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

Cover Page

Order ID : Q1609

Project ID : 540 Degraw St, Brooklyn, NY - E9309

Client : ENTACT

Lab Sample Number	Client Sample Number
Q1609-01	WC-SCRN-01-G
Q1609-02	WC-SCRN-01-C
Q1609-03	WC-SCRN-01-C
Q1609-04	WC-SCRN-01-C

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

Signature : _____

Date: 3/29/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

ENTACT
Project Name: 540 Degraw St, Brooklyn, NY - E9309
Project # N/A
Chemtech Project # Q1609
Test Name: TCLP BNA

A. Number of Samples and Date of Receipt:
4 Solid samples were received on 03/20/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: ASTM Ammonia, ASTM COD, ASTM Leach Extraction, ASTM Oil and Grease, ASTM TS, Corrosivity, Ignitability, Oil and Grease, Paint Filter, PCB, pH, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL, TS and TVS. This data package contains results for TCLP BNA.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of TCLP BNA was based on method 8270E and extraction was done based on method 3510 and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for PB167261BL [Terphenyl-d14 - 133%], PB167193TB [Terphenyl-d14 - 132%], PB167261BS [2,4,6-Tribromophenol - 111%], WC-SCRN-01-C [2,4,6-Tribromophenol - 117% and Terphenyl-d14 - 140%] , Recoveries are biased high therefore no corrective action was taken.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

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

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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

Signature_____

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q1609**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **PRADIP PRAJAPATI** **Date:** **03/29/2025**

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

LAB CHRONICLE

OrderID:	Q1609	**OrderDate:**	3/20/2025 10:20:00 AM
Client:	ENTACT	**Project:**	540 Degraw St, Brooklyn, NY - E9309
Contact:	Jarod Stanfield	**Location:**	I51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1609-03	**WC-SCRN-01-C**	**TCLP**			**03/19/25**			**03/20/25**
			TCLP BNA	8270E		03/21/25	03/25/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q1609

Client: ENTACT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								
				0.000				
			Total Svoc :			**0.00**		
			Total Concentration:			**0.00**		

QC SUMMARY

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

Surrogate Summary

SW-846

SDG No.: Q1609

Client: ENTACT

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB167233TB	PB167233TB	2-Fluorophenol	150	138	92		15 (10)	110 (139)
		Phenol-d6	150	133	89		15 (10)	110 (134)
		Nitrobenzene-d5	100	97.0	97		30 (49)	130 (133)
		2-Fluorobiphenyl	100	98.4	98		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	168	112	*	15 (44)	110 (137)
		Terphenyl-d14	100	105	105		30 (48)	130 (125)
PB167261BL	PB167261BL	2-Fluorophenol	150	149	100		15 (10)	110 (139)
		Phenol-d6	150	142	95		15 (10)	110 (134)
		Nitrobenzene-d5	100	105	105		30 (49)	130 (133)
		2-Fluorobiphenyl	100	102	102		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	166	110		15 (44)	110 (137)
		Terphenyl-d14	100	133	133	*	30 (48)	130 (125)
PB167261BS	PB167261BS	2-Fluorophenol	150	137	91		15 (10)	110 (139)
		Phenol-d6	150	132	88		15 (10)	110 (134)
		Nitrobenzene-d5	100	94.7	95		30 (49)	130 (133)
		2-Fluorobiphenyl	100	95.2	95		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	167	111	*	15 (44)	110 (137)
		Terphenyl-d14	100	118	118		30 (48)	130 (125)
Q1592-02MS	OILY-DEBRIS-COMPMS	2-Fluorophenol	150	124	83		15 (10)	110 (139)
		Phenol-d6	150	112	75		15 (10)	110 (134)
		Nitrobenzene-d5	100	94.3	94		30 (49)	130 (133)
		2-Fluorobiphenyl	100	94.6	95		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	139	93		15 (44)	110 (137)
		Terphenyl-d14	100	92.5	93		30 (48)	130 (125)
Q1592-02MSD	OILY-DEBRIS-COMPMSD	2-Fluorophenol	150	129	86		15 (10)	110 (139)
		Phenol-d6	150	115	77		15 (10)	110 (134)
		Nitrobenzene-d5	100	96.4	96		30 (49)	130 (133)
		2-Fluorobiphenyl	100	94.0	94		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	148	99		15 (44)	110 (137)
		Terphenyl-d14	100	102	102		30 (48)	130 (125)
Q1609-03	WC-SCRN-01-C	2-Fluorophenol	150	141	94		15 (10)	110 (139)
		Phenol-d6	150	134	89		15 (10)	110 (134)
		Nitrobenzene-d5	100	103	103		30 (49)	130 (133)
		2-Fluorobiphenyl	100	102	102		30 (52)	130 (132)
		2,4,6-Tribromophenol	150	175	117	*	15 (44)	110 (137)
		Terphenyl-d14	100	140	140	*	30 (48)	130 (125)

( ) = LABORATORY INHOUSE LIMIT

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

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1609

Client: ENTACT

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1592-02MS		**Client Sample ID: OILY-DEBRIS-COMPMS**						**DataFile: BF142049.D**			
Pyridine	500	0	340	ug/L	68				20 (10)	160 (109)	
1,4-Dichlorobenzene	500	0	390	ug/L	78				70 (55)	130 (125)	
2-Methylphenol	500	0	410	ug/L	82				70 (60)	130 (131)	
3+4-Methylphenols	500	0	400	ug/L	80				20 (54)	160 (136)	
Hexachloroethane	500	0	390	ug/L	78				20 (19)	160 (146)	
Nitrobenzene	500	0	420	ug/L	84				70 (62)	130 (112)	
Hexachlorobutadiene	500	0	430	ug/L	86				70 (52)	130 (125)	
2,4,6-Trichlorophenol	500	0	450	ug/L	90				70 (78)	130 (112)	
2,4,5-Trichlorophenol	500	0	450	ug/L	90				70 (71)	130 (111)	
2,4-Dinitrotoluene	500	0	450	ug/L	90				70 (74)	130 (137)	
Hexachlorobenzene	500	0	510	ug/L	102				70 (72)	130 (115)	
Pentachlorophenol	1000	0	780	ug/L	78				20 (52)	160 (162)	

( ) = LABORATORY INHOUSE LIMIT

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

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1609

Client: ENTACT

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID: Q1592-02MSD		**Client Sample ID: OILY-DEBRIS-COMPMSD**						**DataFile: BF142050.D**			
Pyridine	500	0	360	ug/L	72		6		20 (10)	160 (109)	20 (20)
1,4-Dichlorobenzene	500	0	400	ug/L	80		3		70 (55)	130 (125)	20 (20)
2-Methylphenol	500	0	430	ug/L	86		5		70 (60)	130 (131)	20 (20)
3+4-Methylphenols	500	0	420	ug/L	84		5		20 (54)	160 (136)	20 (20)
Hexachloroethane	500	0	400	ug/L	80		3		20 (19)	160 (146)	20 (20)
Nitrobenzene	500	0	430	ug/L	86		2		70 (62)	130 (112)	20 (20)
Hexachlorobutadiene	500	0	440	ug/L	88		2		70 (52)	130 (125)	20 (20)
2,4,6-Trichlorophenol	500	0	460	ug/L	92		2		70 (78)	130 (112)	20 (20)
2,4,5-Trichlorophenol	500	0	450	ug/L	90		0		70 (71)	130 (111)	20 (20)
2,4-Dinitrotoluene	500	0	470	ug/L	94		4		70 (74)	130 (137)	20 (20)
Hexachlorobenzene	500	0	490	ug/L	98		4		70 (72)	130 (115)	20 (20)
Pentachlorophenol	1000	0	800	ug/L	80		3		20 (52)	160 (162)	20 (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.: Q1609

Client: ENTACT

Analytical Method: 8270E **DataFile:** BF142072.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB167261BS	Pyridine	50	39.4	ug/L	79				20 (29)	160 (97)	
	1,4-Dichlorobenzene	50	45.4	ug/L	91				70 (76)	130 (103)	
	2-Methylphenol	50	45.5	ug/L	91				70 (69)	130 (109)	
	3+4-Methylphenols	50	44.4	ug/L	89				20 (67)	160 (106)	
	Hexachloroethane	50	44.7	ug/L	89				20 (76)	160 (118)	
	Nitrobenzene	50	44.5	ug/L	89				70 (58)	130 (106)	
	Hexachlorobutadiene	50	46.4	ug/L	93				70 (69)	130 (101)	
	2,4,6-Trichlorophenol	50	47.1	ug/L	94				70 (61)	130 (110)	
	2,4,5-Trichlorophenol	50	47.4	ug/L	95				70 (70)	130 (106)	
	2,4-Dinitrotoluene	50	52.5	ug/L	105				70 (60)	130 (115)	
	Hexachlorobenzene	50	48.1	ug/L	96				70 (73)	130 (106)	
	Pentachlorophenol	100	93.5	ug/L	94				20 (47)	160 (114)	

( ) = LABORATORY INHOUSE LIMIT

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

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167261BL

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG NO.: Q1609

Lab File ID: BF142071.D Lab Sample ID: PB167261BL

Instrument ID: BNA_F Date Extracted: 03/21/2025

Matrix: (soil/water) water Date Analyzed: 03/25/2025

Level: (low/med) LOW Time Analyzed: 11:38

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167261BS	PB167261BS	BF142072.D	03/25/2025
WC-SCRN-01-C	Q1609-03	BF142083.D	03/25/2025
PB167233TB	PB167233TB	BF142178.D	03/31/2025
OILY-DEBRIS-COMPMS	Q1592-02MS	BF142049.D	03/24/2025
OILY-DEBRIS-COMPMSD	Q1592-02MSD	BF142050.D	03/24/2025

COMMENTS:

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM SAS No.: Q1609 SDG NO.: Q1609

Lab File ID: BF141896.D DFTPP Injection Date: 03/10/2025

Instrument ID: BNA_F DFTPP Injection Time: 10:31

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	22.7
68	Less than 2.0% of mass 69	0.5 (1.9) 1
69	Mass 69 relative abundance	25
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	35
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	5.3
275	10.0 - 60.0% of mass 198	24.4
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	15.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.2 (19.2) 2

1-Value is % mass 69 2-Value is % mass 442

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
SSTDICC2.5	SSTDICC2.5	BF141897.D	03/10/2025	11:01
SSTDICC005	SSTDICC005	BF141898.D	03/10/2025	11:30
SSTDICC010	SSTDICC010	BF141899.D	03/10/2025	12:00
SSTDICC020	SSTDICC020	BF141900.D	03/10/2025	12:29
SSTDICCC040	SSTDICCC040	BF141901.D	03/10/2025	12:58
SSTDICC060	SSTDICC060	BF141903.D	03/10/2025	13:57
SSTDICC080	SSTDICC080	BF141904.D	03/10/2025	14:27
SSTDICC050	SSTDICC050	BF141905.D	03/10/2025	15:20

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM SAS No.: Q1609 SDG NO.: Q1609

Lab File ID: BF142044.D DFTPP Injection Date: 03/24/2025

Instrument ID: BNA_F DFTPP Injection Time: 09:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	27.1
68	Less than 2.0% of mass 69	0.6 (1.9) 1
69	Mass 69 relative abundance	30.1
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	41.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	5.8
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	15.9
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.7 (19.7) 2

1-Value is % mass 69

2-Value is % mass 442

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
SSTDCCC040	SSTDCCC040	BF142045.D	03/24/2025	10:17
OILY-DEBRIS-COMPMS	Q1592-02MS	BF142049.D	03/24/2025	12:27
OILY-DEBRIS-COMPMSD	Q1592-02MSD	BF142050.D	03/24/2025	12:56

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM SAS No.: Q1609 SDG NO.: Q1609

Lab File ID: BF142067.D DFTPP Injection Date: 03/25/2025

Instrument ID: BNA_F DFTPP Injection Time: 09:39

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	25.1
68	Less than 2.0% of mass 69	0.5 (1.9) 1
69	Mass 69 relative abundance	27.5
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	39.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	5.6
275	10.0 - 60.0% of mass 198	26
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	15.8
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.1 (19.1) 2

1-Value is % mass 69 2-Value is % mass 442

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
SSTDCCC040	SSTDCCC040	BF142068.D	03/25/2025	10:09
PB167261BL	PB167261BL	BF142071.D	03/25/2025	11:38
PB167261BS	PB167261BS	BF142072.D	03/25/2025	12:08
WC-SCRN-01-C	Q1609-03	BF142083.D	03/25/2025	17:39

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM SAS No.: Q1609 SDG NO.: Q1609

Lab File ID: BF142174.D DFTPP Injection Date: 03/31/2025

Instrument ID: BNA_F DFTPP Injection Time: 11:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	21.1
68	Less than 2.0% of mass 69	0.4 (1.8) 1
69	Mass 69 relative abundance	23.6
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	34.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	5.3
275	10.0 - 60.0% of mass 198	24.3
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	15.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.1 (19.1) 2

1-Value is % mass 69 2-Value is % mass 442

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
SSTDCCC040	SSTDCCC040	BF142175.D	03/31/2025	12:22
PB167233TB	PB167233TB	BF142178.D	03/31/2025	13:51

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG NO.: Q1609

EPA Sample No.: SSTDCCC040 Date Analyzed: 03/24/2025

Lab File ID: BF142045.D Time Analyzed: 10:17

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	161989	6.875	619308	8.16	352913	9.91
	UPPER LIMIT	323978	7.375	1238620	8.657	705826	10.41
	LOWER LIMIT	80994.5	6.375	309654	7.657	176457	9.41
	EPA SAMPLE NO.						
01	OILY-DEBRIS-COMPMS	136574	6.88	525982	8.16	287440	9.91
02	OILY-DEBRIS-COMPMSD	136452	6.88	529624	8.16	299190	9.91

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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 UPPER 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

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG NO.: Q1609

EPA Sample No.: SSTDCCC040 Date Analyzed: 03/24/2025

Lab File ID: BF142045.D Time Analyzed: 10:17

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	604220	11.398	331741	14.039	322359	15.51
	UPPER LIMIT	1208440	11.898	663482	14.539	644718	16.01
	LOWER LIMIT	302110	10.898	165871	13.539	161180	15.01
	EPA SAMPLE NO.						
01	OILY-DEBRIS-COMPMS	438659	11.40	263592	14.03	323612	15.51
02	OILY-DEBRIS-COMPMSD	483350	11.40	280820	14.03	323085	15.51

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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 UPPER 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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG NO.: Q1609

EPA Sample No.: SSTDCCC040 Date Analyzed: 03/25/2025

Lab File ID: BF142068.D Time Analyzed: 10:09

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	160336	6.875	599217	8.16	347065	9.91
	UPPER LIMIT	320672	7.375	1198430	8.657	694130	10.41
	LOWER LIMIT	80168	6.375	299609	7.657	173533	9.41
	EPA SAMPLE NO.						
01	PB167261BL	128759	6.88	509446	8.15	294539	9.91
02	PB167261BS	137689	6.88	547320	8.16	312564	9.91
03	WC-SCRN-01-C	156009	6.88	600928	8.15	342469	9.91

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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 UPPER 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

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG NO.: Q1609

EPA Sample No.: SSTDCCC040 Date Analyzed: 03/25/2025

Lab File ID: BF142068.D Time Analyzed: 10:09

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	578583	11.398	306767	14.033	312865	15.51
	UPPER LIMIT	1157170	11.898	613534	14.533	625730	16.01
	LOWER LIMIT	289292	10.898	153384	13.533	156433	15.01
	EPA SAMPLE NO.						
01	PB167261BL	560108	11.39	309509	14.03	207073	15.50
02	PB167261BS	569268	11.40	326232	14.04	287415	15.51
03	WC-SCRN-01-C	587499	11.39	276694	14.03	245538	15.51

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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 UPPER 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

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG NO.: Q1609

EPA Sample No.: SSTDCCC040 Date Analyzed: 03/31/2025

Lab File ID: BF142175.D Time Analyzed: 12:22

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	153678	6.869	590359	8.15	382940	9.91
	UPPER LIMIT	307356	7.369	1180720	8.651	765880	10.41
	LOWER LIMIT	76839	6.369	295180	7.651	191470	9.41
	EPA SAMPLE NO.						
01	PB167233TB	117776	6.86	458702	8.15	268873	9.90

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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 UPPER 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

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG NO.: Q1609

EPA Sample No.: SSTDCCC040 Date Analyzed: 03/31/2025

Lab File ID: BF142175.D Time Analyzed: 12:22

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	658962	11.392	402422	14.039	395762	15.51
	UPPER LIMIT	1317920	11.892	804844	14.539	791524	16.01
	LOWER LIMIT	329481	10.892	201211	13.539	197881	15.01
	EPA SAMPLE NO.						
01	PB167233TB	511850	11.39	348724	14.03	288611	15.51

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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 UPPER LIMIT = -0.50 minutes of internal standard RT

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

SAMPLE DATA

Raw Data: **BF142073.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	03/21/25
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	03/21/25
Client Sample ID:	PB167193TB	SDG No.:	Q1609
Lab Sample ID:	PB167193TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142073.D	1	03/21/25 11:50	03/25/25 12:38	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	12.8	U	12.8	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.30	U	5.30	50.0	ug/L
95-48-7	2-Methylphenol	11.2	U	11.2	50.0	ug/L
65794-96-9	3+4-Methylphenols	11.0	U	11.0	100	ug/L
67-72-1	Hexachloroethane	6.50	U	6.50	50.0	ug/L
98-95-3	Nitrobenzene	7.60	U	7.60	50.0	ug/L
87-68-3	Hexachlorobutadiene	5.40	U	5.40	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	5.10	U	5.10	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	6.20	U	6.20	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	12.2	U	12.2	50.0	ug/L
118-74-1	Hexachlorobenzene	5.20	U	5.20	50.0	ug/L
87-86-5	Pentachlorophenol	15.8	U	15.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	146		15 (10) - 110 (139)	97%	SPK: 150
13127-88-3	Phenol-d6	138		15 (10) - 110 (134)	92%	SPK: 150
4165-60-0	Nitrobenzene-d5	102		30 (49) - 130 (133)	102%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.5		30 (52) - 130 (132)	99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	160		15 (44) - 110 (137)	107%	SPK: 150
1718-51-0	Terphenyl-d14	132	*	30 (48) - 130 (125)	132%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	132000	6.875			
1146-65-2	Naphthalene-d8	523000	8.151			
15067-26-2	Acenaphthene-d10	303000	9.91			
1517-22-2	Phenanthrene-d10	564000	11.392			
1719-03-5	Chrysene-d12	303000	14.033			
1520-96-3	Perylene-d12	205000	15.509			

Raw Data: **BF142073.D**

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

Report of Analysis

Client:	ENTACT			Date Collected:	03/21/25
Project:	540 Degraw St, Brooklyn, NY - E9309			Date Received:	03/21/25
Client Sample ID:	PB167193TB			SDG No.:	Q1609
Lab Sample ID:	PB167193TB			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142073.D	1	03/21/25 11:50	03/25/25 12:38	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Sample Results: **BF142073.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142073.D
Acq On : 25 Mar 2025 12:38
Operator : RC/JU
Sample : PB167193TB
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Quant Time: Mar 25 13:03:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

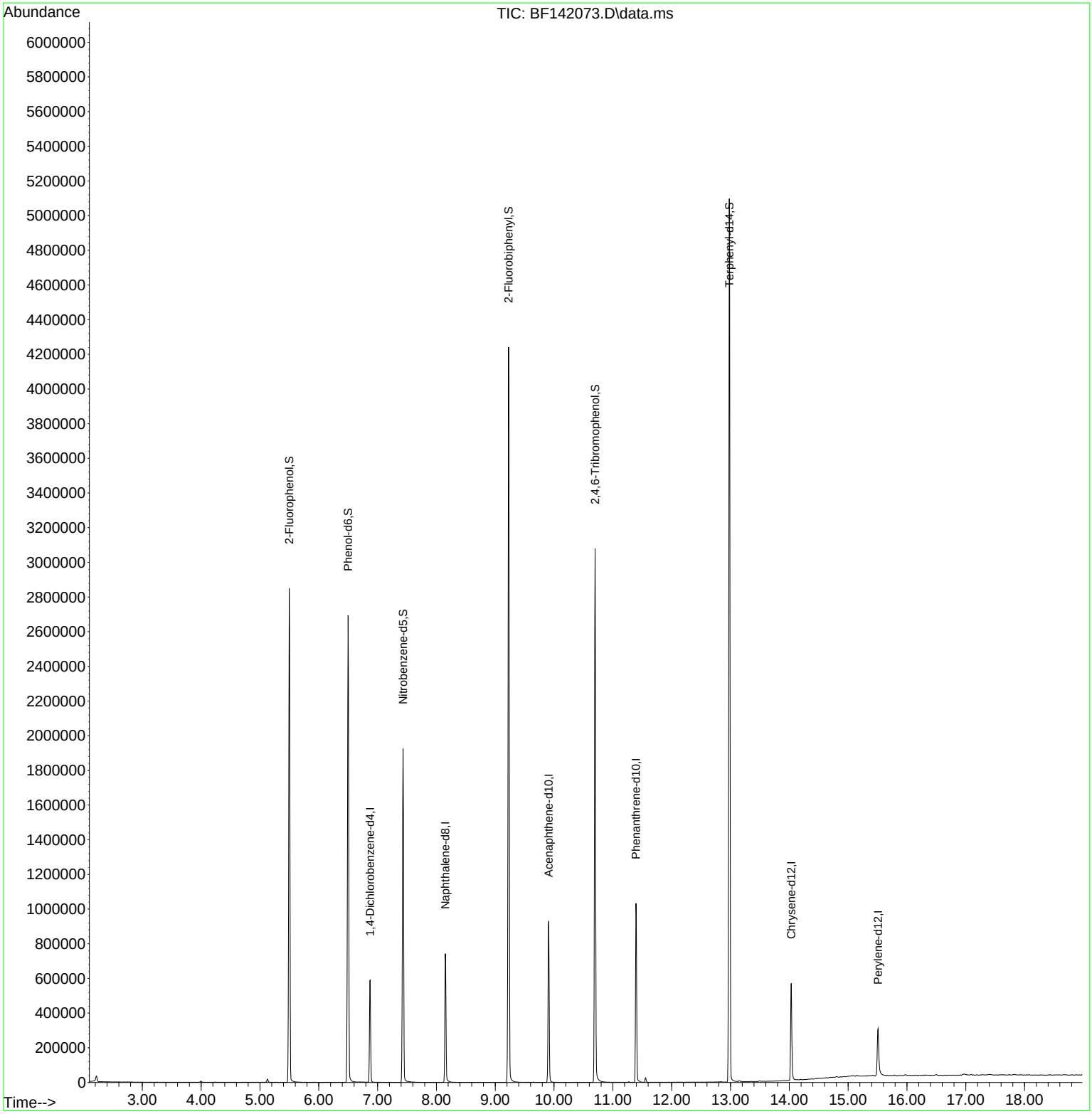
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	132302	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	523137	20.000	ng	-0.01
39) Acenaphthene-d10	9.910	164	302807	20.000	ng	0.00
64) Phenanthrene-d10	11.392	188	564152	20.000	ng	-0.01
76) Chrysene-d12	14.033	240	302921	20.000	ng	0.00
86) Perylene-d12	15.509	264	204899	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.498	112	1154480	145.635	ng	0.00
7) Phenol-d6	6.498	99	1393393	138.054	ng	0.00
23) Nitrobenzene-d5	7.434	82	949108	102.099	ng	-0.01
42) 2,4,6-Tribromophenol	10.698	330	616230	160.414	ng	0.00
45) 2-Fluorobiphenyl	9.227	172	1980704	99.478	ng	-0.01
79) Terphenyl-d14	12.980	244	2714167	132.469	ng	0.00
Target Compounds						Qvalue

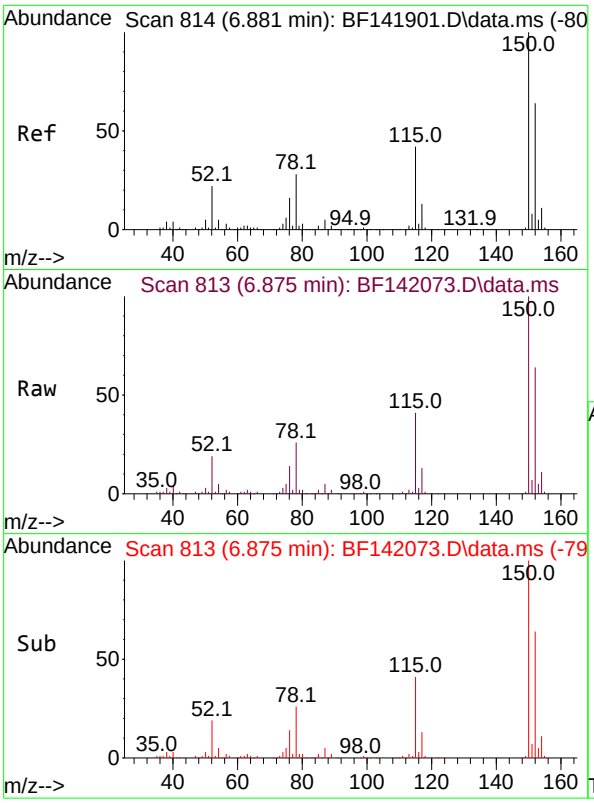
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142073.D
Acq On : 25 Mar 2025 12:38
Operator : RC/JU
Sample : PB167193TB
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Quant Time: Mar 25 13:03:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



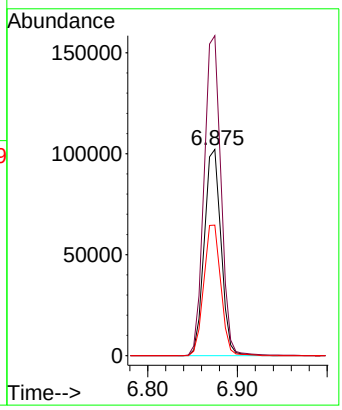


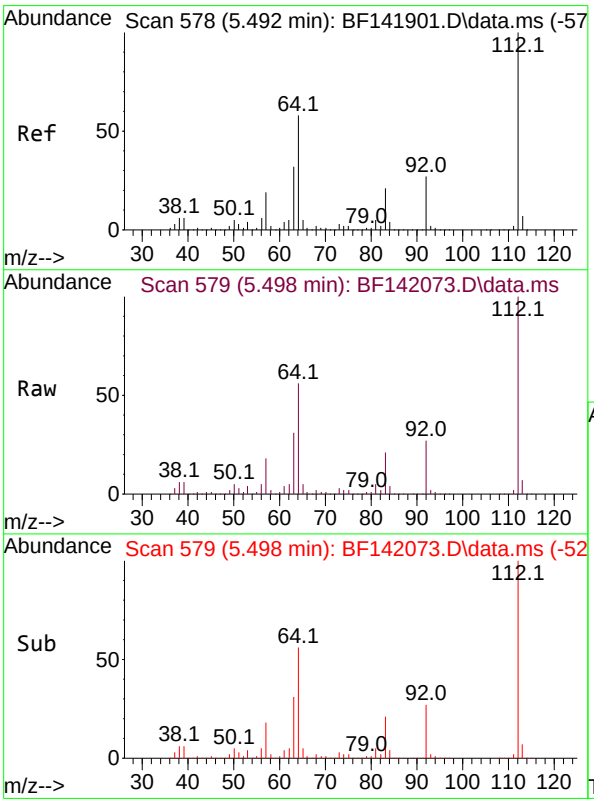
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.875 min Scan# 81
Delta R.T. -0.006 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Tgt Ion:152 Resp: 132302

Ion	Ratio	Lower	Upper
152	100		
150	155.2	127.4	191.2
115	63.3	51.9	77.9

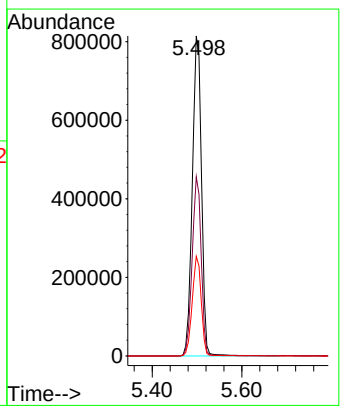


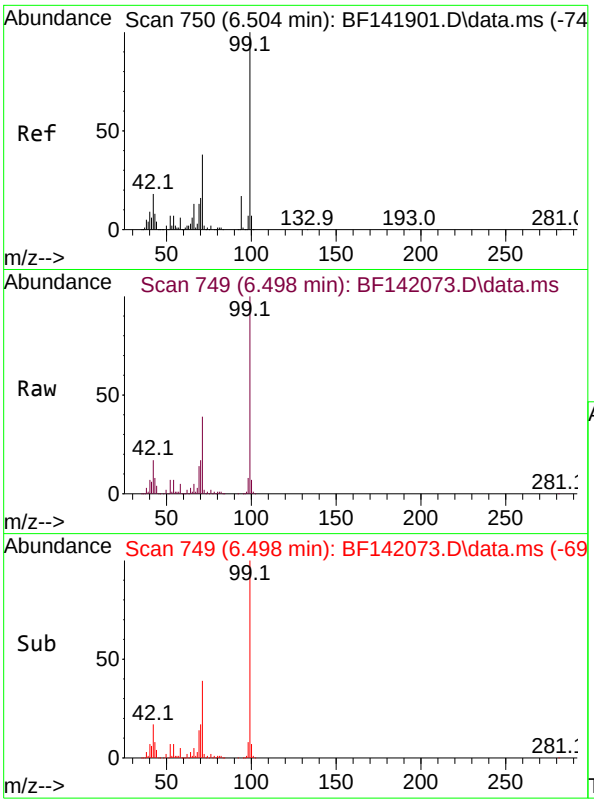


#5
2-Fluorophenol
Concen: 145.635 ng
RT: 5.498 min Scan# 579
Delta R.T. 0.006 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Tgt Ion:112 Resp: 1154480

Ion	Ratio	Lower	Upper
112	100		
64	56.0	46.5	69.7
63	31.1	25.4	38.2



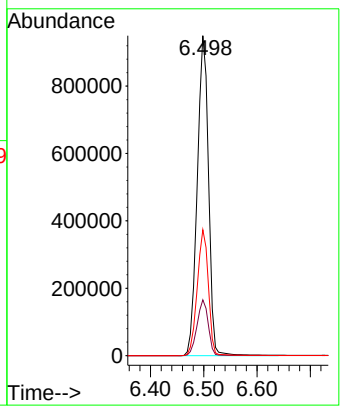


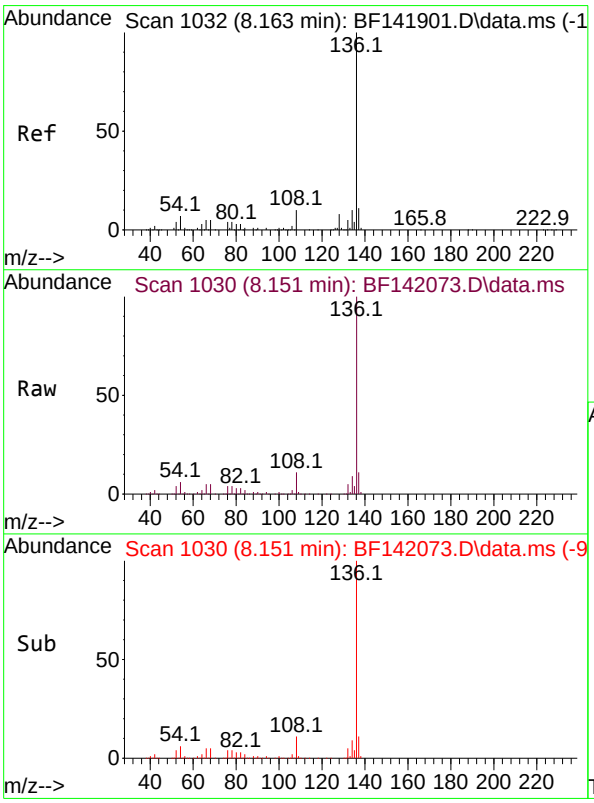
#7
Phenol-d6
Concen: 138.054 ng
RT: 6.498 min Scan# 74
Delta R.T. -0.006 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Tgt Ion: 99 Resp: 1393393

Ion	Ratio	Lower	Upper
99	100		
42	17.4	14.6	21.8
71	39.3	30.8	46.2

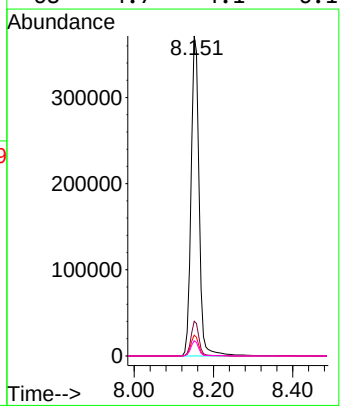


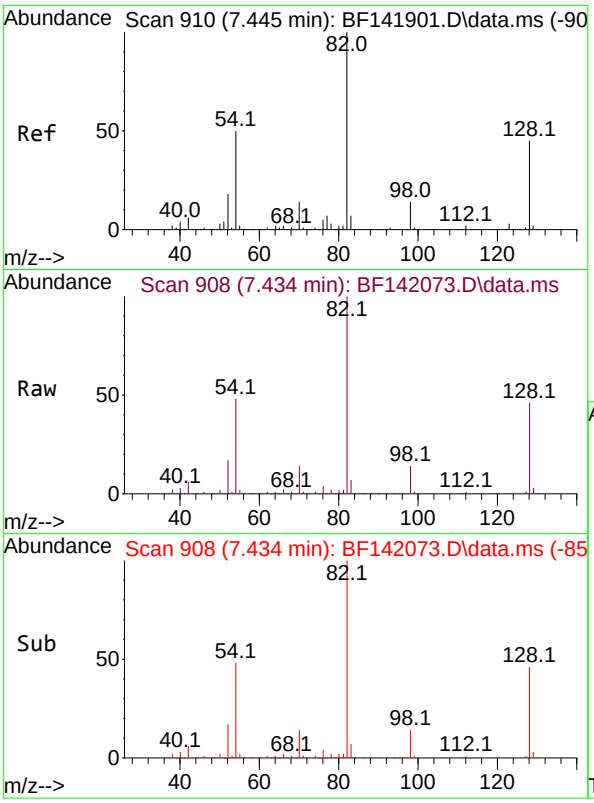


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.012 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Tgt Ion:136 Resp: 523137

Ion	Ratio	Lower	Upper
136	100		
137	10.8	8.8	13.2
54	6.5	5.8	8.8
68	4.7	4.1	6.1



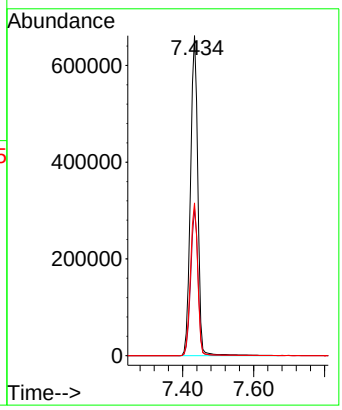


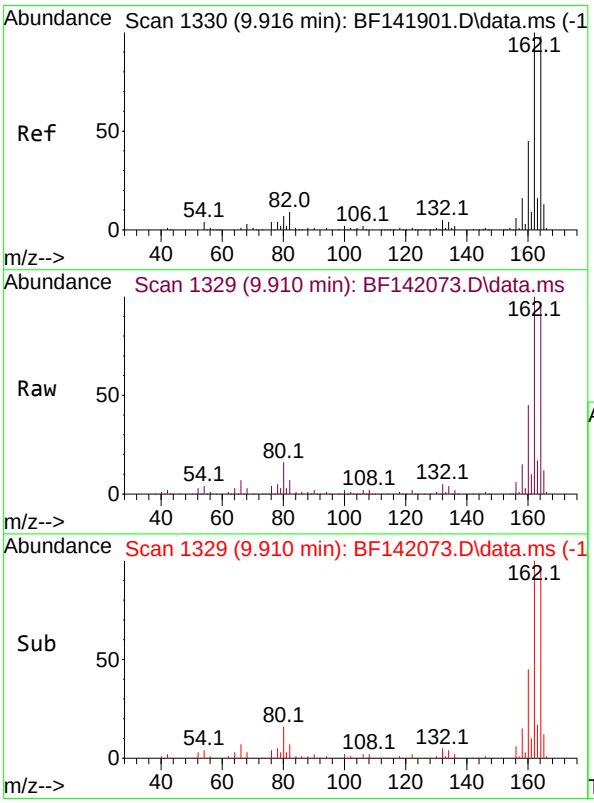
#23
Nitrobenzene-d5
Concen: 102.099 ng
RT: 7.434 min Scan# 90
Delta R.T. -0.012 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Tgt Ion: 82 Resp: 949108

Ion	Ratio	Lower	Upper
82	100		
128	46.0	36.0	54.0
54	47.7	39.6	59.4

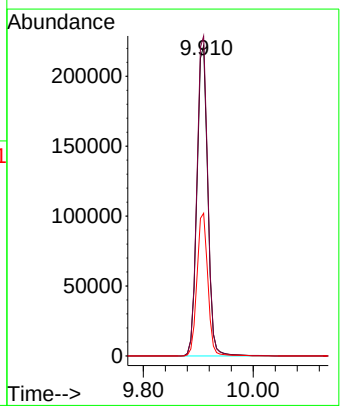


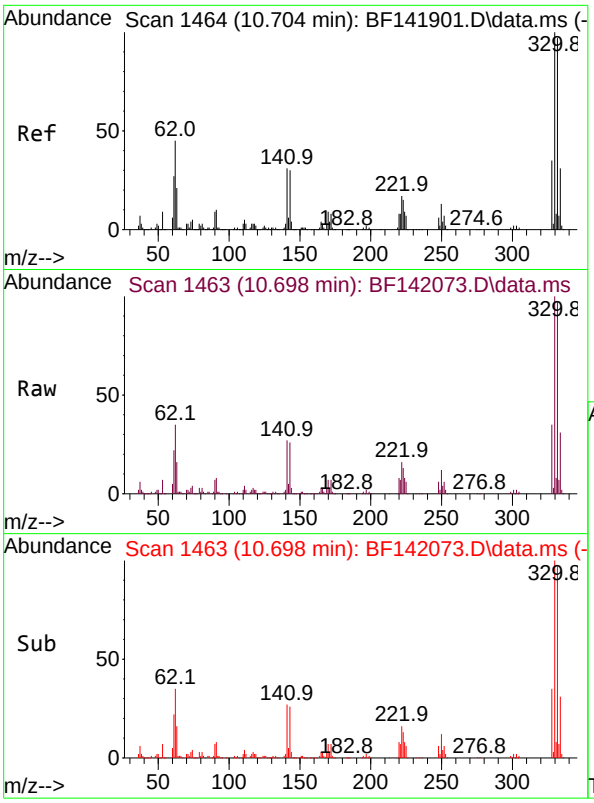


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.910 min Scan# 1329
Delta R.T. -0.006 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Tgt Ion:164 Resp: 302807

Ion	Ratio	Lower	Upper
164	100		
162	103.2	81.8	122.6
160	46.0	36.7	55.1



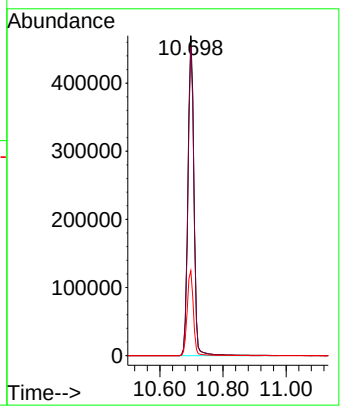


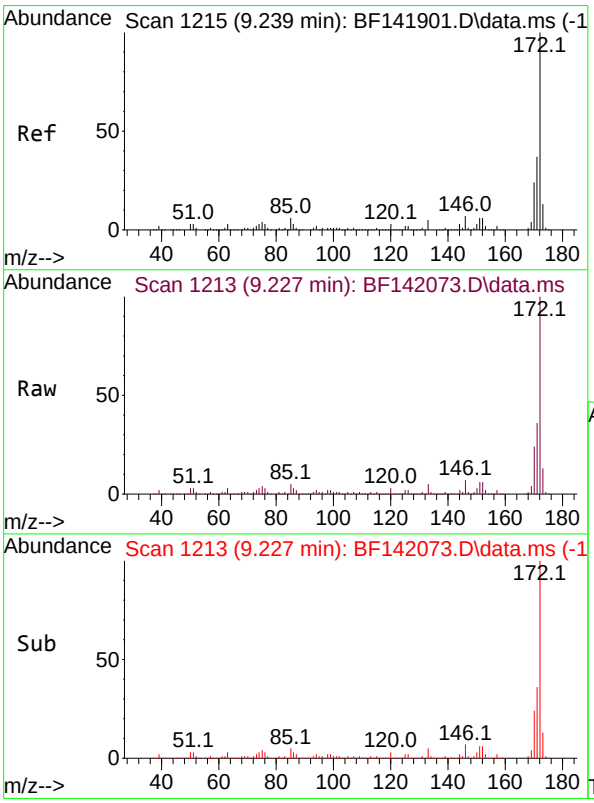
#42
2,4,6-Tribromophenol
Concen: 160.414 ng
RT: 10.698 min Scan# 14
Delta R.T. -0.006 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Tgt Ion:330 Resp: 616230

Ion	Ratio	Lower	Upper
330	100		
332	96.6	77.6	116.4
141	27.3	24.7	37.1

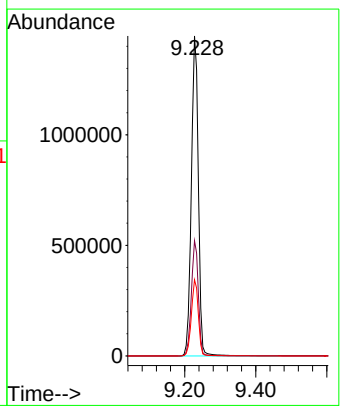


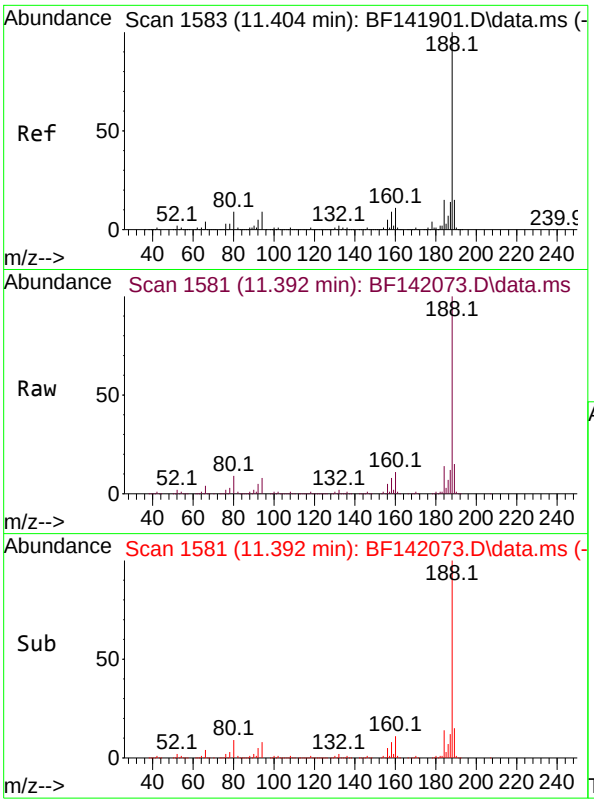


#45
2-Fluorobiphenyl
Concen: 99.478 ng
RT: 9.227 min Scan# 1213
Delta R.T. -0.012 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Tgt Ion:172 Resp: 1980704

Ion	Ratio	Lower	Upper
172	100		
171	36.0	29.3	43.9
170	23.8	19.4	29.0



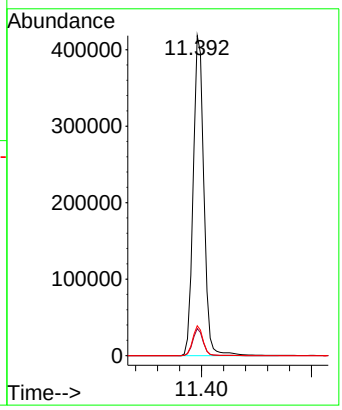


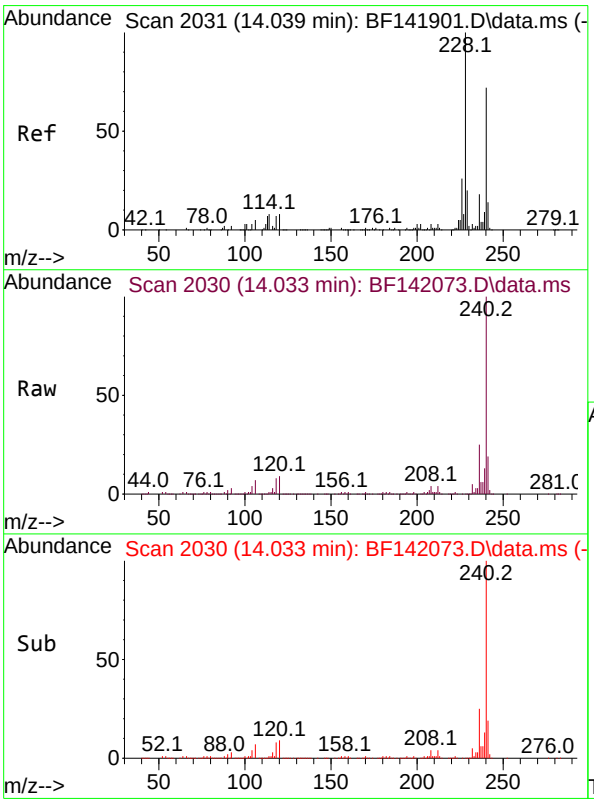
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.392 min Scan# 1
Delta R.T. -0.012 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Tgt Ion:188 Resp: 564152

Ion	Ratio	Lower	Upper
188	100		
94	8.4	6.8	10.2
80	9.3	7.6	11.4

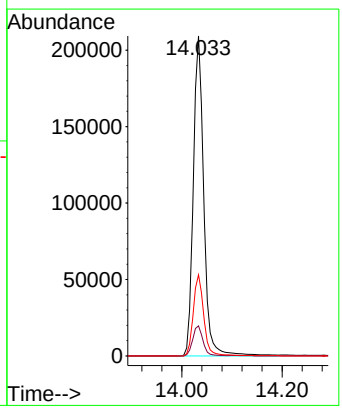


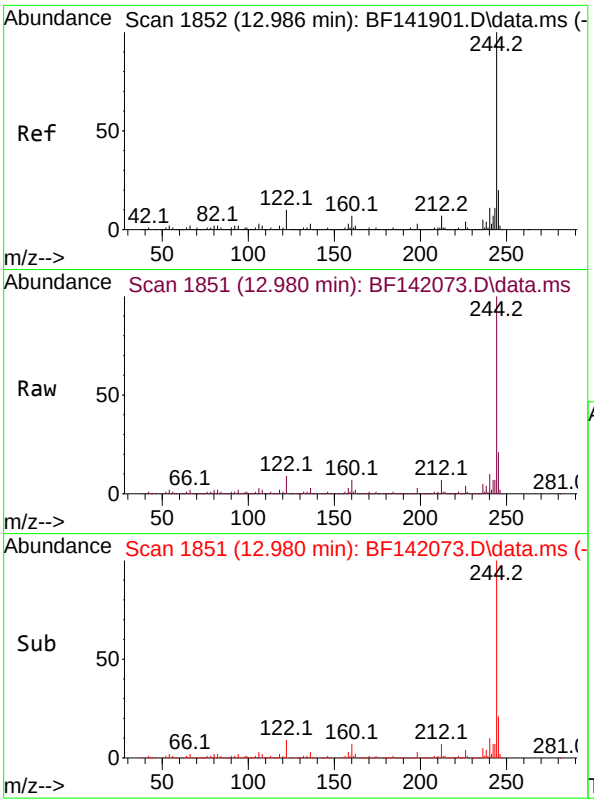


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.033 min Scan# 2030
Delta R.T. -0.006 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Tgt Ion:240 Resp: 302921

Ion	Ratio	Lower	Upper
240	100		
120	9.4	8.4	12.6
236	25.3	20.5	30.7



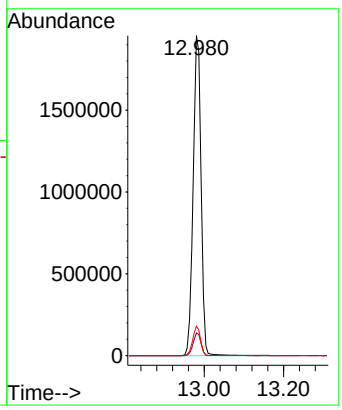


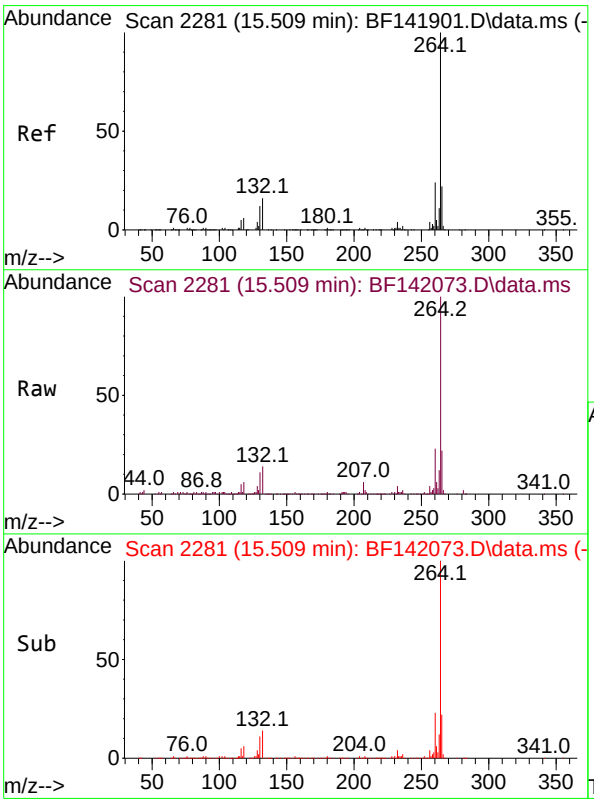
#79
Terphenyl-d14
Concen: 132.469 ng
RT: 12.980 min Scan# 18
Delta R.T. -0.006 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Instrument :
BNA_F
ClientSampleId :
PB167193TB

Tgt Ion:244 Resp: 2714167

Ion	Ratio	Lower	Upper
244	100		
212	7.1	6.0	9.0
122	9.2	7.7	11.5

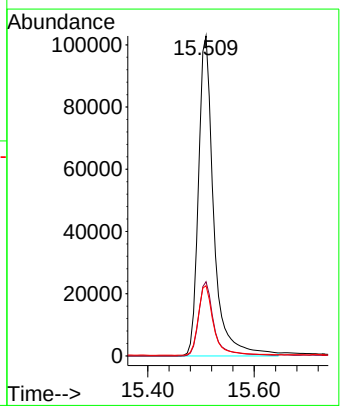




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.509 min Scan# 2281
Delta R.T. 0.000 min
Lab File: BF142073.D
Acq: 25 Mar 2025 12:38

Tgt Ion:264 Resp: 204899

Ion	Ratio	Lower	Upper
264	100		
260	23.2	19.1	28.7
265	21.9	17.5	26.3



Raw Data: **BF142178.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	03/21/25
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	03/21/25
Client Sample ID:	PB167233TB	SDG No.:	Q1609
Lab Sample ID:	PB167233TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142178.D	1	03/21/25 11:50	03/31/25 13:51	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	12.8	U	12.8	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.30	U	5.30	50.0	ug/L
95-48-7	2-Methylphenol	11.2	U	11.2	50.0	ug/L
65794-96-9	3+4-Methylphenols	11.0	U	11.0	100	ug/L
67-72-1	Hexachloroethane	6.50	U	6.50	50.0	ug/L
98-95-3	Nitrobenzene	7.60	U	7.60	50.0	ug/L
87-68-3	Hexachlorobutadiene	5.40	U	5.40	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	5.10	U	5.10	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	6.20	U	6.20	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	12.2	U	12.2	50.0	ug/L
118-74-1	Hexachlorobenzene	5.20	U	5.20	50.0	ug/L
87-86-5	Pentachlorophenol	15.8	U	15.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	138		15 (10) - 110 (139)	92%	SPK: 150
13127-88-3	Phenol-d6	133		15 (10) - 110 (134)	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.0		30 (49) - 130 (133)	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.4		30 (52) - 130 (132)	98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	168	*	15 (44) - 110 (137)	112%	SPK: 150
1718-51-0	Terphenyl-d14	105		30 (48) - 130 (125)	105%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	118000	6.863			
1146-65-2	Naphthalene-d8	459000	8.145			
15067-26-2	Acenaphthene-d10	269000	9.904			
1517-22-2	Phenanthrene-d10	512000	11.392			
1719-03-5	Chrysene-d12	349000	14.033			
1520-96-3	Perylene-d12	289000	15.51			

Raw Data: **BF142178.D**

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

Report of Analysis

Client:	ENTACT			Date Collected:	03/21/25
Project:	540 Degraw St, Brooklyn, NY - E9309			Date Received:	03/21/25
Client Sample ID:	PB167233TB			SDG No.:	Q1609
Lab Sample ID:	PB167233TB			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142178.D	1	03/21/25 11:50	03/31/25 13:51	PB167261

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:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142178.D
Acq On : 31 Mar 2025 13:51
Operator : RC/JU
Sample : PB167233TB
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Quant Time: Mar 31 14:09:01 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

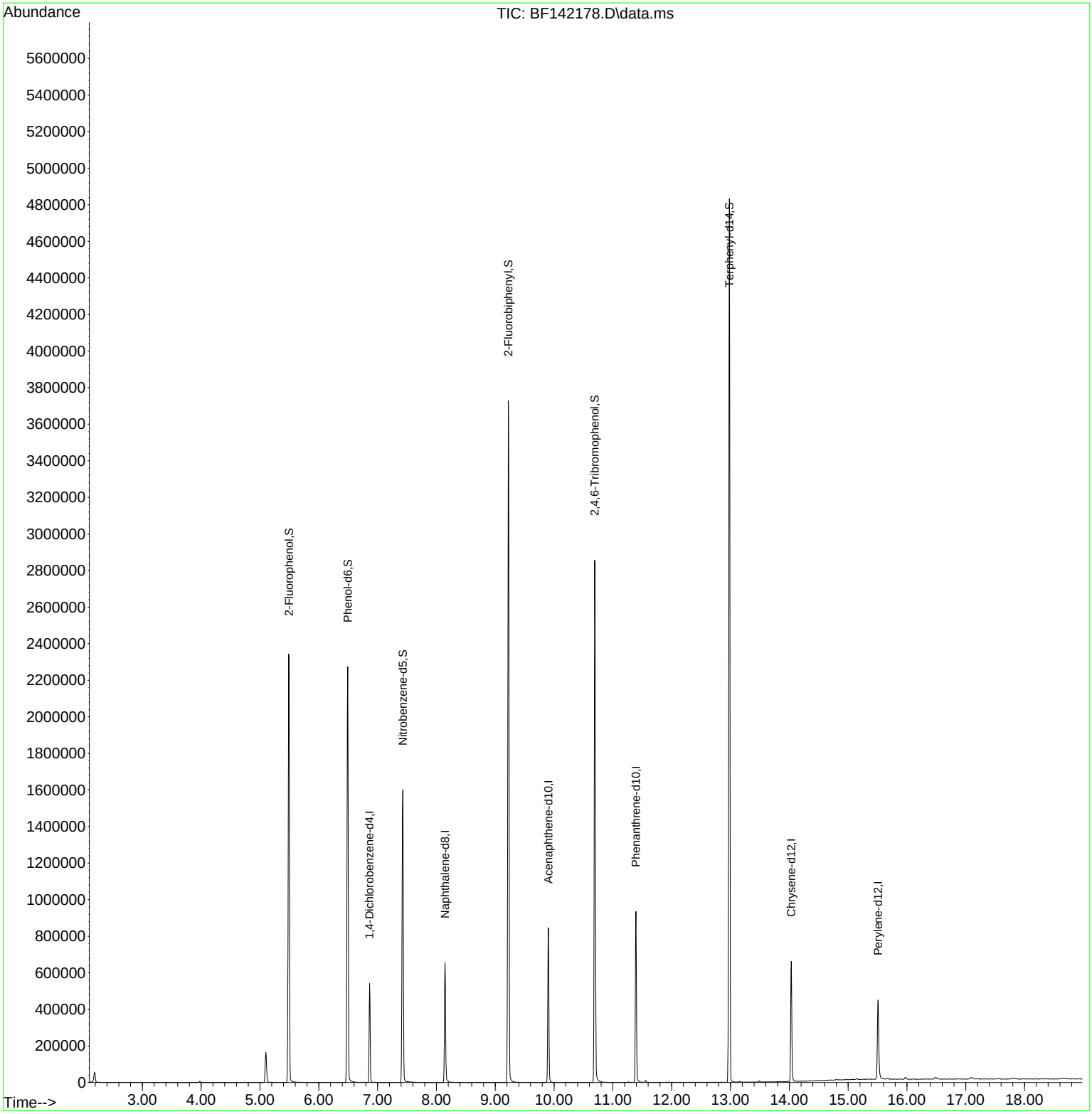
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.863	152	117776	20.000	ng	-0.02
21) Naphthalene-d8	8.145	136	458702	20.000	ng	-0.02
39) Acenaphthene-d10	9.904	164	268873	20.000	ng	-0.01
64) Phenanthrene-d10	11.392	188	511850m	20.000	ng	-0.01
76) Chrysene-d12	14.033	240	348724	20.000	ng	0.00
86) Perylene-d12	15.510	264	288611	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.493	112	976573	138.386	ng	0.00
7) Phenol-d6	6.493	99	1194368	132.930	ng	-0.01
23) Nitrobenzene-d5	7.428	82	790827	97.023	ng	-0.02
42) 2,4,6-Tribromophenol	10.692	330	573624	168.168	ng	-0.01
45) 2-Fluorobiphenyl	9.222	172	1739979	98.417	ng	-0.02
79) Terphenyl-d14	12.980	244	2476925	105.012	ng	0.00
Target Compounds						Qvalue

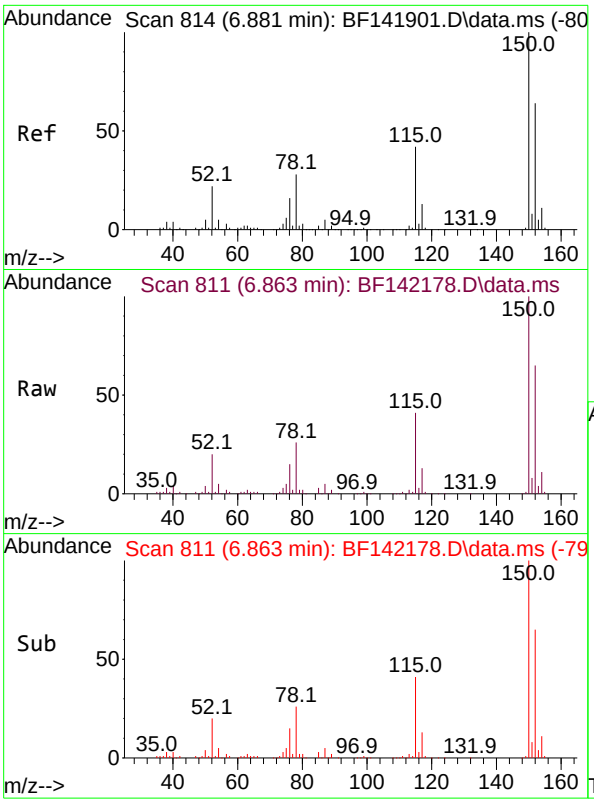
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142178.D
Acq On : 31 Mar 2025 13:51
Operator : RC/JU
Sample : PB167233TB
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Quant Time: Mar 31 14:09:01 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



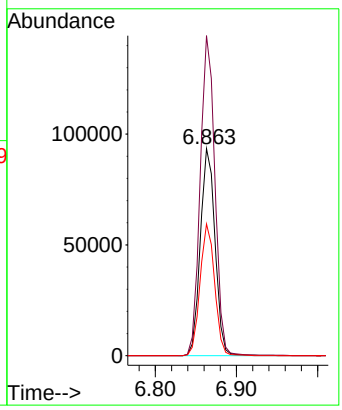


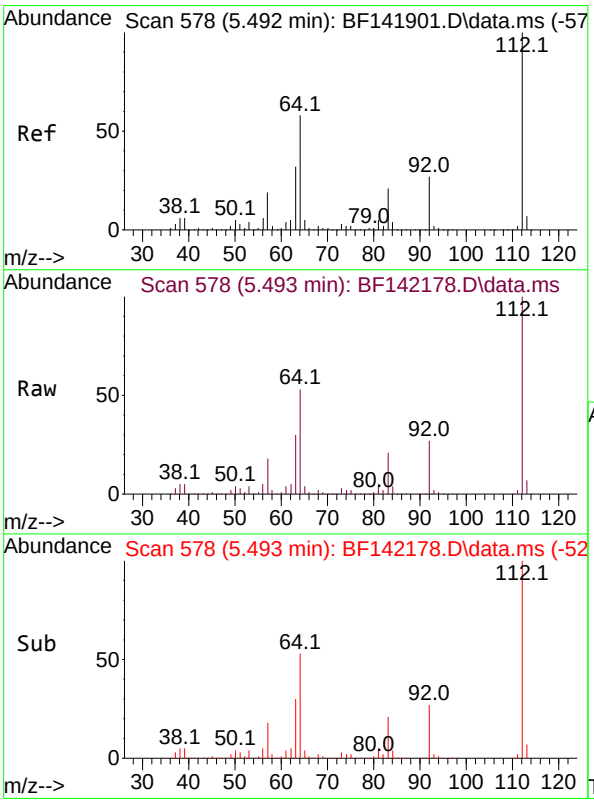
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.863 min Scan# 8
Delta R.T. -0.018 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Tgt Ion:152 Resp: 117776

Ion	Ratio	Lower	Upper
152	100		
150	154.5	127.4	191.2
115	63.6	51.9	77.9

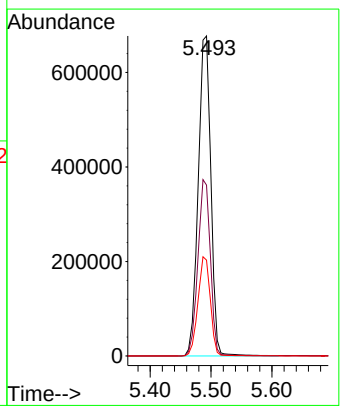


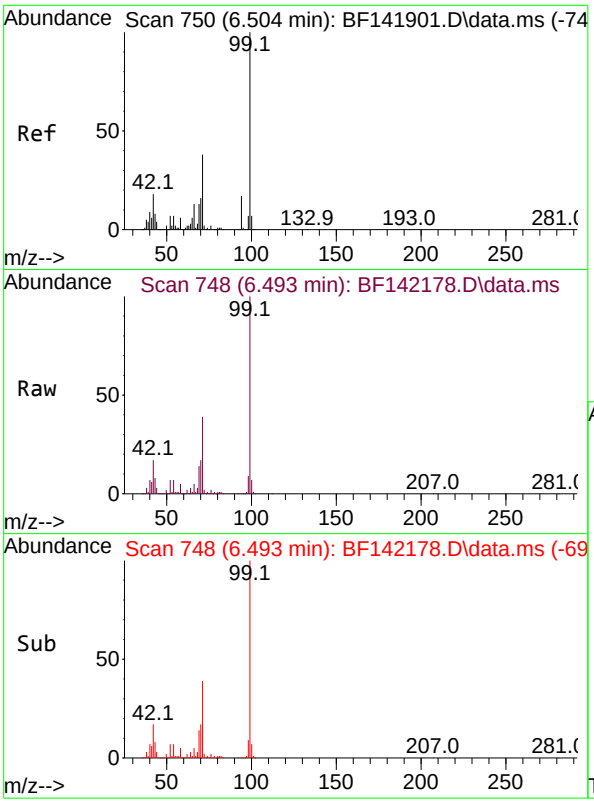


#5
2-Fluorophenol
Concen: 138.386 ng
RT: 5.493 min Scan# 578
Delta R.T. 0.000 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Tgt Ion:112 Resp: 976573

Ion	Ratio	Lower	Upper
112	100		
64	53.4	46.5	69.7
63	30.0	25.4	38.2



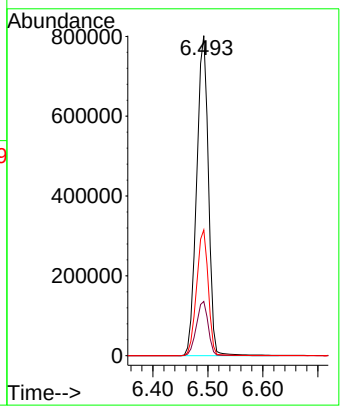


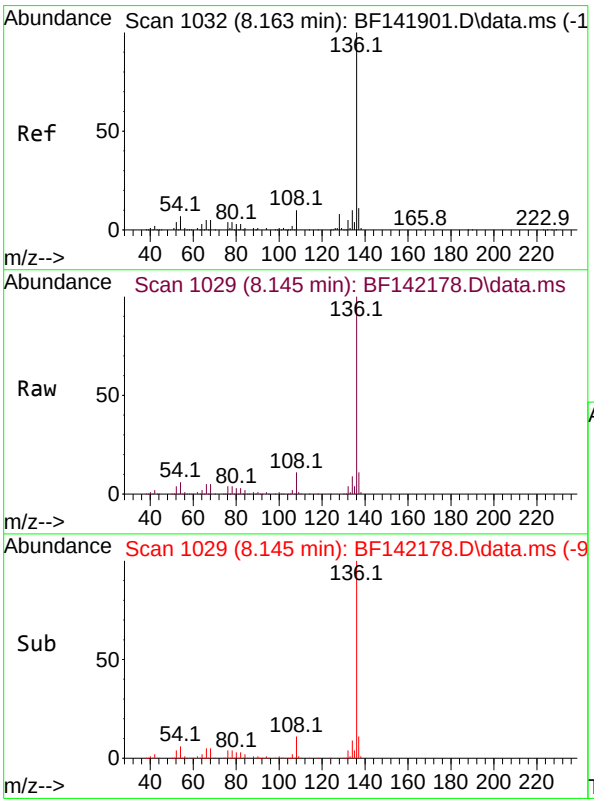
#7
Phenol-d6
Concen: 132.930 ng
RT: 6.493 min Scan# 7
Delta R.T. -0.012 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Tgt Ion: 99 Resp: 1194368

Ion	Ratio	Lower	Upper
99	100		
42	17.0	14.6	21.8
71	39.3	30.8	46.2

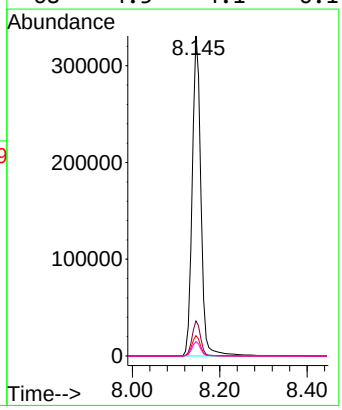


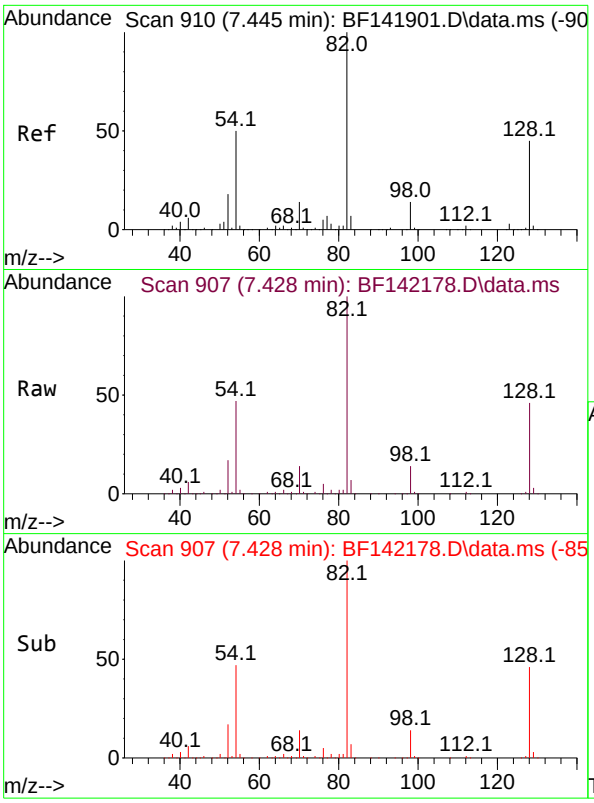


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.145 min Scan# 1029
Delta R.T. -0.018 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Tgt Ion:136 Resp: 458702

Ion	Ratio	Lower	Upper
136	100		
137	10.9	8.8	13.2
54	6.4	5.8	8.8
68	4.5	4.1	6.1



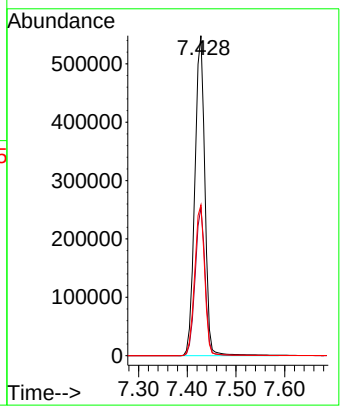


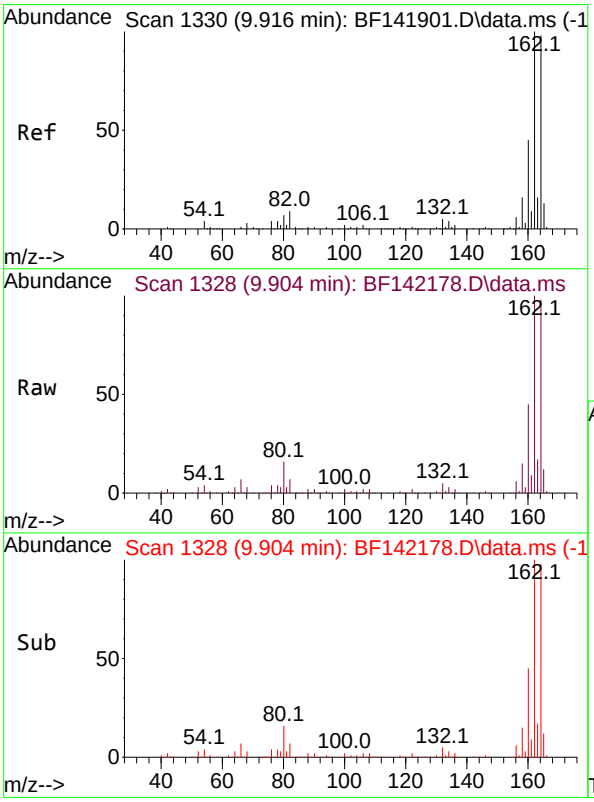
#23
Nitrobenzene-d5
Concen: 97.023 ng
RT: 7.428 min Scan# 9
Delta R.T. -0.018 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Tgt Ion: 82 Resp: 790827

Ion	Ratio	Lower	Upper
82	100		
128	46.4	36.0	54.0
54	47.0	39.6	59.4

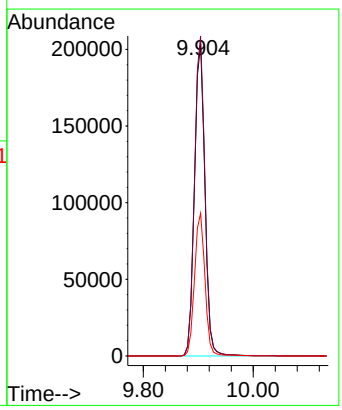


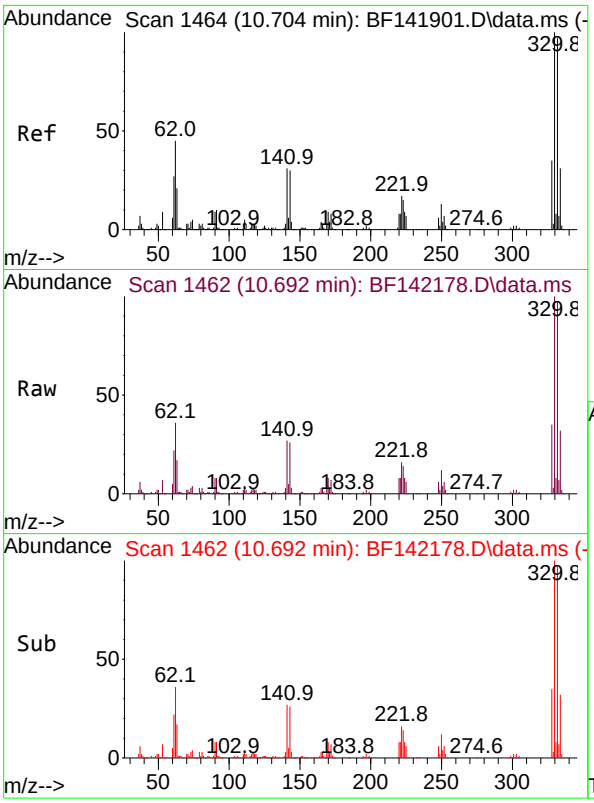


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.904 min Scan# 1328
Delta R.T. -0.012 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Tgt Ion:164 Resp: 268873

Ion	Ratio	Lower	Upper
164	100		
162	102.5	81.8	122.6
160	45.8	36.7	55.1



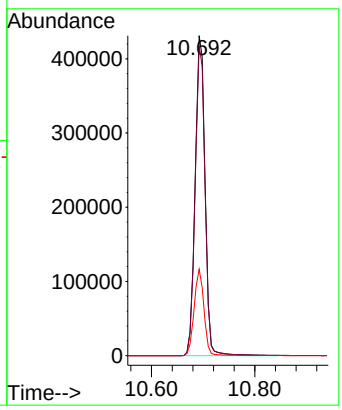


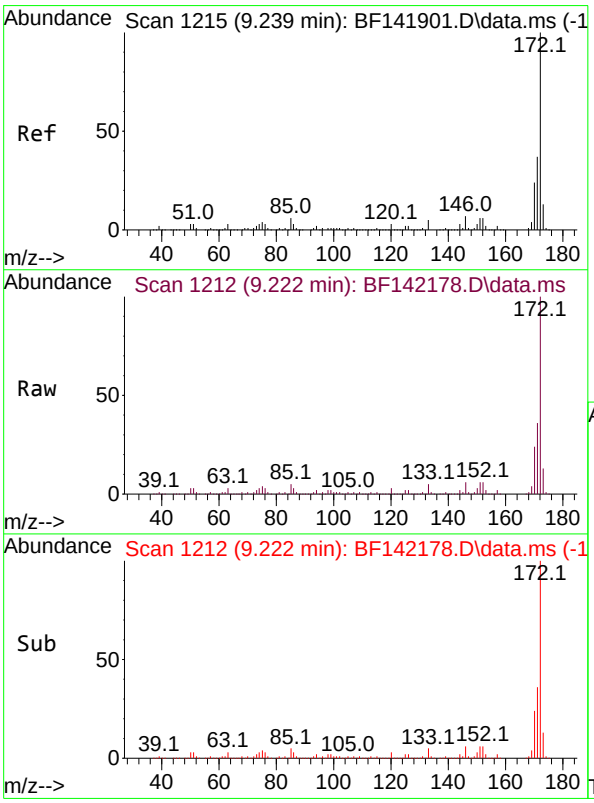
#42
2,4,6-Tribromophenol
Concen: 168.168 ng
RT: 10.692 min Scan# 14
Delta R.T. -0.012 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Tgt Ion:330 Resp: 573624

