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

Cover Page

Order ID : Q3157

Project ID : Yard Soil Cleanup

Client : Always Available Construction LLC.

Lab Sample Number	Client Sample Number
Q3157-01	20-DEAD-1
Q3157-02	20-DEAD-1
Q3157-03	TB

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: 9/25/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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 #: **Q3157**

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

QA Review Signature: **KETAN PATEL** **Date:** **09/25/2025**

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

LAB CHRONICLE

OrderID:	Q3157	**OrderDate:**	9/19/2025 2:22:59 PM
Client:	Always Available Construction LLC.	**Project:**	Yard Soil Cleanup
Contact:	MIchael Roth	**Location:**	D31,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3157-01	**20-DEAD-1**	**SOIL**			**09/19/25**			**09/19/25**
			SVOC-TCL BNA -20	8270E		09/22/25	09/23/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q3157

Client: Always Available Construction LLC.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID :	**20-DEAD-1**								
Q3157-01	20-DEAD-1	SOIL	Fluoranthene		160.000	J	32.9	190	ug/Kg
Q3157-01	20-DEAD-1	SOIL	Pyrene		180.000	J	39.5	190	ug/Kg
Q3157-01	20-DEAD-1	SOIL	Benzo(a)anthracene		100.000	J	25.2	190	ug/Kg
Q3157-01	20-DEAD-1	SOIL	Chrysene		110.000	J	21.8	190	ug/Kg
Q3157-01	20-DEAD-1	SOIL	Benzo(b)fluoranthene		130.000	J	20.8	190	ug/Kg
Q3157-01	20-DEAD-1	SOIL	Benzo(a)pyrene		97.400	J	32.4	190	ug/Kg
			Total Svoc :		**777.40**				
Q3157-01	20-DEAD-1	SOIL	3-Eicosene, (E)-	*	150.000	J	0	0	ug/Kg
Q3157-01	20-DEAD-1	SOIL	Benzophenone	*	220.000	J	0	0	ug/Kg
Q3157-01	20-DEAD-1	SOIL	n-Hexadecanoic acid	*	330.000	J	0	0	ug/Kg
Q3157-01	20-DEAD-1	SOIL	Octadecanoic acid	*	81.900	J	0	0	ug/Kg
			Total Tics :		**781.90**				
			Total Concentration:		**1,559.30**				

QC SUMMARY

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

Surrogate Summary

SW-846

SDG No.: Q3157

Client: Always Available Construction LLC.

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
PB169774BL	PB169774BL	2-Fluorophenol	150	123	82		18	112
		Phenol-d6	150	117	78		15	107
		Nitrobenzene-d5	100	72.8	73		18	107
		2-Fluorobiphenyl	100	71.4	71		20	109
		2,4,6-Tribromophenol	150	134	89		10	116
		Terphenyl-d14	100	67.4	67		10	105
PB169774BS	PB169774BS	2-Fluorophenol	150	122	81		18	112
		Phenol-d6	150	119	79		15	107
		Nitrobenzene-d5	100	69.3	69		18	107
		2-Fluorobiphenyl	100	67.8	68		20	109
		2,4,6-Tribromophenol	150	120	80		10	116
		Terphenyl-d14	100	74.3	74		10	105
Q3153-05MS	OR-500-COMP-40MS	2-Fluorophenol	150	106	71		18	112
		Phenol-d6	150	106	71		15	107
		Nitrobenzene-d5	100	57.1	57		18	107
		2-Fluorobiphenyl	100	48.9	49		20	109
		2,4,6-Tribromophenol	150	98.9	66		10	116
		Terphenyl-d14	100	56.1	56		10	105
Q3153-05MSD	OR-500-COMP-40MSD	2-Fluorophenol	150	114	76		18	112
		Phenol-d6	150	116	77		15	107
		Nitrobenzene-d5	100	59.7	60		18	107
		2-Fluorobiphenyl	100	49.7	50		20	109
		2,4,6-Tribromophenol	150	103	69		10	116
		Terphenyl-d14	100	59.6	60		10	105
Q3157-01	20-DEAD-1	2-Fluorophenol	150	77.2	51		18	112
		Phenol-d6	150	74.2	49		15	107
		Nitrobenzene-d5	100	43.2	43		18	107
		2-Fluorobiphenyl	100	44.7	45		20	109
		2,4,6-Tribromophenol	150	69.8	47		10	116
		Terphenyl-d14	100	47.9	48		10	105

Alliance TECHNICAL GROUP
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.: Q3157 **Analytical Method:** SW8270E

Client: Always Available Construction LLC. **DataFile:** BP025835.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q3153-05MS		**Client Sample ID: OR-500-COMP-40MS**									
Benzaldehyde	1200	0	880	ug/Kg	73				10	171	
Phenol	1200	0	1100	ug/Kg	92				51	122	
bis(2-Chloroethyl)ether	1200	0	1000	ug/Kg	83				54	125	
2-Chlorophenol	1200	0	1100	ug/Kg	92				51	121	
2-Methylphenol	1200	0	1100	ug/Kg	92				47	125	
2,2-oxybis(1-Chloropropane)	1200	0	1000	ug/Kg	83				46	119	
Acetophenone	1200	0	1100	ug/Kg	92				55	128	
3+4-Methylphenols	1200	0	1100	ug/Kg	92				49	125	
N-Nitroso-di-n-propylamine	1200	0	1000	ug/Kg	83				59	119	
Hexachloroethane	1200	0	1100	ug/Kg	92				51	116	
Nitrobenzene	1200	0	1000	ug/Kg	83				47	124	
Isophorone	1200	0	990	ug/Kg	83				49	127	
2-Nitrophenol	1200	0	1100	ug/Kg	92				43	131	
2,4-Dimethylphenol	1200	0	1100	ug/Kg	92				63	151	
bis(2-Chloroethoxy)methane	1200	0	1000	ug/Kg	83				51	119	
2,4-Dichlorophenol	1200	0	1100	ug/Kg	92				50	122	
Naphthalene	1200	0	1000	ug/Kg	83				51	121	
4-Chloroaniline	1200	0	440	ug/Kg	37				10	100	
Hexachlorobutadiene	1200	0	1000	ug/Kg	83				44	126	
Caprolactam	1200	0	980	ug/Kg	82				51	134	
4-Chloro-3-methylphenol	1200	0	1100	ug/Kg	92				57	132	
2-Methylnaphthalene	1200	0	1000	ug/Kg	83				59	123	
Hexachlorocyclopentadiene	2300	0	1700	ug/Kg	74				10	175	
2,4,6-Trichlorophenol	1200	0	1100	ug/Kg	92				33	141	
2,4,5-Trichlorophenol	1200	0	1100	ug/Kg	92				38	135	
1,1-Biphenyl	1200	0	1100	ug/Kg	92				55	131	
2-Chloronaphthalene	1200	0	1000	ug/Kg	83				48	124	
2-Nitroaniline	1200	0	1000	ug/Kg	83				47	134	
Dimethylphthalate	1200	0	1000	ug/Kg	83				54	120	
Acenaphthylene	1200	0	1000	ug/Kg	83				57	125	
2,6-Dinitrotoluene	1200	0	1000	ug/Kg	83				48	127	
3-Nitroaniline	1200	0	670	ug/Kg	56				10	112	
Acenaphthene	1200	0	1000	ug/Kg	83				70	121	
2,4-Dinitrophenol	2300	0	1700	ug/Kg	74				10	155	
4-Nitrophenol	2300	0	1700	ug/Kg	74				10	175	
Dibenzofuran	1200	0	1000	ug/Kg	83				52	114	
2,4-Dinitrotoluene	1200	0	1000	ug/Kg	83				41	140	
Diethylphthalate	1200	0	1000	ug/Kg	83				51	119	
4-Chlorophenyl-phenylether	1200	0	1000	ug/Kg	83				48	122	
Fluorene	1200	0	1000	ug/Kg	83				53	118	
4-Nitroaniline	1200	0	950	ug/Kg	79				29	140	
4,6-Dinitro-2-methylphenol	1200	0	980	ug/Kg	82				10	160	
N-Nitrosodiphenylamine	1200	0	1100	ug/Kg	92				73	118	
4-Bromophenyl-phenylether	1200	0	1100	ug/Kg	92				65	121	
Hexachlorobenzene	1200	0	1100	ug/Kg	92				67	118	
Atrazine	1200	0	1100	ug/Kg	92				45	175	

Alliance TECHNICAL GROUP
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.: Q3157 **Analytical Method:** SW8270E

Client: Always Available Construction LLC. **DataFile:** BP025835.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Pentachlorophenol	2300	0	2000	ug/Kg	87				13	153	
Phenanthrene	1200	0	1000	ug/Kg	83				52	128	
Anthracene	1200	0	1000	ug/Kg	83				62	124	
Carbazole	1200	0	990	ug/Kg	83				59	119	
Di-n-butylphthalate	1200	0	1100	ug/Kg	92				55	125	
Fluoranthene	1200	0	960	ug/Kg	80				44	125	
Pyrene	1200	0	1100	ug/Kg	92				37	122	
Butylbenzylphthalate	1200	0	1200	ug/Kg	100				44	135	
3,3-Dichlorobenzidine	1200	0	900	ug/Kg	75				15	112	
Benzo(a)anthracene	1200	0	1000	ug/Kg	83				53	119	
Chrysene	1200	0	1000	ug/Kg	83				57	121	
bis(2-Ethylhexyl)phthalate	1200	0	1200	ug/Kg	100				42	169	
Di-n-octyl phthalate	1200	0	1200	ug/Kg	100				51	156	
Benzo(b)fluoranthene	1200	0	1000	ug/Kg	83				52	117	
Benzo(k)fluoranthene	1200	0	1000	ug/Kg	83				57	134	
Benzo(a)pyrene	1200	0	1000	ug/Kg	83				70	142	
Indeno(1,2,3-cd)pyrene	1200	0	1000	ug/Kg	83				40	129	
Dibenz(a,h)anthracene	1200	0	1000	ug/Kg	83				43	123	
Benzo(g,h,i)perylene	1200	0	1000	ug/Kg	83				24	125	
1,2,4,5-Tetrachlorobenzene	1200	0	1100	ug/Kg	92				52	134	
1,4-Dioxane	1200	0	760	ug/Kg	63				46	112	
2,3,4,6-Tetrachlorophenol	1200	0	1000	ug/Kg	83				24	146	

Alliance TECHNICAL GROUP
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.: Q3157 **Analytical Method:** SW8270E

Client: Always Available Construction LLC. **DataFile:** BP025836.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q3153-05MSD		**Client Sample ID: OR-500-COMP-40MSD**									
Benzaldehyde	1200	0	950	ug/Kg	79		8		10	171	20
Phenol	1200	0	1200	ug/Kg	100		8		51	122	20
bis(2-Chloroethyl)ether	1200	0	1100	ug/Kg	92		10		54	125	20
2-Chlorophenol	1200	0	1200	ug/Kg	100		8		51	121	20
2-Methylphenol	1200	0	1200	ug/Kg	100		8		47	125	20
2,2-oxybis(1-Chloropropane)	1200	0	1100	ug/Kg	92		10		46	119	20
Acetophenone	1200	0	1200	ug/Kg	100		8		55	128	20
3+4-Methylphenols	1200	0	1200	ug/Kg	100		8		49	125	20
N-Nitroso-di-n-propylamine	1200	0	1100	ug/Kg	92		10		59	119	20
Hexachloroethane	1200	0	1100	ug/Kg	92		0		51	116	20
Nitrobenzene	1200	0	1000	ug/Kg	83		0		47	124	20
Isophorone	1200	0	1000	ug/Kg	83		0		49	127	20
2-Nitrophenol	1200	0	1200	ug/Kg	100		8		43	131	20
2,4-Dimethylphenol	1200	0	1100	ug/Kg	92		0		63	151	20
bis(2-Chloroethoxy)methane	1200	0	1100	ug/Kg	92		10		51	119	20
2,4-Dichlorophenol	1200	0	1200	ug/Kg	100		8		50	122	20
Naphthalene	1200	0	1000	ug/Kg	83		0		51	121	20
4-Chloroaniline	1200	0	470	ug/Kg	39		5		10	100	20
Hexachlorobutadiene	1200	0	1000	ug/Kg	83		0		44	126	20
Caprolactam	1200	0	1100	ug/Kg	92		11		51	134	20
4-Chloro-3-methylphenol	1200	0	1200	ug/Kg	100		8		57	132	20
2-Methylnaphthalene	1200	0	1100	ug/Kg	92		10		59	123	20
Hexachlorocyclopentadiene	2300	0	1400	ug/Kg	61		19		10	175	20
2,4,6-Trichlorophenol	1200	0	1100	ug/Kg	92		0		33	141	20
2,4,5-Trichlorophenol	1200	0	1100	ug/Kg	92		0		38	135	20
1,1-Biphenyl	1200	0	1200	ug/Kg	100		8		55	131	20
2-Chloronaphthalene	1200	0	1100	ug/Kg	92		10		48	124	20
2-Nitroaniline	1200	0	1100	ug/Kg	92		10		47	134	20
Dimethylphthalate	1200	0	1000	ug/Kg	83		0		54	120	20
Acenaphthylene	1200	0	1100	ug/Kg	92		10		57	125	20
2,6-Dinitrotoluene	1200	0	1100	ug/Kg	92		10		48	127	20
3-Nitroaniline	1200	0	750	ug/Kg	63		12		10	112	20
Acenaphthene	1200	0	1000	ug/Kg	83		0		70	121	20
2,4-Dinitrophenol	2300	0	1600	ug/Kg	70		6		10	155	20
4-Nitrophenol	2300	0	1900	ug/Kg	83		11		10	175	20
Dibenzofuran	1200	0	1000	ug/Kg	83		0		52	114	20
2,4-Dinitrotoluene	1200	0	1100	ug/Kg	92		10		41	140	20
Diethylphthalate	1200	0	1100	ug/Kg	92		10		51	119	20
4-Chlorophenyl-phenylether	1200	0	1100	ug/Kg	92		10		48	122	20
Fluorene	1200	0	1000	ug/Kg	83		0		53	118	20
4-Nitroaniline	1200	0	1000	ug/Kg	83		5		29	140	20
4,6-Dinitro-2-methylphenol	1200	0	960	ug/Kg	80		2		10	160	20
N-Nitrosodiphenylamine	1200	0	1100	ug/Kg	92		0		73	118	20
4-Bromophenyl-phenylether	1200	0	1200	ug/Kg	100		8		65	121	20
Hexachlorobenzene	1200	0	1100	ug/Kg	92		0		67	118	20
Atrazine	1200	0	1100	ug/Kg	92		0		45	175	20

Alliance TECHNICAL GROUP
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.: Q3157 **Analytical Method:** SW8270E

