05 00:39:18 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration



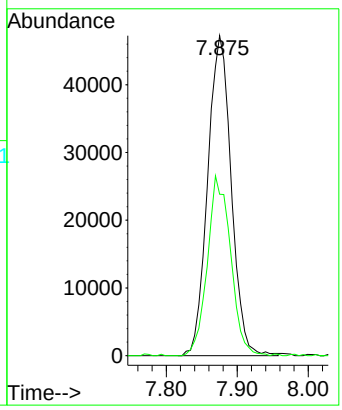


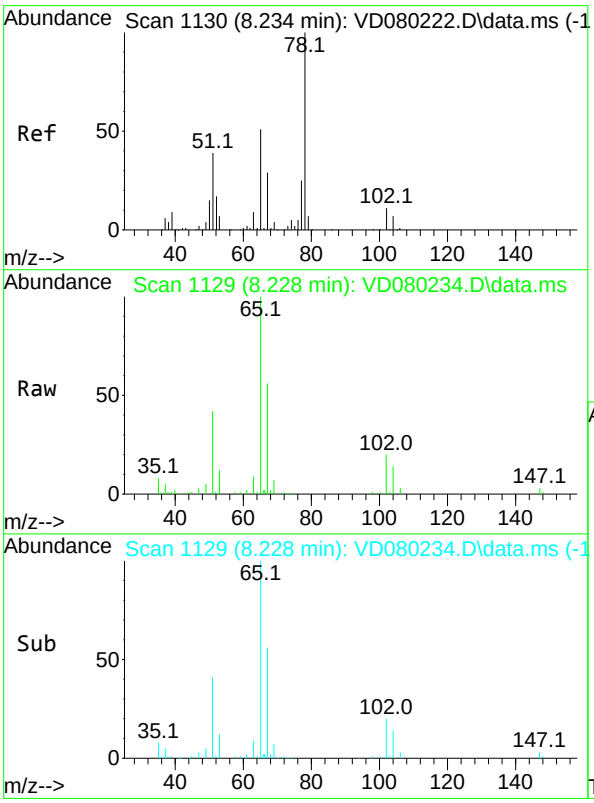
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.875 min Scan# 1
Delta R.T. -0.006 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Tgt Ion:168 Resp: 108713

Ion	Ratio	Lower	Upper
168	100		
99	50.4	44.4	66.6

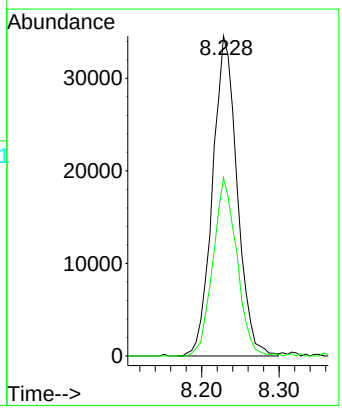


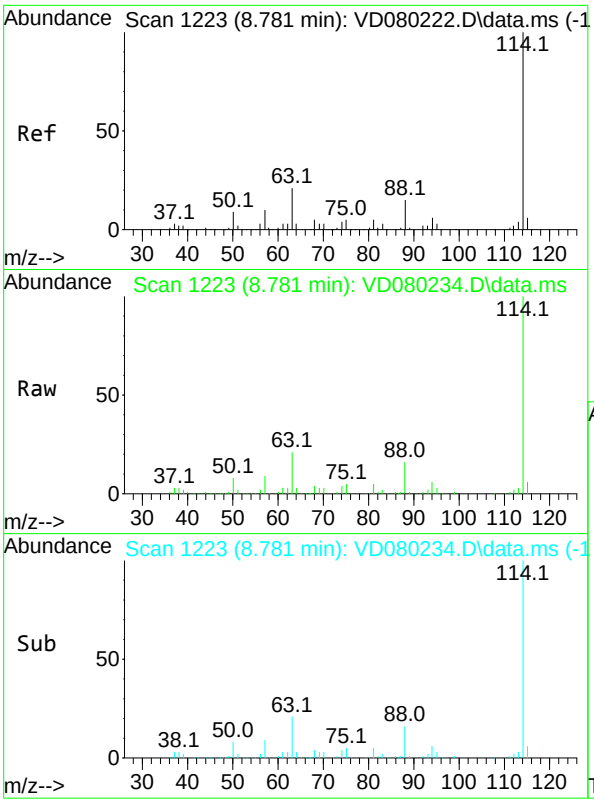


#33
1,2-Dichloroethane-d4
Concen: 53.815 ug/l
RT: 8.228 min Scan# 1129
Delta R.T. -0.006 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Tgt Ion: 65 Resp: 76102

Ion	Ratio	Lower	Upper
65	100		
67	54.1	0.0	107.6



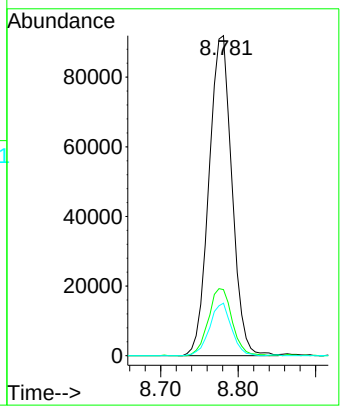


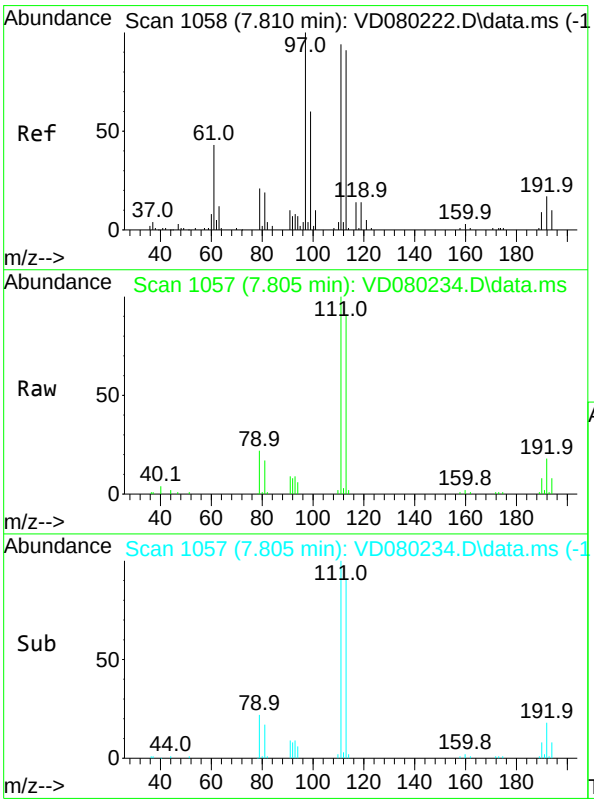
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.781 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Tgt Ion:114 Resp: 188910

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	41.8
88	16.4	0.0	30.4

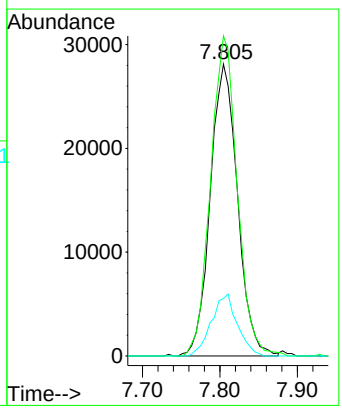


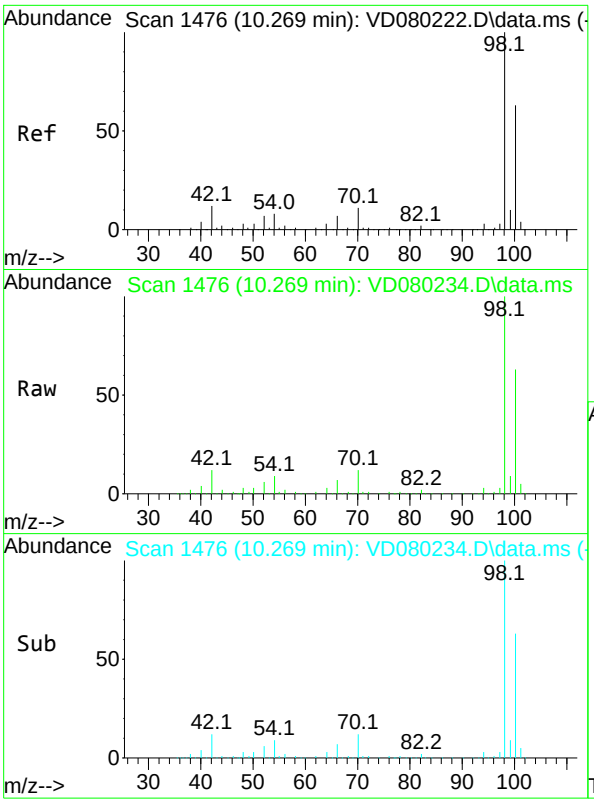


#35
Dibromofluoromethane
Concen: 51.390 ug/l
RT: 7.805 min Scan# 1057
Delta R.T. -0.006 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Tgt Ion:113 Resp: 68804

Ion	Ratio	Lower	Upper
113	100		
111	107.4	85.0	127.4
192	20.1	15.5	23.3



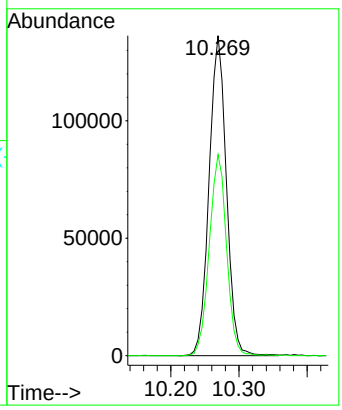


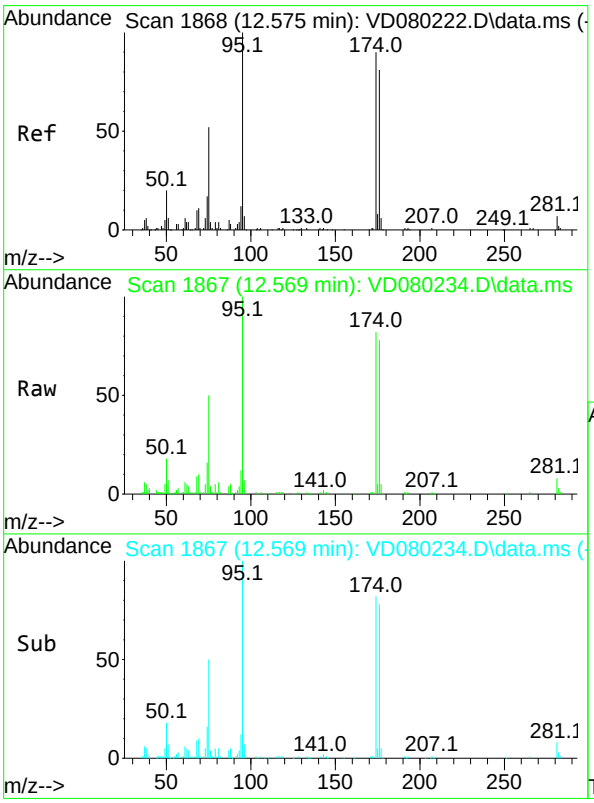
#50
Toluene-d8
Concen: 48.518 ug/l
RT: 10.269 min Scan# 14
Delta R.T. 0.000 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Tgt Ion: 98 Resp: 240894

Ion	Ratio	Lower	Upper
98	100		
100	62.6	50.2	75.4

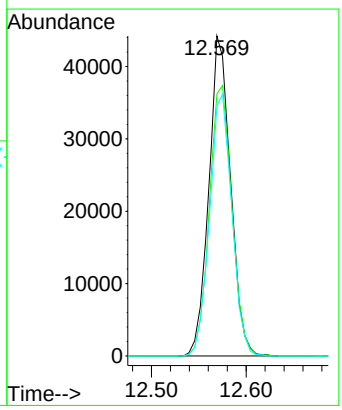


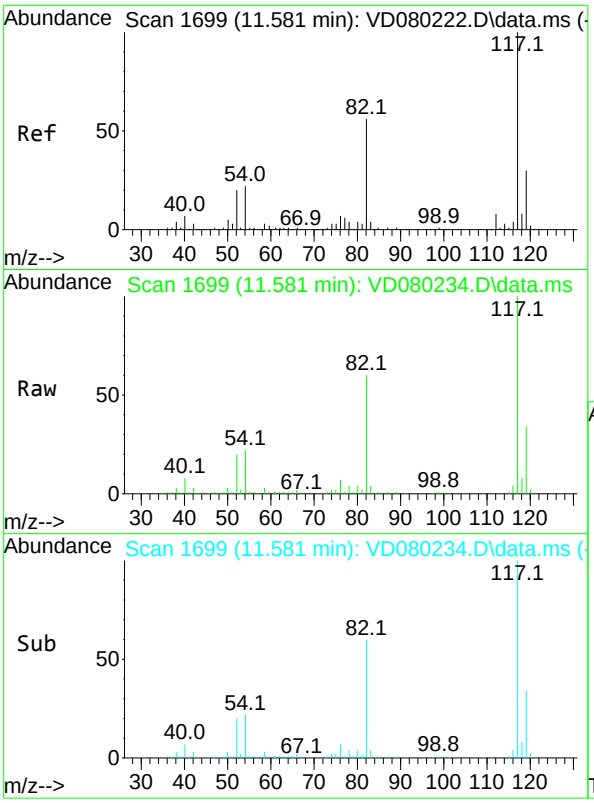


#62
4-Bromofluorobenzene
Concen: 44.212 ug/l
RT: 12.569 min Scan# 1867
Delta R.T. -0.006 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Tgt Ion: 95 Resp: 70434

Ion	Ratio	Lower	Upper
95	100		
174	88.0	0.0	171.8
176	83.7	0.0	159.6



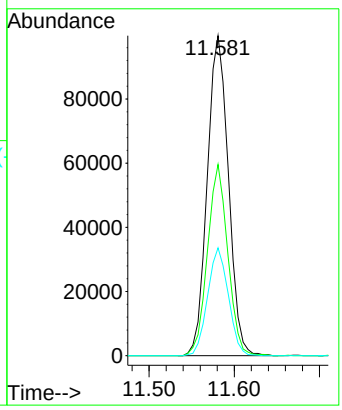


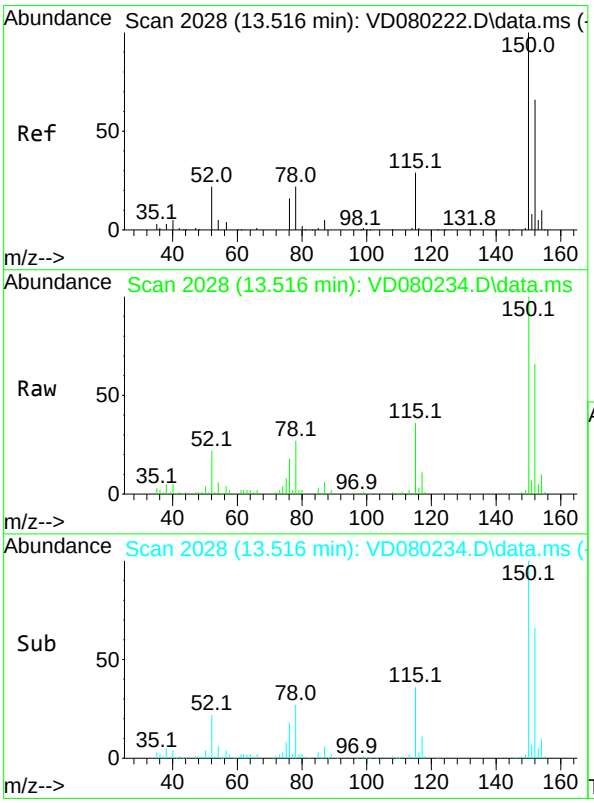
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.581 min Scan# 1
Delta R.T. 0.000 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Tgt Ion:117 Resp: 172019

Ion	Ratio	Lower	Upper
117	100		
82	59.7	45.0	67.6
119	33.7	24.3	36.5

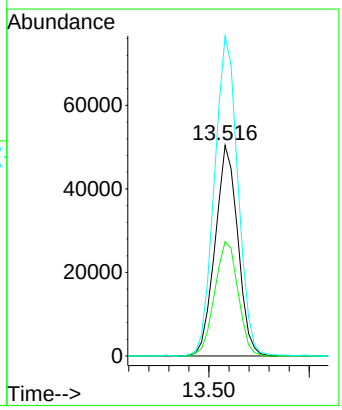




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.516 min Scan# 2028
Delta R.T. 0.000 min
Lab File: VD080234.D
Acq: 04 Feb 2025 12:31

Tgt Ion:152 Resp: 79252

Ion	Ratio	Lower	Upper
152	100		
115	56.0	30.0	90.1
150	157.1	0.0	350.4



Sample Results: **VD080234.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080234.D
Acq On : 04 Feb 2025 12:31
Operator : RP/MD
Sample : VD0204SBL01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Title : SW846 8260