Ion	Ratio	Lower	Upper
330	100		
332	96.9	77.6	116.4
141	27.0	24.7	37.1

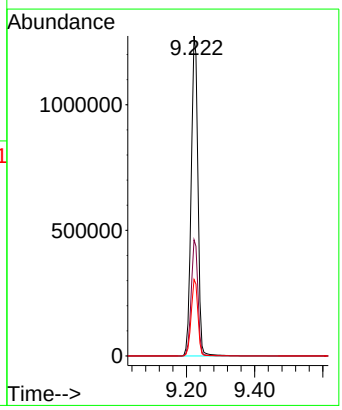


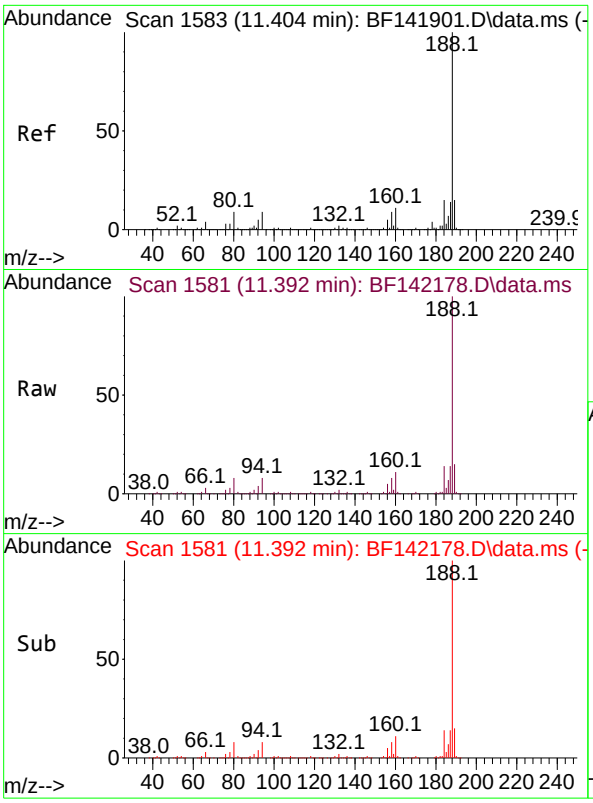


#45
2-Fluorobiphenyl
Concen: 98.417 ng
RT: 9.222 min Scan# 1212
Delta R.T. -0.018 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Tgt Ion:172 Resp: 1739979

Ion	Ratio	Lower	Upper
172	100		
171	36.3	29.3	43.9
170	23.9	19.4	29.0



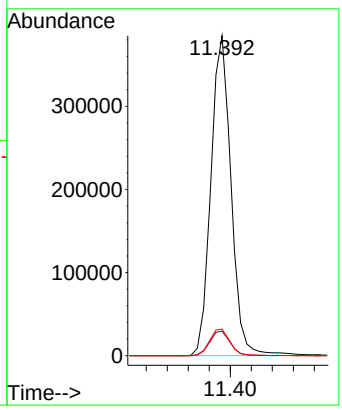


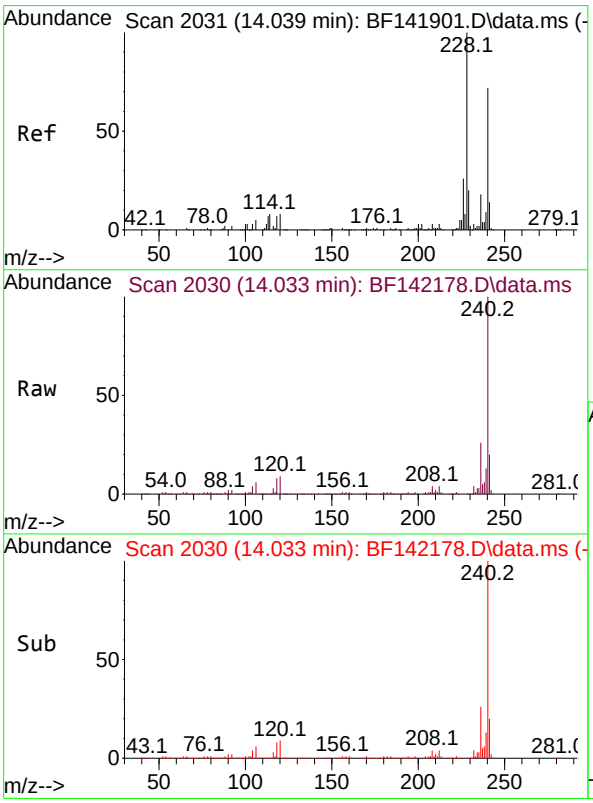
#64
Phenanthrene-d10
Concen: 20.000 ng m
RT: 11.392 min Scan# 1
Delta R.T. -0.012 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Tgt Ion:188 Resp: 511850

Ion	Ratio	Lower	Upper
188	100		
94	7.7	6.8	10.2
80	8.3	7.6	11.4

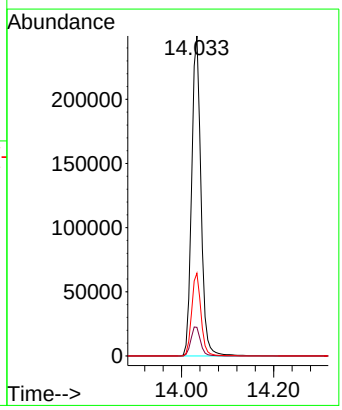


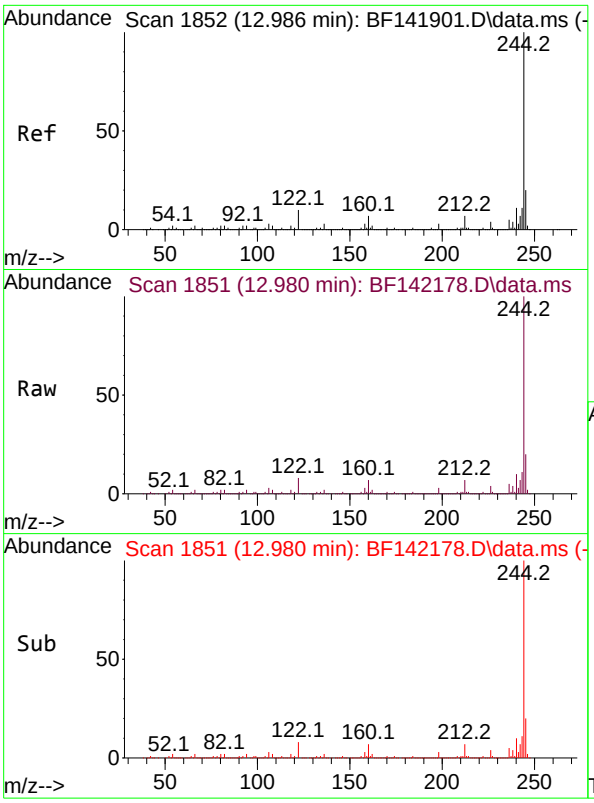


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.033 min Scan# 2030
Delta R.T. -0.006 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Tgt Ion:240 Resp: 348724

Ion	Ratio	Lower	Upper
240	100		
120	8.9	8.4	12.6
236	25.9	20.5	30.7



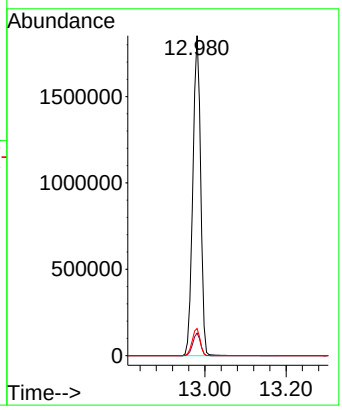


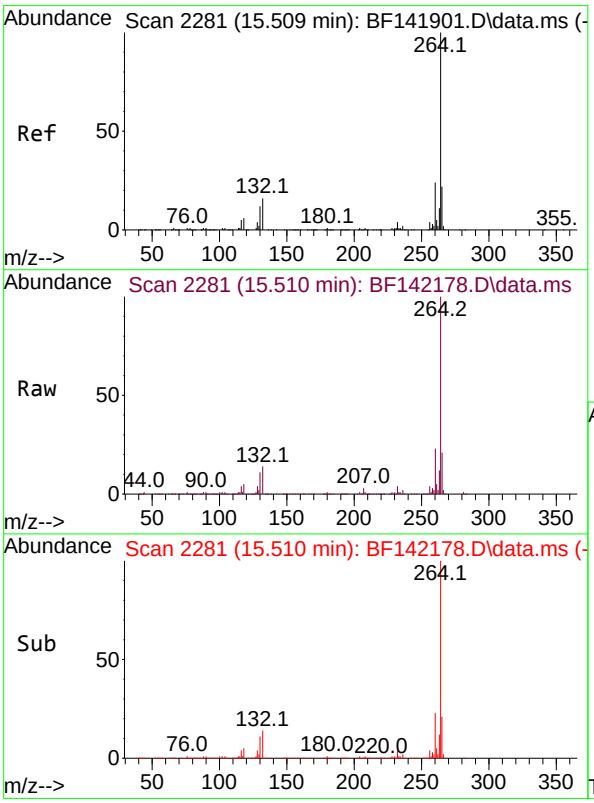
#79
Terphenyl-d14
Concen: 105.012 ng
RT: 12.980 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Instrument :
BNA_F
ClientSampleId :
PB167233TB

Tgt Ion:244 Resp: 2476925

Ion	Ratio	Lower	Upper
244	100		
212	7.0	6.0	9.0
122	8.5	7.7	11.5

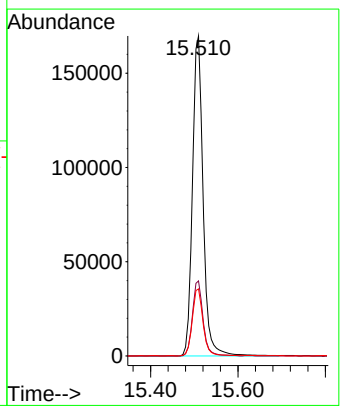




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.510 min Scan# 2281
Delta R.T. 0.000 min
Lab File: BF142178.D
Acq: 31 Mar 2025 13:51

Tgt Ion:264 Resp: 288611

Ion	Ratio	Lower	Upper
264	100		
260	23.5	19.1	28.7
265	20.9	17.5	26.3



Raw Data: **BF142083.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	03/19/25
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	03/20/25
Client Sample ID:	WC-SCRN-01-C	SDG No.:	Q1609
Lab Sample ID:	Q1609-03	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142083.D	1	03/21/25 11:50	03/25/25 17:39	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	12.8	U	12.8	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.30	U	5.30	50.0	ug/L
95-48-7	2-Methylphenol	11.2	U	11.2	50.0	ug/L
65794-96-9	3+4-Methylphenols	11.0	U	11.0	100	ug/L
67-72-1	Hexachloroethane	6.50	U	6.50	50.0	ug/L
98-95-3	Nitrobenzene	7.60	U	7.60	50.0	ug/L
87-68-3	Hexachlorobutadiene	5.40	U	5.40	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	5.10	U	5.10	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	6.20	U	6.20	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	12.2	U	12.2	50.0	ug/L
118-74-1	Hexachlorobenzene	5.20	U	5.20	50.0	ug/L
87-86-5	Pentachlorophenol	15.8	U	15.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	141		15 (10) - 110 (139)	94%	SPK: 150
13127-88-3	Phenol-d6	134		15 (10) - 110 (134)	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	103		30 (49) - 130 (133)	103%	SPK: 100
321-60-8	2-Fluorobiphenyl	102		30 (52) - 130 (132)	102%	SPK: 100
118-79-6	2,4,6-Tribromophenol	175	*	15 (44) - 110 (137)	117%	SPK: 150
1718-51-0	Terphenyl-d14	140	*	30 (48) - 130 (125)	140%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	156000	6.875			
1146-65-2	Naphthalene-d8	601000	8.151			
15067-26-2	Acenaphthene-d10	342000	9.91			
1517-22-2	Phenanthrene-d10	587000	11.392			
1719-03-5	Chrysene-d12	277000	14.033			
1520-96-3	Perylene-d12	246000	15.51			

Raw Data: **BF142083.D**

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

Report of Analysis

Client:	ENTACT			Date Collected:	03/19/25
Project:	540 Degraw St, Brooklyn, NY - E9309			Date Received:	03/20/25
Client Sample ID:	WC-SCRN-01-C			SDG No.:	Q1609
Lab Sample ID:	Q1609-03			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142083.D	1	03/21/25 11:50	03/25/25 17:39	PB167261

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:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142083.D
Acq On : 25 Mar 2025 17:39
Operator : RC/JU
Sample : Q1609-03
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Quant Time: Mar 25 18:34:37 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

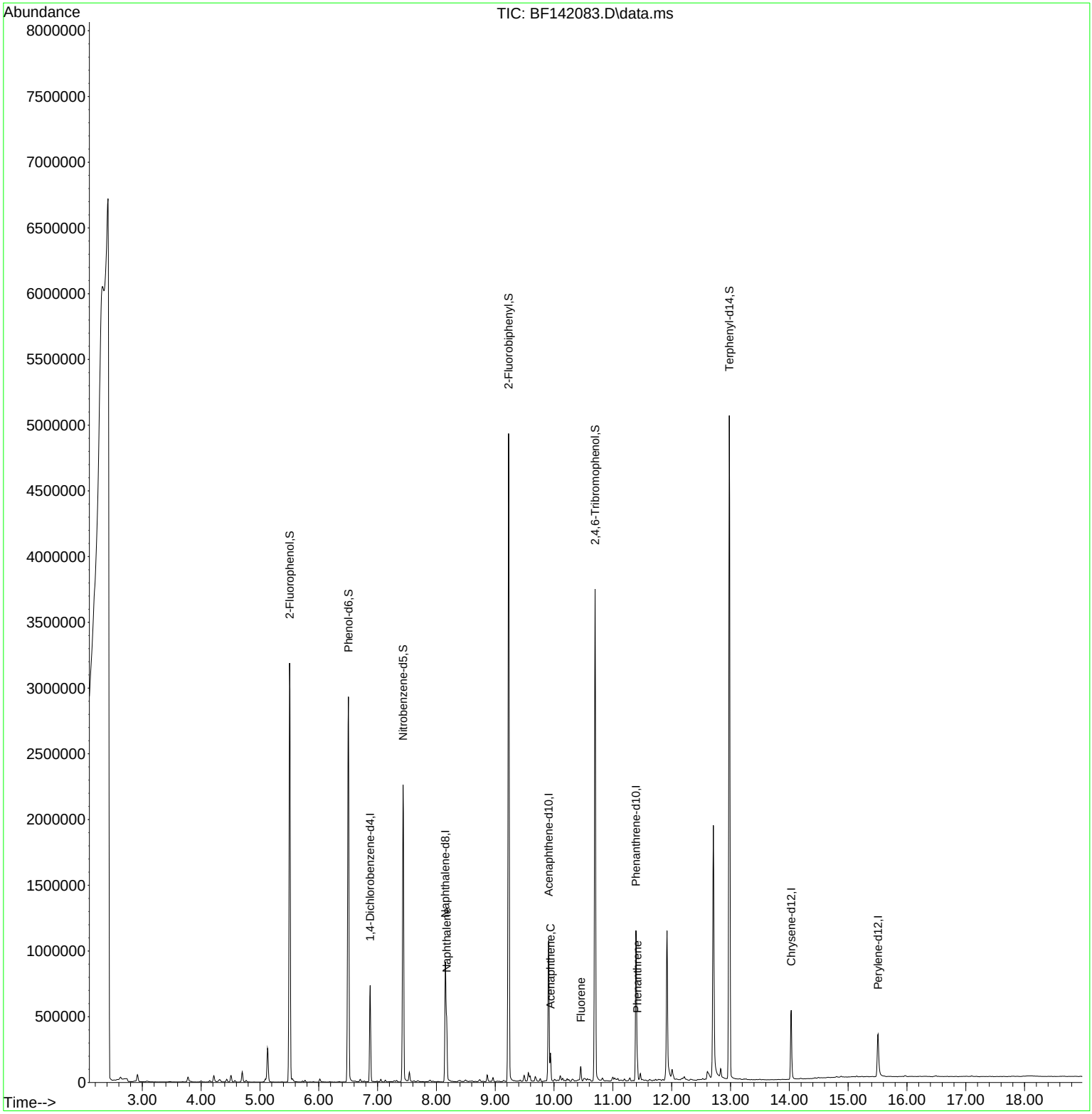
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	156009	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	600928	20.000	ng	-0.01
39) Acenaphthene-d10	9.910	164	342469	20.000	ng	0.00
64) Phenanthrene-d10	11.392	188	587499	20.000	ng	-0.01
76) Chrysene-d12	14.033	240	276694	20.000	ng	0.00
86) Perylene-d12	15.510	264	245538	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.504	112	1320889	141.307	ng	0.01
7) Phenol-d6	6.504	99	1590969	133.676	ng	0.00
23) Nitrobenzene-d5	7.434	82	1096608	102.696	ng	-0.01
42) 2,4,6-Tribromophenol	10.698	330	761406	175.251	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	2288298	101.617	ng	-0.01
79) Terphenyl-d14	12.980	244	2626097	140.320	ng	0.00
Target Compounds						Qvalue
31) Naphthalene	8.175	128	301104	9.754	ng	99
52) Acenaphthene	9.939	154	63995	3.164	ng	99
58) Fluorene	10.457	166	47576	2.135	ng	99
71) Phenanthrene	11.416	178	79313	2.499	ng	99

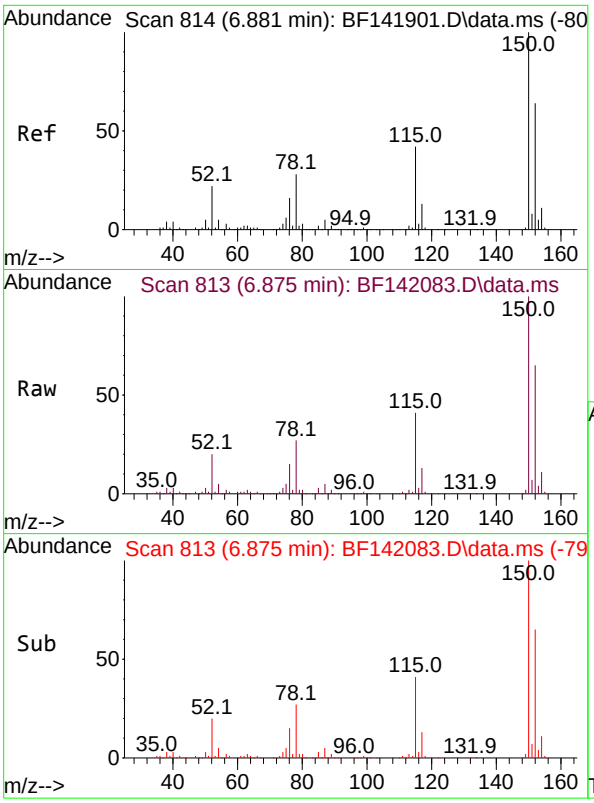
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142083.D
Acq On : 25 Mar 2025 17:39
Operator : RC/JU
Sample : Q1609-03
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Quant Time: Mar 25 18:34:37 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



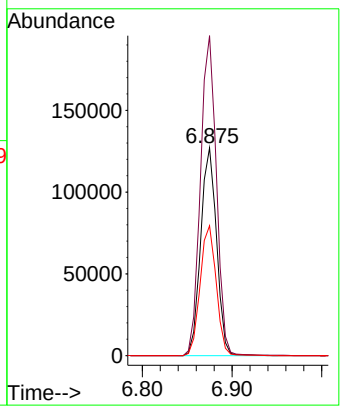


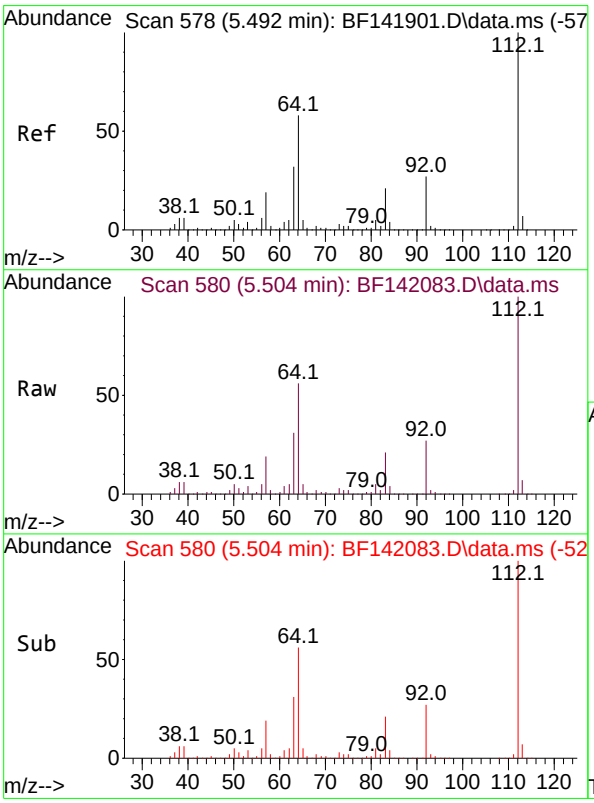
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.875 min Scan# 81
Delta R.T. -0.006 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion:152 Resp: 156009

Ion	Ratio	Lower	Upper
152	100		
150	154.0	127.4	191.2
115	62.5	51.9	77.9

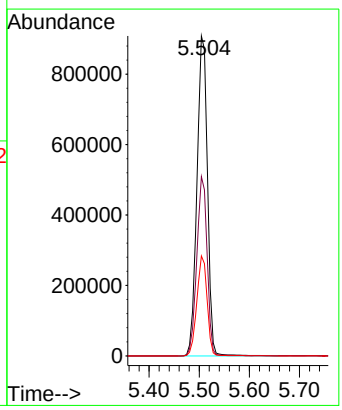


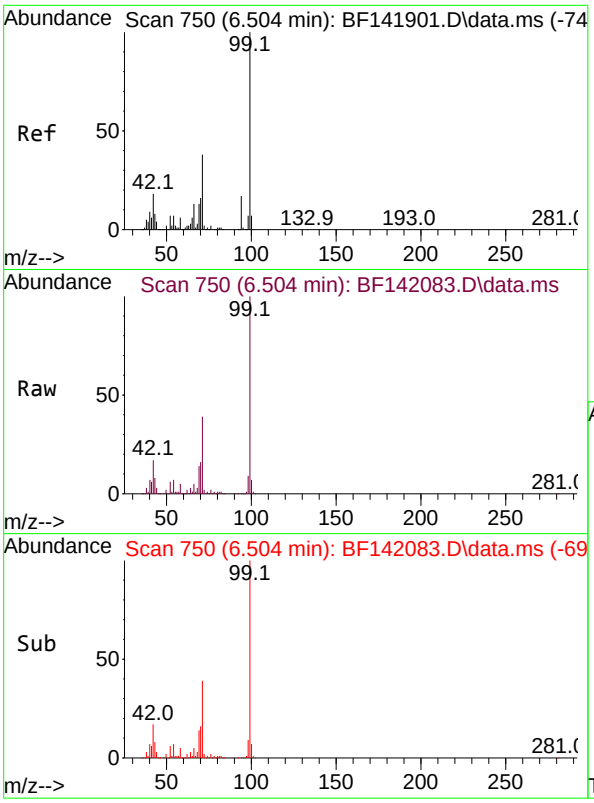


#5
2-Fluorophenol
Concen: 141.307 ng
RT: 5.504 min Scan# 580
Delta R.T. 0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:112 Resp: 1320889

Ion	Ratio	Lower	Upper
112	100		
64	56.0	46.5	69.7
63	31.2	25.4	38.2



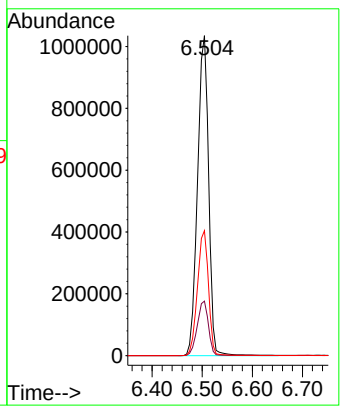


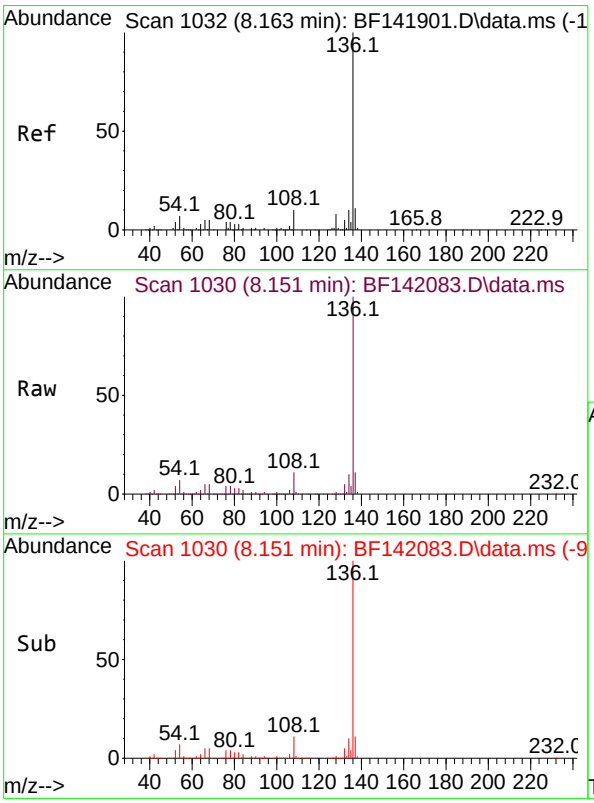
#7
Phenol-d6
Concen: 133.676 ng
RT: 6.504 min Scan# 7
Delta R.T. 0.000 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion: 99 Resp: 1590969

Ion	Ratio	Lower	Upper
99	100		
42	17.1	14.6	21.8
71	39.0	30.8	46.2

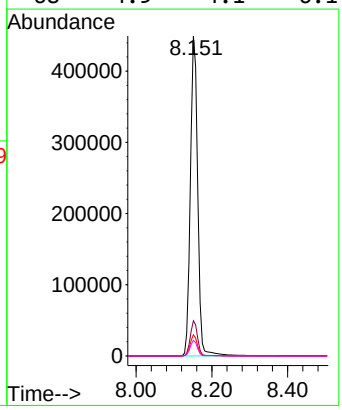


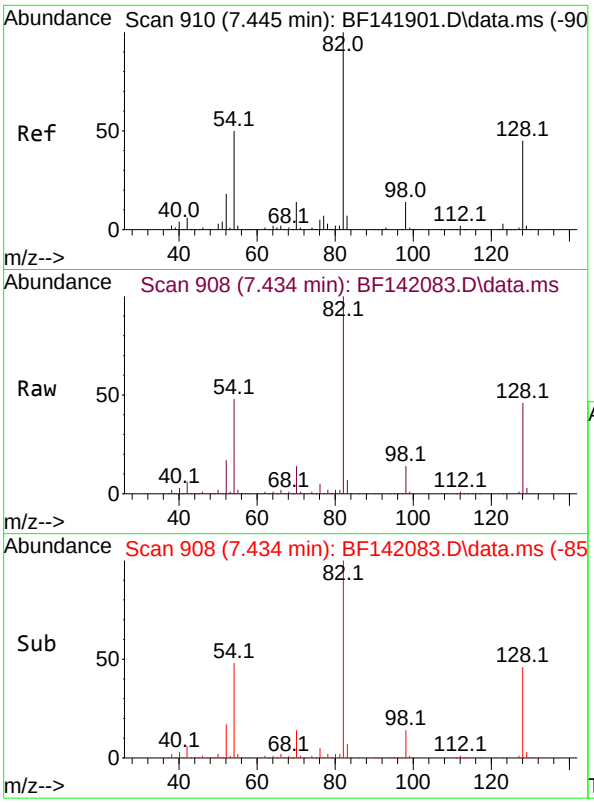


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:136 Resp: 600928

Ion	Ratio	Lower	Upper
136	100		
137	11.0	8.8	13.2
54	6.6	5.8	8.8
68	4.9	4.1	6.1



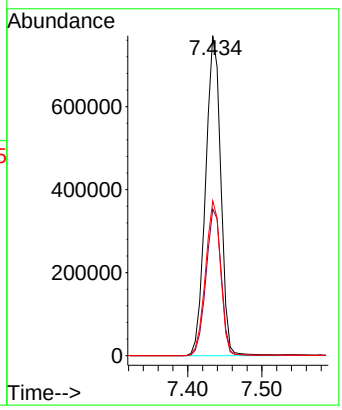


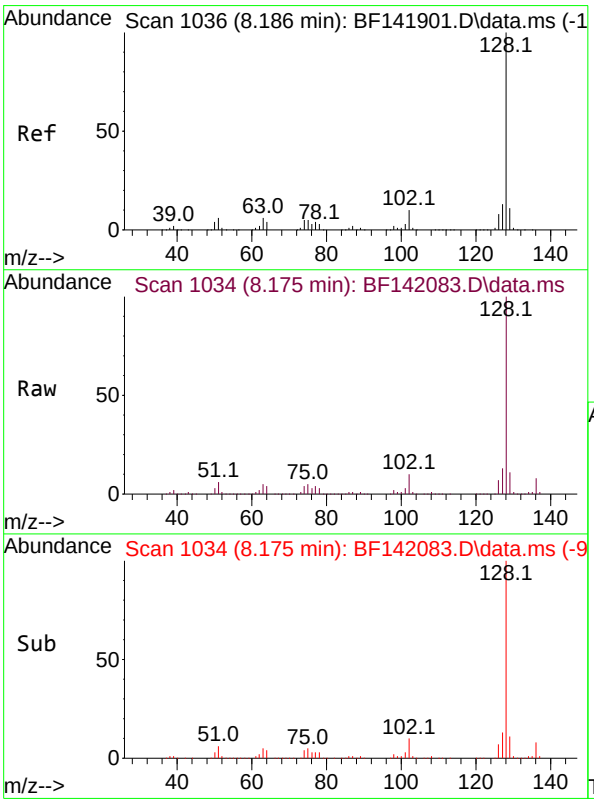
#23
Nitrobenzene-d5
Concen: 102.696 ng
RT: 7.434 min Scan# 90
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion: 82 Resp: 1096608

Ion	Ratio	Lower	Upper
82	100		
128	45.8	36.0	54.0
54	48.4	39.6	59.4

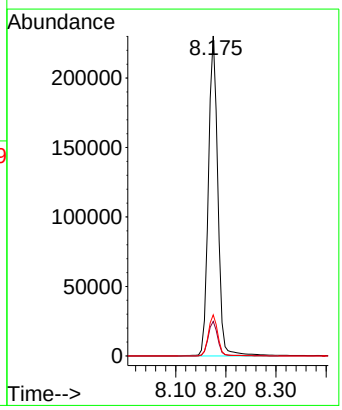


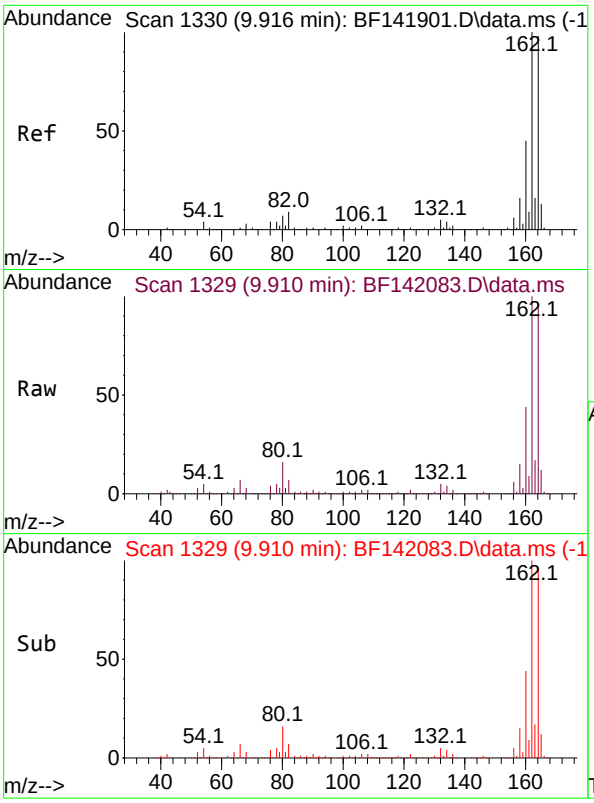


#31
Naphthalene
Concen: 9.754 ng
RT: 8.175 min Scan# 1034
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:128 Resp: 301104

Ion	Ratio	Lower	Upper
128	100		
129	10.8	9.0	13.6
127	12.8	10.8	16.2



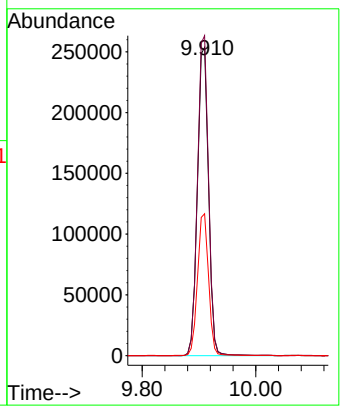


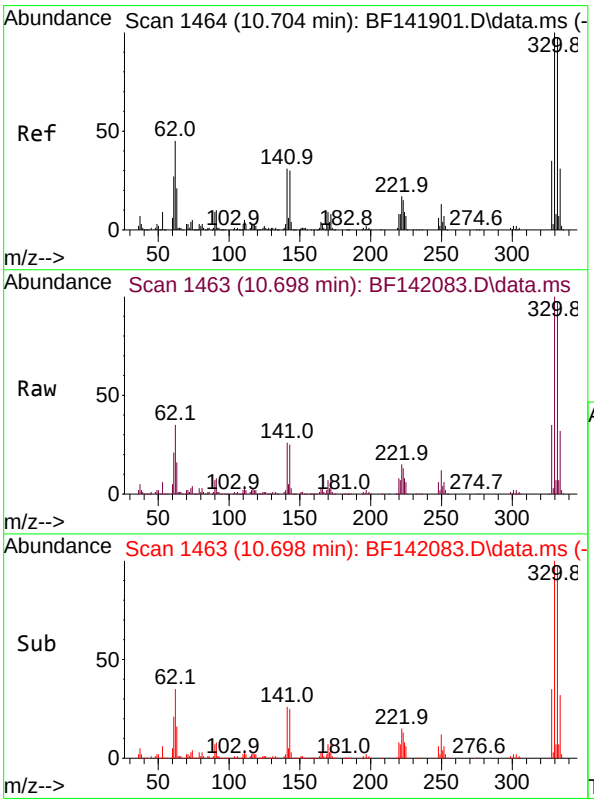
#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.910 min Scan# 1
Delta R.T. -0.006 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion:164 Resp: 342469

Ion	Ratio	Lower	Upper
164	100		
162	103.8	81.8	122.6
160	46.0	36.7	55.1

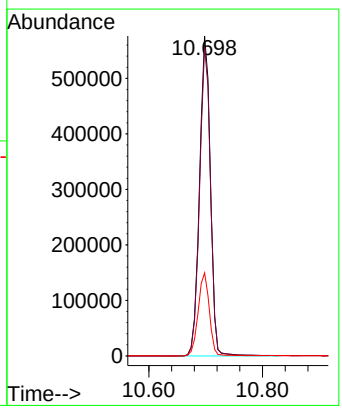


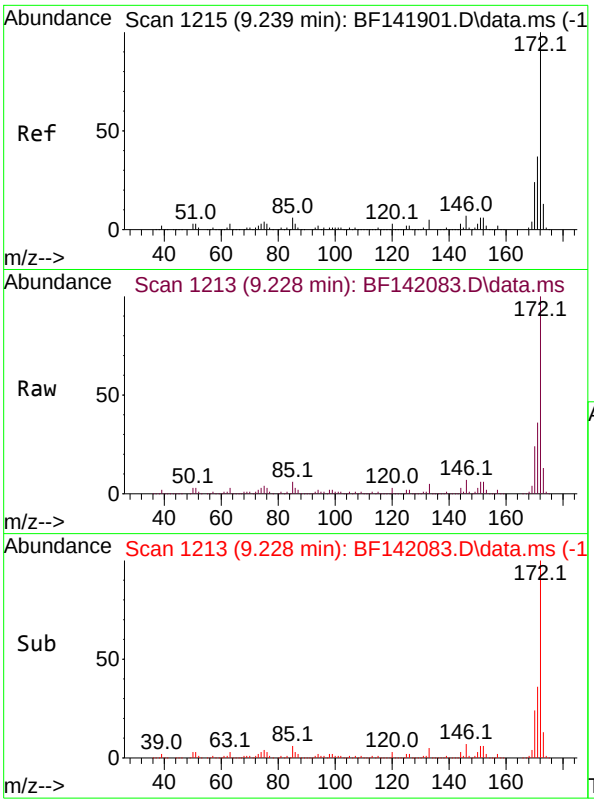


#42
2,4,6-Tribromophenol
Concen: 175.251 ng
RT: 10.698 min Scan# 1463
Delta R.T. -0.006 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:330 Resp: 761406

Ion	Ratio	Lower	Upper
330	100		
332	96.9	77.6	116.4
141	26.7	24.7	37.1



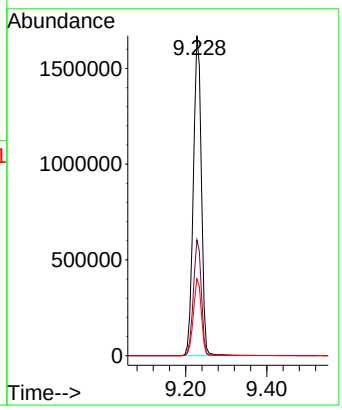


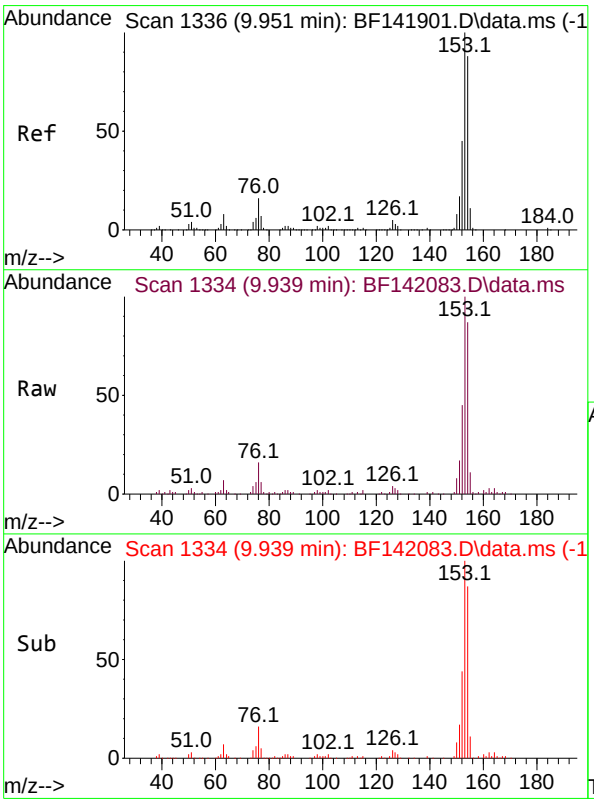
#45
2-Fluorobiphenyl
Concen: 101.617 ng
RT: 9.228 min Scan# 1
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion:172 Resp: 2288298

Ion	Ratio	Lower	Upper
172	100		
171	36.2	29.3	43.9
170	24.0	19.4	29.0

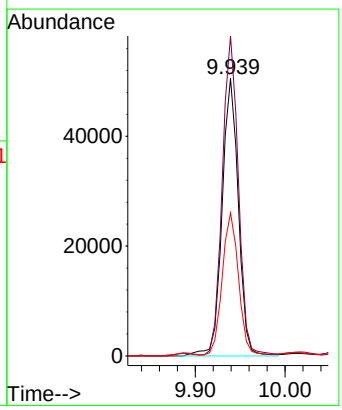


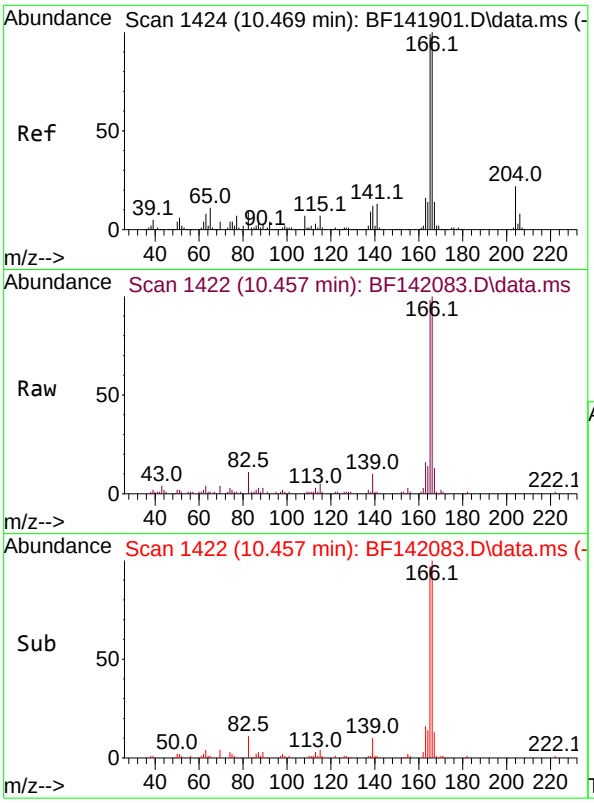


#52
Acenaphthene
Concen: 3.164 ng
RT: 9.939 min Scan# 1334
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:154 Resp: 63995

Ion	Ratio	Lower	Upper
154	100		
153	115.3	90.7	136.1
152	51.6	41.1	61.7



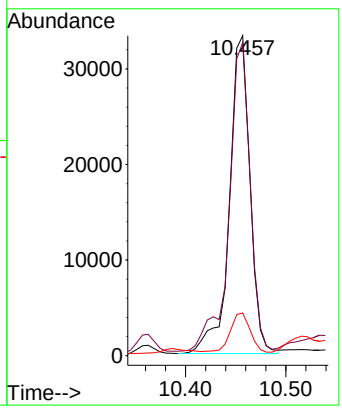


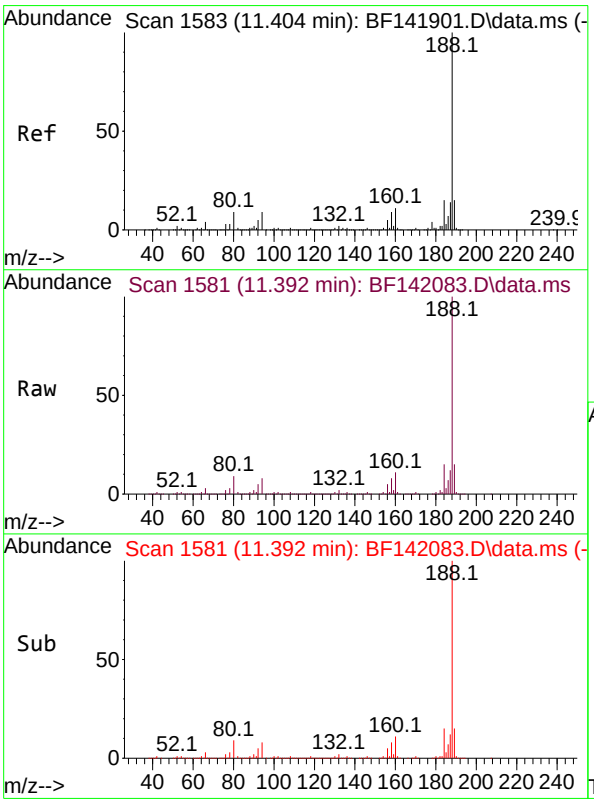
#58
Fluorene
Concen: 2.135 ng
RT: 10.457 min Scan# 14
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion:166 Resp: 47576

Ion	Ratio	Lower	Upper
166	100		
165	97.8	79.0	118.4
167	13.3	11.0	16.4

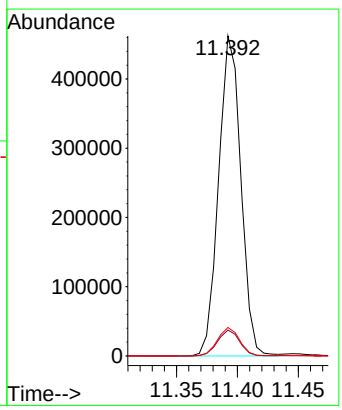


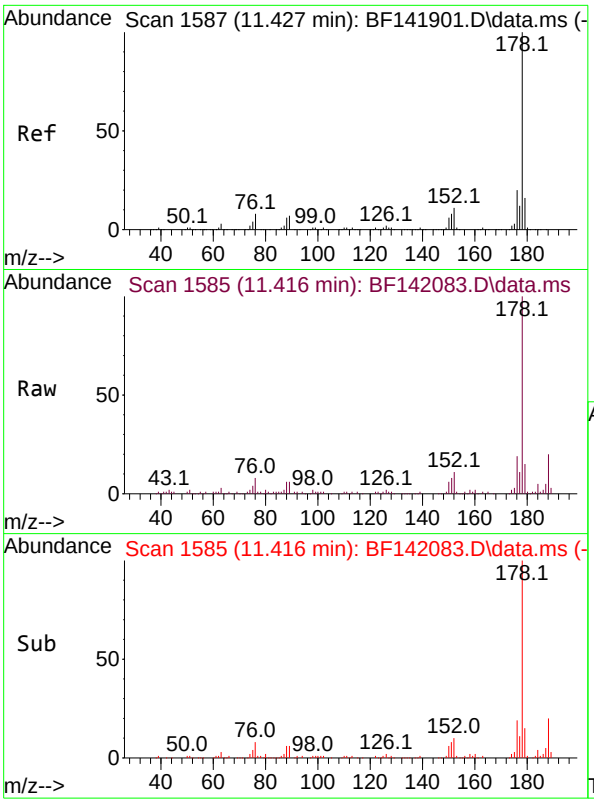


#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.392 min Scan# 1581
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:188 Resp: 587499

Ion	Ratio	Lower	Upper
188	100		
94	8.1	6.8	10.2
80	8.9	7.6	11.4



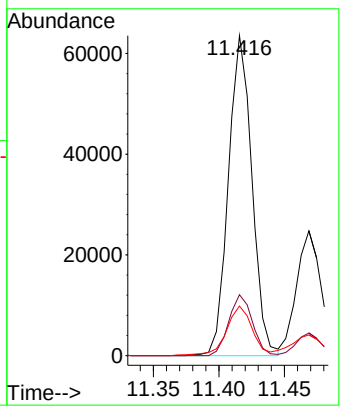


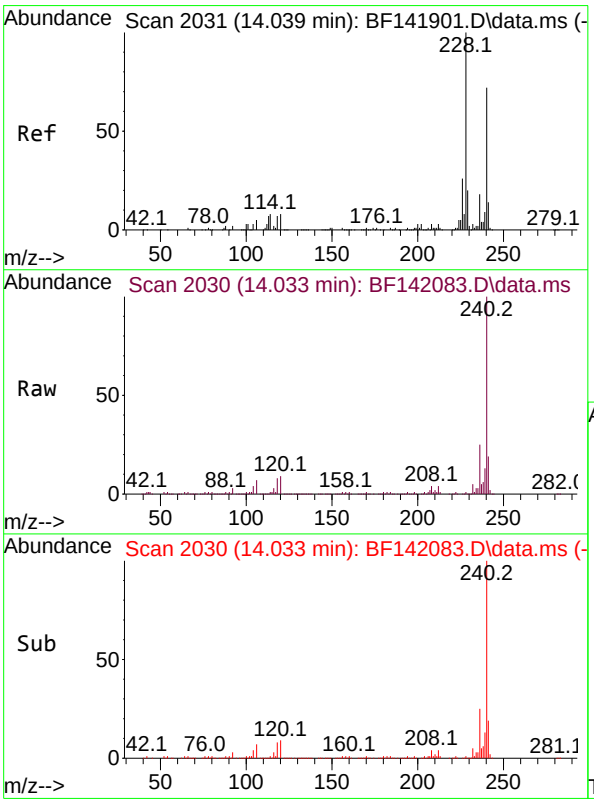
#71
Phenanthrene
Concen: 2.499 ng
RT: 11.416 min Scan# 1
Delta R.T. -0.012 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion:178 Resp: 79313

Ion	Ratio	Lower	Upper
178	100		
176	19.0	15.8	23.8
179	15.5	12.6	19.0

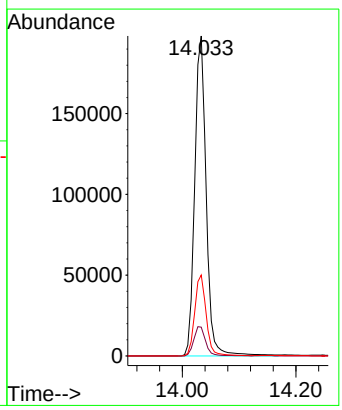


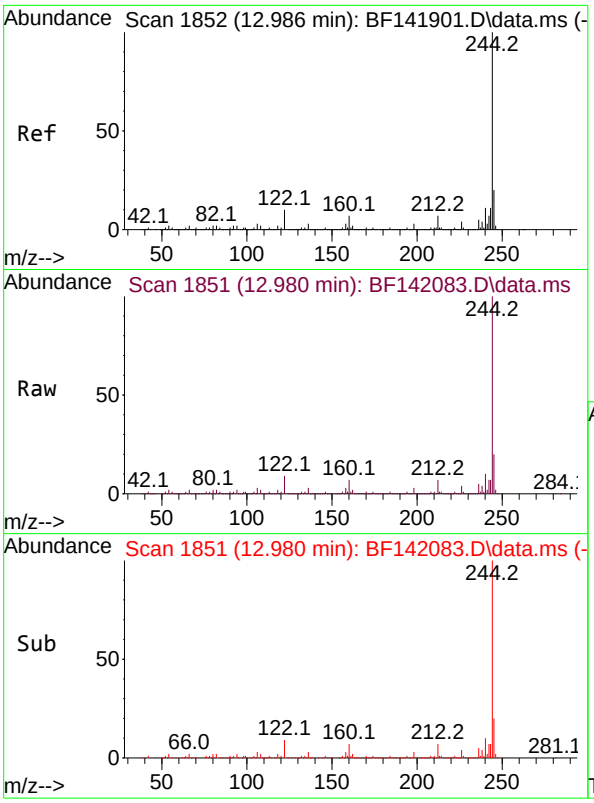


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.033 min Scan# 2030
Delta R.T. -0.006 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:240 Resp: 276694

Ion	Ratio	Lower	Upper
240	100		
120	9.0	8.4	12.6
236	25.3	20.5	30.7



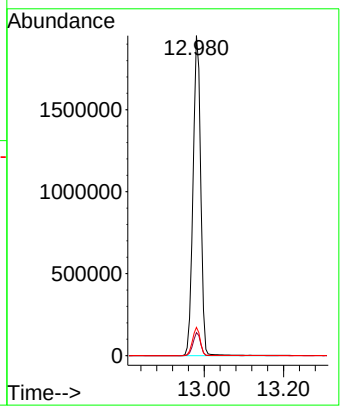


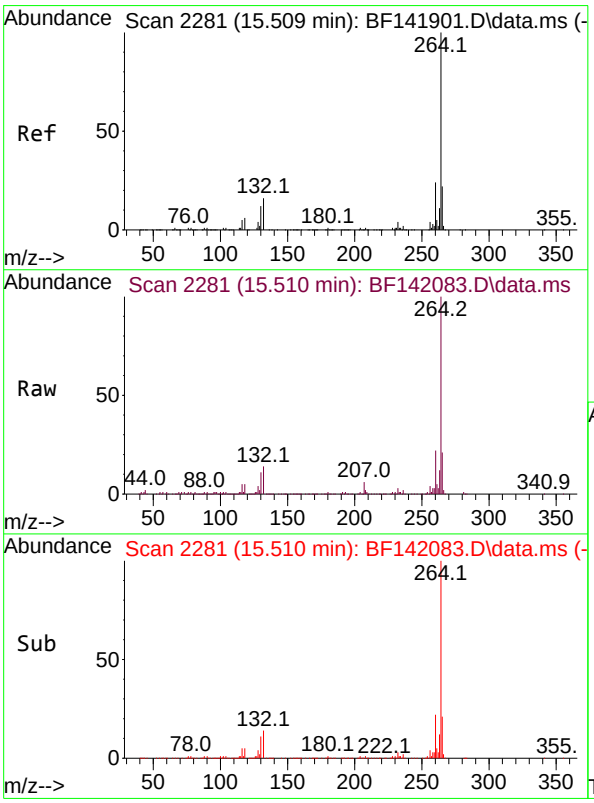
#79
Terphenyl-d14
Concen: 140.320 ng
RT: 12.980 min Scan# 18
Delta R.T. -0.006 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Instrument :
BNA_F
ClientSampleId :
WC-SCRN-01-C

Tgt Ion:244 Resp: 2626097

Ion	Ratio	Lower	Upper
244	100		
212	7.2	6.0	9.0
122	8.8	7.7	11.5

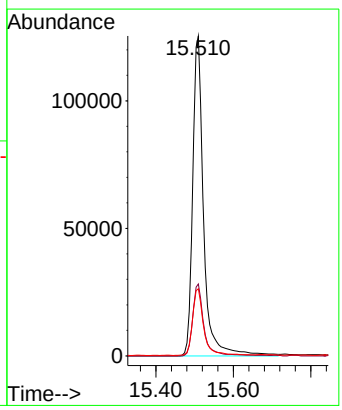




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.510 min Scan# 2281
Delta R.T. 0.000 min
Lab File: BF142083.D
Acq: 25 Mar 2025 17:39

Tgt Ion:264 Resp: 245538

Ion	Ratio	Lower	Upper
264	100		
260	22.5	19.1	28.7
265	21.0	17.5	26.3



CALIBRATION SUMMARY

Raw Data

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG No.: Q1609

Instrument ID: BNA_F Calibration Date(s): 03/10/2025 03/10/2025

Calibration Time(s): 11:01 15:20

LAB FILE ID: RRF2.5 = BF141897.D RRF005 = BF141898.D RRF010 = BF141899.D
RRF020 = BF141900.D RRF040 = BF141901.D RRF060 = BF141903.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF060	RRF	% RSD
Pyridine		1.217	1.204	1.334	1.221	1.209	1.232	3.8
2-Fluorophenol		1.267	1.243	1.298	1.148	1.146	1.198	5.8
Phenol-d6		1.623	1.593	1.644	1.442	1.471	1.526	6.0
1,4-Dichlorobenzene		1.514	1.503	1.548	1.393	1.420	1.452	4.7
2-Methylphenol		1.080	1.050	1.122	1.008	1.079	1.057	3.7
3+4-Methylphenols		1.449	1.394	1.470	1.294	1.334	1.354	6.5
Nitrobenzene-d5		0.345	0.356	0.379	0.348	0.363	0.355	3.5
Hexachloroethane		0.545	0.551	0.576	0.517	0.560	0.544	3.8
Nitrobenzene		0.347	0.351	0.375	0.346	0.359	0.353	3.1
Hexachlorobutadiene		0.211	0.211	0.221	0.203	0.214	0.213	2.5
2,4,6-Trichlorophenol		0.388	0.389	0.402	0.398	0.401	0.398	1.9
2-Fluorobiphenyl		1.430	1.379	1.379	1.254	1.246	1.315	5.9
2,4,5-Trichlorophenol		0.396	0.391	0.422	0.389	0.415	0.403	3.0
2,4-Dinitrotoluene		0.365	0.382	0.402	0.375	0.383	0.381	2.9
2,4,6-Tribromophenol		0.234	0.236	0.259	0.250	0.265	0.254	5.7
Hexachlorobenzene		0.262	0.267	0.284	0.269	0.271	0.275	3.9
Pentachlorophenol		0.130	0.151	0.172	0.177	0.186	0.170	12.7
Terphenyl-d14		1.343	1.309	1.360	1.276	1.417	1.353	3.6

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF031025.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Mon Mar 10 15:46:22 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BF141897.D 5 =BF141898.D 10 =BF141899.D 20 =BF141900.D 40 =BF141901.D 50 =BF141905.D 60 =BF141903.D 80 =BF1419
04.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.490	0.482	0.536	0.504	0.495	0.501	0.508	0.502	3.43
3)		Pyridine		1.217	1.204	1.334	1.221	1.203	1.209	1.233	1.232	3.77
4)		n-Nitrosodimet...		0.554	0.556	0.621	0.583	0.595	0.594	0.607	0.587	4.26
5)	S	2-Fluorophenol		1.267	1.243	1.298	1.148	1.162	1.146	1.124	1.198	5.79
6)		Aniline		1.599	1.602	1.640	1.465	1.443	1.435	1.351	1.505	7.20
7)	S	Phenol-d6		1.623	1.593	1.644	1.442	1.483	1.471	1.424	1.526	5.99
8)		2-Chlorophenol		1.421	1.354	1.434	1.259	1.295	1.284	1.256	1.329	5.63
9)		Benzaldehyde			1.021	0.975	0.778	0.778	0.716		0.853	15.85
10)	C	Phenol		1.708	1.675	1.747	1.536	1.542	1.532	1.496	1.605	6.30
11)		bis(2-Chloroet...		1.287	1.246	1.281	1.144	1.175	1.176	1.127	1.205	5.43
12)		1,3-Dichlorobe...		1.475	1.489	1.538	1.373	1.401	1.401	1.367	1.435	4.59
13)	C	1,4-Dichlorobe...		1.514	1.503	1.548	1.393	1.408	1.420	1.376	1.452	4.71
14)		1,2-Dichlorobe...		1.461	1.417	1.460	1.303	1.315	1.343	1.273	1.367	5.69
15)		Benzyl Alcohol		1.236	1.252	1.322	1.185	1.214	1.246	1.180	1.233	3.91
16)		2,2'-oxybis(1-...		1.591	1.525	1.534	1.363	1.387	1.472	1.313	1.455	7.07
17)		2-Methylphenol		1.080	1.050	1.122	1.008	1.038	1.079	1.021	1.057	3.73
18)		Hexachloroethane		0.545	0.551	0.576	0.517	0.540	0.560	0.522	0.544	3.76
19)	P	n-Nitroso-di-n...	1.020	1.024	1.000	1.043	0.913	0.940	0.991	0.912	0.980	5.29
20)		3+4-Methylphenols		1.449	1.394	1.470	1.294	1.311	1.334	1.223	1.354	6.55
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.514	0.493	0.513	0.460	0.450	0.469	0.453	0.479	5.76
23)	S	Nitrobenzene-d5		0.345	0.356	0.379	0.348	0.344	0.363	0.353	0.355	3.47
24)		Nitrobenzene		0.347	0.351	0.375	0.346	0.343	0.359	0.352	0.353	3.07
25)		Isophorone		0.647	0.620	0.655	0.600	0.605	0.648	0.622	0.628	3.49
26)	C	2-Nitrophenol		0.150	0.159	0.182	0.175	0.179	0.188	0.181	0.173	7.88
27)		2,4-Dimethylph...		0.247	0.234	0.251	0.231	0.233	0.244	0.232	0.239	3.45
28)		bis(2-Chloroet...		0.411	0.406	0.416	0.372	0.377	0.397	0.378	0.394	4.63
29)	C	2,4-Dichloroph...		0.292	0.295	0.309	0.286	0.295	0.303	0.294	0.296	2.54
30)		1,2,4-Trichlor...		0.337	0.325	0.342	0.310	0.318	0.333	0.322	0.327	3.50
31)		Naphthalene		1.104	1.075	1.101	0.984	1.001	0.973	0.954	1.027	6.22
32)		Benzoic acid			0.149	0.191	0.208	0.228	0.242	0.241	0.210	17.07
33)		4-Chloroaniline		0.383	0.378	0.393	0.351	0.354	0.352	0.329	0.363	6.14
34)	C	Hexachlorobuta...		0.211	0.211	0.221	0.203	0.214	0.214	0.216	0.213	2.52
35)		Caprolactam		0.092	0.089	0.094	0.084	0.088	0.090	0.094	0.090	4.00
36)	C	4-Chloro-3-met...		0.334	0.331	0.349	0.318	0.329	0.334	0.320	0.331	3.13
37)		2-Methylnaphth...		0.746	0.709	0.733	0.653	0.655	0.667	0.645	0.687	6.09
38)		1-Methylnaphth...		0.717	0.691	0.721	0.623	0.619	0.647	0.620	0.663	6.95

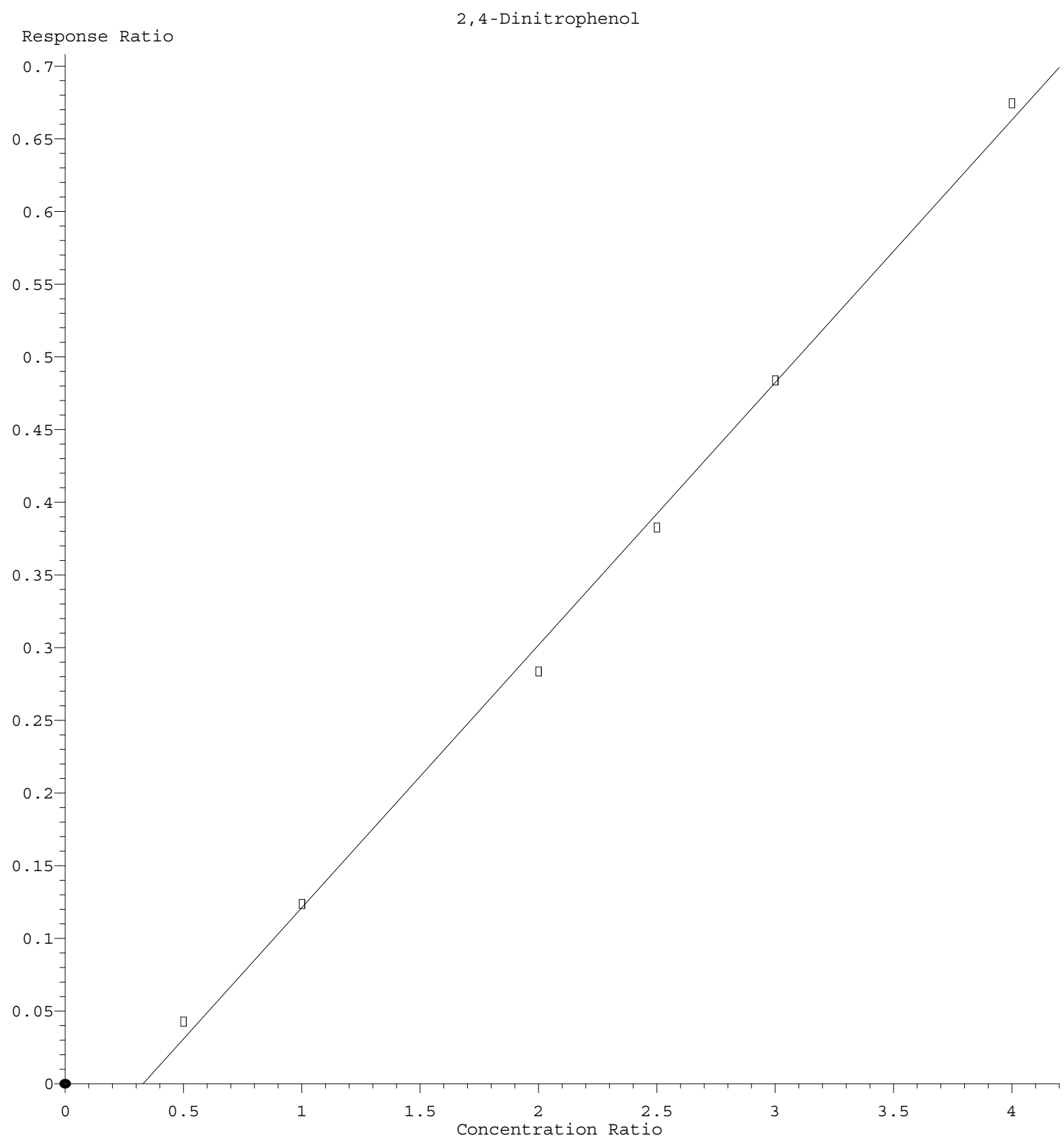
Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF031025.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.615	0.604	0.626	0.592	0.597	0.606	0.623	0.609	2.11
41)	P	Hexachlorocycl...	0.204	0.221	0.249	0.250	0.237	0.252	0.256	0.238	8.03
42)	S	2,4,6-Tribromo...	0.234	0.236	0.259	0.250	0.259	0.265	0.272	0.254	5.67
43)	C	2,4,6-Trichlor...	0.388	0.389	0.402	0.398	0.400	0.401	0.409	0.398	1.91
44)		2,4,5-Trichlor...	0.396	0.391	0.422	0.389	0.400	0.415	0.407	0.403	3.05
45)	S	2-Fluorobiphenyl	1.430	1.379	1.379	1.254	1.272	1.246	1.246	1.315	5.95
46)		1,1'-Biphenyl	1.636	1.573	1.591	1.454	1.502	1.431	1.450	1.520	5.29
47)		2-Chloronaphth...	1.197	1.141	1.181	1.091	1.129	1.090	1.100	1.133	3.82
48)		2-Nitroaniline	0.296	0.314	0.346	0.322	0.356	0.332	0.330	0.328	6.08
49)		Acenaphthylene	1.765	1.740	1.778	1.635	1.664	1.595	1.589	1.681	4.74
50)		Dimethylphthalate	1.481	1.414	1.469	1.329	1.425	1.345	1.341	1.401	4.47
51)		2,6-Dinitrotol...	0.277	0.279	0.305	0.285	0.307	0.296	0.292	0.292	4.11
52)	C	Acenaphthene	1.236	1.195	1.231	1.146	1.144	1.165	1.152	1.181	3.37
53)		3-Nitroaniline	0.291	0.295	0.316	0.293	0.283	0.301	0.291	0.296	3.61
54)	P	2,4-Dinitrophenol		0.085	0.124	0.142	0.153	0.161	0.169	0.139	22.02
55)		Dibenzofuran	1.849	1.787	1.791	1.614	1.607	1.596	1.570	1.688	6.87
56)	P	4-Nitrophenol	0.192	0.216	0.234	0.230	0.229	0.230	0.230	0.223	6.60
57)		2,4-Dinitrotol...	0.365	0.382	0.402	0.375	0.383	0.383	0.376	0.381	2.95
58)		Fluorene	1.443	1.361	1.381	1.229	1.243	1.234	1.220	1.302	7.01
59)		2,3,4,6-Tetrac...	0.355	0.365	0.390	0.359	0.364	0.366	0.369	0.367	3.05
60)		Diethylphthalate	1.475	1.471	1.497	1.336	1.357	1.338	1.302	1.397	5.80
61)		4-Chlorophenyl...	0.730	0.688	0.702	0.643	0.664	0.656	0.667	0.679	4.41
62)		4-Nitroaniline	0.284	0.288	0.304	0.288	0.287	0.286	0.278	0.288	2.73
63)		Azobenzene	1.392	1.363	1.404	1.245	1.261	1.226	1.197	1.298	6.57
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.083	0.111	0.121	0.130	0.133	0.137	0.119	16.61
66)	c	n-Nitrosodiphe...	0.675	0.651	0.671	0.620	0.638	0.638	0.637	0.647	3.03
67)		4-Bromophenyl-...	0.240	0.249	0.255	0.244	0.263	0.245	0.262	0.251	3.55
68)		Hexachlorobenzene	0.262	0.267	0.284	0.269	0.283	0.271	0.292	0.275	3.92
69)		Atrazine	0.216	0.213	0.193	0.164	0.206			0.198	10.72
70)	C	Pentachlorophenol	0.130	0.151	0.172	0.177	0.180	0.186	0.191	0.170	12.66
71)		Phenanthrene	1.155	1.151	1.138	1.038	1.026	1.032	1.023	1.080	5.90
72)		Anthracene	1.173	1.139	1.139	1.046	1.026	1.036	1.026	1.084	5.89
73)		Carbazole	0.996	0.994	0.985	0.908	0.903	0.892	0.864	0.935	5.91
74)		Di-n-butylphth...	1.320	1.321	1.319	1.177	1.238	1.175	1.132	1.240	6.50
75)	C	Fluoranthene	1.234	1.226	1.228	1.108	1.148	1.059	1.017	1.146	7.66
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.347	0.309	0.190	0.360	0.220	0.275	0.252	0.279	22.73
78)		Pyrene	1.695	1.651	1.727	1.611	1.877	1.823	1.726	1.730	5.38
79)	S	Terphenyl-d14	1.343	1.309	1.360	1.276	1.380	1.417	1.384	1.353	3.56
80)		Butylbenzylpht...	0.629	0.656	0.702	0.655	0.703	0.717	0.677	0.677	4.72
81)		Benzo(a)anthra...	1.370	1.304	1.334	1.273	1.294	1.317	1.294	1.312	2.41
82)		3,3'-Dichlorob...	0.370	0.389	0.380	0.372	0.365	0.394	0.384	0.379	2.78
83)		Chrysene	1.143	1.194	1.260	1.136	1.192	1.213	1.189	1.190	3.53
84)		Bis(2-ethylhex...	0.897	0.912	0.966	0.904	0.978	0.952	0.927	0.934	3.43
85)	c	Di-n-octyl pht...	1.145	1.219	1.338	1.265	1.376	1.390	1.361	1.299	7.10

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF031025.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.097	1.142	1.308	1.287	1.322	1.472	1.429	1.294	10.60
88)		Benzo(b)fluora...	1.420	1.310	1.485	1.210	1.346	1.390	1.434	1.371	6.65
89)		Benzo(k)fluora...	1.162	1.268	1.197	1.205	1.129	1.210	1.041	1.173	6.16
90)	C	Benzo(a)pyrene	1.040	1.042	1.123	1.036	1.083	1.083	1.101	1.073	3.16
91)		Dibenzo(a,h)an...	0.910	0.953	1.073	1.068	1.095	1.195	1.178	1.067	9.91
92)		Benzo(g,h,i)pe...	0.912	0.949	1.061	1.065	1.064	1.167	1.167	1.055	9.24

(#) = Out of Range



Response = 1.805e-001 * Amt - 5.933e-002
Coef of Det (r^2) = 0.997436 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF031025.M
Calibration Table Last Updated: Mon Mar 10 15:46:22 2025

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141897.D
Acq On : 10 Mar 2025 11:01
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC2.5

Quant Time: Mar 10 15:31:44 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.881	152	218163	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	918034	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	548310	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	1010378	20.000	ng	0.00
76) Chrysene-d12	14.033	240	740344	20.000	ng	0.00
86) Perylene-d12	15.509	264	520745	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.000	ng	
7) Phenol-d6	0.000	99	0d	0.000	ng	
23) Nitrobenzene-d5	0.000	82	0d	0.000	ng	
42) 2,4,6-Tribromophenol	0.000	330	0d	0.000	ng	
45) 2-Fluorobiphenyl	0.000	172	0d	0.000	ng	
79) Terphenyl-d14	0.000	244	0d	0.000	ng	
Target Compounds						Qvalue
19) n-Nitroso-di-n-propyla...	7.275	70	27816	2.599	ng	94

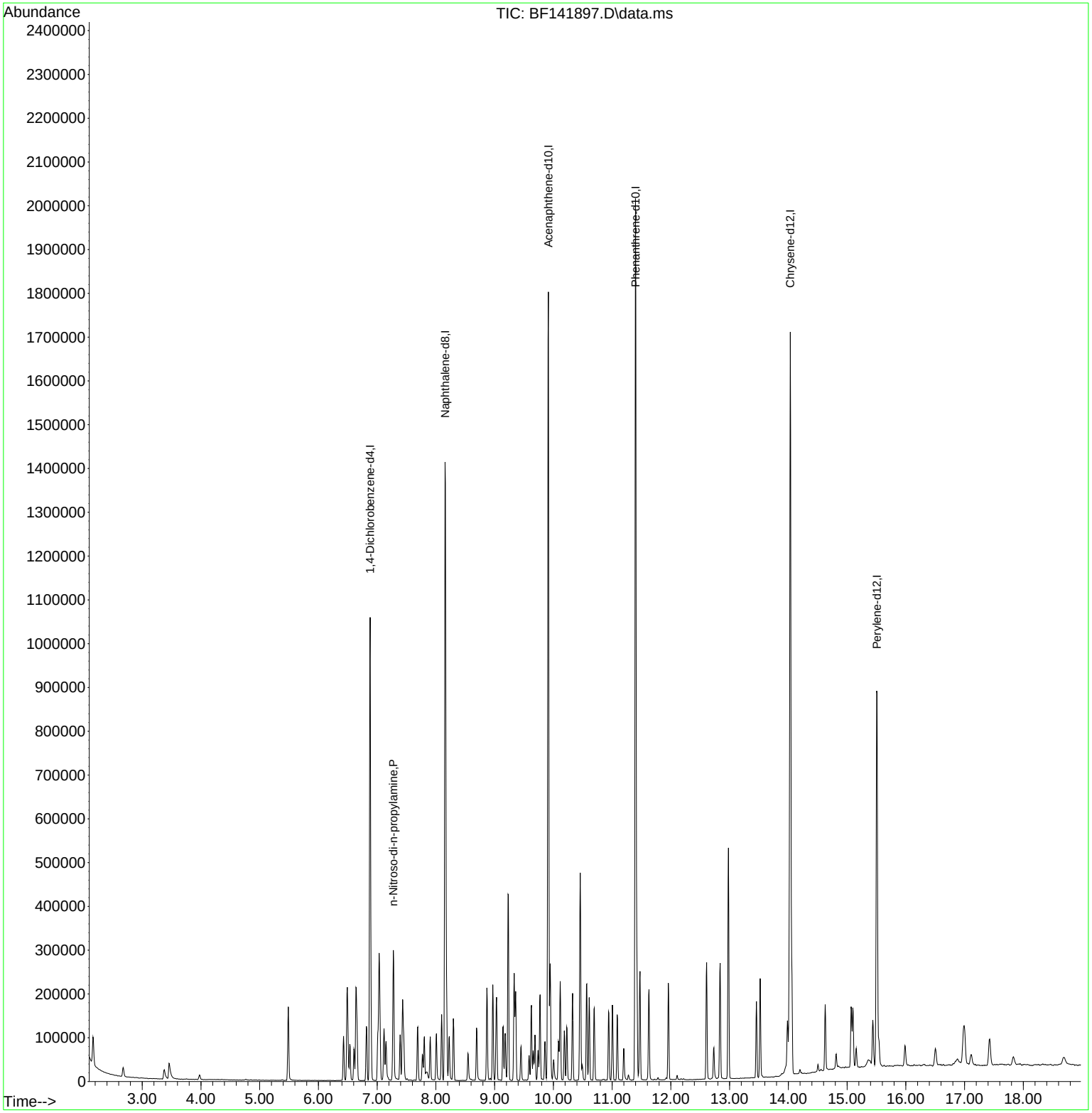
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141897.D
Acq On : 10 Mar 2025 11:01
Operator : RC/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC2.5

Quant Time: Mar 10 15:31:44 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141898.D
Acq On : 10 Mar 2025 11:30
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Quant Time: Mar 10 15:32:38 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.881	152	230406	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	926118	20.000	ng		0.00
39) Acenaphthene-d10	9.916	164	546702	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	1002901	20.000	ng		0.00
76) Chrysene-d12	14.033	240	745624	20.000	ng		0.00
86) Perylene-d12	15.504	264	527129	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.487	112	145959	10.570	ng		0.00
7) Phenol-d6	6.486	99	186951	10.630	ng		-0.02
23) Nitrobenzene-d5	7.433	82	159777	9.670	ng		-0.01
42) 2,4,6-Tribromophenol	10.698	330	63996	9.238	ng		0.00
45) 2-Fluorobiphenyl	9.233	172	390913	10.888	ng		0.00
79) Terphenyl-d14	12.980	244	500607	9.924	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.675	88	28210	4.874	ng		99
3) Pyridine	3.451	79	70090	4.928	ng		99
4) n-Nitrosodimethylamine	3.369	42	31893	4.717	ng	#	99
6) Aniline	6.534	93	92116	5.305	ng		100
8) 2-Chlorophenol	6.657	128	81845	5.347	ng		98
10) Phenol	6.504	94	98369	5.301	ng		96
11) bis(2-Chloroethyl)ether	6.604	93	74158	5.334	ng		98
12) 1,3-Dichlorobenzene	6.816	146	84952	5.136	ng		100
13) 1,4-Dichlorobenzene	6.898	146	87237	5.213	ng		98
14) 1,2-Dichlorobenzene	7.045	146	84183	5.342	ng		99
15) Benzyl Alcohol	7.010	79	71182	5.000	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.151	45	91659	5.470	ng		97
17) 2-Methylphenol	7.116	107	62211	5.114	ng		99
18) Hexachloroethane	7.392	117	31373	5.000	ng		96
19) n-Nitroso-di-n-propyla...	7.281	70	58981	5.218	ng		98
20) 3+4-Methylphenols	7.269	107	83461	5.349	ng		97
22) Acetophenone	7.281	105	119040	5.358	ng		99
24) Nitrobenzene	7.451	77	80338	4.904	ng		99
25) Isophorone	7.692	82	149807	5.135	ng		99
26) 2-Nitrophenol	7.775	139	34757	4.329	ng		98
27) 2,4-Dimethylphenol	7.804	122	57106	5.164	ng		96
28) bis(2-Chloroethoxy)met...	7.904	93	95214	5.210	ng		97
29) 2,4-Dichlorophenol	8.010	162	67710	4.934	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	78127	5.160	ng		98
31) Naphthalene	8.180	128	255632	5.388	ng		98
33) 4-Chloroaniline	8.228	127	88635	5.294	ng		99
34) Hexachlorobutadiene	8.298	225	48885	4.966	ng		99
35) Caprolactam	8.557	113	21358	5.118	ng		94
36) 4-Chloro-3-methylphenol	8.692	107	77370	5.070	ng		99
37) 2-Methylnaphthalene	8.869	142	172734	5.427	ng		99
38) 1-Methylnaphthalene	8.969	142	166050	5.387	ng		99
40) 1,2,4,5-Tetrachloroben...	9.033	216	84034	5.041	ng		99
41) Hexachlorocyclopentadiene	9.022	237	27931	4.246	ng		96
43) 2,4,6-Trichlorophenol	9.145	196	52998	4.877	ng		99
44) 2,4,5-Trichlorophenol	9.180	196	54111	4.901	ng		97
46) 1,1'-Biphenyl	9.333	154	223637	5.395	ng		98