Client: Always Available Construction LLC. **DataFile:** BP025836.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Pentachlorophenol	2300	0	2100	ug/Kg	91		4		13	153	20
Phenanthrene	1200	0	1000	ug/Kg	83		0		52	128	20
Anthracene	1200	0	1100	ug/Kg	92		10		62	124	20
Carbazole	1200	0	1000	ug/Kg	83		0		59	119	20
Di-n-butylphthalate	1200	0	1100	ug/Kg	92		0		55	125	20
Fluoranthene	1200	0	920	ug/Kg	77		4		44	125	20
Pyrene	1200	0	1200	ug/Kg	100		8		37	122	20
Butylbenzylphthalate	1200	0	1300	ug/Kg	108		8		44	135	20
3,3-Dichlorobenzidine	1200	0	1000	ug/Kg	83		10		15	112	20
Benzo(a)anthracene	1200	0	1100	ug/Kg	92		10		53	119	20
Chrysene	1200	0	1100	ug/Kg	92		10		57	121	20
bis(2-Ethylhexyl)phthalate	1200	0	1300	ug/Kg	108		8		42	169	20
Di-n-octyl phthalate	1200	0	1200	ug/Kg	100		0		51	156	20
Benzo(b)fluoranthene	1200	0	1100	ug/Kg	92		10		52	117	20
Benzo(k)fluoranthene	1200	0	1100	ug/Kg	92		10		57	134	20
Benzo(a)pyrene	1200	0	1100	ug/Kg	92		10		70	142	20
Indeno(1,2,3-cd)pyrene	1200	0	1100	ug/Kg	92		10		40	129	20
Dibenz(a,h)anthracene	1200	0	1100	ug/Kg	92		10		43	123	20
Benzo(g,h,i)perylene	1200	0	1100	ug/Kg	92		10		24	125	20
1,2,4,5-Tetrachlorobenzene	1200	0	1200	ug/Kg	100		8		52	134	20
1,4-Dioxane	1200	0	790	ug/Kg	66		5		46	112	20
2,3,4,6-Tetrachlorophenol	1200	0	1100	ug/Kg	92		10		24	146	20

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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q3157 **Analytical Method:** 8270E

Client: Always Available Construction LLC. **DataFile:** BP025829.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB169774BS	Benzaldehyde	1700	530	ug/Kg	31				10	133	
	Phenol	1700	1500	ug/Kg	88				62	112	
	bis(2-Chloroethyl)ether	1700	1400	ug/Kg	82				60	101	
	2-Chlorophenol	1700	1500	ug/Kg	88				65	112	
	2-Methylphenol	1700	1500	ug/Kg	88				61	108	
	2,2-oxybis(1-Chloropropane)	1700	1300	ug/Kg	76				51	100	
	Acetophenone	1700	1400	ug/Kg	82				66	98	
	3+4-Methylphenols	1700	1400	ug/Kg	82				58	111	
	N-Nitroso-di-n-propylamine	1700	1400	ug/Kg	82				63	95	
	Hexachloroethane	1700	1300	ug/Kg	76				72	108	
	Nitrobenzene	1700	1400	ug/Kg	82				57	101	
	Isophorone	1700	1300	ug/Kg	76				59	99	
	2-Nitrophenol	1700	1500	ug/Kg	88				61	111	
	2,4-Dimethylphenol	1700	1500	ug/Kg	88				46	141	
	bis(2-Chloroethoxy)methane	1700	1400	ug/Kg	82				66	97	
	2,4-Dichlorophenol	1700	1500	ug/Kg	88				62	107	
	Naphthalene	1700	1300	ug/Kg	76				62	100	
	4-Chloroaniline	1700	840	ug/Kg	49				16	100	
	Hexachlorobutadiene	1700	1400	ug/Kg	82				53	98	
	Caprolactam	1700	1500	ug/Kg	88				67	110	
	4-Chloro-3-methylphenol	1700	1500	ug/Kg	88				58	112	
	2-Methylnaphthalene	1700	1400	ug/Kg	82				60	104	
	Hexachlorocyclopentadiene	3300	2400	ug/Kg	73				45	165	
	2,4,6-Trichlorophenol	1700	1500	ug/Kg	88				59	102	
	2,4,5-Trichlorophenol	1700	1500	ug/Kg	88				61	98	
	1,1-Biphenyl	1700	1400	ug/Kg	82				57	103	
	2-Chloronaphthalene	1700	1300	ug/Kg	76				58	99	
	2-Nitroaniline	1700	1500	ug/Kg	88				66	101	
	Dimethylphthalate	1700	1400	ug/Kg	82				61	99	
	Acenaphthylene	1700	1400	ug/Kg	82				63	101	
	2,6-Dinitrotoluene	1700	1500	ug/Kg	88				61	104	
	3-Nitroaniline	1700	1200	ug/Kg	71				28	100	
	Acenaphthene	1700	1300	ug/Kg	76				57	104	
	2,4-Dinitrophenol	3300	3100	ug/Kg	94				37	128	
	4-Nitrophenol	3300	2600	ug/Kg	79				48	119	
	Dibenzofuran	1700	1400	ug/Kg	82				63	99	
	2,4-Dinitrotoluene	1700	1500	ug/Kg	88				60	106	
	Diethylphthalate	1700	1500	ug/Kg	88				60	101	
	4-Chlorophenyl-phenylether	1700	1400	ug/Kg	82				58	98	
	Fluorene	1700	1400	ug/Kg	82				61	101	
	4-Nitroaniline	1700	1500	ug/Kg	88				64	103	
	4,6-Dinitro-2-methylphenol	1700	1600	ug/Kg	94				76	113	
	N-Nitrosodiphenylamine	1700	1400	ug/Kg	82				71	99	
	4-Bromophenyl-phenylether	1700	1400	ug/Kg	82				66	102	

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.: Q3157 **Analytical Method:** 8270E

Client: Always Available Construction LLC. **DataFile:** BP025829.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB169774BS	Hexachlorobenzene	1700	1400	ug/Kg	82				64	98	
	Atrazine	1700	1400	ug/Kg	82				47	152	
	Pentachlorophenol	3300	2800	ug/Kg	85				67	105	
	Phenanthrene	1700	1400	ug/Kg	82				59	103	
	Anthracene	1700	1400	ug/Kg	82				61	105	
	Carbazole	1700	1400	ug/Kg	82				61	99	
	Di-n-butylphthalate	1700	1500	ug/Kg	88				58	104	
	Fluoranthene	1700	1400	ug/Kg	82				57	107	
	Pyrene	1700	1500	ug/Kg	88				59	103	
	Butylbenzylphthalate	1700	1600	ug/Kg	94				55	103	
	3,3-Dichlorobenzidine	1700	1200	ug/Kg	71				42	91	
	Benzo(a)anthracene	1700	1400	ug/Kg	82				60	102	
	Chrysene	1700	1400	ug/Kg	82				59	101	
	bis(2-Ethylhexyl)phthalate	1700	1600	ug/Kg	94				54	135	
	Di-n-octyl phthalate	1700	1600	ug/Kg	94				52	137	
	Benzo(b)fluoranthene	1700	1700	ug/Kg	100				62	109	
	Benzo(k)fluoranthene	1700	1700	ug/Kg	100				62	109	
	Benzo(a)pyrene	1700	1500	ug/Kg	88				63	103	
	Indeno(1,2,3-cd)pyrene	1700	1400	ug/Kg	82				63	101	
	Dibenz(a,h)anthracene	1700	1400	ug/Kg	82				61	112	
	Benzo(g,h,i)perylene	1700	1400	ug/Kg	82				70	108	
	1,2,4,5-Tetrachlorobenzene	1700	1400	ug/Kg	82				53	101	
	1,4-Dioxane	1700	1000	ug/Kg	59				50	96	
	2,3,4,6-Tetrachlorophenol	1700	1500	ug/Kg	88				59	108	

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

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Client ID: PB169774BL

Lab Name: Alliance | Contract: ALWA01

Lab Code: ACE | SDG NO.: Q3157

Lab File ID: BP025828.D | Lab Sample ID: PB169774BL

Instrument ID: BNA_P | Date Extracted: 09/22/2025

Matrix: (soil/water) SOIL | Date Analyzed: 09/23/2025

Level: (low/med) LOW | Time Analyzed: 13:48

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB169774BS	PB169774BS	BP025829.D	09/23/2025
OR-500-COMP-40MS	Q3153-05MS	BP025835.D	09/23/2025
OR-500-COMP-40MSD	Q3153-05MSD	BP025836.D	09/23/2025
20-DEAD-1	Q3157-01	BP025838.D	09/23/2025

COMMENTS:

Raw Data: **BP025724.D**

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: Alliance Contract: ALWA01

Lab Code: ACE SDG NO.: Q3157

Lab File ID: BP025724.D DFTPP Injection Date: 09/11/2025

Instrument ID: BNA_P DFTPP Injection Time: 08:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
68	Less than 2.0% of mass 69	0.6 (1.6) 1
69	Mass 69 relative abundance	36.5
70	Less than 2.0% of mass 69	0.2 (0.5) 1
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	10.8
442	Greater than 50% of mass 198	69.4
443	15.0 - 24.0% of mass 442	13.7 (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
SSTDICC2.5	SSTDICC2.5	BP025725.D	09/11/2025	08:56
SSTDICC005	SSTDICC005	BP025726.D	09/11/2025	09:37
SSTDICC010	SSTDICC010	BP025727.D	09/11/2025	10:18
SSTDICC020	SSTDICC020	BP025728.D	09/11/2025	10:59
SSTDICCC040	SSTDICCC040	BP025729.D	09/11/2025	12:21
SSTDICC060	SSTDICC060	BP025731.D	09/11/2025	13:43
SSTDICC080	SSTDICC080	BP025732.D	09/11/2025	14:24
SSTDICC050	SSTDICC050	BP025733.D	09/11/2025	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: Alliance — Contract: ALWA01

Lab Code: ACE — SDG NO.: Q3157

Lab File ID: BP025823.D — DFTPP Injection Date: 09/23/2025

Instrument ID: BNA_P — DFTPP Injection Time: 09:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	34.4
70	Less than 2.0% of mass 69	0.1 (0.4) 1
197	Less than 2.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	11.9
442	Greater than 50% of mass 198	76
443	15.0 - 24.0% of mass 442	14.8 (19.4) 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	BP025824.D	09/23/2025	11:03
PB169774BL	PB169774BL	BP025828.D	09/23/2025	13:48
PB169774BS	PB169774BS	BP025829.D	09/23/2025	14:29
OR-500-COMP-40MS	Q3153-05MS	BP025835.D	09/23/2025	18:41
OR-500-COMP-40MSD	Q3153-05MSD	BP025836.D	09/23/2025	19:22
20-DEAD-1	Q3157-01	BP025838.D	09/23/2025	20:45

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: Alliance

Lab Code: ACE SDG NO.: Q3157

Client ID : SSTDCCC040 Date Analyzed: 09/23/2025

Lab File ID: BP025824.D Time Analyzed: 11:03

Instrument ID: BNA_P GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	220036	7.755	921644	10.52	640458	14.38
	UPPER LIMIT	440072	8.255	1843290	11.019	1280920	14.878
	LOWER LIMIT	110018	7.255	460822	10.019	320229	13.878
	EPA SAMPLE NO.						
01	PB169774BL	226989	7.75	889928	10.52	600979	14.37
02	PB169774BS	241907	7.75	991516	10.52	681683	14.37
03	OR-500-COMP-40MS	185533	7.75	778843	10.51	542949	14.37
04	OR-500-COMP-40MSD	217289	7.75	953089	10.52	680180	14.38
05	20-DEAD-1	228660	7.75	922534	10.52	611338	14.37

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: Alliance

Lab Code: ACE SDG NO.: Q3157

Client ID: SSTDCCC040 Date Analyzed: 09/23/2025

Lab File ID: BP025824.D Time Analyzed: 11:03

Instrument ID: BNA_P GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1402360	17.178	1584560	21.63	1726840	25.007
	UPPER LIMIT	2804720	17.678	3169120	22.13	3453680	25.507
	LOWER LIMIT	701180	16.678	792280	21.13	863420	24.507
	EPA SAMPLE NO.						
01	PB169774BL	1402810	17.18	1747160	21.64	1629650	25.00
02	PB169774BS	1453270	17.16	1418310	21.62	1138070	24.98
03	OR-500-COMP-40MS	1061860	17.18	915774	21.63	1000890	24.98
04	OR-500-COMP-40MSD	1328390	17.18	1034220	21.63	1170740	24.98
05	20-DEAD-1	1122180	17.17	1028860	21.62	1135780	24.98

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: **BP025838.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	20-DEAD-1	SDG No.:	Q3157
Lab Sample ID:	Q3157-01	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.9
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025838.D	1	09/22/25 09:30	09/23/25 20:45	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	170	U	170	360	ug/Kg
108-95-2	Phenol	24.2	U	24.2	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	26.7	U	26.7	190	ug/Kg
95-57-8	2-Chlorophenol	26.8	U	26.8	190	ug/Kg
95-48-7	2-Methylphenol	32.8	U	32.8	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	41.1	U	41.1	190	ug/Kg
98-86-2	Acetophenone	32.4	U	32.4	190	ug/Kg
65794-96-9	3+4-Methylphenols	45.1	U	45.1	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	52.0	U	52.0	87.8	ug/Kg
67-72-1	Hexachloroethane	19.3	U	19.3	190	ug/Kg
98-95-3	Nitrobenzene	20.1	U	20.1	190	ug/Kg
78-59-1	Isophorone	36.0	U	36.0	190	ug/Kg
88-75-5	2-Nitrophenol	63.9	U	63.9	190	ug/Kg
105-67-9	2,4-Dimethylphenol	71.1	U	71.1	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	33.8	U	33.8	190	ug/Kg
120-83-2	2,4-Dichlorophenol	31.1	U	31.1	190	ug/Kg
91-20-3	Naphthalene	24.9	U	24.9	190	ug/Kg
106-47-8	4-Chloroaniline	38.8	U	38.8	190	ug/Kg
87-68-3	Hexachlorobutadiene	27.8	U	27.8	190	ug/Kg
105-60-2	Caprolactam	57.2	U	57.2	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	31.5	U	31.5	190	ug/Kg
91-57-6	2-Methylnaphthalene	28.1	U	28.1	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	130	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	21.7	U	21.7	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	31.9	U	31.9	190	ug/Kg
92-52-4	1,1-Biphenyl	23.9	U	23.9	190	ug/Kg
91-58-7	2-Chloronaphthalene	24.7	U	24.7	190	ug/Kg
88-74-4	2-Nitroaniline	52.8	U	52.8	190	ug/Kg
131-11-3	Dimethylphthalate	29.7	U	29.7	190	ug/Kg