Signal : TIC: VD080234.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.740	19	26	35	rBV	831047	1301356	100.00%	27.049%
2	7.069	921	932	941	rBV	13410	39652	3.05%	0.824%
3	7.805	1047	1057	1063	rBV2	97732	243988	18.75%	5.071%
4	7.875	1063	1069	1080	rVB2	141915	334872	25.73%	6.960%
5	8.228	1117	1129	1142	rBV2	104807	242542	18.64%	5.041%
6	8.775	1213	1222	1233	rBV	222201	468549	36.00%	9.739%
7	10.269	1467	1476	1485	rBV	362336	648920	49.86%	13.488%
8	10.663	1536	1543	1551	rVB	22894	43403	3.34%	0.902%
9	11.028	1599	1605	1610	rBV3	14642	22820	1.75%	0.474%
10	11.581	1692	1699	1709	rBV	319971	554213	42.59%	11.520%
11	12.575	1860	1868	1875	rBV2	240370	398214	30.60%	8.277%
12	13.516	2021	2028	2041	rVB	305571	498260	38.29%	10.357%
13	14.045	2114	2118	2126	rVB3	7646	14277	1.10%	0.297%

Sum of corrected areas: 4811066

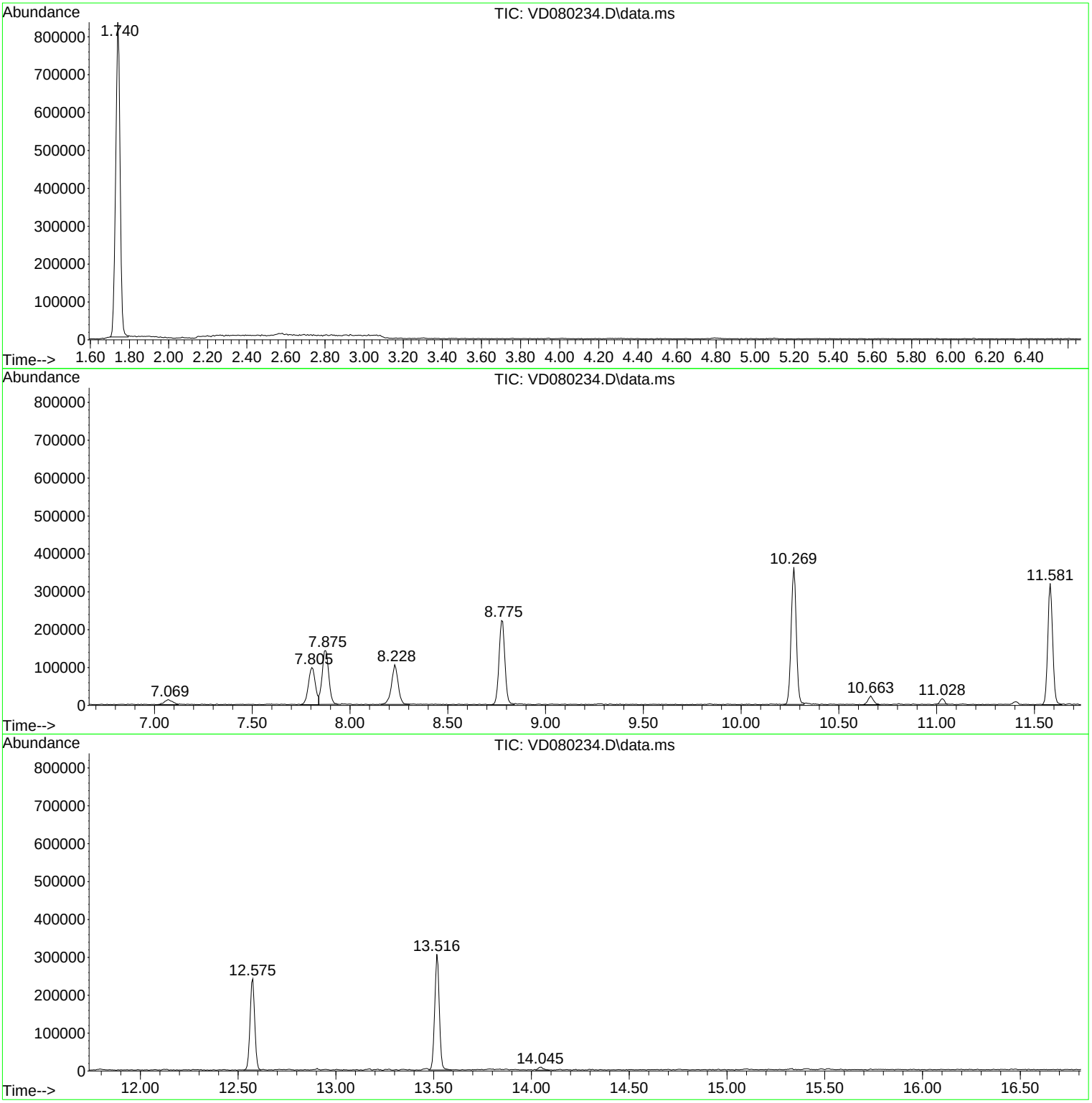
Sample Results: **VD080234.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080234.D
Acq On : 04 Feb 2025 12:31
Operator : RP/MD
Sample : VD0204SBL01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Sample Results: **VD080234.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080234.D
Acq On : 04 Feb 2025 12:31
Operator : RP/MD
Sample : VD0204SBL01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080234.D
Acq On : 04 Feb 2025 12:31
Operator : RP/MD
Sample : VD0204SBL01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBL01

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260

TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Raw Data: **VD080235.D**

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBS01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080235.D	1		02/04/25 13:02	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	24.6		1.70	5.00	ug/Kg
74-87-3	Chloromethane	22.6		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	21.6		0.77	5.00	ug/Kg
74-83-9	Bromomethane	20.8		1.00	5.00	ug/Kg
75-00-3	Chloroethane	22.4		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	20.7		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	21.6		1.10	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.2		0.78	5.00	ug/Kg
67-64-1	Acetone	100		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	20.4		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	20.3		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	22.7		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	21.0		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	21.1		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.0		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	20.0		0.69	5.00	ug/Kg
78-93-3	2-Butanone	100		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	21.1		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.2		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	19.5		2.40	5.00	ug/Kg
67-66-3	Chloroform	21.4		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.2		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	19.6		0.87	5.00	ug/Kg
71-43-2	Benzene	21.1		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	21.3		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	21.4		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	21.6		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	21.0		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.40	25.0	ug/Kg
108-88-3	Toluene	22.4		0.67	5.00	ug/Kg

Raw Data: **VD080235.D**

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBS01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080235.D	1		02/04/25 13:02	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	22.1		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	21.5		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	21.4		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	22.6		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	21.8		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	20.4		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.8		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	40.7		1.40	10.0	ug/Kg
95-47-6	o-Xylene	20.0		0.70	5.00	ug/Kg
100-42-5	Styrene	20.5		0.60	5.00	ug/Kg
75-25-2	Bromoform	21.4		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.4		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.6		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	20.3		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.5		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	20.3		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	19.8		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.6		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	19.6		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.8		70 (50) - 130 (163)	106%	SPK: 50
1868-53-7	Dibromofluoromethane	55.5		70 (54) - 130 (147)	111%	SPK: 50
2037-26-5	Toluene-d8	56.8		70 (58) - 130 (134)	114%	SPK: 50
460-00-4	4-Bromofluorobenzene	58.7		70 (29) - 130 (146)	117%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	121000	7.875			
540-36-3	1,4-Difluorobenzene	198000	8.775			
3114-55-4	Chlorobenzene-d5	188000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	105000	13.516			

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBS01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080235.D	1		02/04/25 13:02	VD020425

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_D\Data\VD020425\
Data File : VD080235.D
Acq On : 04 Feb 2025 13:02
Operator : RP/MD
Sample : VD0204SBS01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 05 00:39:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBS01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	120560	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	198480	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	187950	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	104981	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	82737	52.758	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 105.520%			
35) Dibromofluoromethane	7.799	113	78025	55.467	ug/l	-0.01
Spiked Amount 50.000	Range 54 - 147		Recovery = 110.940%			
50) Toluene-d8	10.269	98	296441	56.827	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 113.660%			
62) 4-Bromofluorobenzene	12.575	95	98284	58.719	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 117.440%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	31824	24.611	ug/l	99
3) Chloromethane	2.152	50	56822	22.626	ug/l	100
4) Vinyl Chloride	2.281	62	65509	21.562	ug/l	96
5) Bromomethane	2.675	94	44257	20.841	ug/l	97
6) Chloroethane	2.828	64	45316	22.394	ug/l	93
7) Trichlorofluoromethane	3.164	101	52145	20.711	ug/l	93
8) Diethyl Ether	3.593	74	14809	21.500	ug/l	95
9) 1,1,2-Trichlorotrifluo...	3.958	101	31411	21.552	ug/l	98
10) Methyl Iodide	4.164	142	29138	26.821	ug/l	99
11) Tert butyl alcohol	5.058	59	9231m	106.560	ug/l	
12) 1,1-Dichloroethene	3.934	96	27949	20.244	ug/l	95
13) Acrolein	3.799	56	16242	99.438	ug/l	97
14) Allyl chloride	4.558	41	45431	21.353	ug/l	100
15) Acrylonitrile	5.263	53	33581	101.476	ug/l	97
16) Acetone	4.028	43	26463	104.703	ug/l	96
17) Carbon Disulfide	4.264	76	101592	20.403	ug/l	97
18) Methyl Acetate	4.569	43	19353	22.693	ug/l	100
19) Methyl tert-butyl Ether	5.316	73	61777	20.325	ug/l	96
20) Methylene Chloride	4.799	84	36044	21.015	ug/l	97
21) trans-1,2-Dichloroethene	5.311	96	33114	21.113	ug/l	98
22) Diisopropyl ether	6.216	45	96868	21.877	ug/l	97
23) Vinyl Acetate	6.158	43	269002	105.231	ug/l	100
24) 1,1-Dichloroethane	6.110	63	60863	20.969	ug/l	97
25) 2-Butanone	7.087	43	40200	102.544	ug/l	98
26) 2,2-Dichloropropane	7.081	77	51711	20.540	ug/l	99
27) cis-1,2-Dichloroethene	7.075	96	35798	20.203	ug/l	98
28) Bromochloromethane	7.422	49	25893	19.548	ug/l	95
29) Tetrahydrofuran	7.446	42	26910	104.804	ug/l	99
30) Chloroform	7.593	83	63422	21.372	ug/l	94
31) Cyclohexane	7.875	56	46406	19.972	ug/l	92
32) 1,1,1-Trichloroethane	7.787	97	50081	20.172	ug/l	98
36) 1,1-Dichloropropene	8.010	75	41912	20.802	ug/l	100
37) Ethyl Acetate	7.175	43	19850	20.092	ug/l	94
38) Carbon Tetrachloride	7.987	117	44444	21.119	ug/l	92
39) Methylcyclohexane	9.269	83	42850	19.576	ug/l	92
40) Benzene	8.252	78	133266	21.102	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080235.D
Acq On : 04 Feb 2025 13:02
Operator : RP/MD
Sample : VD0204SBS01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 05 00:39:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBS01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.405	41	9572	17.601	ug/l	#	90
42) 1,2-Dichloroethane	8.328	62	38341	21.334	ug/l		99
43) Isopropyl Acetate	8.363	43	38233	21.805	ug/l	#	87
44) Trichloroethene	9.028	130	31150	21.351	ug/l		90
45) 1,2-Dichloropropane	9.304	63	34269	21.573	ug/l		95
46) Dibromomethane	9.393	93	19574	22.117	ug/l		97
47) Bromodichloromethane	9.587	83	46862	20.998	ug/l		98
48) Methyl methacrylate	9.381	41	18822m	23.197	ug/l		
49) 1,4-Dioxane	9.393	88	4229	439.259	ug/l		89
51) 4-Methyl-2-Pentanone	10.157	43	97378	109.829	ug/l		97
52) Toluene	10.334	92	82737	22.398	ug/l		97
53) t-1,3-Dichloropropene	10.551	75	42078	22.117	ug/l		96
54) cis-1,3-Dichloropropene	10.016	75	49708	21.479	ug/l		99
55) 1,1,2-Trichloroethane	10.734	97	24615	21.406	ug/l		96
56) Ethyl methacrylate	10.598	69	27944	21.297	ug/l		94
57) 1,3-Dichloropropane	10.881	76	40823	21.463	ug/l		98
58) 2-Chloroethyl Vinyl ether	9.869	63	61423	109.681	ug/l		97
59) 2-Hexanone	10.922	43	64034	110.061	ug/l		97
60) Dibromochloromethane	11.075	129	32088	22.639	ug/l		100
61) 1,2-Dibromoethane	11.181	107	22861	21.829	ug/l		99
64) Tetrachloroethene	10.810	164	26079	19.863	ug/l		94
65) Chlorobenzene	11.604	112	88045	20.436	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.681	131	31381	20.822	ug/l		96
67) Ethyl Benzene	11.681	91	141870	19.796	ug/l		98
68) m/p-Xylenes	11.793	106	113323	40.731	ug/l		99
69) o-Xylene	12.122	106	50691	19.980	ug/l		99
70) Styrene	12.134	104	92785	20.545	ug/l		98
71) Bromoform	12.298	173	19024	21.412	ug/l	#	94
73) Isopropylbenzene	12.422	105	130864	18.429	ug/l		100
74) N-amyl acetate	12.234	43	36618	19.618	ug/l		97
75) 1,1,2,2-Tetrachloroethane	12.675	83	28980	19.613	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	24273m	22.859	ug/l		
77) Bromobenzene	12.698	156	35859	19.578	ug/l		99
78) n-propylbenzene	12.763	91	173693	19.212	ug/l		99
79) 2-Chlorotoluene	12.851	91	102158	19.890	ug/l		100
80) 1,3,5-Trimethylbenzene	12.904	105	116744	19.659	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.469	75	10160	19.565	ug/l		93
82) 4-Chlorotoluene	12.945	91	110613	20.266	ug/l		99
83) tert-Butylbenzene	13.163	119	92126	18.976	ug/l		98
84) 1,2,4-Trimethylbenzene	13.210	105	118680	19.634	ug/l		98
85) sec-Butylbenzene	13.345	105	146083	19.680	ug/l		99
86) p-Isopropyltoluene	13.457	119	123698	19.516	ug/l		98
87) 1,3-Dichlorobenzene	13.457	146	73165	20.281	ug/l		99
88) 1,4-Dichlorobenzene	13.534	146	74757	20.474	ug/l		100
89) n-Butylbenzene	13.787	91	121116	19.664	ug/l		97
90) Hexachloroethane	14.051	117	28443	20.191	ug/l		96
91) 1,2-Dichlorobenzene	13.828	146	64553	20.307	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.445	75	4650	19.780	ug/l		89
93) 1,2,4-Trichlorobenzene	15.098	180	37746	18.628	ug/l		96
94) Hexachlorobutadiene	15.198	225	20651	18.818	ug/l		97
95) Naphthalene	15.334	128	64778	20.358	ug/l		98
96) 1,2,3-Trichlorobenzene	15.522	180	35887	19.625	ug/l		97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080235.D
Acq On : 04 Feb 2025 13:02
Operator : RP/MD
Sample : VD0204SBS01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBS01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025