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141898.D
Acq On : 10 Mar 2025 11:30
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Quant Time: Mar 10 15:32:38 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 2-Chloronaphthalene	9.357	162	163642	5.298	ng	97
48) 2-Nitroaniline	9.451	65	40475	4.561	ng	98
49) Acenaphthylene	9.774	152	241253	5.268	ng	99
50) Dimethylphthalate	9.627	163	202373	5.328	ng	100
51) 2,6-Dinitrotoluene	9.686	165	37796	4.785	ng	99
52) Acenaphthene	9.945	154	168975	5.225	ng	98
53) 3-Nitroaniline	9.857	138	39761	4.902	ng	98
55) Dibenzofuran	10.116	168	252715	5.481	ng	97
56) 4-Nitrophenol	10.004	139	26252	4.309	ng	99
57) 2,4-Dinitrotoluene	10.092	165	49913	4.800	ng	98
58) Fluorene	10.457	166	197266	5.542	ng	99
59) 2,3,4,6-Tetrachlorophenol	10.233	232	48472	4.839	ng	98
60) Diethylphthalate	10.327	149	201554	5.286	ng	99
61) 4-Chlorophenyl-phenyle...	10.451	204	99747	5.380	ng	98
62) 4-Nitroaniline	10.463	138	38863	4.945	ng	94
63) Azobenzene	10.610	77	190233	5.370	ng	98
66) n-Nitrosodiphenylamine	10.569	169	169225	5.223	ng	98
67) 4-Bromophenyl-phenylether	10.945	248	60238	4.823	ng	98
68) Hexachlorobenzene	11.004	284	65620	4.753	ng	98
69) Atrazine	11.092	200	54251	6.867	ng	98
70) Pentachlorophenol	11.198	266	32716	3.843	ng	100
71) Phenanthrene	11.421	178	289580	5.340	ng	98
72) Anthracene	11.474	178	294198	5.407	ng	98
73) Carbazole	11.627	167	249634	5.329	ng	99
74) Di-n-butylphthalate	11.957	149	330999	5.352	ng	99
75) Fluoranthene	12.610	202	309273	5.432	ng	99
77) Benzidine	12.733	184	64673	6.138	ng	99
78) Pyrene	12.839	202	315969	4.941	ng	99
80) Butylbenzylphthalate	13.457	149	117256	4.653	ng	99
81) Benzo(a)anthracene	14.021	228	255308	5.205	ng	100
82) 3,3'-Dichlorobenzidine	13.986	252	68969	4.865	ng	100
83) Chrysene	14.062	228	213144	4.837	ng	99
84) Bis(2-ethylhexyl)phtha...	14.015	149	167165	4.836	ng	99
85) Di-n-octyl phthalate	14.627	149	213395	4.435	ng	99
87) Indeno(1,2,3-cd)pyrene	16.980	276	144536	4.228	ng	99
88) Benzo(b)fluoranthene	15.068	252	187154	5.234	ng	99
89) Benzo(k)fluoranthene	15.098	252	153142	4.903	ng	99
90) Benzo(a)pyrene	15.439	252	137043	4.860	ng	99
91) Dibenzo(a,h)anthracene	16.998	278	119937	4.252	ng	99
92) Benzo(g,h,i)perylene	17.427	276	120142	4.294	ng	99

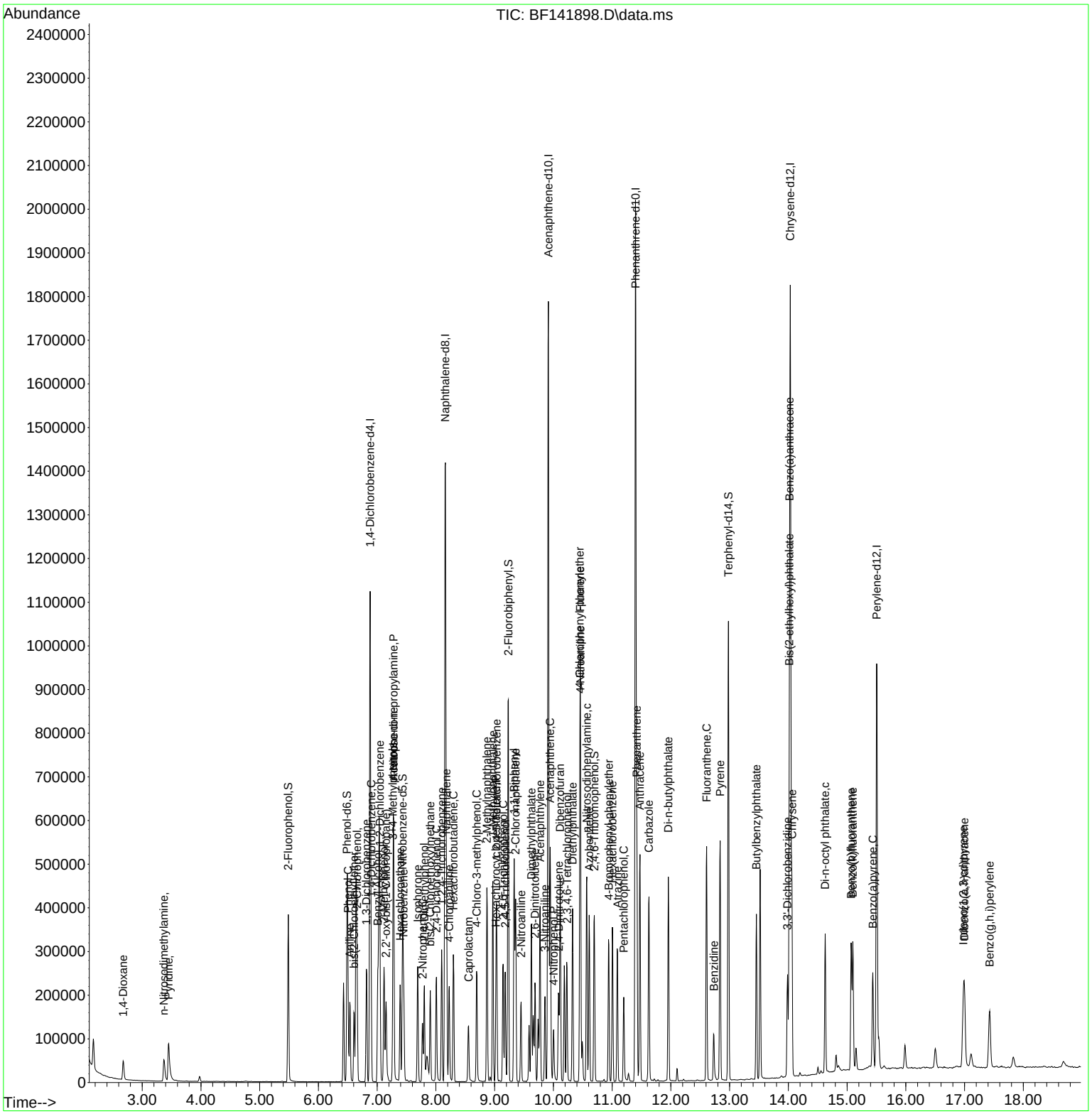
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141898.D
Acq On : 10 Mar 2025 11:30
Operator : RC/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC005

Quant Time: Mar 10 15:32:38 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141899.D
Acq On : 10 Mar 2025 12:00
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Quant Time: Mar 10 15:33:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.881	152	224499	20.000	ng		0.00
21) Naphthalene-d8	8.163	136	921725	20.000	ng		0.00
39) Acenaphthene-d10	9.916	164	541295	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	966771	20.000	ng		0.00
76) Chrysene-d12	14.039	240	703100	20.000	ng		0.00
86) Perylene-d12	15.510	264	510790	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.487	112	279139	20.746	ng		0.00
7) Phenol-d6	6.493	99	357672	20.872	ng		-0.01
23) Nitrobenzene-d5	7.434	82	328098	19.951	ng		-0.01
42) 2,4,6-Tribromophenol	10.698	330	127785	18.630	ng		0.00
45) 2-Fluorobiphenyl	9.234	172	746589	21.003	ng		0.00
79) Terphenyl-d14	12.980	244	920159	19.345	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.675	88	54068	9.588	ng		98
3) Pyridine	3.440	79	135148	9.752	ng		99
4) n-Nitrosodimethylamine	3.369	42	62411	9.474	ng	#	98
6) Aniline	6.540	93	179854	10.631	ng		99
8) 2-Chlorophenol	6.657	128	151998	10.192	ng		97
9) Benzaldehyde	6.428	77	114586	11.963	ng		99
10) Phenol	6.504	94	187967	10.396	ng		98
11) bis(2-Chloroethyl)ether	6.610	93	139813	10.321	ng		99
12) 1,3-Dichlorobenzene	6.822	146	167192	10.374	ng		98
13) 1,4-Dichlorobenzene	6.898	146	168717	10.347	ng		98
14) 1,2-Dichlorobenzene	7.051	146	159032	10.357	ng		98
15) Benzyl Alcohol	7.010	79	140530	10.132	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	171225	10.487	ng		98
17) 2-Methylphenol	7.116	107	117869	9.945	ng		99
18) Hexachloroethane	7.392	117	61809	10.111	ng		100
19) n-Nitroso-di-n-propyla...	7.281	70	112281	10.194	ng		97
20) 3+4-Methylphenols	7.269	107	156526	10.296	ng		92
22) Acetophenone	7.281	105	227350	10.282	ng		99
24) Nitrobenzene	7.457	77	161777	9.922	ng		99
25) Isophorone	7.692	82	285760	9.842	ng		99
26) 2-Nitrophenol	7.775	139	73301	9.174	ng		98
27) 2,4-Dimethylphenol	7.804	122	107669	9.784	ng		99
28) bis(2-Chloroethoxy)met...	7.904	93	187307	10.298	ng		98
29) 2,4-Dichlorophenol	8.010	162	135772	9.941	ng		98
30) 1,2,4-Trichlorobenzene	8.098	180	149790	9.941	ng		99
31) Naphthalene	8.181	128	495470	10.493	ng		99
32) Benzoic acid	7.869	122	68640	7.136	ng		98
33) 4-Chloroaniline	8.228	127	173977	10.441	ng		98
34) Hexachlorobutadiene	8.298	225	97298	9.931	ng		98
35) Caprolactam	8.563	113	41208	9.922	ng		97
36) 4-Chloro-3-methylphenol	8.698	107	152340	10.029	ng		96
37) 2-Methylnaphthalene	8.869	142	326733	10.313	ng		99
38) 1-Methylnaphthalene	8.969	142	318324	10.376	ng		98
40) 1,2,4,5-Tetrachloroben...	9.034	216	163481	9.905	ng		99
41) Hexachlorocyclopentadiene	9.022	237	59769	9.177	ng		99
43) 2,4,6-Trichlorophenol	9.145	196	105191	9.777	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141899.D
Acq On : 10 Mar 2025 12:00
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Quant Time: Mar 10 15:33:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.181	196	105943	9.692	ng		99
46) 1,1'-Biphenyl	9.334	154	425640	10.372	ng		98
47) 2-Chloronaphthalene	9.357	162	308729	10.094	ng		98
48) 2-Nitroaniline	9.451	65	84854	9.658	ng		98
49) Acenaphthylene	9.775	152	470801	10.383	ng		99
50) Dimethylphthalate	9.628	163	382722	10.176	ng		100
51) 2,6-Dinitrotoluene	9.692	165	75577	9.663	ng		97
52) Acenaphthene	9.945	154	323406	10.101	ng		100
53) 3-Nitroaniline	9.857	138	79944	9.955	ng		96
54) 2,4-Dinitrophenol	9.963	184	23121	11.386	ng	#	71
55) Dibenzofuran	10.116	168	483596	10.593	ng		98
56) 4-Nitrophenol	10.004	139	58549	9.706	ng		98
57) 2,4-Dinitrotoluene	10.092	165	103313	10.035	ng		98
58) Fluorene	10.463	166	368370	10.452	ng		99
59) 2,3,4,6-Tetrachlorophenol	10.233	232	98725	9.954	ng		99
60) Diethylphthalate	10.328	149	398003	10.542	ng		100
61) 4-Chlorophenyl-phenyle...	10.451	204	186237	10.145	ng		99
62) 4-Nitroaniline	10.463	138	78048	10.030	ng		97
63) Azobenzene	10.610	77	368982	10.521	ng		99
65) 4,6-Dinitro-2-methylph...	10.498	198	40348	7.040	ng		99
66) n-Nitrosodiphenylamine	10.569	169	314758	10.078	ng		99
67) 4-Bromophenyl-phenylether	10.945	248	120534	10.011	ng		97
68) Hexachlorobenzene	11.010	284	129242	9.712	ng		98
69) Atrazine	11.092	200	102822	13.502	ng		99
70) Pentachlorophenol	11.198	266	73112	8.909	ng		99
71) Phenanthrene	11.422	178	556546	10.646	ng		98
72) Anthracene	11.475	178	550767	10.501	ng		100
73) Carbazole	11.628	167	480520	10.641	ng		99
74) Di-n-butylphthalate	11.957	149	638429	10.708	ng		99
75) Fluoranthene	12.610	202	592806	10.801	ng		99
77) Benzidine	12.733	184	108761	10.946	ng		99
78) Pyrene	12.839	202	580442	9.626	ng		99
80) Butylbenzylphthalate	13.457	149	230714	9.710	ng		98
81) Benzo(a)anthracene	14.027	228	458422	9.911	ng		99
82) 3,3'-Dichlorobenzidine	13.986	252	136843	10.236	ng		99
83) Chrysene	14.063	228	419687	10.100	ng		99
84) Bis(2-ethylhexyl)phtha...	14.016	149	320536	9.833	ng		99
85) Di-n-octyl phthalate	14.627	149	428377	9.442	ng		100
87) Indeno(1,2,3-cd)pyrene	16.986	276	291723	8.807	ng		99
88) Benzo(b)fluoranthene	15.074	252	334664	9.659	ng		99
89) Benzo(k)fluoranthene	15.104	252	323772	10.698	ng		99
90) Benzo(a)pyrene	15.439	252	266149	9.740	ng		99
91) Dibenzo(a,h)anthracene	17.004	278	243443	8.907	ng		98
92) Benzo(g,h,i)perylene	17.433	276	242380	8.941	ng		99

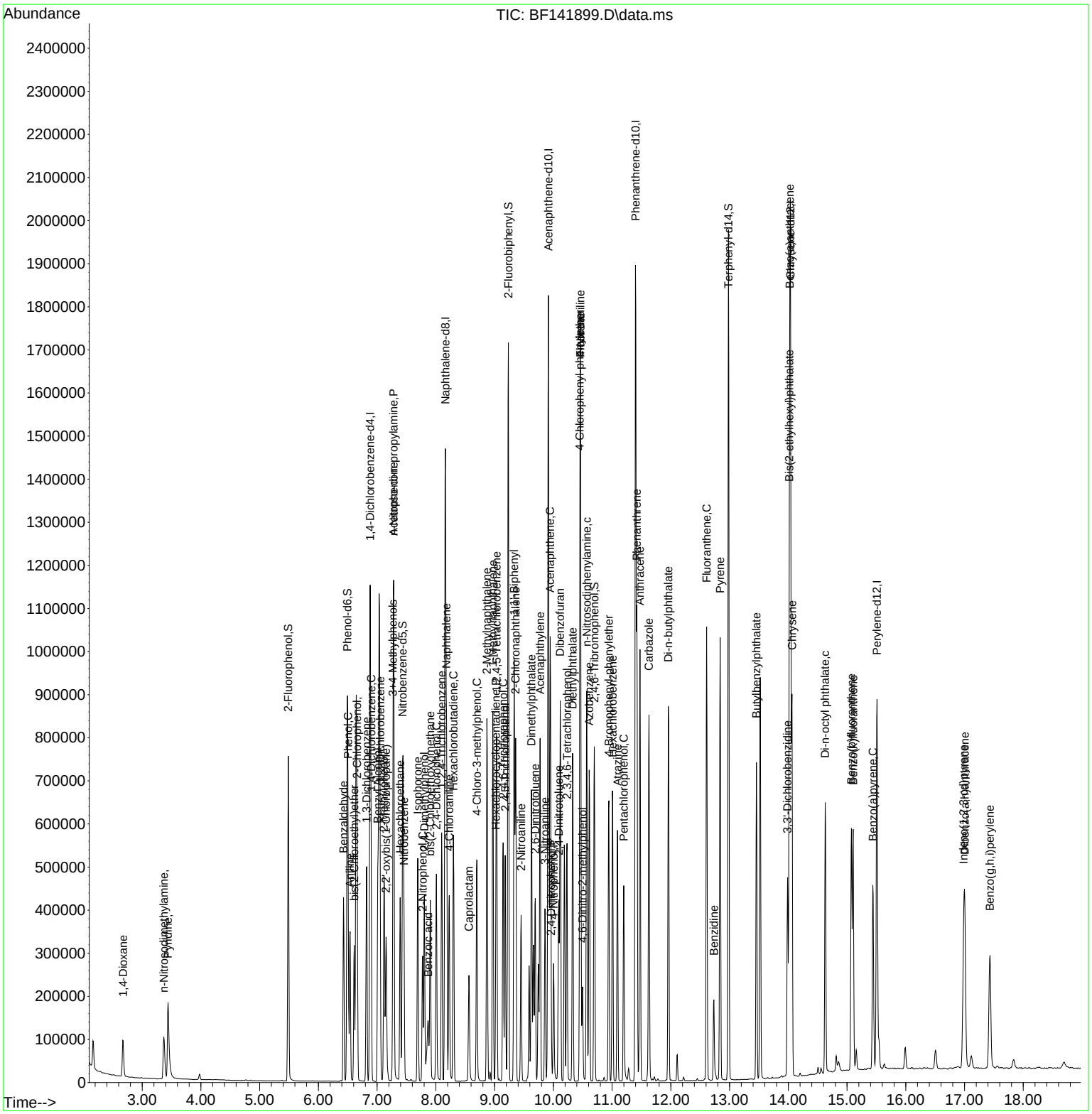
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141899.D
Acq On : 10 Mar 2025 12:00
Operator : RC/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC010

Quant Time: Mar 10 15:33:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141900.D
Acq On : 10 Mar 2025 12:29
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Quant Time: Mar 10 15:34:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.881	152	198053	20.000	ng	0.00
21) Naphthalene-d8	8.163	136	797548	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	470833	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	826085	20.000	ng	0.00
76) Chrysene-d12	14.039	240	581591	20.000	ng	0.00
86) Perylene-d12	15.509	264	428960	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.487	112	514189	43.318	ng	0.00
7) Phenol-d6	6.498	99	651272	43.079	ng	0.00
23) Nitrobenzene-d5	7.439	82	604270	42.465	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	243832	40.869	ng	0.00
45) 2-Fluorobiphenyl	9.233	172	1298709	42.002	ng	0.00
79) Terphenyl-d14	12.986	244	1582373	40.218	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.669	88	106079	21.323	ng	99
3) Pyridine	3.434	79	264229	21.612	ng	100
4) n-Nitrosodimethylamine	3.375	42	122948	21.155	ng	99
6) Aniline	6.539	93	324802	21.763	ng	99
8) 2-Chlorophenol	6.663	128	284082	21.592	ng	99
9) Benzaldehyde	6.428	77	193024	22.843	ng	98
10) Phenol	6.510	94	346008	21.692	ng	97
11) bis(2-Chloroethyl)ether	6.610	93	253793	21.236	ng	98
12) 1,3-Dichlorobenzene	6.822	146	304632	21.426	ng	98
13) 1,4-Dichlorobenzene	6.898	146	306665	21.319	ng	100
14) 1,2-Dichlorobenzene	7.051	146	289199	21.349	ng	99
15) Benzyl Alcohol	7.016	79	261893	21.402	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	303847	21.095	ng	99
17) 2-Methylphenol	7.122	107	222173	21.248	ng	97
18) Hexachloroethane	7.392	117	114019	21.141	ng	99
19) n-Nitroso-di-n-propyla...	7.286	70	206654	21.268	ng	97
20) 3+4-Methylphenols	7.275	107	291065	21.702	ng	99
22) Acetophenone	7.286	105	409149	21.385	ng	99
24) Nitrobenzene	7.457	77	299046	21.196	ng	99
25) Isophorone	7.698	82	522239	20.788	ng	100
26) 2-Nitrophenol	7.775	139	144979	20.970	ng	99
27) 2,4-Dimethylphenol	7.804	122	200058	21.009	ng	100
28) bis(2-Chloroethoxy)met...	7.904	93	331966	21.093	ng	99
29) 2,4-Dichlorophenol	8.010	162	246810	20.884	ng	100
30) 1,2,4-Trichlorobenzene	8.098	180	272773	20.922	ng	97
31) Naphthalene	8.181	128	877897	21.487	ng	99
32) Benzoic acid	7.892	122	152420	18.313	ng	99
33) 4-Chloroaniline	8.228	127	313249	21.726	ng	98
34) Hexachlorobutadiene	8.298	225	176253	20.791	ng	99
35) Caprolactam	8.580	113	75048	20.884	ng	99
36) 4-Chloro-3-methylphenol	8.698	107	278207	21.168	ng	100
37) 2-Methylnaphthalene	8.875	142	584552	21.324	ng	99
38) 1-Methylnaphthalene	8.975	142	575428	21.677	ng	99
40) 1,2,4,5-Tetrachloroben...	9.039	216	294845	20.538	ng	99
41) Hexachlorocyclopentadiene	9.028	237	117174	20.685	ng	100
43) 2,4,6-Trichlorophenol	9.145	196	189069	20.203	ng	100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141900.D
Acq On : 10 Mar 2025 12:29
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Quant Time: Mar 10 15:34:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

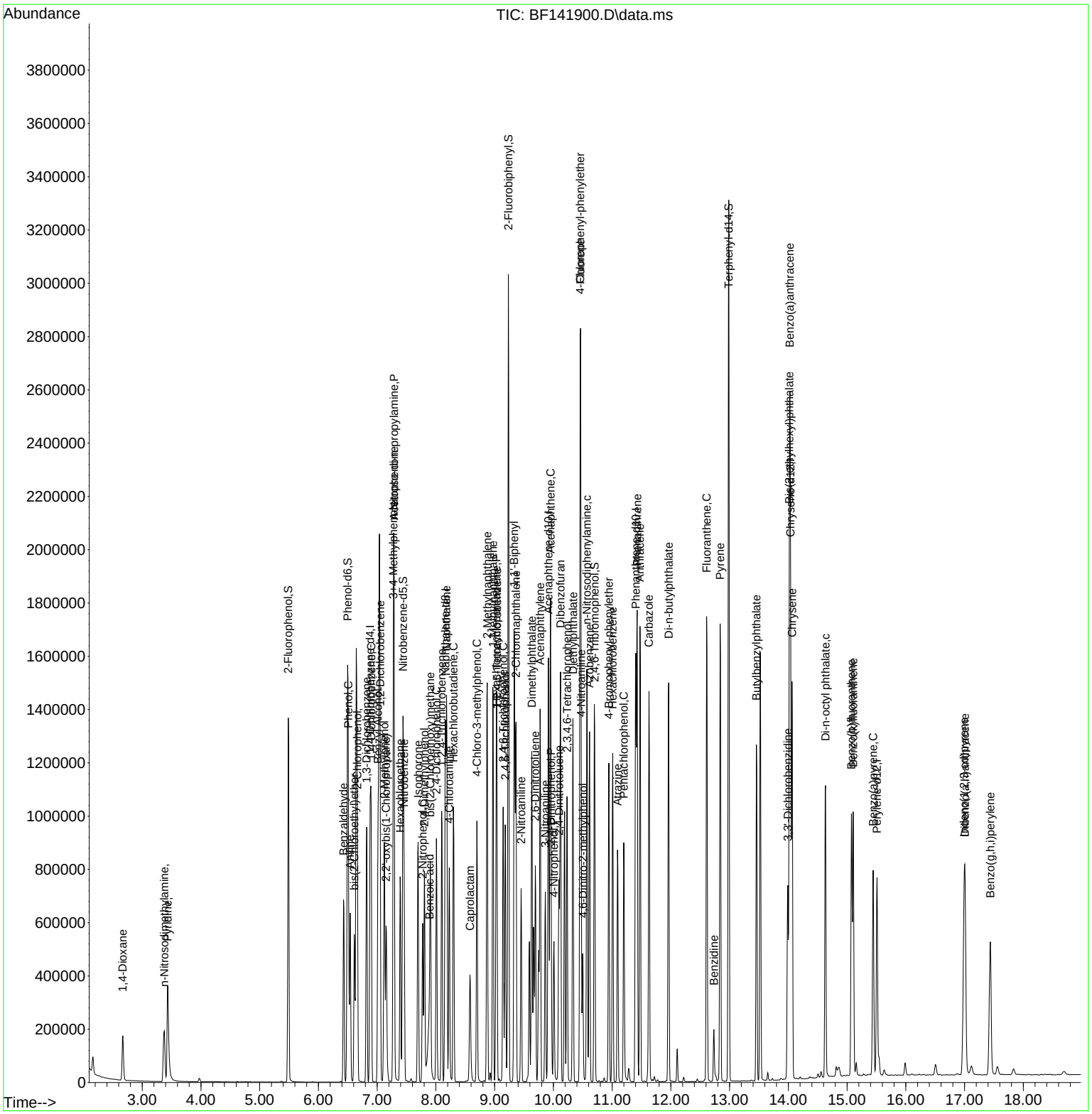
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.180	196	198841	20.912	ng		99
46) 1,1'-Biphenyl	9.333	154	749087	20.985	ng		100
47) 2-Chloronaphthalene	9.363	162	555946	20.898	ng		98
48) 2-Nitroaniline	9.451	65	162790	21.302	ng		97
49) Acenaphthylene	9.775	152	837016	21.222	ng		99
50) Dimethylphthalate	9.633	163	691454	21.137	ng		100
51) 2,6-Dinitrotoluene	9.692	165	143513	21.096	ng		100
52) Acenaphthene	9.951	154	579623	20.813	ng		98
53) 3-Nitroaniline	9.863	138	148977	21.327	ng		98
54) 2,4-Dinitrophenol	9.963	184	58223	20.368	ng	#	33
55) Dibenzofuran	10.122	168	843359	21.238	ng		98
56) 4-Nitrophenol	10.010	139	109958	20.955	ng		100
57) 2,4-Dinitrotoluene	10.098	165	189234	21.132	ng		98
58) Fluorene	10.463	166	650245	21.211	ng		99
59) 2,3,4,6-Tetrachlorophenol	10.233	232	183513	21.272	ng		99
60) Diethylphthalate	10.333	149	704993	21.468	ng		100
61) 4-Chlorophenyl-phenyle...	10.457	204	330489	20.698	ng		99
62) 4-Nitroaniline	10.474	138	142995	21.125	ng		99
63) Azobenzene	10.616	77	660935	21.665	ng		99
65) 4,6-Dinitro-2-methylph...	10.504	198	91852	18.755	ng		98
66) n-Nitrosodiphenylamine	10.569	169	553905	20.756	ng		99
67) 4-Bromophenyl-phenylether	10.945	248	210241	20.436	ng		100
68) Hexachlorobenzene	11.010	284	234399	20.613	ng		99
69) Atrazine	11.092	200	159306	24.481	ng		99
70) Pentachlorophenol	11.198	266	141842	20.227	ng		100
71) Phenanthrene	11.427	178	939782	21.038	ng		99
72) Anthracene	11.474	178	940875	20.993	ng		99
73) Carbazole	11.627	167	813998	21.096	ng		100
74) Di-n-butylphthalate	11.963	149	1089304	21.382	ng		99
75) Fluoranthene	12.610	202	1014464	21.632	ng		100
77) Benzidine	12.733	184	110648	13.463	ng		99
78) Pyrene	12.839	202	1004157	20.133	ng		99
80) Butylbenzylphthalate	13.457	149	408044	20.761	ng		98
81) Benzo(a)anthracene	14.027	228	776120	20.285	ng		99
82) 3,3'-Dichlorobenzidine	13.992	252	221168	19.999	ng		99
83) Chrysene	14.062	228	732966	21.325	ng		100
84) Bis(2-ethylhexyl)phtha...	14.015	149	562062	20.845	ng		99
85) Di-n-octyl phthalate	14.633	149	778373	20.740	ng		100
87) Indeno(1,2,3-cd)pyrene	16.992	276	560913	20.163	ng		99
88) Benzo(b)fluoranthene	15.074	252	636808	21.886	ng		100
89) Benzo(k)fluoranthene	15.104	252	513311	20.196	ng		99
90) Benzo(a)pyrene	15.445	252	481683	20.991	ng		100
91) Dibenzo(a,h)anthracene	17.009	278	460109	20.046	ng		99
92) Benzo(g,h,i)perylene	17.439	276	455034	19.987	ng		99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141900.D
Acq On : 10 Mar 2025 12:29
Operator : RC/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC020

Quant Time: Mar 10 15:34:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141901.D
Acq On : 10 Mar 2025 12:58
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Quant Time: Mar 10 15:35:20 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.881	152	222904	20.000	ng	0.00
21) Naphthalene-d8	8.163	136	874166	20.000	ng	0.00
39) Acenaphthene-d10	9.916	164	493744	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	839154	20.000	ng	0.00
76) Chrysene-d12	14.039	240	569865	20.000	ng	0.00
86) Perylene-d12	15.509	264	469286	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.492	112	1023722	76.628	ng	0.00
7) Phenol-d6	6.504	99	1285980	75.580	ng	0.00
23) Nitrobenzene-d5	7.445	82	1216280	77.983	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	493945	78.949	ng	0.00
45) 2-Fluorobiphenyl	9.239	172	2475837	76.357	ng	0.00
79) Terphenyl-d14	12.986	244	2908357	75.440	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.675	88	224795	40.148	ng	100
3) Pyridine	3.440	79	544434	39.565	ng	100
4) n-Nitrosodimethylamine	3.393	42	259739	39.710	ng	100
6) Aniline	6.545	93	653060	38.879	ng	100
8) 2-Chlorophenol	6.669	128	561230	37.902	ng	100
9) Benzaldehyde	6.434	77	346818	36.467	ng	100
10) Phenol	6.522	94	684724	38.141	ng	100
11) bis(2-Chloroethyl)ether	6.616	93	510214	37.932	ng	100
12) 1,3-Dichlorobenzene	6.822	146	611938	38.242	ng	100
13) 1,4-Dichlorobenzene	6.898	146	620951	38.355	ng	100
14) 1,2-Dichlorobenzene	7.051	146	581043	38.111	ng	100
15) Benzyl Alcohol	7.022	79	528444	38.371	ng	100
16) 2,2'-oxybis(1-Chloropr...	7.157	45	607522	37.476	ng	100
17) 2-Methylphenol	7.128	107	449433	38.190	ng	100
18) Hexachloroethane	7.392	117	230613	37.993	ng	100
19) n-Nitroso-di-n-propyla...	7.298	70	407069	37.223	ng	100
20) 3+4-Methylphenols	7.281	107	576902	38.219	ng	100
22) Acetophenone	7.292	105	804747	38.376	ng	100
24) Nitrobenzene	7.463	77	604738	39.106	ng	100
25) Isophorone	7.704	82	1049049	38.097	ng	100
26) 2-Nitrophenol	7.781	139	305349	40.295	ng	100
27) 2,4-Dimethylphenol	7.810	122	403621	38.671	ng	100
28) bis(2-Chloroethoxy)met...	7.910	93	650344	37.702	ng	100
29) 2,4-Dichlorophenol	8.016	162	500239	38.619	ng	100
30) 1,2,4-Trichlorobenzene	8.104	180	541182	37.870	ng	100
31) Naphthalene	8.186	128	1719643	38.400	ng	100
32) Benzoic acid	7.928	122	363328	39.827	ng	100
33) 4-Chloroaniline	8.228	127	613535	38.824	ng	100
34) Hexachlorobutadiene	8.304	225	355740	38.285	ng	100
35) Caprolactam	8.604	113	147056	37.335	ng	100
36) 4-Chloro-3-methylphenol	8.704	107	555328	38.549	ng	100
37) 2-Methylnaphthalene	8.875	142	1141228	37.983	ng	100
38) 1-Methylnaphthalene	8.975	142	1089576	37.447	ng	100
40) 1,2,4,5-Tetrachloroben...	9.039	216	584322	38.814	ng	100
41) Hexachlorocyclopentadiene	9.028	237	246666	41.523	ng	100
43) 2,4,6-Trichlorophenol	9.145	196	392696	40.014	ng	100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141901.D
Acq On : 10 Mar 2025 12:58
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Quant Time: Mar 10 15:35:20 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	384539	38.566	ng	100
46) 1,1'-Biphenyl	9.339	154	1436040	38.362	ng	100
47) 2-Chloronaphthalene	9.363	162	1077099	38.609	ng	100
48) 2-Nitroaniline	9.457	65	318068	39.690	ng	100
49) Acenaphthylene	9.780	152	1614250	39.029	ng	100
50) Dimethylphthalate	9.639	163	1312856	38.270	ng	100
51) 2,6-Dinitrotoluene	9.698	165	281695	39.486	ng	100
52) Acenaphthene	9.951	154	1132087	38.764	ng	100
53) 3-Nitroaniline	9.869	138	289208	39.481	ng	100
54) 2,4-Dinitrophenol	9.969	184	140024	38.116	ng	100
55) Dibenzofuran	10.122	168	1593454	38.266	ng	100
56) 4-Nitrophenol	10.016	139	227070	41.266	ng	100
57) 2,4-Dinitrotoluene	10.104	165	370337	39.437	ng	100
58) Fluorene	10.469	166	1213316	37.742	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	354863	39.225	ng	100
60) Diethylphthalate	10.339	149	1319116	38.304	ng	100
61) 4-Chlorophenyl-phenyle...	10.457	204	635445	37.950	ng	100
62) 4-Nitroaniline	10.480	138	284615	40.097	ng	100
63) Azobenzene	10.616	77	1229473	38.432	ng	100
65) 4,6-Dinitro-2-methylph...	10.510	198	203106	40.827	ng	100
66) n-Nitrosodiphenylamine	10.574	169	1041349	38.415	ng	100
67) 4-Bromophenyl-phenylether	10.945	248	409602	39.195	ng	100
68) Hexachlorobenzene	11.010	284	452189	39.146	ng	100
69) Atrazine	11.098	200	275084	41.614	ng	100
70) Pentachlorophenol	11.204	266	297893	41.818	ng	100
71) Phenanthrene	11.427	178	1741309	38.373	ng	100
72) Anthracene	11.480	178	1756035	38.571	ng	100
73) Carbazole	11.633	167	1524663	38.898	ng	100
74) Di-n-butylphthalate	11.963	149	1975625	38.175	ng	100
75) Fluoranthene	12.616	202	1860202	39.049	ng	100
77) Benzidine	12.733	184	410026	50.915	ng	100
78) Pyrene	12.845	202	1835917	37.567	ng	100
80) Butylbenzylphthalate	13.463	149	746613	38.769	ng	100
81) Benzo(a)anthracene	14.027	228	1451332	38.713	ng	100
82) 3,3'-Dichlorobenzidine	13.992	252	423835	39.114	ng	100
83) Chrysene	14.068	228	1294538	38.439	ng	100
84) Bis(2-ethylhexyl)phtha...	14.021	149	1029987	38.985	ng	100
85) Di-n-octyl phthalate	14.633	149	1441248	39.193	ng	100
87) Indeno(1,2,3-cd)pyrene	16.998	276	1207616	39.681	ng	100
88) Benzo(b)fluoranthene	15.080	252	1135547	35.673	ng	100
89) Benzo(k)fluoranthene	15.109	252	1130615	40.661	ng	100
90) Benzo(a)pyrene	15.451	252	972220	38.727	ng	100
91) Dibenzo(a,h)anthracene	17.021	278	1002747	39.933	ng	100
92) Benzo(g,h,i)perylene	17.451	276	999947	40.149	ng	100

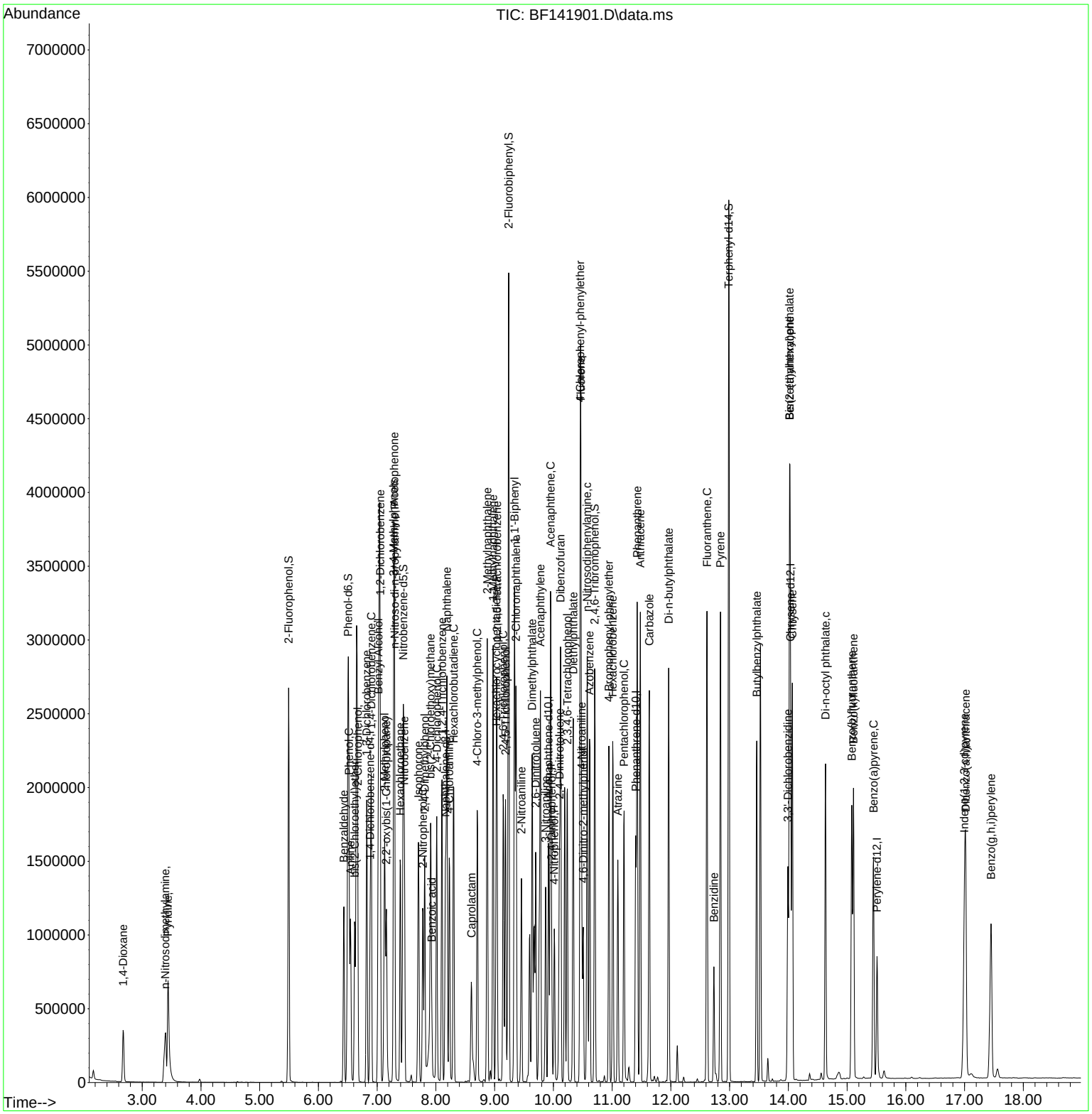
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141901.D
Acq On : 10 Mar 2025 12:58
Operator : RC/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICCC040

Quant Time: Mar 10 15:35:20 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141903.D
Acq On : 10 Mar 2025 13:57
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Mar 10 15:37:05 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.881	152	216861	20.000	ng		0.00
21) Naphthalene-d8	8.169	136	872222	20.000	ng		0.00
39) Acenaphthene-d10	9.922	164	497194	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	827202	20.000	ng		0.00
76) Chrysene-d12	14.045	240	468454	20.000	ng		0.00
86) Perylene-d12	15.509	264	407346	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.498	112	1490872	114.705	ng		0.00
7) Phenol-d6	6.510	99	1913610	115.601	ng		0.00
23) Nitrobenzene-d5	7.451	82	1899726	122.074	ng		0.00
42) 2,4,6-Tribromophenol	10.710	330	791365	125.609	ng		0.00
45) 2-Fluorobiphenyl	9.239	172	3716590	113.827	ng		0.00
79) Terphenyl-d14	12.992	244	3982780	125.675	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.669	88	325927	59.832	ng		99
3) Pyridine	3.440	79	786537	58.753	ng		99
4) n-Nitrosodimethylamine	3.404	42	386646	60.759	ng		100
6) Aniline	6.551	93	933875	57.146	ng		99
8) 2-Chlorophenol	6.669	128	835549	58.000	ng		97
9) Benzaldehyde	6.434	77	465511	50.311	ng		100
10) Phenol	6.528	94	996848	57.074	ng		95
11) bis(2-Chloroethyl)ether	6.622	93	765071	58.464	ng		99
12) 1,3-Dichlorobenzene	6.828	146	911340	58.540	ng		99
13) 1,4-Dichlorobenzene	6.904	146	923545	58.635	ng		99
14) 1,2-Dichlorobenzene	7.057	146	873604	58.898	ng		99
15) Benzyl Alcohol	7.028	79	810347	60.480	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.157	45	957808	60.730	ng		99
17) 2-Methylphenol	7.134	107	701676	61.285	ng		99
18) Hexachloroethane	7.398	117	364561	61.734	ng		96
19) n-Nitroso-di-n-propyla...	7.304	70	644501	60.576	ng		99
20) 3+4-Methylphenols	7.292	107	868157	59.116	ng	#	81
22) Acetophenone	7.298	105	1226859	58.635	ng		97
24) Nitrobenzene	7.469	77	939508	60.889	ng		100
25) Isophorone	7.710	82	1695749	61.720	ng		100
26) 2-Nitrophenol	7.781	139	491301	64.978	ng		98
27) 2,4-Dimethylphenol	7.816	122	639505	61.408	ng		99
28) bis(2-Chloroethoxy)met...	7.916	93	1039951	60.422	ng		99
29) 2,4-Dichlorophenol	8.022	162	791904	61.272	ng		99
30) 1,2,4-Trichlorobenzene	8.104	180	870403	61.044	ng		99
31) Naphthalene	8.186	128	2545181	56.961	ng		99
32) Benzoic acid	7.951	122	634105	69.664	ng		99
33) 4-Chloroaniline	8.233	127	920015	58.348	ng		99
34) Hexachlorobutadiene	8.304	225	559955	60.397	ng		99
35) Caprolactam	8.628	113	235861	60.015	ng		95
36) 4-Chloro-3-methylphenol	8.716	107	874022	60.807	ng		98
37) 2-Methylnaphthalene	8.875	142	1744374	58.187	ng		99
38) 1-Methylnaphthalene	8.975	142	1692113	58.285	ng		99
40) 1,2,4,5-Tetrachloroben...	9.045	216	903928	59.627	ng		99
41) Hexachlorocyclopentadiene	9.028	237	375919	62.842	ng		100
43) 2,4,6-Trichlorophenol	9.151	196	597686	60.479	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141903.D
Acq On : 10 Mar 2025 13:57
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Mar 10 15:37:05 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.192	196	618930	61.642	ng		99
46) 1,1'-Biphenyl	9.345	154	2134829	56.634	ng		99
47) 2-Chloronaphthalene	9.369	162	1625973	57.879	ng		100
48) 2-Nitroaniline	9.463	65	495229	61.368	ng		99
49) Acenaphthylene	9.786	152	2379216	57.125	ng		99
50) Dimethylphthalate	9.651	163	2006480	58.083	ng		100
51) 2,6-Dinitrotoluene	9.704	165	441383	61.441	ng		99
52) Acenaphthene	9.957	154	1737049	59.065	ng		99
53) 3-Nitroaniline	9.875	138	449553	60.945	ng		100
54) 2,4-Dinitrophenol	9.975	184	240530	60.329	ng	#	74
55) Dibenzofuran	10.127	168	2380973	56.781	ng		100
56) 4-Nitrophenol	10.027	139	343657	62.021	ng		98
57) 2,4-Dinitrotoluene	10.110	165	571731	60.461	ng		98
58) Fluorene	10.469	166	1840654	56.859	ng		100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	546621	60.002	ng		100
60) Diethylphthalate	10.345	149	1995827	57.552	ng		99
61) 4-Chlorophenyl-phenyle...	10.463	204	977819	57.993	ng		97
62) 4-Nitroaniline	10.492	138	426741	59.702	ng		100
63) Azobenzene	10.622	77	1829282	56.784	ng		98
65) 4,6-Dinitro-2-methylph...	10.516	198	330315	67.356	ng		98
66) n-Nitrosodiphenylamine	10.580	169	1583832	59.270	ng		100
67) 4-Bromophenyl-phenylether	10.951	248	608246	59.044	ng		98
68) Hexachlorobenzene	11.016	284	673465	59.144	ng		97
70) Pentachlorophenol	11.204	266	462709	65.893	ng		100
71) Phenanthrene	11.433	178	2560092	57.232	ng		100
72) Anthracene	11.486	178	2570717	57.281	ng		100
73) Carbazole	11.633	167	2213331	57.284	ng		99
74) Di-n-butylphthalate	11.963	149	2916048	57.161	ng		99
75) Fluoranthene	12.616	202	2628993	55.984	ng		99
77) Benzidine	12.733	184	386007	58.309	ng		99
78) Pyrene	12.845	202	2562337	63.781	ng		99
80) Butylbenzylphthalate	13.463	149	1008043	63.676	ng		100
81) Benzo(a)anthracene	14.033	228	1850347	60.040	ng		100
82) 3,3'-Dichlorobenzidine	13.992	252	553078	62.091	ng		100
83) Chrysene	14.068	228	1705257	61.596	ng		99
84) Bis(2-ethylhexyl)phtha...	14.021	149	1337474	61.582	ng		99
85) Di-n-octyl phthalate	14.633	149	1953184	64.613	ng		99
87) Indeno(1,2,3-cd)pyrene	17.009	276	1799372	68.115	ng		100
88) Benzo(b)fluoranthene	15.080	252	1698744	61.481	ng		99
89) Benzo(k)fluoranthene	15.115	252	1478389	61.253	ng		100
90) Benzo(a)pyrene	15.451	252	1323726	60.747	ng		99
91) Dibenzo(a,h)anthracene	17.027	278	1459934	66.981	ng		99
92) Benzo(g,h,i)perylene	17.462	276	1425582	65.942	ng		99

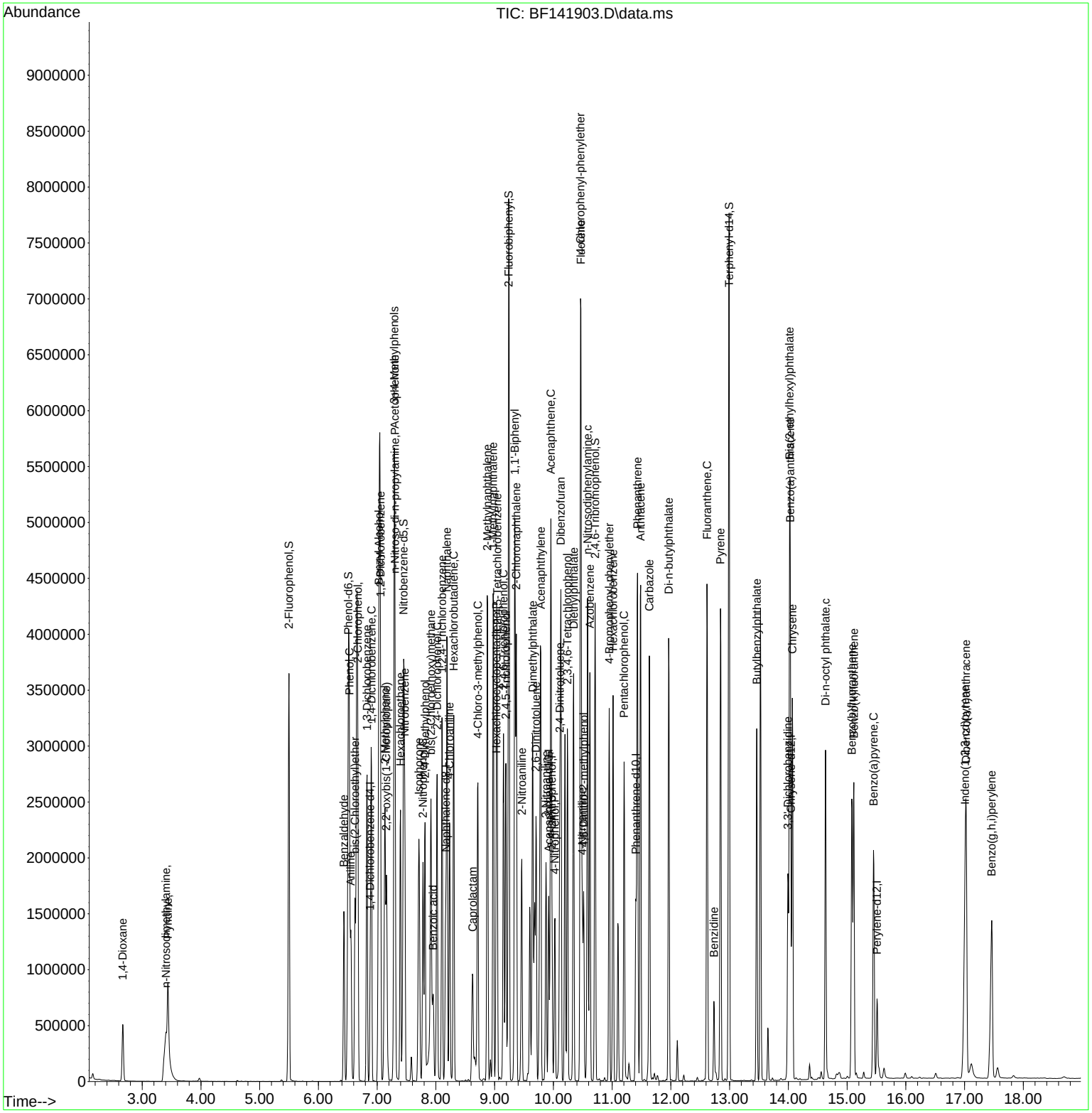
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141903.D
Acq On : 10 Mar 2025 13:57
Operator : RC/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC060

Quant Time: Mar 10 15:37:05 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141904.D
Acq On : 10 Mar 2025 14:27
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Manual Integrations APPROVED
Reviewed By :Anahy Claudio 03/11/2025
Supervised By :Jagrut Upadhyay 03/11/2025

Quant Time: Mar 10 15:37:59 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.887	152	214737	20.000	ng		0.00
21) Naphthalene-d8	8.169	136	826030	20.000	ng		0.00
39) Acenaphthene-d10	9.922	164	452864	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	738472	20.000	ng		0.00
76) Chrysene-d12	14.045	240	424370	20.000	ng		0.00
86) Perylene-d12	15.510	264	391768	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.498	112	1930406	149.991	ng		0.00
7) Phenol-d6	6.522	99	2446183	149.235	ng		0.02
23) Nitrobenzene-d5	7.457	82	2335417	158.463	ng		0.01
42) 2,4,6-Tribromophenol	10.716	330	986206	171.858	ng		0.01
45) 2-Fluorobiphenyl	9.245	172	4513418	151.763	ng		0.00
79) Terphenyl-d14	12.992	244	4700026	163.713	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.669	88	436007	80.831	ng		98
3) Pyridine	3.440	79	1059473	79.923	ng		99
4) n-Nitrosodimethylamine	3.416	42	521442	82.752	ng		99
6) Aniline	6.563	93	1160437	71.712	ng		99
8) 2-Chlorophenol	6.675	128	1078659	75.616	ng		98
10) Phenol	6.534	94	1285145	74.308	ng		89
11) bis(2-Chloroethyl)ether	6.628	93	968280	74.725	ng		99
12) 1,3-Dichlorobenzene	6.828	146	1173924	76.153	ng		100
13) 1,4-Dichlorobenzene	6.904	146	1181975	75.784	ng		99
14) 1,2-Dichlorobenzene	7.063	146	1093316	74.440	ng		99
15) Benzyl Alcohol	7.034	79	1013314	76.376	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.163	45	1127534	72.198	ng		98
17) 2-Methylphenol	7.134	107	876665	77.326	ng		98
18) Hexachloroethane	7.398	117	448765	76.745	ng		96
19) n-Nitroso-di-n-propyla...	7.316	70	783318	74.351	ng		100
20) 3+4-Methylphenols	7.298	107	1050191	72.219	ng	#	84
22) Acetophenone	7.304	105	1496035	75.498	ng	#	95
24) Nitrobenzene	7.475	77	1162753	79.572	ng		100
25) Isophorone	7.722	82	2056405	79.032	ng		100
26) 2-Nitrophenol	7.787	139	599261	83.688	ng		99
27) 2,4-Dimethylphenol	7.822	122	767514	77.821	ng		99
28) bis(2-Chloroethoxy)met...	7.916	93	1248549	76.598	ng		100
29) 2,4-Dichlorophenol	8.028	162	971886	79.403	ng		99
30) 1,2,4-Trichlorobenzene	8.110	180	1062793	78.705	ng		99
31) Naphthalene	8.192	128	3152444	74.497	ng		99
32) Benzoic acid	7.975	122	795850	92.323	ng		98
33) 4-Chloroaniline	8.239	127	1088546	72.896	ng		100
34) Hexachlorobutadiene	8.304	225	713827	81.299	ng		99
35) Caprolactam	8.639	113	311758m	83.763	ng		
36) 4-Chloro-3-methylphenol	8.716	107	1056917	77.644	ng		99
37) 2-Methylnaphthalene	8.881	142	2129990	75.023	ng		100
38) 1-Methylnaphthalene	8.981	142	2050191	74.568	ng		99
40) 1,2,4,5-Tetrachloroben...	9.045	216	1127671	81.667	ng		98
41) Hexachlorocyclopentadiene	9.028	237	463300	85.031	ng		99
43) 2,4,6-Trichlorophenol	9.157	196	741710	82.399	ng		100
44) 2,4,5-Trichlorophenol	9.198	196	736926	80.579	ng		100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141904.D
Acq On : 10 Mar 2025 14:27
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Manual Integrations APPROVED
Reviewed By :Anahy Claudio 03/11/2025
Supervised By :Jagrut Upadhyay 03/11/2025

Quant Time: Mar 10 15:37:59 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46)	1,1'-Biphenyl	9.345	154	2626697	76.503	ng		99
47)	2-Chloronaphthalene	9.369	162	1992242	77.859	ng		99
48)	2-Nitroaniline	9.463	65	597778	81.326	ng		98
49)	Acenaphthylene	9.786	152	2878496	75.877	ng		99
50)	Dimethylphthalate	9.657	163	2428843	77.192	ng		100
51)	2,6-Dinitrotoluene	9.710	165	529139	80.867	ng		99
52)	Acenaphthene	9.957	154	2085941	77.872	ng		99
53)	3-Nitroaniline	9.881	138	526980	78.435	ng		100
54)	2,4-Dinitrophenol	9.981	184	305399	81.479	ng	#	55
55)	Dibenzofuran	10.128	168	2844432	74.474	ng		99
56)	4-Nitrophenol	10.033	139	416153	82.456	ng		97
57)	2,4-Dinitrotoluene	10.116	165	681278	79.099	ng		95
58)	Fluorene	10.475	166	2210653	74.974	ng		99
59)	2,3,4,6-Tetrachlorophenol	10.245	232	668027	80.507	ng		99
60)	Diethylphthalate	10.345	149	2358921	74.681	ng		99
61)	4-Chlorophenyl-phenyle...	10.463	204	1209021	78.724	ng		97
62)	4-Nitroaniline	10.504	138	502894	77.243	ng		98
63)	Azobenzene	10.622	77	2168742	73.911	ng		99
65)	4,6-Dinitro-2-methylph...	10.522	198	404505	92.396	ng		98
66)	n-Nitrosodiphenylamine	10.586	169	1882098	78.895	ng		99
67)	4-Bromophenyl-phenylether	10.957	248	774645	84.232	ng		95
68)	Hexachlorobenzene	11.016	284	862357	84.832	ng		97
70)	Pentachlorophenol	11.210	266	563030	89.813	ng		100
71)	Phenanthrene	11.433	178	3020950	75.649	ng		99
72)	Anthracene	11.486	178	3031014	75.653	ng		99
73)	Carbazole	11.639	167	2552563	74.002	ng		98
74)	Di-n-butylphthalate	11.969	149	3342776	73.399	ng		99
75)	Fluoranthene	12.622	202	3005566	71.694	ng		99
77)	Benzidine	12.733	184	427770	71.330	ng		99
78)	Pyrene	12.851	202	2930115	80.513	ng		99
80)	Butylbenzylphthalate	13.463	149	1149989	80.189	ng		99
81)	Benzo(a)anthracene	14.033	228	2196935	78.692	ng		100
82)	3,3'-Dichlorobenzidine	13.998	252	652678	80.884	ng		99
83)	Chrysene	14.074	228	2018832	80.498	ng		99
84)	Bis(2-ethylhexyl)phtha...	14.021	149	1573231	79.962	ng		98
85)	Di-n-octyl phthalate	14.633	149	2310836	84.386	ng		100
87)	Indeno(1,2,3-cd)pyrene	17.009	276	2238588	88.111	ng		99
88)	Benzo(b)fluoranthene	15.086	252	2246428	84.536	ng		99
89)	Benzo(k)fluoranthene	15.116	252	1631675	70.292	ng		99
90)	Benzo(a)pyrene	15.457	252	1725632	82.339	ng		100
91)	Dibenzo(a,h)anthracene	17.033	278	1846778	88.098	ng		99
92)	Benzo(g,h,i)perylene	17.468	276	1828662	87.950	ng		99

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

ICAL Form

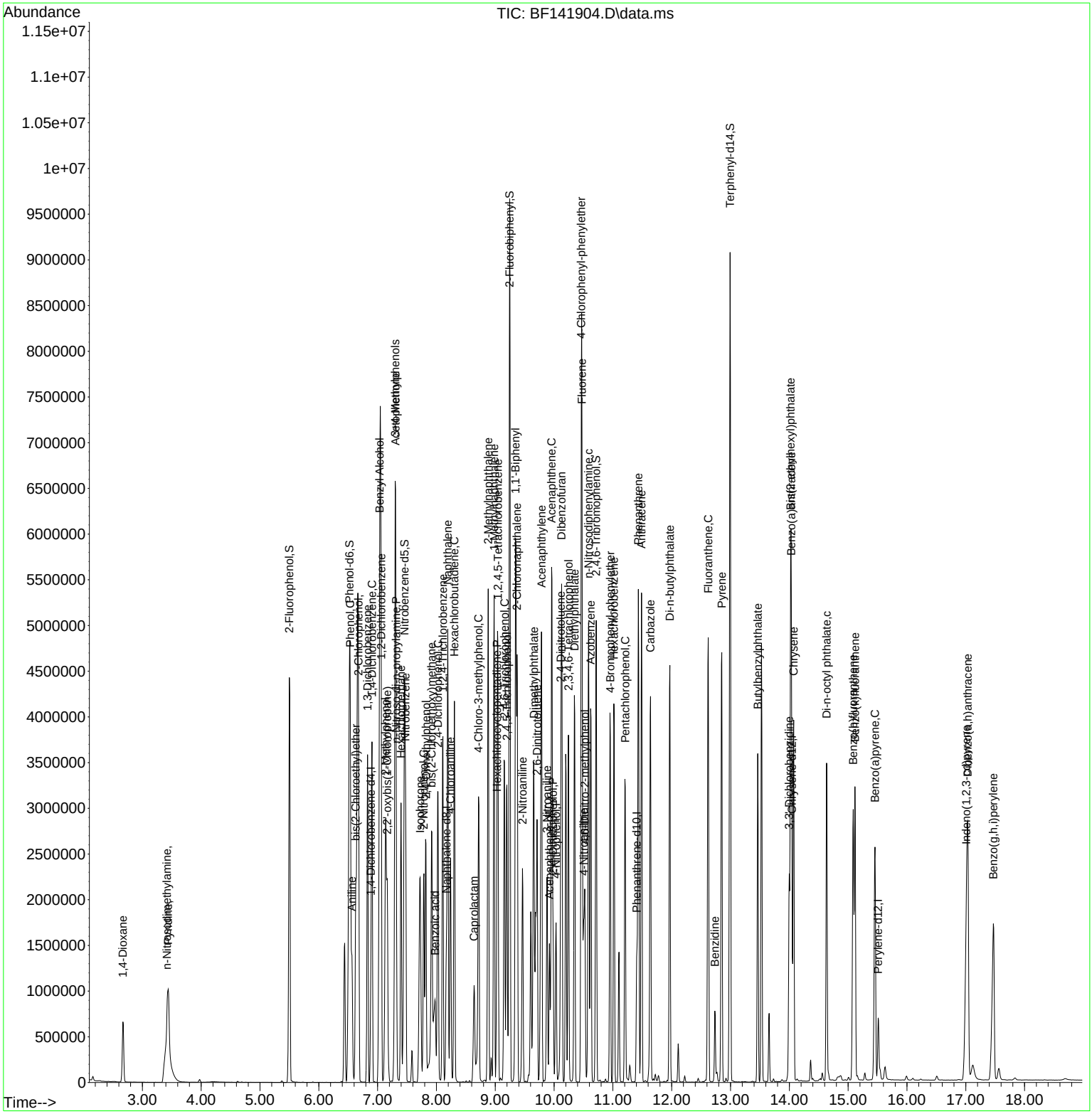
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141904.D
Acq On : 10 Mar 2025 14:27
Operator : RC/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 10 15:37:59 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
SSTDICC080

Manual Integrations APPROVED

Reviewed By :Anahy Claudio 03/11/2025
Supervised By :Jagrut Upadhyay 03/11/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141905.D
Acq On : 10 Mar 2025 15:20
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Mar 10 15:39:09 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.881	152	215017	20.000	ng		0.00
21) Naphthalene-d8	8.163	136	877329	20.000	ng		0.00
39) Acenaphthene-d10	9.922	164	481971	20.000	ng		0.00
64) Phenanthrene-d10	11.404	188	811142	20.000	ng		0.00
76) Chrysene-d12	14.045	240	491943	20.000	ng		0.00
86) Perylene-d12	15.509	264	413564	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.492	112	1249601	96.967	ng		0.00
7) Phenol-d6	6.504	99	1594608	97.156	ng		0.00
23) Nitrobenzene-d5	7.445	82	1507471	96.304	ng		0.00
42) 2,4,6-Tribromophenol	10.710	330	625035	102.342	ng		0.00
45) 2-Fluorobiphenyl	9.239	172	3064989	96.836	ng		0.00
79) Terphenyl-d14	12.992	244	3394803	102.007	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.675	88	266045	49.258	ng		99
3) Pyridine	3.434	79	646627	48.716	ng		99
4) n-Nitrosodimethylamine	3.398	42	320008	50.718	ng		99
6) Aniline	6.545	93	775854	47.884	ng		99
8) 2-Chlorophenol	6.669	128	696154	48.738	ng		100
9) Benzaldehyde	6.434	77	418049	45.569	ng		99
10) Phenol	6.522	94	829086	47.876	ng		96
11) bis(2-Chloroethyl)ether	6.616	93	631516	48.672	ng		100
12) 1,3-Dichlorobenzene	6.822	146	753352	48.807	ng		99
13) 1,4-Dichlorobenzene	6.898	146	756875	48.465	ng		100
14) 1,2-Dichlorobenzene	7.051	146	706635	48.049	ng		100
15) Benzyl Alcohol	7.022	79	652454	49.113	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.157	45	745710	47.687	ng		100
17) 2-Methylphenol	7.128	107	557981	49.153	ng		99
18) Hexachloroethane	7.392	117	290127	49.551	ng		99
19) n-Nitroso-di-n-propyla...	7.298	70	505166	47.887	ng		99
20) 3+4-Methylphenols	7.286	107	704563	48.388	ng	#	86
22) Acetophenone	7.292	105	987577	46.924	ng		97
24) Nitrobenzene	7.463	77	752936	48.514	ng		99
25) Isophorone	7.704	82	1327254	48.027	ng		99
26) 2-Nitrophenol	7.781	139	392772	51.644	ng		100
27) 2,4-Dimethylphenol	7.810	122	510395	48.725	ng		99
28) bis(2-Chloroethoxy)met...	7.910	93	826776	47.757	ng		100
29) 2,4-Dichlorophenol	8.016	162	647319	49.793	ng		100
30) 1,2,4-Trichlorobenzene	8.104	180	697274	48.617	ng		99
31) Naphthalene	8.186	128	2196111	48.863	ng		100
32) Benzoic acid	7.939	122	500593	54.676	ng		100
33) 4-Chloroaniline	8.233	127	775699	48.909	ng		99
34) Hexachlorobutadiene	8.304	225	469787	50.376	ng		99
35) Caprolactam	8.616	113	193267	48.891	ng		95
36) 4-Chloro-3-methylphenol	8.710	107	721800	49.925	ng		100
37) 2-Methylnaphthalene	8.875	142	1436485	47.638	ng		100
38) 1-Methylnaphthalene	8.975	142	1357356	46.482	ng		100
40) 1,2,4,5-Tetrachloroben...	9.039	216	719431	48.955	ng		99
41) Hexachlorocyclopentadiene	9.027	237	284968	49.142	ng		99
43) 2,4,6-Trichlorophenol	9.151	196	481782	50.291	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141905.D
Acq On : 10 Mar 2025 15:20
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Mar 10 15:39:09 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	482570	49.580	ng		99
46) 1,1'-Biphenyl	9.339	154	1809746	49.526	ng		99
47) 2-Chloronaphthalene	9.369	162	1360528	49.960	ng		99
48) 2-Nitroaniline	9.457	65	429111	54.854	ng		97
49) Acenaphthylene	9.780	152	2005538	49.674	ng		100
50) Dimethylphthalate	9.645	163	1716995	51.273	ng		100
51) 2,6-Dinitrotoluene	9.704	165	370368	53.184	ng		96
52) Acenaphthene	9.957	154	1377901	48.333	ng		98
53) 3-Nitroaniline	9.874	138	340633	47.638	ng		100
54) 2,4-Dinitrophenol	9.975	184	184410	49.104	ng	#	58
55) Dibenzofuran	10.127	168	1936780	47.647	ng		99
56) 4-Nitrophenol	10.022	139	276487	51.474	ng		99
57) 2,4-Dinitrotoluene	10.104	165	461276	50.321	ng		97
58) Fluorene	10.469	166	1497123	47.708	ng		99
59) 2,3,4,6-Tetrachlorophenol	10.239	232	438025	49.600	ng		100
60) Diethylphthalate	10.339	149	1635073	48.639	ng		100
61) 4-Chlorophenyl-phenyle...	10.457	204	799744	48.929	ng		99
62) 4-Nitroaniline	10.486	138	346378	49.990	ng		99
63) Azobenzene	10.622	77	1519356	48.653	ng		98
65) 4,6-Dinitro-2-methylph...	10.516	198	262910	54.673	ng		99
66) n-Nitrosodiphenylamine	10.580	169	1293745	49.373	ng		100
67) 4-Bromophenyl-phenylether	10.951	248	532762	52.740	ng		97
68) Hexachlorobenzene	11.016	284	573467	51.359	ng		97
69) Atrazine	11.104	200	418147	65.441	ng		99
70) Pentachlorophenol	11.204	266	365292	53.050	ng		99
71) Phenanthrene	11.433	178	2080633	47.434	ng		100
72) Anthracene	11.480	178	2081490	47.299	ng		99
73) Carbazole	11.633	167	1831424	48.338	ng		99
74) Di-n-butylphthalate	11.963	149	2510447	50.185	ng		99
75) Fluoranthene	12.616	202	2328357	50.564	ng		99
77) Benzidine	12.733	184	270893	38.966	ng		99
78) Pyrene	12.845	202	2308671	54.723	ng		100
80) Butylbenzylphthalate	13.463	149	864849	52.022	ng		99
81) Benzo(a)anthracene	14.033	228	1592035	49.192	ng		100
82) 3,3'-Dichlorobenzidine	13.992	252	449408	48.044	ng		99
83) Chrysene	14.068	228	1465389	50.404	ng		100
84) Bis(2-ethylhexyl)phtha...	14.021	149	1203021	52.747	ng		99
85) Di-n-octyl phthalate	14.633	149	1692206	53.307	ng		100
87) Indeno(1,2,3-cd)pyrene	17.003	276	1366974	50.969	ng		99
88) Benzo(b)fluoranthene	15.080	252	1392083	49.625	ng		99
89) Benzo(k)fluoranthene	15.109	252	1167351	47.638	ng		100
90) Benzo(a)pyrene	15.451	252	1119256	50.591	ng		99
91) Dibenzo(a,h)anthracene	17.021	278	1131875	51.149	ng		99
92) Benzo(g,h,i)perylene	17.456	276	1099760	50.106	ng		99

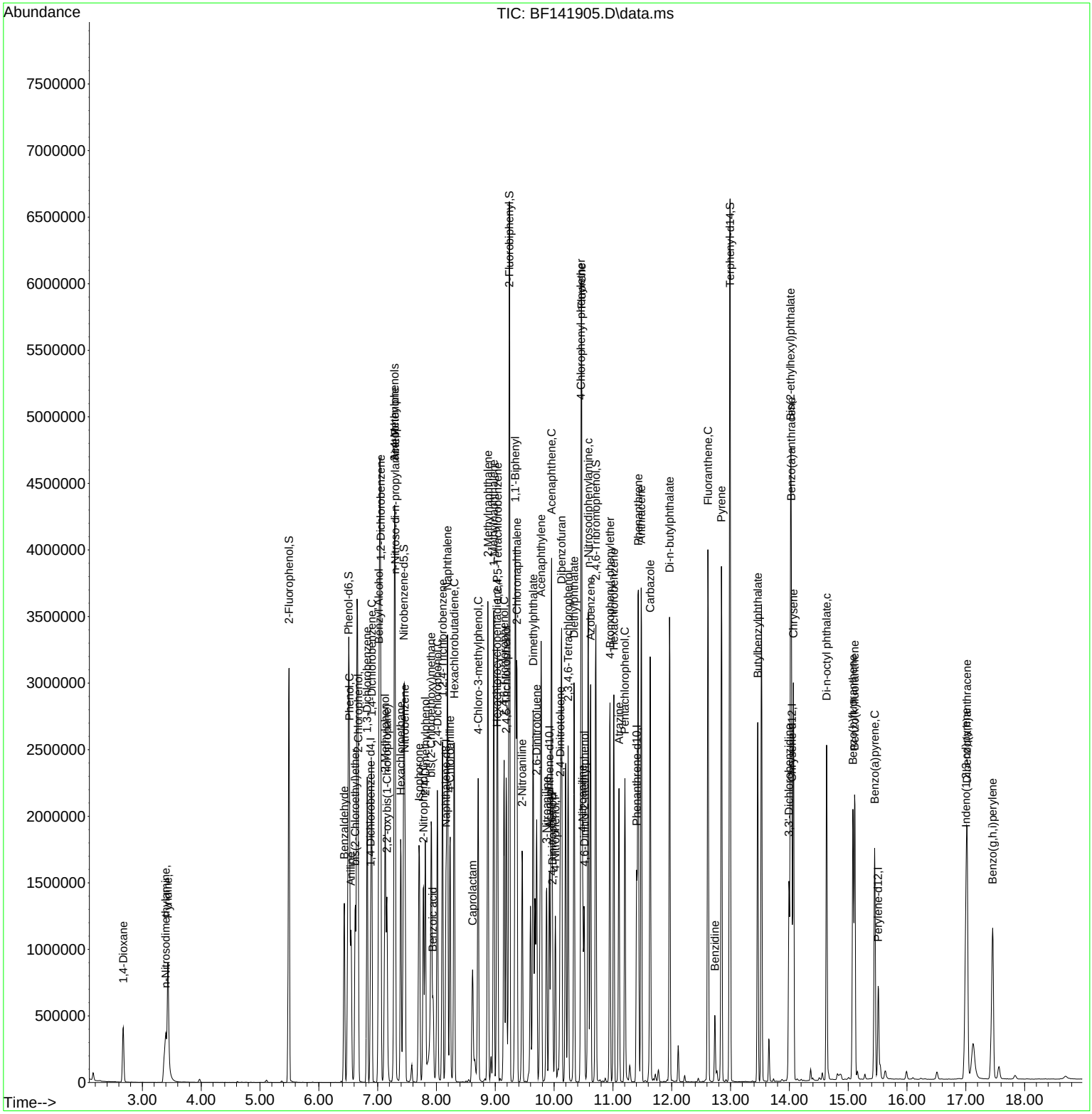
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141905.D
Acq On : 10 Mar 2025 15:20
Operator : RC/JU
Sample : SSTDICC050
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDICC050

Quant Time: Mar 10 15:39:09 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:01:52 2025
Response via : Initial Calibration



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.881	152	209747	20.000	ng	0.00
21) Naphthalene-d8	8.163	136	840616	20.000	ng	0.00
39) Acenaphthene-d10	9.922	164	483165	20.000	ng	0.00
64) Phenanthrene-d10	11.404	188	813672	20.000	ng	0.00
76) Chrysene-d12	14.039	240	523890	20.000	ng	0.00
86) Perylene-d12	15.510	264	426422	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.493	112	965473	76.823	ng	0.00
7) Phenol-d6	6.504	99	1231487	76.962	ng	0.00
23) Nitrobenzene-d5	7.445	82	1179480	78.962	ng	0.00
42) 2,4,6-Tribromophenol	10.710	330	486334	79.342	ng	0.00
45) 2-Fluorobiphenyl	9.239	172	2399526	75.528	ng	0.00
79) Terphenyl-d14	12.986	244	2825870	79.748	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.669	88	203628	38.670	ng	99
3) Pyridine	3.428	79	504398	39.050	ng	99
4) n-Nitrosodimethylamine	3.387	42	239879	38.959	ng	97
6) Aniline	6.545	93	614962	38.958	ng	98
8) 2-Chlorophenol	6.669	128	539701	38.721	ng	99
9) Benzaldehyde	6.434	77	339615	37.950	ng	99
10) Phenol	6.516	94	658449	39.115	ng	97
11) bis(2-Chloroethyl)ether	6.616	93	483438	38.246	ng	99
12) 1,3-Dichlorobenzene	6.822	146	577700	38.391	ng	100
13) 1,4-Dichlorobenzene	6.898	146	584132	38.366	ng	99
14) 1,2-Dichlorobenzene	7.051	146	555621	38.744	ng	100
15) Benzyl Alcohol	7.022	79	509792	39.408	ng	98
16) 2,2'-oxybis(1-Chloropr...	7.157	45	569783	37.338	ng	100
17) 2-Methylphenol	7.128	107	429715	38.775	ng	99
18) Hexachloroethane	7.392	117	221507	38.797	ng	100
19) n-Nitroso-di-n-propyla...	7.298	70	391096	38.038	ng	100
20) 3+4-Methylphenols	7.281	107	548208	38.619	ng	99
22) Acetophenone	7.292	105	757917	37.650	ng	98
24) Nitrobenzene	7.463	77	578836	38.980	ng	99
25) Isophorone	7.704	82	1007659	38.163	ng	100
26) 2-Nitrophenol	7.775	139	294657	40.429	ng	96
27) 2,4-Dimethylphenol	7.810	122	385504	38.414	ng	99
28) bis(2-Chloroethoxy)met...	7.910	93	628379	37.943	ng	100
29) 2,4-Dichlorophenol	8.016	162	485205	38.952	ng	99
30) 1,2,4-Trichlorobenzene	8.104	180	526250	38.336	ng	100
31) Naphthalene	8.187	128	1633401	37.827	ng	100
32) Benzoic acid	7.928	122	373179	42.303	ng	99
33) 4-Chloroaniline	8.228	127	592172	38.847	ng	99
34) Hexachlorobutadiene	8.304	225	347789	38.849	ng	99
35) Caprolactam	8.604	113	141562	37.276	ng	98
36) 4-Chloro-3-methylphenol	8.704	107	535661	38.550	ng	99
37) 2-Methylnaphthalene	8.875	142	1094895	37.935	ng	100
38) 1-Methylnaphthalene	8.975	142	1071850	38.484	ng	100
40) 1,2,4,5-Tetrachloroben...	9.039	216	561804	38.191	ng	99
41) Hexachlorocyclopentadiene	9.028	237	220386	38.281	ng	98
43) 2,4,6-Trichlorophenol	9.151	196	377743	39.292	ng	100