Raw Data: **BP025838.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	20-DEAD-1	SDG No.:	Q3157
Lab Sample ID:	Q3157-01	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.9
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025838.D	1	09/22/25 09:30	09/23/25 20:45	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	31.7	U	31.7	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	36.9	U	36.9	190	ug/Kg
99-09-2	3-Nitroaniline	50.5	U	50.5	190	ug/Kg
83-32-9	Acenaphthene	23.4	U	23.4	190	ug/Kg
51-28-5	2,4-Dinitrophenol	250	U	250	360	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	360	ug/Kg
132-64-9	Dibenzofuran	24.9	U	24.9	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	55.0	U	55.0	190	ug/Kg
84-66-2	Diethylphthalate	31.1	U	31.1	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	29.3	U	29.3	190	ug/Kg
86-73-7	Fluorene	27.8	U	27.8	190	ug/Kg
100-01-6	4-Nitroaniline	70.4	U	70.4	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	110	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	36.1	U	36.1	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	30.5	U	30.5	190	ug/Kg
118-74-1	Hexachlorobenzene	27.8	U	27.8	190	ug/Kg
1912-24-9	Atrazine	37.3	U	37.3	190	ug/Kg
87-86-5	Pentachlorophenol	56.3	U	56.3	360	ug/Kg
85-01-8	Phenanthrene	22.9	U	22.9	190	ug/Kg
120-12-7	Anthracene	36.5	U	36.5	190	ug/Kg
86-74-8	Carbazole	34.2	U	34.2	190	ug/Kg
84-74-2	Di-n-butylphthalate	52.6	U	52.6	190	ug/Kg
206-44-0	Fluoranthene	160	J	32.9	190	ug/Kg
129-00-0	Pyrene	180	J	39.5	190	ug/Kg
85-68-7	Butylbenzylphthalate	78.3	U	78.3	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	40.3	U	40.3	360	ug/Kg
56-55-3	Benzo(a)anthracene	100	J	25.2	190	ug/Kg
218-01-9	Chrysene	110	J	21.8	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	65.0	U	65.0	190	ug/Kg
117-84-0	Di-n-octyl phthalate	95.2	U	95.2	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	130	J	20.8	190	ug/Kg

Raw Data: **BP025838.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	20-DEAD-1	SDG No.:	Q3157
Lab Sample ID:	Q3157-01	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.9
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025838.D	1	09/22/25 09:30	09/23/25 20:45	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	24.6	U	24.6	190	ug/Kg
50-32-8	Benzo(a)pyrene	97.4	J	32.4	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	31.9	U	31.9	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	30.1	U	30.1	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	28.2	U	28.2	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	28.1	U	28.1	190	ug/Kg
123-91-1	1,4-Dioxane	49.6	U	49.6	190	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	30.1	U	30.1	190	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	77.2		18 - 112	51%	SPK: 150
13127-88-3	Phenol-d6	74.2		15 - 107	49%	SPK: 150
4165-60-0	Nitrobenzene-d5	43.2		18 - 107	43%	SPK: 100
321-60-8	2-Fluorobiphenyl	44.7		20 - 109	45%	SPK: 100
118-79-6	2,4,6-Tribromophenol	69.8		10 - 116	47%	SPK: 150
1718-51-0	Terphenyl-d14	47.9		10 - 105	48%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	229000	7.748			
1146-65-2	Naphthalene-d8	923000	10.519			
15067-26-2	Acenaphthene-d10	611000	14.372			
1517-22-2	Phenanthrene-d10	1120000	17.172			
1719-03-5	Chrysene-d12	1030000	21.618			
1520-96-3	Perylene-d12	1140000	24.977			
TENTATIVE IDENTIFIED COMPOUNDS						
000119-61-9	Benzophenone	220	J		15.8	ug/Kg
000057-10-3	n-Hexadecanoic acid	330	J		18.1	ug/Kg
000057-11-4	Octadecanoic acid	81.9	J		19.4	ug/Kg
074685-33-9	3-Eicosene, (E)-	150	J		21.3	ug/Kg

Raw Data: **BP025838.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	20-DEAD-1	SDG No.:	Q3157
Lab Sample ID:	Q3157-01	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.9
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025838.D	1	09/22/25 09:30	09/23/25 20:45	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)

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_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Time: Sep 24 00:31:51 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

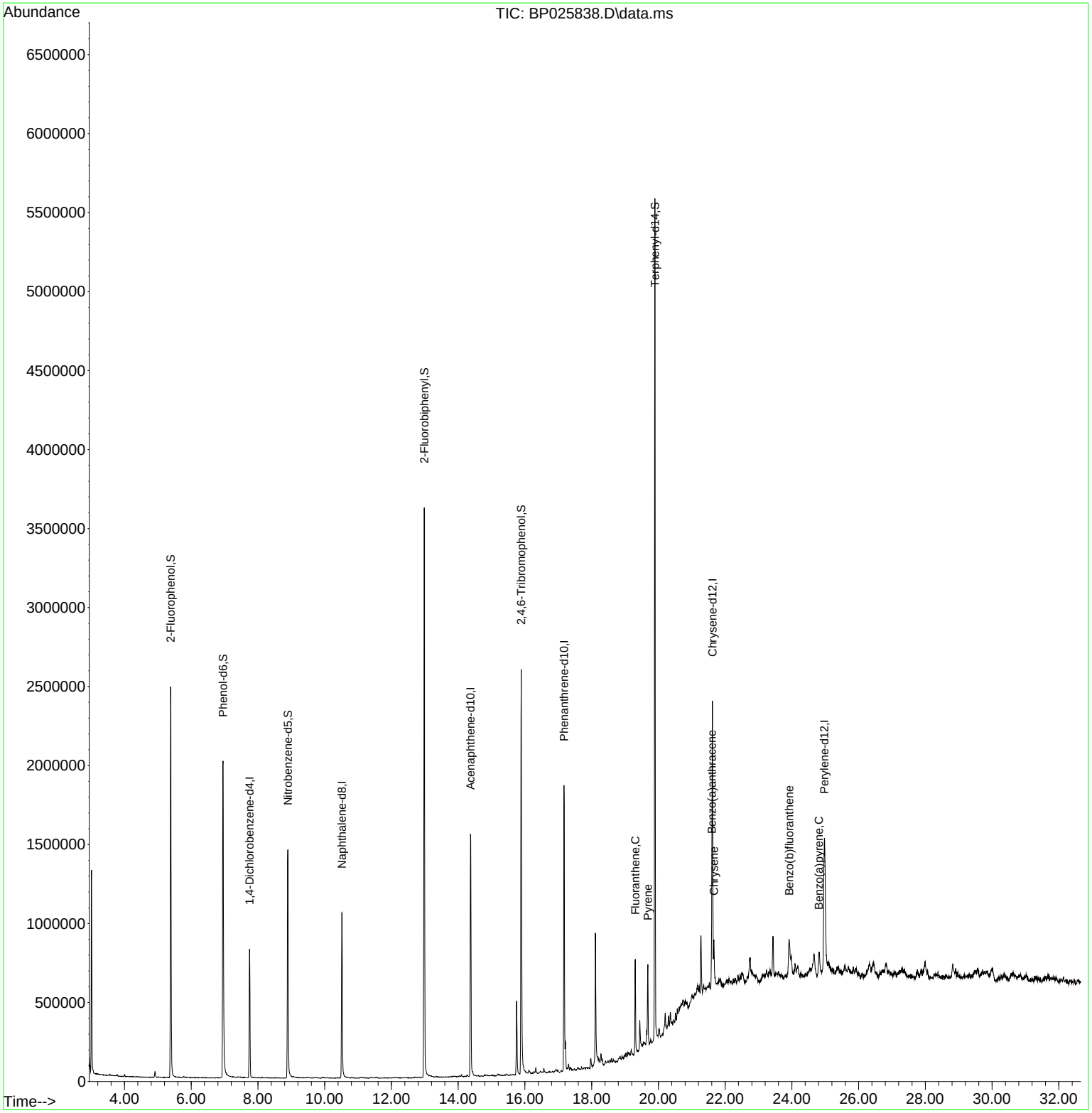
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.748	152	228660	20.000	ng		-0.01
21) Naphthalene-d8	10.519	136	922534	20.000	ng		0.00
39) Acenaphthene-d10	14.372	164	611338	20.000	ng		0.00
64) Phenanthrene-d10	17.172	188	1122180	20.000	ng		-0.01
76) Chrysene-d12	21.618	240	1028858	20.000	ng		-0.02
86) Perylene-d12	24.977	264	1135781	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.384	112	1093905	77.192	ng		0.00
7) Phenol-d6	6.954	99	1397839	74.210	ng		0.00
23) Nitrobenzene-d5	8.895	82	903727	43.212	ng		0.00
42) 2,4,6-Tribromophenol	15.889	330	532528	69.838	ng		-0.02
45) 2-Fluorobiphenyl	12.983	172	2053119	44.717	ng		0.00
79) Terphenyl-d14	19.895	244	2736960	47.857	ng		-0.02
Target Compounds							Qvalue
75) Fluoranthene	19.307	202	340363	4.458	ng		99
78) Pyrene	19.683	202	337151	4.911	ng		99
81) Benzo(a)anthracene	21.601	228	195299	2.773	ng		97
83) Chrysene	21.665	228	206180	3.071	ng		97
88) Benzo(b)fluoranthene	23.918	252	241279	3.474	ng	#	93
90) Benzo(a)pyrene	24.812	252	181097	2.663	ng	#	95

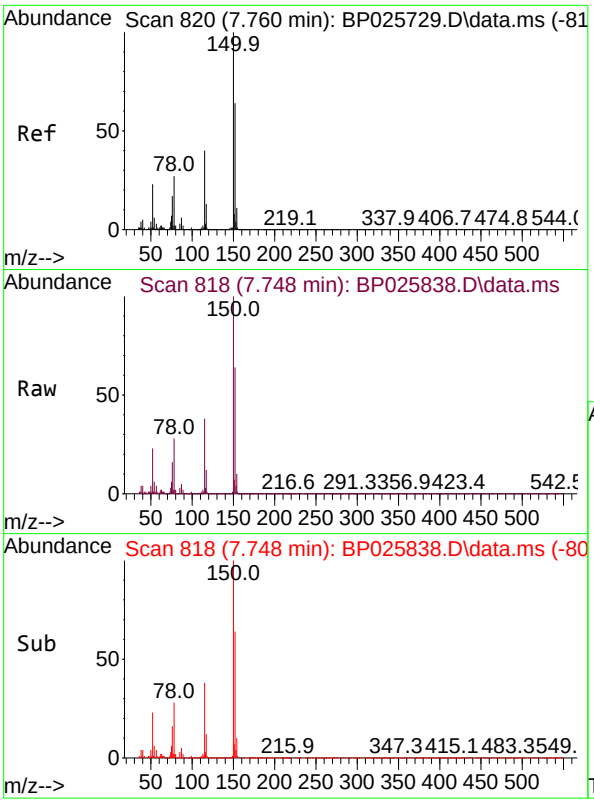
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Time: Sep 24 00:31:51 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration



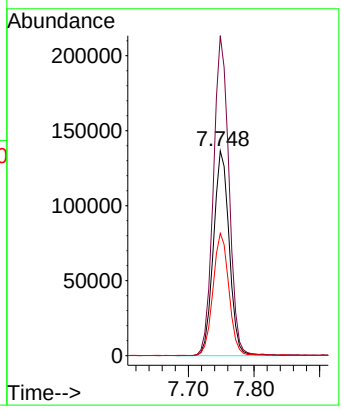


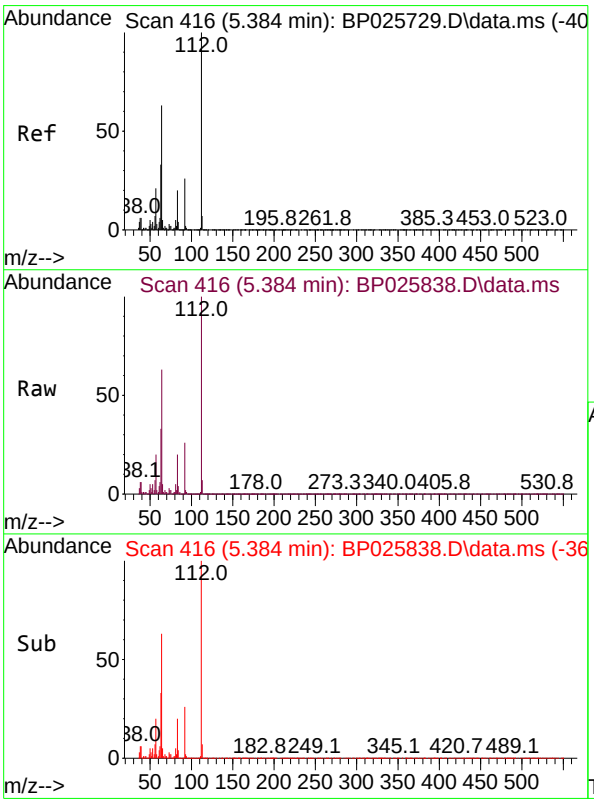
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 7.748 min Scan# 81
Delta R.T. -0.012 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion:152 Resp: 228660

Ion	Ratio	Lower	Upper
152	100		
150	156.3	124.3	186.5
115	59.8	50.3	75.5

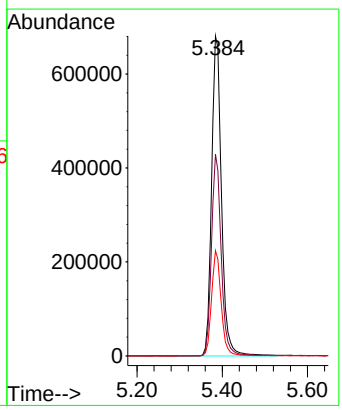


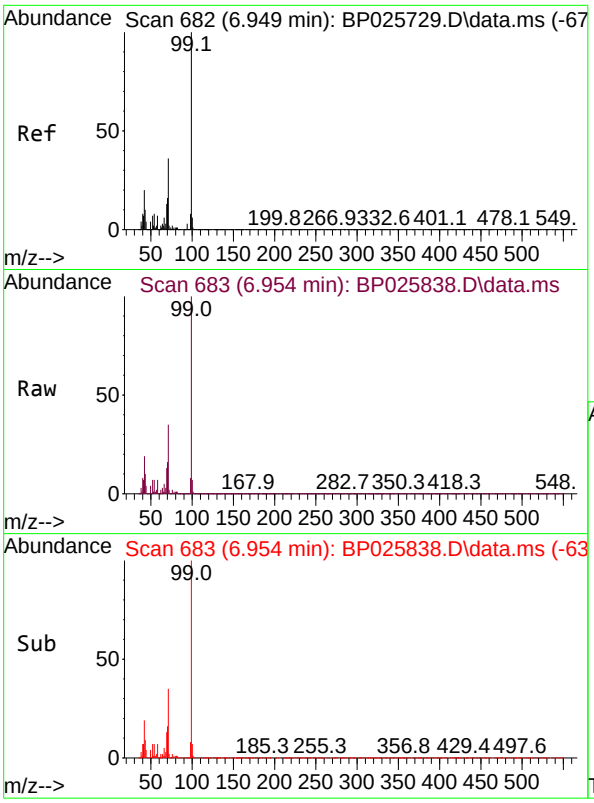


#5
2-Fluorophenol
Concen: 77.192 ng
RT: 5.384 min Scan# 416
Delta R.T. -0.000 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:112 Resp: 1093905