Quant Time: Feb 05 00:39:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

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

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

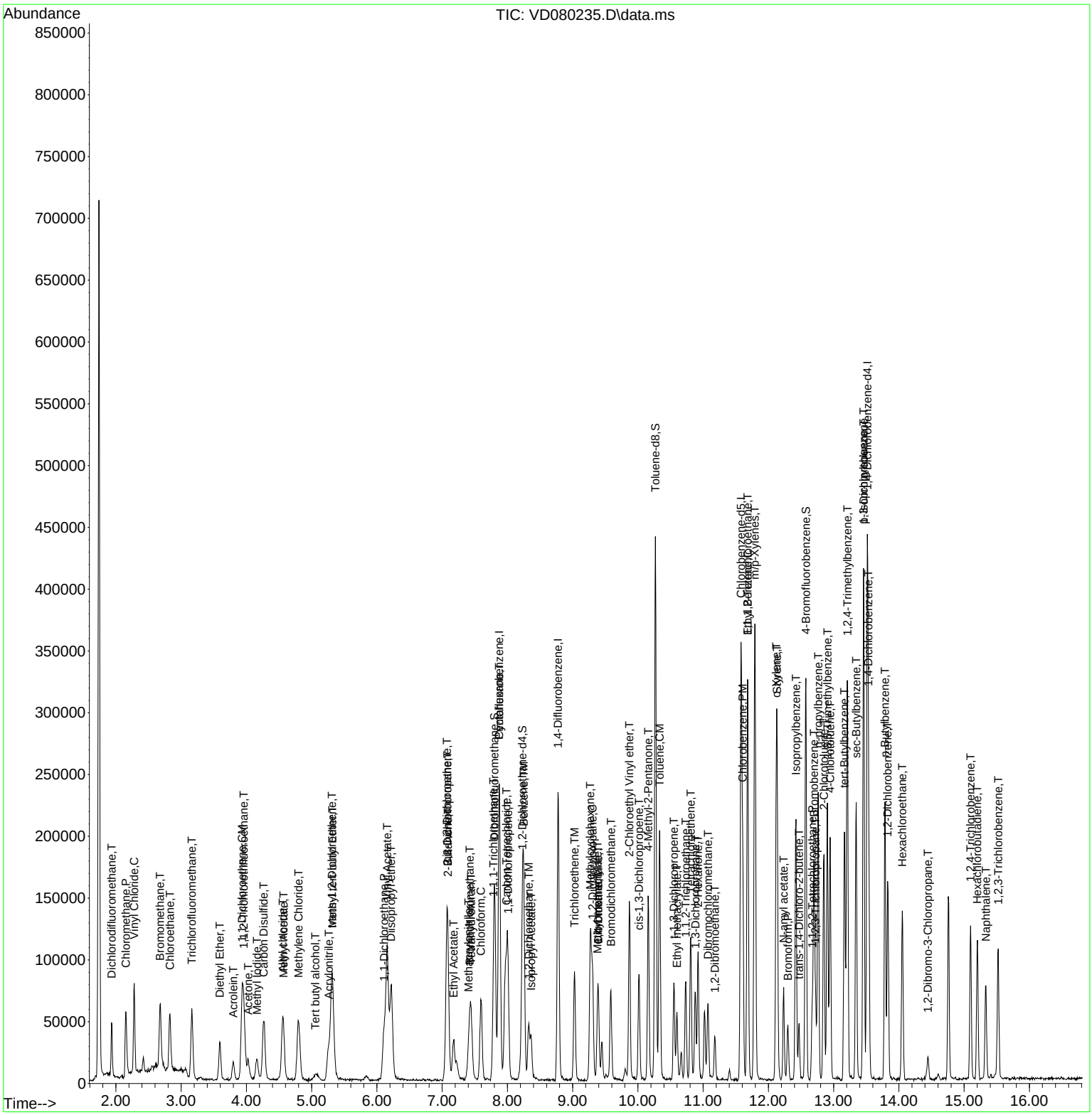
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080235.D
Acq On : 04 Feb 2025 13:02
Operator : RP/MD
Sample : VD0204SBS01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 05 00:39:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBS01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025



Raw Data: **VD080236.D**

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBSD01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080236.D	1		02/04/25 13:30	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	23.5		1.70	5.00	ug/Kg
74-87-3	Chloromethane	22.4		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	21.5		0.77	5.00	ug/Kg
74-83-9	Bromomethane	21.3		1.00	5.00	ug/Kg
75-00-3	Chloroethane	21.1		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	20.4		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	20.8		1.10	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.2		0.78	5.00	ug/Kg
67-64-1	Acetone	120		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	19.4		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.4		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	23.4		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	21.8		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	20.0		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.4		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	19.2		0.69	5.00	ug/Kg
78-93-3	2-Butanone	110		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.3		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	19.7		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	21.9		2.40	5.00	ug/Kg
67-66-3	Chloroform	20.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.4		0.87	5.00	ug/Kg
71-43-2	Benzene	19.8		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.9		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	20.3		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.9		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	21.4		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	120		4.40	25.0	ug/Kg
108-88-3	Toluene	20.7		0.67	5.00	ug/Kg

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBSD01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080236.D	1		02/04/25 13:30	VD020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	21.5		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.8		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	22.7		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	120		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	21.3		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	22.1		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.5		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.4		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.7		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.5		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.4		0.70	5.00	ug/Kg
100-42-5	Styrene	19.4		0.60	5.00	ug/Kg
75-25-2	Bromoform	21.1		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	17.4		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.7		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.4		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.1		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.8		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.3		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.6		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.5		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.2		70 (50) - 130 (163)	112%	SPK: 50
1868-53-7	Dibromofluoromethane	54.7		70 (54) - 130 (147)	109%	SPK: 50
2037-26-5	Toluene-d8	56.4		70 (58) - 130 (134)	113%	SPK: 50
460-00-4	4-Bromofluorobenzene	58.2		70 (29) - 130 (146)	116%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	119000	7.875			
540-36-3	1,4-Difluorobenzene	200000	8.775			
3114-55-4	Chlorobenzene-d5	189000	11.581			
3855-82-1	1,4-Dichlorobenzene-d4	106000	13.516			

Raw Data: **VD080236.D**

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

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	
Project:	1063 Lafayette Ave, Hawthorne, NJ	Date Received:	
Client Sample ID:	VD0204SBSD01	SDG No.:	Q1236
Lab Sample ID:	VD0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VD080236.D	1		02/04/25 13:30	VD020425

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_D\Data\VD020425\
Data File : VD080236.D
Acq On : 04 Feb 2025 13:30
Operator : RP/MD
Sample : VD0204SBSD01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 00:40:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBSD01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	7.875	168	119247	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.775	114	199616	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.581	117	189350	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.516	152	105681	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.228	65	87150	56.184	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 112.360%			
35) Dibromofluoromethane	7.805	113	77390	54.703	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 109.400%			
50) Toluene-d8	10.269	98	295775	56.376	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 112.760%			
62) 4-Bromofluorobenzene	12.569	95	98007	58.220	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 116.440%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.934	85	30296	23.544	ug/l	96
3) Chloromethane	2.152	50	55638	22.398	ug/l	95
4) Vinyl Chloride	2.281	62	64463	21.451	ug/l	97
5) Bromomethane	2.670	94	44464	21.317	ug/l	96
6) Chloroethane	2.828	64	42316	21.141	ug/l	96
7) Trichlorofluoromethane	3.164	101	50783	20.392	ug/l	96
8) Diethyl Ether	3.593	74	15524	22.786	ug/l	100
9) 1,1,2-Trichlorotrifluo...	3.958	101	29999	20.810	ug/l	99
10) Methyl Iodide	4.158	142	27267	25.659	ug/l	98
11) Tert butyl alcohol	5.063	59	11651	135.976	ug/l #	89
12) 1,1-Dichloroethene	3.940	96	27533	20.162	ug/l	84
13) Acrolein	3.799	56	18609	115.184	ug/l	95
14) Allyl chloride	4.552	41	44234	21.019	ug/l	97
15) Acrylonitrile	5.252	53	36535	111.618	ug/l	100
16) Acetone	4.022	43	29426	117.708	ug/l #	84
17) Carbon Disulfide	4.264	76	95437	19.378	ug/l	100
18) Methyl Acetate	4.564	43	19741	23.403	ug/l	100
19) Methyl tert-butyl Ether	5.316	73	64299	21.387	ug/l	94
20) Methylene Chloride	4.805	84	37002	21.811	ug/l	91
21) trans-1,2-Dichloroethene	5.299	96	31093	20.042	ug/l	87
22) Diisopropyl ether	6.216	45	98127	22.406	ug/l	98
23) Vinyl Acetate	6.158	43	281092	111.171	ug/l	100
24) 1,1-Dichloroethane	6.110	63	61421	21.394	ug/l	98
25) 2-Butanone	7.081	43	44569	114.941	ug/l	95
26) 2,2-Dichloropropane	7.075	77	47695	19.154	ug/l	96
27) cis-1,2-Dichloroethene	7.081	96	34538	19.707	ug/l	99
28) Bromochloromethane	7.422	49	28635	21.856	ug/l #	16
29) Tetrahydrofuran	7.446	42	29794	117.313	ug/l	100
30) Chloroform	7.599	83	60085	20.470	ug/l	93
31) Cyclohexane	7.875	56	44209	19.236	ug/l #	91
32) 1,1,1-Trichloroethane	7.787	97	48853	19.894	ug/l	97
36) 1,1-Dichloropropene	8.005	75	39013	19.253	ug/l	96
37) Ethyl Acetate	7.169	43	20479	20.610	ug/l #	93
38) Carbon Tetrachloride	7.993	117	40905	19.326	ug/l	92
39) Methylcyclohexane	9.275	83	40459	18.378	ug/l	95
40) Benzene	8.252	78	125481	19.756	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080236.D
Acq On : 04 Feb 2025 13:30
Operator : RP/MD
Sample : VD0204SBSD01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 00:40:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBSD01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.399	41	9495	17.360	ug/l	#	85
42) 1,2-Dichloroethane	8.322	62	37701	20.859	ug/l		96
43) Isopropyl Acetate	8.363	43	39502	22.400	ug/l		98
44) Trichloroethene	9.028	130	29758	20.281	ug/l		98
45) 1,2-Dichloropropane	9.299	63	33432	20.927	ug/l		92
46) Dibromomethane	9.393	93	19161	21.528	ug/l		97
47) Bromodichloromethane	9.581	83	47926	21.352	ug/l		94
48) Methyl methacrylate	9.381	41	17571	21.532	ug/l		95
49) 1,4-Dioxane	9.387	88	4341	448.326	ug/l	#	82
51) 4-Methyl-2-Pentanone	10.157	43	106452	119.380	ug/l		98
52) Toluene	10.334	92	76887	20.695	ug/l		99
53) t-1,3-Dichloropropene	10.551	75	41138	21.500	ug/l		96
54) cis-1,3-Dichloropropene	10.016	75	48460	20.821	ug/l		97
55) 1,1,2-Trichloroethane	10.728	97	26229	22.679	ug/l		91
56) Ethyl methacrylate	10.593	69	29099	22.051	ug/l		95
57) 1,3-Dichloropropane	10.875	76	42331	22.130	ug/l		97
58) 2-Chloroethyl Vinyl ether	9.869	63	67165	119.252	ug/l		98
59) 2-Hexanone	10.922	43	70995	121.331	ug/l		96
60) Dibromochloromethane	11.075	129	30378	21.310	ug/l		96
61) 1,2-Dibromoethane	11.181	107	23303	22.124	ug/l		97
64) Tetrachloroethene	10.804	164	25787	19.495	ug/l		98
65) Chlorobenzene	11.604	112	84280	19.418	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.675	131	30198	19.888	ug/l		98
67) Ethyl Benzene	11.681	91	134862	18.679	ug/l		97
68) m/p-Xylenes	11.793	106	105226	37.541	ug/l		99
69) o-Xylene	12.122	106	47153	18.448	ug/l		95
70) Styrene	12.134	104	88470	19.445	ug/l		99
71) Bromoform	12.298	173	18884	21.098	ug/l	#	98
73) Isopropylbenzene	12.422	105	124357	17.397	ug/l		99
74) N-amyl acetate	12.234	43	38490	20.484	ug/l		97
75) 1,1,2,2-Tetrachloroethane	12.669	83	30824	20.723	ug/l		99
76) 1,2,3-Trichloropropane	12.722	75	23965m	22.419	ug/l		
77) Bromobenzene	12.698	156	35945	19.495	ug/l		96
78) n-propylbenzene	12.763	91	159832	17.562	ug/l		100
79) 2-Chlorotoluene	12.845	91	94386	18.255	ug/l		99
80) 1,3,5-Trimethylbenzene	12.904	105	109747	18.358	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.469	75	10883	20.818	ug/l		90
82) 4-Chlorotoluene	12.945	91	103904	18.910	ug/l		96
83) tert-Butylbenzene	13.163	119	90093	18.434	ug/l		95
84) 1,2,4-Trimethylbenzene	13.210	105	113266	18.614	ug/l		99
85) sec-Butylbenzene	13.345	105	137250	18.367	ug/l		99
86) p-Isopropyltoluene	13.457	119	115678	18.130	ug/l		99
87) 1,3-Dichlorobenzene	13.457	146	70495	19.411	ug/l		98
88) 1,4-Dichlorobenzene	13.534	146	73953	20.119	ug/l		98
89) n-Butylbenzene	13.787	91	110227	17.778	ug/l		99
90) Hexachloroethane	14.051	117	27604	19.466	ug/l		99
91) 1,2-Dichlorobenzene	13.828	146	63406	19.814	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.445	75	4802	20.291	ug/l		97
93) 1,2,4-Trichlorobenzene	15.092	180	38021	18.640	ug/l		98
94) Hexachlorobutadiene	15.198	225	19928	18.039	ug/l		96
95) Naphthalene	15.328	128	68289	21.268	ug/l		100
96) 1,2,3-Trichlorobenzene	15.522	180	34039	18.491	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080236.D
Acq On : 04 Feb 2025 13:30
Operator : RP/MD
Sample : VD0204SBSD01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBSD01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025

Quant Time: Feb 05 00:40:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

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

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

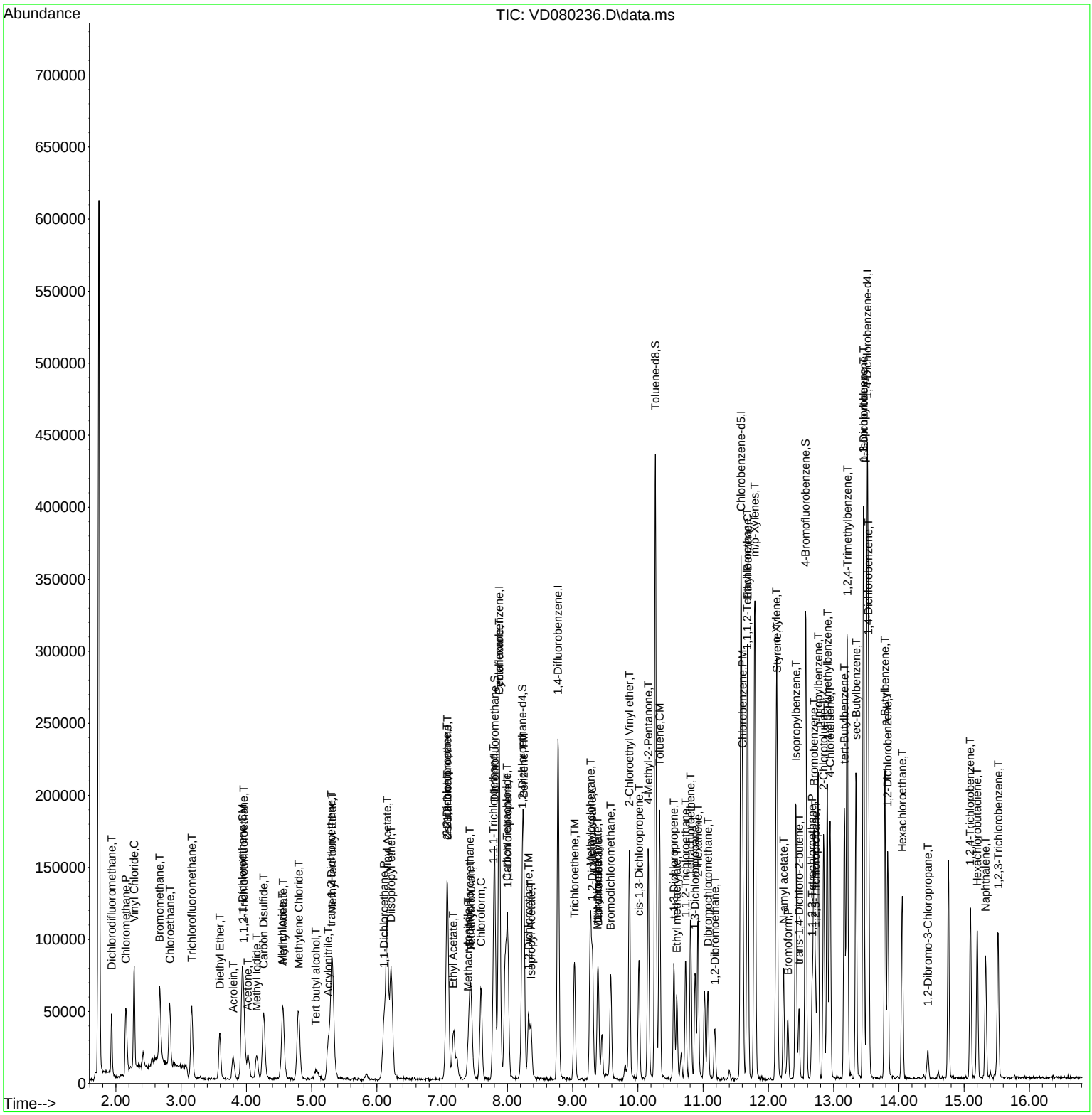
Data Path : Z:\voasrv\HPCHEM1\MSVOA_D\Data\VD020425\
Data File : VD080236.D
Acq On : 04 Feb 2025 13:30
Operator : RP/MD
Sample : VD0204SBSD01
Misc : 5.00G/5ml/MSVOA_D/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 00:40:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_D\Method\82D020325S.M
Quant Title : SW846 8260
QLast Update : Tue Feb 04 05:44:14 2025
Response via : Initial Calibration

Instrument :
MSVOA_D
ClientSampleId :
VD0204SBSD01

Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 02/06/2025
Supervised By :Semsettin Yesilyurt 02/06/2025