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	372564	38.263	ng	99
46) 1,1'-Biphenyl	9.339	154	1401736	38.182	ng	100
47) 2-Chloronaphthalene	9.363	162	1042241	38.090	ng	99
48) 2-Nitroaniline	9.457	65	308259	38.908	ng	99
49) Acenaphthylene	9.781	152	1531852	37.725	ng	100
50) Dimethylphthalate	9.639	163	1272572	37.611	ng	100
51) 2,6-Dinitrotoluene	9.698	165	274531	38.970	ng	99
52) Acenaphthene	9.951	154	1095922	38.405	ng	100
53) 3-Nitroaniline	9.869	138	275555	38.561	ng	99
54) 2,4-Dinitrophenol	9.969	184	142831	39.326	ng	95
55) Dibenzofuran	10.122	168	1540381	37.778	ng	100
56) 4-Nitrophenol	10.016	139	212462	39.425	ng	99
57) 2,4-Dinitrotoluene	10.104	165	361518	39.291	ng	99
58) Fluorene	10.469	166	1175392	37.381	ng	100
59) 2,3,4,6-Tetrachlorophenol	10.239	232	346168	39.070	ng	99
60) Diethylphthalate	10.339	149	1293401	38.337	ng	100
61) 4-Chlorophenyl-phenyle...	10.457	204	627404	38.272	ng	99
62) 4-Nitroaniline	10.480	138	270993	38.953	ng	99
63) Azobenzene	10.622	77	1189121	37.911	ng	98
65) 4,6-Dinitro-2-methylph...	10.510	198	200888	41.415	ng	99
66) n-Nitrosodiphenylamine	10.575	169	1008029	38.283	ng	99
67) 4-Bromophenyl-phenylether	10.951	248	398683	39.015	ng	98
68) Hexachlorobenzene	11.016	284	445938	39.789	ng	96
69) Atrazine	11.098	200	257856	31.945	ng	99
70) Pentachlorophenol	11.204	266	289713	41.955	ng	100
71) Phenanthrene	11.427	178	1685770	38.357	ng	100
72) Anthracene	11.480	178	1675103	37.991	ng	100
73) Carbazole	11.633	167	1451333	38.167	ng	99
74) Di-n-butylphthalate	11.963	149	1953516	38.717	ng	100
75) Fluoranthene	12.616	202	1750317	37.545	ng	100
77) Benzidine	12.733	184	420377	57.513	ng	100
78) Pyrene	12.845	202	1746456	38.539	ng	100
80) Butylbenzylphthalate	13.463	149	723288	40.778	ng	99
81) Benzo(a)anthracene	14.027	228	1347977	39.211	ng	100
82) 3,3'-Dichlorobenzidine	13.992	252	380866	38.337	ng	100
83) Chrysene	14.068	228	1159074	37.195	ng	100
84) Bis(2-ethylhexyl)phtha...	14.021	149	1006170	41.142	ng	99
85) Di-n-octyl phthalate	14.633	149	1394136	40.971	ng	100
87) Indeno(1,2,3-cd)pyrene	17.004	276	1061096	38.467	ng	99
88) Benzo(b)fluoranthene	15.080	252	1166263	39.906	ng	99
89) Benzo(k)fluoranthene	15.110	252	869471	34.765	ng	100
90) Benzo(a)pyrene	15.451	252	882967	38.612	ng	99
91) Dibenzo(a,h)anthracene	17.021	278	886038	38.931	ng	99
92) Benzo(g,h,i)perylene	17.451	276	855812	38.051	ng	99

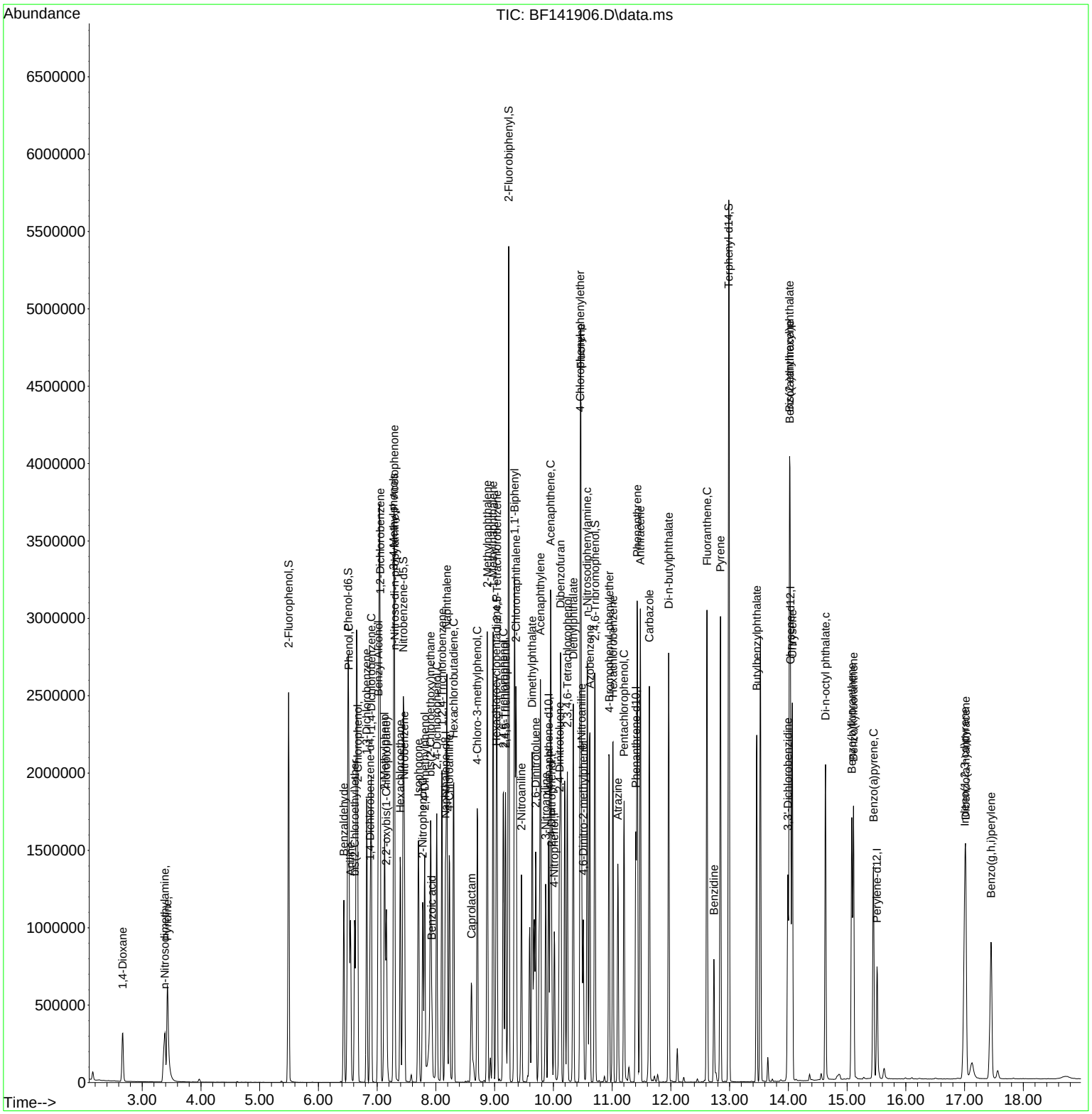
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00
2		1,4-Dioxane	0.502	0.485	3.4	91	0.00
3		Pyridine	1.232	1.202	2.4	93	-0.01
4		n-Nitrosodimethylamine	0.587	0.572	2.6	92	0.00
5	S	2-Fluorophenol	1.198	1.151	3.9	94	0.00
6		Aniline	1.505	1.466	2.6	94	0.00
7	S	Phenol-d6	1.526	1.468	3.8	96	0.00
8		2-Chlorophenol	1.329	1.287	3.2	96	0.00
9		Benzaldehyde	0.853	0.810	5.0	98	0.00
10	C	Phenol	1.605	1.570	2.2	96	0.00
11		bis(2-Chloroethyl)ether	1.205	1.152	4.4	95	0.00
12		1,3-Dichlorobenzene	1.435	1.377	4.0	94	0.00
13	C	1,4-Dichlorobenzene	1.452	1.392	4.1	94	0.00
14		1,2-Dichlorobenzene	1.367	1.325	3.1	96	0.00
15		Benzyl Alcohol	1.233	1.215	1.5	96	0.00
16		2,2'-oxybis(1-Chloropropane	1.455	1.358	6.7	94	0.00
17		2-Methylphenol	1.057	1.024	3.1	96	0.00
18		Hexachloroethane	0.544	0.528	2.9	96	0.00
19	P	n-Nitroso-di-n-propylamine	0.980	0.932	4.9	96	0.00
20		3+4-Methylphenols	1.354	1.307	3.5	95	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	96	0.00
22		Acetophenone	0.479	0.451	5.8	94	0.00
23	S	Nitrobenzene-d5	0.355	0.351	1.1	97	0.00
24		Nitrobenzene	0.353	0.344	2.5	96	0.00
25		Isophorone	0.628	0.599	4.6	96	0.00
26	C	2-Nitrophenol	0.173	0.175	-1.2	96	0.00
27		2,4-Dimethylphenol	0.239	0.229	4.2	96	0.00
28		bis(2-Chloroethoxy)methane	0.394	0.374	5.1	97	0.00
29	C	2,4-Dichlorophenol	0.296	0.289	2.4	97	0.00
30		1,2,4-Trichlorobenzene	0.327	0.313	4.3	97	0.00
31		Naphthalene	1.027	0.972	5.4	95	0.00
32		Benzoic acid	0.210	0.222	-5.7	103	0.00
33		4-Chloroaniline	0.363	0.352	3.0	97	0.00
34	C	Hexachlorobutadiene	0.213	0.207	2.8	98	0.00
35		Caprolactam	0.090	0.084	6.7	96	0.00
36	C	4-Chloro-3-methylphenol	0.331	0.319	3.6	96	0.00
37		2-Methylnaphthalene	0.687	0.651	5.2	96	0.00
38		1-Methylnaphthalene	0.663	0.638	3.8	98	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00
40		1,2,4,5-Tetrachlorobenzene	0.609	0.581	4.6	96	0.00
41	P	Hexachlorocyclopentadiene	0.238	0.228	4.2	89	0.00
42	S	2,4,6-Tribromophenol	0.254	0.252	0.8	98	0.00
43	C	2,4,6-Trichlorophenol	0.398	0.391	1.8	96	0.00
44		2,4,5-Trichlorophenol	0.403	0.386	4.2	97	0.00
45	S	2-Fluorobiphenyl	1.315	1.242	5.6	97	0.00
46		1,1'-Biphenyl	1.520	1.451	4.5	98	0.00
47		2-Chloronaphthalene	1.133	1.079	4.8	97	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	0.328	0.319	2.7	97	0.00
49		Acenaphthylene	1.681	1.585	5.7	95	0.00
50		Dimethylphthalate	1.401	1.317	6.0	97	0.00
51		2,6-Dinitrotoluene	0.292	0.284	2.7	97	0.00
52	C	Acenaphthene	1.181	1.134	4.0	97	0.00
53		3-Nitroaniline	0.296	0.285	3.7	95	0.00
54	P	2,4-Dinitrophenol	0.139	0.148	-6.5	102	0.00
55		Dibenzofuran	1.688	1.594	5.6	97	0.00
56	P	4-Nitrophenol	0.223	0.220	1.3	94	0.00
57		2,4-Dinitrotoluene	0.381	0.374	1.8	98	0.00
58		Fluorene	1.302	1.216	6.6	97	0.00
59		2,3,4,6-Tetrachlorophenol	0.367	0.358	2.5	98	0.00
60		Diethylphthalate	1.397	1.338	4.2	98	0.00
61		4-Chlorophenyl-phenylether	0.679	0.649	4.4	99	0.00
62		4-Nitroaniline	0.288	0.280	2.8	95	0.00
63		Azobenzene	1.298	1.231	5.2	97	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	97	0.00
65		4,6-Dinitro-2-methylphenol	0.119	0.123	-3.4	99	0.00
66	c	n-Nitrosodiphenylamine	0.647	0.619	4.3	97	0.00
67		4-Bromophenyl-phenylether	0.251	0.245	2.4	97	0.00
68		Hexachlorobenzene	0.275	0.274	0.4	99	0.00
69		Atrazine	0.198	0.158	20.2	94	0.00
70	C	Pentachlorophenol	0.170	0.178	-4.7	97	0.00
71		Phenanthrene	1.080	1.036	4.1	97	0.00
72		Anthracene	1.084	1.029	5.1	95	0.00
73		Carbazole	0.935	0.892	4.6	95	0.00
74		Di-n-butylphthalate	1.240	1.200	3.2	99	0.00
75	C	Fluoranthene	1.146	1.076	6.1	94	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	92	0.00
77		Benzidine	0.279	0.401	-43.7#	103	0.00
78		Pyrene	1.730	1.667	3.6	95	0.00
79	S	Terphenyl-d14	1.353	1.349	0.3	97	0.00
80		Butylbenzylphthalate	0.677	0.690	-1.9	97	0.00
81		Benzo(a)anthracene	1.312	1.287	1.9	93	0.00
82		3,3'-Dichlorobenzidine	0.379	0.363	4.2	90	0.00
83		Chrysene	1.190	1.106	7.1	90	0.00
84		Bis(2-ethylhexyl)phthalate	0.934	0.960	-2.8	98	0.00
85	c	Di-n-octyl phthalate	1.299	1.331	-2.5	97	0.00
86	I	Perylene-d12	1.000	1.000	0.0	91	0.00
87		Indeno(1,2,3-cd)pyrene	1.294	1.244	3.9	88	0.00
88		Benzo(b)fluoranthene	1.371	1.367	0.3	103	0.00
89		Benzo(k)fluoranthene	1.173	1.019	13.1	77	0.00
90	C	Benzo(a)pyrene	1.073	1.035	3.5	91	0.00
91		Dibenzo(a,h)anthracene	1.067	1.039	2.6	88	0.00
92		Benzo(g,h,i)perylene	1.055	1.003	4.9	86	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	94	0.00
2		1,4-Dioxane	40.000	38.670	3.3	91	0.00
3		Pyridine	40.000	39.050	2.4	93	-0.01
4		n-Nitrosodimethylamine	40.000	38.959	2.6	92	0.00
5	S	2-Fluorophenol	80.000	76.823	4.0	94	0.00
6		Aniline	40.000	38.958	2.6	94	0.00
7	S	Phenol-d6	80.000	76.962	3.8	96	0.00
8		2-Chlorophenol	40.000	38.721	3.2	96	0.00
9		Benzaldehyde	40.000	37.950	5.1	98	0.00
10	C	Phenol	40.000	39.115	2.2	96	0.00
11		bis(2-Chloroethyl)ether	40.000	38.246	4.4	95	0.00
12		1,3-Dichlorobenzene	40.000	38.391	4.0	94	0.00
13	C	1,4-Dichlorobenzene	40.000	38.366	4.1	94	0.00
14		1,2-Dichlorobenzene	40.000	38.744	3.1	96	0.00
15		Benzyl Alcohol	40.000	39.408	1.5	96	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	37.338	6.7	94	0.00
17		2-Methylphenol	40.000	38.775	3.1	96	0.00
18		Hexachloroethane	40.000	38.797	3.0	96	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	38.038	4.9	96	0.00
20		3+4-Methylphenols	40.000	38.619	3.5	95	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	96	0.00
22		Acetophenone	40.000	37.650	5.9	94	0.00
23	S	Nitrobenzene-d5	80.000	78.962	1.3	97	0.00
24		Nitrobenzene	40.000	38.980	2.6	96	0.00
25		Isophorone	40.000	38.163	4.6	96	0.00
26	C	2-Nitrophenol	40.000	40.429	-1.1	96	0.00
27		2,4-Dimethylphenol	40.000	38.414	4.0	96	0.00
28		bis(2-Chloroethoxy)methane	40.000	37.943	5.1	97	0.00
29	C	2,4-Dichlorophenol	40.000	38.952	2.6	97	0.00
30		1,2,4-Trichlorobenzene	40.000	38.336	4.2	97	0.00
31		Naphthalene	40.000	37.827	5.4	95	0.00
32		Benzoic acid	40.000	42.303	-5.8	103	0.00
33		4-Chloroaniline	40.000	38.847	2.9	97	0.00
34	C	Hexachlorobutadiene	40.000	38.849	2.9	98	0.00
35		Caprolactam	40.000	37.276	6.8	96	0.00
36	C	4-Chloro-3-methylphenol	40.000	38.550	3.6	96	0.00
37		2-Methylnaphthalene	40.000	37.935	5.2	96	0.00
38		1-Methylnaphthalene	40.000	38.484	3.8	98	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	98	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	38.191	4.5	96	0.00
41	P	Hexachlorocyclopentadiene	40.000	38.281	4.3	89	0.00
42	S	2,4,6-Tribromophenol	80.000	79.342	0.8	98	0.00
43	C	2,4,6-Trichlorophenol	40.000	39.292	1.8	96	0.00
44		2,4,5-Trichlorophenol	40.000	38.263	4.3	97	0.00
45	S	2-Fluorobiphenyl	80.000	75.528	5.6	97	0.00
46		1,1'-Biphenyl	40.000	38.182	4.5	98	0.00
47		2-Chloronaphthalene	40.000	38.090	4.8	97	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	40.000	38.908	2.7	97	0.00
49		Acenaphthylene	40.000	37.725	5.7	95	0.00
50		Dimethylphthalate	40.000	37.611	6.0	97	0.00
51		2,6-Dinitrotoluene	40.000	38.970	2.6	97	0.00
52	C	Acenaphthene	40.000	38.405	4.0	97	0.00
53		3-Nitroaniline	40.000	38.561	3.6	95	0.00
54	P	2,4-Dinitrophenol	40.000	39.326	1.7	102	0.00
55		Dibenzofuran	40.000	37.778	5.6	97	0.00
56	P	4-Nitrophenol	40.000	39.425	1.4	94	0.00
57		2,4-Dinitrotoluene	40.000	39.291	1.8	98	0.00
58		Fluorene	40.000	37.381	6.5	97	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	39.070	2.3	98	0.00
60		Diethylphthalate	40.000	38.337	4.2	98	0.00
61		4-Chlorophenyl-phenylether	40.000	38.272	4.3	99	0.00
62		4-Nitroaniline	40.000	38.953	2.6	95	0.00
63		Azobenzene	40.000	37.911	5.2	97	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	97	0.00
65		4,6-Dinitro-2-methylphenol	40.000	41.415	-3.5	99	0.00
66	c	n-Nitrosodiphenylamine	40.000	38.283	4.3	97	0.00
67		4-Bromophenyl-phenylether	40.000	39.015	2.5	97	0.00
68		Hexachlorobenzene	40.000	39.789	0.5	99	0.00
69		Atrazine	40.000	31.945	20.1	94	0.00
70	C	Pentachlorophenol	40.000	41.955	-4.9	97	0.00
71		Phenanthrene	40.000	38.357	4.1	97	0.00
72		Anthracene	40.000	37.991	5.0	95	0.00
73		Carbazole	40.000	38.167	4.6	95	0.00
74		Di-n-butylphthalate	40.000	38.717	3.2	99	0.00
75	C	Fluoranthene	40.000	37.545	6.1	94	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	92	0.00
77		Benzidine	40.000	57.513	-43.8#	103	0.00
78		Pyrene	40.000	38.539	3.7	95	0.00
79	S	Terphenyl-d14	80.000	79.748	0.3	97	0.00
80		Butylbenzylphthalate	40.000	40.778	-1.9	97	0.00
81		Benzo(a)anthracene	40.000	39.211	2.0	93	0.00
82		3,3'-Dichlorobenzidine	40.000	38.337	4.2	90	0.00
83		Chrysene	40.000	37.195	7.0	90	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	41.142	-2.9	98	0.00
85	c	Di-n-octyl phthalate	40.000	40.971	-2.4	97	0.00
86	I	Perylene-d12	20.000	20.000	0.0	91	0.00
87		Indeno(1,2,3-cd)pyrene	40.000	38.467	3.8	88	0.00
88		Benzo(b)fluoranthene	40.000	39.906	0.2	103	0.00
89		Benzo(k)fluoranthene	40.000	34.765	13.1	77	0.00
90	C	Benzo(a)pyrene	40.000	38.612	3.5	91	0.00
91		Dibenzo(a,h)anthracene	40.000	38.931	2.7	88	0.00
92		Benzo(g,h,i)perylene	40.000	38.051	4.9	86	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141906.D
Acq On : 10 Mar 2025 15:53
Operator : RC/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
ICVBF031025

Quant Time: Mar 10 16:15:33 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG No.: Q1609

Instrument ID: BNA_F Calibration Date/Time: 03/24/2025 10:17

Lab File ID: BF142045.D Init. Calib. Date(s): 03/10/2025 03/10/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:01 15:20

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.232	1.112		-9.7	
2-Fluorophenol	1.198	1.135		-5.3	
Phenol-d6	1.526	1.423		-6.8	
1,4-Dichlorobenzene	1.452	1.385		-4.6	20.0
2-Methylphenol	1.057	0.966		-8.6	
3+4-Methylphenols	1.354	1.242		-8.3	
Nitrobenzene-d5	0.355	0.342		-3.7	
Hexachloroethane	0.544	0.511		-6.1	
Nitrobenzene	0.353	0.335		-5.1	
Hexachlorobutadiene	0.213	0.211		-0.9	20.0
2,4,6-Trichlorophenol	0.398	0.380		-4.5	20.0
2-Fluorobiphenyl	1.315	1.233		-6.2	
2,4,5-Trichlorophenol	0.403	0.403		0.0	
2,4-Dinitrotoluene	0.381	0.377		-1.0	
2,4,6-Tribromophenol	0.254	0.254		0.0	
Hexachlorobenzene	0.275	0.280		1.8	
Pentachlorophenol	0.170	0.173		1.8	20.0
Terphenyl-d14	1.353	1.374		1.6	

All other compounds must meet a minimum RRF of 0.010.

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	161989	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	619308	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	352913	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	604220	20.000	ng	0.00
76) Chrysene-d12	14.039	240	331741	20.000	ng	0.00
86) Perylene-d12	15.510	264	322359	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.487	112	735300	75.757	ng	0.00
7) Phenol-d6	6.498	99	922026	74.611	ng	0.00
23) Nitrobenzene-d5	7.440	82	848029	77.060	ng	0.00
42) 2,4,6-Tribromophenol	10.698	330	358850	80.151	ng	0.00
45) 2-Fluorobiphenyl	9.234	172	1740796	75.016	ng	0.00
79) Terphenyl-d14	12.980	244	1822970	81.243	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.640	88	152614	37.527	ng	98
3) Pyridine	3.405	79	360104	36.098	ng	98
4) n-Nitrosodimethylamine	3.357	42	166334	34.979	ng	96
6) Aniline	6.540	93	442756	36.318	ng	99
8) 2-Chlorophenol	6.657	128	405391	37.659	ng	99
9) Benzaldehyde	6.428	77	262503	37.981	ng	98
10) Phenol	6.516	94	483881	37.219	ng	99
11) bis(2-Chloroethyl)ether	6.610	93	353658	36.228	ng	99
12) 1,3-Dichlorobenzene	6.816	146	444052	38.209	ng	99
13) 1,4-Dichlorobenzene	6.893	146	448633	38.153	ng	99
14) 1,2-Dichlorobenzene	7.045	146	418727	37.807	ng	99
15) Benzyl Alcohol	7.016	79	364909	36.525	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	389497	33.049	ng	98
17) 2-Methylphenol	7.122	107	312878	36.555	ng	99
18) Hexachloroethane	7.387	117	165432	37.518	ng	95
19) n-Nitroso-di-n-propyla...	7.287	70	266964	33.620	ng	99
20) 3+4-Methylphenols	7.275	107	402505	36.715	ng	96
22) Acetophenone	7.287	105	552268	37.237	ng	98
24) Nitrobenzene	7.457	77	415092	37.942	ng	97
25) Isophorone	7.692	82	702719	36.124	ng	100
26) 2-Nitrophenol	7.769	139	219318	40.846	ng	99
27) 2,4-Dimethylphenol	7.804	122	280989	38.005	ng	99
28) bis(2-Chloroethoxy)met...	7.904	93	444684	36.447	ng	99
29) 2,4-Dichlorophenol	8.010	162	360124	39.242	ng	99
30) 1,2,4-Trichlorobenzene	8.098	180	395612	39.118	ng	98
31) Naphthalene	8.181	128	1218411	38.299	ng	100
32) Benzoic acid	7.916	122	257302	39.590	ng	98
33) 4-Chloroaniline	8.228	127	420711	37.462	ng	97
34) Hexachlorobutadiene	8.292	225	261640	39.670	ng	98
35) Caprolactam	8.592	113	104230	37.253	ng	94
36) 4-Chloro-3-methylphenol	8.704	107	381426	37.259	ng	96
37) 2-Methylnaphthalene	8.869	142	807595	37.979	ng	100
38) 1-Methylnaphthalene	8.969	142	782664	38.142	ng	99
40) 1,2,4,5-Tetrachloroben...	9.034	216	418232	38.924	ng	98
41) Hexachlorocyclopentadiene	9.022	237	149876	35.642	ng	100
43) 2,4,6-Trichlorophenol	9.145	196	268181	38.191	ng	100

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

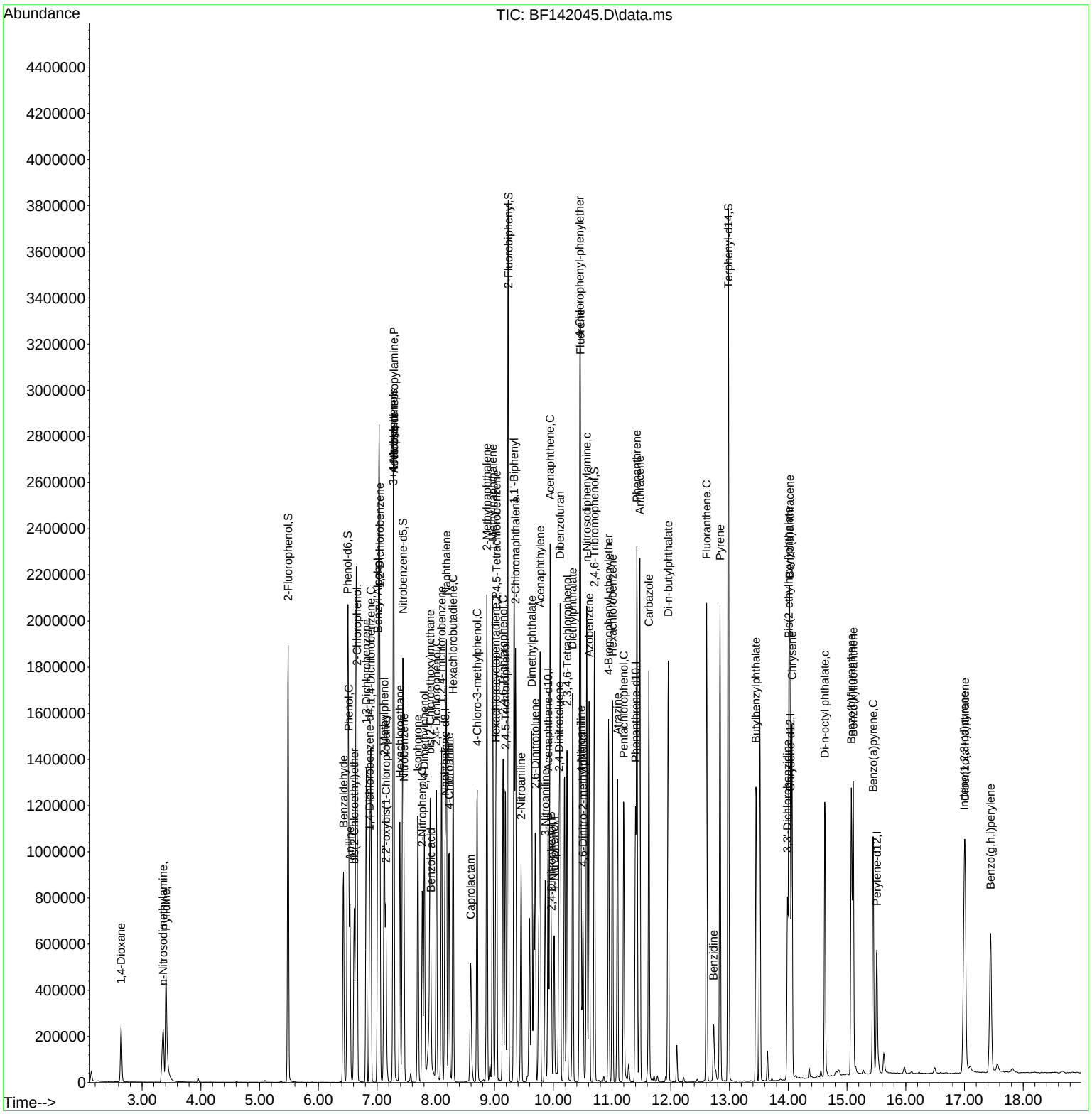
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.187	196	284279	39.971	ng		97
46) 1,1'-Biphenyl	9.334	154	1015056	37.854	ng		99
47) 2-Chloronaphthalene	9.357	162	766461	38.349	ng		98
48) 2-Nitroaniline	9.451	65	215566	37.251	ng		97
49) Acenaphthylene	9.775	152	1125339	37.942	ng		100
50) Dimethylphthalate	9.634	163	924114	37.393	ng		100
51) 2,6-Dinitrotoluene	9.692	165	202089	39.274	ng		94
52) Acenaphthene	9.945	154	798202	38.296	ng		99
53) 3-Nitroaniline	9.863	138	193742	37.118	ng		97
54) 2,4-Dinitrophenol	9.969	184	101847	38.547	ng	#	49
55) Dibenzofuran	10.116	168	1123145	37.712	ng		99
56) 4-Nitrophenol	10.016	139	146564	37.235	ng		94
57) 2,4-Dinitrotoluene	10.098	165	265981	39.576	ng		95
58) Fluorene	10.463	166	865754	37.695	ng		100
59) 2,3,4,6-Tetrachlorophenol	10.233	232	254833	39.376	ng		97
60) Diethylphthalate	10.328	149	918617	37.278	ng		100
61) 4-Chlorophenyl-phenyle...	10.451	204	446837	37.317	ng		98
62) 4-Nitroaniline	10.475	138	181676	35.752	ng		97
63) Azobenzene	10.610	77	826070	36.056	ng		98
65) 4,6-Dinitro-2-methylph...	10.504	198	148864	41.328	ng		97
66) n-Nitrosodiphenylamine	10.569	169	730755	37.373	ng		100
67) 4-Bromophenyl-phenylether	10.939	248	294619	38.825	ng		97
68) Hexachlorobenzene	11.010	284	338311	40.650	ng		93
69) Atrazine	11.092	200	246297	41.090	ng		99
70) Pentachlorophenol	11.198	266	208789	40.717	ng		100
71) Phenanthrene	11.422	178	1243190	38.093	ng		99
72) Anthracene	11.475	178	1252218	38.245	ng		99
73) Carbazole	11.628	167	1020033	36.123	ng		100
74) Di-n-butylphthalate	11.957	149	1341741	35.811	ng		99
75) Fluoranthene	12.610	202	1214625	35.085	ng		99
77) Benzidine	12.727	184	171026	36.951	ng		100
78) Pyrene	12.839	202	1198573	41.768	ng		99
80) Butylbenzylphthalate	13.451	149	425748	37.906	ng		99
81) Benzo(a)anthracene	14.027	228	834550	38.337	ng		99
82) 3,3'-Dichlorobenzidine	13.986	252	248290	39.468	ng		100
83) Chrysene	14.063	228	751793	38.099	ng		100
84) Bis(2-ethylhexyl)phtha...	14.010	149	554591	35.812	ng		99
85) Di-n-octyl phthalate	14.621	149	833563	38.685	ng		98
87) Indeno(1,2,3-cd)pyrene	16.998	276	724070	34.723	ng		98
88) Benzo(b)fluoranthene	15.074	252	848296	38.396	ng		100
89) Benzo(k)fluoranthene	15.104	252	654042	34.593	ng		100
90) Benzo(a)pyrene	15.445	252	657995	38.063	ng		100
91) Dibenzo(a,h)anthracene	17.010	278	581442	33.794	ng		99
92) Benzo(g,h,i)perylene	17.445	276	584456	34.375	ng		98

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

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



Sample Results: **BF142045.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00
2		1,4-Dioxane	0.502	0.471	6.2	68	-0.04
3		Pyridine	1.232	1.112	9.7	66	-0.04
4		n-Nitrosodimethylamine	0.587	0.513	12.6	64	-0.04
5	S	2-Fluorophenol	1.198	1.135	5.3	72	0.00
6		Aniline	1.505	1.367	9.2	68	0.00
7	S	Phenol-d6	1.526	1.423	6.7	72	0.00
8		2-Chlorophenol	1.329	1.251	5.9	72	-0.01
9		Benzaldehyde	0.853	0.810	5.0	76	0.00
10	C	Phenol	1.605	1.494	6.9	71	0.00
11		bis(2-Chloroethyl)ether	1.205	1.092	9.4	69	0.00
12		1,3-Dichlorobenzene	1.435	1.371	4.5	73	0.00
13	C	1,4-Dichlorobenzene	1.452	1.385	4.6	72	0.00
14		1,2-Dichlorobenzene	1.367	1.292	5.5	72	0.00
15		Benzyl Alcohol	1.233	1.126	8.7	69	0.00
16		2,2'-oxybis(1-Chloropropane	1.455	1.202	17.4	64	0.00
17		2-Methylphenol	1.057	0.966	8.6	70	0.00
18		Hexachloroethane	0.544	0.511	6.1	72	0.00
19	P	n-Nitroso-di-n-propylamine	0.980	0.824	15.9	66	-0.01
20		3+4-Methylphenols	1.354	1.242	8.3	70	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	71	0.00
22		Acetophenone	0.479	0.446	6.9	69	0.00
23	S	Nitrobenzene-d5	0.355	0.342	3.7	70	0.00
24		Nitrobenzene	0.353	0.335	5.1	69	0.00
25		Isophorone	0.628	0.567	9.7	67	-0.01
26	C	2-Nitrophenol	0.173	0.177	-2.3	72	-0.01
27		2,4-Dimethylphenol	0.239	0.227	5.0	70	0.00
28		bis(2-Chloroethoxy)methane	0.394	0.359	8.9	68	0.00
29	C	2,4-Dichlorophenol	0.296	0.291	1.7	72	0.00
30		1,2,4-Trichlorobenzene	0.327	0.319	2.4	73	0.00
31		Naphthalene	1.027	0.984	4.2	71	0.00
32		Benzoic acid	0.210	0.208	1.0	71	-0.01
33		4-Chloroaniline	0.363	0.340	6.3	69	0.00
34	C	Hexachlorobutadiene	0.213	0.211	0.9	74	-0.01
35		Caprolactam	0.090	0.084	6.7	71	-0.01
36	C	4-Chloro-3-methylphenol	0.331	0.308	6.9	69	0.00
37		2-Methylnaphthalene	0.687	0.652	5.1	71	0.00
38		1-Methylnaphthalene	0.663	0.632	4.7	72	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	71	0.00
40		1,2,4,5-Tetrachlorobenzene	0.609	0.593	2.6	72	0.00
41	P	Hexachlorocyclopentadiene	0.238	0.212	10.9	61	0.00
42	S	2,4,6-Tribromophenol	0.254	0.254	0.0	73	0.00
43	C	2,4,6-Trichlorophenol	0.398	0.380	4.5	68	0.00
44		2,4,5-Trichlorophenol	0.403	0.403	0.0	74	0.00
45	S	2-Fluorobiphenyl	1.315	1.233	6.2	70	0.00
46		1,1'-Biphenyl	1.520	1.438	5.4	71	0.00
47		2-Chloronaphthalene	1.133	1.086	4.1	71	0.00

Sample Results: **BF142045.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	0.328	0.305	7.0	68	0.00
49		Acenaphthylene	1.681	1.594	5.2	70	0.00
50		Dimethylphthalate	1.401	1.309	6.6	70	0.00
51		2,6-Dinitrotoluene	0.292	0.286	2.1	72	0.00
52	C	Acenaphthene	1.181	1.131	4.2	71	0.00
53		3-Nitroaniline	0.296	0.274	7.4	67	0.00
54	P	2,4-Dinitrophenol	0.139	0.144	-3.6	73	0.00
55		Dibenzofuran	1.688	1.591	5.7	70	0.00
56	P	4-Nitrophenol	0.223	0.208	6.7	65	0.00
57		2,4-Dinitrotoluene	0.381	0.377	1.0	72	0.00
58		Fluorene	1.302	1.227	5.8	71	0.00
59		2,3,4,6-Tetrachlorophenol	0.367	0.361	1.6	72	0.00
60		Diethylphthalate	1.397	1.301	6.9	70	-0.01
61		4-Chlorophenyl-phenylether	0.679	0.633	6.8	70	0.00
62		4-Nitroaniline	0.288	0.257	10.8	64	0.00
63		Azobenzene	1.298	1.170	9.9	67	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	72	0.00
65		4,6-Dinitro-2-methylphenol	0.119	0.123	-3.4	73	0.00
66	c	n-Nitrosodiphenylamine	0.647	0.605	6.5	70	0.00
67		4-Bromophenyl-phenylether	0.251	0.244	2.8	72	0.00
68		Hexachlorobenzene	0.275	0.280	-1.8	75	0.00
69		Atrazine	0.198	0.204	-3.0	90	0.00
70	C	Pentachlorophenol	0.170	0.173	-1.8	70	0.00
71		Phenanthrene	1.080	1.029	4.7	71	0.00
72		Anthracene	1.084	1.036	4.4	71	0.00
73		Carbazole	0.935	0.844	9.7	67	0.00
74		Di-n-butylphthalate	1.240	1.110	10.5	68	0.00
75	C	Fluoranthene	1.146	1.005	12.3	65	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	58	0.00
77		Benzidine	0.279	0.258	7.5	42#	0.00
78		Pyrene	1.730	1.806	-4.4	65	0.00
79	S	Terphenyl-d14	1.353	1.374	-1.6	63	0.00
80		Butylbenzylphthalate	0.677	0.642	5.2	57	-0.01
81		Benzo(a)anthracene	1.312	1.258	4.1	58	0.00
82		3,3'-Dichlorobenzidine	0.379	0.374	1.3	59	0.00
83		Chrysene	1.190	1.133	4.8	58	0.00
84		Bis(2-ethylhexyl)phthalate	0.934	0.836	10.5	54	-0.01
85	c	Di-n-octyl phthalate	1.299	1.256	3.3	58	-0.01
86	I	Perylene-d12	1.000	1.000	0.0	69	0.00
87		Indeno(1,2,3-cd)pyrene	1.294	1.123	13.2	60	0.00
88		Benzo(b)fluoranthene	1.371	1.316	4.0	75	0.00
89		Benzo(k)fluoranthene	1.173	1.014	13.6	58	0.00
90	C	Benzo(a)pyrene	1.073	1.021	4.8	68	0.00
91		Dibenzo(a,h)anthracene	1.067	0.902	15.5	58	-0.01
92		Benzo(g,h,i)perylene	1.055	0.907	14.0	58	0.00

Sample Results: **BF142045.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

Sample Results: **BF142045.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	73	0.00
2		1,4-Dioxane	40.000	37.527	6.2	68	-0.04
3		Pyridine	40.000	36.098	9.8	66	-0.04
4		n-Nitrosodimethylamine	40.000	34.979	12.6	64	-0.04
5	S	2-Fluorophenol	80.000	75.757	5.3	72	0.00
6		Aniline	40.000	36.318	9.2	68	0.00
7	S	Phenol-d6	80.000	74.611	6.7	72	0.00
8		2-Chlorophenol	40.000	37.659	5.9	72	-0.01
9		Benzaldehyde	40.000	37.981	5.0	76	0.00
10	C	Phenol	40.000	37.219	7.0	71	0.00
11		bis(2-Chloroethyl)ether	40.000	36.228	9.4	69	0.00
12		1,3-Dichlorobenzene	40.000	38.209	4.5	73	0.00
13	C	1,4-Dichlorobenzene	40.000	38.153	4.6	72	0.00
14		1,2-Dichlorobenzene	40.000	37.807	5.5	72	0.00
15		Benzyl Alcohol	40.000	36.525	8.7	69	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	33.049	17.4	64	0.00
17		2-Methylphenol	40.000	36.555	8.6	70	0.00
18		Hexachloroethane	40.000	37.518	6.2	72	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	33.620	16.0	66	-0.01
20		3+4-Methylphenols	40.000	36.715	8.2	70	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	71	0.00
22		Acetophenone	40.000	37.237	6.9	69	0.00
23	S	Nitrobenzene-d5	80.000	77.060	3.7	70	0.00
24		Nitrobenzene	40.000	37.942	5.1	69	0.00
25		Isophorone	40.000	36.124	9.7	67	-0.01
26	C	2-Nitrophenol	40.000	40.846	-2.1	72	-0.01
27		2,4-Dimethylphenol	40.000	38.005	5.0	70	0.00
28		bis(2-Chloroethoxy)methane	40.000	36.447	8.9	68	0.00
29	C	2,4-Dichlorophenol	40.000	39.242	1.9	72	0.00
30		1,2,4-Trichlorobenzene	40.000	39.118	2.2	73	0.00
31		Naphthalene	40.000	38.299	4.3	71	0.00
32		Benzoic acid	40.000	39.590	1.0	71	-0.01
33		4-Chloroaniline	40.000	37.462	6.3	69	0.00
34	C	Hexachlorobutadiene	40.000	39.670	0.8	74	-0.01
35		Caprolactam	40.000	37.253	6.9	71	-0.01
36	C	4-Chloro-3-methylphenol	40.000	37.259	6.9	69	0.00
37		2-Methylnaphthalene	40.000	37.979	5.1	71	0.00
38		1-Methylnaphthalene	40.000	38.142	4.6	72	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	71	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	38.924	2.7	72	0.00
41	P	Hexachlorocyclopentadiene	40.000	35.642	10.9	61	0.00
42	S	2,4,6-Tribromophenol	80.000	80.151	-0.2	73	0.00
43	C	2,4,6-Trichlorophenol	40.000	38.191	4.5	68	0.00
44		2,4,5-Trichlorophenol	40.000	39.971	0.1	74	0.00
45	S	2-Fluorobiphenyl	80.000	75.016	6.2	70	0.00
46		1,1'-Biphenyl	40.000	37.854	5.4	71	0.00
47		2-Chloronaphthalene	40.000	38.349	4.1	71	0.00

Sample Results: **BF142045.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	40.000	37.251	6.9	68	0.00
49		Acenaphthylene	40.000	37.942	5.1	70	0.00
50		Dimethylphthalate	40.000	37.393	6.5	70	0.00
51		2,6-Dinitrotoluene	40.000	39.274	1.8	72	0.00
52	C	Acenaphthene	40.000	38.296	4.3	71	0.00
53		3-Nitroaniline	40.000	37.118	7.2	67	0.00
54	P	2,4-Dinitrophenol	40.000	38.547	3.6	73	0.00
55		Dibenzofuran	40.000	37.712	5.7	70	0.00
56	P	4-Nitrophenol	40.000	37.235	6.9	65	0.00
57		2,4-Dinitrotoluene	40.000	39.576	1.1	72	0.00
58		Fluorene	40.000	37.695	5.8	71	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	39.376	1.6	72	0.00
60		Diethylphthalate	40.000	37.278	6.8	70	-0.01
61		4-Chlorophenyl-phenylether	40.000	37.317	6.7	70	0.00
62		4-Nitroaniline	40.000	35.752	10.6	64	0.00
63		Azobenzene	40.000	36.056	9.9	67	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	72	0.00
65		4,6-Dinitro-2-methylphenol	40.000	41.328	-3.3	73	0.00
66	c	n-Nitrosodiphenylamine	40.000	37.373	6.6	70	0.00
67		4-Bromophenyl-phenylether	40.000	38.825	2.9	72	0.00
68		Hexachlorobenzene	40.000	40.650	-1.6	75	0.00
69		Atrazine	40.000	41.090	-2.7	90	0.00
70	C	Pentachlorophenol	40.000	40.717	-1.8	70	0.00
71		Phenanthrene	40.000	38.093	4.8	71	0.00
72		Anthracene	40.000	38.245	4.4	71	0.00
73		Carbazole	40.000	36.123	9.7	67	0.00
74		Di-n-butylphthalate	40.000	35.811	10.5	68	0.00
75	C	Fluoranthene	40.000	35.085	12.3	65	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	58	0.00
77		Benzidine	40.000	36.951	7.6	42	0.00
78		Pyrene	40.000	41.768	-4.4	65	0.00
79	S	Terphenyl-d14	80.000	81.243	-1.6	63	0.00
80		Butylbenzylphthalate	40.000	37.906	5.2	57	-0.01
81		Benzo(a)anthracene	40.000	38.337	4.2	58	0.00
82		3,3'-Dichlorobenzidine	40.000	39.468	1.3	59	0.00
83		Chrysene	40.000	38.099	4.8	58	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	35.812	10.5	54	-0.01
85	c	Di-n-octyl phthalate	40.000	38.685	3.3	58	-0.01
86	I	Perylene-d12	20.000	20.000	0.0	69	0.00
87		Indeno(1,2,3-cd)pyrene	40.000	34.723	13.2	60	0.00
88		Benzo(b)fluoranthene	40.000	38.396	4.0	75	0.00
89		Benzo(k)fluoranthene	40.000	34.593	13.5	58	0.00
90	C	Benzo(a)pyrene	40.000	38.063	4.8	68	0.00
91		Dibenzo(a,h)anthracene	40.000	33.794	15.5	58	-0.01
92		Benzo(g,h,i)perylene	40.000	34.375	14.1	58	0.00

Sample Results: **BF142045.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142045.D
Acq On : 24 Mar 2025 10:17
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 24 11:25:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG No.: Q1609

Instrument ID: BNA_F Calibration Date/Time: 03/25/2025 10:09

Lab File ID: BF142068.D Init. Calib. Date(s): 03/10/2025 03/10/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:01 15:20

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.232	1.105		-10.3	
2-Fluorophenol	1.198	1.114		-7.0	
Phenol-d6	1.526	1.410		-7.6	
1,4-Dichlorobenzene	1.452	1.394		-4.0	20.0
2-Methylphenol	1.057	0.968		-8.4	
3+4-Methylphenols	1.354	1.221		-9.8	
Nitrobenzene-d5	0.355	0.354		-0.3	
Hexachloroethane	0.544	0.512		-5.9	
Nitrobenzene	0.353	0.340		-3.7	
Hexachlorobutadiene	0.213	0.215		0.9	20.0
2,4,6-Trichlorophenol	0.398	0.377		-5.3	20.0
2-Fluorobiphenyl	1.315	1.251		-4.9	
2,4,5-Trichlorophenol	0.403	0.413		2.5	
2,4-Dinitrotoluene	0.381	0.386		1.3	
2,4,6-Tribromophenol	0.254	0.262		3.2	
Hexachlorobenzene	0.275	0.279		1.5	
Pentachlorophenol	0.170	0.174		2.4	20.0
Terphenyl-d14	1.353	1.473		8.9	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	160336	20.000	ng	0.00
21) Naphthalene-d8	8.157	136	599217	20.000	ng	0.00
39) Acenaphthene-d10	9.910	164	347065	20.000	ng	0.00
64) Phenanthrene-d10	11.398	188	578583	20.000	ng	0.00
76) Chrysene-d12	14.033	240	306767	20.000	ng	0.00
86) Perylene-d12	15.510	264	312865	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.487	112	714407	74.364	ng	0.00
7) Phenol-d6	6.504	99	904122	73.916	ng	0.00
23) Nitrobenzene-d5	7.440	82	848620	79.699	ng	0.00
42) 2,4,6-Tribromophenol	10.704	330	364394	82.761	ng	0.00
45) 2-Fluorobiphenyl	9.234	172	1736828	76.106	ng	0.00
79) Terphenyl-d14	12.980	244	1807796	87.126	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.628	88	147438	36.628	ng	97
3) Pyridine	3.399	79	354446	35.897	ng	97
4) n-Nitrosodimethylamine	3.346	42	158704	33.718	ng	95
6) Aniline	6.540	93	427152	35.400	ng	100
8) 2-Chlorophenol	6.663	128	403852	37.903	ng	98
9) Benzaldehyde	6.428	77	255343	37.326	ng	98
10) Phenol	6.516	94	471021	36.604	ng	99
11) bis(2-Chloroethyl)ether	6.610	93	344092	35.611	ng	98
12) 1,3-Dichlorobenzene	6.816	146	438893	38.155	ng	99
13) 1,4-Dichlorobenzene	6.893	146	447039	38.410	ng	99
14) 1,2-Dichlorobenzene	7.045	146	415389	37.892	ng	99
15) Benzyl Alcohol	7.016	79	360226	36.428	ng	100
16) 2,2'-oxybis(1-Chloropr...	7.151	45	390448	33.471	ng	97
17) 2-Methylphenol	7.122	107	310274	36.625	ng	99
18) Hexachloroethane	7.387	117	164258	37.636	ng	95
19) n-Nitroso-di-n-propyla...	7.287	70	265879	33.829	ng	99
20) 3+4-Methylphenols	7.275	107	391386	36.069	ng	93
22) Acetophenone	7.287	105	548318	38.211	ng	99
24) Nitrobenzene	7.457	77	407547	38.501	ng	98
25) Isophorone	7.692	82	673127	35.763	ng	100
26) 2-Nitrophenol	7.775	139	219178	42.188	ng	97
27) 2,4-Dimethylphenol	7.804	122	264961	37.039	ng	99
28) bis(2-Chloroethoxy)met...	7.904	93	427999	36.255	ng	99
29) 2,4-Dichlorophenol	8.010	162	350557	39.480	ng	99
30) 1,2,4-Trichlorobenzene	8.098	180	384423	39.286	ng	99
31) Naphthalene	8.181	128	1185441	38.512	ng	99
32) Benzoic acid	7.916	122	255444	40.622	ng	97
33) 4-Chloroaniline	8.228	127	422217	38.856	ng	97
34) Hexachlorobutadiene	8.292	225	257520	40.354	ng	99
35) Caprolactam	8.598	113	103032	38.060	ng	90
36) 4-Chloro-3-methylphenol	8.704	107	374971	37.857	ng	98
37) 2-Methylnaphthalene	8.869	142	773404	37.591	ng	99
38) 1-Methylnaphthalene	8.969	142	753814	37.968	ng	100
40) 1,2,4,5-Tetrachloroben...	9.034	216	405610	38.386	ng	98
41) Hexachlorocyclopentadiene	9.022	237	140476	33.969	ng	98
43) 2,4,6-Trichlorophenol	9.145	196	261481	37.864	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	286893	41.019	ng		98
46) 1,1'-Biphenyl	9.334	154	991976	37.617	ng		99
47) 2-Chloronaphthalene	9.357	162	744305	37.868	ng		99
48) 2-Nitroaniline	9.451	65	215813	37.922	ng		96
49) Acenaphthylene	9.775	152	1125155	38.575	ng		100
50) Dimethylphthalate	9.633	163	937767	38.585	ng		100
51) 2,6-Dinitrotoluene	9.692	165	204090	40.331	ng		95
52) Acenaphthene	9.945	154	803778	39.213	ng		100
53) 3-Nitroaniline	9.863	138	194286	37.850	ng		97
54) 2,4-Dinitrophenol	9.969	184	112832	42.593	ng	#	48
55) Dibenzofuran	10.116	168	1109401	37.878	ng		99
56) 4-Nitrophenol	10.016	139	150918	38.987	ng		95
57) 2,4-Dinitrotoluene	10.098	165	267886	40.532	ng		97
58) Fluorene	10.463	166	869463	38.495	ng		100
59) 2,3,4,6-Tetrachlorophenol	10.233	232	257133	40.401	ng		97
60) Diethylphthalate	10.328	149	929683	38.362	ng		100
61) 4-Chlorophenyl-phenyle...	10.451	204	456441	38.762	ng		97
62) 4-Nitroaniline	10.475	138	187806	37.581	ng		96
63) Azobenzene	10.610	77	830289	36.851	ng		97
65) 4,6-Dinitro-2-methylph...	10.504	198	163306	47.346	ng		98
66) n-Nitrosodiphenylamine	10.569	169	739498	39.496	ng		99
67) 4-Bromophenyl-phenylether	10.939	248	284042	39.090	ng		98
68) Hexachlorobenzene	11.010	284	323290	40.566	ng		94
69) Atrazine	11.092	200	233966	40.762	ng		99
70) Pentachlorophenol	11.198	266	201095	40.954	ng		99
71) Phenanthrene	11.422	178	1188534	38.032	ng		99
72) Anthracene	11.475	178	1195431	38.128	ng		100
73) Carbazole	11.628	167	983300	36.366	ng		100
74) Di-n-butylphthalate	11.957	149	1362507	37.976	ng		99
75) Fluoranthene	12.610	202	1183190	35.692	ng		99
77) Benzidine	12.733	184	130623	30.520	ng		100
78) Pyrene	12.839	202	1152300	43.425	ng		99
80) Butylbenzylphthalate	13.451	149	419411	40.382	ng		99
81) Benzo(a)anthracene	14.027	228	783015	38.898	ng		100
82) 3,3'-Dichlorobenzidine	13.986	252	230748	39.666	ng		98
83) Chrysene	14.063	228	693294	37.994	ng		100
84) Bis(2-ethylhexyl)phtha...	14.010	149	543249	37.936	ng		99
85) Di-n-octyl phthalate	14.621	149	771392	38.714	ng		98
87) Indeno(1,2,3-cd)pyrene	16.998	276	681983	33.697	ng		97
88) Benzo(b)fluoranthene	15.074	252	790046	36.845	ng		99
89) Benzo(k)fluoranthene	15.104	252	621193	33.853	ng		99
90) Benzo(a)pyrene	15.445	252	624421	37.217	ng		99
91) Dibenzo(a,h)anthracene	17.015	278	537010	32.159	ng		98
92) Benzo(g,h,i)perylene	17.445	276	536380	32.505	ng		98

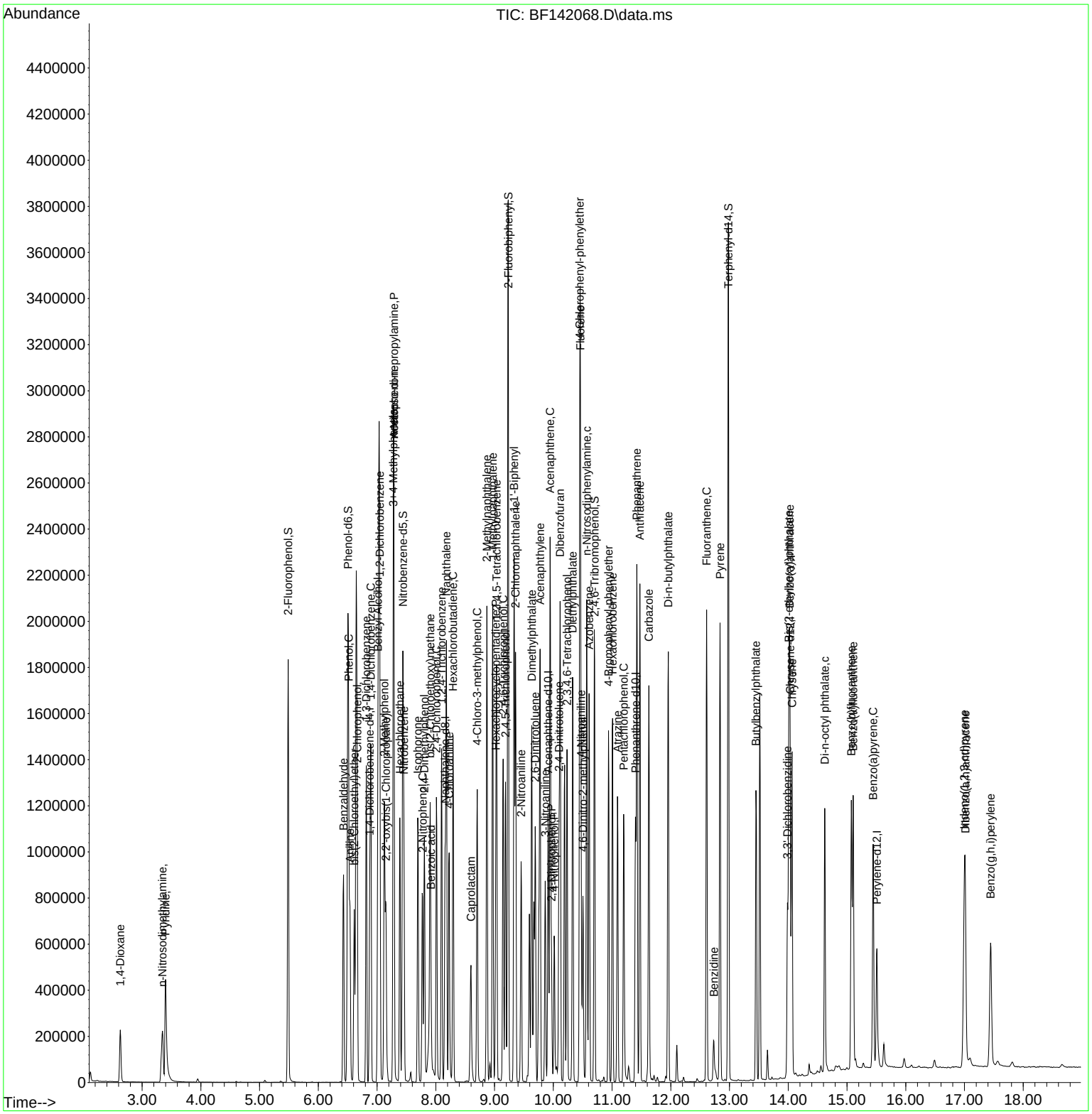
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sample Results: **BF142068.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



Sample Results: **BF142068.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	72	0.00
2		1,4-Dioxane	40.000	36.628	8.4	66	-0.05
3		Pyridine	40.000	35.897	10.3	65	-0.04
4		n-Nitrosodimethylamine	40.000	33.718	15.7	61	-0.05
5	S	2-Fluorophenol	80.000	74.364	7.0	70	0.00
6		Aniline	40.000	35.400	11.5	65	0.00
7	S	Phenol-d6	80.000	73.916	7.6	70	0.00
8		2-Chlorophenol	40.000	37.903	5.2	72	0.00
9		Benzaldehyde	40.000	37.326	6.7	74	0.00
10	C	Phenol	40.000	36.604	8.5	69	0.00
11		bis(2-Chloroethyl)ether	40.000	35.611	11.0	67	0.00
12		1,3-Dichlorobenzene	40.000	38.155	4.6	72	0.00
13	C	1,4-Dichlorobenzene	40.000	38.410	4.0	72	0.00
14		1,2-Dichlorobenzene	40.000	37.892	5.3	71	0.00
15		Benzyl Alcohol	40.000	36.428	8.9	68	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	33.471	16.3	64	0.00
17		2-Methylphenol	40.000	36.625	8.4	69	0.00
18		Hexachloroethane	40.000	37.636	5.9	71	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	33.829	15.4	65	-0.01
20		3+4-Methylphenols	40.000	36.069	9.8	68	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	69	0.00
22		Acetophenone	40.000	38.211	4.5	68	0.00
23	S	Nitrobenzene-d5	80.000	79.699	0.4	70	0.00
24		Nitrobenzene	40.000	38.501	3.7	67	0.00
25		Isophorone	40.000	35.763	10.6	64	-0.01
26	C	2-Nitrophenol	40.000	42.188	-5.5	72	0.00
27		2,4-Dimethylphenol	40.000	37.039	7.4	66	0.00
28		bis(2-Chloroethoxy)methane	40.000	36.255	9.4	66	0.00
29	C	2,4-Dichlorophenol	40.000	39.480	1.3	70	0.00
30		1,2,4-Trichlorobenzene	40.000	39.286	1.8	71	0.00
31		Naphthalene	40.000	38.512	3.7	69	0.00
32		Benzoic acid	40.000	40.622	-1.6	70	-0.01
33		4-Chloroaniline	40.000	38.856	2.9	69	0.00
34	C	Hexachlorobutadiene	40.000	40.354	-0.9	72	-0.01
35		Caprolactam	40.000	38.060	4.8	70	0.00
36	C	4-Chloro-3-methylphenol	40.000	37.857	5.4	68	0.00
37		2-Methylnaphthalene	40.000	37.591	6.0	68	0.00
38		1-Methylnaphthalene	40.000	37.968	5.1	69	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	70	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	38.386	4.0	69	0.00
41	P	Hexachlorocyclopentadiene	40.000	33.969	15.1	57	0.00
42	S	2,4,6-Tribromophenol	80.000	82.761	-3.5	74	0.00
43	C	2,4,6-Trichlorophenol	40.000	37.864	5.3	67	0.00
44		2,4,5-Trichlorophenol	40.000	41.019	-2.5	75	0.00
45	S	2-Fluorobiphenyl	80.000	76.106	4.9	70	0.00
46		1,1'-Biphenyl	40.000	37.617	6.0	69	0.00
47		2-Chloronaphthalene	40.000	37.868	5.3	69	0.00

Sample Results: **BF142068.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	40.000	37.922	5.2	68	0.00
49		Acenaphthylene	40.000	38.575	3.6	70	0.00
50		Dimethylphthalate	40.000	38.585	3.5	71	0.00
51		2,6-Dinitrotoluene	40.000	40.331	-0.8	72	0.00
52	C	Acenaphthene	40.000	39.213	2.0	71	0.00
53		3-Nitroaniline	40.000	37.850	5.4	67	0.00
54	P	2,4-Dinitrophenol	40.000	42.593	-6.5	81	0.00
55		Dibenzofuran	40.000	37.878	5.3	70	0.00
56	P	4-Nitrophenol	40.000	38.987	2.5	66	0.00
57		2,4-Dinitrotoluene	40.000	40.532	-1.3	72	0.00
58		Fluorene	40.000	38.495	3.8	72	0.00
59		2,3,4,6-Tetrachlorophenol	40.000	40.401	-1.0	72	0.00
60		Diethylphthalate	40.000	38.362	4.1	70	-0.01
61		4-Chlorophenyl-phenylether	40.000	38.762	3.1	72	0.00
62		4-Nitroaniline	40.000	37.581	6.0	66	0.00
63		Azobenzene	40.000	36.851	7.9	68	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	69	0.00
65		4,6-Dinitro-2-methylphenol	40.000	47.346	-18.4	80	0.00
66	c	n-Nitrosodiphenylamine	40.000	39.496	1.3	71	0.00
67		4-Bromophenyl-phenylether	40.000	39.090	2.3	69	0.00
68		Hexachlorobenzene	40.000	40.566	-1.4	71	0.00
69		Atrazine	40.000	40.762	-1.9	85	0.00
70	C	Pentachlorophenol	40.000	40.954	-2.4	68	0.00
71		Phenanthrene	40.000	38.032	4.9	68	0.00
72		Anthracene	40.000	38.128	4.7	68	0.00
73		Carbazole	40.000	36.366	9.1	64	0.00
74		Di-n-butylphthalate	40.000	37.976	5.1	69	0.00
75	C	Fluoranthene	40.000	35.692	10.8	64	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	54	0.00
77		Benzidine	40.000	30.520	23.7	32	0.00
78		Pyrene	40.000	43.425	-8.6	63	0.00
79	S	Terphenyl-d14	80.000	87.126	-8.9	62	0.00
80		Butylbenzylphthalate	40.000	40.382	-1.0	56	-0.01
81		Benzo(a)anthracene	40.000	38.898	2.8	54	0.00
82		3,3'-Dichlorobenzidine	40.000	39.666	0.8	54	0.00
83		Chrysene	40.000	37.994	5.0	54	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	37.936	5.2	53	-0.01
85	c	Di-n-octyl phthalate	40.000	38.714	3.2	54	-0.01
86	I	Perylene-d12	20.000	20.000	0.0	67	0.00
87		Indeno(1,2,3-cd)pyrene	40.000	33.697	15.8	56	0.00
88		Benzo(b)fluoranthene	40.000	36.845	7.9	70	0.00
89		Benzo(k)fluoranthene	40.000	33.853	15.4	55	0.00
90	C	Benzo(a)pyrene	40.000	37.217	7.0	64	0.00
91		Dibenzo(a,h)anthracene	40.000	32.159	19.6	54	0.00
92		Benzo(g,h,i)perylene	40.000	32.505	18.7	54	0.00

Sample Results: **BF142068.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

Sample Results: **BF142068.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	72	0.00
2		1,4-Dioxane	0.502	0.460	8.4	66	-0.05
3		Pyridine	1.232	1.105	10.3	65	-0.04
4		n-Nitrosodimethylamine	0.587	0.495	15.7	61	-0.05
5	S	2-Fluorophenol	1.198	1.114	7.0	70	0.00
6		Aniline	1.505	1.332	11.5	65	0.00
7	S	Phenol-d6	1.526	1.410	7.6	70	0.00
8		2-Chlorophenol	1.329	1.259	5.3	72	0.00
9		Benzaldehyde	0.853	0.796	6.7	74	0.00
10	C	Phenol	1.605	1.469	8.5	69	0.00
11		bis(2-Chloroethyl)ether	1.205	1.073	11.0	67	0.00
12		1,3-Dichlorobenzene	1.435	1.369	4.6	72	0.00
13	C	1,4-Dichlorobenzene	1.452	1.394	4.0	72	0.00
14		1,2-Dichlorobenzene	1.367	1.295	5.3	71	0.00
15		Benzyl Alcohol	1.233	1.123	8.9	68	0.00
16		2,2'-oxybis(1-Chloropropane	1.455	1.218	16.3	64	0.00
17		2-Methylphenol	1.057	0.968	8.4	69	0.00
18		Hexachloroethane	0.544	0.512	5.9	71	0.00
19	P	n-Nitroso-di-n-propylamine	0.980	0.829	15.4	65	-0.01
20		3+4-Methylphenols	1.354	1.221	9.8	68	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	69	0.00
22		Acetophenone	0.479	0.458	4.4	68	0.00
23	S	Nitrobenzene-d5	0.355	0.354	0.3	70	0.00
24		Nitrobenzene	0.353	0.340	3.7	67	0.00
25		Isophorone	0.628	0.562	10.5	64	-0.01
26	C	2-Nitrophenol	0.173	0.183	-5.8	72	0.00
27		2,4-Dimethylphenol	0.239	0.221	7.5	66	0.00
28		bis(2-Chloroethoxy)methane	0.394	0.357	9.4	66	0.00
29	C	2,4-Dichlorophenol	0.296	0.293	1.0	70	0.00
30		1,2,4-Trichlorobenzene	0.327	0.321	1.8	71	0.00
31		Naphthalene	1.027	0.989	3.7	69	0.00
32		Benzoic acid	0.210	0.213	-1.4	70	-0.01
33		4-Chloroaniline	0.363	0.352	3.0	69	0.00
34	C	Hexachlorobutadiene	0.213	0.215	-0.9	72	-0.01
35		Caprolactam	0.090	0.086	4.4	70	0.00
36	C	4-Chloro-3-methylphenol	0.331	0.313	5.4	68	0.00
37		2-Methylnaphthalene	0.687	0.645	6.1	68	0.00
38		1-Methylnaphthalene	0.663	0.629	5.1	69	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	70	0.00
40		1,2,4,5-Tetrachlorobenzene	0.609	0.584	4.1	69	0.00
41	P	Hexachlorocyclopentadiene	0.238	0.202	15.1	57	0.00
42	S	2,4,6-Tribromophenol	0.254	0.262	-3.1	74	0.00
43	C	2,4,6-Trichlorophenol	0.398	0.377	5.3	67	0.00
44		2,4,5-Trichlorophenol	0.403	0.413	-2.5	75	0.00
45	S	2-Fluorobiphenyl	1.315	1.251	4.9	70	0.00
46		1,1'-Biphenyl	1.520	1.429	6.0	69	0.00
47		2-Chloronaphthalene	1.133	1.072	5.4	69	0.00

Sample Results: **BF142068.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	0.328	0.311	5.2	68	0.00
49		Acenaphthylene	1.681	1.621	3.6	70	0.00
50		Dimethylphthalate	1.401	1.351	3.6	71	0.00
51		2,6-Dinitrotoluene	0.292	0.294	-0.7	72	0.00
52	C	Acenaphthene	1.181	1.158	1.9	71	0.00
53		3-Nitroaniline	0.296	0.280	5.4	67	0.00
54	P	2,4-Dinitrophenol	0.139	0.163	-17.3	81	0.00
55		Dibenzofuran	1.688	1.598	5.3	70	0.00
56	P	4-Nitrophenol	0.223	0.217	2.7	66	0.00
57		2,4-Dinitrotoluene	0.381	0.386	-1.3	72	0.00
58		Fluorene	1.302	1.253	3.8	72	0.00
59		2,3,4,6-Tetrachlorophenol	0.367	0.370	-0.8	72	0.00
60		Diethylphthalate	1.397	1.339	4.2	70	-0.01
61		4-Chlorophenyl-phenylether	0.679	0.658	3.1	72	0.00
62		4-Nitroaniline	0.288	0.271	5.9	66	0.00
63		Azobenzene	1.298	1.196	7.9	68	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	69	0.00
65		4,6-Dinitro-2-methylphenol	0.119	0.141	-18.5	80	0.00
66	c	n-Nitrosodiphenylamine	0.647	0.639	1.2	71	0.00
67		4-Bromophenyl-phenylether	0.251	0.245	2.4	69	0.00
68		Hexachlorobenzene	0.275	0.279	-1.5	71	0.00
69		Atrazine	0.198	0.202	-2.0	85	0.00
70	C	Pentachlorophenol	0.170	0.174	-2.4	68	0.00
71		Phenanthrene	1.080	1.027	4.9	68	0.00
72		Anthracene	1.084	1.033	4.7	68	0.00
73		Carbazole	0.935	0.850	9.1	64	0.00
74		Di-n-butylphthalate	1.240	1.177	5.1	69	0.00
75	C	Fluoranthene	1.146	1.022	10.8	64	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	54	0.00
77		Benzidine	0.279	0.213	23.7	32#	0.00
78		Pyrene	1.730	1.878	-8.6	63	0.00
79	S	Terphenyl-d14	1.353	1.473	-8.9	62	0.00
80		Butylbenzylphthalate	0.677	0.684	-1.0	56	-0.01
81		Benzo(a)anthracene	1.312	1.276	2.7	54	0.00
82		3,3'-Dichlorobenzidine	0.379	0.376	0.8	54	0.00
83		Chrysene	1.190	1.130	5.0	54	0.00
84		Bis(2-ethylhexyl)phthalate	0.934	0.885	5.2	53	-0.01
85	c	Di-n-octyl phthalate	1.299	1.257	3.2	54	-0.01
86	I	Perylene-d12	1.000	1.000	0.0	67	0.00
87		Indeno(1,2,3-cd)pyrene	1.294	1.090	15.8	56	0.00
88		Benzo(b)fluoranthene	1.371	1.263	7.9	70	0.00
89		Benzo(k)fluoranthene	1.173	0.993	15.3	55	0.00
90	C	Benzo(a)pyrene	1.073	0.998	7.0	64	0.00
91		Dibenzo(a,h)anthracene	1.067	0.858	19.6	54	0.00
92		Benzo(g,h,i)perylene	1.055	0.857	18.8	54	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142068.D
Acq On : 25 Mar 2025 10:09
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 25 11:20:23 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

Raw Data: **BF142175.D**

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ENTA05

Lab Code: CHEM Case No.: Q1609 SAS No.: Q1609 SDG No.: Q1609

Instrument ID: BNA_F Calibration Date/Time: 03/31/2025 12:22

Lab File ID: BF142175.D Init. Calib. Date(s): 03/10/2025 03/10/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:01 15:20

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.232	1.162		-5.7	
2-Fluorophenol	1.198	1.172		-2.2	
Phenol-d6	1.526	1.475		-3.3	
1,4-Dichlorobenzene	1.452	1.440		-0.8	20.0
2-Methylphenol	1.057	1.002		-5.2	
3+4-Methylphenols	1.354	1.250		-7.7	
Nitrobenzene-d5	0.355	0.349		-1.7	
Hexachloroethane	0.544	0.523		-3.9	
Nitrobenzene	0.353	0.346		-2.0	
Hexachlorobutadiene	0.213	0.219		2.8	20.0
2,4,6-Trichlorophenol	0.398	0.350		-12.1	20.0
2-Fluorobiphenyl	1.315	1.168		-11.2	
2,4,5-Trichlorophenol	0.403	0.385		-4.5	
2,4-Dinitrotoluene	0.381	0.392		2.9	
2,4,6-Tribromophenol	0.254	0.277		9.1	
Hexachlorobenzene	0.275	0.289		5.1	
Pentachlorophenol	0.170	0.180		5.9	20.0
Terphenyl-d14	1.353	1.360		0.5	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.869	152	153678	20.000	ng	-0.01
21) Naphthalene-d8	8.151	136	590359	20.000	ng	-0.01
39) Acenaphthene-d10	9.910	164	382940	20.000	ng	0.00
64) Phenanthrene-d10	11.392	188	658962	20.000	ng	-0.01
76) Chrysene-d12	14.039	240	402422	20.000	ng	0.00
86) Perylene-d12	15.510	264	395762	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.475	112	720182	78.213	ng	-0.02
7) Phenol-d6	6.492	99	906496	77.321	ng	-0.01
23) Nitrobenzene-d5	7.434	82	824222	78.569	ng	-0.01
42) 2,4,6-Tribromophenol	10.698	330	424168	87.312	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1789068	71.051	ng	-0.01
79) Terphenyl-d14	12.980	244	2189308	80.433	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	2.616	88	151628	39.300	ng	95
3) Pyridine	3.381	79	357118	37.735	ng	95
4) n-Nitrosodimethylamine	3.334	42	162523m	36.026	ng	
6) Aniline	6.528	93	423065	36.580	ng	97
8) 2-Chlorophenol	6.651	128	402678	39.430	ng	98
9) Benzaldehyde	6.422	77	400852	61.135	ng	98
10) Phenol	6.510	94	471439	38.223	ng	98
11) bis(2-Chloroethyl)ether	6.604	93	344959	37.247	ng	97
12) 1,3-Dichlorobenzene	6.810	146	431688	39.154	ng	98
13) 1,4-Dichlorobenzene	6.887	146	442695	39.685	ng	98
14) 1,2-Dichlorobenzene	7.040	146	418060	39.788	ng	98
15) Benzyl Alcohol	7.010	79	357915	37.762	ng	99
16) 2,2'-oxybis(1-Chloropr...	7.139	45	362122	32.388	ng	95
17) 2-Methylphenol	7.116	107	308065	37.940	ng	99
18) Hexachloroethane	7.381	117	160616	38.396	ng	94
19) n-Nitroso-di-n-propyla...	7.281	70	264106	35.059	ng	98
20) 3+4-Methylphenols	7.269	107	384200	36.940	ng	93
22) Acetophenone	7.275	105	544720	38.530	ng	96
24) Nitrobenzene	7.451	77	408076	39.130	ng	97
25) Isophorone	7.687	82	693028	37.373	ng	99
26) 2-Nitrophenol	7.763	139	218069	42.605	ng	98
27) 2,4-Dimethylphenol	7.798	122	273488	38.804	ng	100
28) bis(2-Chloroethoxy)met...	7.898	93	436149	37.500	ng	99
29) 2,4-Dichlorophenol	8.004	162	356384	40.739	ng	99
30) 1,2,4-Trichlorobenzene	8.092	180	396543	41.132	ng	99
31) Naphthalene	8.175	128	1197246	39.479	ng	100
32) Benzoic acid	7.922	122	269230	43.457	ng	97
33) 4-Chloroaniline	8.222	127	419768	39.211	ng	97
34) Hexachlorobutadiene	8.286	225	258743	41.154	ng	99
35) Caprolactam	8.598	113	108728	40.767	ng	88
36) 4-Chloro-3-methylphenol	8.698	107	387742	39.734	ng	97
37) 2-Methylnaphthalene	8.863	142	808508	39.887	ng	100
38) 1-Methylnaphthalene	8.963	142	784063	40.084	ng	99
40) 1,2,4,5-Tetrachloroben...	9.028	216	426726	36.601	ng	98
41) Hexachlorocyclopentadiene	9.016	237	149031	32.662	ng	99
43) 2,4,6-Trichlorophenol	9.139	196	267782	35.144	ng	99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