Ion	Ratio	Lower	Upper
112	100		
64	63.1	50.2	75.4
63	32.9	26.7	40.1



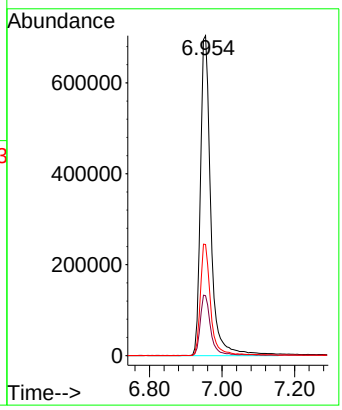


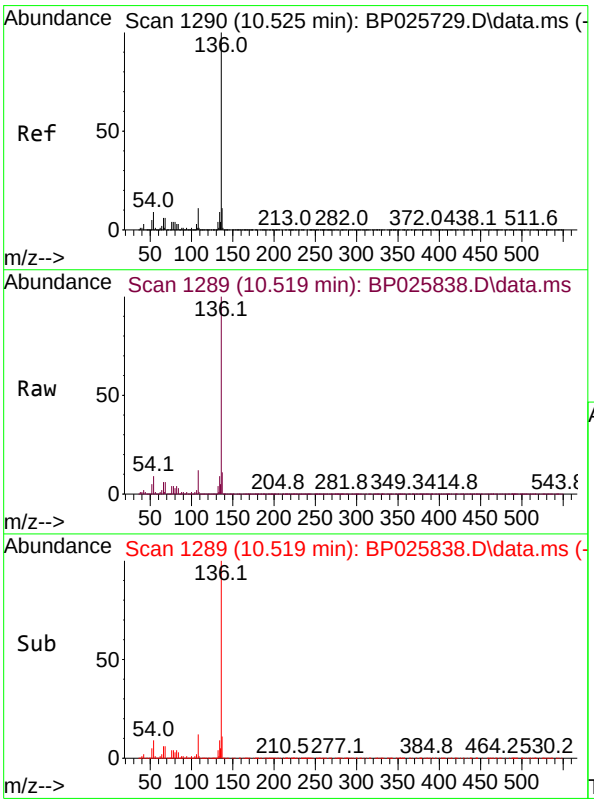
#7
Phenol-d6
Concen: 74.210 ng
RT: 6.954 min Scan# 68
Delta R.T. 0.006 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion: 99 Resp: 1397839

Ion	Ratio	Lower	Upper
99	100		
42	18.7	15.6	23.4
71	34.7	28.6	43.0

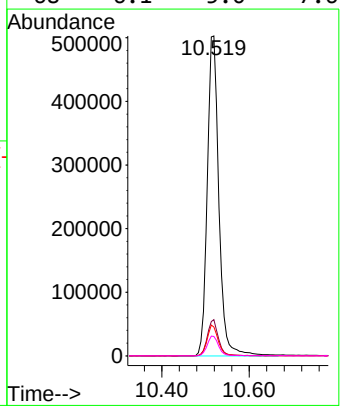


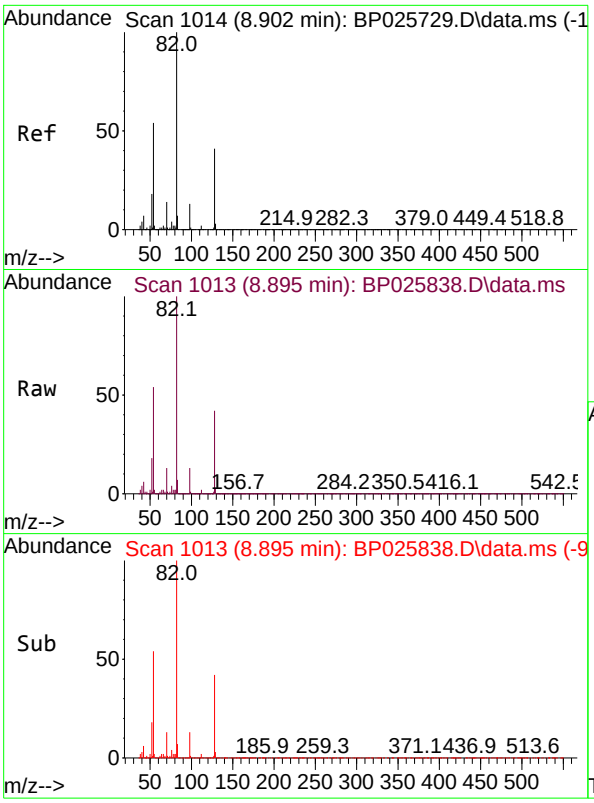


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 10.519 min Scan# 1289
Delta R.T. -0.006 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:136 Resp: 922534

Ion	Ratio	Lower	Upper
136	100		
137	11.3	8.7	13.1
54	9.0	7.5	11.3
68	6.1	5.0	7.6



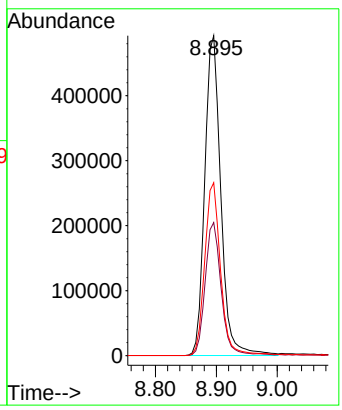


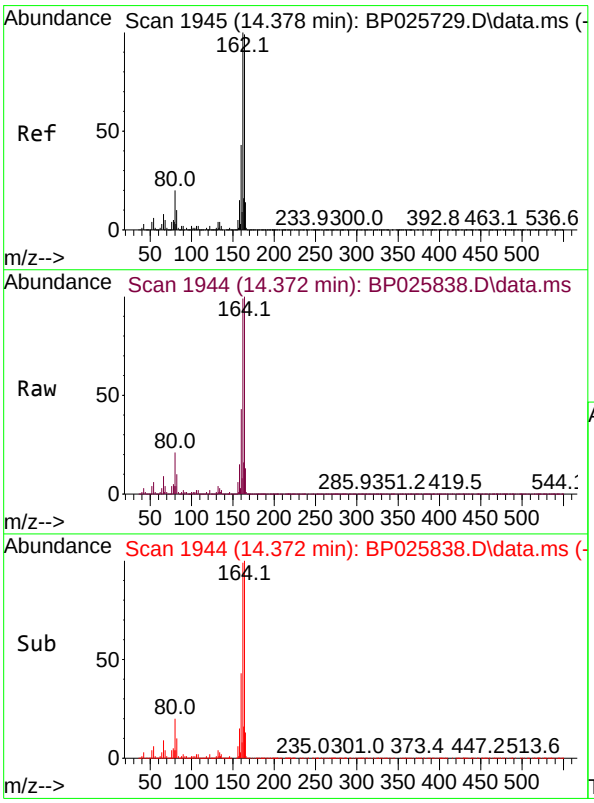
#23
Nitrobenzene-d5
Concen: 43.212 ng
RT: 8.895 min Scan# 10
Delta R.T. -0.006 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion: 82 Resp: 903727

Ion	Ratio	Lower	Upper
82	100		
128	41.6	32.9	49.3
54	54.0	43.4	65.2

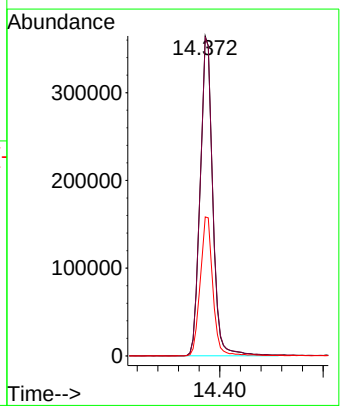


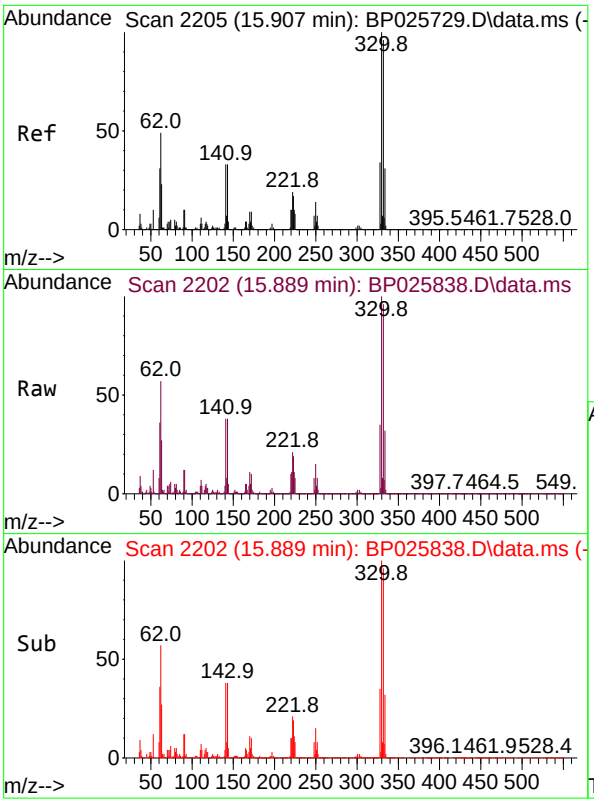


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 14.372 min Scan# 1944
Delta R.T. -0.006 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:164 Resp: 611338

Ion	Ratio	Lower	Upper
164	100		
162	99.5	80.6	120.8
160	43.4	35.0	52.6



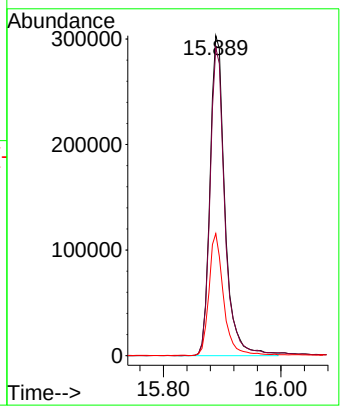


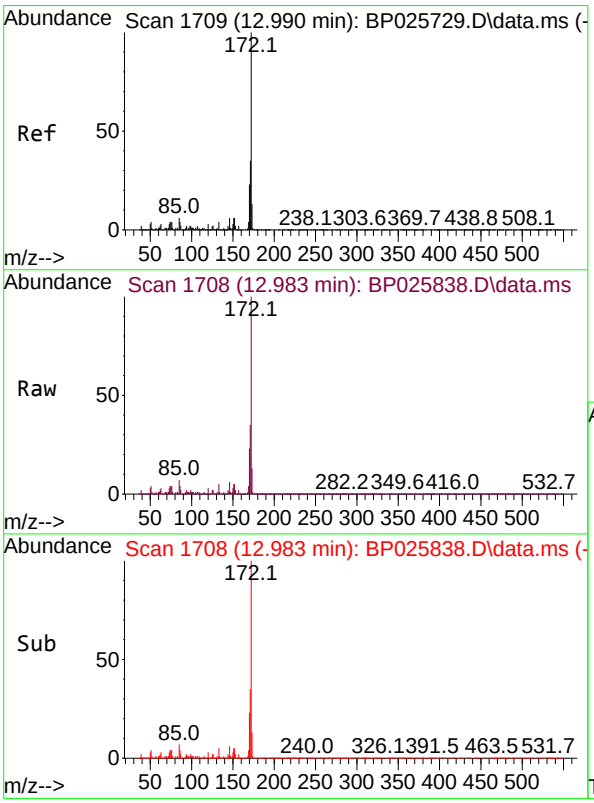
#42
2,4,6-Tribromophenol
Concen: 69.838 ng
RT: 15.889 min Scan# 2
Delta R.T. -0.018 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion:330 Resp: 532528

Ion	Ratio	Lower	Upper
330	100		
332	95.9	76.9	115.3
141	37.8	31.0	46.4

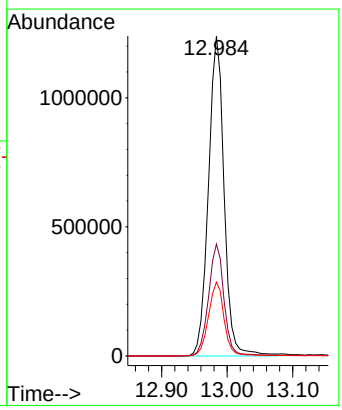


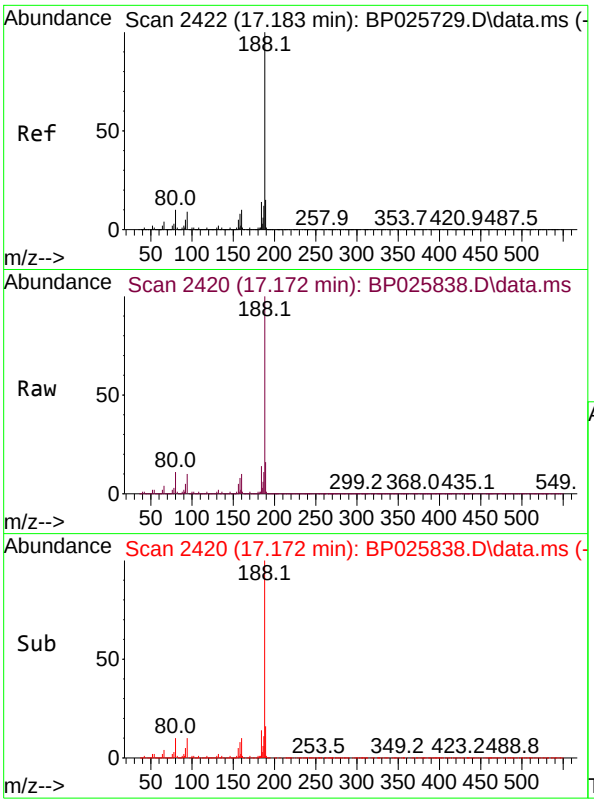


#45
2-Fluorobiphenyl
Concen: 44.717 ng
RT: 12.983 min Scan# 1708
Delta R.T. -0.006 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:172 Resp: 2053119