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

Manual Integration Report

Sequence:	vd020325	Instrument	MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VD080219.D	1,2,3-Trichloropropane	MMDadoda	2/4/2025 3:46:21 PM	SAM	2/4/2025 3:48:59 PM	Peak Integrated by Software
VSTDICC005	VD080219.D	Tert butyl alcohol	MMDadoda	2/4/2025 3:46:21 PM	SAM	2/4/2025 3:48:59 PM	Peak Integrated by Software
VSTDICC010	VD080220.D	1,2,3-Trichloropropane	MMDadoda	2/4/2025 3:46:23 PM	SAM	2/4/2025 3:49:00 PM	Peak Integrated by Software
VSTDICC010	VD080220.D	Methacrylonitrile	MMDadoda	2/4/2025 3:46:23 PM	SAM	2/4/2025 3:49:00 PM	Peak Integrated by Software
VSTDICC020	VD080221.D	1,2,3-Trichloropropane	MMDadoda	2/4/2025 3:46:25 PM	SAM	2/4/2025 3:49:02 PM	Peak Integrated by Software
VSTDICCC050	VD080222.D	1,2,3-Trichloropropane	MMDadoda	2/4/2025 3:46:27 PM	SAM	2/4/2025 3:49:04 PM	Peak Integrated by Software
VSTDICC100	VD080223.D	1,2,3-Trichloropropane	MMDadoda	2/4/2025 3:46:29 PM	SAM	2/4/2025 3:49:05 PM	Peak Integrated by Software
VSTDICC150	VD080224.D	1,2,3-Trichloropropane	MMDadoda	2/4/2025 3:46:30 PM	SAM	2/4/2025 3:49:07 PM	Peak Integrated by Software
VSTDICV050	VD080226.D	1,2,3-Trichloropropane	MMDadoda	2/4/2025 3:46:32 PM	SAM	2/4/2025 3:49:08 PM	Peak Integrated by Software
VSTDICV050	VD080226.D	Methacrylonitrile	MMDadoda	2/4/2025 3:46:32 PM	SAM	2/4/2025 3:49:08 PM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	VD020425	Instrument	MSVOA_d

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VD080233.D	1,2,3-Trichloropropane	MMDadoda	2/6/2025 11:05:27 AM	SAM	2/6/2025 11:07:26 AM	Peak Integrated by Software
VD0204SBS01	VD080235.D	1,2,3-Trichloropropane	MMDadoda	2/6/2025 11:05:28 AM	SAM	2/6/2025 11:07:27 AM	Peak Integrated by Software
VD0204SBS01	VD080235.D	Methyl methacrylate	MMDadoda	2/6/2025 11:05:28 AM	SAM	2/6/2025 11:07:27 AM	Peak Integrated by Software
VD0204SBS01	VD080235.D	Tert butyl alcohol	MMDadoda	2/6/2025 11:05:28 AM	SAM	2/6/2025 11:07:27 AM	Peak Integrated by Software
VD0204SBSD01	VD080236.D	1,2,3-Trichloropropane	MMDadoda	2/6/2025 11:05:30 AM	SAM	2/6/2025 11:07:29 AM	Peak Integrated by Software

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD020325

Review By	Mahesh Dadoda	Review On	2/4/2025 3:46:42 PM		
Supervise By	Semsettin Yesilyurt	Supervise On	2/4/2025 3:49:18 PM		
SubDirectory	VD020325	HP Acquire Method		HP Processing Method	82D020325s.m

STD. NAME	STD REF.#
Tune/Reschk	VP132840
Initial Calibration Stds	VP132838,VP132842,VP132844,VP132846,VP132848,VP132850
CCC	VP132854
Internal Standard/PEM	VP131783
ICV/I.BLK	VP132852
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VD080218.D	03 Feb 2025 09:37	RP/MD	Ok
2	VSTDICC005	VD080219.D	03 Feb 2025 10:27	RP/MD	Ok,M
3	VSTDICC010	VD080220.D	03 Feb 2025 10:54	RP/MD	Ok,M
4	VSTDICC020	VD080221.D	03 Feb 2025 11:21	RP/MD	Ok,M
5	VSTDICCC050	VD080222.D	03 Feb 2025 11:48	RP/MD	Ok,M
6	VSTDICC100	VD080223.D	03 Feb 2025 12:15	RP/MD	Ok,M
7	VSTDICC150	VD080224.D	03 Feb 2025 12:42	RP/MD	Ok,M
8	VIBLK	VD080225.D	03 Feb 2025 13:10	RP/MD	Ok
9	VSTDICV050	VD080226.D	03 Feb 2025 14:15	RP/MD	Ok,M
10	VD0203SBL01	VD080227.D	03 Feb 2025 15:12	RP/MD	Ok
11	VD0203SBS01	VD080228.D	03 Feb 2025 16:05	RP/MD	Ok,M
12	VD0203SBSD01	VD080229.D	03 Feb 2025 16:33	RP/MD	Ok,M
13	Q1271-01	VD080230.D	03 Feb 2025 17:57	RP/MD	ReRun

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD020425

Review By	Mahesh Dadoda	Review On	2/6/2025 11:05:33 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	2/6/2025 11:07:33 AM		
SubDirectory	VD020425	HP Acquire Method		HP Processing Method	82y020325s.m

STD. NAME	STD REF.#
Tune/Reschk	VP132862
Initial Calibration Stds	
CCC	VP132863,VP132864
Internal Standard/PEM	VP131783
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VD080232.D	04 Feb 2025 09:25	RP/MD	Ok
2	VSTDCCC050	VD080233.D	04 Feb 2025 11:55	RP/MD	Ok,M
3	VD0204SBL01	VD080234.D	04 Feb 2025 12:31	RP/MD	Ok
4	VD0204SBS01	VD080235.D	04 Feb 2025 01:02 pm	RP/MD	Ok,M
5	VD0204SBSD01	VD080236.D	04 Feb 2025 01:30 pm	RP/MD	Ok,M
6	Q1254-01	VD080237.D	04 Feb 2025 15:25	RP/MD	Ok
7	Q1236-02	VD080238.D	04 Feb 2025 15:53	RP/MD	Ok
8	Q1277-01	VD080239.D	04 Feb 2025 16:33	RP/MD	Not Ok

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD020325

Review By	Mahesh Dadoda	Review On	2/4/2025 3:46:42 PM		
Supervise By	Semsettin Yesilyurt	Supervise On	2/4/2025 3:49:18 PM		
SubDirectory	VD020325	HP Acquire Method		HP Processing Method	82D020325s.m

STD. NAME	STD REF.#
Tune/Reschk	VP132840
Initial Calibration Stds	VP132838,VP132842,VP132844,VP132846,VP132848,VP132850
CCC	VP132854
Internal Standard/PEM	VP131783
ICV/I.BLK	VP132852
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VD080218.D	03 Feb 2025 09:37		RP/MD	Ok
2	VSTDICC005	VSTDICC005	VD080219.D	03 Feb 2025 10:27	%D Failed for com.#05 in 5 ppb	RP/MD	Ok,M
3	VSTDICC010	VSTDICC010	VD080220.D	03 Feb 2025 10:54	Com.#02 on LR And Com.# 05,10,95 is on QR	RP/MD	Ok,M
4	VSTDICC020	VSTDICC020	VD080221.D	03 Feb 2025 11:21		RP/MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VD080222.D	03 Feb 2025 11:48		RP/MD	Ok,M
6	VSTDICC100	VSTDICC100	VD080223.D	03 Feb 2025 12:15		RP/MD	Ok,M
7	VSTDICC150	VSTDICC150	VD080224.D	03 Feb 2025 12:42		RP/MD	Ok,M
8	VIBLK	VIBLK	VD080225.D	03 Feb 2025 13:10		RP/MD	Ok
9	VSTDICV050	ICVVD020325	VD080226.D	03 Feb 2025 14:15	ICV failed for com.#58	RP/MD	Ok,M
10	VD0203SBL01	VD0203SBL01	VD080227.D	03 Feb 2025 15:12		RP/MD	Ok
11	VD0203SBS01	VD0203SBS01	VD080228.D	03 Feb 2025 16:05		RP/MD	Ok,M
12	VD0203SBSD01	VD0203SBSD01	VD080229.D	03 Feb 2025 16:33		RP/MD	Ok,M
13	Q1271-01	RBR200030	VD080230.D	03 Feb 2025 17:57	VIAL- A Internal standard fail;Surrogate fail	RP/MD	ReRun

M : Manual Integration

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

Instrument ID: MSVOA_D

Daily Analysis Runlog For Sequence/QCBatch ID # VD020425

Review By	Mahesh Dadoda	Review On	2/6/2025 11:05:33 AM		
Supervise By	Semsettin Yesilyurt	Supervise On	2/6/2025 11:07:33 AM		
SubDirectory	VD020425	HP Acquire Method		HP Processing Method	82y020325s.m

STD. NAME	STD REF.#
Tune/Reschk	VP132862
Initial Calibration Stds	
CCC	VP132863,VP132864
Internal Standard/PEM	VP131783
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VD080232.D	04 Feb 2025 09:25		RP/MD	Ok
2	VSTDCCC050	VSTDCCC050	VD080233.D	04 Feb 2025 11:55		RP/MD	Ok,M
3	VD0204SBL01	VD0204SBL01	VD080234.D	04 Feb 2025 12:31		RP/MD	Ok
4	VD0204SBS01	VD0204SBS01	VD080235.D	04 Feb 2025 01:02 pm		RP/MD	Ok,M
5	VD0204SBSD01	VD0204SBSD01	VD080236.D	04 Feb 2025 01:30 pm		RP/MD	Ok,M
6	Q1254-01	OK-02-01312025	VD080237.D	04 Feb 2025 15:25	Internal Standard Fail vial-A	RP/MD	Ok
7	Q1236-02	VOC	VD080238.D	04 Feb 2025 15:53	Internal Standard Fail vial-B	RP/MD	Ok
8	Q1277-01	RT 3249-VOC	VD080239.D	04 Feb 2025 16:33	Not purge vial-A	RP/MD	Not Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:35
In Date: 01/31/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 02/01/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134497

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
Q1236-01	WASTE	17	1.14	8.55	9.69	8.12	81.6	
Q1236-02	VOC	18	1.13	8.71	9.84	8.3	82.3	
Q1236-03	1	19	1.17	8.50	9.67	8.2	82.7	
Q1236-04	2	20	1.17	8.60	9.77	8.2	81.7	
Q1236-05	3	21	1.15	8.84	9.99	8.35	81.4	
Q1236-06	4	22	1.16	8.53	9.69	8.24	83.0	
Q1236-07	5	23	1.15	8.82	9.97	8.48	83.1	
Q1241-01	JPP-3.5-013025	1	1.15	8.58	9.73	8.41	84.6	
Q1241-03	JPP-3.5-013025	2	1.12	8.76	9.88	8.3	82.0	
Q1241-05	JPP-5.3-013025	3	1.15	8.43	9.58	8.68	89.3	
Q1241-07	JPP-5.3-013025	4	1.11	8.77	9.88	8.81	87.8	
Q1241-09	JPP-5.2-013025	5	1.15	8.59	9.74	8.65	87.3	
Q1241-11	JPP-5.2-013025	6	1.12	8.41	9.53	8.58	88.7	
Q1241-13	JPP-5.4-013025	7	1.16	8.66	9.82	8.69	87.0	
Q1241-15	JPP-5.4-013025	8	1.18	8.45	9.63	8.5	86.6	
Q1241-17	JPP-51.4-013025	9	1.14	8.55	9.69	9.12	93.3	
Q1241-19	JPP-51.4-013025	10	1.16	8.51	9.67	9.09	93.2	
Q1242-01	JPP-6.2-013025	11	1.15	8.80	9.95	8.32	81.5	
Q1242-03	JPP-6.2-013025	12	1.13	8.60	9.73	8.11	81.2	
Q1243-01	CL-01-01302025	13	1.16	8.40	9.56	9.12	94.8	
Q1243-02	CL-01-01302025-E2	14	1.13	8.70	9.83	9.36	94.6	
Q1244-01	EO-02-01302025	15	1.18	8.71	9.89	9.36	93.9	
Q1244-02	EO-02-01302025-E2	16	1.12	8.80	9.92	9.42	94.3	
Q1254-01	OK-02-01312025	24	1.16	8.40	9.56	8.48	87.1	
Q1254-02	OK-02-01312025-E2	25	1.15	8.83	9.98	9.6	95.7	
Q1257-01	013025	42	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1258-01	112224A	43	1.00	1.00	2.00	2.00	100.0	debris
Q1259-01	12825	44	1.14	8.70	9.84	8.7	86.9	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:35
In Date: 01/31/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 02/01/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134497

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
Q1260-01	12925-A	45	1.00	1.00	2.00	2.00	100.0	debris
Q1260-02	12925-BC	46	1.16	8.42	9.58	9.2	95.5	
Q1261-01	CHRT-20430	47	1.14	8.43	9.57	5.86	56.0	
Q1261-02	CHRT-20430-E2	48	1.12	8.77	9.89	5.93	54.8	
Q1262-01	ETGI-371	49	1.15	8.70	9.85	8.64	86.1	
Q1262-02	ETGI-371-E2	50	1.16	8.82	9.98	8.78	86.4	
Q1262-03	CONCRETE-PAD	51	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1262-04	CONCRETE-PAD-E2	52	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1262-05	3762	53	1.00	1.00	2.00	2.00	100.0	debris
Q1263-01	KMA9027-1-1	54	1.00	1.00	2.00	2.00	100.0	oilc
Q1263-02	KMA9027-1-2	55	1.00	1.00	2.00	2.00	100.0	oilc
Q1263-03	BC274653-1-1	56	1.00	1.00	2.00	2.00	100.0	oilc
Q1263-04	BC274653-1-2	57	1.00	1.00	2.00	2.00	100.0	oilc
Q1264-01	AUD-1606	26	1.18	8.62	9.8	9.63	98.0	
Q1264-02	AUD-25-0008	27	1.11	8.71	9.82	7.77	76.5	
Q1265-01	AUD-25-0006	28	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1267-01	TRE-25-0003	29	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1267-02	TRE-25-0009	30	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1267-03	TRE-25-0011	31	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1268-05	SVOC-GPC-BLANK	32	1.00	1.00	2.00	2.00	100.0	
Q1268-06	PEST-GPC-BLANK	33	1.00	1.00	2.00	2.00	100.0	
Q1268-07	PEST-GPC-BLANK-SPIKE	34	1.00	1.00	2.00	2.00	100.0	
Q1268-08	PCB-GPC-BLANK	35	1.00	1.00	2.00	2.00	100.0	
Q1268-09	PCB-GPC-BLANK-SPIKE	36	1.00	1.00	2.00	2.00	100.0	
Q1268-10	SVOC-GPC2-BLANK	37	1.00	1.00	2.00	2.00	100.0	
Q1268-11	PEST-GPC2-BLANK	38	1.00	1.00	2.00	2.00	100.0	
Q1268-12	PEST-GPC2-BLANK-SPIKE	39	1.00	1.00	2.00	2.00	100.0	
Q1268-13	PCB-GPC2-BLANK	40	1.00	1.00	2.00	2.00	100.0	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:35
In Date: 01/31/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 02/01/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134497

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
Q1268-14	PCB-GPC2-BLANK-SPIKE	41	1.00	1.00	2.00	2.00	100.0	
Q1269-01	VNJ-231	58	1.17	8.81	9.98	9.00	88.9	
Q1269-02	VNJ-231-E2	59	1.12	8.86	9.98	9.1	90.1	
Q1270-01	BC247799-1-1	60	1.00	1.00	2.00	2.00	100.0	pilc
Q1270-02	BC247799-1-2	61	1.00	1.00	2.00	2.00	100.0	pilc
Q1270-03	BC274768-1-1	62	1.00	1.00	2.00	2.00	100.0	pilc
Q1270-04	BC274768-1-2	63	1.00	1.00	2.00	2.00	100.0	pilc
Q1270-05	BC274768-2-1	64	1.00	1.00	2.00	2.00	100.0	pilc
Q1270-06	BC274768-2-2	65	1.00	1.00	2.00	2.00	100.0	pilc
Q1271-01	RBR200030	66	1.12	8.74	9.86	8.87	88.7	
Q1271-02	RBR200030-E2	67	1.17	8.53	9.7	9.02	92.0	
Q1271-03	3189-3196	68	1.00	1.00	2.00	2.00	100.0	oil sample

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

WORKLIST(Hardcopy Internal Chain)

R134497

WorkList Name : %1-013125 **WorkList ID :** 187328 **Department :** Wet-Chemistry **Date :** 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1236-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-02	VOC	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-03	1	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-04	2	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-05	3	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-06	4	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-07	5	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1241-01	JPP-3.5-013025	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1241-03	JPP-3.5-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-05	JPP-5.3-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-07	JPP-5.3-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-09	JPP-5.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-11	JPP-5.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-13	JPP-5.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-15	JPP-5.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-17	JPP-51.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-19	JPP-51.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1242-01	JPP-6.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1242-03	JPP-6.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1243-01	CL-01-01302025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1243-02	CL-01-01302025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/30/2025	Chemtech -SO

Date/Time 01/31/25 16:10

Raw Sample Received by: JD (JC)

Raw Sample Relinquished by: RJ (CEAT-Lab)

Date/Time 01/31/25 17:50

Raw Sample Received by: RJ (CEAT-Lab)