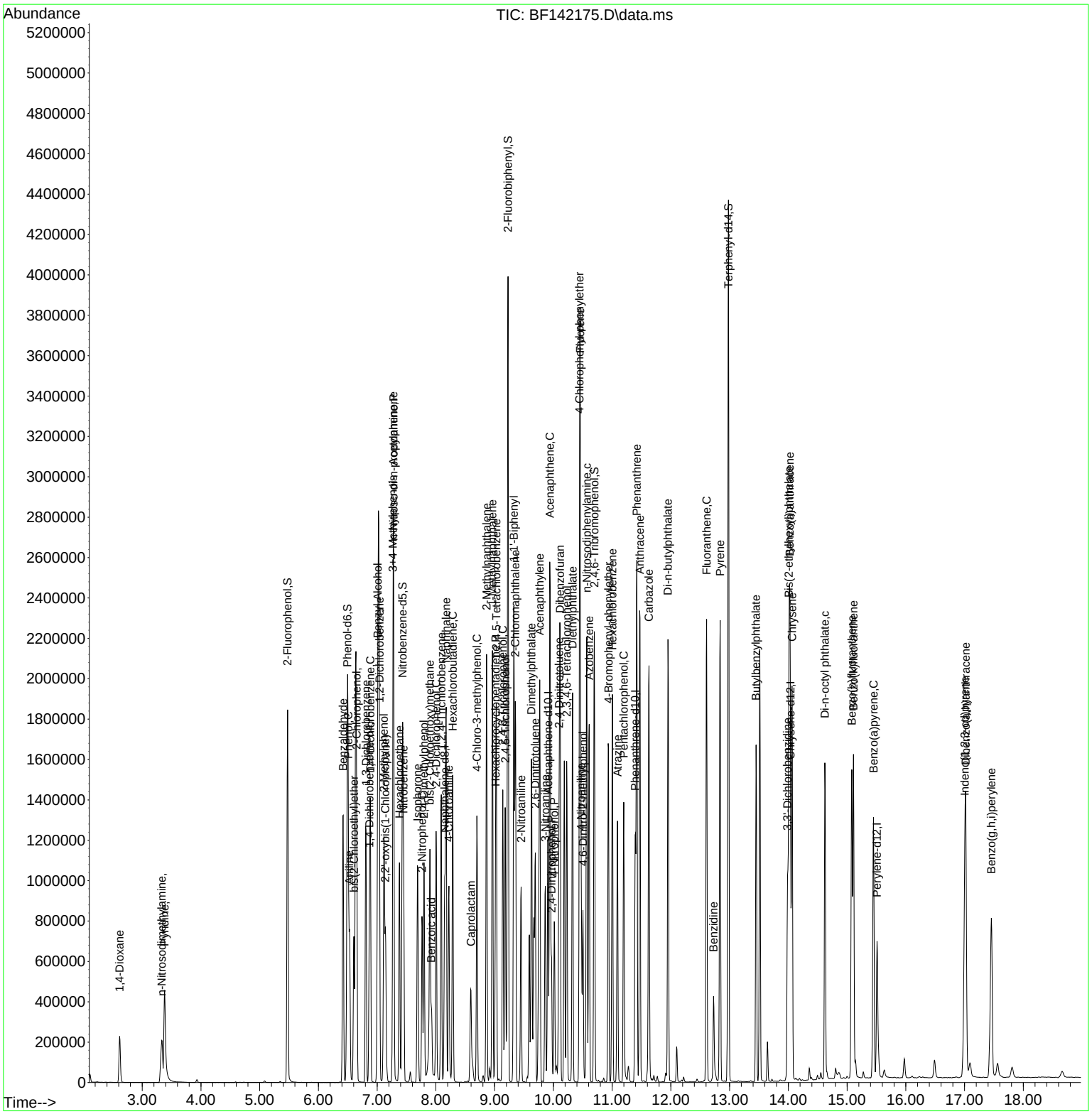
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.181	196	294625	38.178	ng		98
46) 1,1'-Biphenyl	9.328	154	1029821	35.393	ng		100
47) 2-Chloronaphthalene	9.351	162	789161	36.389	ng		98
48) 2-Nitroaniline	9.451	65	223730	35.630	ng		95
49) Acenaphthylene	9.769	152	1187671	36.904	ng		100
50) Dimethylphthalate	9.628	163	983065	36.659	ng		100
51) 2,6-Dinitrotoluene	9.692	165	212696	38.094	ng		92
52) Acenaphthene	9.939	154	909759	40.226	ng		99
53) 3-Nitroaniline	9.863	138	229673	40.552	ng		95
54) 2,4-Dinitrophenol	9.969	184	126805	43.261	ng	#	44
55) Dibenzofuran	10.116	168	1224573	37.893	ng		97
56) 4-Nitrophenol	10.016	139	187493	43.898	ng		94
57) 2,4-Dinitrotoluene	10.098	165	300571	41.216	ng		96
58) Fluorene	10.457	166	974033	39.084	ng		100
59) 2,3,4,6-Tetrachlorophenol	10.228	232	289877	41.279	ng		96
60) Diethylphthalate	10.328	149	1024395	38.310	ng		99
61) 4-Chlorophenyl-phenyle...	10.445	204	517652	39.842	ng		97
62) 4-Nitroaniline	10.475	138	230890	41.874	ng		96
63) Azobenzene	10.610	77	901409	36.260	ng		95
65) 4,6-Dinitro-2-methylph...	10.504	198	174944	44.534	ng		95
66) n-Nitrosodiphenylamine	10.569	169	829498	38.899	ng		100
67) 4-Bromophenyl-phenylether	10.939	248	338991	40.962	ng		95
68) Hexachlorobenzene	11.004	284	381167	41.994	ng		94
69) Atrazine	11.092	200	253570	38.789	ng		98
70) Pentachlorophenol	11.198	266	236933	42.367	ng		99
71) Phenanthrene	11.422	178	1409825	39.610	ng		100
72) Anthracene	11.475	178	1364675	38.217	ng		100
73) Carbazole	11.627	167	1233540	40.056	ng		100
74) Di-n-butylphthalate	11.951	149	1597845	39.103	ng		100
75) Fluoranthene	12.610	202	1360519	36.035	ng		99
77) Benzidine	12.727	184	246774	43.953	ng		99
78) Pyrene	12.839	202	1366309	39.251	ng		99
80) Butylbenzylphthalate	13.451	149	553085	40.594	ng		98
81) Benzo(a)anthracene	14.027	228	1055317	39.963	ng		99
82) 3,3'-Dichlorobenzidine	13.986	252	313883	41.131	ng		100
83) Chrysene	14.063	228	965783	40.347	ng		100
84) Bis(2-ethylhexyl)phtha...	14.010	149	713878	38.001	ng		99
85) Di-n-octyl phthalate	14.621	149	1106581	42.336	ng		97
87) Indeno(1,2,3-cd)pyrene	17.004	276	966446	37.750	ng		97
88) Benzo(b)fluoranthene	15.080	252	980961	36.166	ng		99
89) Benzo(k)fluoranthene	15.110	252	939819	40.489	ng		99
90) Benzo(a)pyrene	15.451	252	844845	39.807	ng		99
91) Dibenzo(a,h)anthracene	17.021	278	787699	37.291	ng		98
92) Benzo(g,h,i)perylene	17.456	276	785864	37.648	ng		97

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



Sample Results: **BF142175.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	69	-0.01
2		1,4-Dioxane	0.502	0.493	1.8	67	-0.06
3		Pyridine	1.232	1.162	5.7	66	-0.06
4		n-Nitrosodimethylamine	0.587	0.529	9.9	63	-0.06
5	S	2-Fluorophenol	1.198	1.172	2.2	70	-0.02
6		Aniline	1.505	1.376	8.6	65	-0.02
7	S	Phenol-d6	1.526	1.475	3.3	70	-0.01
8		2-Chlorophenol	1.329	1.310	1.4	72	-0.02
9		Benzaldehyde	0.853	1.304	-52.9#	116	-0.01
10	C	Phenol	1.605	1.534	4.4	69	-0.01
11		bis(2-Chloroethyl)ether	1.205	1.122	6.9	68	-0.01
12		1,3-Dichlorobenzene	1.435	1.405	2.1	71	-0.01
13	C	1,4-Dichlorobenzene	1.452	1.440	0.8	71	-0.01
14		1,2-Dichlorobenzene	1.367	1.360	0.5	72	-0.01
15		Benzyl Alcohol	1.233	1.164	5.6	68	-0.01
16		2,2'-oxybis(1-Chloropropane	1.455	1.178	19.0	60	-0.02
17		2-Methylphenol	1.057	1.002	5.2	69	-0.01
18		Hexachloroethane	0.544	0.523	3.9	70	-0.01
19	P	n-Nitroso-di-n-propylamine	0.980	0.859	12.3	65	-0.02
20		3+4-Methylphenols	1.354	1.250	7.7	67	-0.01
21	I	Naphthalene-d8	1.000	1.000	0.0	68	-0.01
22		Acetophenone	0.479	0.461	3.8	68	-0.02
23	S	Nitrobenzene-d5	0.355	0.349	1.7	68	-0.01
24		Nitrobenzene	0.353	0.346	2.0	67	-0.01
25		Isophorone	0.628	0.587	6.5	66	-0.02
26	C	2-Nitrophenol	0.173	0.185	-6.9	71	-0.02
27		2,4-Dimethylphenol	0.239	0.232	2.9	68	-0.01
28		bis(2-Chloroethoxy)methane	0.394	0.369	6.3	67	-0.01
29	C	2,4-Dichlorophenol	0.296	0.302	-2.0	71	-0.01
30		1,2,4-Trichlorobenzene	0.327	0.336	-2.8	73	-0.01
31		Naphthalene	1.027	1.014	1.3	70	-0.01
32		Benzoic acid	0.210	0.228	-8.6	74	0.00
33		4-Chloroaniline	0.363	0.356	1.9	68	0.00
34	C	Hexachlorobutadiene	0.213	0.219	-2.8	73	-0.02
35		Caprolactam	0.090	0.092	-2.2	74	0.00
36	C	4-Chloro-3-methylphenol	0.331	0.328	0.9	70	0.00
37		2-Methylnaphthalene	0.687	0.685	0.3	71	-0.01
38		1-Methylnaphthalene	0.663	0.664	-0.2	72	-0.01
39	I	Acenaphthene-d10	1.000	1.000	0.0	78	0.00
40		1,2,4,5-Tetrachlorobenzene	0.609	0.557	8.5	73	-0.01
41	P	Hexachlorocyclopentadiene	0.238	0.195	18.1	60	-0.01
42	S	2,4,6-Tribromophenol	0.254	0.277	-9.1	86	0.00
43	C	2,4,6-Trichlorophenol	0.398	0.350	12.1	68	0.00
44		2,4,5-Trichlorophenol	0.403	0.385	4.5	77	0.00
45	S	2-Fluorobiphenyl	1.315	1.168	11.2	72	-0.01
46		1,1'-Biphenyl	1.520	1.345	11.5	72	-0.01
47		2-Chloronaphthalene	1.133	1.030	9.1	73	-0.01

Sample Results: **BF142175.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	0.328	0.292	11.0	70	0.00
49		Acenaphthylene	1.681	1.551	7.7	74	-0.01
50		Dimethylphthalate	1.401	1.284	8.4	75	-0.01
51		2,6-Dinitrotoluene	0.292	0.278	4.8	76	0.00
52	C	Acenaphthene	1.181	1.188	-0.6	80	-0.01
53		3-Nitroaniline	0.296	0.300	-1.4	79	0.00
54	P	2,4-Dinitrophenol	0.139	0.166	-19.4	91	0.00
55		Dibenzofuran	1.688	1.599	5.3	77	0.00
56	P	4-Nitrophenol	0.223	0.245	-9.9	83	0.00
57		2,4-Dinitrotoluene	0.381	0.392	-2.9	81	0.00
58		Fluorene	1.302	1.272	2.3	80	-0.01
59		2,3,4,6-Tetrachlorophenol	0.367	0.378	-3.0	82	-0.01
60		Diethylphthalate	1.397	1.338	4.2	78	-0.01
61		4-Chlorophenyl-phenylether	0.679	0.676	0.4	81	-0.01
62		4-Nitroaniline	0.288	0.301	-4.5	81	0.00
63		Azobenzene	1.298	1.177	9.3	73	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	79	-0.01
65		4,6-Dinitro-2-methylphenol	0.119	0.133	-11.8	86	0.00
66	c	n-Nitrosodiphenylamine	0.647	0.629	2.8	80	0.00
67		4-Bromophenyl-phenylether	0.251	0.257	-2.4	83	0.00
68		Hexachlorobenzene	0.275	0.289	-5.1	84	0.00
69		Atrazine	0.198	0.192	3.0	92	0.00
70	C	Pentachlorophenol	0.170	0.180	-5.9	80	0.00
71		Phenanthrene	1.080	1.070	0.9	81	0.00
72		Anthracene	1.084	1.035	4.5	78	0.00
73		Carbazole	0.935	0.936	-0.1	81	0.00
74		Di-n-butylphthalate	1.240	1.212	2.3	81	-0.01
75	C	Fluoranthene	1.146	1.032	9.9	73	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	71	0.00
77		Benzidine	0.279	0.307	-10.0	60	0.00
78		Pyrene	1.730	1.698	1.8	74	0.00
79	S	Terphenyl-d14	1.353	1.360	-0.5	75	0.00
80		Butylbenzylphthalate	0.677	0.687	-1.5	74	-0.01
81		Benzo(a)anthracene	1.312	1.311	0.1	73	0.00
82		3,3'-Dichlorobenzidine	0.379	0.390	-2.9	74	0.00
83		Chrysene	1.190	1.200	-0.8	75	0.00
84		Bis(2-ethylhexyl)phthalate	0.934	0.887	5.0	69	-0.01
85	c	Di-n-octyl phthalate	1.299	1.375	-5.9	77	-0.01
86	I	Perylene-d12	1.000	1.000	0.0	84	0.00
87		Indeno(1,2,3-cd)pyrene	1.294	1.221	5.6	80	0.00
88		Benzo(b)fluoranthene	1.371	1.239	9.6	86	0.00
89		Benzo(k)fluoranthene	1.173	1.187	-1.2	83	0.00
90	C	Benzo(a)pyrene	1.073	1.067	0.6	87	0.00
91		Dibenzo(a,h)anthracene	1.067	0.995	6.7	79	0.00
92		Benzo(g,h,i)perylene	1.055	0.993	5.9	79	0.00

Sample Results: **BF142175.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

Evaluate Continuing Calibration Report

Sample Results: **BF142175.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	69	-0.01
2		1,4-Dioxane	40.000	39.300	1.8	67	-0.06
3		Pyridine	40.000	37.735	5.7	66	-0.06
4		n-Nitrosodimethylamine	40.000	36.026	9.9	63	-0.06
5	S	2-Fluorophenol	80.000	78.213	2.2	70	-0.02
6		Aniline	40.000	36.580	8.6	65	-0.02
7	S	Phenol-d6	80.000	77.321	3.3	70	-0.01
8		2-Chlorophenol	40.000	39.430	1.4	72	-0.02
9		Benzaldehyde	40.000	61.135	-52.8#	116	-0.01
10	C	Phenol	40.000	38.223	4.4	69	-0.01
11		bis(2-Chloroethyl)ether	40.000	37.247	6.9	68	-0.01
12		1,3-Dichlorobenzene	40.000	39.154	2.1	71	-0.01
13	C	1,4-Dichlorobenzene	40.000	39.685	0.8	71	-0.01
14		1,2-Dichlorobenzene	40.000	39.788	0.5	72	-0.01
15		Benzyl Alcohol	40.000	37.762	5.6	68	-0.01
16		2,2'-oxybis(1-Chloropropane	40.000	32.388	19.0	60	-0.02
17		2-Methylphenol	40.000	37.940	5.2	69	-0.01
18		Hexachloroethane	40.000	38.396	4.0	70	-0.01
19	P	n-Nitroso-di-n-propylamine	40.000	35.059	12.4	65	-0.02
20		3+4-Methylphenols	40.000	36.940	7.7	67	-0.01
21	I	Naphthalene-d8	20.000	20.000	0.0	68	-0.01
22		Acetophenone	40.000	38.530	3.7	68	-0.02
23	S	Nitrobenzene-d5	80.000	78.569	1.8	68	-0.01
24		Nitrobenzene	40.000	39.130	2.2	67	-0.01
25		Isophorone	40.000	37.373	6.6	66	-0.02
26	C	2-Nitrophenol	40.000	42.605	-6.5	71	-0.02
27		2,4-Dimethylphenol	40.000	38.804	3.0	68	-0.01
28		bis(2-Chloroethoxy)methane	40.000	37.500	6.3	67	-0.01
29	C	2,4-Dichlorophenol	40.000	40.739	-1.8	71	-0.01
30		1,2,4-Trichlorobenzene	40.000	41.132	-2.8	73	-0.01
31		Naphthalene	40.000	39.479	1.3	70	-0.01
32		Benzoic acid	40.000	43.457	-8.6	74	0.00
33		4-Chloroaniline	40.000	39.211	2.0	68	0.00
34	C	Hexachlorobutadiene	40.000	41.154	-2.9	73	-0.02
35		Caprolactam	40.000	40.767	-1.9	74	0.00
36	C	4-Chloro-3-methylphenol	40.000	39.734	0.7	70	0.00
37		2-Methylnaphthalene	40.000	39.887	0.3	71	-0.01
38		1-Methylnaphthalene	40.000	40.084	-0.2	72	-0.01
39	I	Acenaphthene-d10	20.000	20.000	0.0	78	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	36.601	8.5	73	-0.01
41	P	Hexachlorocyclopentadiene	40.000	32.662	18.3	60	-0.01
42	S	2,4,6-Tribromophenol	80.000	87.312	-9.1	86	0.00
43	C	2,4,6-Trichlorophenol	40.000	35.144	12.1	68	0.00
44		2,4,5-Trichlorophenol	40.000	38.178	4.6	77	0.00
45	S	2-Fluorobiphenyl	80.000	71.051	11.2	72	-0.01
46		1,1'-Biphenyl	40.000	35.393	11.5	72	-0.01
47		2-Chloronaphthalene	40.000	36.389	9.0	73	-0.01

Sample Results: **BF142175.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)
48		2-Nitroaniline	40.000	35.630	10.9	70	0.00
49		Acenaphthylene	40.000	36.904	7.7	74	-0.01
50		Dimethylphthalate	40.000	36.659	8.4	75	-0.01
51		2,6-Dinitrotoluene	40.000	38.094	4.8	76	0.00
52	C	Acenaphthene	40.000	40.226	-0.6	80	-0.01
53		3-Nitroaniline	40.000	40.552	-1.4	79	0.00
54	P	2,4-Dinitrophenol	40.000	43.261	-8.2	91	0.00
55		Dibenzofuran	40.000	37.893	5.3	77	0.00
56	P	4-Nitrophenol	40.000	43.898	-9.7	83	0.00
57		2,4-Dinitrotoluene	40.000	41.216	-3.0	81	0.00
58		Fluorene	40.000	39.084	2.3	80	-0.01
59		2,3,4,6-Tetrachlorophenol	40.000	41.279	-3.2	82	-0.01
60		Diethylphthalate	40.000	38.310	4.2	78	-0.01
61		4-Chlorophenyl-phenylether	40.000	39.842	0.4	81	-0.01
62		4-Nitroaniline	40.000	41.874	-4.7	81	0.00
63		Azobenzene	40.000	36.260	9.4	73	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	79	-0.01
65		4,6-Dinitro-2-methylphenol	40.000	44.534	-11.3	86	0.00
66	c	n-Nitrosodiphenylamine	40.000	38.899	2.8	80	0.00
67		4-Bromophenyl-phenylether	40.000	40.962	-2.4	83	0.00
68		Hexachlorobenzene	40.000	41.994	-5.0	84	0.00
69		Atrazine	40.000	38.789	3.0	92	0.00
70	C	Pentachlorophenol	40.000	42.367	-5.9	80	0.00
71		Phenanthrene	40.000	39.610	1.0	81	0.00
72		Anthracene	40.000	38.217	4.5	78	0.00
73		Carbazole	40.000	40.056	-0.1	81	0.00
74		Di-n-butylphthalate	40.000	39.103	2.2	81	-0.01
75	C	Fluoranthene	40.000	36.035	9.9	73	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	71	0.00
77		Benzidine	40.000	43.953	-9.9	60	0.00
78		Pyrene	40.000	39.251	1.9	74	0.00
79	S	Terphenyl-d14	80.000	80.433	-0.5	75	0.00
80		Butylbenzylphthalate	40.000	40.594	-1.5	74	-0.01
81		Benzo(a)anthracene	40.000	39.963	0.1	73	0.00
82		3,3'-Dichlorobenzidine	40.000	41.131	-2.8	74	0.00
83		Chrysene	40.000	40.347	-0.9	75	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	38.001	5.0	69	-0.01
85	c	Di-n-octyl phthalate	40.000	42.336	-5.8	77	-0.01
86	I	Perylene-d12	20.000	20.000	0.0	84	0.00
87		Indeno(1,2,3-cd)pyrene	40.000	37.750	5.6	80	0.00
88		Benzo(b)fluoranthene	40.000	36.166	9.6	86	0.00
89		Benzo(k)fluoranthene	40.000	40.489	-1.2	83	0.00
90	C	Benzo(a)pyrene	40.000	39.807	0.5	87	0.00
91		Dibenzo(a,h)anthracene	40.000	37.291	6.8	79	0.00
92		Benzo(g,h,i)perylene	40.000	37.648	5.9	79	0.00

Sample Results: **BF142175.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142175.D
Acq On : 31 Mar 2025 12:22
Operator : RC/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_F
LabSampleId :
SSTDCCC040

Quant Time: Mar 31 13:28:06 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 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)

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

QC SAMPLE DATA

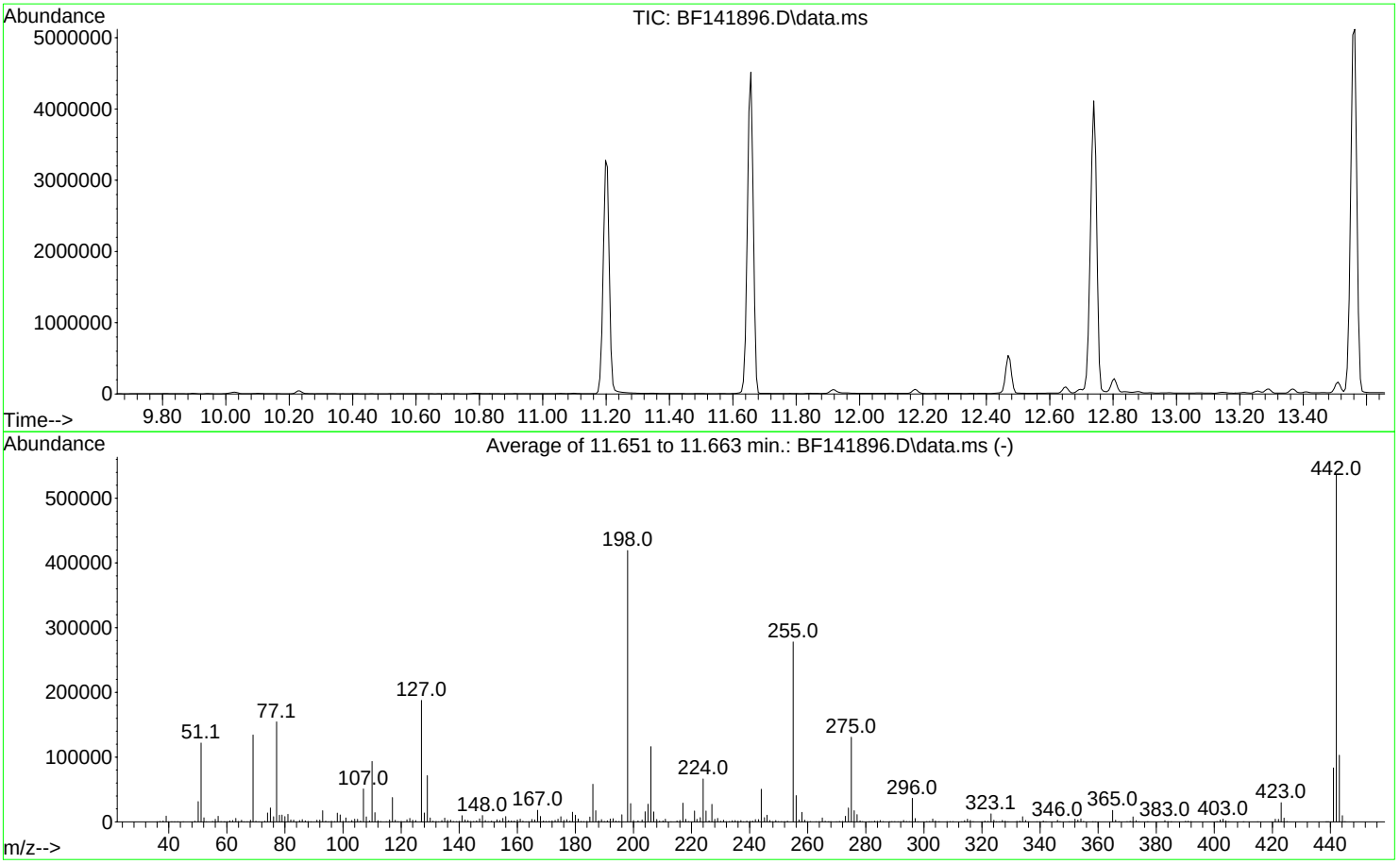
Sample Results: **BF141896.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141896.D
Acq On : 10 Mar 2025 10:31
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Mon Mar 10 15:46:22 2025



AutoFind: Scans 1625, 1626, 1627; Background Corrected with Scan 1617

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	29.1	121957	PASS
68	69	0.00	2	1.9	2599	PASS
69	198	0.00	100	32.0	134239	PASS
70	69	0.00	2	0.7	949	PASS
127	198	10	80	44.8	187627	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	419221	PASS
199	198	5	9	6.7	28280	PASS
275	198	10	60	31.2	130819	PASS
365	198	1	100	4.2	17803	PASS
441	198	0.01	100	19.9	83389	PASS
442	442	50	100	100.0	536640	PASS
443	442	15	24	19.2	102888	PASS

Instrument :
BNA_F
ClientSampleId :
DFTPP

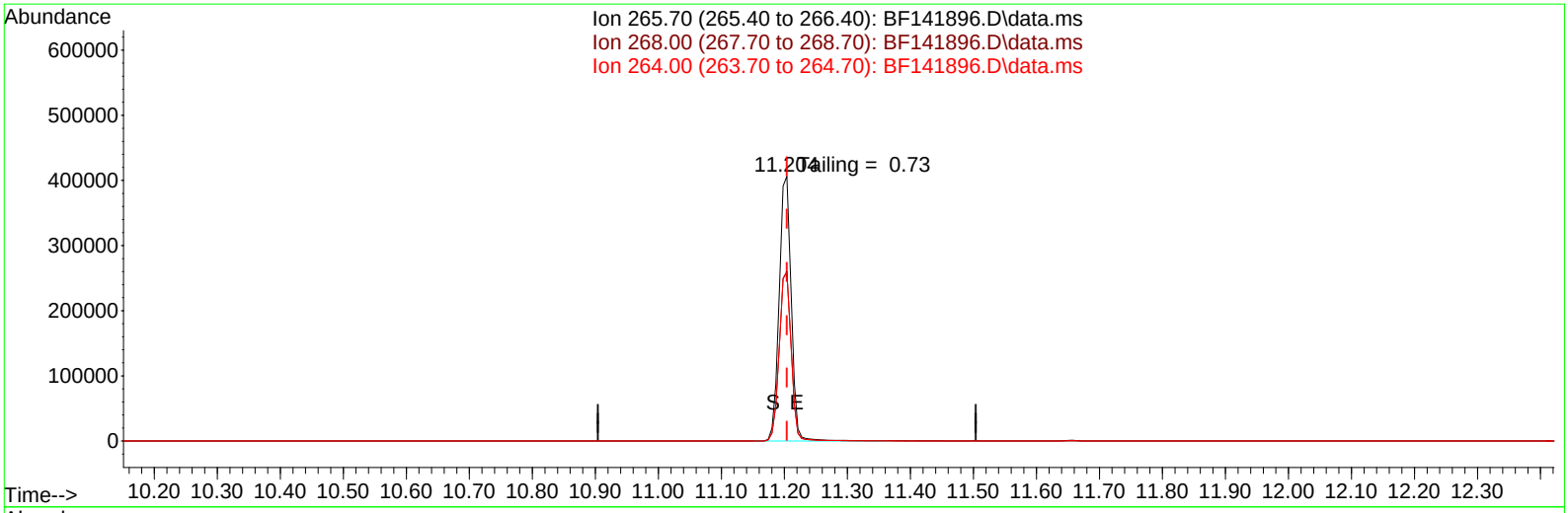
DDT Breakdown

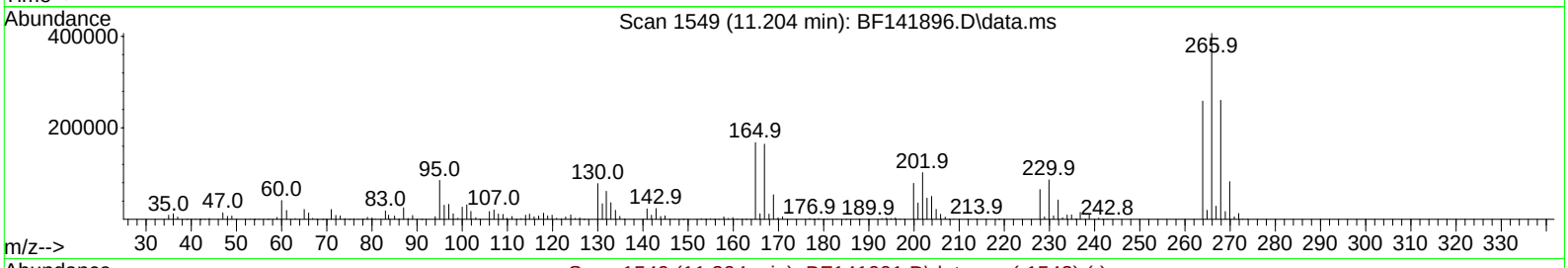
Date	Instrument Name	DFTPP Data File
3/10/2025	BNA_F	BF141896.D
Compound Name	**Response**	**Retention Time**
DDT	1358235	13.562
DDD	20094	13.292
DDE	930	12.921
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
21024	1379259	1.52

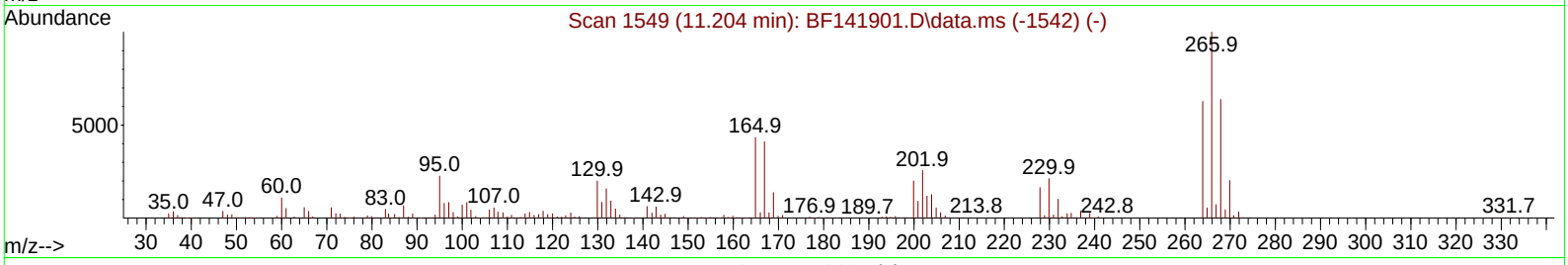
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141896.D
Acq On : 10 Mar 2025 10:31
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 10 16:16:58 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF141896.D\data.ms

(70) Pentachlorophenol (C)

11.204min (-0.000) 118650.09 ng

response 544757

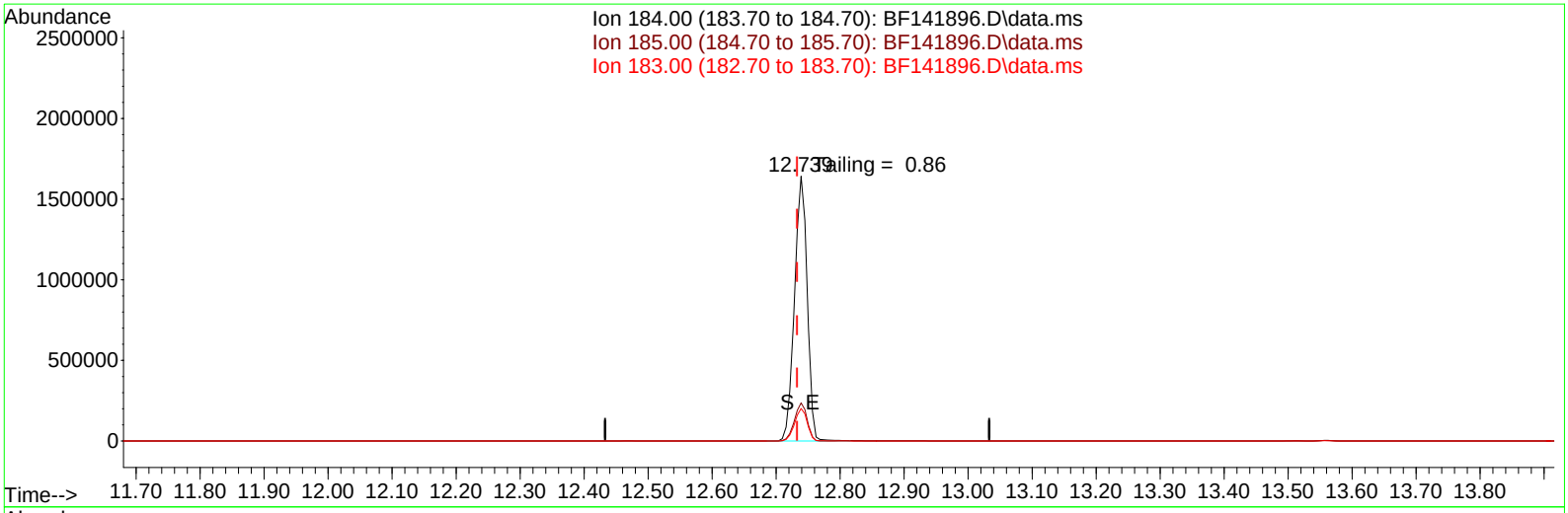
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	63.80	64.05
264.00	62.70	63.55
0.00	0.00	0.00

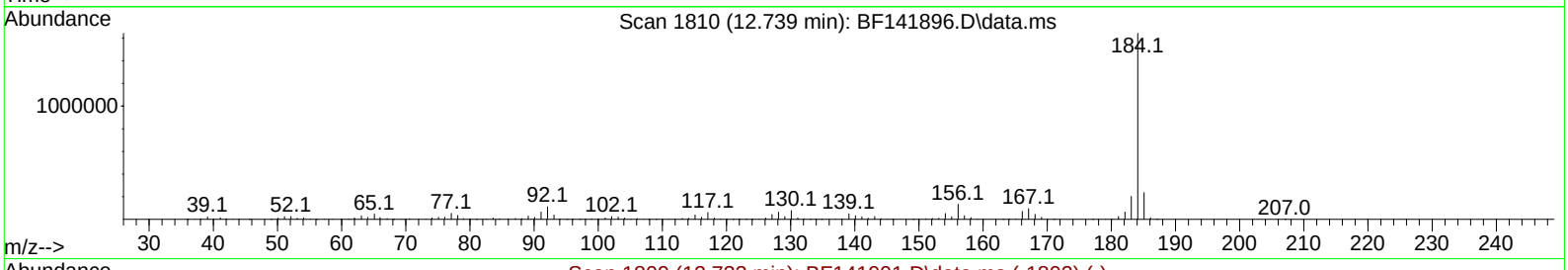
Sample Results: **BF141896.D**

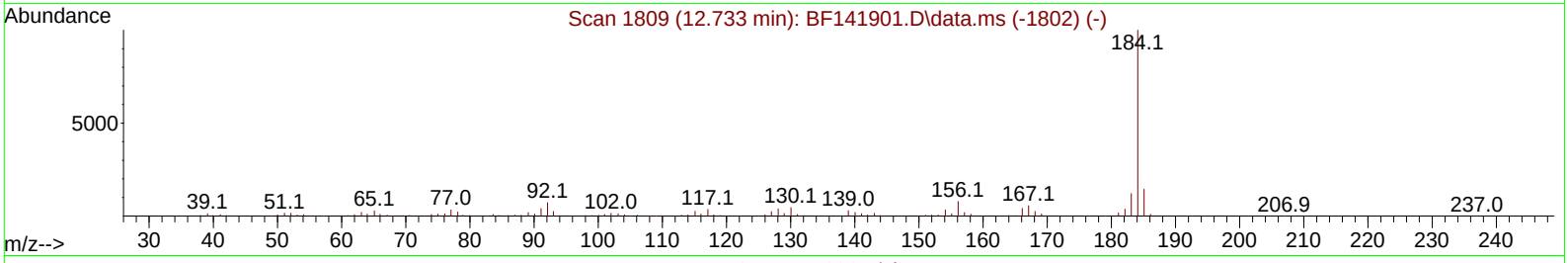
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF031025\
Data File : BF141896.D
Acq On : 10 Mar 2025 10:31
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 10 16:16:58 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF141896.D\data.ms

(77) Benzidine

12.739min (+ 0.006) 203796.44 ng

response 2274676

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.40	14.38
183.00	12.10	12.32
0.00	0.00	0.00

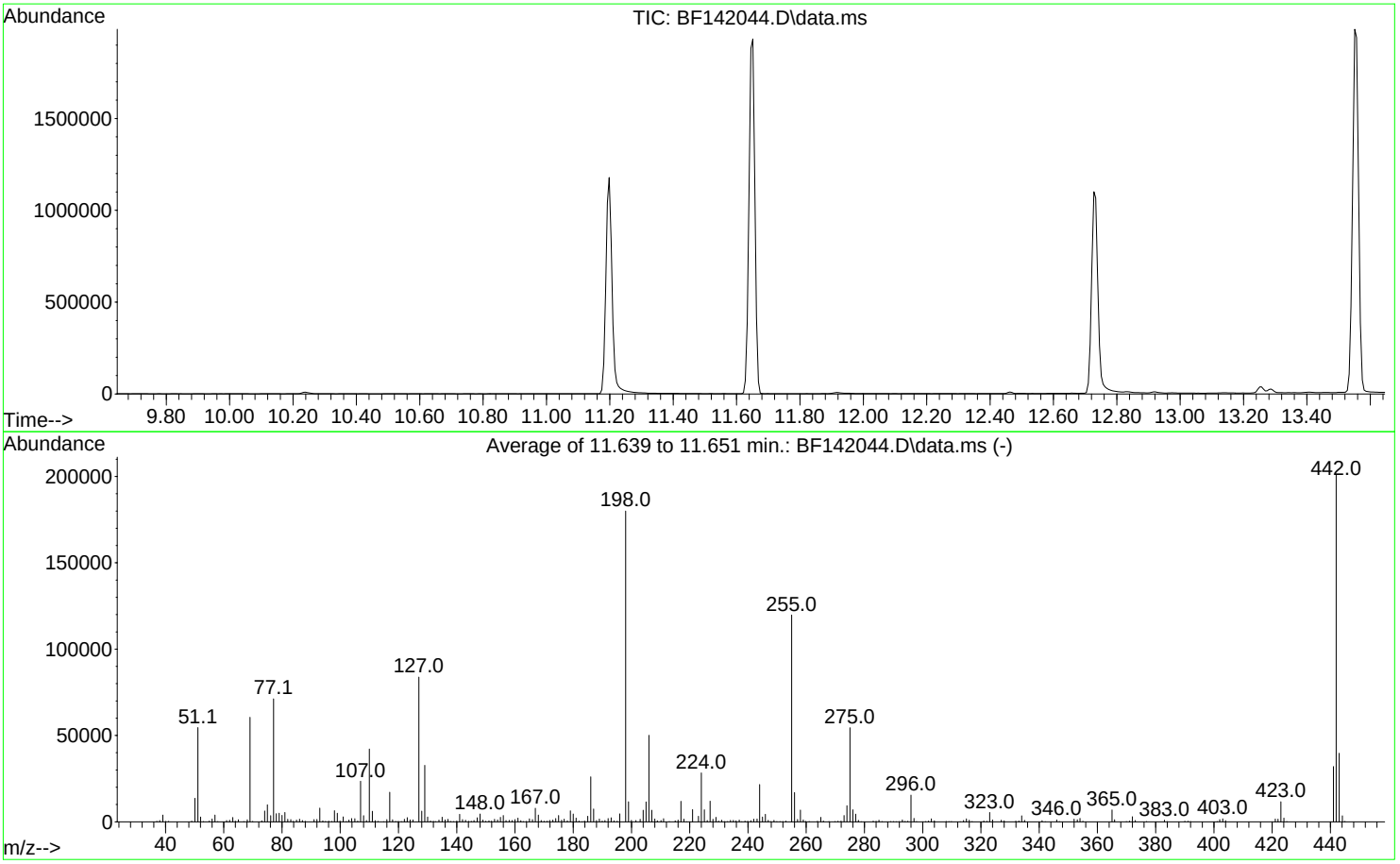
Sample Results: **BF142044.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142044.D
Acq On : 24 Mar 2025 09:43
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : T:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Mon Mar 10 15:46:22 2025



AutoFind: Scans 1623, 1624, 1625; Background Corrected with Scan 1617

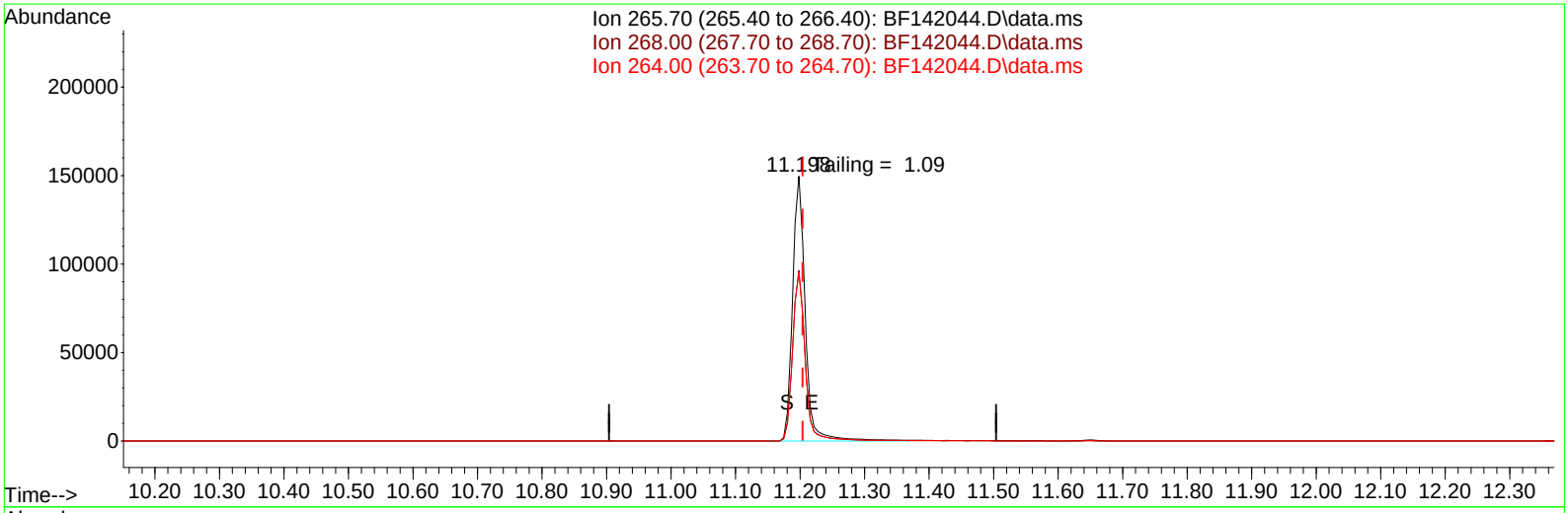
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.3	54595	PASS
68	69	0.00	2	1.9	1146	PASS
69	198	0.00	100	33.6	60485	PASS
70	69	0.00	2	0.4	267	PASS
127	198	10	80	46.6	83835	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	179944	PASS
199	198	5	9	6.5	11637	PASS
275	198	10	60	30.3	54496	PASS
365	198	1	100	3.8	6912	PASS
441	198	0.01	100	17.8	32003	PASS
442	442	50	100	100.0	201192	PASS
443	442	15	24	19.7	39667	PASS

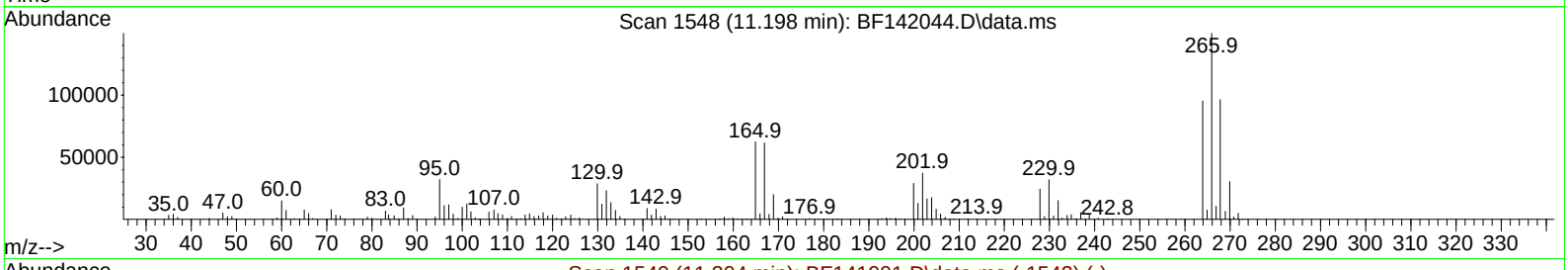
Sample Results: **BF142044.D**

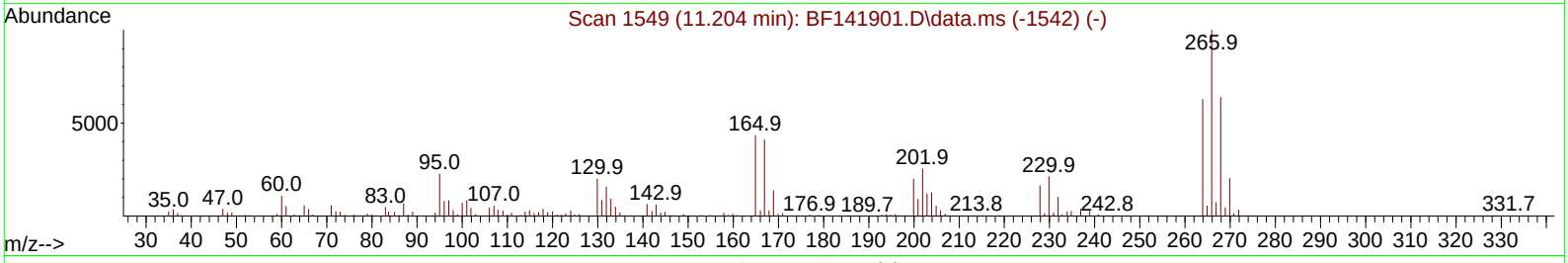
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142044.D
Acq On : 24 Mar 2025 09:43
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 24 11:23:26 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF142044.D\data.ms

(70) Pentachlorophenol (C)

11.198min (-0.006) 409215.86 ng

response 204900

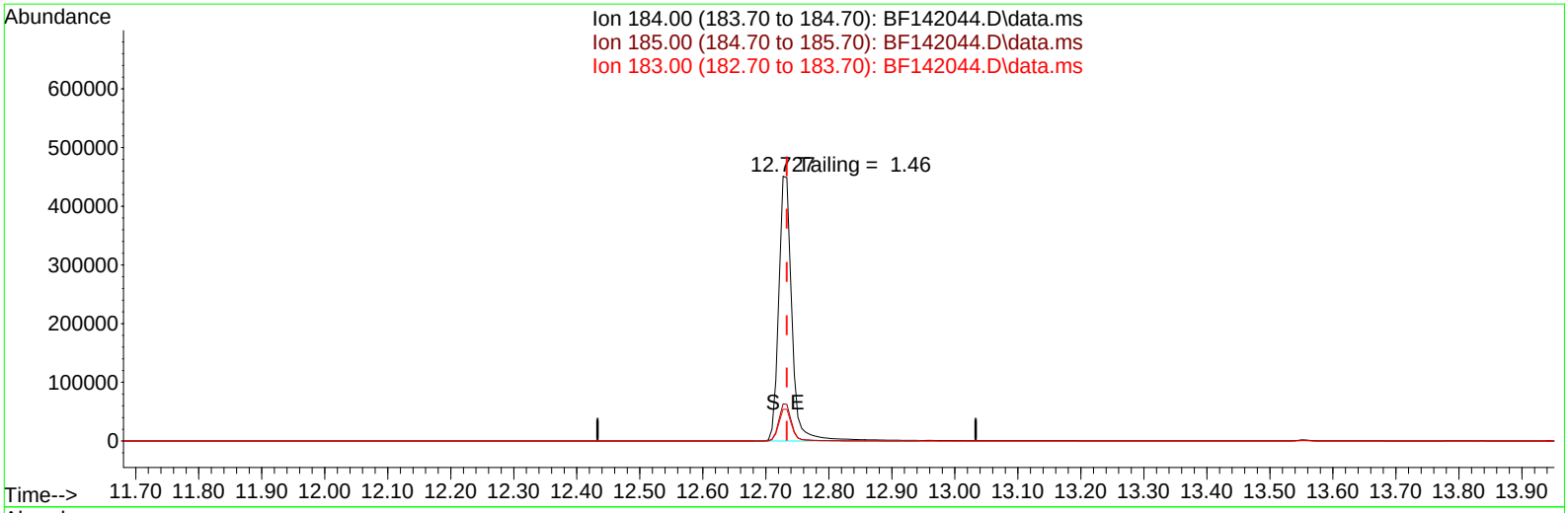
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	63.80	64.35
264.00	62.70	63.69
0.00	0.00	0.00

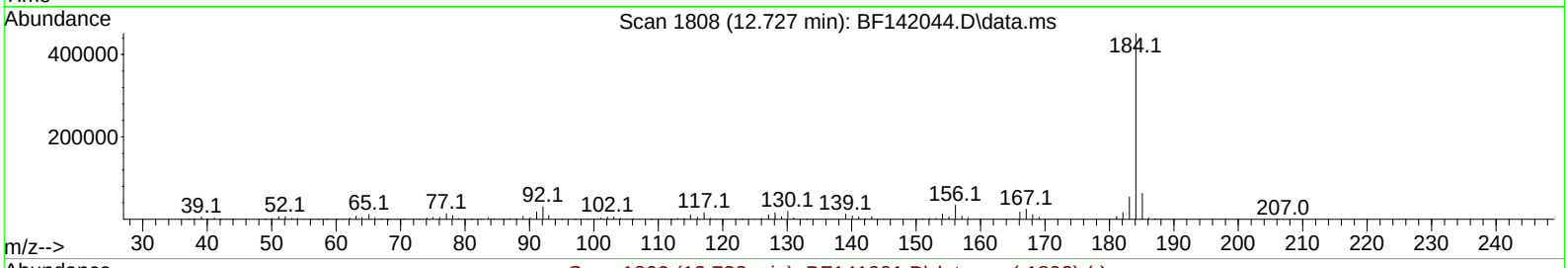
Sample Results: **BF142044.D**

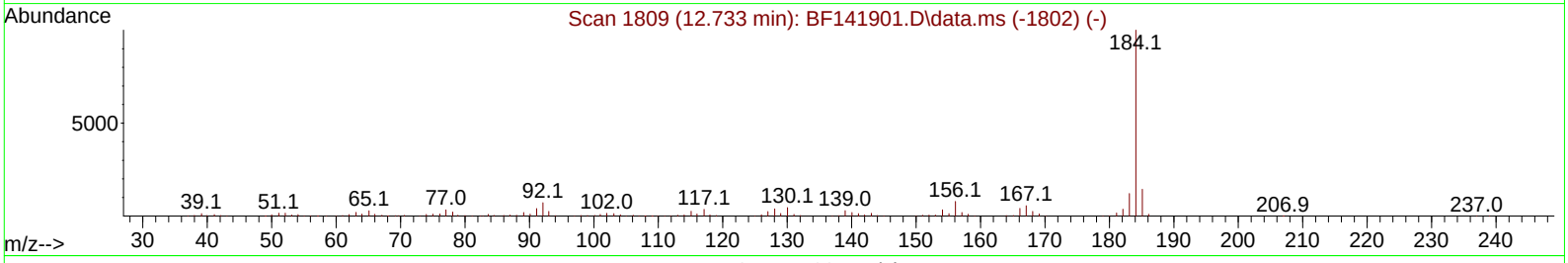
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142044.D
Acq On : 24 Mar 2025 09:43
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 24 11:23:26 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF142044.D\data.ms

(77) Benzidine

12.727min (-0.006) 0.00 ng

response 662362

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.40	14.01
183.00	12.10	12.02
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
2/24/2025	BNA_F	BF142044.D
Compound Name	**Response**	**Retention Time**
DDT	529950	13.557
DDD	16020	13.257
DDE	2069	12.922
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
18089	548039	3.30

Instrument :
BNA_F
ClientSampleId :
DFTPP

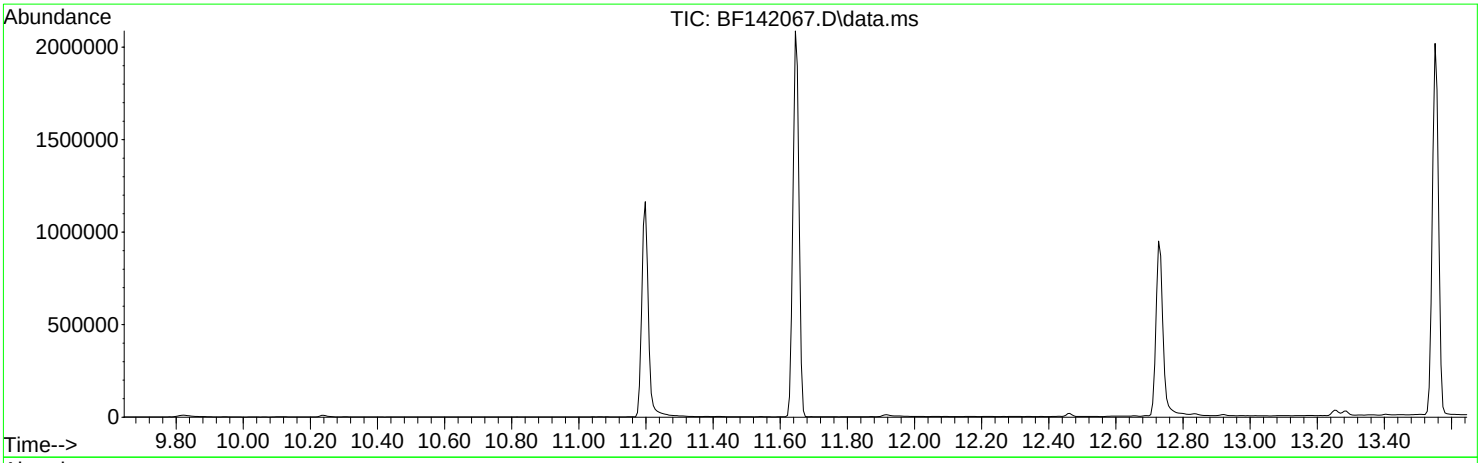
Sample Results: **BF142067.D**

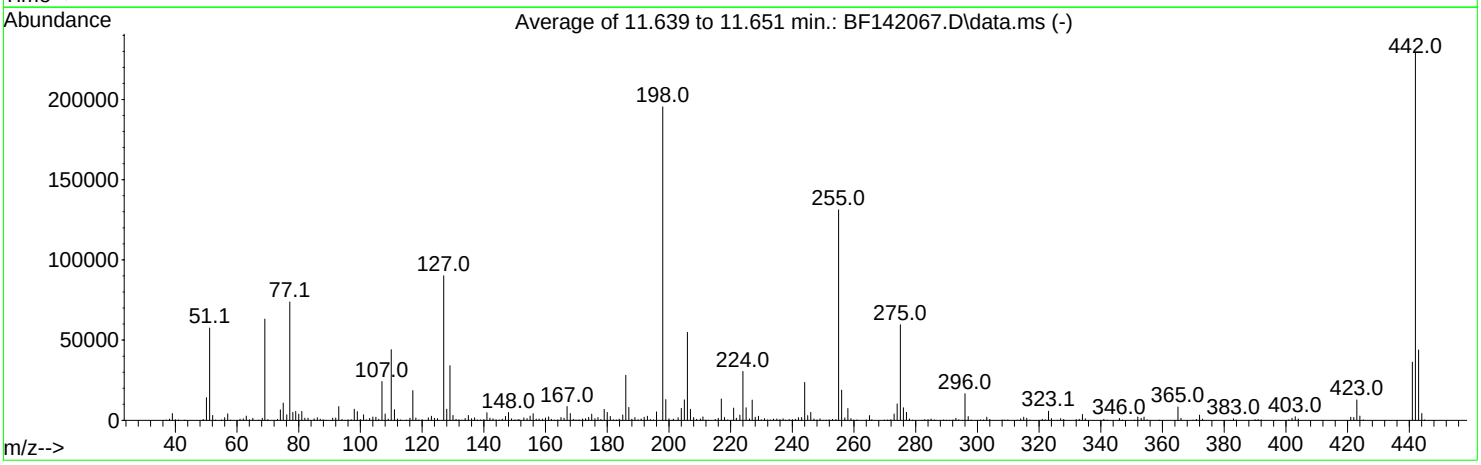
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142067.D
Acq On : 25 Mar 2025 09:39
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Mon Mar 10 15:46:22 2025





AutoFind: Scans 1623, 1624, 1625; Background Corrected with Scan 1617

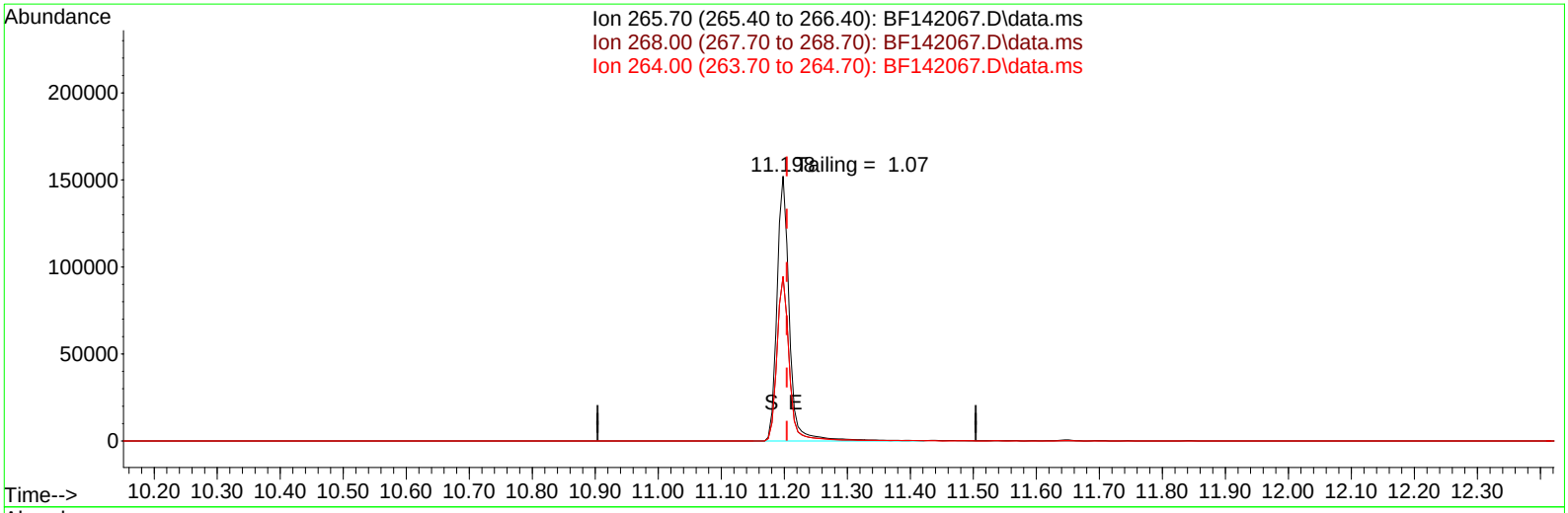
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	29.4	57504	PASS
68	69	0.00	2	1.9	1208	PASS
69	198	0.00	100	32.3	63091	PASS
70	69	0.00	2	0.7	436	PASS
127	198	10	80	46.1	90131	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	195499	PASS
199	198	5	9	6.6	12924	PASS
275	198	10	60	30.5	59603	PASS
365	198	1	100	4.2	8301	PASS
441	198	0.01	100	18.5	36256	PASS
442	442	50	100	100.0	229355	PASS
443	442	15	24	19.1	43824	PASS

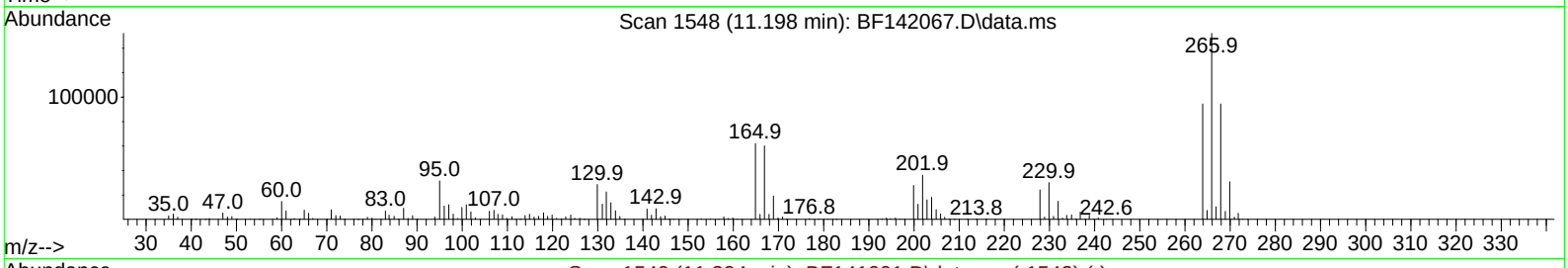
Sample Results: **BF142067.D**

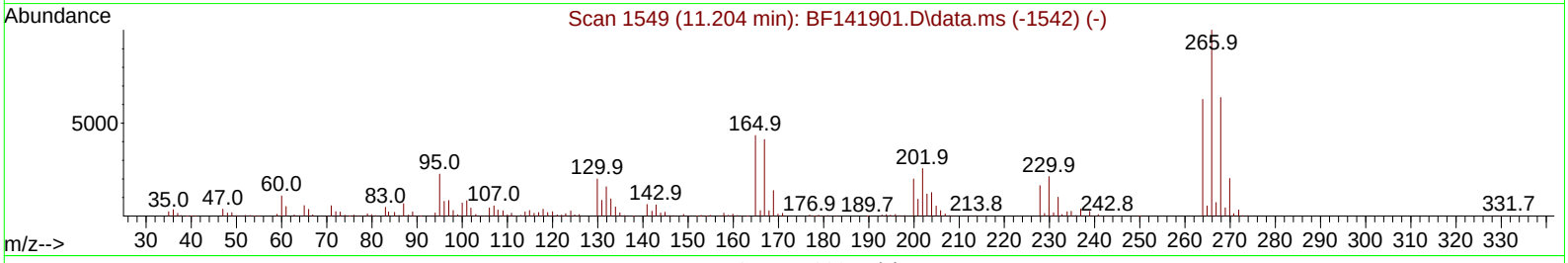
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142067.D
Acq On : 25 Mar 2025 09:39
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 25 11:19:21 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF142067.D\data.ms

(70) Pentachlorophenol (C)

11.198min (-0.006) 96884.65 ng

response 208846

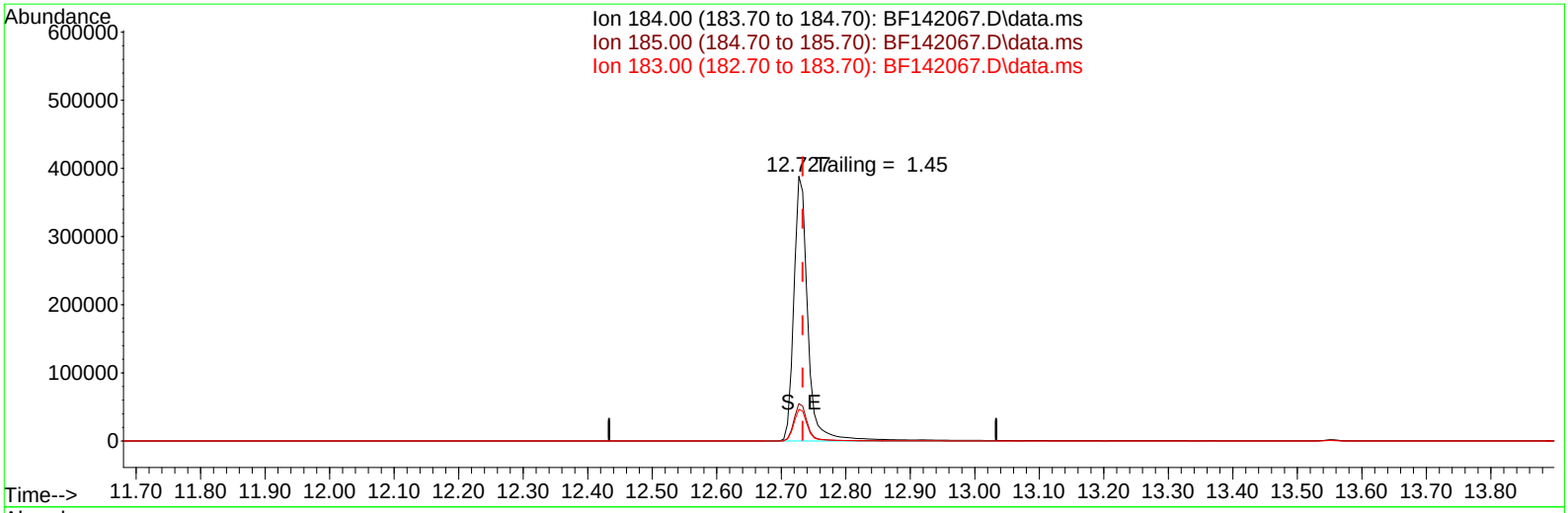
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	63.80	62.08
264.00	62.70	62.07
0.00	0.00	0.00

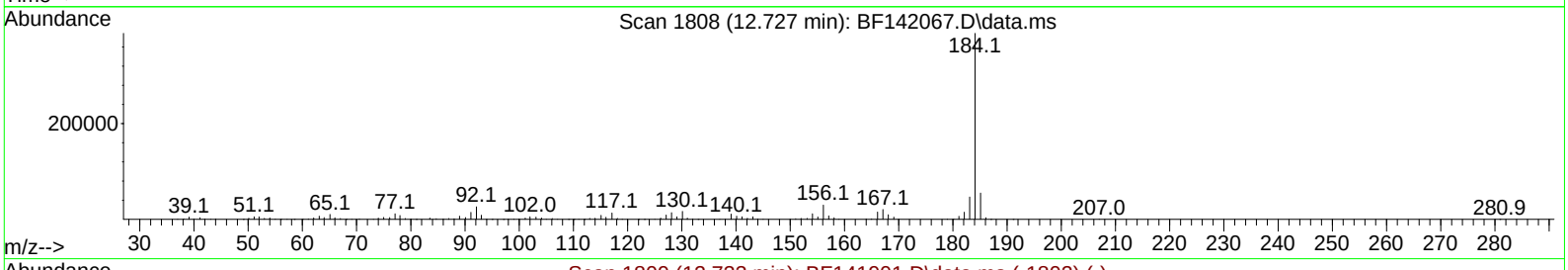
Sample Results: **BF142067.D**

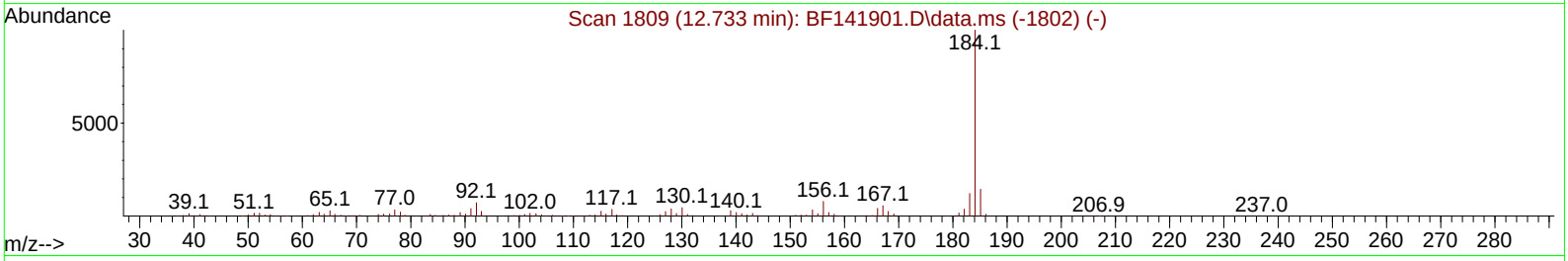
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142067.D
Acq On : 25 Mar 2025 09:39
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 25 11:19:21 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF142067.D\data.ms

(77) Benzidine

12.727min (-0.006) 165543.78 ng

response 584341

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.40	14.16
183.00	12.10	12.03
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
2/25/2025	BNA_F	BF142067.D
Compound Name	**Response**	**Retention Time**
DDT	523081	13.551
DDD	14002	13.251
DDE	1735	12.921
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
15737	538818	2.92

Instrument :
BNA_F
ClientSampleId :
DFTPP

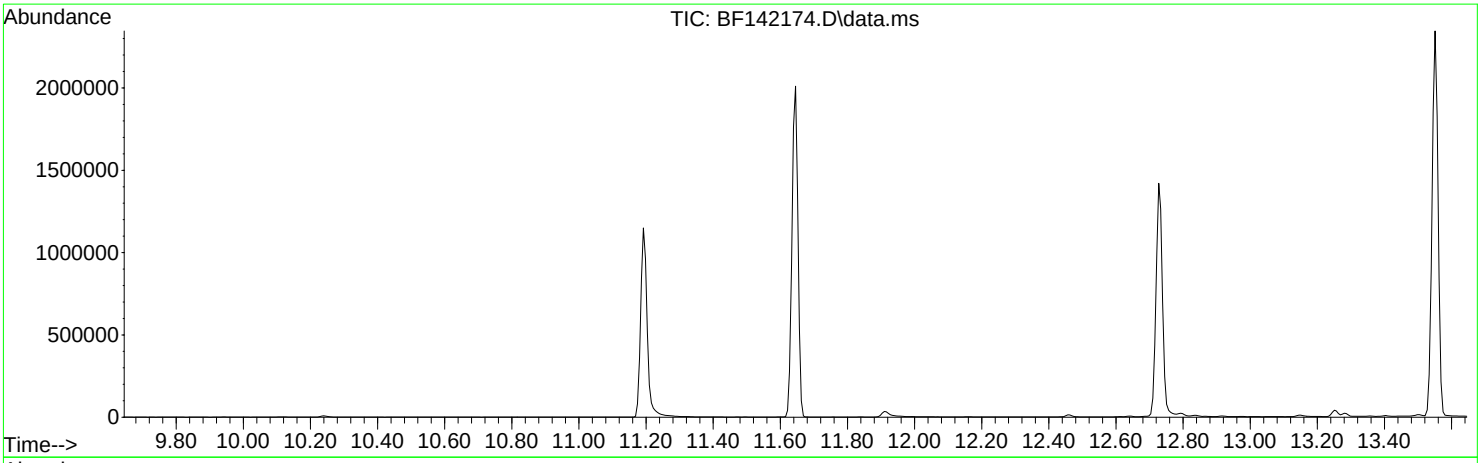
Sample Results: **BF142174.D**

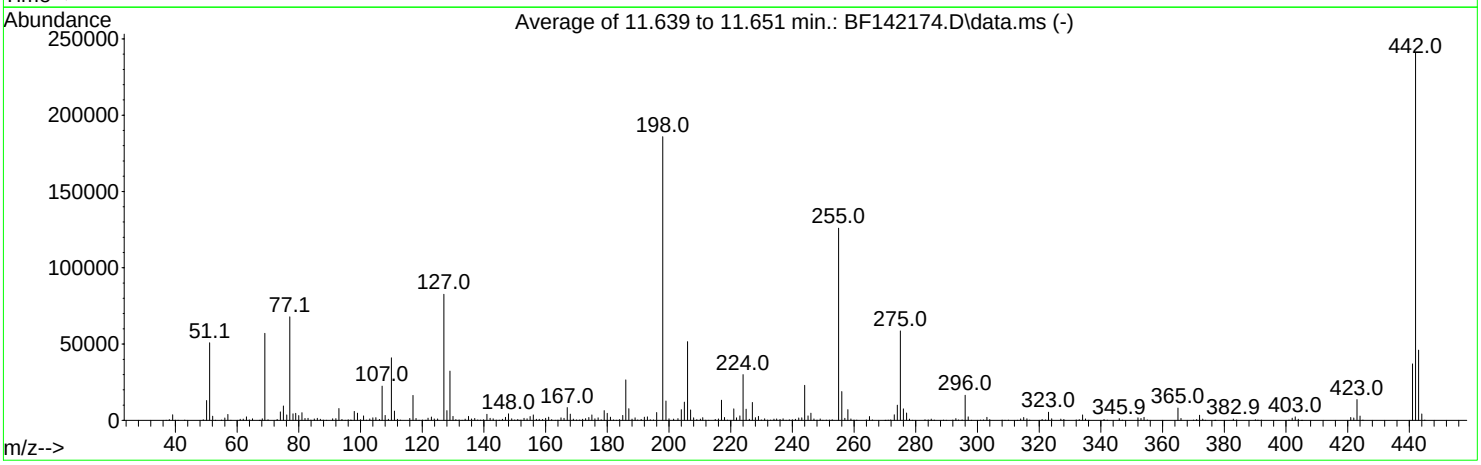
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142174.D
Acq On : 31 Mar 2025 11:53
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Mon Mar 10 15:46:22 2025