Ion	Ratio	Lower	Upper
172	100		
171	34.9	27.8	41.6
170	23.1	18.6	27.8



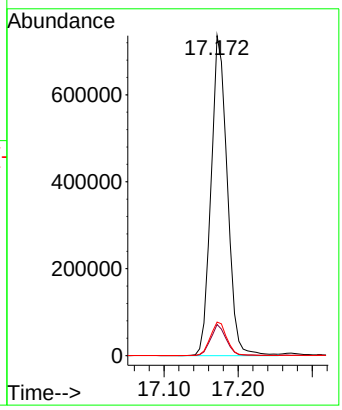


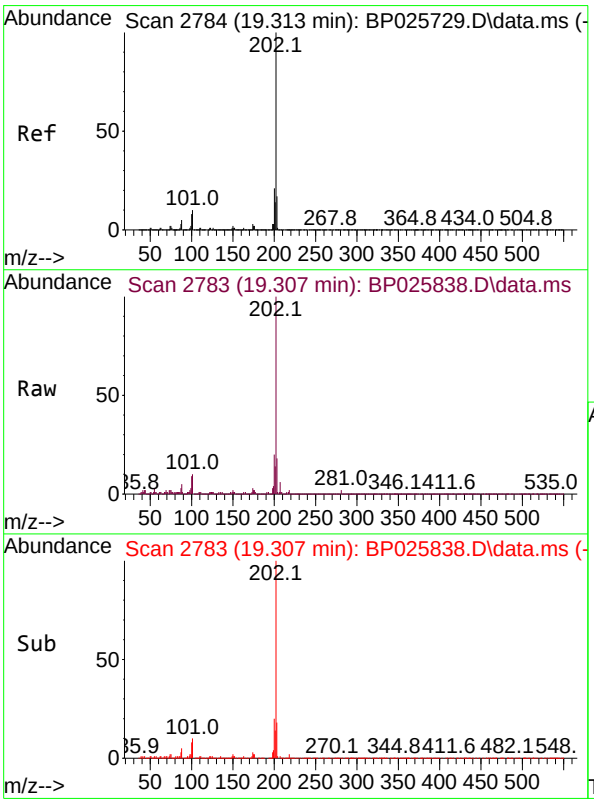
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 17.172 min Scan# 24
Delta R.T. -0.012 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion:188 Resp: 1122180

Ion	Ratio	Lower	Upper
188	100		
94	9.7	7.4	11.0
80	10.5	7.7	11.5

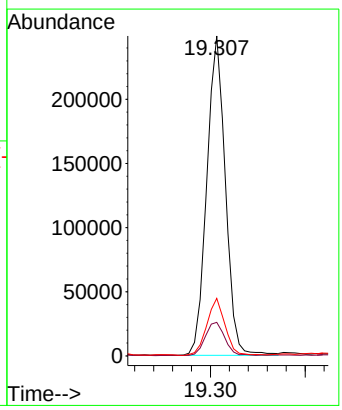


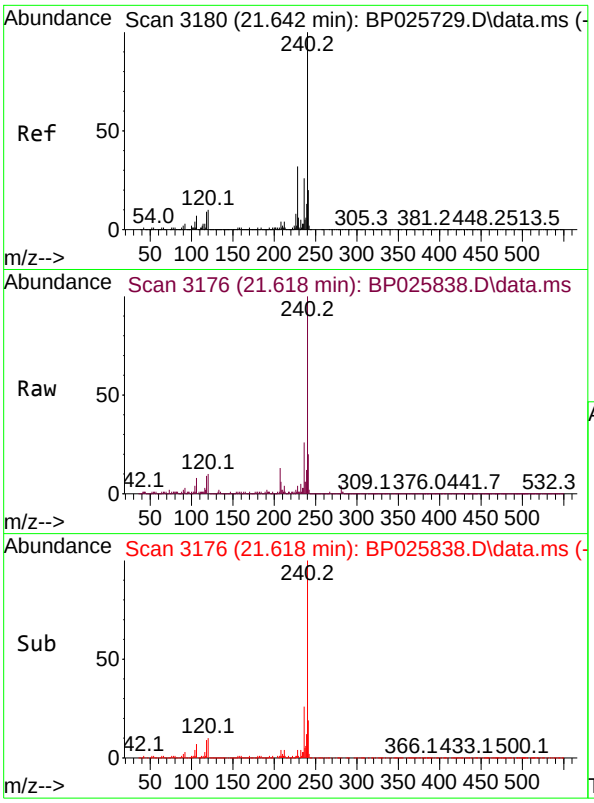


#75
Fluoranthene
Concen: 4.458 ng
RT: 19.307 min Scan# 2783
Delta R.T. -0.006 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:202 Resp: 340363

Ion	Ratio	Lower	Upper
202	100		
101	10.5	0.0	30.4
203	18.0	0.0	37.4



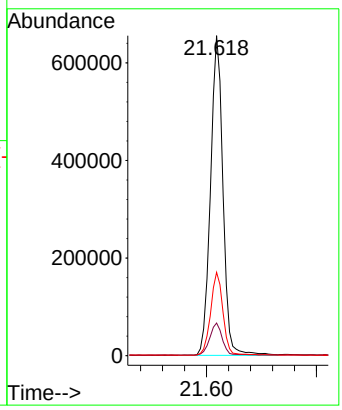


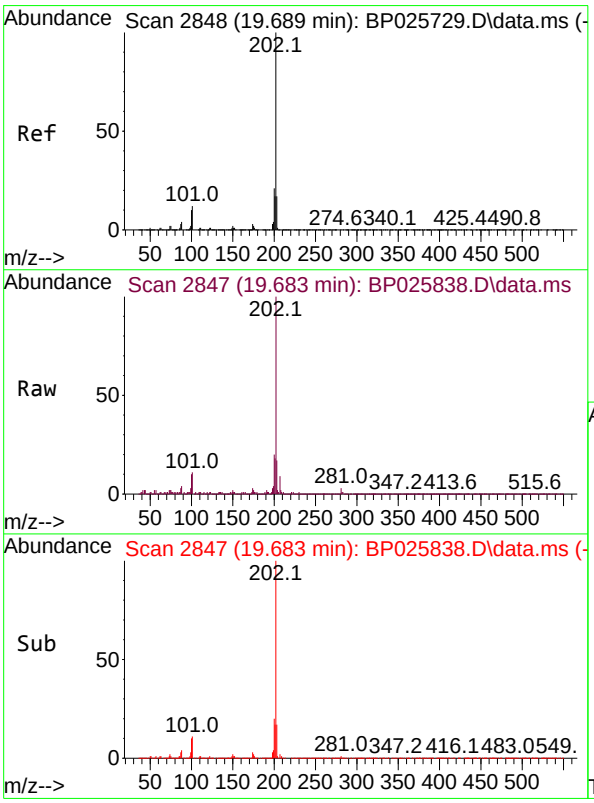
#76
Chrysene-d12
Concen: 20.000 ng
RT: 21.618 min Scan# 31
Delta R.T. -0.024 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion:240 Resp: 1028858

Ion	Ratio	Lower	Upper
240	100		
120	10.2	8.0	12.0
236	26.1	20.7	31.1

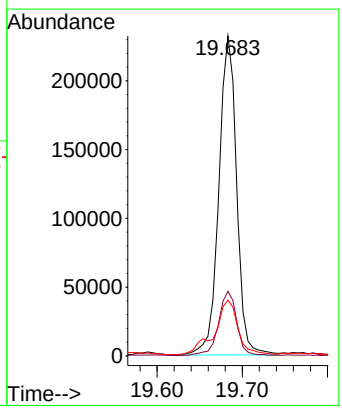


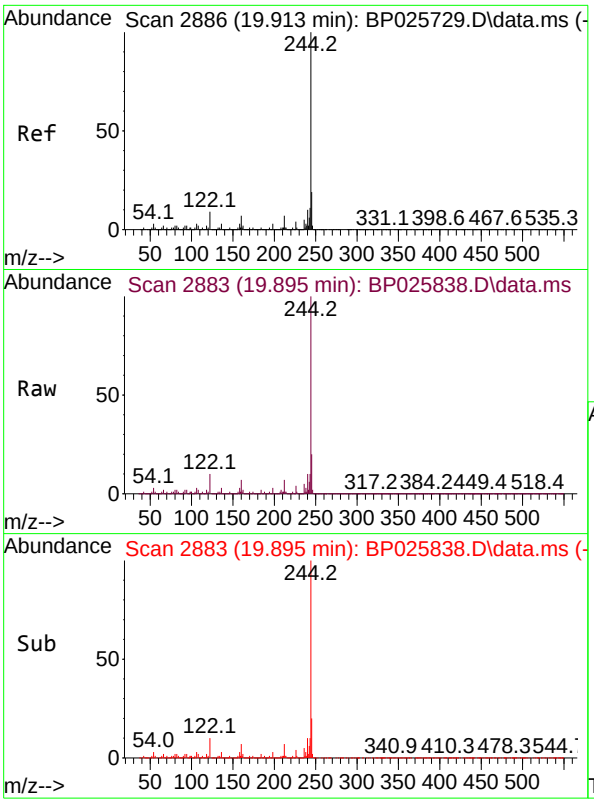


#78
Pyrene
Concen: 4.911 ng
RT: 19.683 min Scan# 2847
Delta R.T. -0.006 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:202 Resp: 337151

Ion	Ratio	Lower	Upper
202	100		
200	20.2	17.0	25.6
203	17.4	13.9	20.9



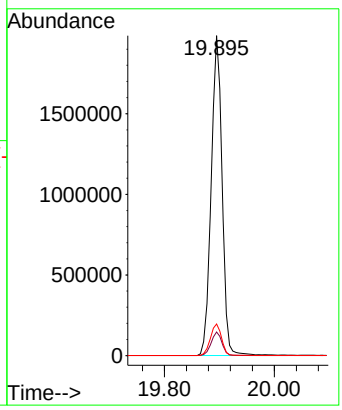


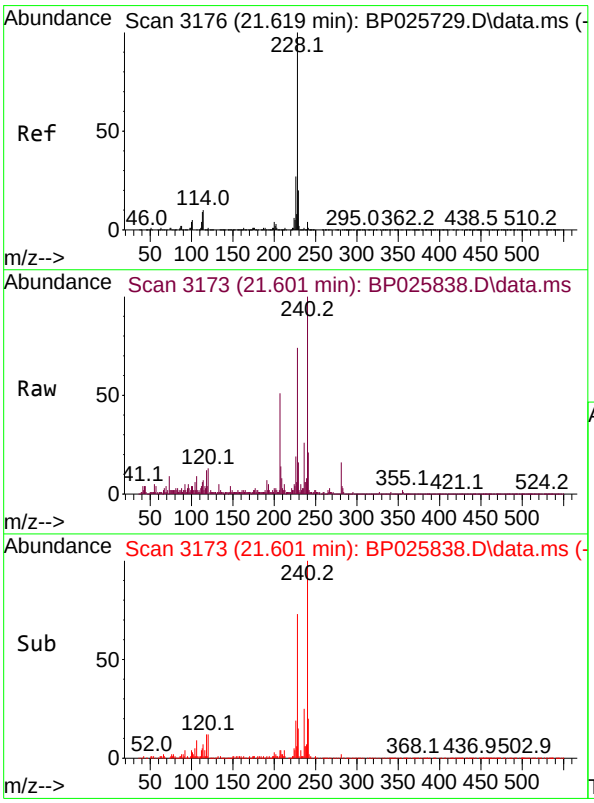
#79
Terphenyl-d14
Concen: 47.857 ng
RT: 19.895 min Scan# 28
Delta R.T. -0.018 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion:244 Resp: 2736960

Ion	Ratio	Lower	Upper
244	100		
212	7.4	5.9	8.9
122	9.9	7.1	10.7

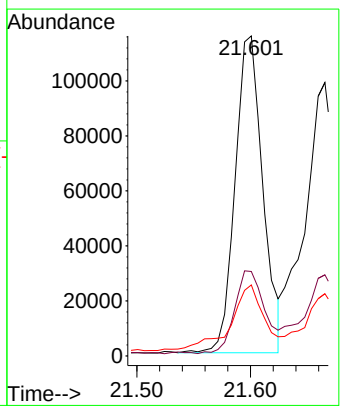


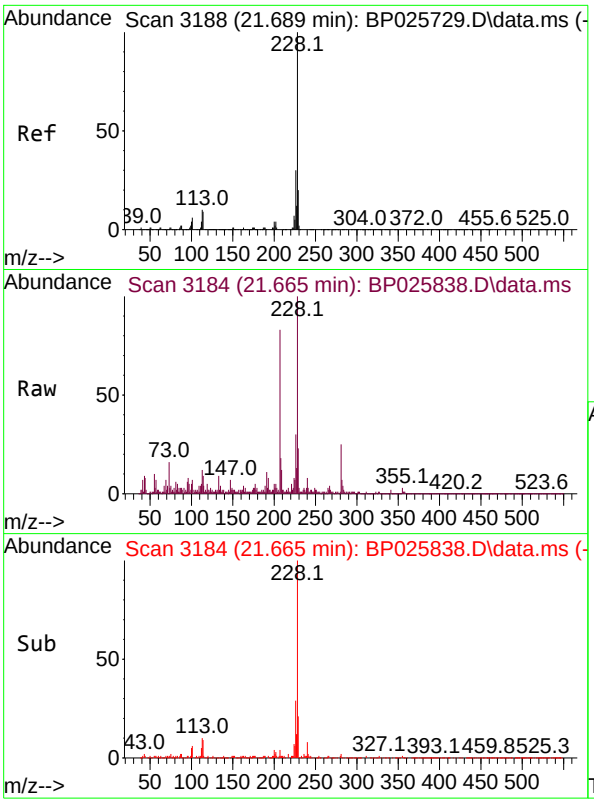


#81
Benzo(a)anthracene
Concen: 2.773 ng
RT: 21.601 min Scan# 3173
Delta R.T. -0.018 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:228 Resp: 195299

Ion	Ratio	Lower	Upper
228	100		
226	26.4	21.6	32.4
229	22.2	15.7	23.5



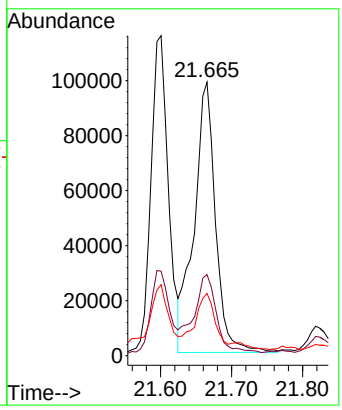


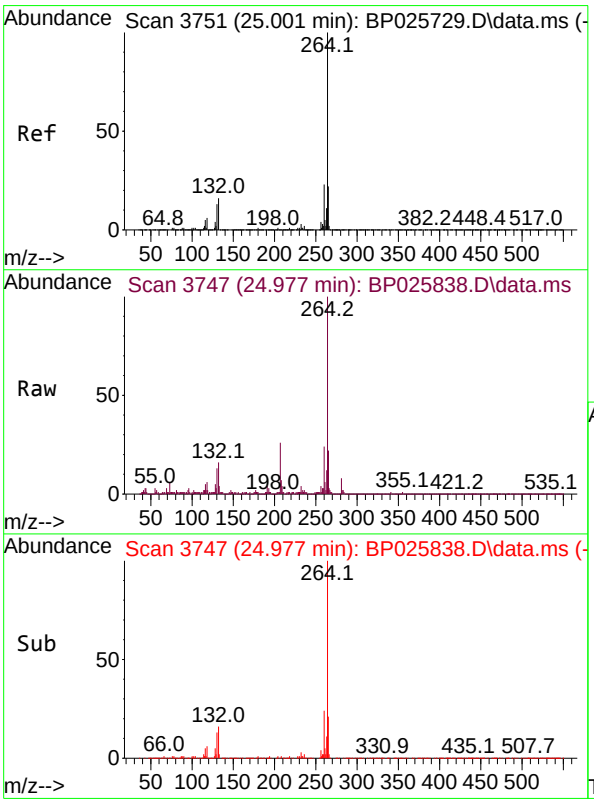
#83
Chrysene
Concen: 3.071 ng
RT: 21.665 min Scan# 31
Delta R.T. -0.024 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion:228 Resp: 206180