Raw Sample Relinquished by: JD (JC)

WORKLIST(Hardcopy Internal Chain)

134497

WorkList Name : %1-013125 **WorkList ID :** 187328 **Department :** Wet-Chemistry **Date :** 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1244-01	EO-02-01302025	Solid	Percent Solids	Cool 4 deg C	PSEG05	N51	01/30/2025	Chemtech -SO
Q1244-02	EO-02-01302025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N51	01/30/2025	Chemtech -SO
Q1254-01	OK-02-01312025	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/31/2025	Chemtech -SO
Q1254-02	OK-02-01312025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/31/2025	Chemtech -SO
Q1257-01	013025	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1258-01	112224A	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1259-01	12825	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1260-01	12925-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1260-02	12925-BC	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1261-01	CHRT-20430	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1261-02	CHRT-20430-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-01	ETGI-371	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-02	ETGI-371-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-03	CONCRETE-PAD	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-04	CONCRETE-PAD-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-05	3762	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1263-01	KMA9027-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1263-02	KMA9027-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N11	01/31/2025	Chemtech -SO
Q1263-03	BC274653-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N11	01/31/2025	Chemtech -SO
Q1263-04	BC274653-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N11	01/31/2025	Chemtech -SO
Q1264-01	AUD-1606	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO

Date/Time 01/31/25 16:10

Raw Sample Received by: SD CEDC

Raw Sample Relinquished by: RJ CEDC-Cab

Date/Time 01/31/25 17:50

Raw Sample Received by: RJ CEDC-Cab

Raw Sample Relinquished by: SD CEDC

WORKLIST(Hardcopy Internal Chain)

VB134497

WorkList Name : %1-013125 **WorkList ID :** 187328 **Department :** Wet-Chemistry **Date :** 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1264-02	AUD-25-0008	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1265-01	AUD-25-0006	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1267-01	TRE-25-0003	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1267-02	TRE-25-0009	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1267-03	TRE-25-0011	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1268-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1269-01	VNJ-231	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1269-02	VNJ-231-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	01/31/2025	Chemtech -SO
Q1270-01	BC247799-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	01/31/2025	Chemtech -SO
Q1270-02	BC247799-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1270-03	BC274768-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1270-04	BC274768-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO

Date/Time 01/31/25 16:10

Raw Sample Received by: JA (WOC)

Raw Sample Relinquished by: RJ (TEKLab)

Date/Time 01/31/25 17:50

Raw Sample Received by: RJ (TEKLab)

Raw Sample Relinquished by: JA (WOC)

WORKLIST(Hardcopy Internal Chain)

IR-134497

WorkList Name : %1-013125 **WorkList ID :** 187328 **Department :** Wet-Chemistry **Date :** 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1270-05	BC274768-2-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1270-06	BC274768-2-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1271-01	RBR200030	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1271-02	RBR200030-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D21	01/31/2025	Chemtech -SO
Q1271-03	3189-3196	Solid	Percent Solids	Cool 4 deg C	PSEG03	D21	01/31/2025	Chemtech -SO

Date/Time 01/31/25 16:10

Raw Sample Received by: JD WDC

Raw Sample Relinquished by: RJ CEXT-lab

Date/Time 01/31/25 17:50

Raw Sample Received by: RJ CEXT-lab

Raw Sample Relinquished by: JD WDC

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

Prep Standard - Chemical Standard Summary

Order ID : Q1236

Test : VOC-TCLVOA-10

Prepbatch ID :

Sequence ID/Qc Batch ID: VD020425,

Standard ID :
VP130432,VP131767,VP131783,VP132035,VP132036,VP132098,VP132468,VP132469,VP132613,VP132614,VP132862,VP132863,VP132864,

Chemical ID :
V13391,V13446,V13466,V13707,V14145,V14154,V14175,V14176,V14289,V14433,V14439,V14521,V14522,V14614,V14624,V14627,V14630,V14631,V14632,V14633,V14722,V14723,V14724,V14754,V14756,V14801,V14814,V14830,V14831,V14832,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
249	8260 Surrogate, 100PPM	VP130432	09/20/2024	02/28/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 09/26/2024

FROM 0.10000ml of V13707 + 24.90000ml of V14145 = Final Quantity: 25.000 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
1917	8260 Internal standard 50 ppm	VP131783	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/27/2024

FROM 0.02000ml of V14289 + 9.98000ml of V14154 = Final Quantity: 10.000 ml

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

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

FROM 7.50000ml of V14614 + 12.50000ml of VP132035 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
252	8260 Working STD (BCM)-First source, 100PPM	VP132098	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/19/2024

FROM 1.25000ml of V13466 + 23.75000ml 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
51	8260 Working STD (Acrolein) -first source, 800PPM	VP132468	01/08/2025	02/07/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/17/2025

FROM 1.00000ml of V14832 + 1.50000ml of V14830 + 1.50000ml of V14831 + 21.00000ml of V14627 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
56	8260 Working STD (Acrolein) -first source, 500PPM	VP132469	01/08/2025	02/07/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/17/2025

FROM 5.62500ml of V14627 + 9.37500ml of VP132468 = Final Quantity: 15.000 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	VP132613	01/20/2025	02/28/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/29/2025

FROM 0.40000ml of V13446 + 1.00000ml of V14175 + 1.00000ml of V14176 + 1.00000ml of V14433 + 1.00000ml of V14439 + 1.00000ml of V14521 + 1.00000ml of V14522 + 1.00000ml of V14722 + 1.00000ml of V14754 + 1.00000ml of V14756 + 1.00000ml of V14801 + 1.00000ml of V14814 + 1.50000ml of V14723 + 1.50000ml of V14724 + 10.60000ml of V14624 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
244	8260 Calibration Working STD Mix-First source, 100PPM	VP132614	01/20/2025	02/28/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/29/2025

FROM 5.62500ml of V14624 + 9.37500ml of VP132613 = Final Quantity: 15.000 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
732	BFB TUNE CHECK - SOIL	VP132862	02/04/2025	02/05/2025	Romaben Patel	None	None	Semsettin Yesilyurt 02/06/2025

FROM 4.99800ml of W3112 + 0.00200ml of VP131767 = Final Quantity: 5.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
773	50 PPB CCC, 8260-SOIL	VP132863	02/04/2025	02/05/2025	Romaben Patel	None	None	Semsettin Yesilyurt 02/06/2025

FROM 4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00250ml of VP132469 + 0.00250ml of VP132614 + 0.00500ml of VP131783 = Final Quantity: 5.000 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
773	50 PPB CCC, 8260-SOIL	VP132864	02/04/2025	02/05/2025	Romaben Patel	None	None	Semsettin Yesilyurt 02/06/2025

FROM 4.98000ml of W3112 + 0.00250ml of VP130432 + 0.00250ml of VP132036 + 0.00250ml of VP132098 + 0.00250ml of VP132469 + 0.00250ml of VP132614 + 0.00500ml of VP131783 = Final Quantity: 5.000 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	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0181905	02/28/2025	01/10/2025 / SAM	01/23/2023 / SAM	V13446

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	02/28/2025	08/29/2024 / SAM	02/06/2024 / SAM	V14145

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

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.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	07/10/2025	01/10/2025 / SAM	02/20/2024 / SAM	V14175

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	07/10/2025	01/10/2025 / SAM	02/20/2024 / SAM	V14176

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	07/10/2025	01/10/2025 / SAM	08/15/2024 / SAM	V14433

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	07/10/2025	01/10/2025 / SAM	08/15/2024 / SAM	V14439

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	07/10/2025	01/10/2025 / SAM	09/18/2024 / SAM	V14521

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	07/10/2025	01/10/2025 / SAM	09/18/2024 / SAM	V14522

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)	23I0762004	07/13/2025	01/13/2025 / SAM	11/26/2024 / SAM	V14624

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	23I0762004	07/06/2025	01/06/2025 / SAM	11/26/2024 / SAM	V14627

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

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

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	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	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14722

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	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14723

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	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14724

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	05/31/2031	01/10/2025 / SAM	12/17/2024 / SAM	V14754

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	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14756

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	A0220563	06/30/2026	01/10/2025 / SAM	01/08/2025 / SAM	V14801

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	07/10/2025	01/10/2025 / SAM	01/08/2025 / SAM	V14814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	010725	02/07/2025	01/08/2025 / SAM	01/08/2025 / SAM	V14830

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	010725	02/07/2025	01/08/2025 / SAM	01/08/2025 / SAM	V14831

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	010725	02/07/2025	01/08/2025 / SAM	01/08/2025 / SAM	V14832

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	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

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.01
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

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

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

Ken Koehnlein
Sr. Manager, Quality Assurance

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.01
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

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

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

Ken Koehnlein
Sr. Manager, Quality Assurance

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

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

Dec 01/08/25

5 vial

V14823-to V14827 V14829

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 010725
Description: Acrolein

Expiration Date: 020725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

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

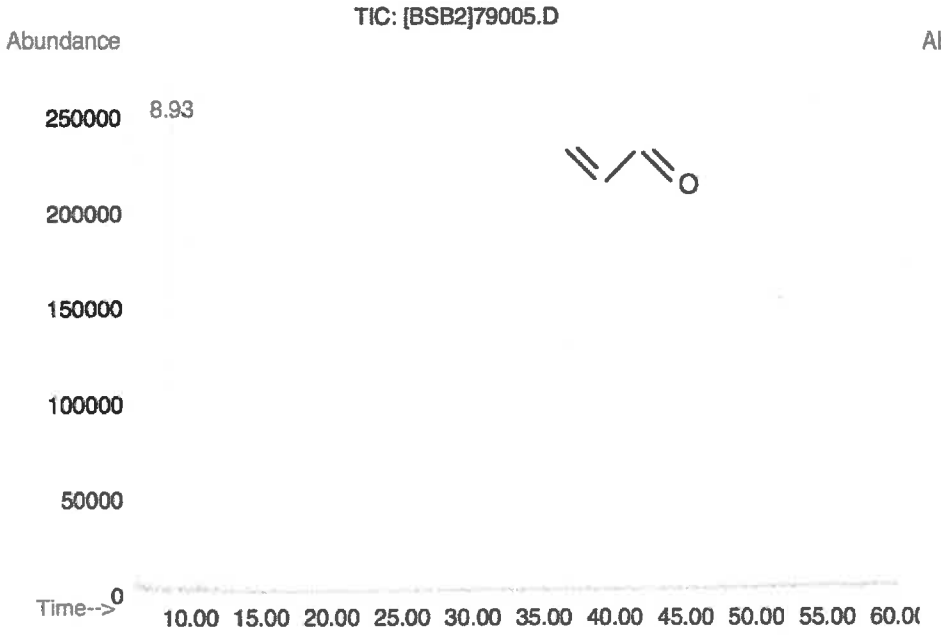
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

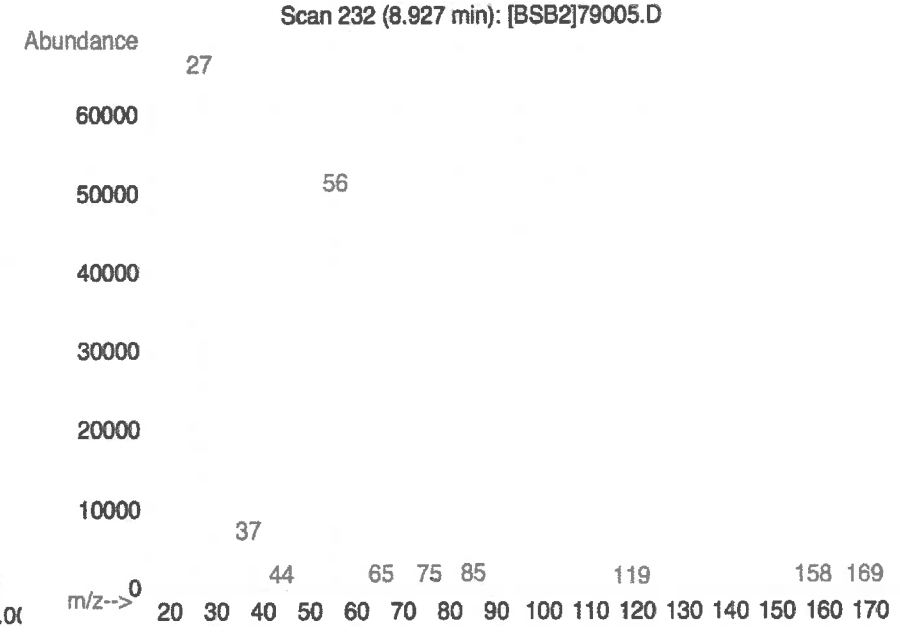
Weight(s) shown below were combined and diluted to (mL): 10.0

	010725
Formulated By: Anthony Mahoney	DATE
	010725
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05178	5011.8	52.6	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, 2024

Section II - Hazards Identification

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

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face 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	

	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

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

Dec 01/08/25

5 vial

V14823-to V14827 V14829

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 010725
Description: Acrolein

Expiration Date: 020725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

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

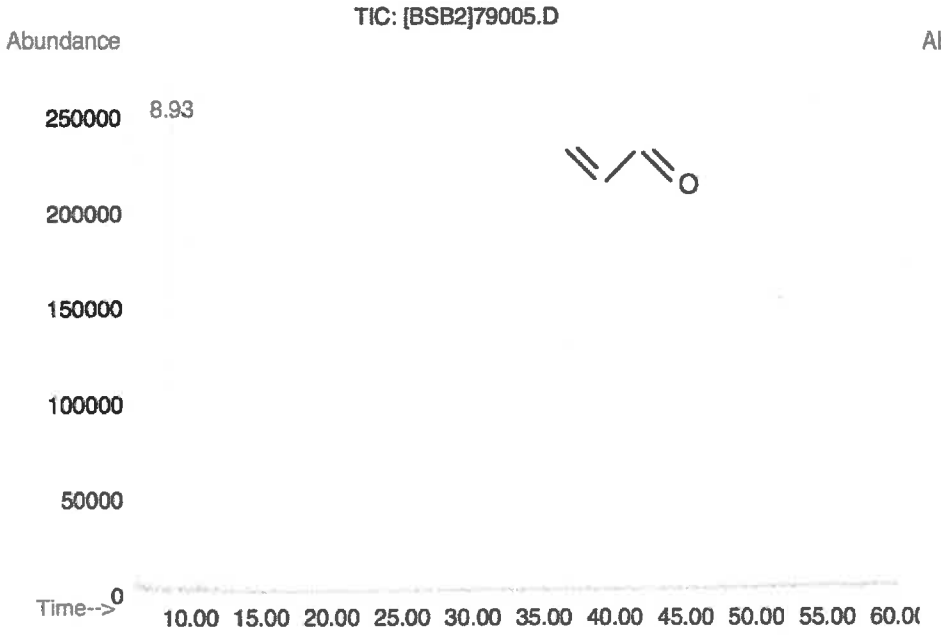
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

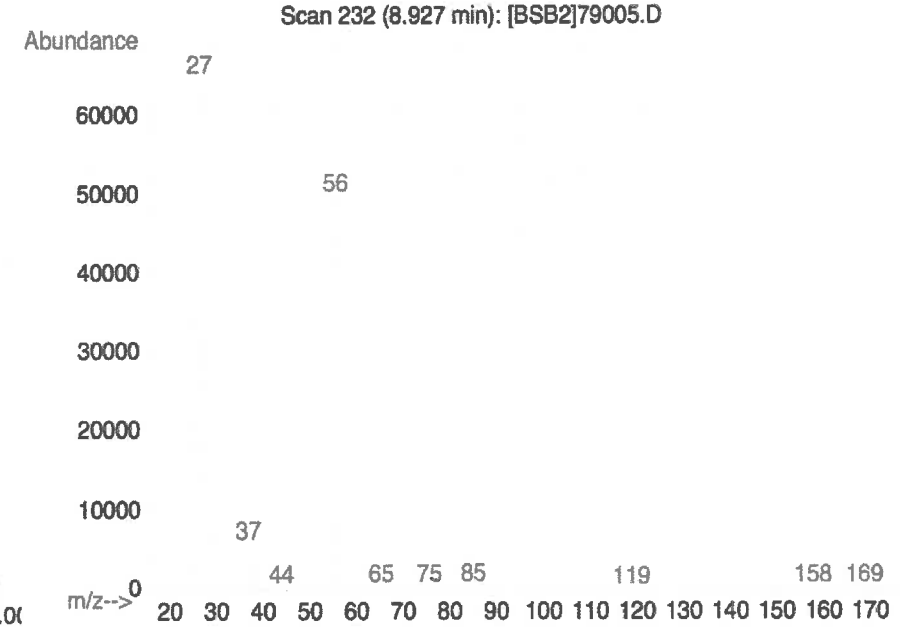
Weight(s) shown below were combined and diluted to (mL): 10.0

	010725
Formulated By: Anthony Mahoney	DATE
	010725
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05178	5011.8	52.6	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, 2024

Section II - Hazards Identification

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

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face 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	

	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

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

Dec 01/08/25

5 vial

V14823-to V14827 V14829

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 010725
Description: Acrolein