AutoFind: Scans 1623, 1624, 1625; Background Corrected with Scan 1616

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.4	50853	PASS
68	69	0.00	2	1.8	1026	PASS
69	198	0.00	100	30.7	57003	PASS
70	69	0.00	2	0.7	402	PASS
127	198	10	80	44.4	82605	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	185877	PASS
199	198	5	9	6.8	12724	PASS
275	198	10	60	31.5	58629	PASS
365	198	1	100	4.3	8063	PASS
441	198	0.01	100	19.9	36995	PASS
442	442	50	100	100.0	241088	PASS
443	442	15	24	19.1	46021	PASS

DDT Breakdown

Date	Instrument Name	DFTPP Data File
3/31/2025	BNA_F	BF142174.D
Compound Name	**Response**	**Retention Time**
DDT	776493	13.557
DDD	16504	13.251
DDE	1369	12.916
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
17873	794366	2.25

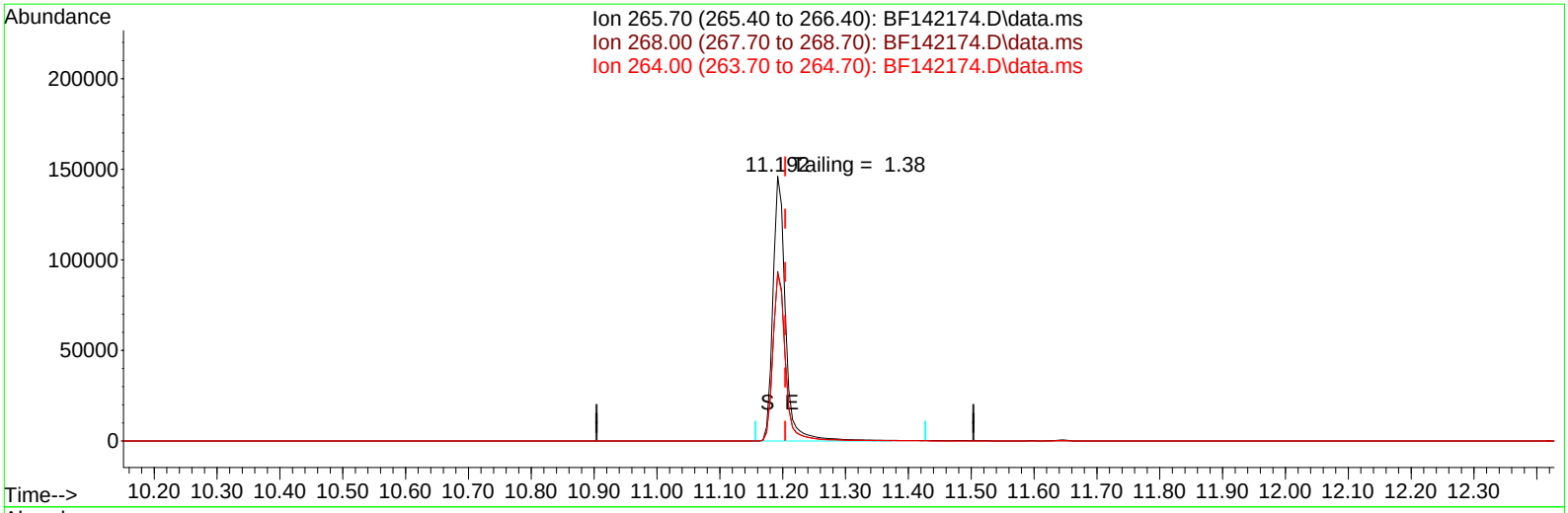
Instrument :
BNA_F
ClientSampleId :
DFTPP

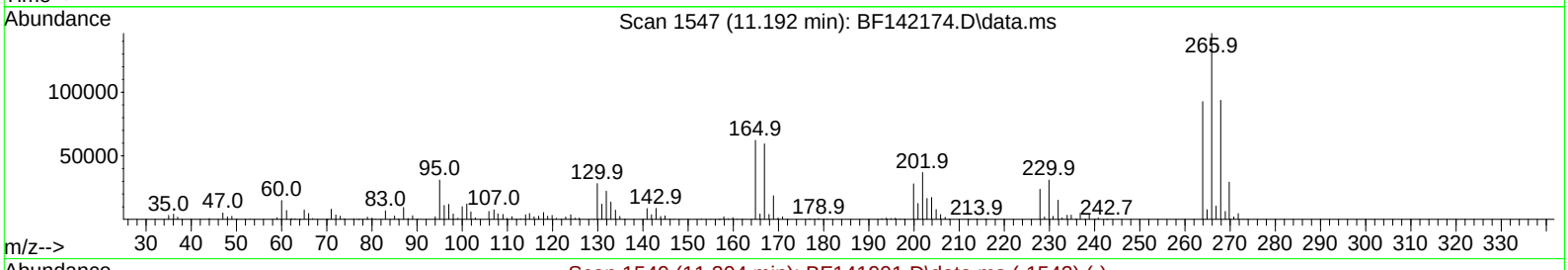
Sample Results: **BF142174.D**

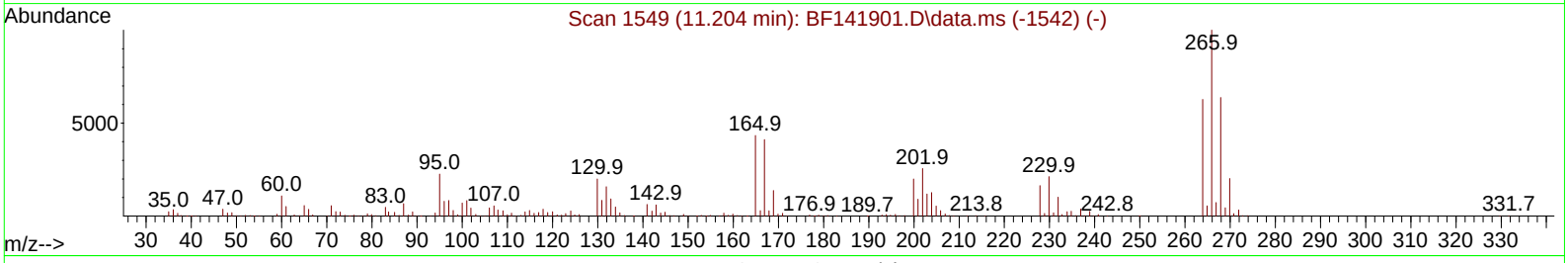
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142174.D
Acq On : 31 Mar 2025 11:53
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 31 13:27:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF142174.D\data.ms

(70) Pentachlorophenol (C)

11.192min (-0.012) 85074.56 ng

response 205770

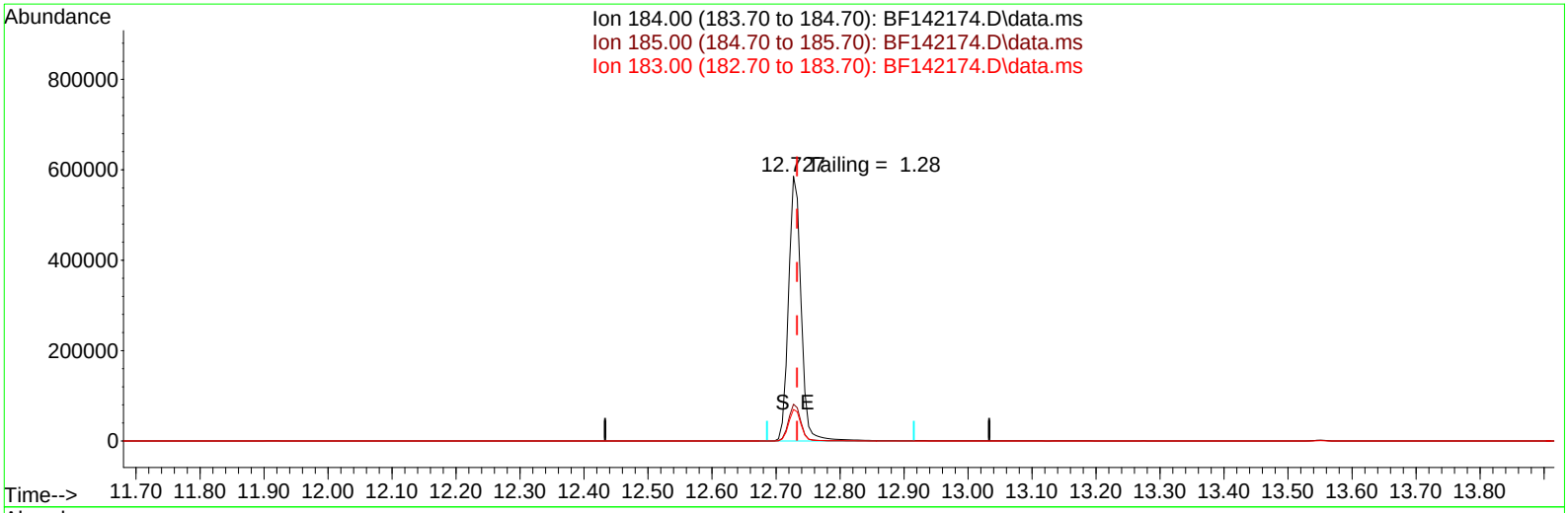
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	63.80	64.05
264.00	62.70	63.34
0.00	0.00	0.00

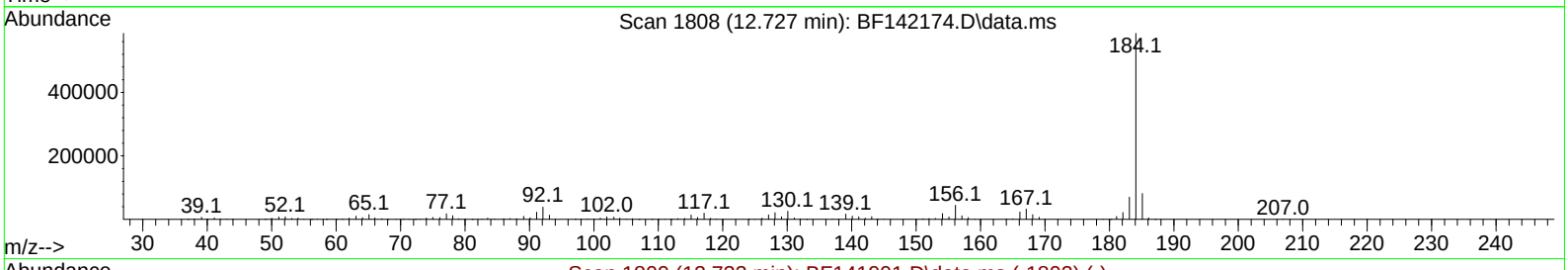
Sample Results: **BF142174.D**

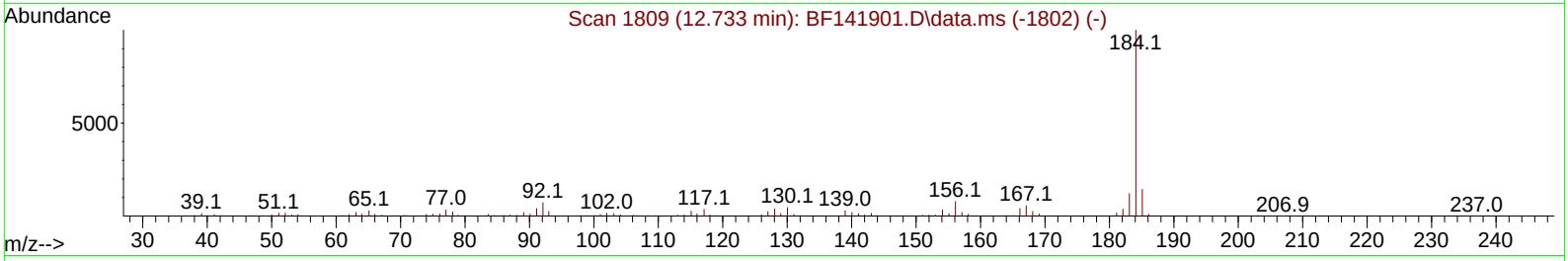
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF033125\
Data File : BF142174.D
Acq On : 31 Mar 2025 11:53
Operator : RC/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
DFTPP

Quant Time: Mar 31 13:27:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration







TIC: BF142174.D\data.ms

(77) Benzidine

12.727min (-0.006) 153700.47 ng

response 802010

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.40	13.89
183.00	12.10	11.96
0.00	0.00	0.00

Raw Data: **BF142071.D**

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

Report of Analysis

Client:	ENTACT			Date Collected:	
Project:	540 Degraw St, Brooklyn, NY - E9309			Date Received:	
Client Sample ID:	PB167261BL			SDG No.:	Q1609
Lab Sample ID:	PB167261BL			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142071.D	1	03/21/25 11:50	03/25/25 11:38	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	1.30	U	1.30	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.53	U	0.53	5.00	ug/L
95-48-7	2-Methylphenol	1.10	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	1.10	U	1.10	10.0	ug/L
67-72-1	Hexachloroethane	0.65	U	0.65	5.00	ug/L
98-95-3	Nitrobenzene	0.76	U	0.76	5.00	ug/L
87-68-3	Hexachlorobutadiene	0.54	U	0.54	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	0.51	U	0.51	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	0.62	U	0.62	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	1.20	U	1.20	5.00	ug/L
118-74-1	Hexachlorobenzene	0.52	U	0.52	5.00	ug/L
87-86-5	Pentachlorophenol	1.60	U	1.60	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	149		15 (10) - 110 (139)	100%	SPK: 150
13127-88-3	Phenol-d6	142		15 (10) - 110 (134)	95%	SPK: 150
4165-60-0	Nitrobenzene-d5	105		30 (49) - 130 (133)	105%	SPK: 100
321-60-8	2-Fluorobiphenyl	102		30 (52) - 130 (132)	102%	SPK: 100
118-79-6	2,4,6-Tribromophenol	166		15 (44) - 110 (137)	110%	SPK: 150
1718-51-0	Terphenyl-d14	133	*	30 (48) - 130 (125)	133%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	129000	6.875			
1146-65-2	Naphthalene-d8	509000	8.151			
15067-26-2	Acenaphthene-d10	295000	9.91			
1517-22-2	Phenanthrene-d10	560000	11.392			
1719-03-5	Chrysene-d12	310000	14.033			
1520-96-3	Perylene-d12	207000	15.504			

Raw Data: **BF142071.D**

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

Report of Analysis

Client:	ENTACT			Date Collected:			
Project:	540 Degraw St, Brooklyn, NY - E9309			Date Received:			
Client Sample ID:	PB167261BL			SDG No.:	Q1609		
Lab Sample ID:	PB167261BL			Matrix:	TCLP		
Analytical Method:	SW8270			% Solid:	0		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000		uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA		
Extraction Type :			Decanted : N	Level :	LOW		
Injection Volume :			GPC Factor : 1.0	GPC Cleanup :	N	PH :	
Prep Method :	SW3510C						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142071.D	1	03/21/25 11:50	03/25/25 11:38	PB167261

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

Quantitation Report (QT Reviewed)

Sample Results: **BF142071.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142071.D
Acq On : 25 Mar 2025 11:38
Operator : RC/JU
Sample : PB167261BL
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Quant Time: Mar 25 11:59:56 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

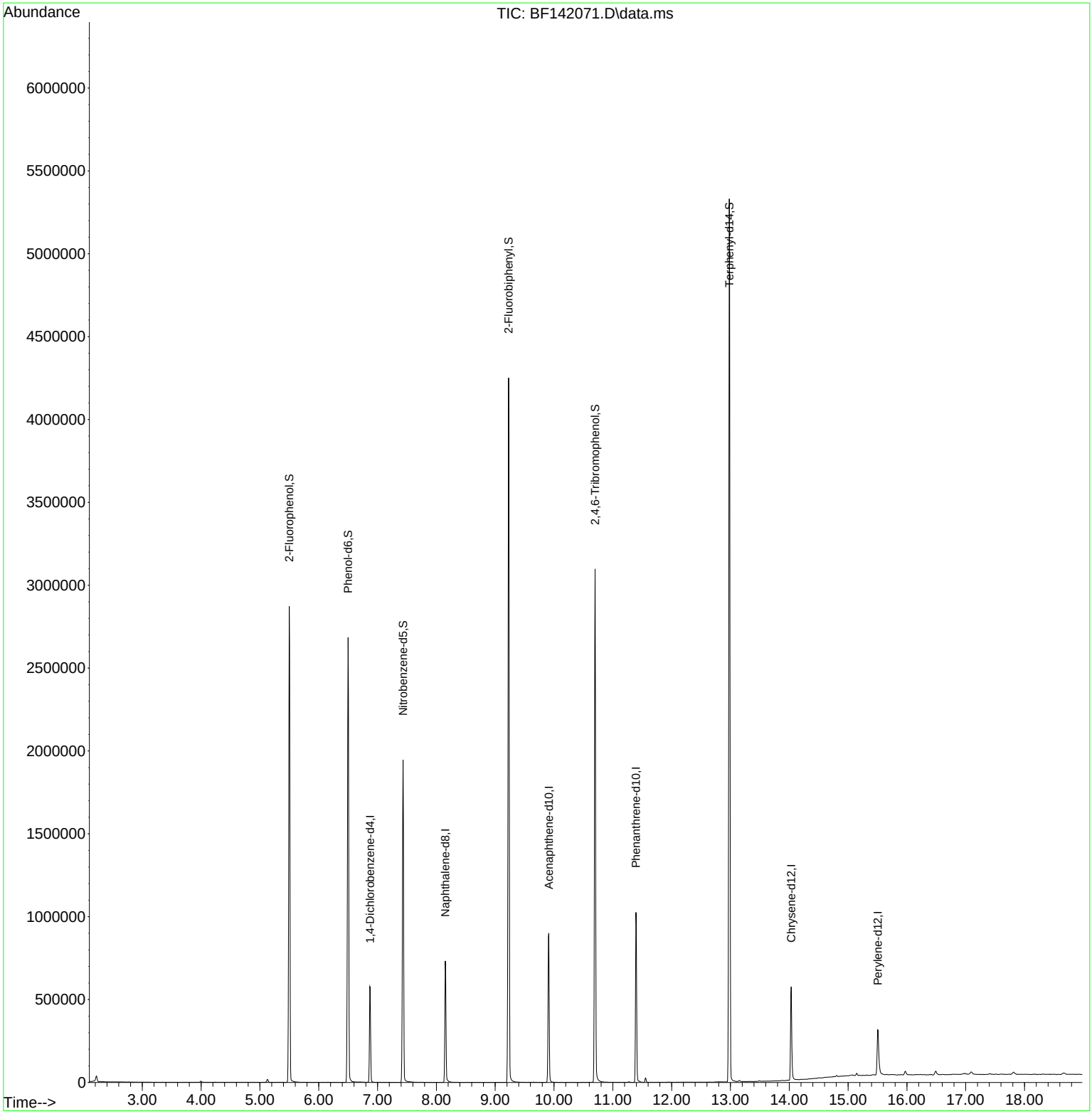
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.875	152	128759	20.000	ng	0.00
21) Naphthalene-d8	8.151	136	509446	20.000	ng	-0.01
39) Acenaphthene-d10	9.910	164	294539	20.000	ng	0.00
64) Phenanthrene-d10	11.392	188	560108	20.000	ng	-0.01
76) Chrysene-d12	14.033	240	309509	20.000	ng	0.00
86) Perylene-d12	15.504	264	207073	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.499	112	1151489	149.255	ng	0.00
7) Phenol-d6	6.498	99	1392774	141.790	ng	0.00
23) Nitrobenzene-d5	7.434	82	947299	104.643	ng	-0.01
42) 2,4,6-Tribromophenol	10.698	330	619327	165.745	ng	0.00
45) 2-Fluorobiphenyl	9.228	172	1983734	102.427	ng	-0.01
79) Terphenyl-d14	12.980	244	2785149	133.040	ng	0.00
Target Compounds						Qvalue

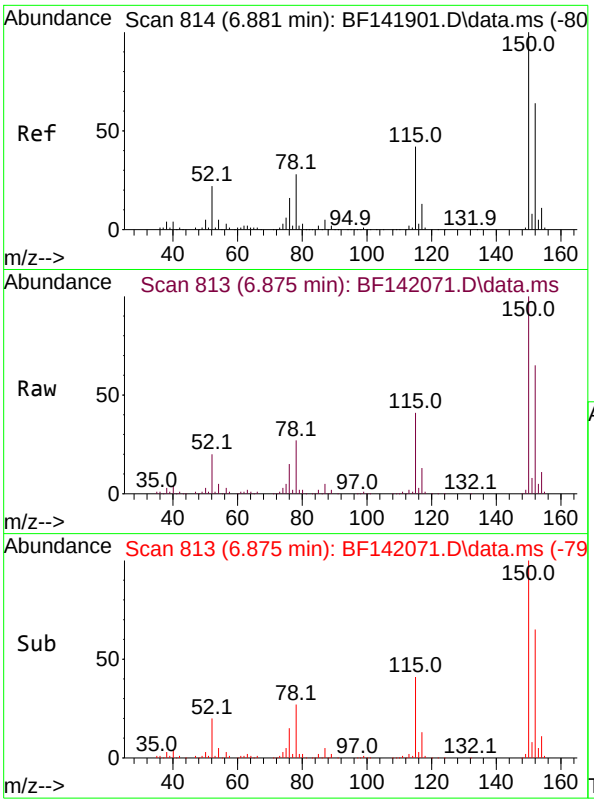
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142071.D
Acq On : 25 Mar 2025 11:38
Operator : RC/JU
Sample : PB167261BL
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Quant Time: Mar 25 11:59:56 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration



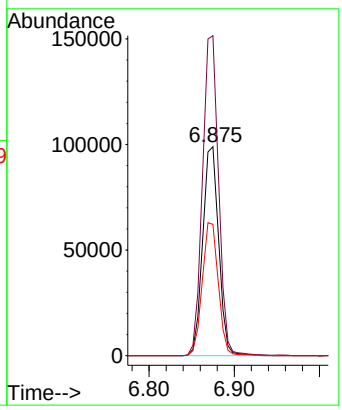


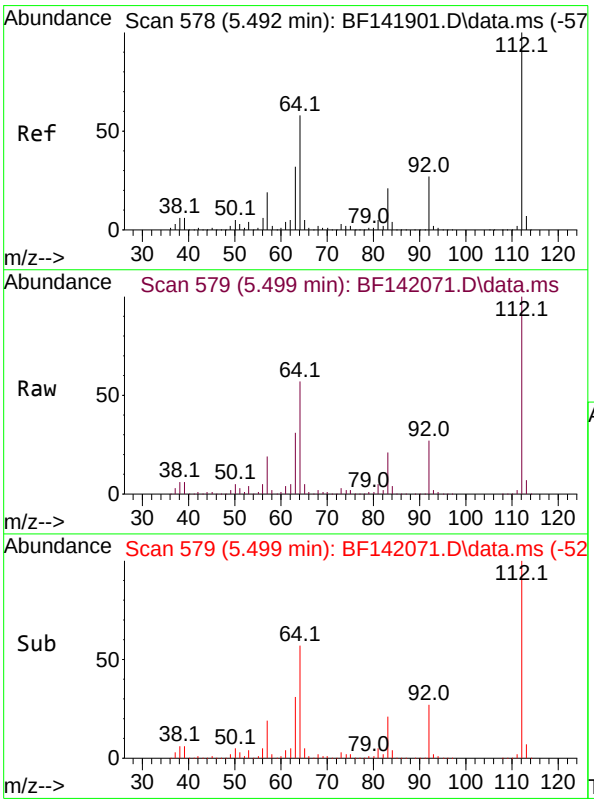
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 6.875 min Scan# 81
Delta R.T. -0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Tgt Ion:152 Resp: 128759

Ion	Ratio	Lower	Upper
152	100		
150	153.2	127.4	191.2
115	62.9	51.9	77.9

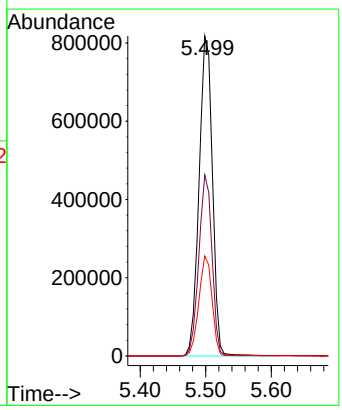


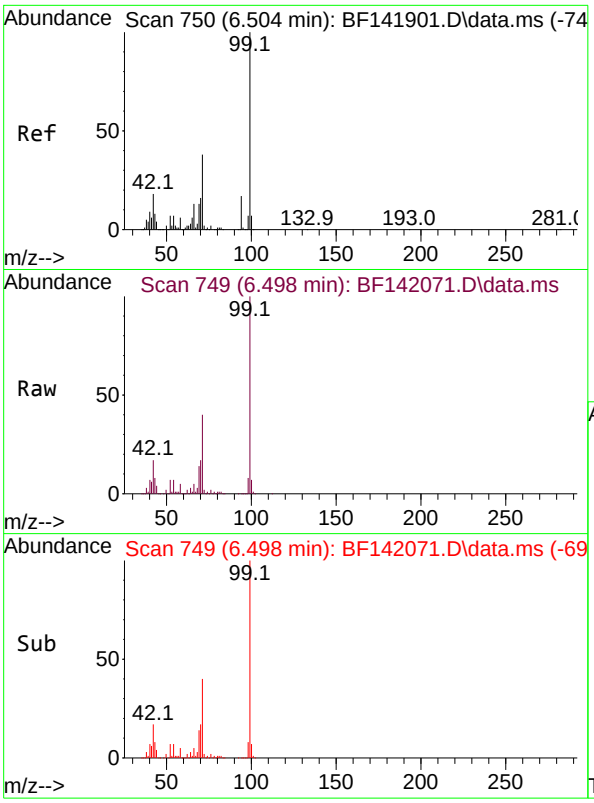


#5
2-Fluorophenol
Concen: 149.255 ng
RT: 5.499 min Scan# 579
Delta R.T. 0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Tgt Ion:112 Resp: 1151489

Ion	Ratio	Lower	Upper
112	100		
64	56.6	46.5	69.7
63	31.2	25.4	38.2



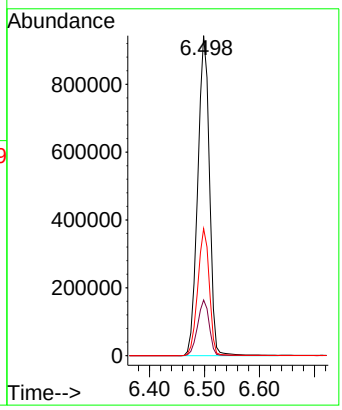


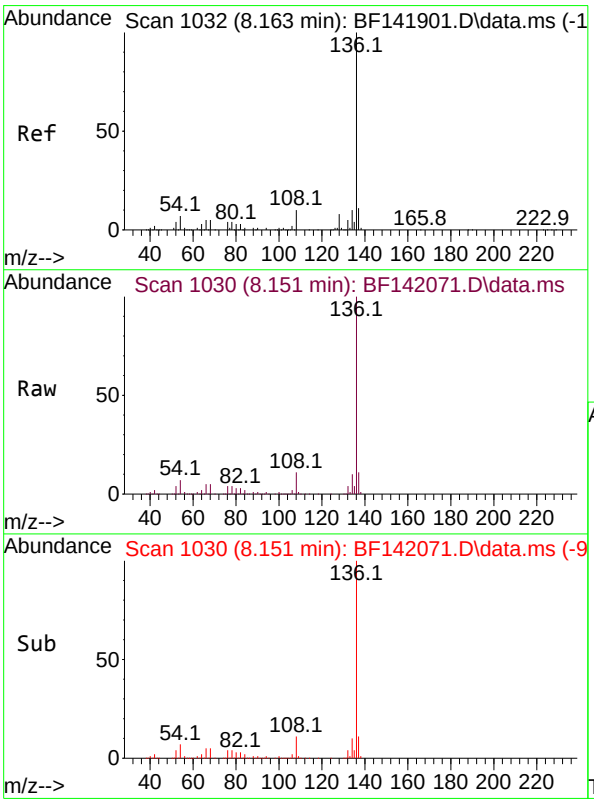
#7
Phenol-d6
Concen: 141.790 ng
RT: 6.498 min Scan# 74
Delta R.T. -0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Tgt Ion: 99 Resp: 1392774

Ion	Ratio	Lower	Upper
99	100		
42	17.4	14.6	21.8
71	39.7	30.8	46.2

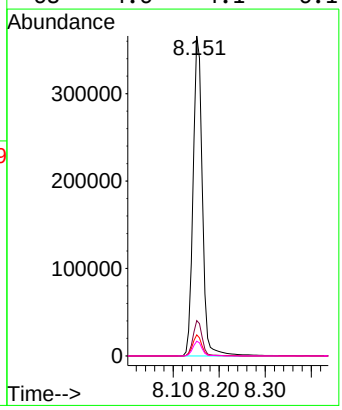


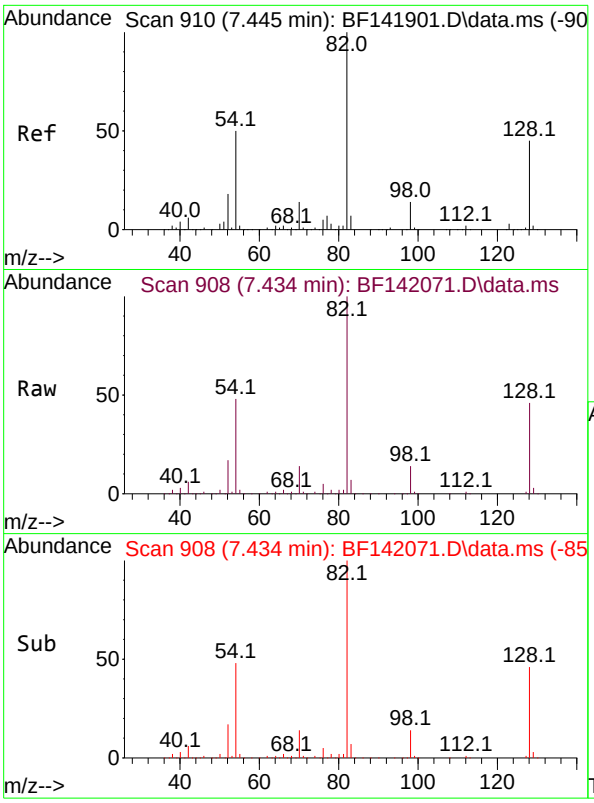


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 8.151 min Scan# 1030
Delta R.T. -0.012 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Tgt Ion:136 Resp: 509446

Ion	Ratio	Lower	Upper
136	100		
137	11.0	8.8	13.2
54	6.6	5.8	8.8
68	4.6	4.1	6.1



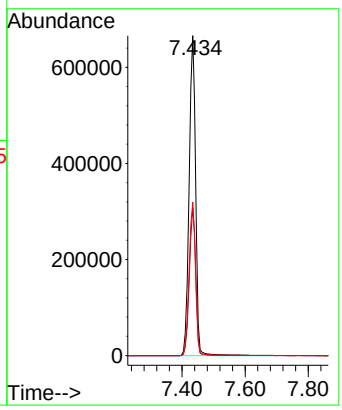


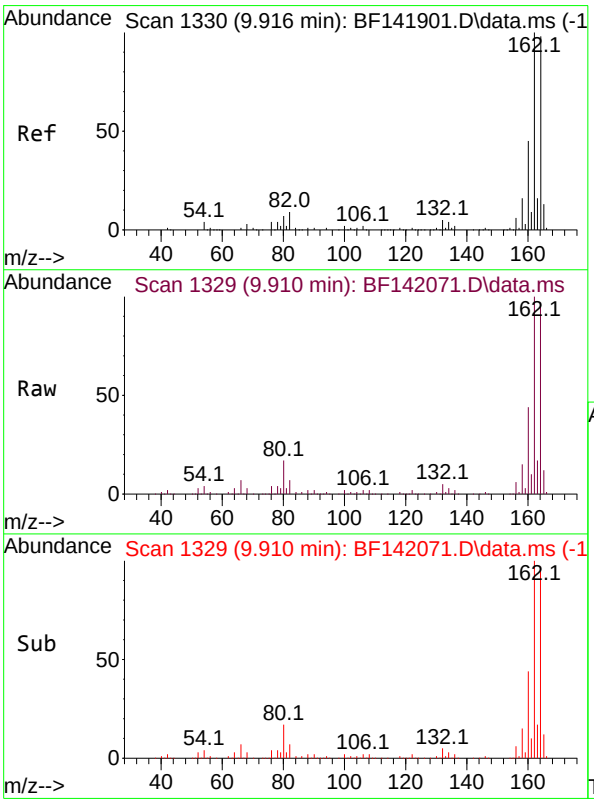
#23
Nitrobenzene-d5
Concen: 104.643 ng
RT: 7.434 min Scan# 90
Delta R.T. -0.012 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Tgt Ion: 82 Resp: 947299

Ion	Ratio	Lower	Upper
82	100		
128	46.3	36.0	54.0
54	48.0	39.6	59.4

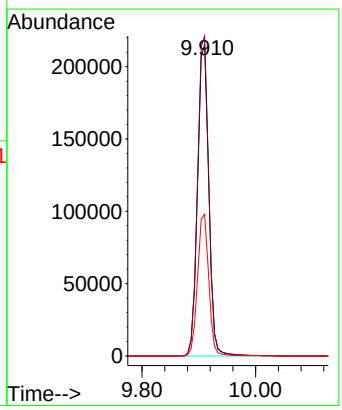


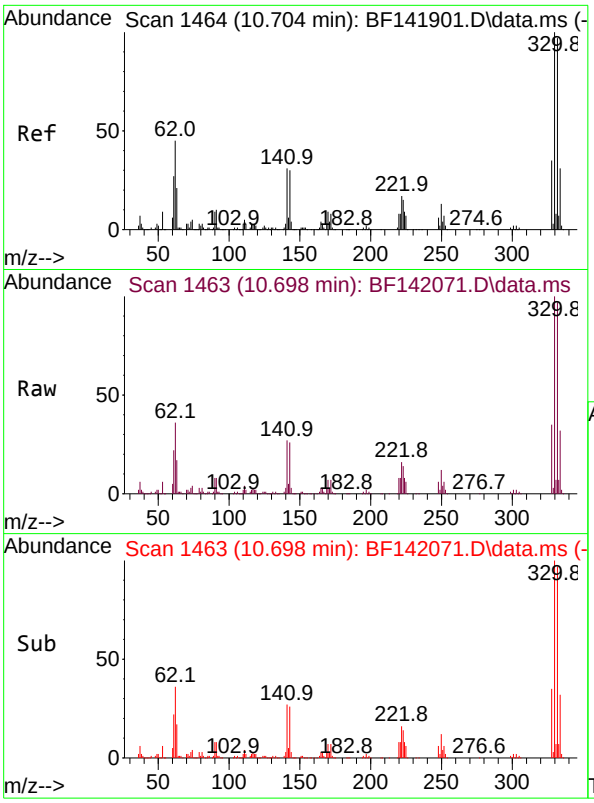


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 9.910 min Scan# 1329
Delta R.T. -0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Tgt Ion:164 Resp: 294539

Ion	Ratio	Lower	Upper
164	100		
162	103.0	81.8	122.6
160	45.5	36.7	55.1



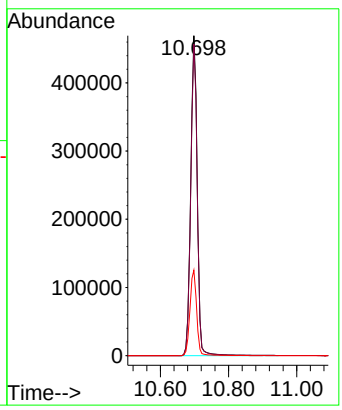


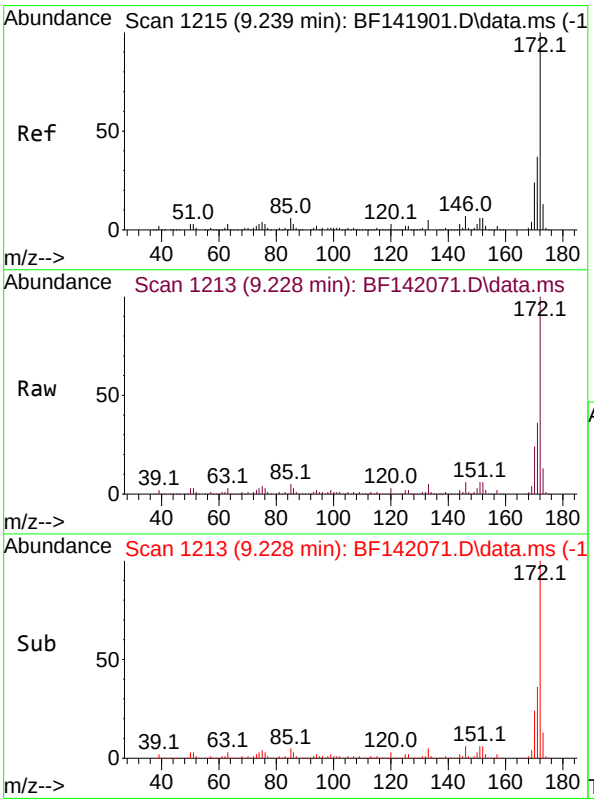
#42
2,4,6-Tribromophenol
Concen: 165.745 ng
RT: 10.698 min Scan# 14
Delta R.T. -0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Tgt Ion:330 Resp: 619327

Ion	Ratio	Lower	Upper
330	100		
332	97.0	77.6	116.4
141	27.5	24.7	37.1

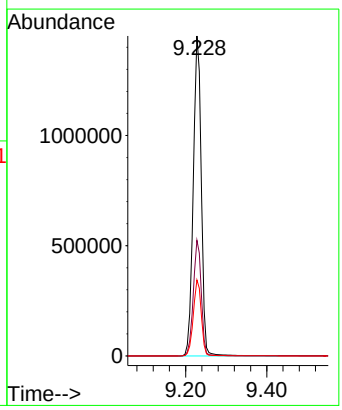


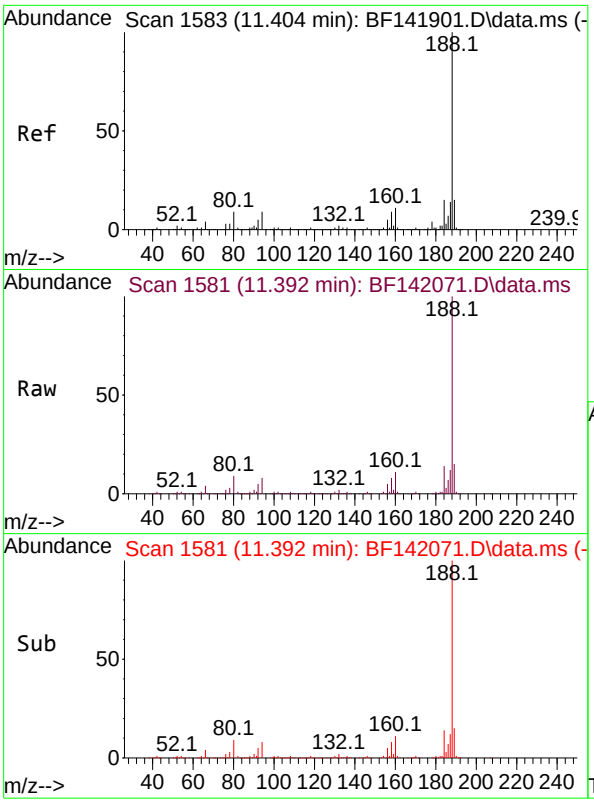


#45
2-Fluorobiphenyl
Concen: 102.427 ng
RT: 9.228 min Scan# 1213
Delta R.T. -0.012 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Tgt Ion:172 Resp: 1983734

Ion	Ratio	Lower	Upper
172	100		
171	36.1	29.3	43.9
170	23.7	19.4	29.0



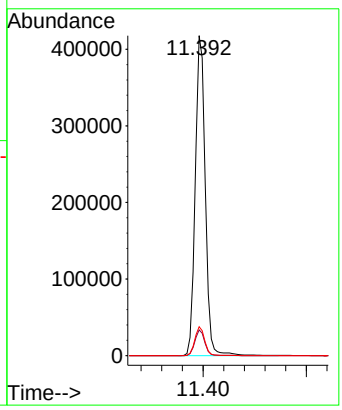


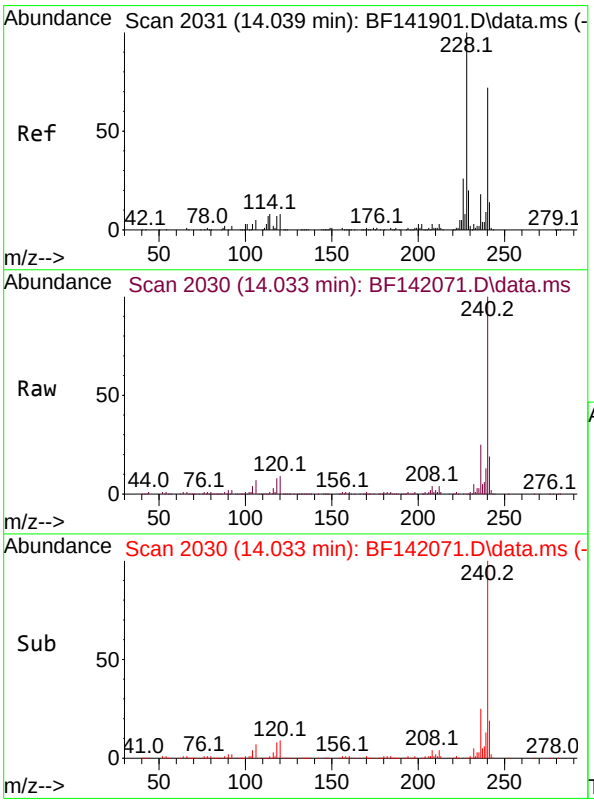
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 11.392 min Scan# 1
Delta R.T. -0.012 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Tgt Ion:188 Resp: 560108

Ion	Ratio	Lower	Upper
188	100		
94	8.0	6.8	10.2
80	9.0	7.6	11.4

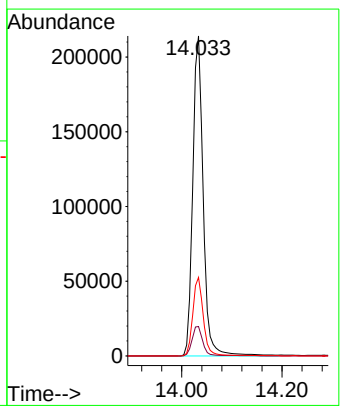


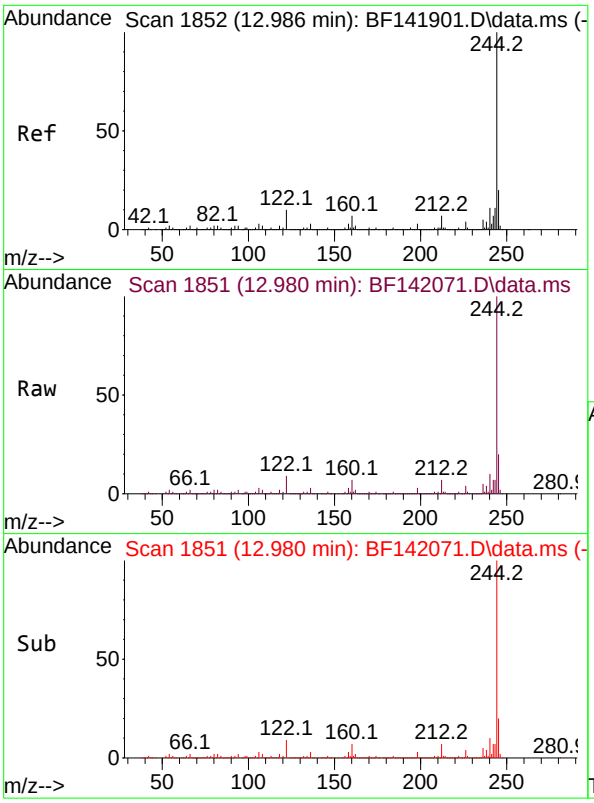


#76
Chrysene-d12
Concen: 20.000 ng
RT: 14.033 min Scan# 2030
Delta R.T. -0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Tgt Ion:240 Resp: 309509

Ion	Ratio	Lower	Upper
240	100		
120	9.2	8.4	12.6
236	24.5	20.5	30.7



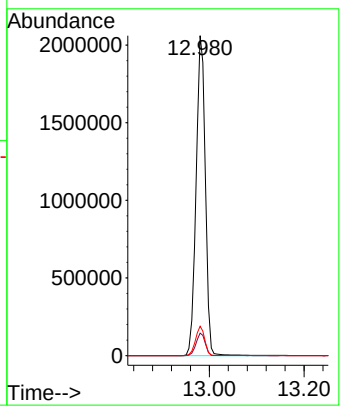


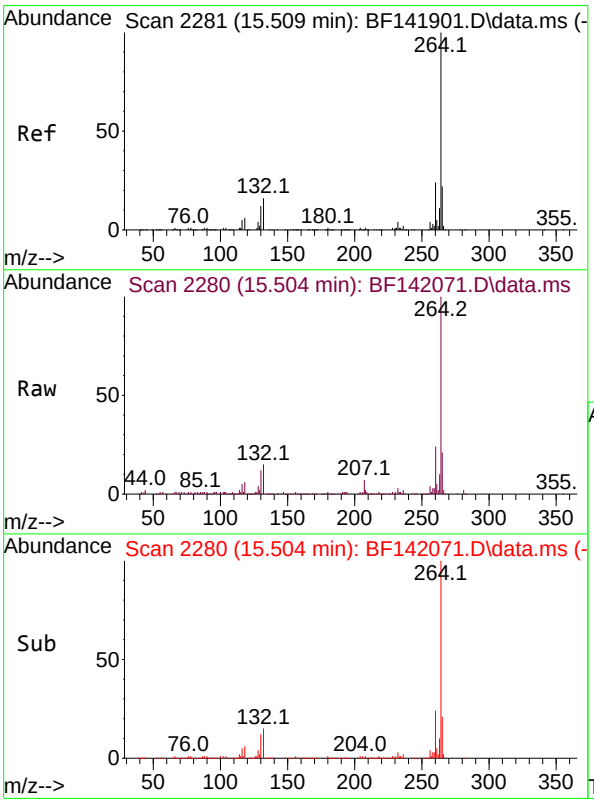
#79
Terphenyl-d14
Concen: 133.040 ng
RT: 12.980 min Scan# 18
Delta R.T. -0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Instrument :
BNA_F
ClientSampleId :
PB167261BL

Tgt Ion:244 Resp: 2785149

Ion	Ratio	Lower	Upper
244	100		
212	7.0	6.0	9.0
122	9.2	7.7	11.5

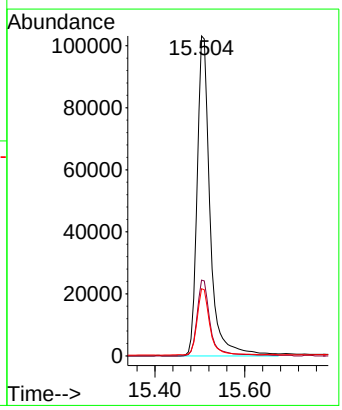




#86
Perylene-d12
Concen: 20.000 ng
RT: 15.504 min Scan# 2280
Delta R.T. -0.006 min
Lab File: BF142071.D
Acq: 25 Mar 2025 11:38

Tgt Ion:264 Resp: 207073

Ion	Ratio	Lower	Upper
264	100		
260	23.7	19.1	28.7
265	21.0	17.5	26.3



Raw Data: **BF142072.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	
Client Sample ID:	PB167261BS	SDG No.:	Q1609
Lab Sample ID:	PB167261BS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142072.D	1	03/21/25 11:50	03/25/25 12:08	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	39.4		1.30	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	45.4		0.53	5.00	ug/L
95-48-7	2-Methylphenol	45.5		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	44.4		1.10	10.0	ug/L
67-72-1	Hexachloroethane	44.7		0.65	5.00	ug/L
98-95-3	Nitrobenzene	44.5		0.76	5.00	ug/L
87-68-3	Hexachlorobutadiene	46.4		0.54	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	47.1		0.51	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	47.4		0.62	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	52.5		1.20	5.00	ug/L
118-74-1	Hexachlorobenzene	48.1		0.52	5.00	ug/L
87-86-5	Pentachlorophenol	93.5	E	1.60	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	137		15 (10) - 110 (139)	91%	SPK: 150
13127-88-3	Phenol-d6	132		15 (10) - 110 (134)	88%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.7		30 (49) - 130 (133)	95%	SPK: 100
321-60-8	2-Fluorobiphenyl	95.2		30 (52) - 130 (132)	95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	167	*	15 (44) - 110 (137)	111%	SPK: 150
1718-51-0	Terphenyl-d14	118		30 (48) - 130 (125)	118%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	138000	6.875			
1146-65-2	Naphthalene-d8	547000	8.157			
15067-26-2	Acenaphthene-d10	313000	9.91			
1517-22-2	Phenanthrene-d10	569000	11.398			
1719-03-5	Chrysene-d12	326000	14.039			
1520-96-3	Perylene-d12	287000	15.51			

Raw Data: **BF142072.D**

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

Report of Analysis

Client:	ENTACT			Date Collected:			
Project:	540 Degraw St, Brooklyn, NY - E9309			Date Received:			
Client Sample ID:	PB167261BS			SDG No.:	Q1609		
Lab Sample ID:	PB167261BS			Matrix:	TCLP		
Analytical Method:	SW8270			% Solid:	0		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000		uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA		
Extraction Type :			Decanted : N	Level :	LOW		
Injection Volume :			GPC Factor : 1.0	GPC Cleanup :	N	PH :	
Prep Method :	SW3510C						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142072.D	1	03/21/25 11:50	03/25/25 12:08	PB167261

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:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142072.D
Acq On : 25 Mar 2025 12:08
Operator : RC/JU
Sample : PB167261BS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 12:28:42 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB167261BS

Manual Integrations APPROVED

Reviewed By :Anahy Claudio 03/26/2025
Supervised By :Jagrut Upadhyay 03/26/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	137689	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	547320	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	312564	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	569268	20.000	ng		0.00
76) Chrysene-d12	14.039	240	326232	20.000	ng		0.00
86) Perylene-d12	15.510	264	287415	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.504	112	1131591	137.163	ng		0.01
7) Phenol-d6	6.504	99	1388340	132.172	ng		0.00
23) Nitrobenzene-d5	7.440	82	921211	94.720	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	662996	167.200	ng		0.00
45) 2-Fluorobiphenyl	9.234	172	1956811	95.211	ng		0.00
79) Terphenyl-d14	12.980	244	2594770	117.593	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.734	88	141683	40.987	ng		98
3) Pyridine	3.499	79	334138	39.407	ng		97
4) n-Nitrosodimethylamine	3.440	42	169402	41.911	ng		98
6) Aniline	6.534	93	344135	33.211	ng	#	89
8) 2-Chlorophenol	6.657	128	419814	45.882	ng		99
9) Benzaldehyde	6.422	77	105038	17.880	ng		99
10) Phenol	6.516	94	485277	43.914	ng		95
11) bis(2-Chloroethyl)ether	6.610	93	358763	43.236	ng		97
12) 1,3-Dichlorobenzene	6.816	146	443311	44.877	ng		99
13) 1,4-Dichlorobenzene	6.893	146	454039	45.428	ng		99
14) 1,2-Dichlorobenzene	7.045	146	432378	45.929	ng		98
15) Benzyl Alcohol	7.016	79	360247	42.422	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.145	45	391140	39.045	ng		95
17) 2-Methylphenol	7.122	107	330983	45.495	ng		99
18) Hexachloroethane	7.387	117	167487	44.688	ng		95
19) n-Nitroso-di-n-propyla...	7.287	70	272694	40.402	ng		99
20) 3+4-Methylphenols	7.275	107	414133	44.442	ng	#	86
22) Acetophenone	7.281	105	618261	47.170	ng		97
24) Nitrobenzene	7.457	77	429851	44.459	ng		99
25) Isophorone	7.693	82	759845	44.198	ng		99
26) 2-Nitrophenol	7.769	139	227689	47.982	ng		98
27) 2,4-Dimethylphenol	7.804	122	357310	54.684	ng		99
28) bis(2-Chloroethoxy)met...	7.904	93	455125	42.209	ng		99
29) 2,4-Dichlorophenol	8.010	162	362860	44.741	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	399631	44.712	ng		98
31) Naphthalene	8.181	128	1214356	43.193	ng		100
32) Benzoic acid	7.928	122	292726m	50.965	ng		
33) 4-Chloroaniline	8.222	127	164538	16.578	ng		98
34) Hexachlorobutadiene	8.292	225	270461	46.401	ng		98
35) Caprolactam	8.598	113	127037m	51.377	ng		
36) 4-Chloro-3-methylphenol	8.704	107	408510	45.154	ng		100
37) 2-Methylnaphthalene	8.869	142	789798	42.028	ng		100
38) 1-Methylnaphthalene	8.969	142	768704	42.389	ng		100
40) 1,2,4,5-Tetrachloroben...	9.034	216	480813	50.525	ng		98
41) Hexachlorocyclopentadiene	9.022	237	567120	152.276	ng		99
43) 2,4,6-Trichlorophenol	9.145	196	292875	47.091	ng		99

Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142072.D
Acq On : 25 Mar 2025 12:08
Operator : RC/JU
Sample : PB167261BS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 12:28:42 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB167261BS

Manual Integrations APPROVED

Reviewed By :Anahy Claudio 03/26/2025
Supervised By :Jagrut Upadhyay 03/26/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.187	196	298357	47.366	ng		100
46) 1,1'-Biphenyl	9.334	154	1170321	49.279	ng		99
47) 2-Chloronaphthalene	9.357	162	801831	45.298	ng		99
48) 2-Nitroaniline	9.451	65	237853	46.408	ng		99
49) Acenaphthylene	9.775	152	1259701	47.955	ng		100
50) Dimethylphthalate	9.634	163	996445	45.525	ng		100
51) 2,6-Dinitrotoluene	9.692	165	221284	48.556	ng		96
52) Acenaphthene	9.945	154	953765	51.667	ng		100
53) 3-Nitroaniline	9.863	138	125966	27.249	ng		98
54) 2,4-Dinitrophenol	9.975	184	259866	98.687	ng	#	46
55) Dibenzofuran	10.116	168	1164502	44.148	ng		100
56) 4-Nitrophenol	10.028	139	348505	99.968	ng		96
57) 2,4-Dinitrotoluene	10.098	165	312223	52.454	ng		98
58) Fluorene	10.463	166	930525	45.746	ng		99
59) 2,3,4,6-Tetrachlorophenol	10.234	232	276983	48.324	ng		98
60) Diethylphthalate	10.334	149	984327	45.101	ng		100
61) 4-Chlorophenyl-phenyle...	10.451	204	488587	46.071	ng		97
62) 4-Nitroaniline	10.481	138	207275	46.055	ng		97
63) Azobenzene	10.610	77	868963	42.825	ng		99
65) 4,6-Dinitro-2-methylph...	10.510	198	176228	51.929	ng		95
66) n-Nitrosodiphenylamine	10.569	169	823371	44.696	ng		99
67) 4-Bromophenyl-phenylether	10.939	248	322423	45.098	ng		99
68) Hexachlorobenzene	11.010	284	377441	48.136	ng		94
69) Atrazine	11.098	200	346533	61.362	ng		98
70) Pentachlorophenol	11.204	266	451559	93.467	ng		100
71) Phenanthrene	11.422	178	1415949	46.050	ng		99
72) Anthracene	11.475	178	1437957	46.614	ng		100
73) Carbazole	11.628	167	1223955	46.007	ng		100
74) Di-n-butylphthalate	11.957	149	1555053	44.052	ng		100
75) Fluoranthene	12.610	202	1476771	45.277	ng		100
77) Benzidine	12.733	184	242836	53.352	ng		99
78) Pyrene	12.839	202	1452629	51.476	ng		99
80) Butylbenzylphthalate	13.457	149	554523	50.205	ng		96
81) Benzo(a)anthracene	14.027	228	1028307	48.035	ng		99
82) 3,3'-Dichlorobenzidine	13.986	252	180449	29.168	ng		99
83) Chrysene	14.063	228	919626	47.391	ng		100
84) Bis(2-ethylhexyl)phtha...	14.010	149	739908	48.586	ng		99
85) Di-n-octyl phthalate	14.621	149	1016688	47.981	ng		98
87) Indeno(1,2,3-cd)pyrene	16.998	276	774601	41.662	ng		97
88) Benzo(b)fluoranthene	15.074	252	881604	44.756	ng		100
89) Benzo(k)fluoranthene	15.104	252	740885	43.951	ng		99
90) Benzo(a)pyrene	15.445	252	743289	48.225	ng		99
91) Dibenzo(a,h)anthracene	17.015	278	627831	40.927	ng		98
92) Benzo(g,h,i)perylene	17.445	276	571389	37.692	ng		97

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

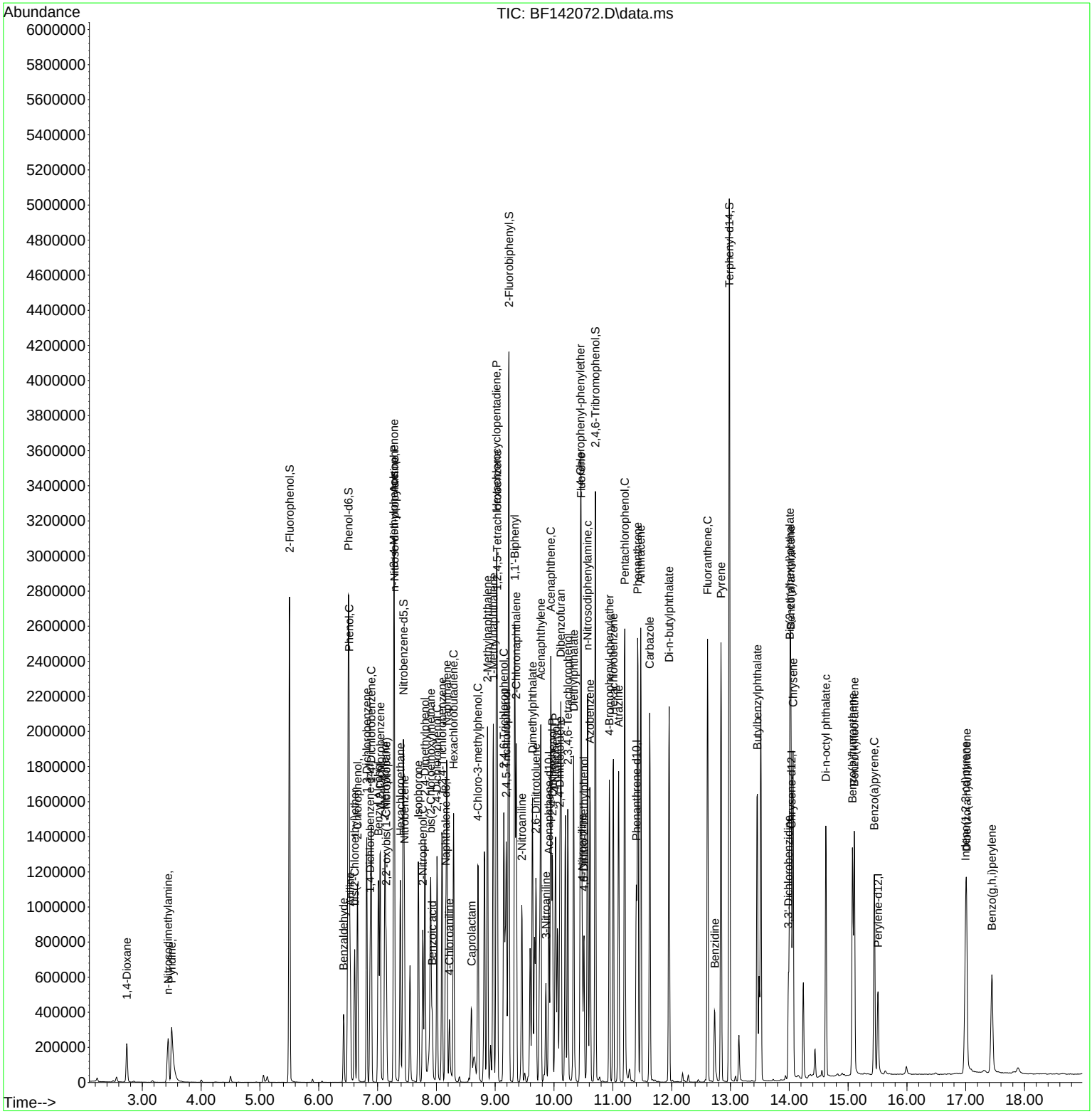
Data Path : Z:\svoasrv\HPCHEM1\BNA_F\Data\BF032525\
Data File : BF142072.D
Acq On : 25 Mar 2025 12:08
Operator : RC/JU
Sample : PB167261BS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 12:28:42 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
PB167261BS

Manual Integrations APPROVED

Reviewed By :Anahy Claudio 03/26/2025
Supervised By :Jagrut Upadhyay 03/26/2025



Raw Data: **BF142049.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	03/17/25
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	03/17/25
Client Sample ID:	OILY-DEBRIS-COMPMS	SDG No.:	Q1609
Lab Sample ID:	Q1592-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142049.D	1	03/21/25 11:50	03/24/25 12:27	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	340		12.8	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	390		5.30	50.0	ug/L
95-48-7	2-Methylphenol	410		11.2	50.0	ug/L
65794-96-9	3+4-Methylphenols	400		11.0	100	ug/L
67-72-1	Hexachloroethane	390		6.50	50.0	ug/L
98-95-3	Nitrobenzene	420		7.60	50.0	ug/L
87-68-3	Hexachlorobutadiene	430		5.40	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	450		5.10	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	450		6.20	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	450		12.2	50.0	ug/L
118-74-1	Hexachlorobenzene	510		5.20	50.0	ug/L
87-86-5	Pentachlorophenol	780		15.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	124		15 (10) - 110 (139)	83%	SPK: 150
13127-88-3	Phenol-d6	112		15 (10) - 110 (134)	75%	SPK: 150
4165-60-0	Nitrobenzene-d5	94.3		30 (49) - 130 (133)	94%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.6		30 (52) - 130 (132)	95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	139		15 (44) - 110 (137)	93%	SPK: 150
1718-51-0	Terphenyl-d14	92.5		30 (48) - 130 (125)	93%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	137000	6.875			
1146-65-2	Naphthalene-d8	526000	8.157			
15067-26-2	Acenaphthene-d10	287000	9.91			
1517-22-2	Phenanthrene-d10	439000	11.398			
1719-03-5	Chrysene-d12	264000	14.033			
1520-96-3	Perylene-d12	324000	15.509			

Raw Data: **BF142049.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	03/17/25
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	03/17/25
Client Sample ID:	OILY-DEBRIS-COMPMS	SDG No.:	Q1609
Lab Sample ID:	Q1592-02MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142049.D	1	03/21/25 11:50	03/24/25 12:27	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Sample Results: **BF142049.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142049.D
Acq On : 24 Mar 2025 12:27
Operator : RC/JU
Sample : Q1592-02MS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 24 12:54:24 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
OILY-DEBRIS-COMPMS

Manual Integrations APPROVED

Reviewed By :Anahy Claudio 03/25/2025
Supervised By :Jagrut Upadhyay 03/25/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	136574	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	525982	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	287440	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	438659	20.000	ng		0.00
76) Chrysene-d12	14.033	240	263592	20.000	ng		0.00
86) Perylene-d12	15.509	264	323612	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.510	112	1017558	124.347	ng		0.02
7) Phenol-d6	6.504	99	1170761	112.368	ng		0.00
23) Nitrobenzene-d5	7.439	82	881201	94.282	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	507890	139.279	ng		0.00
45) 2-Fluorobiphenyl	9.233	172	1788766	94.641	ng		0.00
79) Terphenyl-d14	12.980	244	1649972	92.545	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.828	88	136229	39.731	ng	#	83
3) Pyridine	3.557	79	290107	34.493	ng		97
4) n-Nitrosodimethylamine	3.475	42	151047	37.675	ng		99
6) Aniline	6.539	93	121594	11.830	ng		90
8) 2-Chlorophenol	6.663	128	382452	42.140	ng		97
9) Benzaldehyde	6.428	77	57358	9.843	ng		100
10) Phenol	6.522	94	384050	35.038	ng		100
11) bis(2-Chloroethyl)ether	6.610	93	331648	40.295	ng		99
12) 1,3-Dichlorobenzene	6.816	146	386649	39.461	ng		99
13) 1,4-Dichlorobenzene	6.892	146	390725	39.412	ng		100
14) 1,2-Dichlorobenzene	7.045	146	377595	40.437	ng		98
15) Benzyl Alcohol	7.016	79	337556	40.075	ng		99
16) 2,2'-oxybis(1-Chloropr...	7.151	45	361196	36.350	ng		97
17) 2-Methylphenol	7.128	107	296469	41.084	ng		99
18) Hexachloroethane	7.386	117	144410	38.845	ng		98
19) n-Nitroso-di-n-propyla...	7.286	70	255264	38.129	ng		100
20) 3+4-Methylphenols	7.281	107	368624	39.881	ng	#	74
22) Acetophenone	7.286	105	570519	45.294	ng		99
24) Nitrobenzene	7.457	77	390045	41.979	ng		99
25) Isophorone	7.698	82	712732	43.140	ng		99
26) 2-Nitrophenol	7.775	139	202849	44.482	ng		97
27) 2,4-Dimethylphenol	7.804	122	329146	52.417	ng		100
28) bis(2-Chloroethoxy)met...	7.904	93	424578	40.973	ng		100
29) 2,4-Dichlorophenol	8.010	162	334055	42.860	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	356590	41.515	ng		100
31) Naphthalene	8.181	128	1093003	40.453	ng		100
32) Benzoic acid	7.904	122	118128m	21.401	ng		
33) 4-Chloroaniline	8.228	127	52154	5.468	ng		98
34) Hexachlorobutadiene	8.292	225	240408	42.918	ng		99
35) Caprolactam	8.592	113	79305	33.374	ng		92
36) 4-Chloro-3-methylphenol	8.704	107	352570	40.551	ng		99
37) 2-Methylnaphthalene	8.869	142	724801	40.134	ng		100
38) 1-Methylnaphthalene	8.969	142	705595	40.488	ng		99
40) 1,2,4,5-Tetrachloroben...	9.033	216	437292	49.968	ng		99
41) Hexachlorocyclopentadiene	9.022	237	454352	132.660	ng		99
43) 2,4,6-Trichlorophenol	9.145	196	259829	45.430	ng		99

Sample Results: **BF142049.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142049.D
Acq On : 24 Mar 2025 12:27
Operator : RC/JU
Sample : Q1592-02MS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 24 12:54:24 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
OILY-DEBRIS-COMPMS

Manual Integrations APPROVED
Reviewed By :Anahy Claudio 03/25/2025
Supervised By :Jagrut Upadhyay 03/25/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	9.186	196	258813	44.680	ng		98
46) 1,1'-Biphenyl	9.333	154	1066329	48.824	ng		100
47) 2-Chloronaphthalene	9.357	162	728257	44.737	ng		98
48) 2-Nitroaniline	9.451	65	200526	42.545	ng		99
49) Acenaphthylene	9.775	152	1109203	45.917	ng		100
50) Dimethylphthalate	9.633	163	857813	42.616	ng		100
51) 2,6-Dinitrotoluene	9.692	165	184645	44.058	ng		95
52) Acenaphthene	9.945	154	781408	46.030	ng		99
53) 3-Nitroaniline	9.863	138	52824	12.426	ng		95
54) 2,4-Dinitrophenol	9.969	184	128608	56.145	ng	#	50
55) Dibenzofuran	10.116	168	1016623	41.910	ng		100
56) 4-Nitrophenol	10.022	139	224978	70.175	ng		96
57) 2,4-Dinitrotoluene	10.098	165	244543	44.675	ng		98
58) Fluorene	10.463	166	789495	42.205	ng		100
59) 2,3,4,6-Tetrachlorophenol	10.233	232	216152	41.007	ng		99
60) Diethylphthalate	10.333	149	825002	41.104	ng		100
61) 4-Chlorophenyl-phenyle...	10.451	204	423732	43.448	ng		98
62) 4-Nitroaniline	10.475	138	150187	36.288	ng		99
63) Azobenzene	10.610	77	722995	38.745	ng		98
65) 4,6-Dinitro-2-methylph...	10.504	198	105740	40.435	ng		98
66) n-Nitrosodiphenylamine	10.569	169	678120	47.771	ng		99
67) 4-Bromophenyl-phenylether	10.939	248	260035	47.201	ng		98
68) Hexachlorobenzene	11.010	284	305901	50.628	ng		95
69) Atrazine	11.098	200	239427	55.020	ng		98
70) Pentachlorophenol	11.204	266	291715	78.360	ng		99
71) Phenanthrene	11.422	178	1086309	45.849	ng		99
72) Anthracene	11.474	178	1098472	46.211	ng		100
73) Carbazole	11.627	167	835439	40.753	ng		99
74) Di-n-butylphthalate	11.957	149	1092231	40.154	ng		99
75) Fluoranthene	12.610	202	961462	38.255	ng		99
77) Benzidine	12.733	184	124760	33.924	ng	#	90
78) Pyrene	12.839	202	940832	41.263	ng		99
80) Butylbenzylphthalate	13.457	149	344095	38.557	ng		97
81) Benzo(a)anthracene	14.027	228	781519	45.182	ng		100
82) 3,3'-Dichlorobenzidine	13.986	252	41655	8.333	ng		99
83) Chrysene	14.063	228	711207	45.360	ng		100
84) Bis(2-ethylhexyl)phtha...	14.010	149	476237	38.703	ng		100
85) Di-n-octyl phthalate	14.621	149	891143	52.050	ng		98
87) Indeno(1,2,3-cd)pyrene	16.998	276	911748	43.554	ng		97
88) Benzo(b)fluoranthene	15.080	252	880648	39.706	ng		99
89) Benzo(k)fluoranthene	15.110	252	819781	43.192	ng		99
90) Benzo(a)pyrene	15.445	252	802870	46.264	ng		99
91) Dibenzo(a,h)anthracene	17.015	278	738782	42.773	ng		98
92) Benzo(g,h,i)perylene	17.451	276	677219	39.677	ng		98

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

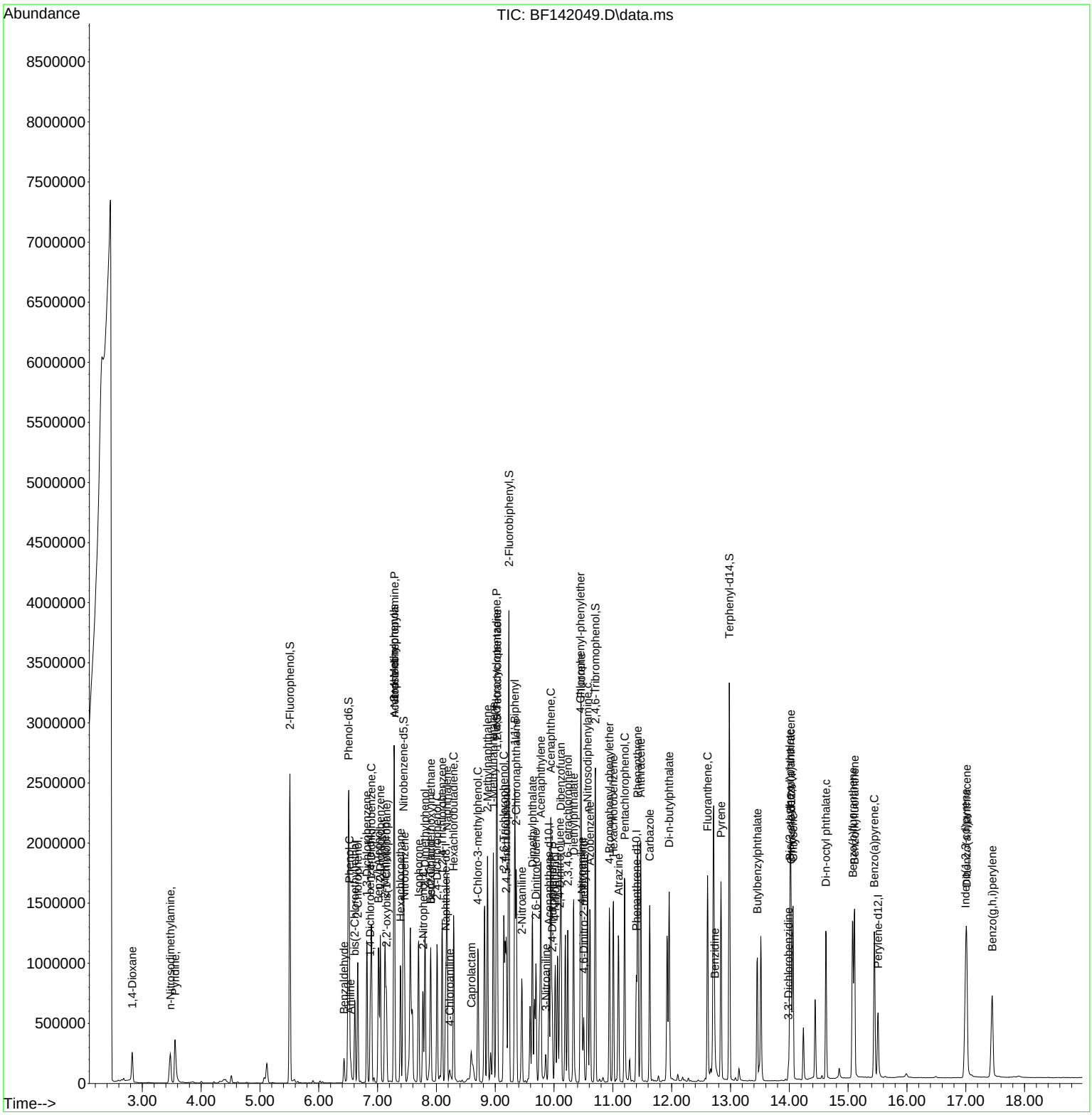
Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142049.D
Acq On : 24 Mar 2025 12:27
Operator : RC/JU
Sample : Q1592-02MS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 24 12:54:24 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
OILY-DEBRIS-COMPMS

Manual Integrations APPROVED

Reviewed By :Anahy Claudio 03/25/2025
Supervised By :Jagrut Upadhyay 03/25/2025



Raw Data: **BF142050.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	03/17/25
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	03/17/25
Client Sample ID:	OILY-DEBRIS-COMPMSD	SDG No.:	Q1609
Lab Sample ID:	Q1592-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142050.D	1	03/21/25 11:50	03/24/25 12:56	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	360		12.8	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	400		5.30	50.0	ug/L
95-48-7	2-Methylphenol	430		11.2	50.0	ug/L
65794-96-9	3+4-Methylphenols	420		11.0	100	ug/L
67-72-1	Hexachloroethane	400		6.50	50.0	ug/L
98-95-3	Nitrobenzene	430		7.60	50.0	ug/L
87-68-3	Hexachlorobutadiene	440		5.40	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	460		5.10	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	450		6.20	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	470		12.2	50.0	ug/L
118-74-1	Hexachlorobenzene	490		5.20	50.0	ug/L
87-86-5	Pentachlorophenol	800		15.8	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	129		15 (10) - 110 (139)	86%	SPK: 150
13127-88-3	Phenol-d6	115		15 (10) - 110 (134)	77%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.4		30 (49) - 130 (133)	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.0		30 (52) - 130 (132)	94%	SPK: 100
118-79-6	2,4,6-Tribromophenol	148		15 (44) - 110 (137)	99%	SPK: 150
1718-51-0	Terphenyl-d14	102		30 (48) - 130 (125)	102%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	136000	6.875			
1146-65-2	Naphthalene-d8	530000	8.157			
15067-26-2	Acenaphthene-d10	299000	9.91			
1517-22-2	Phenanthrene-d10	483000	11.398			
1719-03-5	Chrysene-d12	281000	14.033			
1520-96-3	Perylene-d12	323000	15.51			