Ion	Ratio	Lower	Upper
228	100		
226	29.7	23.8	35.6
229	22.8	15.6	23.4

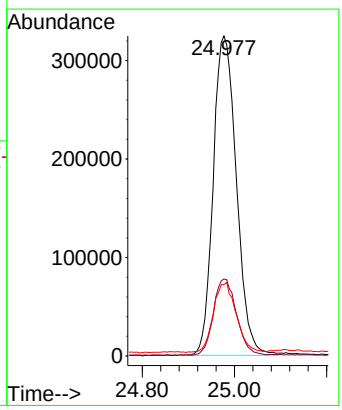


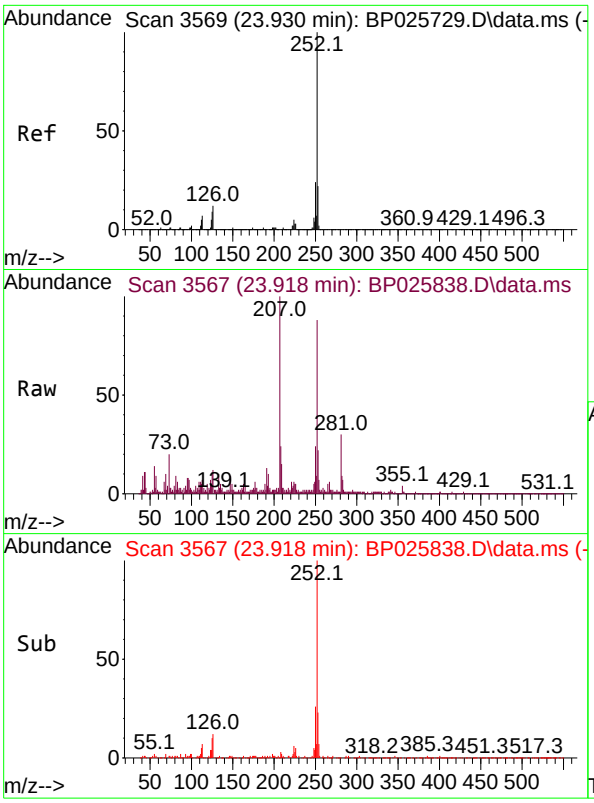


#86
Perylene-d12
Concen: 20.000 ng
RT: 24.977 min Scan# 3747
Delta R.T. -0.024 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:264 Resp: 1135781

Ion	Ratio	Lower	Upper
264	100		
260	24.1	18.3	27.5
265	22.3	17.3	25.9



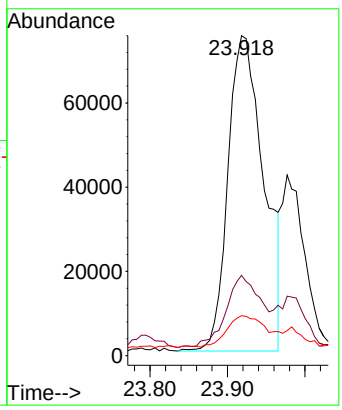


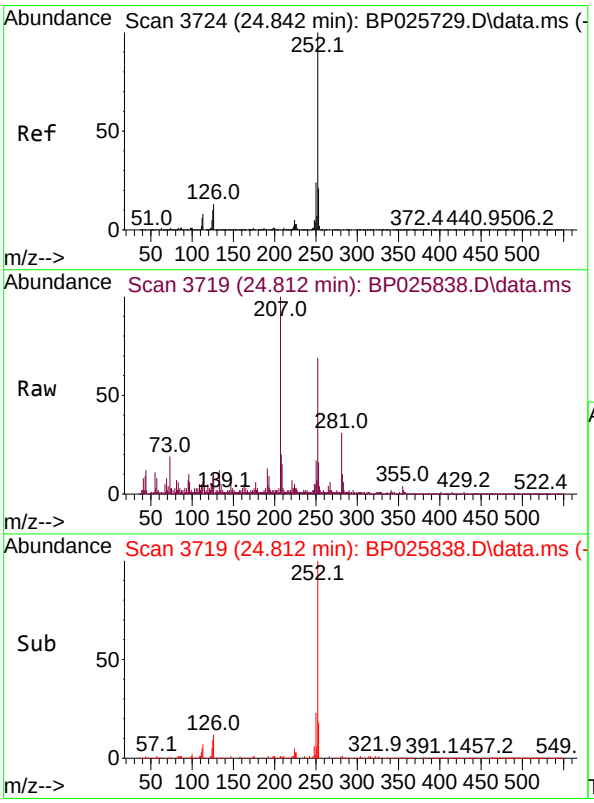
#88
Benzo(b)fluoranthene
Concen: 3.474 ng
RT: 23.918 min Scan# 3
Delta R.T. -0.012 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Tgt Ion:252 Resp: 241279

Ion	Ratio	Lower	Upper
252	100		
253	25.1	17.9	26.9
125	12.5	7.3	10.9#

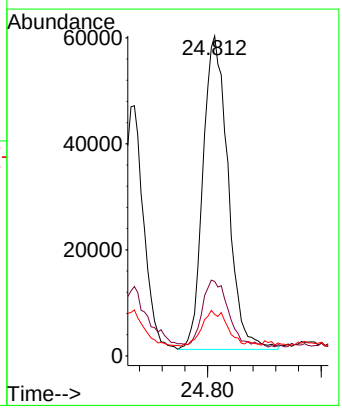




#90
Benzo(a)pyrene
Concen: 2.663 ng
RT: 24.812 min Scan# 3719
Delta R.T. -0.030 min
Lab File: BP025838.D
Acq: 23 Sep 2025 20:45

Tgt Ion:252 Resp: 181097

Ion	Ratio	Lower	Upper
252	100		
253	23.3	17.2	25.8
125	13.0	8.3	12.5#



Sample Results: **BP025838.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

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

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

Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BP025838.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.013	8	13	28	rVB	1285963	1671226	22.59%	3.364%
2	5.384	410	416	435	rBV	2474681	3931036	53.13%	7.912%
3	6.954	676	683	703	rBV	2001701	3941289	53.27%	7.933%
4	7.748	810	818	828	rBV	814785	1354281	18.30%	2.726%
5	8.895	1005	1013	1031	rBV	1443406	2640479	35.69%	5.315%
6	10.519	1277	1289	1308	rBV	1048477	1944097	26.28%	3.913%
7	12.984	1700	1708	1722	rBV	3607053	5935182	80.22%	11.946%
8	14.372	1936	1944	1953	rBV	1534508	2560766	34.61%	5.154%
9	15.754	2173	2179	2188	rBV	468701	768714	10.39%	1.547%
10	15.889	2195	2202	2219	rBV	2563084	4445707	60.09%	8.948%
11	17.172	2414	2420	2425	rBV	1807597	2758457	37.28%	5.552%
12	17.213	2425	2427	2434	rVB	175622	239175	3.23%	0.481%
13	17.971	2552	2556	2563	rBV4	63904	133322	1.80%	0.268%
14	18.113	2575	2580	2590	rBV2	812813	1246904	16.85%	2.510%
15	18.277	2604	2608	2613	rBV2	50789	90368	1.22%	0.182%
16	19.307	2778	2783	2792	rBV	597624	873796	11.81%	1.759%
17	19.442	2802	2806	2816	rBV2	185122	357423	4.83%	0.719%
18	19.648	2838	2841	2843	rBV2	71518	92616	1.25%	0.186%
19	19.683	2843	2847	2855	rVB	506643	739124	9.99%	1.488%
20	19.895	2877	2883	2895	rBV	5317639	7398809	100.00%	14.892%
21	20.207	2933	2936	2939	rVB	84576	103131	1.39%	0.208%
22	21.271	3113	3117	3125	rVB2	362936	669922	9.05%	1.348%
23	21.618	3169	3176	3181	rBV3	1788893	3190907	43.13%	6.423%
24	24.977	3740	3747	3761	rVB2	797125	2596030	35.09%	5.225%

Sum of corrected areas: 49682761

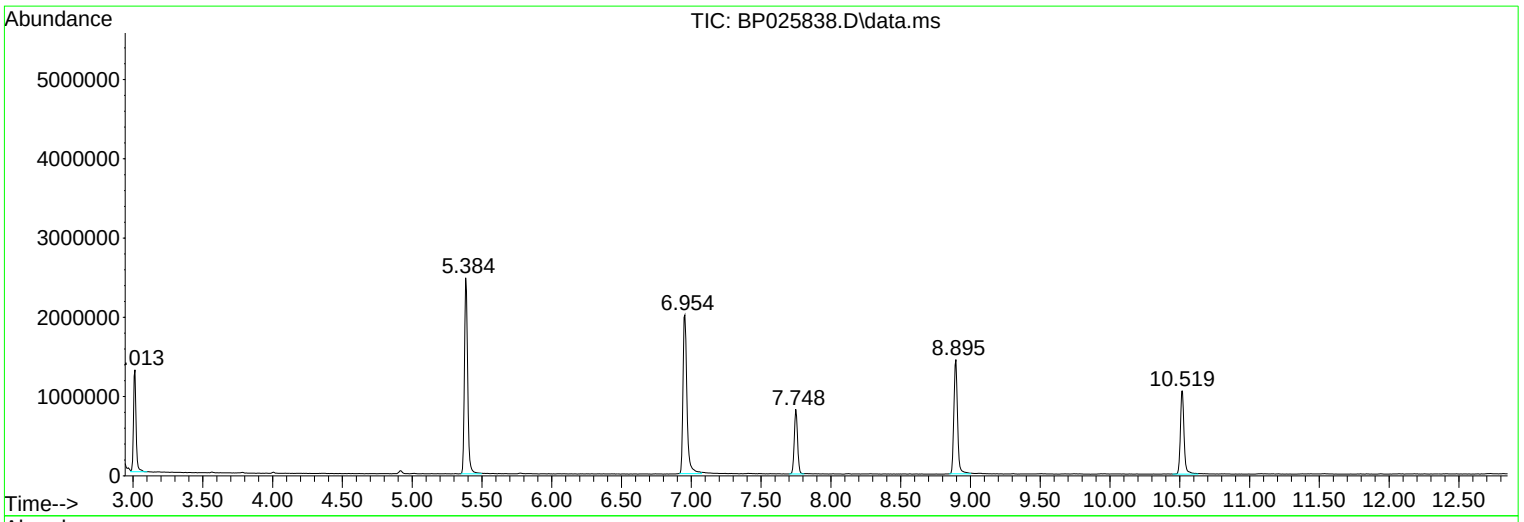
Sample Results: **BP025838.D**

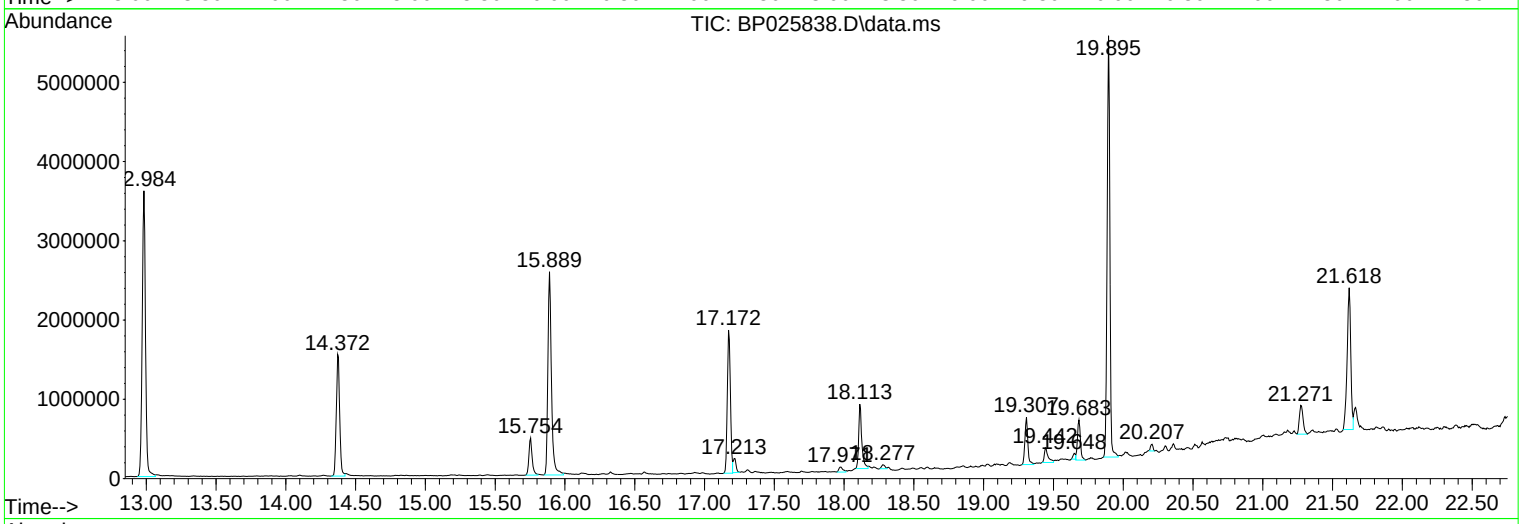
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

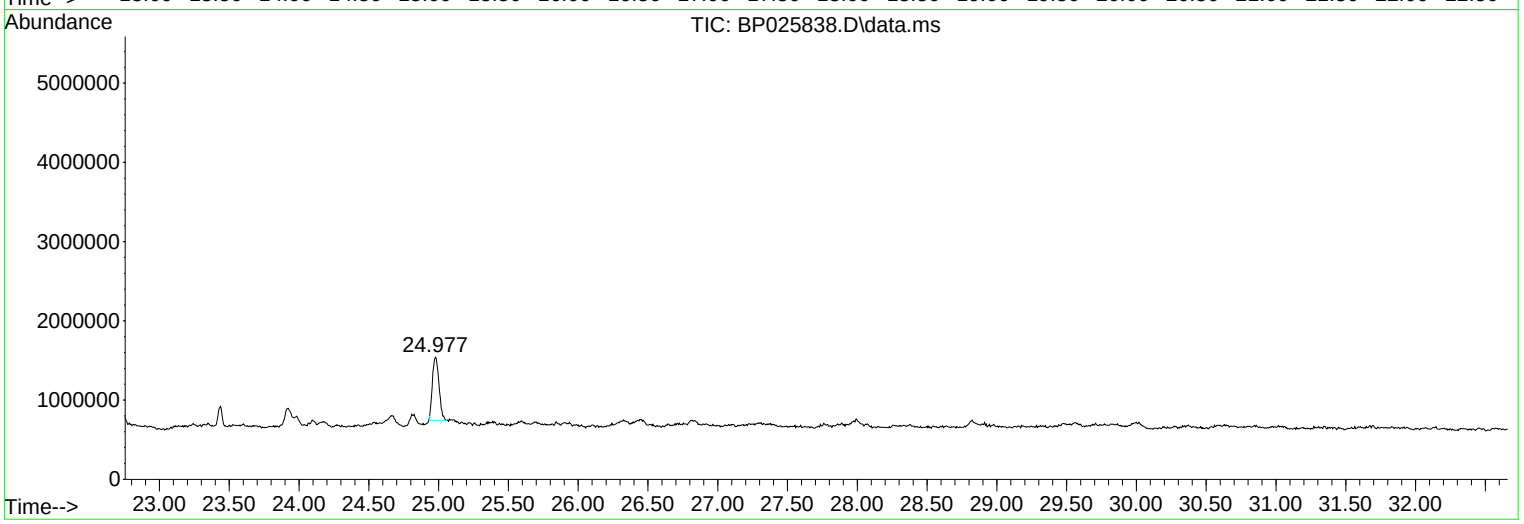
Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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







Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

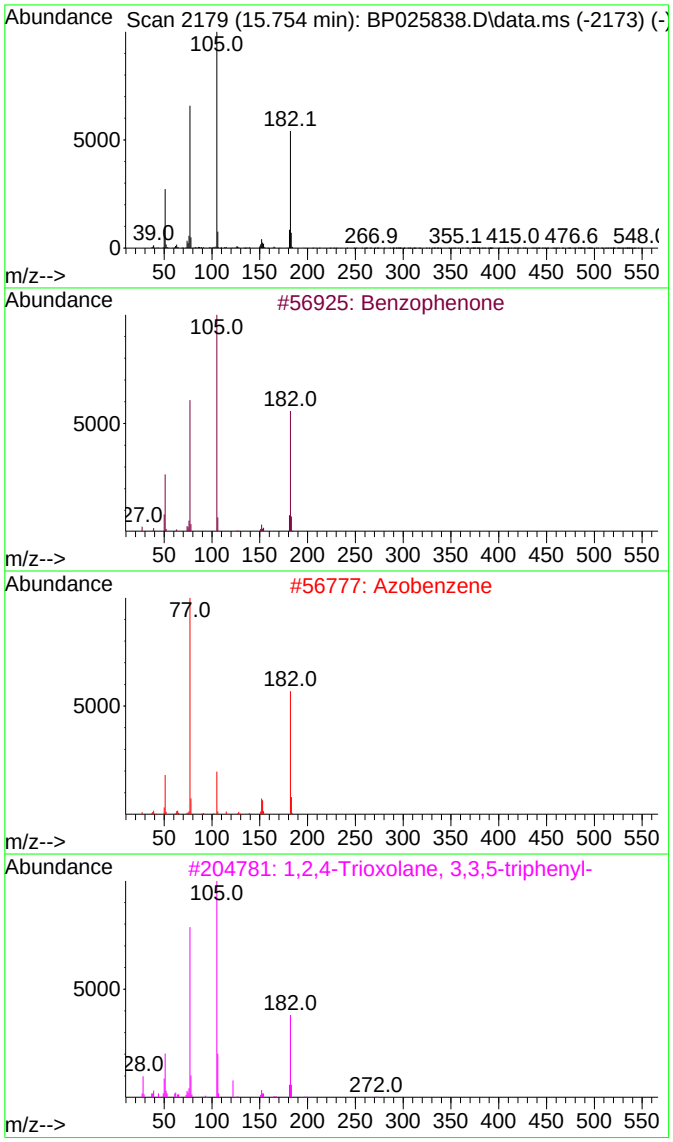
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

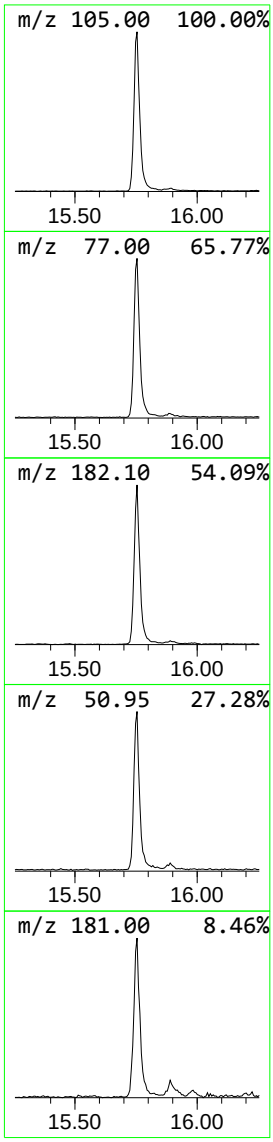
****

Peak Number 2 Benzophenone Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.754	6.00 ng	768714	Acenaphthene-d10	14.372

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzophenone	182	C13H10O	000119-61-9	96
2	Azobenzene	182	C12H10N2	000103-33-3	64
3	1,2,4-Trioxolane, 3,3,5-triphenyl-	304	C20H16O3	023246-12-0	56
4	Benzenamine, N-(3-pyridinylmethy...	182	C12H10N2	029722-97-2	45
5	1,2,4,5-Tetroxane, 3,3,6,6-tetra...	396	C26H20O4	016204-36-7	40





Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

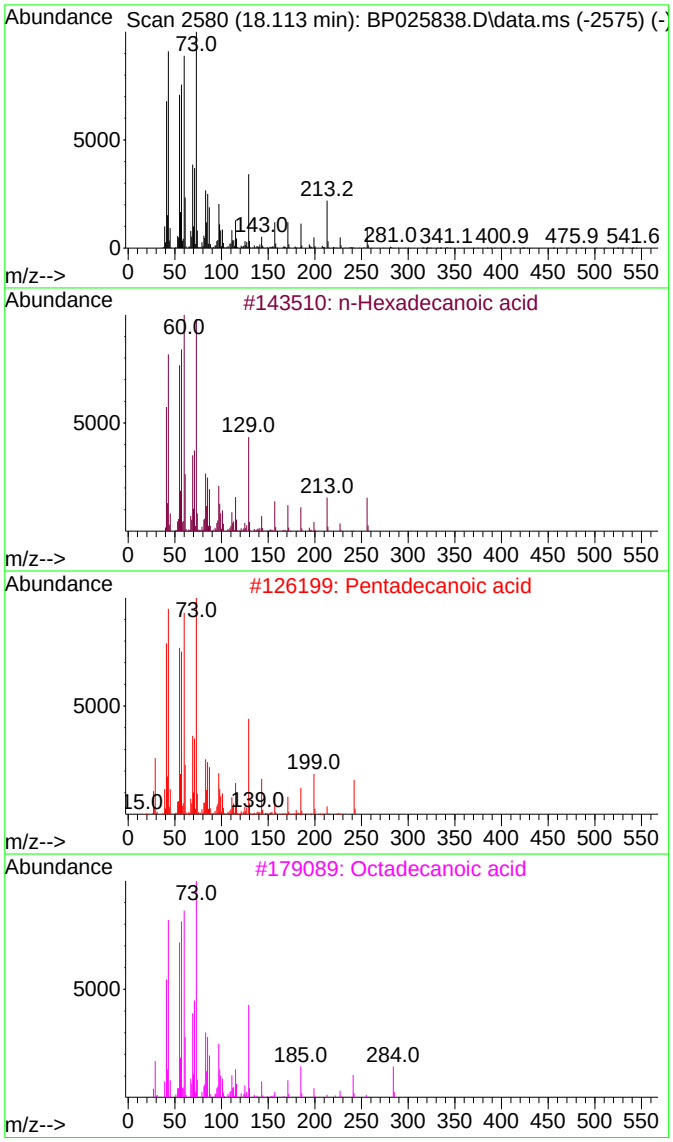
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

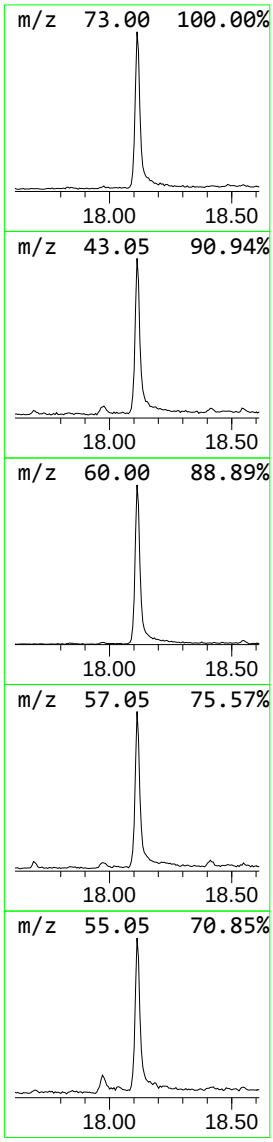
****

Peak Number 3 n-Hexadecanoic acid Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.113	9.04 ng	1246900	Phenanthrene-d10	17.172

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	99
2	Pentadecanoic acid	242	C15H30O2	001002-84-2	81
3	Octadecanoic acid	284	C18H36O2	000057-11-4	81
4	Tridecanoic acid	214	C13H26O2	000638-53-9	76
5	Tetradecanoic acid	228	C14H28O2	000544-63-8	76





Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

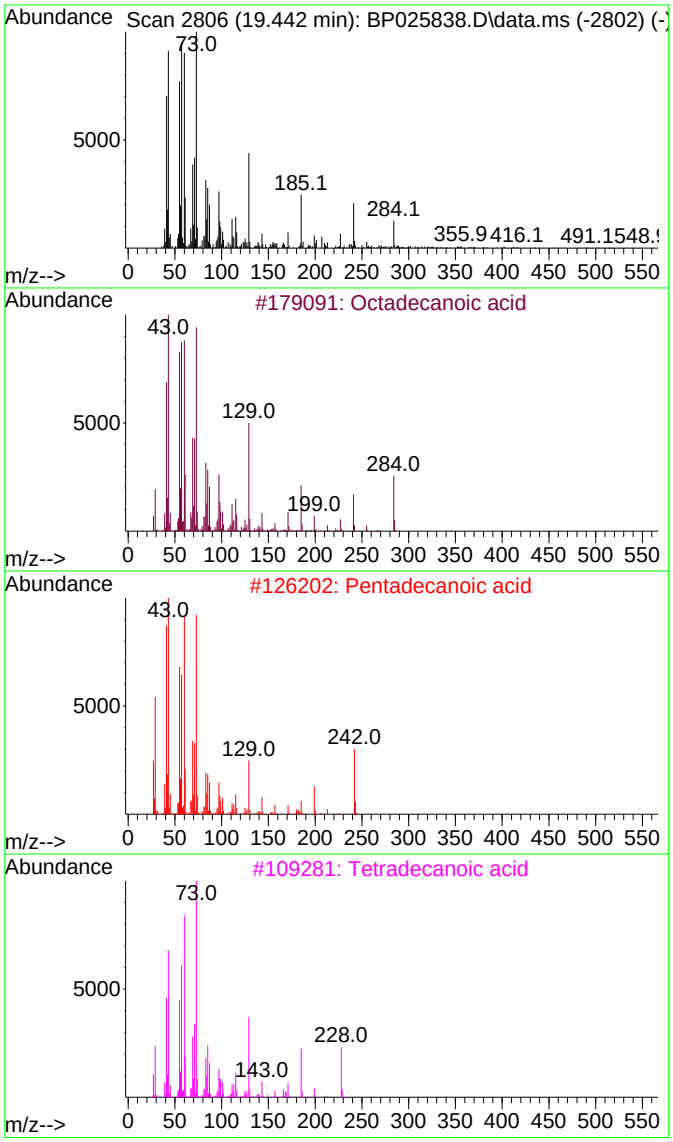
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

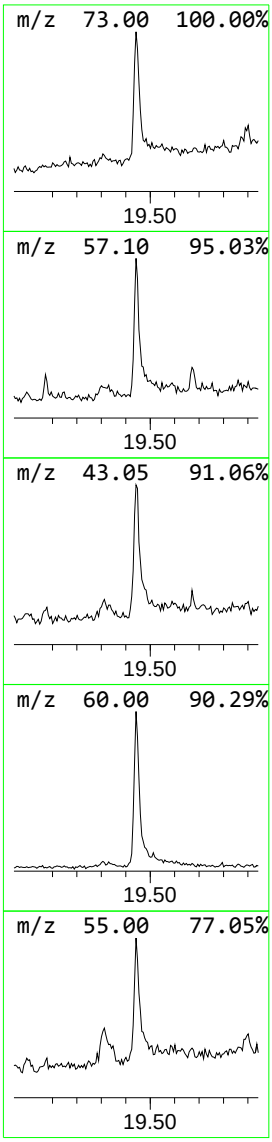
****

Peak Number 4 Octadecanoic acid Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.442	2.24 ng	357423	Chrysene-d12	21.618

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecanoic acid	284	C18H36O2	000057-11-4	99
2	Pentadecanoic acid	242	C15H30O2	001002-84-2	91
3	Tetradecanoic acid	228	C14H28O2	000544-63-8	83
4	Tridecanoic acid	214	C13H26O2	000638-53-9	72
5	Octadecanoic acid, 2-(2-hydroxye...	372	C22H44O4	000106-11-6	72





Sample Results: **BP025838.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

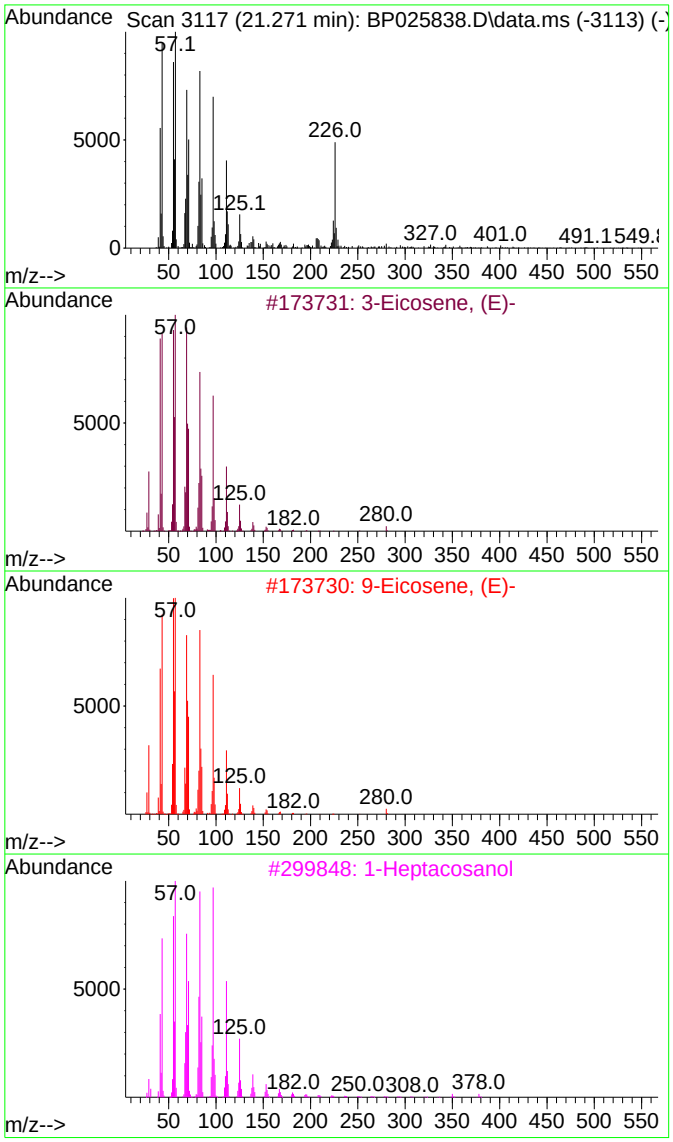
TIC Library : C:\Database\NIST20.L
TIC Integration Parameters: LSCINT.P