Expiration Date: 020725
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

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

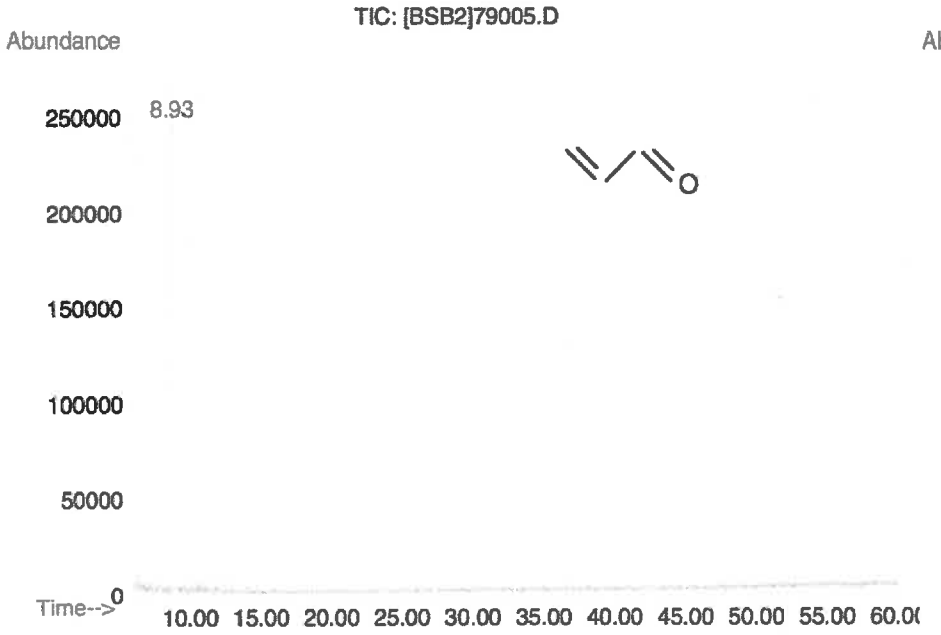
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

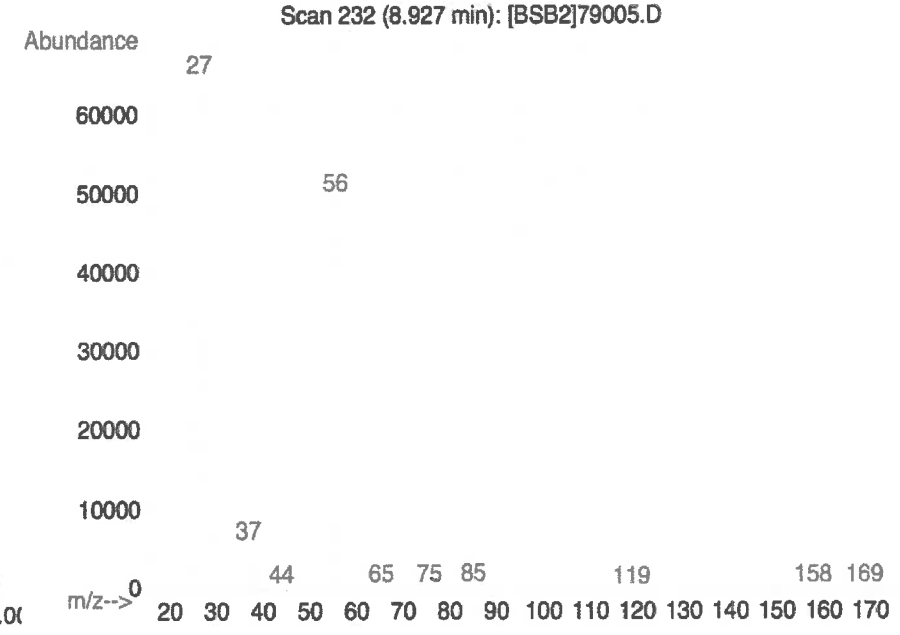
Weight(s) shown below were combined and diluted to (mL): 10.0

	010725
Formulated By: Anthony Mahoney	DATE
	010725
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05178	5011.8	52.6	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, 2024

Section II - Hazards Identification

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

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face 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	

	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.

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

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

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

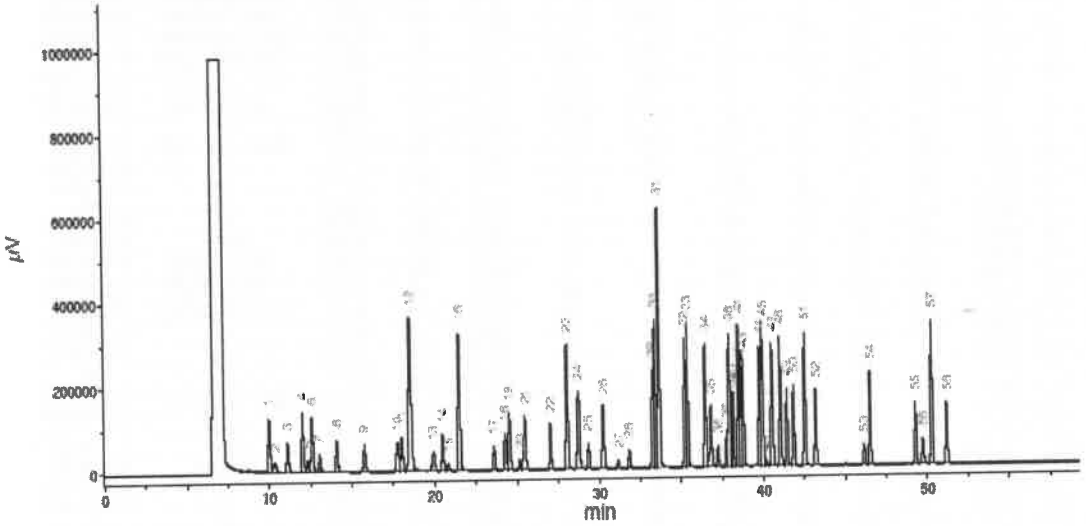
Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached 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	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS000(	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	(0361)	06126PX	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 848mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	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	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	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 (46mg/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	1999.6	22.9	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	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 6040mg/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 sample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: 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-1,2,2-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.46
13	Isobutanol/1,1,1-Trichloroethane	19.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethene	23.58
18	1,2-Dichloropropane	24.28
19	Methyl methacrylate	24.52
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromoethene	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.88
32	o-Xylene	35.22
33	Styrene	35.38
34	Isopropylbenzene/Bromoform	36.18
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	37.93
39	trans-1,4-Dichloro-2-Butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

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, 2023

Section II - Hazards Identification

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

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face 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.

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

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

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

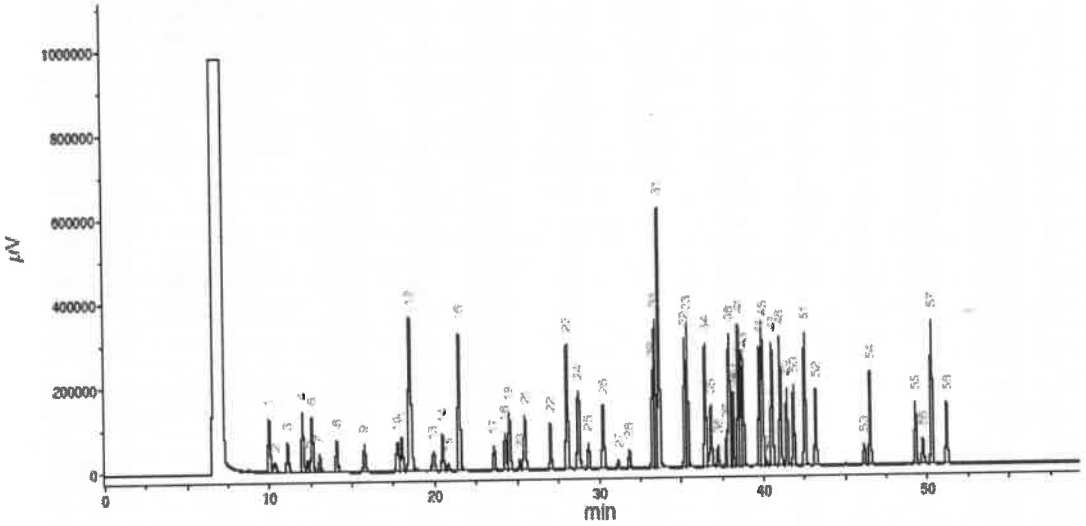
Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached 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	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS000(	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	(0361)	06126PX	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 848mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	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	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	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 (46mg/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	1999.6	22.9	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	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 6040mg/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 sample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: 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-1,2,2-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.46
13	Isobutanol/1,1,1-Trichloroethane	19.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethene	23.58
18	1,2-Dichloropropane	24.28
19	Methyl methacrylate	24.52
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromoethene	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.88
32	o-Xylene	35.22
33	Styrene	35.38
34	Isopropylbenzene/Bromoform	36.18
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	37.93
39	trans-1,4-Dichloro-2-Butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

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, 2023

Section II - Hazards Identification

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

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face 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 09/16/24 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

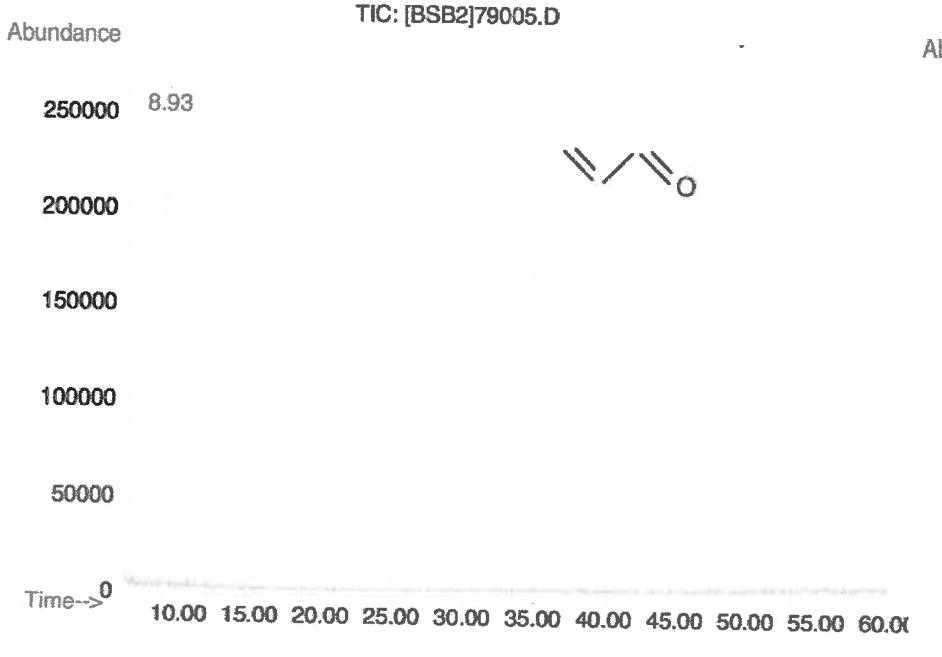
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

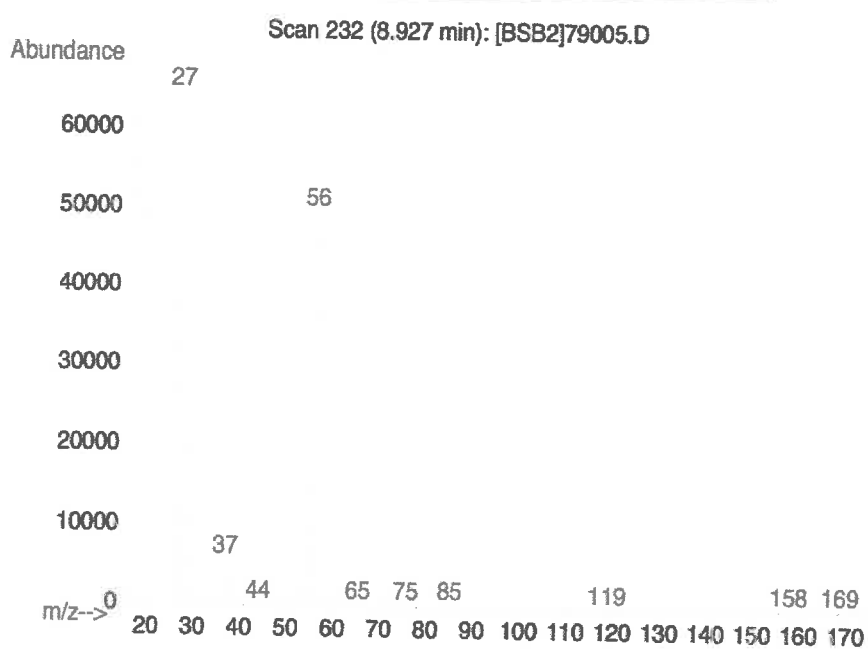
Formulated By: Justin Dippold 091424 DATE

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

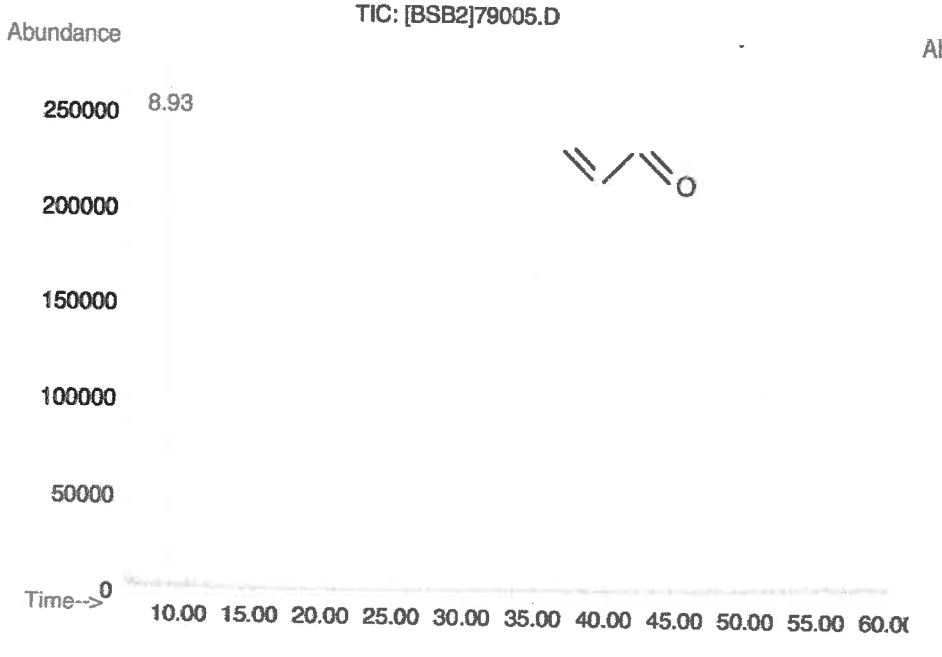
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

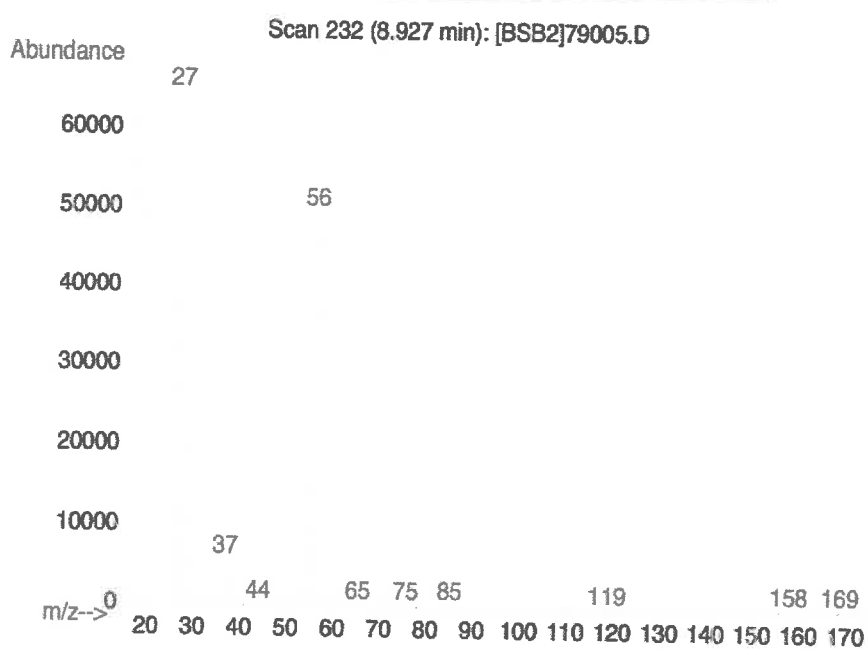
Formulated By: Justin Dippold 091424 DATE