Raw Data: **BF142050.D**

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

Report of Analysis

Client:	ENTACT	Date Collected:	03/17/25
Project:	540 Degraw St, Brooklyn, NY - E9309	Date Received:	03/17/25
Client Sample ID:	OILY-DEBRIS-COMPMSD	SDG No.:	Q1609
Lab Sample ID:	Q1592-02MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142050.D	1	03/21/25 11:50	03/24/25 12:56	PB167261

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

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

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

Sample Results: **BF142050.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142050.D
Acq On : 24 Mar 2025 12:56
Operator : RC/JU
Sample : Q1592-02MSD
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 24 13:27:44 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
OILY-DEBRIS-COMPMSD

Manual Integrations APPROVED
Reviewed By :Anahy Claudio 03/25/2025
Supervised By :Jagrut Upadhyay 03/25/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.875	152	136452	20.000	ng		0.00
21) Naphthalene-d8	8.157	136	529624	20.000	ng		0.00
39) Acenaphthene-d10	9.910	164	299190	20.000	ng		0.00
64) Phenanthrene-d10	11.398	188	483350	20.000	ng		0.00
76) Chrysene-d12	14.033	240	280820	20.000	ng		0.00
86) Perylene-d12	15.510	264	323085	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.510	112	1051905	128.660	ng		0.02
7) Phenol-d6	6.504	99	1200065	115.284	ng		0.00
23) Nitrobenzene-d5	7.439	82	907220	96.398	ng		0.00
42) 2,4,6-Tribromophenol	10.704	330	563001	148.329	ng		0.00
45) 2-Fluorobiphenyl	9.233	172	1849080	93.990	ng		0.00
79) Terphenyl-d14	12.980	244	1939948	102.134	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	2.834	88	138985	40.571	ng	#	83
3) Pyridine	3.557	79	298989	35.581	ng		98
4) n-Nitrosodimethylamine	3.475	42	155652	38.858	ng		96
6) Aniline	6.540	93	129860	12.646	ng		91
8) 2-Chlorophenol	6.663	128	387594	42.745	ng		98
9) Benzaldehyde	6.428	77	60922	10.464	ng		99
10) Phenol	6.522	94	399442	36.474	ng		99
11) bis(2-Chloroethyl)ether	6.610	93	341586	41.539	ng		99
12) 1,3-Dichlorobenzene	6.816	146	394150	40.262	ng		98
13) 1,4-Dichlorobenzene	6.892	146	400033	40.387	ng		100
14) 1,2-Dichlorobenzene	7.045	146	385425	41.313	ng		99
15) Benzyl Alcohol	7.016	79	350359	41.632	ng		98
16) 2,2'-oxybis(1-Chloropr...	7.151	45	371670	37.438	ng		97
17) 2-Methylphenol	7.128	107	308044	42.726	ng		99
18) Hexachloroethane	7.387	117	148192	39.898	ng		98
19) n-Nitroso-di-n-propyla...	7.287	70	265807	39.739	ng		100
20) 3+4-Methylphenols	7.281	107	386066	41.806	ng	#	73
22) Acetophenone	7.287	105	590844	46.585	ng		100
24) Nitrobenzene	7.457	77	401280	42.891	ng		98
25) Isophorone	7.698	82	736783	44.289	ng		98
26) 2-Nitrophenol	7.775	139	211036	45.959	ng		97
27) 2,4-Dimethylphenol	7.804	122	340113	53.791	ng		99
28) bis(2-Chloroethoxy)met...	7.904	93	443220	42.478	ng		99
29) 2,4-Dichlorophenol	8.010	162	348635	44.423	ng		99
30) 1,2,4-Trichlorobenzene	8.098	180	368426	42.598	ng		99
31) Naphthalene	8.181	128	1133594	41.667	ng		100
32) Benzoic acid	7.916	122	196823m	35.413	ng		
33) 4-Chloroaniline	8.222	127	58769	6.119	ng		98
34) Hexachlorobutadiene	8.292	225	245953	43.606	ng		98
35) Caprolactam	8.592	113	90198	37.697	ng		92
36) 4-Chloro-3-methylphenol	8.704	107	368024	42.038	ng		99
37) 2-Methylnaphthalene	8.869	142	752873	41.401	ng		100
38) 1-Methylnaphthalene	8.969	142	736822	41.989	ng		99
40) 1,2,4,5-Tetrachloroben...	9.033	216	454182	49.860	ng		98
41) Hexachlorocyclopentadiene	9.022	237	456084	127.936	ng		99
43) 2,4,6-Trichlorophenol	9.145	196	272953	45.850	ng		100

Sample Results: **BF142050.D**

Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142050.D
Acq On : 24 Mar 2025 12:56
Operator : RC/JU
Sample : Q1592-02MSD
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 24 13:27:44 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
OILY-DEBRIS-COMPMSD

Manual Integrations APPROVED
Reviewed By :Anahy Claudio 03/25/2025
Supervised By :Jagrut Upadhyay 03/25/2025

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	2,4,5-Trichlorophenol	9.186	196	269379	44.678	ng		99
46)	1,1'-Biphenyl	9.333	154	1110047	48.830	ng		99
47)	2-Chloronaphthalene	9.357	162	760194	44.865	ng		99
48)	2-Nitroaniline	9.451	65	215308	43.887	ng		99
49)	Acenaphthylene	9.775	152	1163044	46.255	ng		99
50)	Dimethylphthalate	9.633	163	922137	44.013	ng		100
51)	2,6-Dinitrotoluene	9.692	165	200597	45.984	ng		96
52)	Acenaphthene	9.945	154	813557	46.041	ng		100
53)	3-Nitroaniline	9.863	138	54456	12.306	ng		94
54)	2,4-Dinitrophenol	9.969	184	137779	57.594	ng	#	48
55)	Dibenzofuran	10.116	168	1078560	42.718	ng		99
56)	4-Nitrophenol	10.022	139	253637	76.007	ng		97
57)	2,4-Dinitrotoluene	10.098	165	270058	47.398	ng		99
58)	Fluorene	10.463	166	854786	43.901	ng		99
59)	2,3,4,6-Tetrachlorophenol	10.233	232	239213	43.600	ng		97
60)	Diethylphthalate	10.333	149	888860	42.547	ng		100
61)	4-Chlorophenyl-phenyle...	10.451	204	448629	44.195	ng		98
62)	4-Nitroaniline	10.475	138	172345	40.006	ng		98
63)	Azobenzene	10.610	77	782943	40.310	ng		98
65)	4,6-Dinitro-2-methylph...	10.504	198	116086	40.287	ng		98
66)	n-Nitrosodiphenylamine	10.569	169	734278	46.944	ng		100
67)	4-Bromophenyl-phenylether	10.939	248	287118	47.299	ng		99
68)	Hexachlorobenzene	11.010	284	328431	49.331	ng		95
69)	Atrazine	11.098	200	269834	56.274	ng		98
70)	Pentachlorophenol	11.204	266	327259	79.780	ng		100
71)	Phenanthrene	11.422	178	1206054	46.196	ng		99
72)	Anthracene	11.475	178	1203257	45.939	ng		100
73)	Carbazole	11.627	167	950796	42.092	ng		100
74)	Di-n-butylphthalate	11.957	149	1261275	42.081	ng		99
75)	Fluoranthene	12.610	202	1121539	40.498	ng		99
77)	Benzidine	12.727	184	145586	37.159	ng	#	90
78)	Pyrene	12.839	202	1095162	45.085	ng		99
80)	Butylbenzylphthalate	13.457	149	395545	41.603	ng		97
81)	Benzo(a)anthracene	14.027	228	874296	47.445	ng		99
82)	3,3'-Dichlorobenzidine	13.986	252	43042	8.083	ng		99
83)	Chrysene	14.063	228	779432	46.662	ng		100
84)	Bis(2-ethylhexyl)phtha...	14.010	149	522392	39.850	ng		100
85)	Di-n-octyl phthalate	14.621	149	903717	49.546	ng		98
87)	Indeno(1,2,3-cd)pyrene	16.998	276	936139	44.792	ng		98
88)	Benzo(b)fluoranthene	15.074	252	924617	41.757	ng		100
89)	Benzo(k)fluoranthene	15.110	252	828896	43.743	ng		99
90)	Benzo(a)pyrene	15.445	252	821941	47.440	ng		99
91)	Dibenzo(a,h)anthracene	17.015	278	750990	43.551	ng		99
92)	Benzo(g,h,i)perylene	17.451	276	691669	40.590	ng		97

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

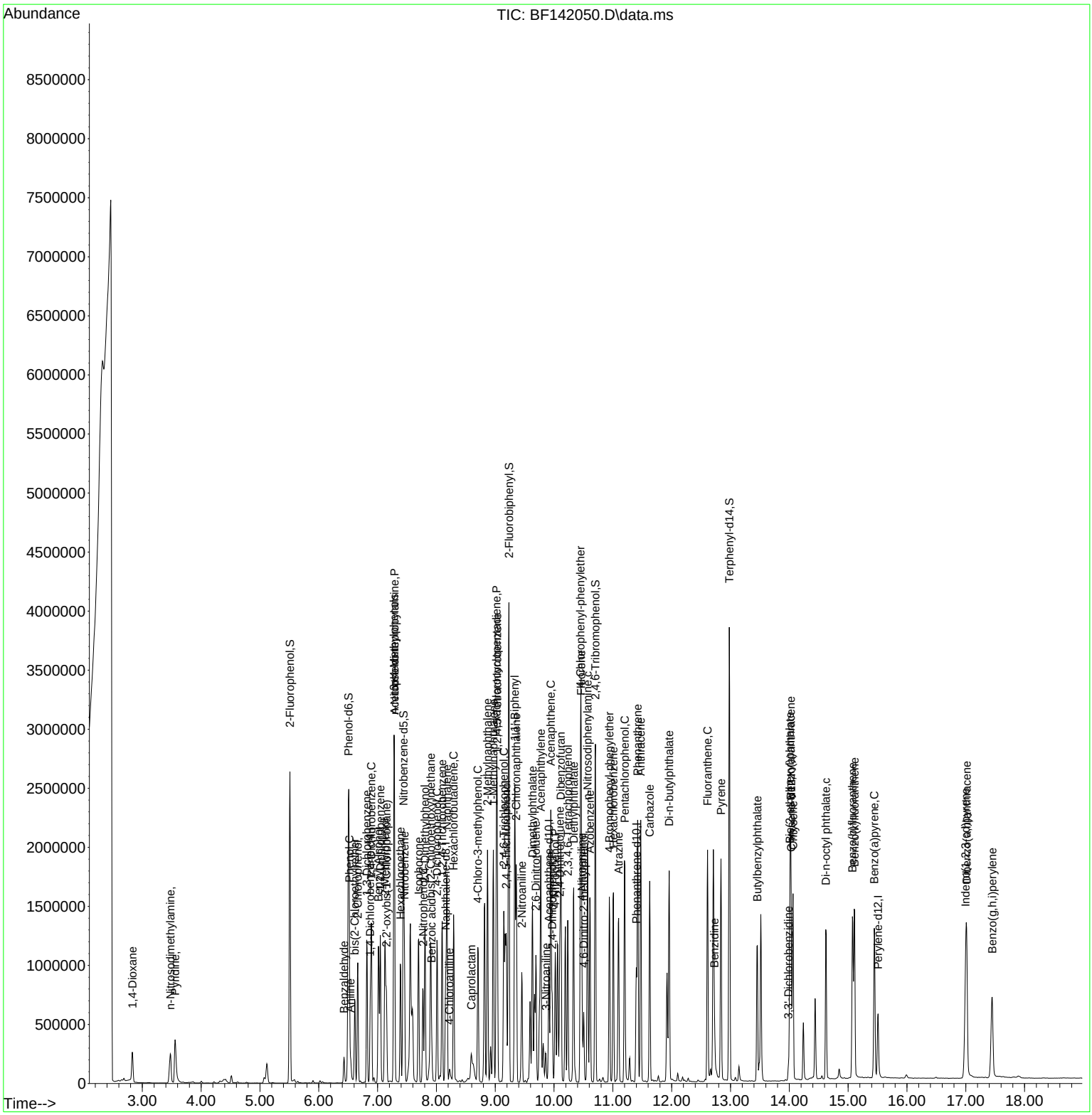
Data Path : T:\svoasrv\HPCHEM1\BNA_F\Data\BF032425\
Data File : BF142050.D
Acq On : 24 Mar 2025 12:56
Operator : RC/JU
Sample : Q1592-02MSD
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 24 13:27:44 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_F\Methods\8270-BF031025.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Mon Mar 10 15:46:22 2025
Response via : Initial Calibration

Instrument :
BNA_F
ClientSampleId :
OILY-DEBRIS-COMPMSD

Manual Integrations APPROVED

Reviewed By :Anahy Claudio 03/25/2025
Supervised By :Jagrut Upadhyay 03/25/2025



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

Manual Integration Report

Sequence:	BF031025	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDICC080	BF141904.D	Caprolactam	anahy	3/11/2025 9:10:54 AM	Jagrut	3/11/2025 10:18:21 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	BF032425	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
Q1592-02MS	BF142049.D	Benzoic acid	anahy	3/25/2025 9:17:35 AM	Jagrut	3/25/2025 9:38:23 AM	Peak Integrated by Software
Q1592-02MSD	BF142050.D	Benzoic acid	anahy	3/25/2025 9:19:07 AM	Jagrut	3/25/2025 9:38:25 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	BF032525	Instrument	BNA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PB167261BS	BF142072.D	Benzoic acid	anahy	3/26/2025 9:03:59 AM	Jagrut	3/26/2025 4:50:26 PM	Peak Integrated by Software
PB167261BS	BF142072.D	Caprolactam	anahy	3/26/2025 9:03:59 AM	Jagrut	3/26/2025 4:50:26 PM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	bf033125	Instrument	BNA_f

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

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF031025

Review By	anahy	Review On	3/11/2025 9:11:47 AM				
Supervise By	Jagrut	Supervise On	3/11/2025 10:18:40 AM				
SubDirectory	BF031025	HP Acquire Method	BNA_F		HP Processing Method	bf031025	

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12653,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF141896.D	10 Mar 2025 10:31	RC/JU	Ok
2	SSTDICC2.5	BF141897.D	10 Mar 2025 11:01	RC/JU	Ok
3	SSTDICC005	BF141898.D	10 Mar 2025 11:30	RC/JU	Ok
4	SSTDICC010	BF141899.D	10 Mar 2025 12:00	RC/JU	Ok
5	SSTDICC020	BF141900.D	10 Mar 2025 12:29	RC/JU	Ok
6	SSTDICCC040	BF141901.D	10 Mar 2025 12:58	RC/JU	Ok
7	SSTDICC050	BF141902.D	10 Mar 2025 13:28	RC/JU	Not Ok
8	SSTDICC060	BF141903.D	10 Mar 2025 13:57	RC/JU	Ok
9	SSTDICC080	BF141904.D	10 Mar 2025 14:27	RC/JU	Ok,M
10	SSTDICC050	BF141905.D	10 Mar 2025 15:20	RC/JU	Ok
11	SSTDICV040	BF141906.D	10 Mar 2025 15:53	RC/JU	Ok
12	PB167012BL	BF141907.D	10 Mar 2025 17:09	RC/JU	Ok
13	SP6752	BF141908.D	10 Mar 2025 17:39	RC/JU	Ok,M

M : Manual Integration

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032425

Review By	anahy	Review On	3/25/2025 9:38:18 AM				
Supervise By	Jagrut	Supervise On	3/25/2025 9:39:38 AM				
SubDirectory	BF032425	HP Acquire Method	BNA_F		HP Processing Method	bf031025	

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12655,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF142044.D	24 Mar 2025 09:43	RC/JU	Ok
2	SSTDCCC040	BF142045.D	24 Mar 2025 10:17	RC/JU	Ok
3	PB167228BL	BF142046.D	24 Mar 2025 10:47	RC/JU	Ok
4	Q1597-02	BF142047.D	24 Mar 2025 11:27	RC/JU	Ok
5	Q1597-04	BF142048.D	24 Mar 2025 11:56	RC/JU	Ok
6	Q1592-02MS	BF142049.D	24 Mar 2025 12:27	RC/JU	Ok,M
7	Q1592-02MSD	BF142050.D	24 Mar 2025 12:56	RC/JU	Ok,M
8	Q1619-13DL	BF142051.D	24 Mar 2025 13:26	RC/JU	Dilution
9	Q1618-01	BF142052.D	24 Mar 2025 13:55	RC/JU	Ok
10	Q1618-02	BF142053.D	24 Mar 2025 14:25	RC/JU	Ok
11	Q1619-13DL2	BF142054.D	24 Mar 2025 14:55	RC/JU	Ok,M
12	Q1606-11	BF142055.D	24 Mar 2025 15:25	RC/JU	ReRun
13	Q1606-02	BF142056.D	24 Mar 2025 15:55	RC/JU	Ok
14	Q1606-04	BF142057.D	24 Mar 2025 16:24	RC/JU	Ok
15	Q1606-06	BF142058.D	24 Mar 2025 16:54	RC/JU	Ok
16	Q1606-08	BF142059.D	24 Mar 2025 17:24	RC/JU	Ok
17	Q1606-10	BF142060.D	24 Mar 2025 17:54	RC/JU	Ok
18	Q1610-03	BF142061.D	24 Mar 2025 18:23	RC/JU	Ok
19	Q1619-12	BF142062.D	24 Mar 2025 18:53	RC/JU	Ok
20	Q1624-01	BF142063.D	24 Mar 2025 19:23	RC/JU	Ok,M
21	Q1626-01	BF142064.D	24 Mar 2025 19:53	RC/JU	Ok,M

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032425

Review By	anahy	Review On	3/25/2025 9:38:18 AM				
Supervise By	Jagrut	Supervise On	3/25/2025 9:39:38 AM				
SubDirectory	BF032425	HP Acquire Method	BNA_F		HP Processing Method	bf031025	

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12655,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q1626-01MS	BF142065.D	24 Mar 2025 20:22	RC/JU	Ok
23	Q1626-01MSD	BF142066.D	24 Mar 2025 20:51	RC/JU	Ok

M : Manual Integration

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032525

Review By	anahy	Review On	3/26/2025 9:09:40 AM				
Supervise By	Jagrut	Supervise On	3/26/2025 4:50:57 PM				
SubDirectory	BF032525	HP Acquire Method	BNA_F		HP Processing Method	bf031025	

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF142067.D	25 Mar 2025 09:39	RC/JU	Ok
2	SSTDCCC040	BF142068.D	25 Mar 2025 10:09	RC/JU	Ok
3	PB167274BL	BF142069.D	25 Mar 2025 10:39	RC/JU	Ok
4	PB167274BS	BF142070.D	25 Mar 2025 11:09	RC/JU	Ok,M
5	PB167261BL	BF142071.D	25 Mar 2025 11:38	RC/JU	Ok
6	PB167261BS	BF142072.D	25 Mar 2025 12:08	RC/JU	Ok,M
7	PB167193TB	BF142073.D	25 Mar 2025 12:38	RC/JU	Ok
8	PB167230BL	BF142074.D	25 Mar 2025 13:07	RC/JU	Ok
9	PB167230BS	BF142075.D	25 Mar 2025 13:37	RC/JU	Ok,M
10	PB167230BSD	BF142076.D	25 Mar 2025 14:07	RC/JU	Ok,M
11	PB167254BL	BF142077.D	25 Mar 2025 14:37	RC/JU	Ok
12	PB167254BS	BF142078.D	25 Mar 2025 15:07	RC/JU	Ok,M
13	Q1619-06	BF142079.D	25 Mar 2025 15:41	RC/JU	Ok
14	Q1619-08	BF142080.D	25 Mar 2025 16:11	RC/JU	Ok
15	Q1619-10	BF142081.D	25 Mar 2025 16:41	RC/JU	Ok
16	Q1619-14	BF142082.D	25 Mar 2025 17:10	RC/JU	Ok
17	Q1609-03	BF142083.D	25 Mar 2025 17:39	RC/JU	Ok
18	Q1626-03	BF142084.D	25 Mar 2025 18:09	RC/JU	Ok
19	Q1627-01	BF142085.D	25 Mar 2025 18:38	RC/JU	Ok
20	Q1627-01MS	BF142086.D	25 Mar 2025 19:08	RC/JU	Ok,M
21	Q1627-01MSD	BF142087.D	25 Mar 2025 19:37	RC/JU	Ok,M

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032525

Review By	anahy	Review On	3/26/2025 9:09:40 AM		
Supervise By	Jagrut	Supervise On	3/26/2025 4:50:57 PM		
SubDirectory	BF032525	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q1630-02	BF142088.D	25 Mar 2025 20:07	RC/JU	Ok
23	Q1632-02	BF142089.D	25 Mar 2025 20:36	RC/JU	Ok,M
24	Q1636-04	BF142090.D	25 Mar 2025 21:06	RC/JU	Ok,M

M : Manual Integration

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF033125

Review By		Review On			
Supervise By		Supervise On			
SubDirectory	BF033125	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BF142174.D	31 Mar 2025 11:53	RC/JU	Ok
2	SSTDCCC040	BF142175.D	31 Mar 2025 12:22	RC/JU	Ok,NR
3	PB167369BL	BF142176.D	31 Mar 2025 12:52	RC/JU	Ok
4	PB167369BS	BF142177.D	31 Mar 2025 13:22	RC/JU	Ok,NR
5	PB167233TB	BF142178.D	31 Mar 2025 13:51	RC/JU	Ok,NR
6	Q1657-01DL	BF142179.D	31 Mar 2025 14:29	RC/JU	Ok,NR
7	Q1650-01DL	BF142180.D	31 Mar 2025 14:59	RC/JU	Not Ok
8	Q1654-01DL	BF142181.D	31 Mar 2025 15:28	RC/JU	Not Ok
9	Q1664-09	BF142182.D	31 Mar 2025 15:58	RC/JU	ReRun
10	Q1654-01DL2	BF142183.D	31 Mar 2025 16:28	RC/JU	Not Ok
11	Q1664-11	BF142184.D	31 Mar 2025 16:58	RC/JU	Ok,NR
12	Q1664-13	BF142185.D	31 Mar 2025 17:27	RC/JU	Ok,NR
13	Q1664-17	BF142186.D	31 Mar 2025 17:57	RC/JU	ReRun
14	Q1664-21	BF142187.D	31 Mar 2025 18:27	RC/JU	Ok,NR
15	Q1664-01	BF142188.D	31 Mar 2025 18:57	RC/JU	Ok,NR
16	Q1664-15	BF142189.D	31 Mar 2025 19:26	RC/JU	ReRun
17	Q1664-19	BF142190.D	31 Mar 2025 19:56	RC/JU	Ok,NR
18	Q1664-07	BF142191.D	31 Mar 2025 20:26	RC/JU	ReRun
19	Q1664-02MS	BF142192.D	31 Mar 2025 20:55	RC/JU	Not Ok
20	Q1664-03MSD	BF142193.D	31 Mar 2025 21:26	RC/JU	Not Ok
21	Q1671-01	BF142194.D	31 Mar 2025 21:55	RC/JU	ReRun

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF033125

Review By		Review On			
Supervise By		Supervise On			
SubDirectory	BF033125	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q1674-01	BF142195.D	31 Mar 2025 22:25	RC/JU	ReRun
23	Q1671-04	BF142196.D	31 Mar 2025 22:55	RC/JU	ReRun
24	Q1674-03	BF142197.D	31 Mar 2025 23:25	RC/JU	ReRun

M : Manual Integration

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF031025

Review By	anahy	Review On	3/11/2025 9:11:47 AM		
Supervise By	Jagrut	Supervise On	3/11/2025 10:18:40 AM		
SubDirectory	BF031025	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12653,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF141896.D	10 Mar 2025 10:31		RC/JU	Ok
2	SSTDICC2.5	SSTDICC2.5	BF141897.D	10 Mar 2025 11:01		RC/JU	Ok
3	SSTDICC005	SSTDICC005	BF141898.D	10 Mar 2025 11:30	Compound#9,32,54,65 removed from 5 ppm	RC/JU	Ok
4	SSTDICC010	SSTDICC010	BF141899.D	10 Mar 2025 12:00		RC/JU	Ok
5	SSTDICC020	SSTDICC020	BF141900.D	10 Mar 2025 12:29	Compound #54 Kept on LR, Method is good for DOD . Method failed for compound #77.	RC/JU	Ok
6	SSTDICCC040	SSTDICCC040	BF141901.D	10 Mar 2025 12:58		RC/JU	Ok
7	SSTDICC050	SSTDICC050	BF141902.D	10 Mar 2025 13:28	Not used	RC/JU	Not Ok
8	SSTDICC060	SSTDICC060	BF141903.D	10 Mar 2025 13:57	Compound#69 Removed from 60 ppm	RC/JU	Ok
9	SSTDICC080	SSTDICC080	BF141904.D	10 Mar 2025 14:27	Compound#9,69 Removed from 80 ppm	RC/JU	Ok,M
10	SSTDICC050	SSTDICC050	BF141905.D	10 Mar 2025 15:20		RC/JU	Ok
11	SSTDICV040	ICVBF031025	BF141906.D	10 Mar 2025 15:53		RC/JU	Ok
12	PB167012BL	PB167012BL	BF141907.D	10 Mar 2025 17:09		RC/JU	Ok
13	SP6752	SP6752	BF141908.D	10 Mar 2025 17:39	8270 SPIKE-SP6752	RC/JU	Ok,M

M : Manual Integration

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032425

Review By	anahy	Review On	3/25/2025 9:38:18 AM		
Supervise By	Jagrut	Supervise On	3/25/2025 9:39:38 AM		
SubDirectory	BF032425	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12655,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF142044.D	24 Mar 2025 09:43		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BF142045.D	24 Mar 2025 10:17		RC/JU	Ok
3	PB167228BL	PB167228BL	BF142046.D	24 Mar 2025 10:47		RC/JU	Ok
4	Q1597-02	1-CONCRETE-SLAB	BF142047.D	24 Mar 2025 11:27		RC/JU	Ok
5	Q1597-04	2-CONCRETE-SLAB	BF142048.D	24 Mar 2025 11:56		RC/JU	Ok
6	Q1592-02MS	OILY-DEBRIS-COMPM	BF142049.D	24 Mar 2025 12:27		RC/JU	Ok,M
7	Q1592-02MSD	OILY-DEBRIS-COMPM	BF142050.D	24 Mar 2025 12:56		RC/JU	Ok,M
8	Q1619-13DL	TP-5DL	BF142051.D	24 Mar 2025 13:26	Need 2X Further Dilution	RC/JU	Dilution
9	Q1618-01	TP20250320-01	BF142052.D	24 Mar 2025 13:55		RC/JU	Ok
10	Q1618-02	TP20250320-02	BF142053.D	24 Mar 2025 14:25		RC/JU	Ok
11	Q1619-13DL2	TP-5DL2	BF142054.D	24 Mar 2025 14:55		RC/JU	Ok,M
12	Q1606-11	N48965	BF142055.D	24 Mar 2025 15:25	Internal Standard Fail	RC/JU	ReRun
13	Q1606-02	CHRT24743	BF142056.D	24 Mar 2025 15:55		RC/JU	Ok
14	Q1606-04	RBR251346	BF142057.D	24 Mar 2025 16:24		RC/JU	Ok
15	Q1606-06	RT4534	BF142058.D	24 Mar 2025 16:54		RC/JU	Ok
16	Q1606-08	RT3025	BF142059.D	24 Mar 2025 17:24		RC/JU	Ok
17	Q1606-10	CHRT28607	BF142060.D	24 Mar 2025 17:54		RC/JU	Ok
18	Q1610-03	SOIL-PILE	BF142061.D	24 Mar 2025 18:23		RC/JU	Ok

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032425

Review By	anahy	Review On	3/25/2025 9:38:18 AM		
Supervise By	Jagrut	Supervise On	3/25/2025 9:39:38 AM		
SubDirectory	BF032425	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12655,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q1619-12	TP-4	BF142062.D	24 Mar 2025 18:53		RC/JU	Ok
20	Q1624-01	OK-01-03212025	BF142063.D	24 Mar 2025 19:23		RC/JU	Ok,M
21	Q1626-01	CO-32-1	BF142064.D	24 Mar 2025 19:53		RC/JU	Ok,M
22	Q1626-01MS	CO-32-1MS	BF142065.D	24 Mar 2025 20:22		RC/JU	Ok
23	Q1626-01MSD	CO-32-1MSD	BF142066.D	24 Mar 2025 20:51	Internal standard fail.	RC/JU	Ok

M : Manual Integration

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032525

Review By	anahy	Review On	3/26/2025 9:09:40 AM		
Supervise By	Jagrut	Supervise On	3/26/2025 4:50:57 PM		
SubDirectory	BF032525	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF142067.D	25 Mar 2025 09:39		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BF142068.D	25 Mar 2025 10:09		RC/JU	Ok
3	PB167274BL	PB167274BL	BF142069.D	25 Mar 2025 10:39		RC/JU	Ok
4	PB167274BS	PB167274BS	BF142070.D	25 Mar 2025 11:09		RC/JU	Ok,M
5	PB167261BL	PB167261BL	BF142071.D	25 Mar 2025 11:38		RC/JU	Ok
6	PB167261BS	PB167261BS	BF142072.D	25 Mar 2025 12:08		RC/JU	Ok,M
7	PB167193TB	PB167193TB	BF142073.D	25 Mar 2025 12:38		RC/JU	Ok
8	PB167230BL	PB167230BL	BF142074.D	25 Mar 2025 13:07		RC/JU	Ok
9	PB167230BS	PB167230BS	BF142075.D	25 Mar 2025 13:37		RC/JU	Ok,M
10	PB167230BSD	PB167230BSD	BF142076.D	25 Mar 2025 14:07		RC/JU	Ok,M
11	PB167254BL	PB167254BL	BF142077.D	25 Mar 2025 14:37		RC/JU	Ok
12	PB167254BS	PB167254BS	BF142078.D	25 Mar 2025 15:07		RC/JU	Ok,M
13	Q1619-06	TP-1	BF142079.D	25 Mar 2025 15:41		RC/JU	Ok
14	Q1619-08	TP-2	BF142080.D	25 Mar 2025 16:11		RC/JU	Ok
15	Q1619-10	TP-3	BF142081.D	25 Mar 2025 16:41		RC/JU	Ok
16	Q1619-14	TP-5	BF142082.D	25 Mar 2025 17:10		RC/JU	Ok
17	Q1609-03	WC-SCRN-01-C	BF142083.D	25 Mar 2025 17:39		RC/JU	Ok
18	Q1626-03	CO-32-1	BF142084.D	25 Mar 2025 18:09		RC/JU	Ok

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF032525

Review By	anahy	Review On	3/26/2025 9:09:40 AM		
Supervise By	Jagrut	Supervise On	3/26/2025 4:50:57 PM		
SubDirectory	BF032525	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6717
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q1627-01	GRID-LINE-1.2-NORTH	BF142085.D	25 Mar 2025 18:38		RC/JU	Ok
20	Q1627-01MS	GRID-LINE-1.2-NORTH	BF142086.D	25 Mar 2025 19:08		RC/JU	Ok,M
21	Q1627-01MSD	GRID-LINE-1.2-NORTH	BF142087.D	25 Mar 2025 19:37		RC/JU	Ok,M
22	Q1630-02	VNJ-206	BF142088.D	25 Mar 2025 20:07		RC/JU	Ok
23	Q1632-02	PIER-1-2	BF142089.D	25 Mar 2025 20:36		RC/JU	Ok,M
24	Q1636-04	WC-1	BF142090.D	25 Mar 2025 21:06		RC/JU	Ok,M

M : Manual Integration

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF033125

Review By		Review On			
Supervise By		Supervise On			
SubDirectory	BF033125	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BF142174.D	31 Mar 2025 11:53		RC/JU	Ok
2	SSTDCCC040	SSTDCCC040	BF142175.D	31 Mar 2025 12:22	CCC fail high side for com. #9	RC/JU	Ok,NR
3	PB167369BL	PB167369BL	BF142176.D	31 Mar 2025 12:52		RC/JU	Ok
4	PB167369BS	PB167369BS	BF142177.D	31 Mar 2025 13:22		RC/JU	Ok,NR
5	PB167233TB	PB167233TB	BF142178.D	31 Mar 2025 13:51		RC/JU	Ok,NR
6	Q1657-01DL	72-11998DL	BF142179.D	31 Mar 2025 14:29		RC/JU	Ok,NR
7	Q1650-01DL	STOCK-PILE-BIN2DL	BF142180.D	31 Mar 2025 14:59	Internal Standard Fail	RC/JU	Not Ok
8	Q1654-01DL	RT3407DL	BF142181.D	31 Mar 2025 15:28	Internal Standard Fail, Need 10X further Dilution	RC/JU	Not Ok
9	Q1664-09	P001-BBDGA-002-01	BF142182.D	31 Mar 2025 15:58	Internal Standard Fail	RC/JU	ReRun
10	Q1654-01DL2	RT3407DL2	BF142183.D	31 Mar 2025 16:28	Internal Standard Fail	RC/JU	Not Ok
11	Q1664-11	P001-BBDGA-003-01	BF142184.D	31 Mar 2025 16:58		RC/JU	Ok,NR
12	Q1664-13	P001-BBDGA-004-01	BF142185.D	31 Mar 2025 17:27		RC/JU	Ok,NR
13	Q1664-17	P001-BBDGA-006-01	BF142186.D	31 Mar 2025 17:57	Internal Standard Fail	RC/JU	ReRun
14	Q1664-21	P001-BBDGA-008-01	BF142187.D	31 Mar 2025 18:27		RC/JU	Ok,NR
15	Q1664-01	P001-BBDGA-001-01	BF142188.D	31 Mar 2025 18:57		RC/JU	Ok,NR
16	Q1664-15	P001-BBDGA-005-01	BF142189.D	31 Mar 2025 19:26	Internal Standard Fail	RC/JU	ReRun
17	Q1664-19	P001-BBDGA-007-01	BF142190.D	31 Mar 2025 19:56		RC/JU	Ok,NR

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

Instrument ID: BNA_F

Daily Analysis Runlog For Sequence/QCBatch ID # BF033125

Review By		Review On			
Supervise By		Supervise On			
SubDirectory	BF033125	HP Acquire Method	BNA_F	HP Processing Method	bf031025

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729
CCC	SP6725
Internal Standard/PEM	S12656,10ul/1000ul sample
ICV/I.BLK	SP6686
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

18	Q1664-07	P001-BBDGA-001-02	BF142191.D	31 Mar 2025 20:26	Internal Standard Fail	RC/JU	ReRun
19	Q1664-02MS	P001-BBDGA-001-01M	BF142192.D	31 Mar 2025 20:55	Internal Standard Fail	RC/JU	Not Ok
20	Q1664-03MSD	P001-BBDGA-001-01M	BF142193.D	31 Mar 2025 21:26	Internal Standard Fail	RC/JU	Not Ok
21	Q1671-01	WC-1	BF142194.D	31 Mar 2025 21:55	Internal Standard Fail	RC/JU	ReRun
22	Q1674-01	RT5358	BF142195.D	31 Mar 2025 22:25	Internal Standard Fail	RC/JU	ReRun
23	Q1671-04	WC-1	BF142196.D	31 Mar 2025 22:55	Internal Standard Fail	RC/JU	ReRun
24	Q1674-03	72-11991	BF142197.D	31 Mar 2025 23:25	Internal Standard Fail	RC/JU	ReRun

M : Manual Integration

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167233

SOP ID : M1311-TCLP-15

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-1 / T-2

TCLP Filter ID : 115525

Start Prep Date : 03/20/2025 **Time :** 16:35

End Prep Date : 03/21/2025 **Time :** 10:30

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ JP

Initial Room Temperature: 23 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : JP

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP110801
HCL-TCLP,1N	N/A	WP110803
HNO3-TCLP,1N	N/A	WP110804
pH Strips	W3172.	W1931,W1934,W3171,W3172
pH Strips	W1941,W1942	W3166,W1938,W1939,W1940,
1 Liter Amber	N/A	90424-08
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. TUMBLER T-1 /T-2 checked,30 rpm. Particle size reduction in not required. q1619-14 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/21/25 11:40	JP / TCLP Room	5129 / Ext Met Dly
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167233

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB167233TB	LEB233	16	N/A	2000	N/A	N/A	N/A	4.94	1.0	T-2
Q1605-02	DRUM-SOIL-CUTTING	01	100.02	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q1606-02	CHRT24743	02	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q1606-04	RBR251346	03	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1606-06	RT4534	04	100.01	2000	N/A	N/A	N/A	6.0	1.5	T-1
Q1606-08	RT3025	05	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1606-10	CHRT28607	06	100.03	2000	N/A	N/A	N/A	6.0	1.5	T-1
Q1609-03	WC-SCRN-01-C	07	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1610-03	SOIL-PILE	08	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-1
Q1619-02	CONCRETE-1	09	100.02	2000	N/A	N/A	N/A	9.1	1.0	T-1
Q1619-04	CONCRETE-2	10	100.03	2000	N/A	N/A	N/A	7.6	1.5	T-1
Q1619-06	TP-1	11	100.02	2000	N/A	N/A	N/A	7.2	1.0	T-2
Q1619-08	TP-2	12	100.03	2000	N/A	N/A	N/A	6.2	1.5	T-2
Q1619-10	TP-3	13	100.02	2000	N/A	N/A	N/A	7.2	1.0	T-2
Q1619-12	TP-4	14	100.03	2000	N/A	N/A	N/A	7.0	1.5	T-2
Q1619-14	TP-5	15	100.04	2000	N/A	N/A	N/A	7.2	1.0	T-2

Alliance TECHNICAL GROUP

TCLP Solid Determination

PB167233

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB167233TB	LEB233	N/A	N/A	N/A	N/A	N/A	N/A
Q1605-02	DRUM-SOIL-CUTTING	N/A	N/A	N/A	N/A	100	N/A
Q1606-02	CHRT24743	N/A	N/A	N/A	N/A	100	N/A
Q1606-04	RBR251346	N/A	N/A	N/A	N/A	100	N/A
Q1606-06	RT4534	N/A	N/A	N/A	N/A	100	N/A
Q1606-08	RT3025	N/A	N/A	N/A	N/A	100	N/A
Q1606-10	CHRT28607	N/A	N/A	N/A	N/A	100	N/A
Q1609-03	WC-SCRN-01-C	N/A	N/A	N/A	N/A	100	N/A
Q1610-03	SOIL-PILE	N/A	N/A	N/A	N/A	100	N/A
Q1619-02	CONCRETE-1	N/A	N/A	N/A	N/A	100	N/A
Q1619-04	CONCRETE-2	N/A	N/A	N/A	N/A	100	N/A
Q1619-06	TP-1	N/A	N/A	N/A	N/A	100	N/A
Q1619-08	TP-2	N/A	N/A	N/A	N/A	100	N/A
Q1619-10	TP-3	N/A	N/A	N/A	N/A	100	N/A
Q1619-12	TP-4	N/A	N/A	N/A	N/A	100	N/A
Q1619-14	TP-5	N/A	N/A	N/A	N/A	100	N/A

Alliance TECHNICAL GROUP

TCLP Fluid Determination

PB167233

Hot Block ID : WC S-1 /WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
PB167233TB	LEB233	N/A	N/A	N/A	N/A	#1	4.94
Q1605-02	DRUM-SOIL-CUTTING	5.03	96.5	7.0	2.5	#1	4.94
Q1606-02	CHRT24743	5.02	96.5	8.0	3.0	#1	4.94
Q1606-04	RBR251346	5.01	96.5	7.0	2.5	#1	4.94
Q1606-06	RT4534	5.02	96.5	8.6	3.0	#1	4.94
Q1606-08	RT3025	5.03	96.5	8.0	3.5	#1	4.94
Q1606-10	CHRT28607	5.02	96.5	8.2	3.0	#1	4.94
Q1609-03	WC-SCRN-01-C	5.02	96.5	9.0	4.0	#1	4.94
Q1610-03	SOIL-PILE	5.04	96.5	6.8	2.5	#1	4.94
Q1619-02	CONCRETE-1	5.02	96.5	10.0	4.0	#1	4.94
Q1619-04	CONCRETE-2	5.03	96.5	8.6	3.0	#1	4.94
Q1619-06	TP-1	5.02	96.5	9.5	4.0	#1	4.94
Q1619-08	TP-2	5.03	96.5	8.0	3.5	#1	4.94
Q1619-10	TP-3	5.02	96.5	9.7	4.0	#1	4.94
Q1619-12	TP-4	5.01	96.5	8.6	3.5	#1	4.94
Q1619-14	TP-5	5.02	96.5	8.6	3.5	#1	4.94

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TCLP Q1609 **WorkList ID :** 188403 **Department :** TCLP Extraction **Date :** 03-20-2025 11:15:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1605-02	DRUM-SOIL-CUTTING	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I31	03/19/2025	1311
Q1606-02	CHRT24743	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/19/2025	1311
Q1606-04	RBR251346	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/19/2025	1311
Q1606-06	RT4534	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/19/2025	1311
Q1606-08	RT3025	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/19/2025	1311
Q1606-10	CHRT28607	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/19/2025	1311
Q1609-03	WC-SCRN-01-C	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/19/2025	1311
Q1610-03	SOIL-PILE	Solid	TCLP Extraction	Cool 4 deg C	ENTA05	I51	03/19/2025	1311
Q1619-02	CONCRETE-1	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/20/2025	1311
Q1619-04	CONCRETE-2	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/20/2025	1311
Q1619-06	TP-1	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/20/2025	1311
Q1619-08	TP-2	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/20/2025	1311
Q1619-10	TP-3	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/20/2025	1311
Q1619-12	TP-4	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/20/2025	1311
Q1619-14	TP-5	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	I41	03/20/2025	1311

Date/Time 03/20/25 16:10
Raw Sample Received by: SH WC
Raw Sample Relinquished by: SM

Date/Time 03/20/25 18:25
Raw Sample Received by: SM
Raw Sample Relinquished by: SH WC

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB167261

SOP ID: M3510C,3580A-Extraction SVOC-20

Clean Up SOP #: N/A

Matrix : Water

Weigh By: N/A

Balance check: N/A

Balance ID: N/A

pH Strip Lot#: E3880

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 4,5,6,7

Extraction Start Date : 03/21/2025

Extraction Start Time : 11:50

Extraction End Date : 03/21/2025

Extraction End Time : 16:50

Concentration By: EH

Supervisor By : rajesh

Extraction Method: [√] Seperatory Funnel [_] Continious Liquid/Liquid [_] Sonication [_] Waste Dilution [_] Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	50/100 PPM	SP6720
Surrogate	1.0ML	100/150 PPM	SP6638
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3904
Baked Na2SO4	N/A	EP2595
10N NaoH	N/A	EP2559
H2SO4 1:1	N/A	EP2565
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5ML Vial Lot # 2210673. p H Adjusted <2 with 1:1 H2SO4 &>11 with 10 N NaOH.

KD Bath ID: WATER BATH-1,2

KD Bath Temperature: 60 °C

Envap ID: NEVAP-02

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/21/25	RP (Ext. Lab)	JY/SVOC
16:55	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB167261

Analytical Method: M3510C,3580A-Extraction SVOC-20 **Concentration Date:** 03/21/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167193TB	PB167193TB	TCLP BNA	100	6	ritesh	rajesh	1			SEP-01
PB167233TB	PB167233TB	TCLP BNA	100	6	ritesh	rajesh	1			2
PB167261BL	PB167261BL	TCLP BNA	1000	6	ritesh	rajesh	1			3
PB167261BS	PB167261BS	TCLP BNA	1000	6	ritesh	rajesh	1			4
Q1592-02	OILY-DEBRIS-COMP	TCLP BNA	100	6	ritesh	rajesh	1	A		5
Q1592-02MS	OILY-DEBRIS-COMPMS	TCLP BNA	100	6	ritesh	rajesh	1	A		6
Q1592-02MSD	OILY-DEBRIS-COMPMSD	TCLP BNA	100	6	ritesh	rajesh	1	A		7
Q1597-02	1-CONCRETE-SLAB	TCLP BNA	100	6	ritesh	rajesh	1	A		8
Q1597-04	2-CONCRETE-SLAB	TCLP BNA	100	6	ritesh	rajesh	1	A		9
Q1597-06	3-CONCRETE-SLAB	TCLP BNA	100	6	ritesh	rajesh	1	A		10
Q1605-02	DRUM-SOIL-CUTTING	TCLP BNA	100	6	ritesh	rajesh	1	A		11
Q1606-02	CHRT24743	TCLP BNA	100	6	ritesh	rajesh	1	A		12
Q1606-04	RBR251346	TCLP BNA	100	6	ritesh	rajesh	1	A		13
Q1606-06	RT4534	TCLP BNA	100	6	ritesh	rajesh	1	A		14
Q1606-08	RT3025	TCLP BNA	100	6	ritesh	rajesh	1	A		15
Q1606-10	CHRT28607	TCLP BNA	100	6	ritesh	rajesh	1	A		16
Q1609-03	WC-SCRN-01-C	TCLP BNA	100	6	ritesh	rajesh	1	A		SEP-01
Q1610-03	SOIL-PILE	TCLP BNA	100	6	ritesh	rajesh	1	A		2
Q1619-06	TP-1	TCLP BNA	100	6	ritesh	rajesh	1	A		3
Q1619-08	TP-2	TCLP BNA	100	6	ritesh	rajesh	1	A		4
Q1619-10	TP-3	TCLP BNA	100	6	ritesh	rajesh	1	A		5
Q1619-12	TP-4	TCLP BNA	100	6	ritesh	rajesh	1	A		6
Q1619-14	TP-5	TCLP BNA	100	6	ritesh	rajesh	1	A		7

*** Extracts relinquished on the same date as received.**

3/21/25

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167233

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB167233TB	LEB233	16	N/A	2000	N/A	N/A	N/A	4.94	1.0	T-2
Q1605-02	DRUM-SOIL-CUTTING	01	100.02	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q1606-02	CHRT24743	02	100.03	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q1606-04	RBR251346	03	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1606-06	RT4534	04	100.01	2000	N/A	N/A	N/A	6.0	1.5	T-1
Q1606-08	RT3025	05	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1606-10	CHRT28607	06	100.03	2000	N/A	N/A	N/A	6.0	1.5	T-1
Q1609-03	WC-SCRN-01-C	07	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1610-03	SOIL-PILE	08	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-1
Q1619-02	CONCRETE-1	09	100.02	2000	N/A	N/A	N/A	9.1	1.0	T-1
Q1619-04	CONCRETE-2	10	100.03	2000	N/A	N/A	N/A	7.6	1.5	T-1
Q1619-06	TP-1	11	100.02	2000	N/A	N/A	N/A	7.2	1.0	T-2
Q1619-08	TP-2	12	100.03	2000	N/A	N/A	N/A	6.2	1.5	T-2
Q1619-10	TP-3	13	100.02	2000	N/A	N/A	N/A	7.2	1.0	T-2
Q1619-12	TP-4	14	100.03	2000	N/A	N/A	N/A	7.0	1.5	T-2
Q1619-14	TP-5	15	100.04	2000	N/A	N/A	N/A	7.2	1.0	T-2

03/21/25

11:40

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167193

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB167193TB	LEB193	06	N/A	2000	N/A	N/A	N/A	4.94	1.0	T-1
Q1590-01	3794	01	100.01	2000	N/A	N/A	N/A	5.0	1.5	T-1
Q1592-02	OILY-DEBRIS-COMP	02	100.03	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q1597-02	1-CONCRETE-SLAB	03	100.03	2000	N/A	N/A	N/A	10.5	1.5	T-1
Q1597-04	2-CONCRETE-SLAB	04	100.02	2000	N/A	N/A	N/A	11.0	1.0	T-1
Q1597-06	3-CONCRETE-SLAB	05	100.03	2000	N/A	N/A	N/A	11.0	1.5	T-1

03/19/2025

11:00

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

Prep Standard - Chemical Standard Summary

Order ID : Q1609

Test : TCLP BNA

Prepbatch ID : PB167261,

Sequence ID/Qc Batch ID: BF032425,BF032525,

Standard ID :
EP2559,EP2565,EP2595,SP6638,SP6685,SP6686,SP6717,SP6720,SP6721,SP6722,SP6723,SP6724,SP6725,SP6726,SP6727,SP6728,SP6729,

Chemical ID :
10ul/1000ul sample,E3551,E3657,E3815,E3828,E3846,E3871,E3874,E3904,M5173,S10104,S10246,S10397,S10584,S10978,S10979,S10980,S11004,S11005,S11006,S11007,S11008,S11009,S11010,S11074,S11087,S11143,S11161,S11487,S11495,S11650,S11781,S11782,S11783,S11784,S11785,S12114,S12142,S12143,S12144,S12145,S12146,S12187,S12188,S12189,S12207,S12208,S12270,S12276,S12327,S12469,S12470,S12471,S12472,S12473,S12474,S12475,S12476,S12477,S12478,S12517,S12518,S12519,S12520,S12521,S12522,S12523,S12524,S12525,S12649,S12655,S12656,S12791,S12963,S12964,S12965,S12966,W3112,

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

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1874	10 N SODIUM HYDROXIDE SOLN	EP2559	11/14/2024	05/14/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 11/14/2024

FROM 1000.00000ml of W3112 + 400.00000gram of E3657 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
314	1.1 H2SO4 SOLN	EP2565	11/20/2024	05/20/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 11/20/2024

FROM 1000.00000ml of M5173 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

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

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2595	03/17/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 03/17/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
19	8270/CLP Surrogate Solution, 100 PPM BN/150 PPM ACID	SP6638	10/10/2024	04/04/2025	Jagrut Upadhyay	None	None	mohammad ahmed 10/18/2024

FROM 1930.00000ml of E3815 + 5.00000ml of S10978 + 5.00000ml of S10979 + 5.00000ml of S10980 + 5.00000ml of S11004 + 5.00000ml of S11005 + 5.00000ml of S11006 + 5.00000ml of S11007 + 5.00000ml of S11008 + 5.00000ml of S11009 + 5.00000ml of S11010 + 5.00000ml of S12187 + 5.00000ml of S12188 + 5.00000ml of S12189 + 5.00000ml of S12207 = Final Quantity: 2000.000 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
18	Second Source Calibration Stock Standard, 100 PPM, (8270/625/CLP)	SP6685	11/15/2024	04/10/2025	Jagrut Upadhyay	None	None	Yogesh Patel 12/27/2024

FROM 0.04000ml of S12189 + 0.08000ml of S12208 + 0.10000ml of S11074 + 0.20000ml of S12142 + 0.20000ml of S12469 + 0.20000ml of S12517 + 1.18000ml of E3828 = Final Quantity: 2.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
416	40 ng BNA ICV, 40 PPM	SP6686	11/15/2024	04/10/2025	Jagrut Upadhyay	None	None	Yogesh Patel 12/27/2024

FROM 0.01000ml of S12327 + 0.60000ml of E3828 + 0.40000ml of SP6685 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3895	50 ug/ml DFTPP 8270E	SP6717	01/15/2025	03/31/2025	Rahul Chavli	None	None	Yogesh Patel 01/16/2025

FROM 1.00000ml of S10246 + 19.00000ml of E3871 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
171	8270/625 Spike Solution, 50/100 PPM	SP6720	01/29/2025	04/30/2025	Jagrut Upadhyay	None	None	Yogesh Patel 02/06/2025

FROM 0.40000ml of S10397 + 0.40000ml of S10584 + 0.40000ml of S11143 + 0.40000ml of S11487 + 0.40000ml of S11650 + 0.40000ml of S12478 + 0.50000ml of S11781 + 0.50000ml of S12470 + 0.60000ml of S11785 + 0.90000ml of S12518 + 0.90000ml of S12966 + 1.30000ml of S11782 + 1.30000ml of S11783 + 1.30000ml of S11784 + 1.30000ml of S12143 + 1.30000ml of S12144 + 1.30000ml of S12145 + 1.30000ml of S12146 + 1.30000ml of S12471 + 1.30000ml of S12472 + 1.30000ml of S12473 + 1.30000ml of S12474 + 1.30000ml of S12475 + 1.30000ml of S12476 + 1.30000ml of S12477 + 1.30000ml of S12519 + 1.30000ml of S12520 + 1.30000ml of S12521 + 1.30000ml of S12522 + 1.30000ml of S12523 + 1.30000ml of S12524 + 1.30000ml of S12525 + 1.30000ml of S12963 + 1.30000ml of S12964 + 1.30000ml of S12965 + 163.00000ml of E3846 = Final Quantity: 200.000 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3764	8270/625 Stock solution 100 ng	SP6721	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.26700ml of S10104 + 0.40000ml of S11495 + 0.50000ml of S12114 + 1.00000ml of S11087 + 1.00000ml of S11161 + 1.00000ml of S12270 + 1.00000ml of S12276 + 1.00000ml of S12791 + 3.83300ml of E3874 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
413	80 ng BNA ICC, 80 PPM	SP6722	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.20000ml of E3874 + 0.80000ml of SP6721 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
412	60 ng BNA ICC, 60 PPM	SP6723	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.40000ml of E3874 + 0.60000ml of SP6721 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
411	50 ng BNA ICC, 50 PPM	SP6724	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.50000ml of E3874 + 0.50000ml of SP6721 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
410	40 ng BNA ICC, 40 PPM	SP6725	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.60000ml of E3874 + 0.40000ml of SP6721 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3678	20 ng BNA ICC, 20 PPM	SP6726	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.80000ml of E3874 + 0.20000ml of SP6721 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
408	10 ng BNA ICC, 10 PPM	SP6727	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.90000ml of E3874 + 0.10000ml of SP6721 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
407	5 ng BNA ICC, 5 PPM	SP6728	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.95000ml of E3874 + 0.05000ml of SP6721 = Final Quantity: 1.010 ml

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

SVOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
175	2.5 ng BNA ICC, 2.5 PPM	SP6729	01/30/2025	05/12/2025	Jagrut Upadhyay	None	None	Shreena Patel 02/07/2025

FROM 0.01000ml of S12649 + 0.50000ml of E3874 + 0.50000ml of SP6728 = Final Quantity: 1.010 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 #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	23B1556310	12/31/2025	12/04/2023 / Rajesh	12/01/2023 / Rajesh	E3657

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	04/04/2025	10/04/2024 / Rajesh	10/04/2024 / Rajesh	E3815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24G0862003	05/09/2025	11/09/2024 / Rajesh	11/04/2024 / Rajesh	E3828

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	06/26/2025	12/26/2024 / Rajesh	12/13/2024 / Rajesh	E3846

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24K1762005	07/14/2025	01/14/2025 / Rajesh	12/27/2024 / Rajesh	E3871

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	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	07/30/2025	01/30/2025 / Rajesh	01/20/2025 / Rajesh	E3874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24K1762005	01/07/2026	03/13/2025 /	12/27/2024 / RUPESH	E3904

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	0000281827	06/02/2025	06/01/2022 /	04/05/2022 / william	M5173

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-112090-04 / CLP Acid Surrogate Solution, 7500 mg/L, 1ml	440246	07/30/2025	01/30/2025 / anahy	12/09/2021 / Christian	S10104

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31615 / SV Mixture, GC/MS Tuning Mixture, CH2Cl2, 1mL,	A0182667	03/31/2025	01/15/2025 / Rahul	03/18/2022 / Christian	S10246

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555871 / Custom Standard, 4-nitrophenol Std [CS 5238-4]	A0185300	05/31/2025	01/29/2025 / anahy	05/18/2022 / Christian	S10397

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	555868 / Custom Standard, Benzidine Std [CS 5328-1]	A0186373	06/30/2025	01/29/2025 / anahy	07/05/2022 / Christian	S10584

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0188108	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S10978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0188108	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S10979

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0188108	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S10980

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11004

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11005

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	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11006

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11007

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11008

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11009

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0189418	04/10/2025	10/10/2024 / anahy	12/28/2022 / Christian	S11010

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0187043	05/15/2025	11/15/2024 / Jagrut	02/06/2023 / Christian	S11074

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 #
CPI International	Z-010074-07 / 3,3'-Dichlorobenzidine Solution, 1,000 mg/L, 1 ml, (Maximum Expiration: 180 days)	406703	07/30/2025	01/30/2025 / anahy	02/07/2023 / Christian	S11087

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555869 / Custom Standard, hexachlorocyclopentadiene Std [CS 5328-2]	A0194702	07/29/2025	01/29/2025 / anahy	02/20/2023 / Christian	S11143

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110817-01 / Custom 8270 Mix, 4-55, 1000 mg/L, 1 ml, (Maximum Expiration: 90 Days)	414125	06/21/2025	01/30/2025 / anahy	03/06/2023 / Christian	S11161

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555870 / Custom Standard, 2,4-dinitrophenol Std [CS 5328-3]	A0200549	08/31/2026	01/29/2025 / anahy	08/10/2023 / yogesh	S11487

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110094-02 / CLP Base/Neutral Surrogate Solution, 5000 mg/L, 1ml	506889	05/12/2025	11/12/2024 / Jagrut	08/11/2023 / Yogesh	S11495

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555872 / Custom Standard, pentachlorophenol Std [CS 5328-5]	A0201728	07/29/2025	01/29/2025 / anahy	11/09/2023 / Yogesh	S11650

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	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	06/26/2025	12/26/2024 / Jagrut	11/21/2023 / Rahul	S11781

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	07/29/2025	01/29/2025 / anahy	11/21/2023 / Rahul	S11782

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	07/29/2025	01/29/2025 / anahy	11/21/2023 / Rahul	S11783

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	07/29/2025	01/29/2025 / anahy	11/21/2023 / Rahul	S11784

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0196453	07/29/2025	01/29/2025 / anahy	11/21/2023 / Rahul	S11785

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-010223-01 / 1,4-Dioxane Solution, 2,000mg/L, 1ml	454157	05/12/2025	11/12/2024 / Jagrut	03/08/2024 / Rahul	S12114

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	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	11/14/2024 / anahy	03/15/2024 / Rahul	S12142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	01/29/2025 / anahy	03/15/2024 / Rahul	S12143

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	01/29/2025 / anahy	03/15/2024 / Rahul	S12144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	01/29/2025 / anahy	03/15/2024 / Rahul	S12145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0203726	04/30/2025	01/29/2025 / anahy	03/15/2024 / Rahul	S12146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0206206	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12187

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	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0206206	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12188

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml,methanol,5ml/ ampul	A0206206	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12189

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0206381	04/10/2025	10/10/2024 / anahy	03/15/2024 / Rahul	S12207

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH2Cl2,5ml	A0206381	05/15/2025	11/15/2024 / Jagrut	03/15/2024 / Rahul	S12208

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-110381-01 / 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1ml	520963	07/30/2025	01/30/2025 / anahy	05/24/2024 / Rahul	S12270

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-010442-07 / Benzaldehyde Solution, 1000 mg/L, 1.3 ml, (Maximum Expiration: 90 Days)	495833	05/12/2025	11/12/2024 / Jagrut	05/24/2024 / Rahul	S12276

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	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0206540	05/12/2025	11/12/2024 / anahy	05/30/2024 / Rahul	S12327

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12469

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	05/26/2025	11/26/2024 / Jagrut	07/23/2024 / RAHUL	S12470

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12471

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12472

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12473

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	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12474

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12475

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12476

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12477

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at $100 per ampul if requested - contact ARM with Request] [CS 4978-1]	A0214021	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12478

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	05/14/2025	11/14/2024 / anahy	07/23/2024 / RAHUL	S12517

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	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/03/2025	01/03/2025 / Jagrut	07/23/2024 / RAHUL	S12518

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12519

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12520

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12521

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12522

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12523

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	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12524

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at $85 per ampul if requested - contact ARM with Request] [CS 4978-2]	A0214017	07/29/2025	01/29/2025 / anahy	07/23/2024 / RAHUL	S12525

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0212266	07/21/2025	01/21/2025 / anahy	09/20/2024 / anahy	S12649

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0212266	09/13/2025	03/13/2025 / Jagrut	09/20/2024 / anahy	S12655

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH2Cl2, 1mL	A0212266	09/25/2025	03/25/2025 / anahy	09/20/2024 / anahy	S12656

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110816-01 / Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL, (Maximum Expiration: 180 Days)	414127	06/21/2025	01/30/2025 / anahy	05/24/2024 / Rahul	S12791

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	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0219438	07/29/2025	01/29/2025 / anahy	12/11/2024 / anahy	S12963

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0219438	07/29/2025	01/29/2025 / anahy	12/11/2024 / anahy	S12964

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0219438	07/29/2025	01/29/2025 / anahy	12/11/2024 / anahy	S12965

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0219438	07/29/2025	01/29/2025 / anahy	12/11/2024 / anahy	S12966

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

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-010074-07	406703	≤ -10 °C	Methylene Chloride	3/30/2025	3,3'-Dichlorobenzidine Solution, 1,000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
3,3'-dichlorobenzidine	91-94-1	99.5	74.3.26P	989 ± 7.53

Received on
02/07/23
by
CG

S11084
to
S11088

*Not a certified value

Certified By: _____
Jacob Mulloy
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricllly.

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110817-01	414125	≤ -10 °C	Methylene Chloride	6/21/2025	Custom 8270 Mix, 4-55, 1000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
acetophenone	98-86-2	99.2	85.8.1P	998 ± 11.5
benzoic acid	65-85-0	100	123.7.1P	1010 ± 5.88
biphenyl	92-52-4	99.9	366.29.1P	999 ± 5.82
1,2,4,5-tetrachlorobenzene	95-94-3	99.7	53.7.2P	993 ± 5.79

Received on
02/07/23
by
CG
S11089
to
S11093

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: _____
Shane Overcash
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-112090-04	440246	≤ -10 °C	Methylene Chloride	2/16/2026	CLP Acid Surrogate Solution, 7,500 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
2-chlorophenol-d_4	93951-73-6	99.3	248.12.7P	7487 ± 17.2
2-fluorophenol	367-12-4	99.8	10.7.3.3P	7513 ± 17.26
phenol-d6	13127-88-3	99.9	949.120.8P	7481 ± 17.19
2,4,6-tribromophenol	118-79-6	99.8	12.1.6P	7469 ± 17.17

Received on
02/25/21
by
CG

S9236
to
S9240

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: Erica Castiglione

Erica Castiglione
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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

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.

Received on 03/08/22 by CG S10242 to S10247

Catalog No. : 31615 **Lot No.:** A0182667

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : March 31, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,003.6 µg/mL	+/- 5.8897 µg/mL +/- 45.7132 µg/mL +/- 66.0037 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,006.6 µg/mL	+/- 5.9074 µg/mL +/- 45.8508 µg/mL +/- 66.2023 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 211228JLM) **Purity** 99%	1,008.4 µg/mL	+/- 5.9179 µg/mL +/- 45.9318 µg/mL +/- 66.3193 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 210916JLM) **Purity** 99%	1,007.6 µg/mL	+/- 5.9132 µg/mL +/- 45.8954 µg/mL +/- 66.2667 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

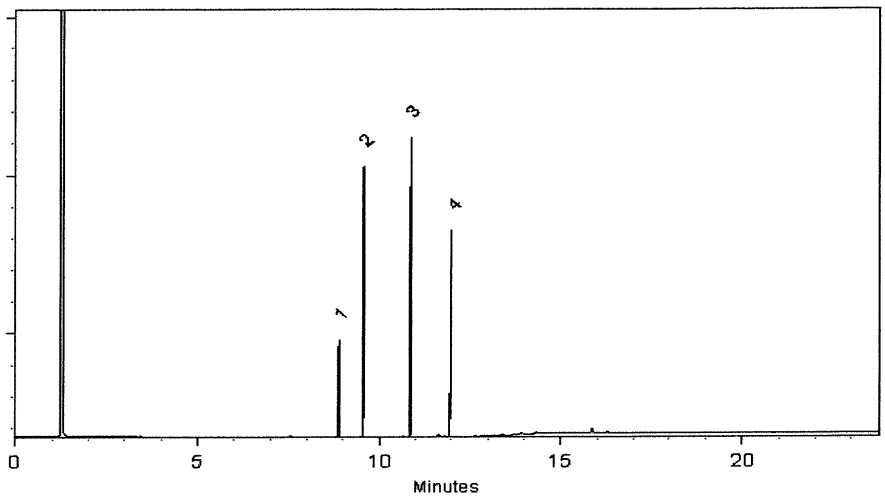
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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.

Morgan Craighead - Mix Technician

Date Mixed: 08-Mar-2022 **Balance:** B345965662

Merlina Cowan - Operations Tech I

Date Passed: 10-Mar-2022

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

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.

Received by CG on 05/19/22

S10393 to S10402

Catalog No. : 555871 **Lot No.:** A0185300

Description : Custom 4-Nitrophenol Standard

Custom 4-Nitrophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

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

Expiration Date : May 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	4-Nitrophenol	25,060.0 µg/mL	+/- 231.9100 µg/mL	Gravimetric
	CAS # 100-02-7 (Lot MKCN1089)		+/- 753.2622 µg/mL	Unstressed
	Purity 99%		+/- 905.6020 µg/mL	Stressed

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

Katelyn McGinnis - Operations Tech I

Date Mixed: 16-May-2022 **Balance:** 1128342314

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

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.

Received by
CG
on
07/05/22
S 10583
to
S 10592

Catalog No. : 555868 **Lot No.:** A0186373

Description : Custom Benzidine Standard

Custom Benzidine Standard 25,000µg/mL, Methanol, 1mL/ampul

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

Expiration Date : June 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzidine	25,200.0 µg/mL	+/- 233.2055 µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 220511RSR)		+/- 351.6606 µg/mL	Unstressed
	Purity 99%		+/- 512.6054 µg/mL	Stressed

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

Tom Suckar - Mix Technician **Date Mixed:** 16-Jun-2022 **Balance:** 1122030677

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® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis

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.

Received on 02/06/23 by CG

S11071 to S11075

Catalog No. : 31853 **Lot No.:** A0187043

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 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	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane	2,019.0 µg/mL	+/- 11.8486	µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBN5929)		+/- 43.2570	µg/mL	Unstressed
	Purity 99%		+/- 44.5129	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

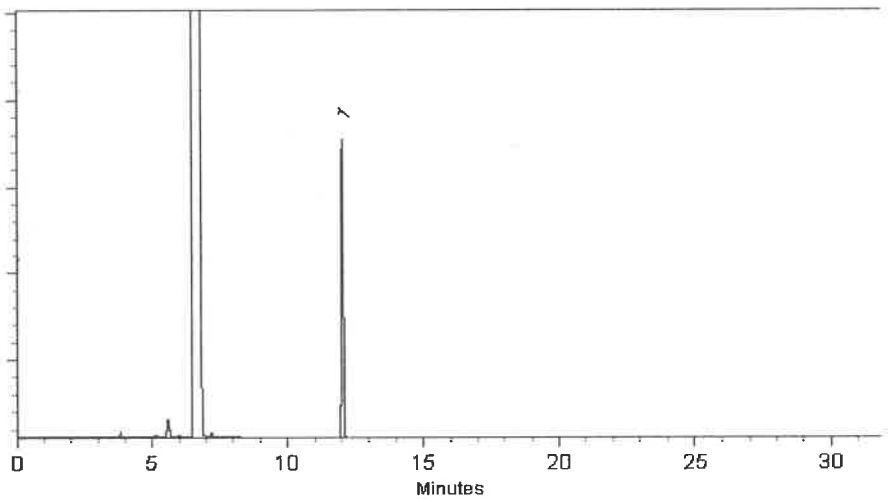
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Brittany Federinko - Operations Tech I

Date Mixed: 07-Jul-2022 **Balance:** 1128360905

Marlina Cowan – Operations Tech II ARM QC

Date Passed: 12-Jul-2022

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

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.

Received by CG on 12/28/22 S10951 to S10980

Catalog No. : 31087 **Lot No.:** A0188108

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol **CAS #** 367-12-4 **Purity** 99%	(Lot STBF3761V)	10,088.5 µg/mL	+/- 58.6554 µg/mL +/- 294.4162 µg/mL +/- 357.2628 µg/mL		Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 **Purity** 99%	(Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL +/- 293.0957 µg/mL +/- 355.6603 µg/mL		Gravimetric Unstressed Stressed
3	2,4,6-Tribromophenol **CAS #** 118-79-6 **Purity** 99%	(Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL +/- 292.1253 µg/mL +/- 354.4829 µg/mL		Gravimetric Unstressed Stressed

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

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

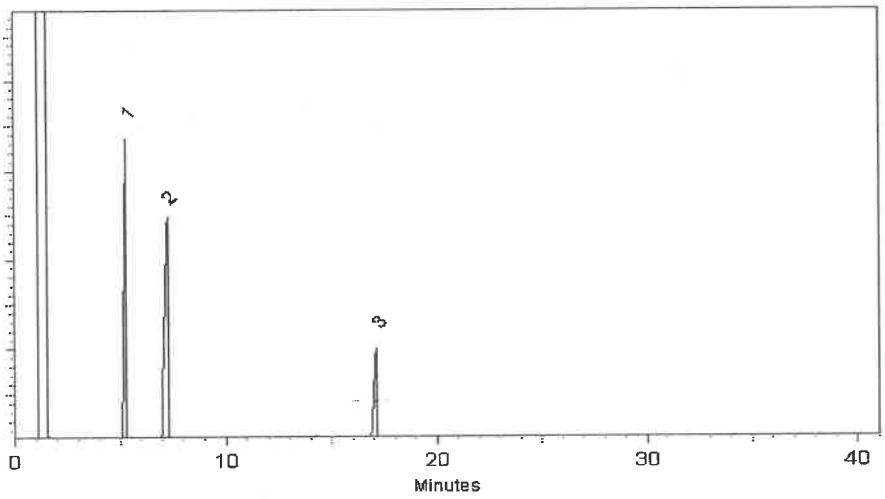
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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.

Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

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

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.

Received by CG on 12/28/22 S10951 to S10980

Catalog No. : 31087 **Lot No.:** A0188108

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol **CAS #** 367-12-4 **Purity** 99%	(Lot STBF3761V)	10,088.5 µg/mL	+/- 58.6554 µg/mL +/- 294.4162 µg/mL +/- 357.2628 µg/mL		Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 **Purity** 99%	(Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL +/- 293.0957 µg/mL +/- 355.6603 µg/mL		Gravimetric Unstressed Stressed
3	2,4,6-Tribromophenol **CAS #** 118-79-6 **Purity** 99%	(Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL +/- 292.1253 µg/mL +/- 354.4829 µg/mL		Gravimetric Unstressed Stressed

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

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

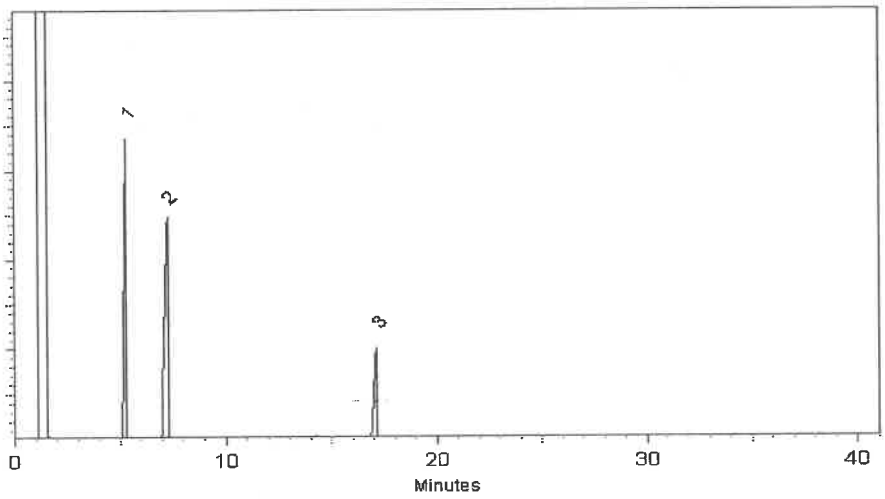
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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.

Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

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

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.

Received by CG on 12/28/22 S10951 to S10980

Catalog No. : 31087 **Lot No.:** A0188108

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10,000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol **CAS #** 367-12-4 **Purity** 99%	(Lot STBF3761V)	10,088.5 µg/mL	+/- 58.6554 µg/mL +/- 294.4162 µg/mL +/- 357.2628 µg/mL		Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 **Purity** 99%	(Lot PR-31262)	10,043.3 µg/mL	+/- 58.3923 µg/mL +/- 293.0957 µg/mL +/- 355.6603 µg/mL		Gravimetric Unstressed Stressed
3	2,4,6-Tribromophenol **CAS #** 118-79-6 **Purity** 99%	(Lot MKCJ7664)	10,010.0 µg/mL	+/- 58.1990 µg/mL +/- 292.1253 µg/mL +/- 354.4829 µg/mL		Gravimetric Unstressed Stressed

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

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

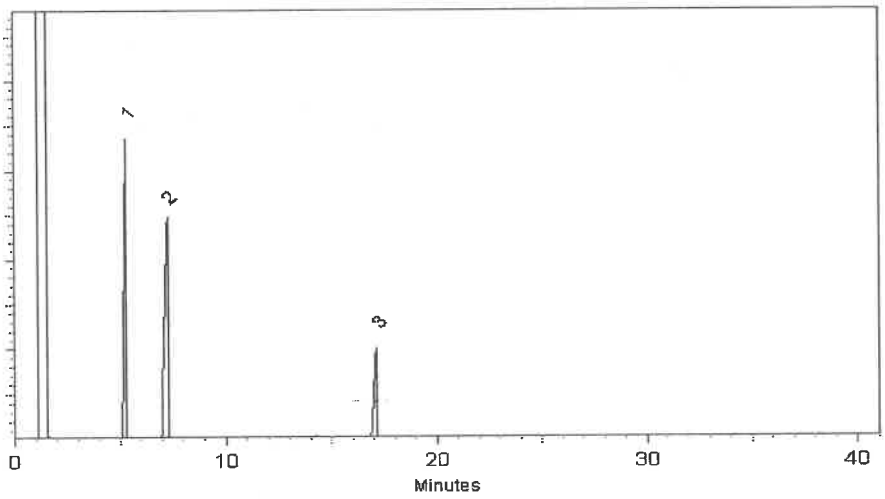
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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.

Morgan Craighead - Mix Technician

Date Mixed: 02-Aug-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Aug-2022

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

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

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.

Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

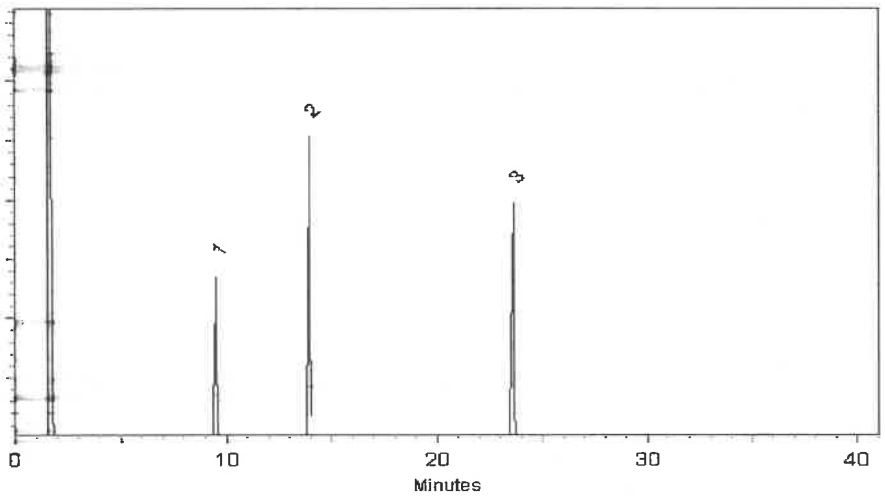
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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

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

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.

Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

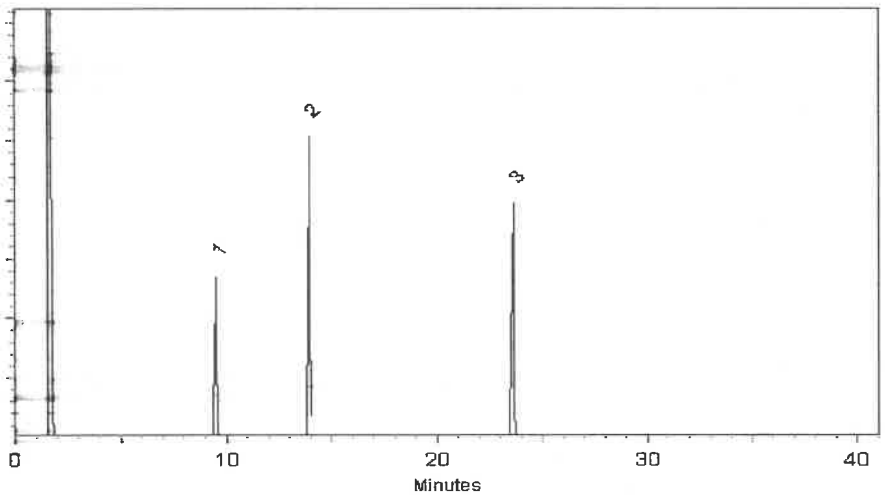
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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

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

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.

Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

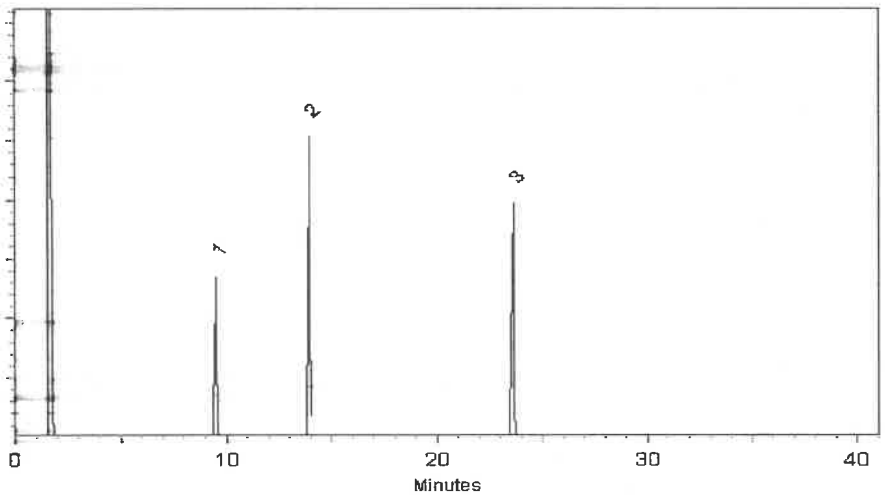
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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

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

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.

Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

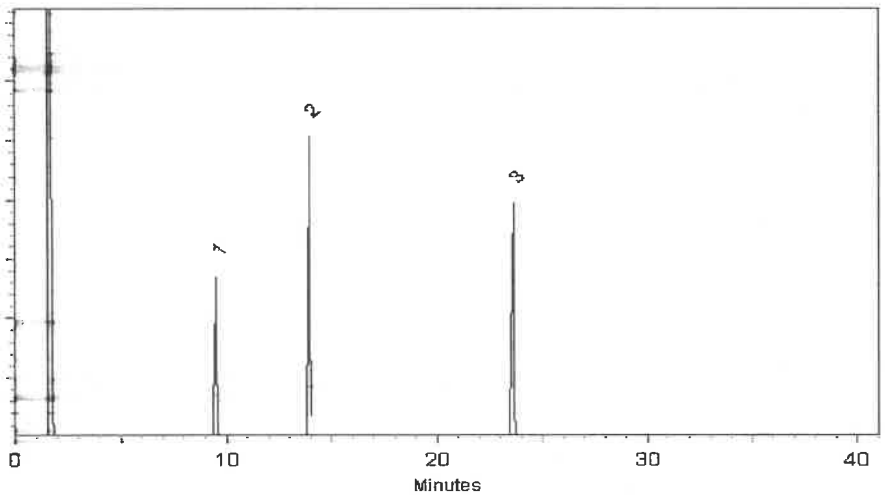
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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

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

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.

Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

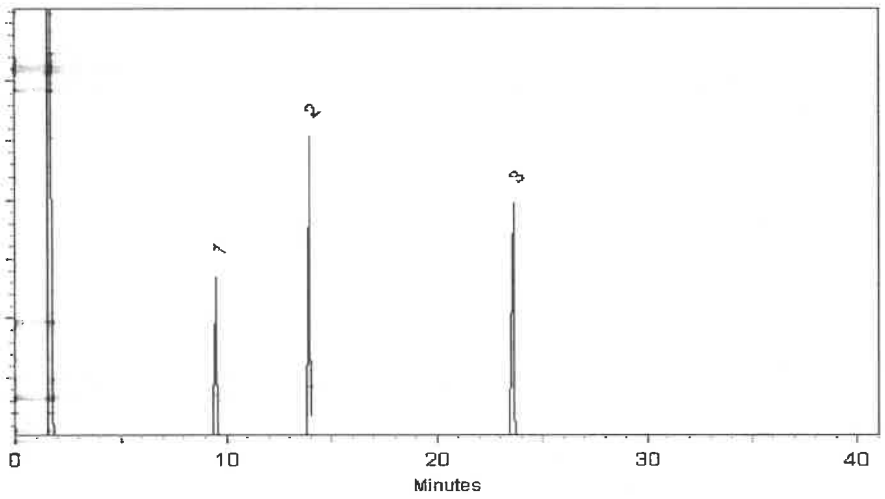
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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

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

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.

Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

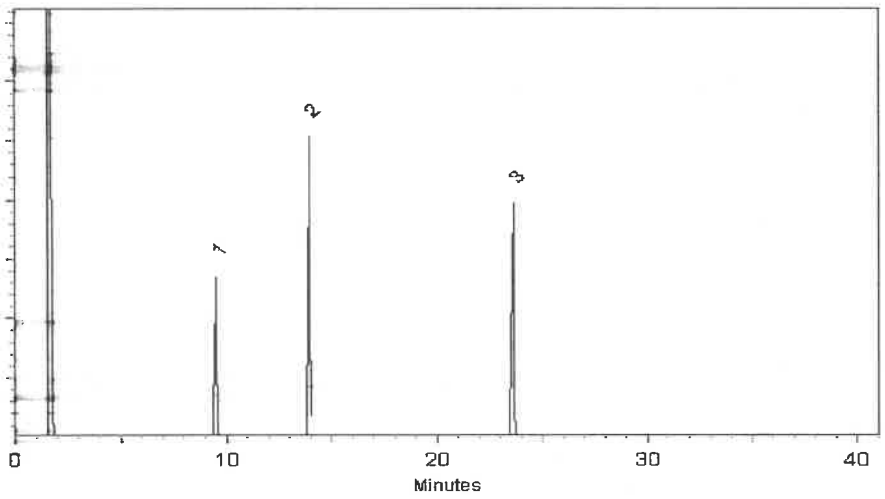
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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

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

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.

Received by CG on 12/28/22 $10981 to $11010

Catalog No. : 31086 **Lot No.:** A0189418

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,009.8 µg/mL	+/- 29.1271 µg/mL +/- 225.6421 µg/mL +/- 250.3778 µg/mL	Gravimetric Unstressed Stressed
2	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,026.6 µg/mL	+/- 29.2250 µg/mL +/- 226.4003 µg/mL +/- 251.2191 µg/mL	Gravimetric Unstressed Stressed
3	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,027.3 µg/mL	+/- 29.2289 µg/mL +/- 226.4304 µg/mL +/- 251.2524 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

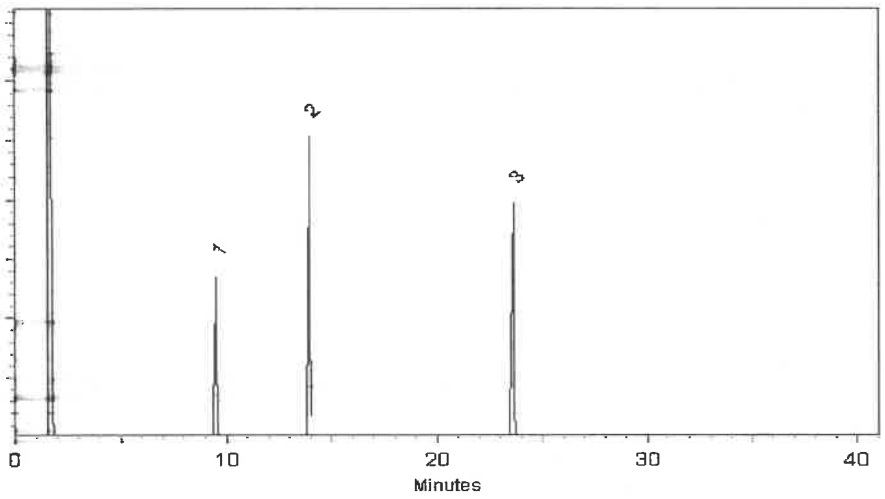
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°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: 09-Sep-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Sep-2022

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

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

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. : 555869 **Lot No.:** A0194702

Description : Custom Hexachlorocyclopentadiene Standard

Custom Hexachlorocyclopentadiene Standard 25,000µg/mL, Methanol, 1mL/ampul

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

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)
1	Hexachlorocyclopentadiene	77-47-4	0012019	99%	25,008.0 µg/mL

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

Russ Bookhamer - Operations Technician I

Date Mixed: 15-Feb-2023 **Balance:** B442140311

Manufactured under Restek Registered Quality Certificate #FM

tified Reference Material Notes

:es:

n date valid for unopened ampul stored in compliance with the recommended conditions.

nty, concentration, and expiration of the CRM are based on the unopened product being stored according to the ended condition found in the storage field.

d/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, LC/MS, RI, and/or melting point.

nds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A n factor is used to calculate the amount of compound necessary to achieve the desired concentration of the mpound in solution.

isomeric compounds is reported as the sum of the isomers.

lues are rounded to the nearest whole number.

rtainty Value Notes:

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

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

erage factor of 2, which gives a level of confidence of approximately 95%.

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

Notes:

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

:

the unopened product, when stored in compliance with the recommended conditions, is guaranteed through ion displayed on the product label and certificate. Contact Restek for additional opened product stability ı, with the knowledge/understanding that open product stability is subject to the specific handling and ntal conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with ards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom m. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, des complete instructions.

ssolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RG-02-01, Ed. 3

Recd. by RB on 7/24/23 E3551

VWR®

Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:

Pellets

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025

Storage: Room Temperature

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	<= 0.005 %	<0.005 %	PASS
Chloride	<= 0.005 %	0.002 %	PASS
Heavy Metals	<= 0.002 %	<0.002 %	PASS
Iron	<= 0.001 %	<0.001 %	PASS
Magnesium	<= 0.002 %	<0.002 %	PASS
Mercury	<= 0.1 ppm	<0.1 ppm	PASS
Nickel	<= 0.001 %	<0.001 %	PASS
Nitrogen Compounds	<= 0.001 %	<0.001 %	PASS
Phosphate	<= 0.001 %	<0.001 %	PASS
Potassium	<= 0.02 %	<0.02 %	PASS
Purity	>= 97.0 %	99.2 %	PASS
Sodium Carbonate	<= 1.0 %	0.5 %	PASS
Sulfate	<= 0.003 %	<0.003 %	PASS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.

E 3657	E 3659
E 3654	E 3660

PO: PO2-329 PRODUCT CODE: SHIP DATE: 9/30/2024

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor | J.T.Baker

Material No.: 9254-03
Batch No.: 24H1462005
Manufactured Date: 2024-05-24
Expiration Date:2027-05-24
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3815

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials,LLC
100 Matsonford Rd, Suite 200,Radnor,PA,19087.U.S.A.Phone 610.386.1700

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24J0862003
Manufactured Date: 2024-09-12
Expiration Date:2025-12-12
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	2
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3828

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9254-03
Batch No.: 24H2762008
Manufactured Date: 2024-04-18
Expiration Date:2027-04-18
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 12/13/24

E 3846

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

12/9-1/24

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor | J.T.Baker

Material No.: 9266-A4
Batch No.: 24K1762005
Manufactured Date: 2024-10-08
Expiration Date:2026-01-07
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	<= 0.3	0.0
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3871

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials,LLC
100 Matsonford Rd, Suite 200,Radnor,PA,19087.U.S.A.Phone 610.386.1700

PO: PO2-1178.2 PRODUCT CODE: SHIP DATE: 1/20/2025

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor | J.T.Baker

Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date:2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	4
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	99.9 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.8 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3874

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials,LLC
100 Matsonford Rd, Suite 200,Radnor,PA,19087.U.S.A.Phone 610.386.1700

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24K1762005
Manufactured Date: 2024-10-08
Expiration Date:2026-01-07
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	<= 0.3	0.0
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3904

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

Material No.: 9530-33
Batch No.: 0000281827
Manufactured Date: 2021/03/30
Retest Date: 2026/03/29
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.189
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	< 1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	0.5
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	15.0
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000281827

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	3.0
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	1.0
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	< 0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	< 0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.2
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	18.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	< 0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.4
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

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

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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.

S11484 ↓ S11493 Y.P. 08/10/23

Catalog No. : 555870 **Lot No.:** A0200549

Description : Custom 2,4-Dinitrophenol Standard

Custom 2,4-Dinitrophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

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

Expiration Date : August 31, 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	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	25,008.0 µg/mL	+/- 777.3323

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

Tom Suckar - Mix Technician

Date Mixed: 02-Aug-2023 **Balance:** 1128342314

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.

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110094-02	506889	≤ -10 °C	Methylene Chloride	7/25/2028	CLP Base/Neutral Surrogate Solution, 5,000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,2-dichlorobenzene-d_4	2199-69-1	99.7	247.29.3P	5035 ± 28.02
2-fluorobiphenyl	321-60-8	99.69	8.286.1.1P	4999 ± 103.66
nitrobenzene-d5	4165-60-0	99.67	7.9.3P	4988 ± 27.32
p-terphenyl-d14	1718-51-0	99.3	9.120.8P	5005 ± 27.85

511494 to 511498 } Y.P. 08/11/2023

*Not a certified value

Certified By: _____

Clint Tipton
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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. : 555872 **Lot No.:** A0201728

Description : Custom Pentachlorophenol Standard

Custom Pentachlorophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

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

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

Ship: Ambient

511649 ↓ 511658 Y.P. 11/13/23

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pentachlorophenol	87-86-5	RP230530RSR	99%	25,000.0 µg/mL	+/- 777.0837

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

Josh McCloskey - Operations Technician I

Date Mixed: 05-Sep-2023 **Balance:** B251644995

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. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

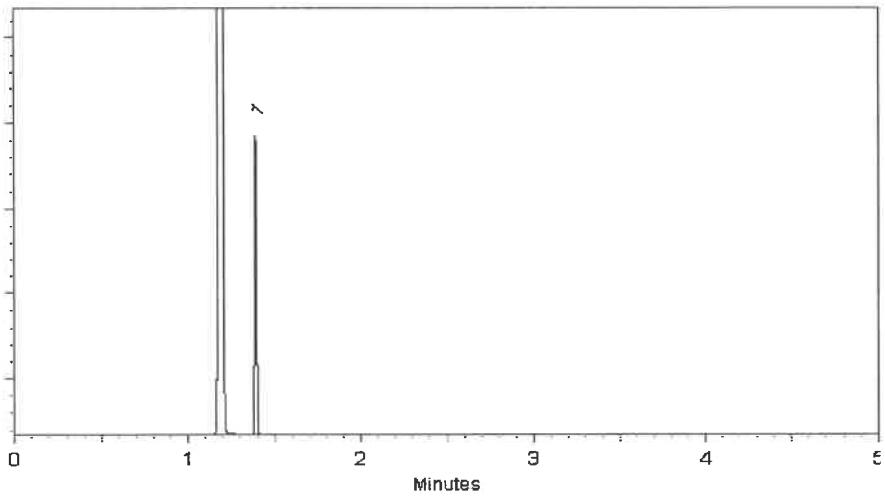
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 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: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

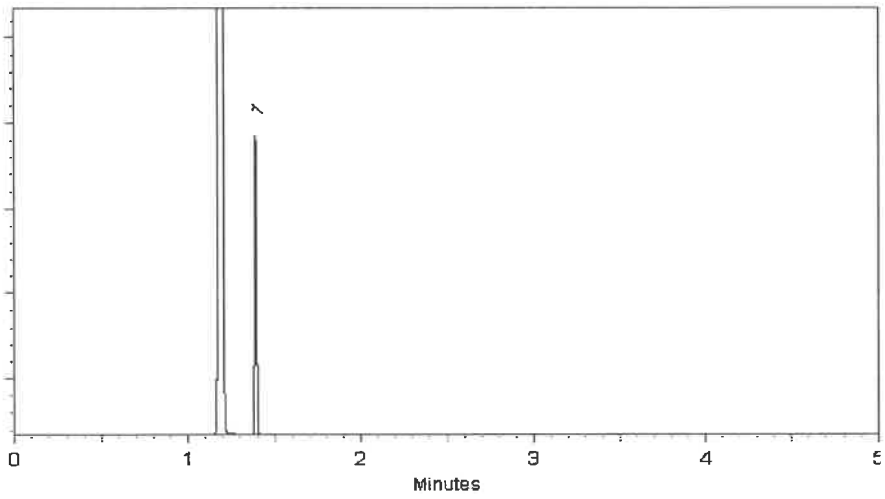
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 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: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

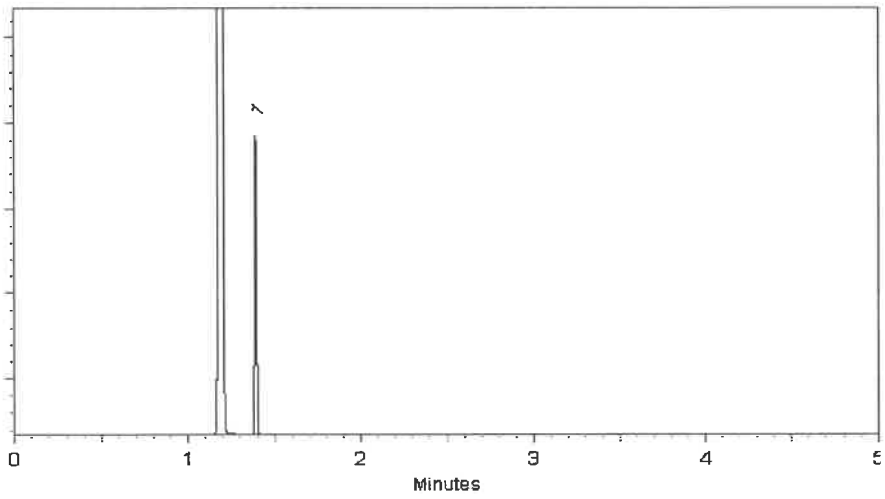
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 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: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

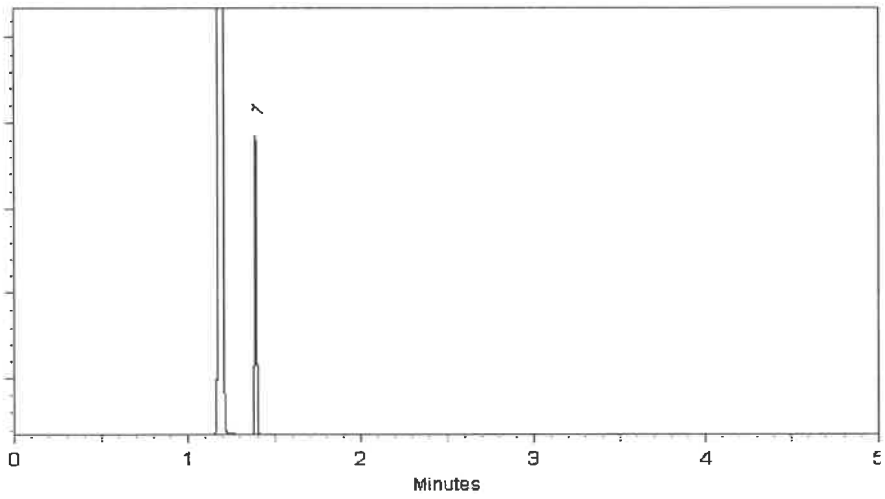
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 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: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31853 **Lot No.:** A0196453

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : March 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11749 ↓ S11794 RC 11/30/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	2,013.0 µg/mL	+/- 25.0521

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

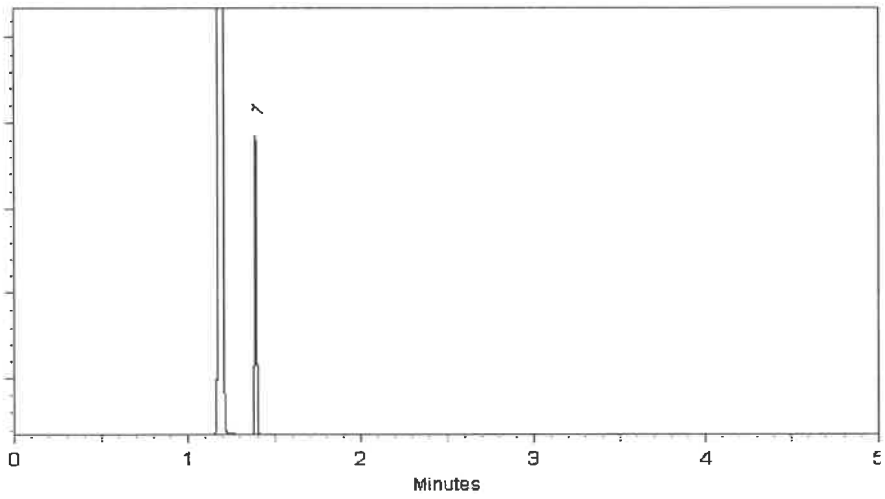
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 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: 30-Mar-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-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.

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-020223-01	454157	≤ -10 °C	P/T Methanol	6/10/2026	1,4-Dioxane Solution, 2000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,4-dioxane	123-91-1	100	223.1.3P	1997 ± 57.08

S12112 ↓ S12116 } RC/ 03/08/24

*Not a certified value

Certified By: Melissa Workoff

Melissa Workoff
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

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

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

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

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

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

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

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

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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. : 31850 **Lot No.:** A0203726

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

S12117 ↓ S12146 RC/ 03/18/24

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

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,001.6 µg/mL	+/- 36.4412
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.9 µg/mL	+/- 36.5968
3	Phenol	108-95-2	MKCK1120	99%	1,003.3 µg/mL	+/- 36.5038
4	Aniline	62-53-3	X22F726	99%	1,005.8 µg/mL	+/- 36.5928
5	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,008.1 µg/mL	+/- 36.6776
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,001.8 µg/mL	+/- 36.4492
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,002.3 µg/mL	+/- 36.4654
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,003.7 µg/mL	+/- 36.5159
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,008.7 µg/mL	+/- 36.6979
10	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,000.3 µg/mL	+/- 36.3926
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,003.5 µg/mL	+/- 36.5099
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,007.3 µg/mL	+/- 36.6493
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	504.3 µg/mL	+/- 18.3500
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.6 µg/mL	+/- 18.3237
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,008.3 µg/mL	+/- 36.6857
16	Hexachloroethane	67-72-1	QTORH	99%	1,007.5 µg/mL	+/- 36.6554
17	Nitrobenzene	98-95-3	10224044	99%	1,008.6 µg/mL	+/- 36.6938

18	Isophorone	78-59-1	MKCC9506	99%	1,005.9	µg/mL	+/- 36.5988
19	2-Nitrophenol	88-75-5	RP230710	99%	1,003.2	µg/mL	+/- 36.4998
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,003.8	µg/mL	+/- 36.5200
21	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,002.1	µg/mL	+/- 36.4573
22	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,003.7	µg/mL	+/- 36.5180
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,007.6	µg/mL	+/- 36.6574
24	Naphthalene	91-20-3	STBL1057	99%	1,008.3	µg/mL	+/- 36.6837
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,001.3	µg/mL	+/- 36.4290
26	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,008.3	µg/mL	+/- 36.6829
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.1	µg/mL	+/- 36.4937
28	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,001.9	µg/mL	+/- 36.4505
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	1,000.0	µg/mL	+/- 36.3838
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.5	µg/mL	+/- 36.6909
31	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.4	µg/mL	+/- 36.5442
32	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,001.9	µg/mL	+/- 36.4512
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,001.1	µg/mL	+/- 36.4230
34	2-Nitroaniline	88-74-4	RP230531	99%	1,002.9	µg/mL	+/- 36.4876
35	1,4-Dinitrobenzene	100-25-4	RP230816	99%	1,005.7	µg/mL	+/- 36.5887
36	Acenaphthylene	208-96-8	p06V	98%	1,009.5	µg/mL	+/- 36.7265
37	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,004.4	µg/mL	+/- 36.5422
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.9	µg/mL	+/- 36.5968
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,003.2	µg/mL	+/- 36.4998
40	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.2	µg/mL	+/- 36.4634
41	Acenaphthene	83-32-9	MKCR7169	99%	1,009.3	µg/mL	+/- 36.7221
42	3-Nitroaniline	99-09-2	RP230822RSR	99%	1,003.9	µg/mL	+/- 36.5240
43	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,002.0	µg/mL	+/- 36.4553
44	Dibenzofuran	132-64-9	MKCD9952	99%	1,006.7	µg/mL	+/- 36.6251
45	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,003.8	µg/mL	+/- 36.5220
46	4-Nitrophenol	100-02-7	RP230627	99%	1,002.3	µg/mL	+/- 36.4674
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,008.7	µg/mL	+/- 36.6979
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP230919	99%	1,006.3	µg/mL	+/- 36.6130
49	Fluorene	86-73-7	10241100	99%	1,008.3	µg/mL	+/- 36.6857
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.8	µg/mL	+/- 36.5220
51	Diethylphthalate	84-66-2	MKCD2547	99%	1,008.6	µg/mL	+/- 36.6958
52	4-Nitroaniline	100-01-6	RP230111	99%	1,001.1	µg/mL	+/- 36.4230
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	1,002.0	µg/mL	+/- 36.4553

54	Diphenylamine	122-39-4	MKCH1042	99%	1,002.3	µg/mL	+/- 36.4674
55	Azobenzene	103-33-3	BCCK0887	99%	1,005.8	µg/mL	+/- 36.5928
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,003.0	µg/mL	+/- 36.4917
57	Hexachlorobenzene	118-74-1	14821700	99%	1,007.5	µg/mL	+/- 36.6554
58	Pentachlorophenol	87-86-5	RP230530RSR	99%	1,008.8	µg/mL	+/- 36.7019
59	Phenanthrene	85-01-8	MKCQ8876	99%	1,008.4	µg/mL	+/- 36.6877
60	Anthracene	120-12-7	MKCR0570	99%	1,009.0	µg/mL	+/- 36.7100
61	Carbazole	86-74-8	14351100	99%	1,000.9	µg/mL	+/- 36.4149
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,007.6	µg/mL	+/- 36.6595
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,009.6	µg/mL	+/- 36.7302
64	Pyrene	129-00-0	BCCG8479	98%	1,007.2	µg/mL	+/- 36.6453
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,002.1	µg/mL	+/- 36.4573
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.2	µg/mL	+/- 36.5705
67	Benz(a)anthracene	56-55-3	I220012022BAA	99%	1,002.2	µg/mL	+/- 36.4614
68	Chrysene	218-01-9	RP230601	99%	1,008.3	µg/mL	+/- 36.6837
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,001.8	µg/mL	+/- 36.4472
70	Di-n-octyl phthalate	117-84-0	14382700	99%	1,006.0	µg/mL	+/- 36.6008
71	Benzo(b)fluoranthene	205-99-2	012013B	99%	1,002.8	µg/mL	+/- 36.4836
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,003.0	µg/mL	+/- 36.4917
73	Benzo(a)pyrene	50-32-8	P54915-0703	99%	1,002.3	µg/mL	+/- 36.4674
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,009.4	µg/mL	+/- 36.7243
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,007.6	µg/mL	+/- 36.6595
76	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,002.9	µg/mL	+/- 36.4876

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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. : 31087 **Lot No.:** A0206206

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

S12187 ↓ S12206 } RC/ 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	10,005.3 µg/mL	+/- 302.5390
2	Phenol-d6	13127-88-3	PR-33287A	99%	10,005.5 µg/mL	+/- 302.5475
3	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	10,006.6 µg/mL	+/- 302.5783

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

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

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

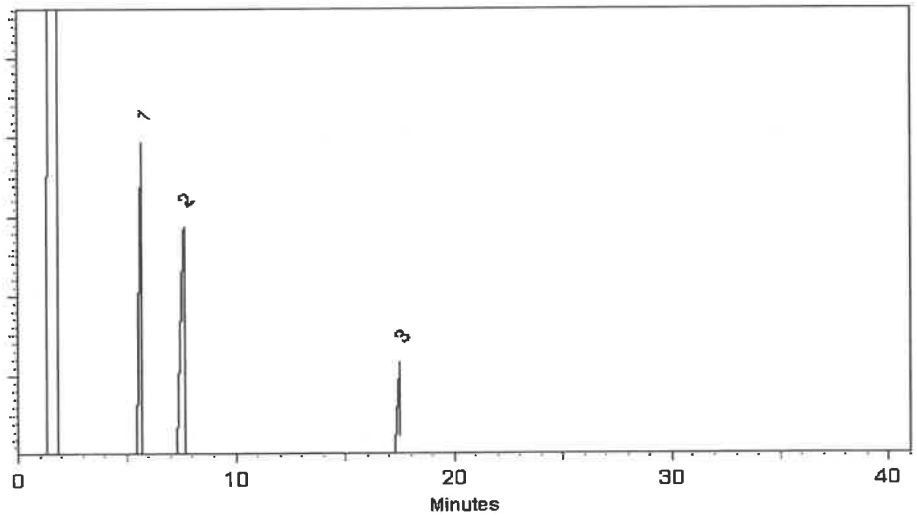
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 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.

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024 **Balance Serial #** 1128360905

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

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

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. : 31087 **Lot No.:** A0206206

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

S12187 ↓ S12206 } RC/ 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	10,005.3 µg/mL	+/- 302.5390
2	Phenol-d6	13127-88-3	PR-33287A	99%	10,005.5 µg/mL	+/- 302.5475
3	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	10,006.6 µg/mL	+/- 302.5783

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

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

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

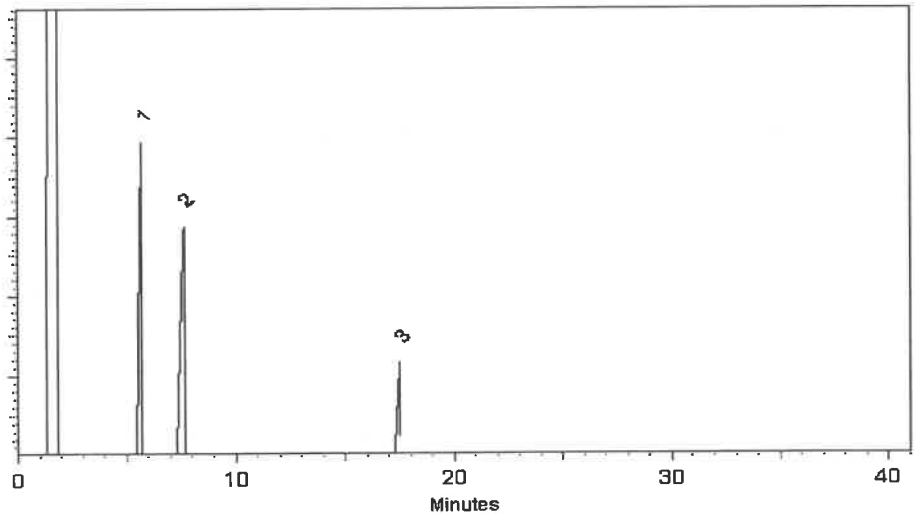
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 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.

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024 **Balance Serial #** 1128360905

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

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

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. : 31087 **Lot No.:** A0206206

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

S12187 ↓ S12206 } RC/ 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorophenol	367-12-4	STBK1705	99%	10,005.3 µg/mL	+/- 302.5390
2	Phenol-d6	13127-88-3	PR-33287A	99%	10,005.5 µg/mL	+/- 302.5475
3	2,4,6-Tribromophenol	118-79-6	RP230831RSR	99%	10,006.6 µg/mL	+/- 302.5783

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

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

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

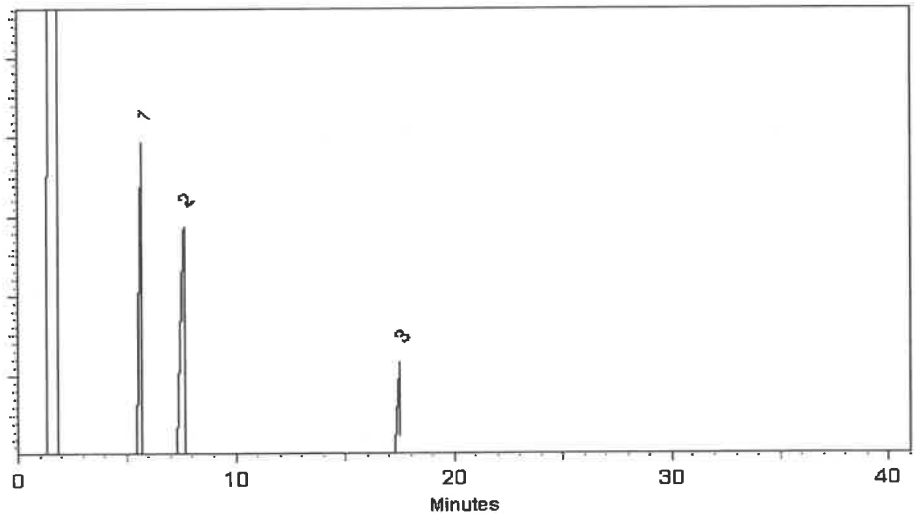
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 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.

Penelope Riglin - Operations Tech I

Date Mixed: 04-Jan-2024 **Balance Serial #** 1128360905

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Jan-2024

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

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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. : 31086 **Lot No.:** A0206381

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

S12207 ↓ S12221 RC/ 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,029.3 µg/mL	+/- 226.5204
2	2-Fluorobiphenyl	321-60-8	00021384	99%	5,030.9 µg/mL	+/- 226.5936
3	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,026.4 µg/mL	+/- 226.3909

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

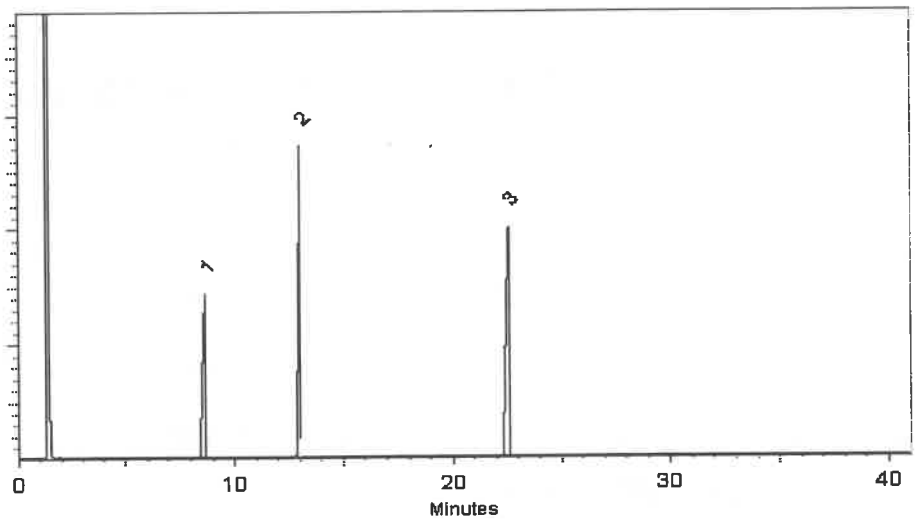
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 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.

Jess Hoy - Operations Tech I

Date Mixed: 09-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Jan-2024

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

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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. : 31086 **Lot No.:** A0206381

Description : B/N Surrogate Mix (4/89 SOW)

Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

S12207 ↓ S12221 RC/ 03/18/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,029.3 µg/mL	+/- 226.5204
2	2-Fluorobiphenyl	321-60-8	00021384	99%	5,030.9 µg/mL	+/- 226.5936
3	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,026.4 µg/mL	+/- 226.3909

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

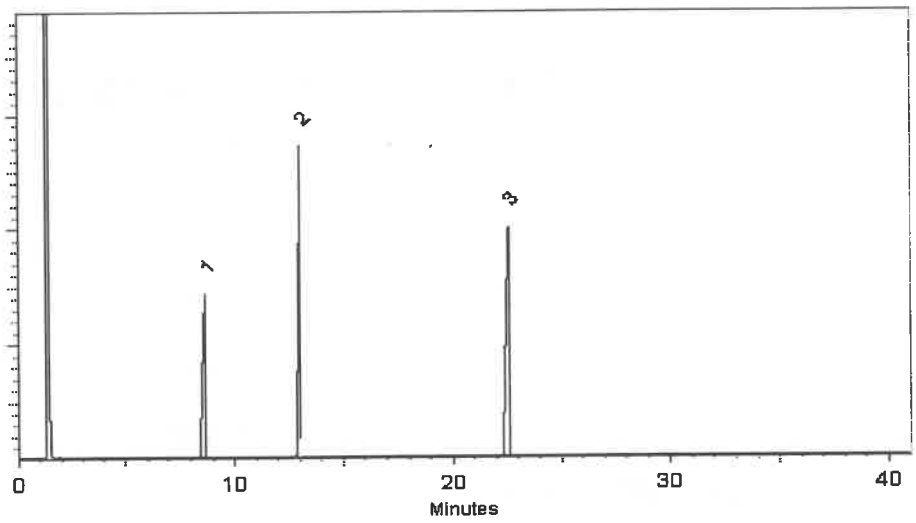
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 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.

Jess Hoy - Operations Tech I

Date Mixed: 09-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Jan-2024

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

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110381-01	520963	≤ -10 °C	Methylene Chloride	10/10/2028	Method 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
acenaphthene	83-32-9	99.9	13.1.5P	1010 ± 9.89
acenaphthylene	208-96-8	97.6	14.290.1P	1014 ± 9.93
aniline	62-53-3	99.97	64.1.4P	1001 ± 9.8
anthracene	120-12-7	99.5	15.7.1P	999.6 ± 9.79
azobenzene	103-33-3	98.1	252.7.2P	999.1 ± 9.8
benzo[a]anthracene	56-55-3	100	16.7.3P	1007 ± 9.86
benzo[b]fluoranthene	205-99-2	99.8	17.421.3P	1011 ± 14.11
benzo[k]fluoranthene	207-08-9	98.9	18.421.4P	1001 ± 10.96
benzo[ghi]perylene	191-24-2	93	19.286.4P	999.6 ± 13.95
benzo[a]pyrene	50-32-8	97	20.286.2P	999.9 ± 22.24
benzyl alcohol	100-51-6	99.9	65.18.1P	1001 ± 9.82
bis(2-chloroethoxy)methane	111-91-1	99.1	31.3.15P	1000 ± 14.69
bis(2-chloroethyl)ether	111-44-4	99.8	32.7.1P	1003 ± 13.89
bis(2-chloro-1-methylethyl) ether	108-60-1	99.5	34.3.15P	999.4 ± 14.68
bis(2-ethylhexyl)adipate	103-23-1	99.5	874.7.1P	999.5 ± 9.8
bis(2-ethylhexyl)phthalate	117-81-7	99.4	33.29.1P	998.8 ± 17.03
4-bromophenyl phenyl ether	101-55-3	99.4	35.7.1.1P	1000 ± 13.85
butyl benzyl phthalate	85-68-7	98.4	36.1.6P	984.7 ± 16.79
carbazole	86-74-8	99.4	239.7.2P	1000 ± 9.8

S12270 ↓ S12274 } RC 05/24/24

*Not a certified value

Kerry E Kane

Certified By: _____

Kerry Kane
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

Certificate of Analysis

Catalog No.: Z-110381-01 **Lot No.:** 520963 **Expiration Date:** 10/10/2028

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
4-chloroaniline	106-47-8	100	66.7.1P	1000 ± 9.79
4-chlorophenylphenyl ether	7005-72-3	98	37.158.2P	1001 ± 17.07
4-chloro-3-methylphenol	59-50-7	99	102.1.2P	1006 ± 17.16
2-chloronaphthalene	91-58-7	99.9	42.7.6P	1000 ± 9.79
2-chlorophenol	95-57-8	99.8	103.7.1P	1007 ± 13.96
chrysene	218-01-9	96	21.286.2P	998.4 ± 12.85
dibenz[a,h]anthracene	53-70-3	99.44	22.286.3P	1000 ± 9.74
dibenzofuran	132-64-9	100	67.7.2.1P	1002 ± 9.77
di-n-butyl phthalate	84-74-2	99.84	40.286.1P	1007 ± 24.48
1,2-dichlorobenzene	95-50-1	99.8	43.7.1P	1000 ± 9.79
1,3-dichlorobenzene	541-73-1	99.5	44.1.3P	999.4 ± 9.79
1,4-dichlorobenzene	106-46-7	99.9	45.29.2P	1000 ± 9.79
2,4-dichlorophenol	120-83-2	99.6	104.7.1.1P	1005 ± 13.93
diethyl phthalate	84-66-2	99.8	38.7.1P	1011 ± 14
2,4-dimethylphenol	105-67-9	99.6	105.7.1.1P	1009 ± 13.98
dimethyl phthalate	131-11-3	99.9	39.9.2P	996.5 ± 13.8
1,2-dinitrobenzene	528-29-0	99.86	86.7.3.1P	999.5 ± 9.75
1,3-dinitrobenzene	99-65-0	100	313.7.2P	998 ± 9.79
1,4-dinitrobenzene	100-25-4	100	907.7.1P	999.5 ± 9.8
2,4-dinitrophenol	51-28-5	99.9	106.1.6DP	1002 ± 13.89
2,4-dinitrotoluene	121-14-2	100	87.7.3P	999.8 ± 13.85
2,6-dinitrotoluene	606-20-2	99.4	88.7.2.1P	999.6 ± 13.85
di-n-octyl phthalate	117-84-0	99.1	41.7.5P	991.6 ± 13.74
diphenylamine	122-39-4	100	78.1.6P	998 ± 13.79
2,3,5,6-tetrachlorophenol	935-95-5	97	1112.286.1P	1004 ± 14.02
fluoranthene	206-44-0	98.6	23.7.4P	999.6 ± 9.79
fluorene	86-73-7	98.4	24.7.1P	999.7 ± 9.79

*Not a certified value

Certified By: Kerry E Kane

Kerry Kane
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

Certificate of Analysis

Catalog No.: Z-110381-01 **Lot No.:** 520963 **Expiration Date:** 10/10/2028

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
hexachlorobenzene	118-74-1	99	46.158.4P	999.9 ± 13.96
hexachlorobutadiene	87-68-3	97.4	47.1.4P	1000 ± 9.79
hexachlorocyclopentadiene	77-47-4	99.2	48.2.2P	1001 ± 9.8
hexachloroethane	67-72-1	99.9	49.1.4P	1003 ± 9.82
indeno[1,2,3-cd]pyrene	193-39-5	98	25.286.4P	999.4 ± 22.23
isophorone	78-59-1	98.9	90.1.4P	999.9 ± 13.85
2-methyl-4,6-dinitrophenol	534-52-1	99.6	107.421.2DP	991 ± 24.09
1-methylnaphthalene	90-12-0	97.1	249.7.5P	999.2 ± 13.95
2-methylnaphthalene	91-57-6	97.4	68.7.2P	1006 ± 22.38
2-methylphenol	95-48-7	99.6	114.7.3P	1001 ± 13.87
3-methylphenol	108-39-4	99.1	115.7.4P	499.7 ± 6.92
4-methylphenol	106-44-5	99.5	116.7.1P	501.2 ± 6.94
naphthalene	91-20-3	99.8	26.9.1P	1018 ± 9.97
2-nitroaniline	88-74-4	99.7	69.29.1P	999.6 ± 9.79
3-nitroaniline	99-09-2	100	70.7.3P	1000 ± 9.74
4-nitroaniline	100-01-6	99.7	71.29.1P	1001 ± 9.8
nitrobenzene	98-95-3	100	94.7.1P	1000 ± 13.85
2-nitrophenol	88-75-5	99.1	108.29.1P	996.5 ± 13.81
4-nitrophenol	100-02-7	100	109.7.1P	1000 ± 13.82
N-nitrosodimethylamine	62-75-9	99.5	57.3.19P	998.5 ± 14.67
N-nitrosodi-n-propylamine	621-64-7	99.8	59.286.1P	996.8 ± 17
pentachlorophenol	87-86-5	99	110.1.7P	1004 ± 13.92
phenanthrene	85-01-8	99.7	27.1.5P	999 ± 12.87
phenol	108-95-2	100	112.7.1P	998.5 ± 13.8
pyrene	129-00-0	99.2	28.9.2P	998.9 ± 9.78
pyridine	110-86-1	100	101.24.1P	999 ± 9.73
2,3,4,6-Tetrachlorophenol	58-90-2	91.8	120.421.1P	996.5 ± 13.92

*Not a certified value

Certified By: Kerry E Kane

Kerry Kane
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

Certificate of Analysis

Catalog No.: Z-110381-01 **Lot No.:** 520963 **Expiration Date:** 10/10/2028

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,2,4-trichlorobenzene	120-82-1	99.6	54.29.1P	999.6 ± 9.79
2,4,5-trichlorophenol	95-95-4	96.5	121.7.1.1P	999.5 ± 13.85
2,4,6-trichlorophenol	88-06-2	99.6	113.7.1P	996 ± 13.8

*Not a certified value

Certified By: Kerry E Kane

Kerry Kane
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received: _____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-010442-07	495833	≤ -10 °C	Methylene Chloride	1/16/2028	Benzaldehyde Solution, 1000 mg/L, 1.3 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
benzaldehyde	100-52-7	98.3	442.421.1P	996.8 ± 11.49

S12275 ↓ S12279 } RC/ 05/24/24

*Not a certified value

Certified By: S. Hunter

Scott Hunter
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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 plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

S12312 ↓ S12331 } RC/ 05/30/24

Catalog No. : 31206 **Lot No.:** A0206540

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

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

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	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%	2,007.1 µg/mL	+/- 90.4025
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,005.9 µg/mL	+/- 90.3454
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,007.9 µg/mL	+/- 90.4385
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,006.7 µg/mL	+/- 90.3845
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,015.5 µg/mL	+/- 90.7778
6	Perylene-d12	1520-96-3	PR-33205	99%	2,014.7 µg/mL	+/- 90.7448

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

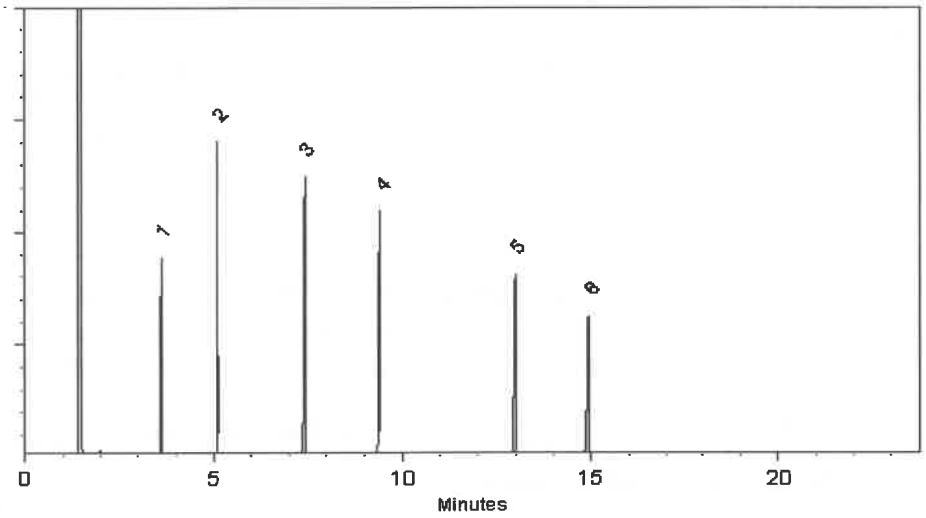
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 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.

Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

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

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555223 **Lot No.:** A0214021

Description : Custom 8270 Plus Standard #1

Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,3'-Dichlorobenzidine	91-94-1	S240326RSR	99%	1,004.0 µg/mL	+/- 23.0487
2	Atrazine	1912-24-9	5FYWL	99%	1,005.0 µg/mL	+/- 23.0717
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 23.0947
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,000.0 µg/mL	+/- 22.9569

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12449 ↓ S12508 } RC 7/24/24

Rebecca Gingerich - Operations Tech II

Date Mixed: 18-Jul-2024 **Balance:** 1128353505

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0214017

Description : Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 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	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,005.0 µg/mL	+/- 29.541899
2	Acetophenone	98-86-2	STBH8205	99%	1,005.0 µg/mL	+/- 29.541899
3	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,008.0 µg/mL	+/- 29.630084
4	Benzoic acid	65-85-0	MKCR2694	99%	1,010.0 µg/mL	+/- 29.688874
5	Biphenyl	92-52-4	MKCS5928	99%	1,008.0 µg/mL	+/- 29.630084

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12509 ↓ S12568 } RC/ 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024 **Balance:** 1128360905

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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. : 31206 **Lot No.:** A0212266

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

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

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	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%	2,000.6 µg/mL	+/- 90.1075
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,000.3 µg/mL	+/- 90.0925
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,000.4 µg/mL	+/- 90.1000
4	Phenanthrene-d10	1517-22-2	PR-34099	99%	2,000.5 µg/mL	+/- 90.1037
5	Chrysene-d12	1719-03-5	PR-33506	99%	2,000.7 µg/mL	+/- 90.1112
6	Perylene-d12	1520-96-3	PR-33205	99%	2,000.6 µg/mL	+/- 90.1075

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12645 ↓ S12674 AC 10/1/24

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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. : 31206 **Lot No.:** A0212266

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

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

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	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%	2,000.6 µg/mL	+/- 90.1075
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,000.3 µg/mL	+/- 90.0925
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,000.4 µg/mL	+/- 90.1000
4	Phenanthrene-d10	1517-22-2	PR-34099	99%	2,000.5 µg/mL	+/- 90.1037
5	Chrysene-d12	1719-03-5	PR-33506	99%	2,000.7 µg/mL	+/- 90.1112
6	Perylene-d12	1520-96-3	PR-33205	99%	2,000.6 µg/mL	+/- 90.1075

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12645 ↓ S12674 AC 10/1/24

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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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. : 31206 **Lot No.:** A0212266

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

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

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	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%	2,000.6 µg/mL	+/- 90.1075
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,000.3 µg/mL	+/- 90.0925
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,000.4 µg/mL	+/- 90.1000
4	Phenanthrene-d10	1517-22-2	PR-34099	99%	2,000.5 µg/mL	+/- 90.1037
5	Chrysene-d12	1719-03-5	PR-33506	99%	2,000.7 µg/mL	+/- 90.1112
6	Perylene-d12	1520-96-3	PR-33205	99%	2,000.6 µg/mL	+/- 90.1075

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12645 ↓ S12674 AC 10/1/24

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110816-01	414127	≤-10 °C	Methylene Chloride	6/21/2025	Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
atrazine	1912-24-9	99.5	337.7.3P	997 ± 5.81
benzidine	92-87-5	99.9	124.18.6.2P	991.8 ± 5.77
caprolactam	105-60-2	99.9	271.1.6P	999 ± 5.82

~~S12280~~ ↓ ~~S12284~~ RCI 05/24/24

New numbers Generated.

S12790 ↓ S12794 RCI 11/12/24

*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: _____
Shane Overcash
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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. : 31850 **Lot No.:** A0219438

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

S12963 ↓ S12992 AC 12/17/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,008.3 µg/mL	+/- 36.6849
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,008.6 µg/mL	+/- 36.6985
3	Phenol	108-95-2	MKCK1120	99%	1,003.5 µg/mL	+/- 36.5120
4	Aniline	62-53-3	X22F726	99%	1,002.9 µg/mL	+/- 36.4893
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,003.0 µg/mL	+/- 36.4938
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.6 µg/mL	+/- 36.5894
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.1 µg/mL	+/- 36.5348
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,002.1 µg/mL	+/- 36.4620
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,003.5 µg/mL	+/- 36.5120
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,005.3 µg/mL	+/- 36.5757
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,008.4 µg/mL	+/- 36.6894
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,004.6 µg/mL	+/- 36.5530
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.1 µg/mL	+/- 18.2697
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.8 µg/mL	+/- 18.3288
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,006.5 µg/mL	+/- 36.6212
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.5 µg/mL	+/- 36.5484
17	Nitrobenzene	98-95-3	10224044	99%	1,002.5 µg/mL	+/- 36.4757

18	Isophorone	78-59-1	MKCR3249	99%	1,003.4	µg/mL	+/- 36.5075
19	2-Nitrophenol	88-75-5	RP230710	99%	1,002.5	µg/mL	+/- 36.4757
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,006.5	µg/mL	+/- 36.6212
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,006.6	µg/mL	+/- 36.6257
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,001.5	µg/mL	+/- 36.4393
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,006.4	µg/mL	+/- 36.6166
24	Naphthalene	91-20-3	STBL1057	99%	1,002.1	µg/mL	+/- 36.4620
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,004.4	µg/mL	+/- 36.5439
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,002.5	µg/mL	+/- 36.4771
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.5	µg/mL	+/- 36.5484
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,000.0	µg/mL	+/- 36.3847
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,001.3	µg/mL	+/- 36.4325
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,006.4	µg/mL	+/- 36.6166
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.6	µg/mL	+/- 36.5505
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.3	µg/mL	+/- 36.5393
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.4	µg/mL	+/- 36.5439
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,002.8	µg/mL	+/- 36.4847
36	Acenaphthylene	208-96-8	RP241029RSR	98%	1,000.0	µg/mL	+/- 36.3835
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.3	µg/mL	+/- 36.6121
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,008.9	µg/mL	+/- 36.7076
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,006.6	µg/mL	+/- 36.6257
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,002.5	µg/mL	+/- 36.4757
41	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 36.3847
42	3-Nitroaniline	99-09-2	RP240708RSR	99%	1,004.6	µg/mL	+/- 36.5530
43	2,4-Dinitrophenol	51-28-5	D240927RSR	----%	1,005.6	µg/mL	+/- 36.5894
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,003.5	µg/mL	+/- 36.5120
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,008.3	µg/mL	+/- 36.6849
46	4-Nitrophenol	100-02-7	20241029-2-AN	99%	1,004.8	µg/mL	+/- 36.5575
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,005.8	µg/mL	+/- 36.5939
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP231219RSR	99%	1,006.4	µg/mL	+/- 36.6166
49	Fluorene	86-73-7	10246250	98%	1,000.7	µg/mL	+/- 36.4102
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,004.9	µg/mL	+/- 36.5621
51	Diethylphthalate	84-66-2	BCCJ6241	99%	1,003.9	µg/mL	+/- 36.5257
52	4-Nitroaniline	100-01-6	RP230111	99%	1,006.6	µg/mL	+/- 36.6257
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,001.3	µg/mL	+/- 36.4302

54	Diphenylamine	122-39-4	MKCT1512	99%	1,003.0	µg/mL	+/- 36.4938
55	Azobenzene	103-33-3	BCCK0887	99%	1,002.4	µg/mL	+/- 36.4711
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,008.8	µg/mL	+/- 36.7031
57	Hexachlorobenzene	118-74-1	15458400	99%	1,005.1	µg/mL	+/- 36.5712
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.9	µg/mL	+/- 36.5984
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.9	µg/mL	+/- 36.5621
60	Anthracene	120-12-7	101492T18R	99%	1,005.1	µg/mL	+/- 36.5712
61	Carbazole	86-74-8	15276700	99%	1,005.4	µg/mL	+/- 36.5803
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,006.3	µg/mL	+/- 36.6121
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.5	µg/mL	+/- 36.5120
64	Pyrene	129-00-0	BCCK2592	99%	1,002.0	µg/mL	+/- 36.4575
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,007.5	µg/mL	+/- 36.6576
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.9	µg/mL	+/- 36.5984
67	Benz(a)anthracene	56-55-3	I70012022BAA	99%	1,005.5	µg/mL	+/- 36.5848
68	Chrysene	218-01-9	RP241007RSR	99%	1,005.3	µg/mL	+/- 36.5757
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,007.5	µg/mL	+/- 36.6576
70	Di-n-octyl phthalate	117-84-0	15566400	99%	1,002.3	µg/mL	+/- 36.4666
71	Benzo(b)fluoranthene	205-99-2	052013B	99%	1,004.1	µg/mL	+/- 36.5348
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,002.8	µg/mL	+/- 36.4847
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,006.2	µg/mL	+/- 36.6108
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,001.8	µg/mL	+/- 36.4490
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,003.3	µg/mL	+/- 36.5029
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,003.8	µg/mL	+/- 36.5217

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

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. : 31850 **Lot No.:** A0219438

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

S12963 ↓ S12992 AC 12/17/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,008.3 µg/mL	+/- 36.6849
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,008.6 µg/mL	+/- 36.6985
3	Phenol	108-95-2	MKCK1120	99%	1,003.5 µg/mL	+/- 36.5120
4	Aniline	62-53-3	X22F726	99%	1,002.9 µg/mL	+/- 36.4893
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,003.0 µg/mL	+/- 36.4938
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.6 µg/mL	+/- 36.5894
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.1 µg/mL	+/- 36.5348
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,002.1 µg/mL	+/- 36.4620
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,003.5 µg/mL	+/- 36.5120
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,005.3 µg/mL	+/- 36.5757
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,008.4 µg/mL	+/- 36.6894
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,004.6 µg/mL	+/- 36.5530
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.1 µg/mL	+/- 18.2697
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.8 µg/mL	+/- 18.3288
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,006.5 µg/mL	+/- 36.6212
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.5 µg/mL	+/- 36.5484
17	Nitrobenzene	98-95-3	10224044	99%	1,002.5 µg/mL	+/- 36.4757

18	Isophorone	78-59-1	MKCR3249	99%	1,003.4	µg/mL	+/- 36.5075
19	2-Nitrophenol	88-75-5	RP230710	99%	1,002.5	µg/mL	+/- 36.4757
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,006.5	µg/mL	+/- 36.6212
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,006.6	µg/mL	+/- 36.6257
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,001.5	µg/mL	+/- 36.4393
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,006.4	µg/mL	+/- 36.6166
24	Naphthalene	91-20-3	STBL1057	99%	1,002.1	µg/mL	+/- 36.4620
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,004.4	µg/mL	+/- 36.5439
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,002.5	µg/mL	+/- 36.4771
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.5	µg/mL	+/- 36.5484
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,000.0	µg/mL	+/- 36.3847
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,001.3	µg/mL	+/- 36.4325
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,006.4	µg/mL	+/- 36.6166
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.6	µg/mL	+/- 36.5505
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.3	µg/mL	+/- 36.5393
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.4	µg/mL	+/- 36.5439
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,002.8	µg/mL	+/- 36.4847
36	Acenaphthylene	208-96-8	RP241029RSR	98%	1,000.0	µg/mL	+/- 36.3835
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.3	µg/mL	+/- 36.6121
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,008.9	µg/mL	+/- 36.7076
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,006.6	µg/mL	+/- 36.6257
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,002.5	µg/mL	+/- 36.4757
41	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 36.3847
42	3-Nitroaniline	99-09-2	RP240708RSR	99%	1,004.6	µg/mL	+/- 36.5530
43	2,4-Dinitrophenol	51-28-5	D240927RSR	----%	1,005.6	µg/mL	+/- 36.5894
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,003.5	µg/mL	+/- 36.5120
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,008.3	µg/mL	+/- 36.6849
46	4-Nitrophenol	100-02-7	20241029-2-AN	99%	1,004.8	µg/mL	+/- 36.5575
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,005.8	µg/mL	+/- 36.5939
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP231219RSR	99%	1,006.4	µg/mL	+/- 36.6166
49	Fluorene	86-73-7	10246250	98%	1,000.7	µg/mL	+/- 36.4102
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,004.9	µg/mL	+/- 36.5621
51	Diethylphthalate	84-66-2	BCCJ6241	99%	1,003.9	µg/mL	+/- 36.5257
52	4-Nitroaniline	100-01-6	RP230111	99%	1,006.6	µg/mL	+/- 36.6257
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,001.3	µg/mL	+/- 36.4302

54	Diphenylamine	122-39-4	MKCT1512	99%	1,003.0	µg/mL	+/- 36.4938
55	Azobenzene	103-33-3	BCCK0887	99%	1,002.4	µg/mL	+/- 36.4711
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,008.8	µg/mL	+/- 36.7031
57	Hexachlorobenzene	118-74-1	15458400	99%	1,005.1	µg/mL	+/- 36.5712
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.9	µg/mL	+/- 36.5984
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.9	µg/mL	+/- 36.5621
60	Anthracene	120-12-7	101492T18R	99%	1,005.1	µg/mL	+/- 36.5712
61	Carbazole	86-74-8	15276700	99%	1,005.4	µg/mL	+/- 36.5803
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,006.3	µg/mL	+/- 36.6121
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.5	µg/mL	+/- 36.5120
64	Pyrene	129-00-0	BCCK2592	99%	1,002.0	µg/mL	+/- 36.4575
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,007.5	µg/mL	+/- 36.6576
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.9	µg/mL	+/- 36.5984
67	Benz(a)anthracene	56-55-3	I70012022BAA	99%	1,005.5	µg/mL	+/- 36.5848
68	Chrysene	218-01-9	RP241007RSR	99%	1,005.3	µg/mL	+/- 36.5757
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,007.5	µg/mL	+/- 36.6576
70	Di-n-octyl phthalate	117-84-0	15566400	99%	1,002.3	µg/mL	+/- 36.4666
71	Benzo(b)fluoranthene	205-99-2	052013B	99%	1,004.1	µg/mL	+/- 36.5348
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,002.8	µg/mL	+/- 36.4847
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,006.2	µg/mL	+/- 36.6108
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,001.8	µg/mL	+/- 36.4490
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,003.3	µg/mL	+/- 36.5029
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,003.8	µg/mL	+/- 36.5217

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

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. : 31850 **Lot No.:** A0219438

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

S12963 ↓ S12992 AC 12/17/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,008.3 µg/mL	+/- 36.6849
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,008.6 µg/mL	+/- 36.6985
3	Phenol	108-95-2	MKCK1120	99%	1,003.5 µg/mL	+/- 36.5120
4	Aniline	62-53-3	X22F726	99%	1,002.9 µg/mL	+/- 36.4893
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,003.0 µg/mL	+/- 36.4938
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.6 µg/mL	+/- 36.5894
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.1 µg/mL	+/- 36.5348
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,002.1 µg/mL	+/- 36.4620
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,003.5 µg/mL	+/- 36.5120
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,005.3 µg/mL	+/- 36.5757
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,008.4 µg/mL	+/- 36.6894
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,004.6 µg/mL	+/- 36.5530
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.1 µg/mL	+/- 18.2697
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.8 µg/mL	+/- 18.3288
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,006.5 µg/mL	+/- 36.6212
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.5 µg/mL	+/- 36.5484
17	Nitrobenzene	98-95-3	10224044	99%	1,002.5 µg/mL	+/- 36.4757

18	Isophorone	78-59-1	MKCR3249	99%	1,003.4	µg/mL	+/- 36.5075
19	2-Nitrophenol	88-75-5	RP230710	99%	1,002.5	µg/mL	+/- 36.4757
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,006.5	µg/mL	+/- 36.6212
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,006.6	µg/mL	+/- 36.6257
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,001.5	µg/mL	+/- 36.4393
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,006.4	µg/mL	+/- 36.6166
24	Naphthalene	91-20-3	STBL1057	99%	1,002.1	µg/mL	+/- 36.4620
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,004.4	µg/mL	+/- 36.5439
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,002.5	µg/mL	+/- 36.4771
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.5	µg/mL	+/- 36.5484
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,000.0	µg/mL	+/- 36.3847
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,001.3	µg/mL	+/- 36.4325
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,006.4	µg/mL	+/- 36.6166
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.6	µg/mL	+/- 36.5505
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.3	µg/mL	+/- 36.5393
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.4	µg/mL	+/- 36.5439
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,002.8	µg/mL	+/- 36.4847
36	Acenaphthylene	208-96-8	RP241029RSR	98%	1,000.0	µg/mL	+/- 36.3835
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.3	µg/mL	+/- 36.6121
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,008.9	µg/mL	+/- 36.7076
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,006.6	µg/mL	+/- 36.6257
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,002.5	µg/mL	+/- 36.4757
41	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 36.3847
42	3-Nitroaniline	99-09-2	RP240708RSR	99%	1,004.6	µg/mL	+/- 36.5530
43	2,4-Dinitrophenol	51-28-5	D240927RSR	----%	1,005.6	µg/mL	+/- 36.5894
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,003.5	µg/mL	+/- 36.5120
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,008.3	µg/mL	+/- 36.6849
46	4-Nitrophenol	100-02-7	20241029-2-AN	99%	1,004.8	µg/mL	+/- 36.5575
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,005.8	µg/mL	+/- 36.5939
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP231219RSR	99%	1,006.4	µg/mL	+/- 36.6166
49	Fluorene	86-73-7	10246250	98%	1,000.7	µg/mL	+/- 36.4102
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,004.9	µg/mL	+/- 36.5621
51	Diethylphthalate	84-66-2	BCCJ6241	99%	1,003.9	µg/mL	+/- 36.5257
52	4-Nitroaniline	100-01-6	RP230111	99%	1,006.6	µg/mL	+/- 36.6257
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,001.3	µg/mL	+/- 36.4302

54	Diphenylamine	122-39-4	MKCT1512	99%	1,003.0	µg/mL	+/- 36.4938
55	Azobenzene	103-33-3	BCCK0887	99%	1,002.4	µg/mL	+/- 36.4711
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,008.8	µg/mL	+/- 36.7031
57	Hexachlorobenzene	118-74-1	15458400	99%	1,005.1	µg/mL	+/- 36.5712
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.9	µg/mL	+/- 36.5984
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.9	µg/mL	+/- 36.5621
60	Anthracene	120-12-7	101492T18R	99%	1,005.1	µg/mL	+/- 36.5712
61	Carbazole	86-74-8	15276700	99%	1,005.4	µg/mL	+/- 36.5803
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,006.3	µg/mL	+/- 36.6121
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.5	µg/mL	+/- 36.5120
64	Pyrene	129-00-0	BCCK2592	99%	1,002.0	µg/mL	+/- 36.4575
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,007.5	µg/mL	+/- 36.6576
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.9	µg/mL	+/- 36.5984
67	Benz(a)anthracene	56-55-3	I70012022BAA	99%	1,005.5	µg/mL	+/- 36.5848
68	Chrysene	218-01-9	RP241007RSR	99%	1,005.3	µg/mL	+/- 36.5757
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,007.5	µg/mL	+/- 36.6576
70	Di-n-octyl phthalate	117-84-0	15566400	99%	1,002.3	µg/mL	+/- 36.4666
71	Benzo(b)fluoranthene	205-99-2	052013B	99%	1,004.1	µg/mL	+/- 36.5348
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,002.8	µg/mL	+/- 36.4847
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,006.2	µg/mL	+/- 36.6108
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,001.8	µg/mL	+/- 36.4490
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,003.3	µg/mL	+/- 36.5029
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,003.8	µg/mL	+/- 36.5217

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

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. : 31850 **Lot No.:** A0219438

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2025 **Storage:** 0°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

S12963 ↓ S12992 AC 12/17/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pyridine	110-86-1	SHBP6240	99%	1,008.3 µg/mL	+/- 36.6849
2	N-Nitrosodimethylamine	62-75-9	S240313RSR	99%	1,008.6 µg/mL	+/- 36.6985
3	Phenol	108-95-2	MKCK1120	99%	1,003.5 µg/mL	+/- 36.5120
4	Aniline	62-53-3	X22F726	99%	1,002.9 µg/mL	+/- 36.4893
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,003.0 µg/mL	+/- 36.4938
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.6 µg/mL	+/- 36.5894
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.1 µg/mL	+/- 36.5348
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,002.1 µg/mL	+/- 36.4620
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,003.5 µg/mL	+/- 36.5120
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,005.3 µg/mL	+/- 36.5757
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,008.4 µg/mL	+/- 36.6894
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,004.6 µg/mL	+/- 36.5530
13	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.1 µg/mL	+/- 18.2697
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	503.8 µg/mL	+/- 18.3288
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,006.5 µg/mL	+/- 36.6212
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.5 µg/mL	+/- 36.5484
17	Nitrobenzene	98-95-3	10224044	99%	1,002.5 µg/mL	+/- 36.4757

18	Isophorone	78-59-1	MKCR3249	99%	1,003.4	µg/mL	+/- 36.5075
19	2-Nitrophenol	88-75-5	RP230710	99%	1,002.5	µg/mL	+/- 36.4757
20	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,006.5	µg/mL	+/- 36.6212
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,006.6	µg/mL	+/- 36.6257
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,001.5	µg/mL	+/- 36.4393
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,006.4	µg/mL	+/- 36.6166
24	Naphthalene	91-20-3	STBL1057	99%	1,002.1	µg/mL	+/- 36.4620
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,004.4	µg/mL	+/- 36.5439
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,002.5	µg/mL	+/- 36.4771
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.5	µg/mL	+/- 36.5484
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,000.0	µg/mL	+/- 36.3847
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,001.3	µg/mL	+/- 36.4325
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,006.4	µg/mL	+/- 36.6166
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.6	µg/mL	+/- 36.5505
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.3	µg/mL	+/- 36.5393
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.4	µg/mL	+/- 36.5439
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,002.8	µg/mL	+/- 36.4847
36	Acenaphthylene	208-96-8	RP241029RSR	98%	1,000.0	µg/mL	+/- 36.3835
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,006.3	µg/mL	+/- 36.6121
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,008.9	µg/mL	+/- 36.7076
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,006.6	µg/mL	+/- 36.6257
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,002.5	µg/mL	+/- 36.4757
41	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 36.3847
42	3-Nitroaniline	99-09-2	RP240708RSR	99%	1,004.6	µg/mL	+/- 36.5530
43	2,4-Dinitrophenol	51-28-5	D240927RSR	----%	1,005.6	µg/mL	+/- 36.5894
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,003.5	µg/mL	+/- 36.5120
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,008.3	µg/mL	+/- 36.6849
46	4-Nitrophenol	100-02-7	20241029-2-AN	99%	1,004.8	µg/mL	+/- 36.5575
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,005.8	µg/mL	+/- 36.5939
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP231219RSR	99%	1,006.4	µg/mL	+/- 36.6166
49	Fluorene	86-73-7	10246250	98%	1,000.7	µg/mL	+/- 36.4102
50	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,004.9	µg/mL	+/- 36.5621
51	Diethylphthalate	84-66-2	BCCJ6241	99%	1,003.9	µg/mL	+/- 36.5257
52	4-Nitroaniline	100-01-6	RP230111	99%	1,006.6	µg/mL	+/- 36.6257
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,001.3	µg/mL	+/- 36.4302

54	Diphenylamine	122-39-4	MKCT1512	99%	1,003.0	µg/mL	+/- 36.4938
55	Azobenzene	103-33-3	BCCK0887	99%	1,002.4	µg/mL	+/- 36.4711
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,008.8	µg/mL	+/- 36.7031
57	Hexachlorobenzene	118-74-1	15458400	99%	1,005.1	µg/mL	+/- 36.5712
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.9	µg/mL	+/- 36.5984
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.9	µg/mL	+/- 36.5621
60	Anthracene	120-12-7	101492T18R	99%	1,005.1	µg/mL	+/- 36.5712
61	Carbazole	86-74-8	15276700	99%	1,005.4	µg/mL	+/- 36.5803
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,006.3	µg/mL	+/- 36.6121
63	Fluoranthene	206-44-0	MKCQ4728	99%	1,003.5	µg/mL	+/- 36.5120
64	Pyrene	129-00-0	BCCK2592	99%	1,002.0	µg/mL	+/- 36.4575
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,007.5	µg/mL	+/- 36.6576
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCM1988	99%	1,005.9	µg/mL	+/- 36.5984
67	Benz(a)anthracene	56-55-3	I70012022BAA	99%	1,005.5	µg/mL	+/- 36.5848
68	Chrysene	218-01-9	RP241007RSR	99%	1,005.3	µg/mL	+/- 36.5757
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,007.5	µg/mL	+/- 36.6576
70	Di-n-octyl phthalate	117-84-0	15566400	99%	1,002.3	µg/mL	+/- 36.4666
71	Benzo(b)fluoranthene	205-99-2	052013B	99%	1,004.1	µg/mL	+/- 36.5348
72	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,002.8	µg/mL	+/- 36.4847
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,006.2	µg/mL	+/- 36.6108
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,001.8	µg/mL	+/- 36.4490
75	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,003.3	µg/mL	+/- 36.5029
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,003.8	µg/mL	+/- 36.5217

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 788-9222
www.chemtech.net

CHAIN OF CUSTODY RECORD

Alliance Project Number: Q1609

COC Number: 2042111

CLIENT INFORMATION

COMPANY: ENTACT, LLC
ADDRESS: 150 Bay Street, Suite 806
CITY: Jersey City STATE: NJ ZIP: 07302
ATTENTION: Jarod Stanfield
PHONE: 570-886-0442 FAX:

PROJECT INFORMATION

PROJECT NAME: 540 Degraw St Brooklyn, NY
PROJECT #: E9309 LOCATION: Brooklyn, NY
PROJECT MANAGER: Jarod Stanfield
E-MAIL: jstanfield@entact.com
PHONE: 570-886-0442 FAX:

BILLING INFORMATION

BILL TO: ENTACT, LLC PO# E9309
ADDRESS: 999 Oakmont Plaza Drive, Suite 300
CITY: Westmont STATE: IL ZIP: 60559
ATTENTION: Wendy Murray PHONE: 800-936-8228

DATA TURNAROUND INFORMATION

FAX: 5 DAYS*
HARD COPY: DAYS*
EDD 5 DAYS*
* TO BE APPROVED BY ALLIANCE
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESEULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ EDD Format
- ☐ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other

ANALYSIS

1	2	3	4	5	6	7	8	9
TCLP VOCs	TCLP ICP Metals	TCLP Herb	TCLP Pest	TCLP SVOCs	TCLP pH	I/C/R	PCBs	Oil & Grease

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.	WC-SCRN-01-G	Soil		X	3/19	13:30	1	X									
2.	WC-SCRN-01-C	Soil	X		3/19	13:30	11		X	X	X	X	X	X	X	X	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

E = PRESERVATIVES

<-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. Jarod Stanfield	3/19 15:30	1. 3-20-25 0830
RELINQUISHED BY 2.	DATE/TIME	RECEIVED BY 2.
RELINQUISHED BY 3.	DATE/TIME	RECEIVED FOR LAB BY 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 3.0 ☐ Ice in Cooler?:

Comments:

Page of

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight
ALLIANCE: ☐ Picked Up ☐ Overnight

Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPYFOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 788-9222
www.chemtech.net

CHAIN OF CUSTODY RECORD

Alliance Project Number: Q1609

COC Number: 2042111

CLIENT INFORMATION

COMPANY: **ENTACT, LLC**
ADDRESS: **150 Bay Street, Suite 806**
CITY **Jersey City** STATE: **NJ** ZIP: **07302**
ATTENTION: **Jarod Stanfield**
PHONE: **570-886-0442** FAX:

PROJECT INFORMATION

PROJECT NAME: **540 Degraw St Brooklyn, NY**
PROJECT #: **E9309** LOCATION: **Brooklyn, NY**
PROJECT MANAGER: **Jarod Stanfield**
E-MAIL: **jstanfield@entact.com**
PHONE: **570-886-0442** FAX:

BILLING INFORMATION

BILL TO: **ENTACT, LLC** PO# **E9309**
ADDRESS: **999 Oakmont Plaza Drive, Suite 300**
CITY: **Westmont** STATE: **IL** ZIP: **60559**
ATTENTION: **Wendy Murray** PHONE: **800-936-8228**

DATA TURNAROUND INFORMATION

FAX: 5 DAYS*
HARD COPY: DAYS*
EDD 5 DAYS*
* TO BE APPROVED BY ALLIANCE
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD Format

ANALYSIS

ASTM COD	ASTM Ammonia-Nitrogen	ASTM O&G	ASTM TS	TS, TVS	pH	Paint Filter		
10	11	12	13	14	15	16		

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
								E	E	E	E	E	E	E			<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
1.	WC-SCRN-01-G	Soil		X	3/19	13:30	1										
2.	WC-SCRN-01-C	Soil	X		3/19	13:30	11	X	X	X	X	X	X	X			
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1. **Jarod Stanfield**	3/19 15:30	1. 3-20-25 0830
RELINQUISHED BY 2.	DATE/TIME	RECEIVED BY 2.
RELINQUISHED BY 3.	DATE/TIME	RECEIVED FOR LAB BY 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 3.0 ☐ Ice in Cooler?:

Comments:

Page of

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight
ALLIANCE: ☐ Picked Up ☐ Overnight

Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPYFOR RETURN TO CLIENT **YELLOW** - ALLIANCE COPY **PINK** - SAMPLER COPY

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

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

QA Control Code: A2070148