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

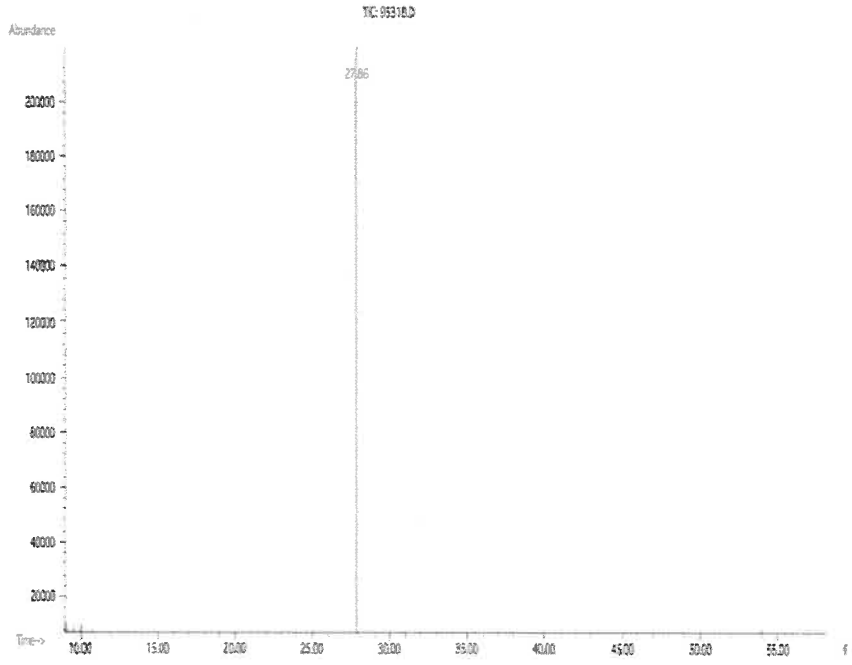
V14630 to V14649

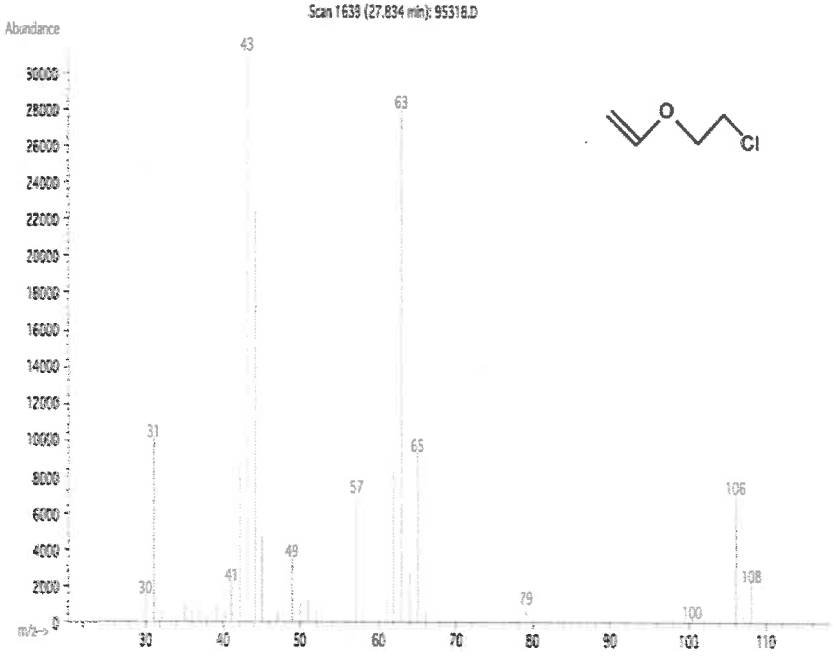
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

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

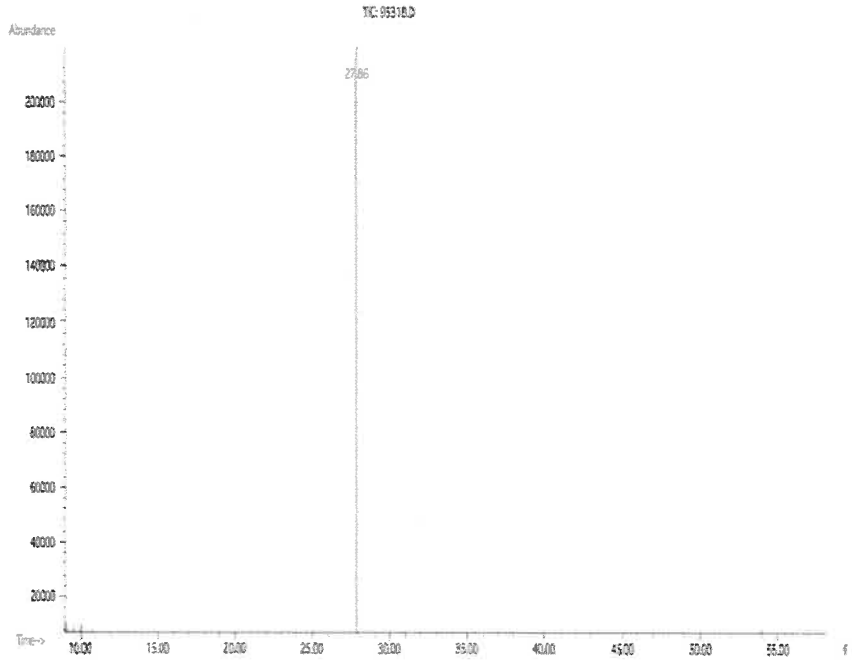
V14630 to V14649

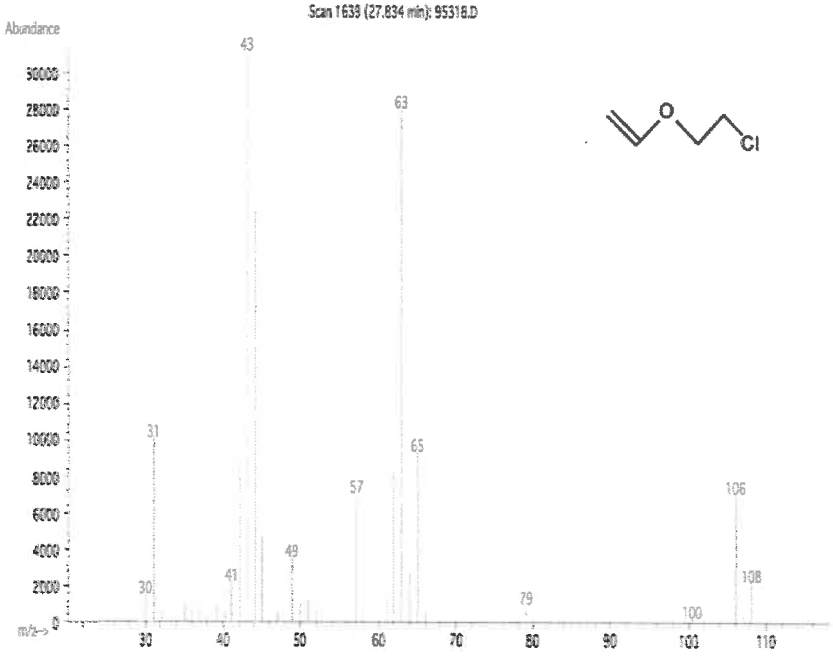
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

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

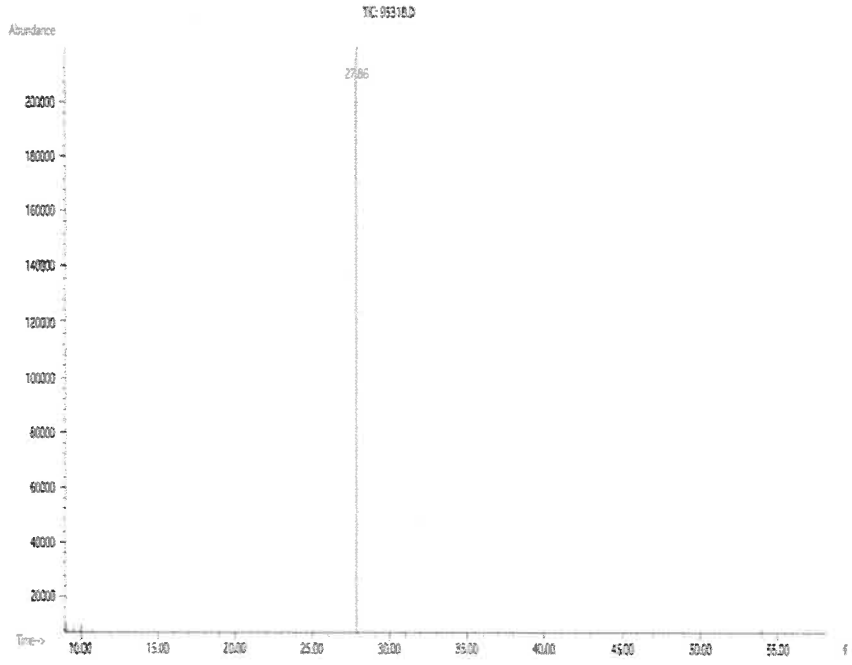
V14630 to V14649

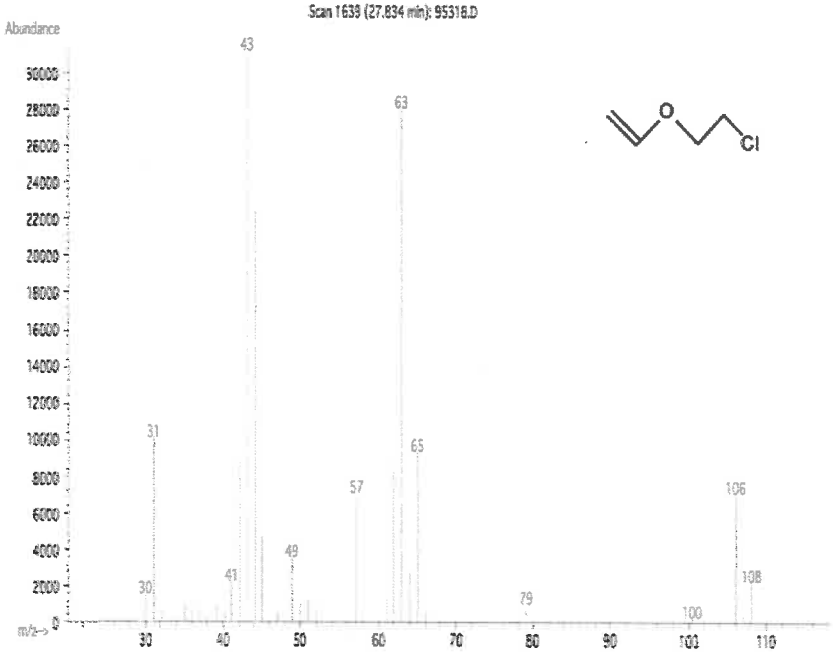
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

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

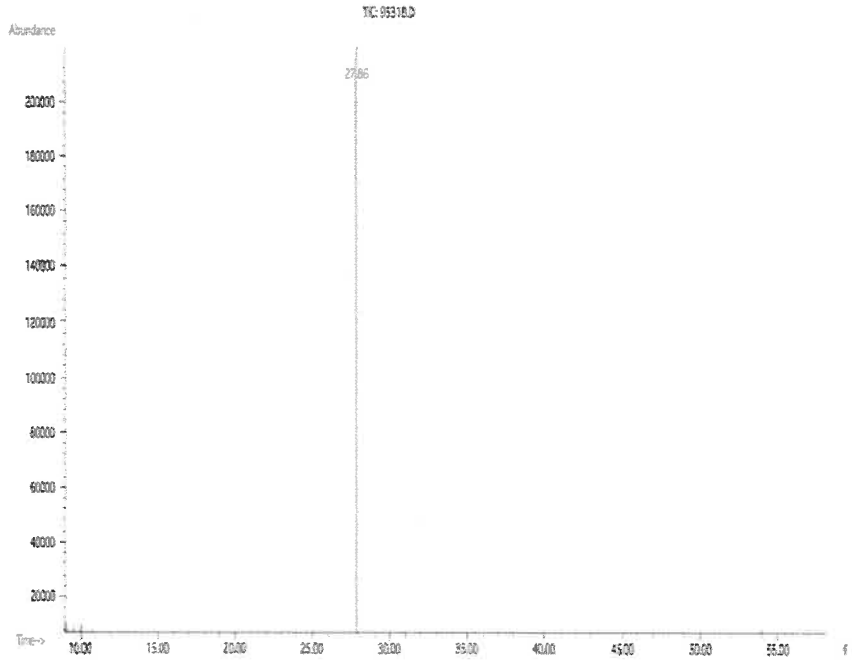
V14630 to V14649

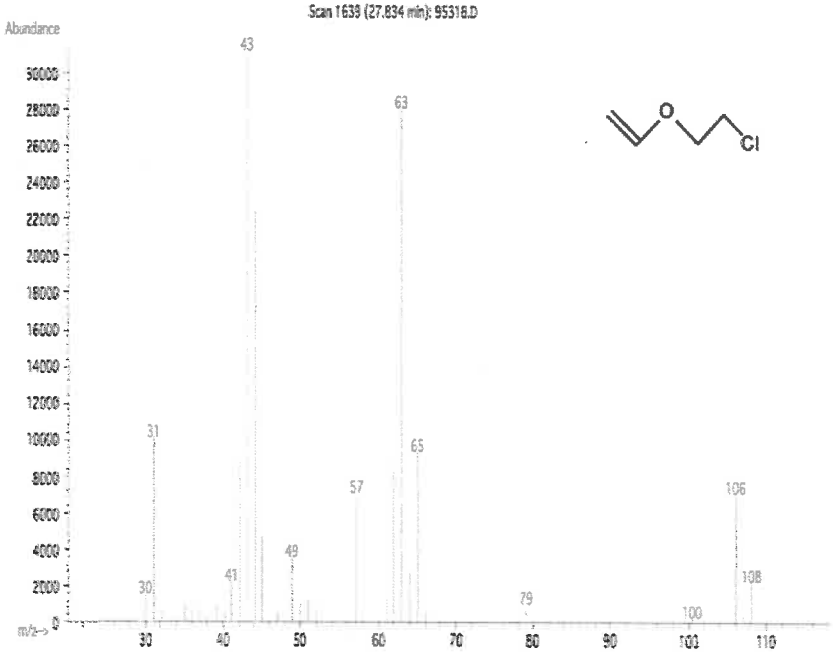
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

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: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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. : 30470 **Lot No.:** A0181905

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butanol (TBA)	50,126.0 µg/mL	+/- 293.4988 µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBM7694)		+/- 1,073.7654 µg/mL	Unstressed
	Purity 99%		+/- 1,104.9494 µg/mL	Stressed

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

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

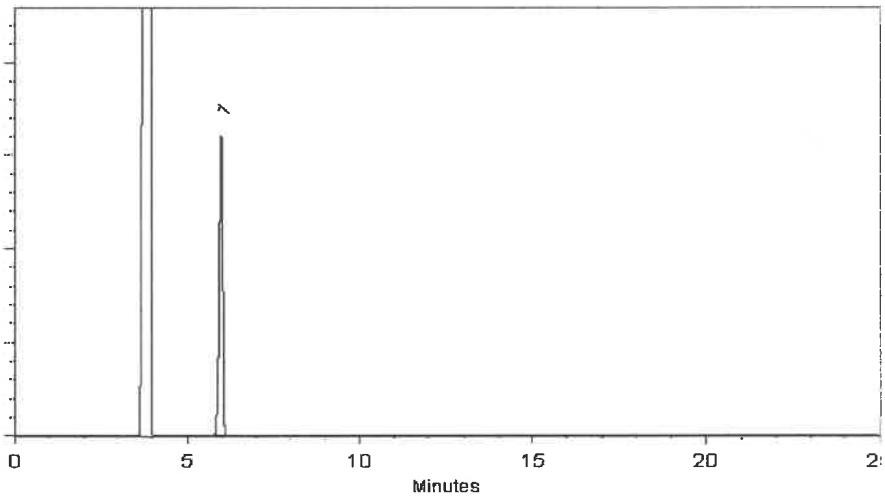
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

John Friedline - Operations Technician I

Date Mixed: 16-Feb-2022 **Balance:** B442140311

Marlina Cowan - Operations Tech I

Date Passed: 21-Feb-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

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.)

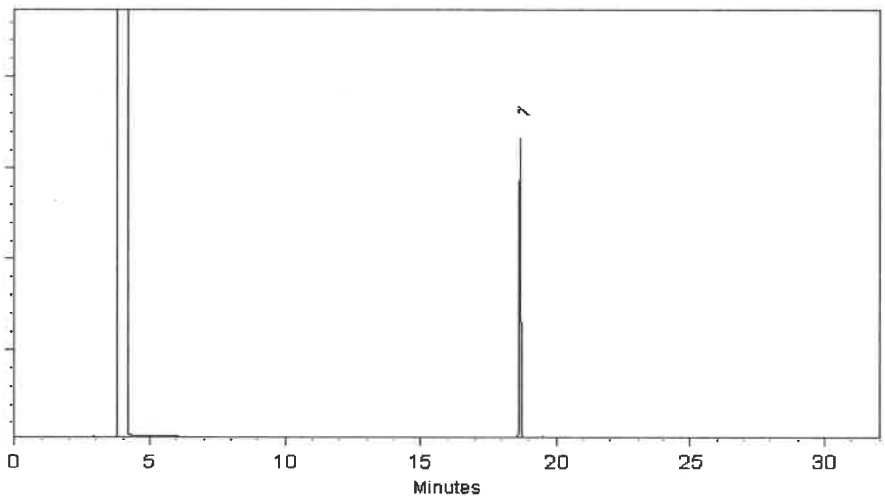
Inj. Temp:
200°C

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.)

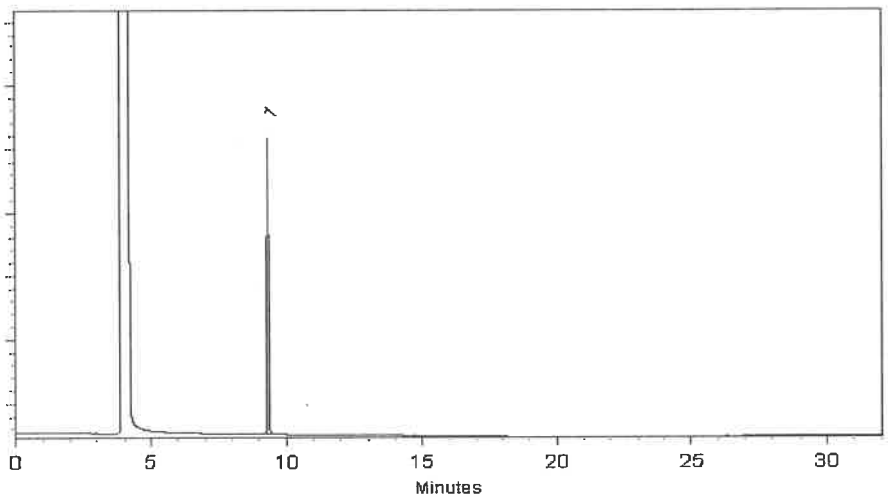
Inj. Temp:
200°C

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

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.)

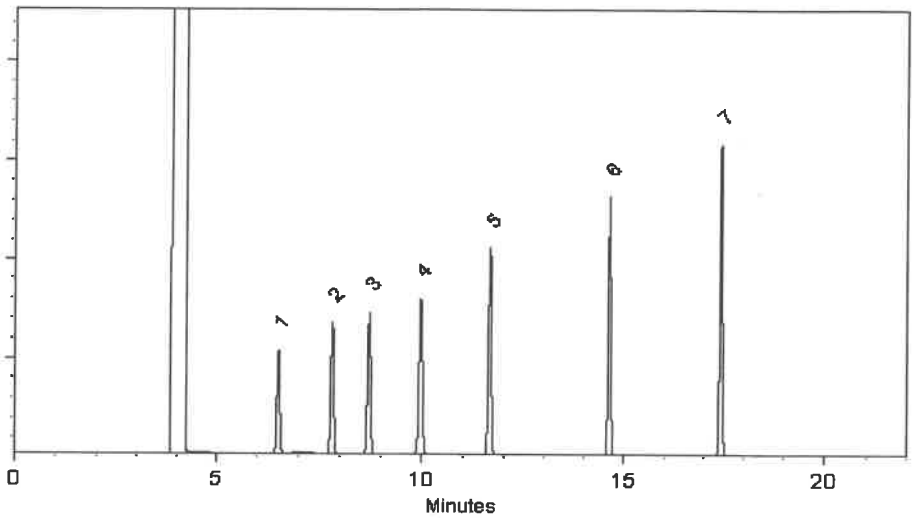
Inj. Temp:
200°C

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.)

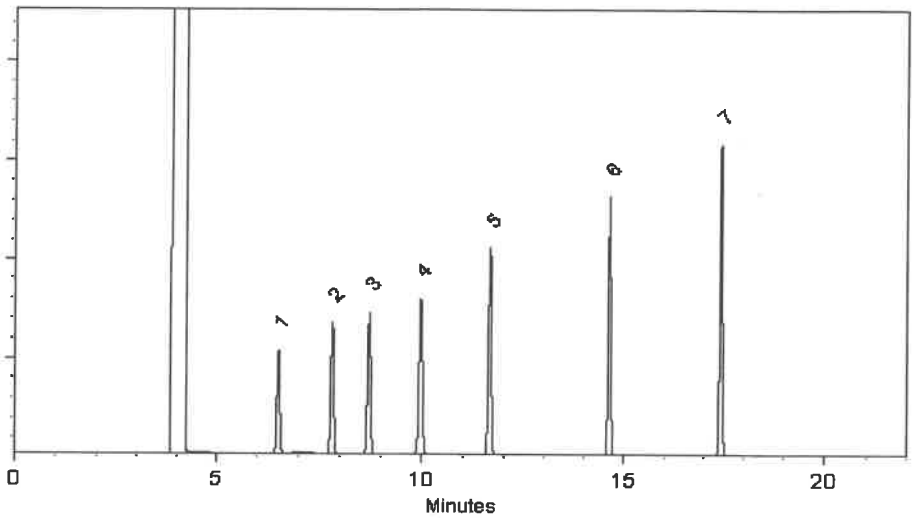
Inj. Temp:
200°C

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.)

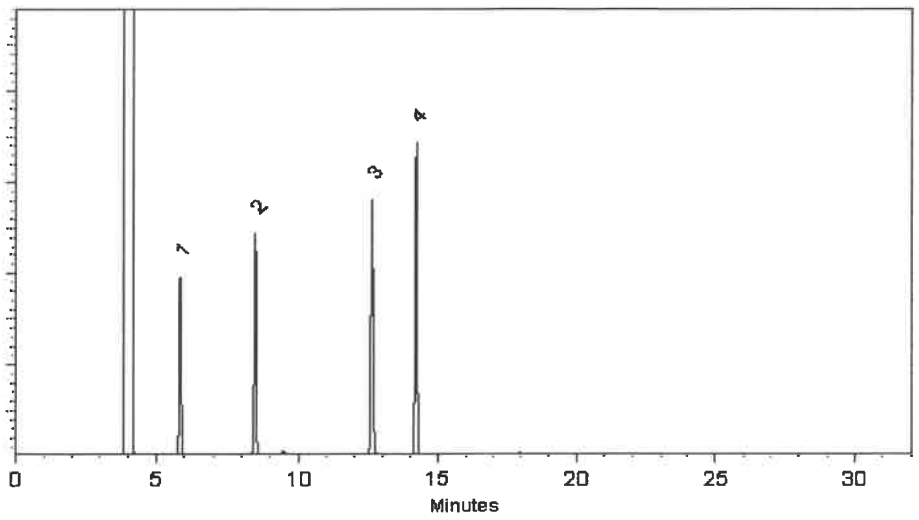
Inj. Temp:
200°C

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.)

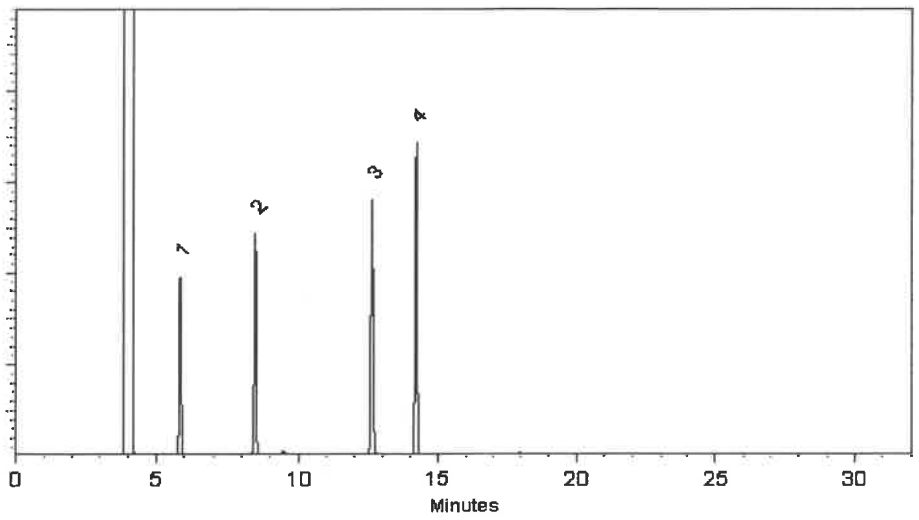
Inj. Temp:
200°C

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.)

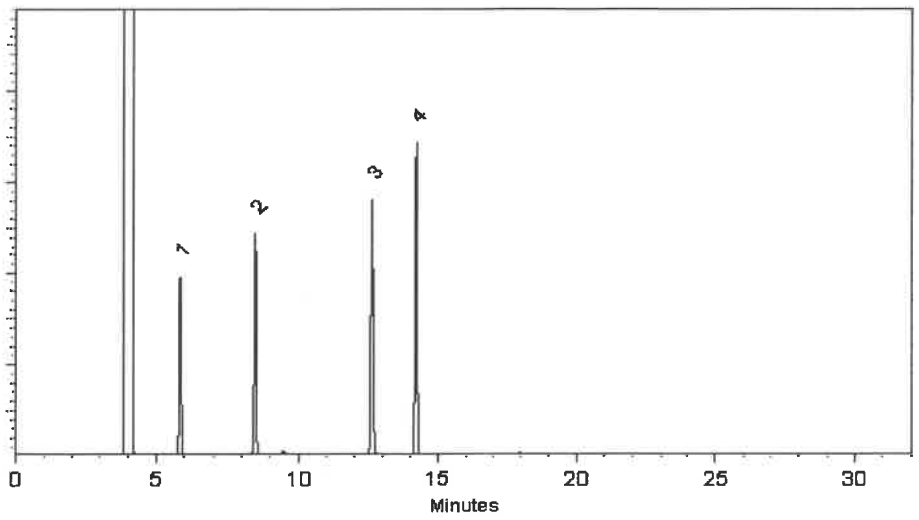
Inj. Temp:
200°C

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.

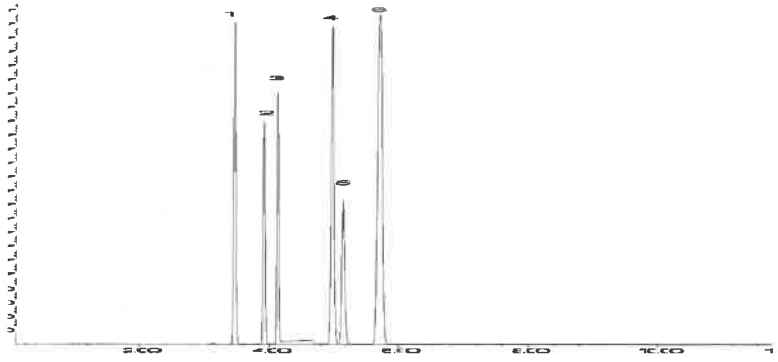
Inj. Temp:
200°C

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.

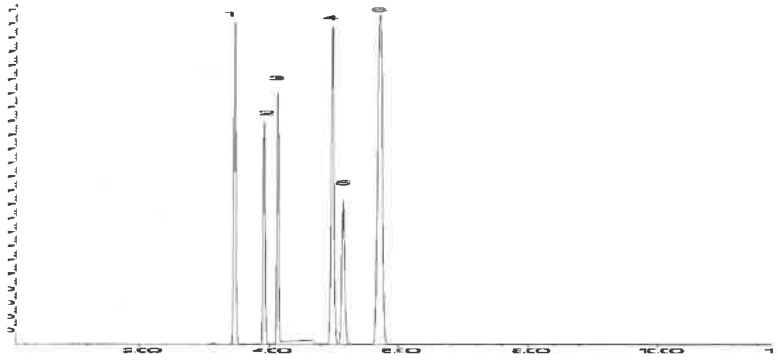
Inj. Temp:
200°C

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.

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.)

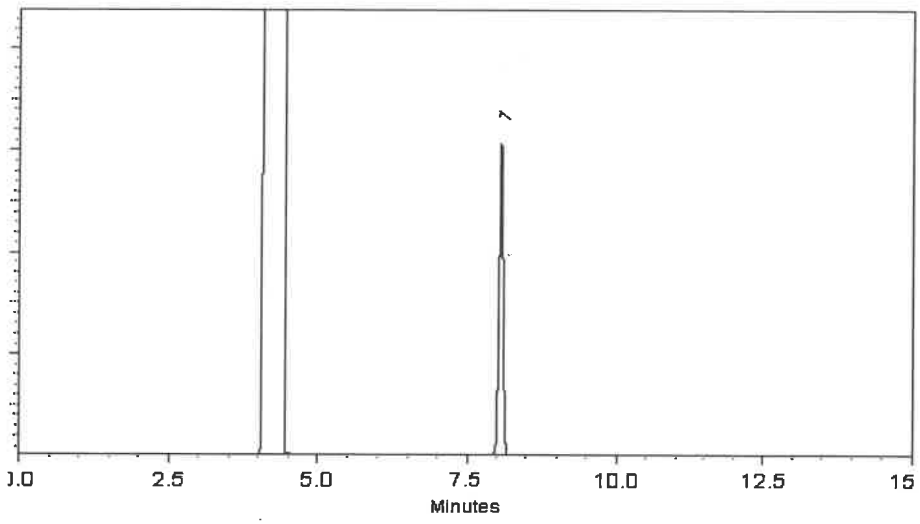
Inj. Temp:
200°C

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.

10 vial Rec 01/08/25

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic

V14793 to 14802

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 555408-FL **Lot No.:** A0220563

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%	8,060.0 µg/mL	+/- 278.5905

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

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

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

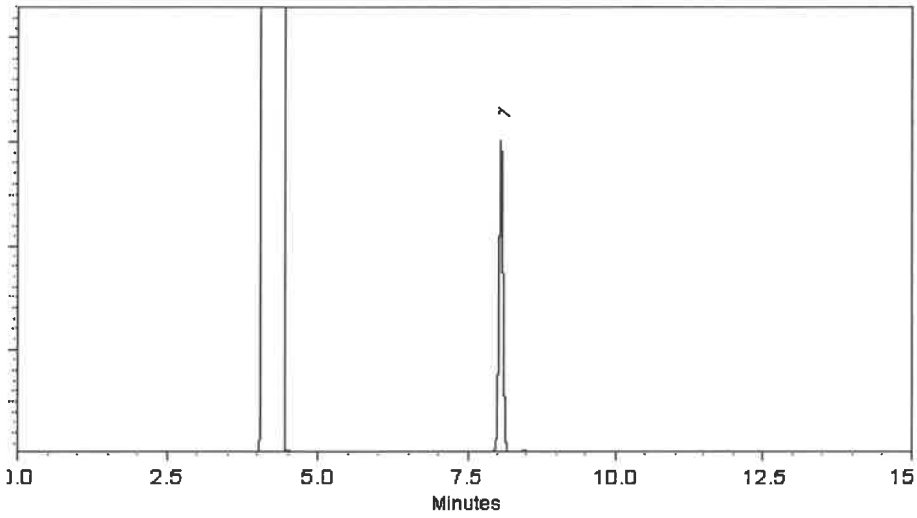
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Tom Suckar - Mix Technician

Date Mixed: 30-Dec-2024 **Balance Serial #** B345965662

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®

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

SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

1063 Lafayette Ave Q1236

Chemtech Project Number

COC Number

Hawthorne NJ

CLIENT INFORMATION

Report to be sent to:

COMPANY:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION:
PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME:
PROJECT #: LOCATION:
PROJECT MANAGER:
E-MAIL:
PHONE: FAX:

BILLING INFORMATION

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

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ EDD FORMAT _____
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced ☐ US EPA CLP
- ☐ NYS ASP A ☐ NYS ASP B
- ☐ Other _____

ANALYSIS

1 STRIPPLED 2 VOC 3 STRIPPLED 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	WASTE				1-30-25	7:30	1	X									
2.	VOC					7:41	1		X								
3.	1					8	1			X							
4.	2					8:14	1			X							
5.	3					9:18	1			X							
6.	4					9:2	1			X							
7.	5					8:55	1			X							
8.																	
9.																	
10.																	

PRESERVATIVES: A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER

<—Specify Preservatives

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	1-30-25 1240	1. 1240 1-30-25
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME 1820	RECEIVED FOR LAB BY
3.	1-30-25	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.5°C

Comments:

Page _____ of _____

CLIENT: ☐ Hand Delivered ☐ Other: _____
CHEMTECH: ☐ Picked Up

Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH 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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1236 SCIA01
Client Name : Sciacca General Contractors
Client Contact : Daniel Scirica
Invoice Name : Sciacca General Contractors
Invoice Contact : Daniel Scirica

Order Date : 1/30/2025 12:48:00 PM
Project Name : 1063 Lafayette Ave, Hawth
Receive DateTime : 1/30/2025 6:00:00 PM
Purchase Order :

Project Mgr :
Report Type : Results Only
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1236-02	VOC	Solid	01/30/2025	07:45					
					VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By : [signature]
Date / Time : 1-31-25 1140

Received By : [signature]
Date / Time : 1·31·25 11:40

Storage Area : VOA Refridgerator Room