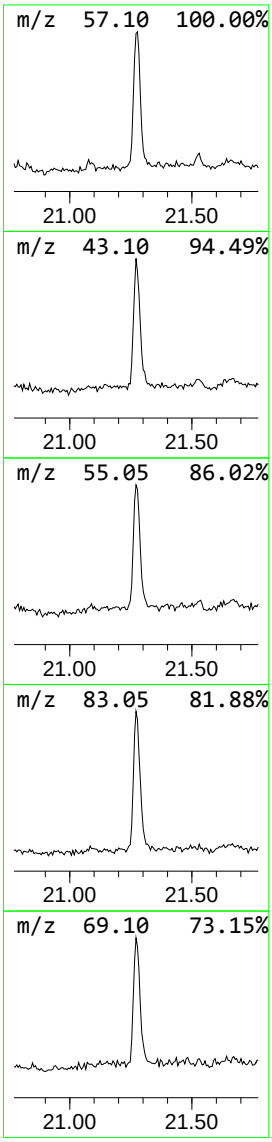
****

Peak Number 5 3-Eicosene, (E)- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.271	4.20 ng	669922	Chrysene-d12	21.618

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Eicosene, (E)-	280	C20H40	074685-33-9	96
2	9-Eicosene, (E)-	280	C20H40	074685-29-3	93
3	1-Heptacosanol	396	C27H56O	002004-39-9	87
4	5-Eicosene, (E)-	280	C20H40	074685-30-6	86
5	17-Pentatriacontene	491	C35H70	006971-40-0	83





Sample Results: **BP025838.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025838.D
Acq On : 23 Sep 2025 20:45
Operator : CG/JU
Sample : Q3157-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
20-DEAD-1

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Benzophenone	15.754	6.0	ng	768714	3	14.372	2560770	20.0
n-Hexadecanoic ...	18.113	9.0	ng	1246900	4	17.172	2758460	20.0
Octadecanoic acid	19.442	2.2	ng	357423	5	21.618	3190910	20.0
3-Eicosene, (E)-	21.271	4.2	ng	669922	5	21.618	3190910	20.0

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: Alliance Contract: ALWA01

Lab Code: ACE SDG No.: Q3157

Instrument ID: BNA_P Calibration Date(s): 09/11/2025 09/11/2025

Calibration Time(s): 08:56 15:20

LAB FILE ID: RRF2.5 = BP025725.D RRF005 = BP025726.D RRF010 = BP025727.D
RRF020 = BP025728.D RRF040 = BP025729.D RRF060 = BP025731.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF060	RRF	% RSD
2-Fluorophenol		1.139	1.123	1.320	1.362	1.238	1.240	7.2
Benzaldehyde			1.037	0.748	0.875	1.077	0.987	16.2
Phenol-d6		1.391	1.460	1.793	1.861	1.658	1.648	10.3
Phenol		1.512	1.525	1.848	1.964	1.751	1.737	9.6
bis(2-Chloroethyl)ether		1.313	1.222	1.508	1.555	1.368	1.396	8.2
2-Chlorophenol		1.229	1.196	1.448	1.508	1.366	1.360	8.3
2-Methylphenol		0.973	1.030	1.268	1.319	1.185	1.171	10.7
2,2-oxybis(1-Chloropropane)		2.241	2.133	2.476	2.493	2.164	2.283	6.5
Acetophenone		0.474	0.488	0.583	0.588	0.538	0.534	8.2
3+4-Methylphenols			1.352	1.721	1.819	1.625	1.640	9.6
n-Nitroso-di-n-propylamine	0.961	1.032	1.047	1.300	1.320	1.151	1.149	11.3
Nitrobenzene-d5		0.416	0.410	0.490	0.496	0.455	0.453	7.4
Hexachloroethane		0.603	0.557	0.633	0.647	0.588	0.602	5.2
Nitrobenzene		0.366	0.363	0.440	0.449	0.411	0.407	8.2
Isophorone		0.737	0.726	0.862	0.860	0.791	0.797	6.8
2-Nitrophenol		0.141	0.154	0.190	0.203	0.192	0.181	12.9
2,4-Dimethylphenol		0.263	0.286	0.345	0.356	0.320	0.317	10.2
bis(2-Chloroethoxy)methane		0.414	0.423	0.510	0.498	0.452	0.461	7.8
2,4-Dichlorophenol		0.267	0.270	0.339	0.349	0.327	0.316	10.7
Naphthalene		1.072	1.028	1.164	1.147	1.044	1.078	5.4
4-Chloroaniline		0.343	0.391	0.489	0.510	0.465	0.449	13.3
Hexachlorobutadiene		0.226	0.219	0.247	0.242	0.226	0.229	5.0
Caprolactam			0.105	0.127	0.132	0.120	0.122	7.5
4-Chloro-3-methylphenol		0.328	0.338	0.406	0.414	0.377	0.377	8.7
2-Methylnaphthalene		0.662	0.639	0.758	0.747	0.677	0.693	6.5
Hexachlorocyclopentadiene			0.225	0.326	0.380	0.347	0.330	16.4
2,4,6-Trichlorophenol		0.340	0.354	0.435	0.445	0.409	0.398	9.9
2-Fluorobiphenyl		1.563	1.470	1.655	1.596	1.434	1.502	7.5
2,4,5-Trichlorophenol		0.375	0.389	0.482	0.501	0.457	0.443	10.4
1,1-Biphenyl		1.458	1.375	1.599	1.587	1.425	1.468	6.4
2-Chloronaphthalene		1.140	1.090	1.252	1.240	1.132	1.156	6.0
2-Nitroaniline		0.309	0.332	0.416	0.439	0.402	0.385	12.1
Dimethylphthalate		1.545	1.433	1.682	1.659	1.446	1.527	7.0
Acenaphthylene		1.877	1.791	2.095	2.058	1.871	1.915	6.1

All other compounds must meet a minimum RRF of 0.010.

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: Alliance Contract: ALWA01

Lab Code: ACE SDG No.: Q3157

Instrument ID: BNA_P Calibration Date(s): 09/11/2025 09/11/2025

Calibration Time(s): 08:56 15:20

LAB FILE ID: RRF2.5 = BP025725.D RRF005 = BP025726.D RRF010 = BP025727.D
RRF020 = BP025728.D RRF040 = BP025729.D RRF060 = BP025731.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF060	RRF	% RSD
2,6-Dinitrotoluene		0.286	0.291	0.353	0.358	0.330	0.324	8.6
3-Nitroaniline		0.266	0.282	0.370	0.394	0.357	0.340	13.9
Acenaphthene		1.129	1.052	1.207	1.195	1.055	1.104	6.8
2,4-Dinitrophenol			0.108	0.173	0.209	0.201	0.183	21.4
4-Nitrophenol			0.148	0.255	0.307	0.280	0.258	22.0
Dibenzofuran		1.834	1.754	1.967	1.922	1.719	1.800	6.4
2,4-Dinitrotoluene		0.382	0.398	0.501	0.521	0.471	0.460	11.3
Diethylphthalate		1.573	1.472	1.697	1.644	1.473	1.549	6.0
4-Chlorophenyl-phenylether		0.755	0.699	0.791	0.769	0.681	0.721	7.1
Fluorene		1.485	1.382	1.579	1.546	1.350	1.431	7.5
4-Nitroaniline		0.258	0.281	0.381	0.404	0.376	0.349	15.9
4,6-Dinitro-2-methylphenol			0.093	0.135	0.151	0.137	0.133	15.1
n-Nitrosodiphenylamine		0.597	0.573	0.681	0.664	0.594	0.612	7.9
2,4,6-Tribromophenol		0.227	0.227	0.270	0.277	0.249	0.249	7.7
4-Bromophenyl-phenylether		0.213	0.202	0.240	0.238	0.213	0.220	6.8
Hexachlorobenzene		0.243	0.230	0.266	0.261	0.236	0.245	5.8
Atrazine		0.215	0.210	0.260	0.260	0.227	0.234	8.5
Pentachlorophenol			0.132	0.168	0.179	0.161	0.162	9.8
Phenanthrene		1.163	1.095	1.247	1.213	1.065	1.135	7.0
Anthracene		1.120	1.086	1.280	1.237	1.107	1.151	7.4
Carbazole		0.994	0.998	1.185	1.173	1.038	1.070	7.8
Di-n-butylphthalate		1.232	1.213	1.468	1.438	1.281	1.313	8.0
Fluoranthene		1.387	1.294	1.511	1.447	1.293	1.361	7.0
Pyrene		1.307	1.243	1.444	1.430	1.308	1.335	5.7
Terphenyl-d14		1.133	1.093	1.198	1.177	1.054	1.112	5.8
Butylbenzylphthalate		0.519	0.511	0.636	0.647	0.587	0.585	9.0
3,3-Dichlorobenzidine			0.425	0.499	0.518	0.468	0.473	7.4
Benzo(a)anthracene		1.346	1.302	1.471	1.453	1.330	1.369	5.0
Chrysene		1.316	1.253	1.397	1.375	1.268	1.305	5.1
Bis(2-ethylhexyl)phthalate		0.800	0.781	0.930	0.945	0.857	0.856	7.3
Di-n-octyl phthalate			1.315	1.604	1.670	1.513	1.523	7.9
Benzo(b)fluoranthene		1.124	1.145	1.304	1.336	1.216	1.223	6.5
Benzo(k)fluoranthene		1.228	1.170	1.367	1.341	1.220	1.248	6.5
Benzo(a)pyrene		1.131	1.100	1.276	1.307	1.208	1.198	6.5
Indeno(1,2,3-cd)pyrene		1.340	1.334	1.533	1.596	1.485	1.454	7.0

All other compounds must meet a minimum RRF of 0.010.

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

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: ALWA01

Lab Code: ACE SDG No.: Q3157

Instrument ID: BNA_P Calibration Date(s): 09/11/2025 09/11/2025

Calibration Time(s): 08:56 15:20

LAB FILE ID: RRF2.5 = BP025725.D RRF005 = BP025726.D RRF010 = BP025727.D
RRF020 = BP025728.D RRF040 = BP025729.D RRF060 = BP025731.D

COMPOUND	RRF2.5	RRF005	RRF010	RRF020	RRF040	RRF060	RRF	% RSD
Dibenzo(a,h)anthracene		1.116	1.075	1.254	1.297	1.208	1.190	6.8
Benzo(g,h,i)perylene		1.090	1.078	1.225	1.267	1.197	1.171	6.2
1,2,4,5-Tetrachlorobenzene		0.590	0.561	0.653	0.660	0.604	0.606	6.3
1,4-Dioxane		0.565	0.497	0.558	0.546	0.493	0.520	7.0
2,3,4,6-Tetrachlorophenol		0.362	0.361	0.434	0.446	0.393	0.399	8.2

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report MSBNA_P

Method Path : Z:\svoasrv\HPCHEM1\BNA_P\Methods\
Method File : 8270E-BP091225.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Sep 11 16:45:04 2025
Response Via : Initial Calibration

Calibration Files
2.5 =BP025725.D 5 =BP025726.D 10 =BP025727.D 20 =BP025728.D 40 =BP025729.D 50 =BP025733.D 60 =BP025731.D 80 =BP0257
32.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.565	0.497	0.558	0.546	0.514	0.493	0.469	0.520	7.02
3)		Pyridine		1.376	1.317	1.526	1.566	1.464	1.400	1.380	1.432	6.23
4)		n-Nitrosodimet...			0.639	0.715	0.721	0.680	0.652	0.648	0.676	5.26
5)	S	2-Fluorophenol		1.139	1.123	1.320	1.362	1.282	1.238	1.213	1.240	7.19
6)		Aniline		1.980	1.981	2.462	2.509	2.372	2.265	2.263	2.262	9.42
7)	S	Phenol-d6		1.391	1.460	1.793	1.861	1.726	1.658	1.643	1.648	10.33
8)		2-Chlorophenol		1.229	1.196	1.448	1.508	1.410	1.366	1.361	1.360	8.28
9)		Benzaldehyde			1.037	0.748	0.875	1.207	1.077	0.981	0.987	16.23
10)	C	Phenol		1.512	1.525	1.848	1.964	1.819	1.751	1.741	1.737	9.59
11)		bis(2-Chloroet...		1.313	1.222	1.508	1.555	1.438	1.368	1.365	1.396	8.20
12)		1,3-Dichlorobe...		1.550	1.447	1.662	1.674	1.548	1.489	1.464	1.548	5.87
13)	C	1,4-Dichlorobe...		1.550	1.475	1.698	1.690	1.590	1.539	1.492	1.576	5.63
14)		1,2-Dichlorobe...		1.529	1.432	1.634	1.653	1.542	1.485	1.445	1.531	5.64
15)		Benzyl Alcohol			1.092	1.425	1.510	1.411	1.350	1.380	1.361	10.49
16)		2,2'-oxybis(1-...		2.241	2.133	2.476	2.493	2.291	2.164	2.179	2.282	6.47
17)		2-Methylphenol		0.973	1.030	1.268	1.319	1.231	1.185	1.192	1.171	10.72
18)		Hexachloroethane		0.603	0.557	0.633	0.647	0.609	0.588	0.579	0.602	5.18
19)	P	n-Nitroso-di-n...	0.961	1.032	1.047	1.300	1.320	1.230	1.151	1.151	1.149	11.29
20)		3+4-Methylphenols			1.352	1.721	1.819	1.693	1.625	1.633	1.640	9.62
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.474	0.488	0.583	0.588	0.550	0.538	0.520	0.534	8.19
23)	S	Nitrobenzene-d5		0.416	0.410	0.490	0.496	0.467	0.455	0.440	0.453	7.43
24)		Nitrobenzene		0.366	0.363	0.440	0.449	0.418	0.411	0.400	0.407	8.15
25)		Isophorone		0.737	0.726	0.862	0.860	0.815	0.791	0.787	0.797	6.76
26)	C	2-Nitrophenol		0.141	0.154	0.190	0.203	0.193	0.192	0.192	0.181	12.86
27)		2,4-Dimethylph...		0.263	0.286	0.345	0.356	0.327	0.320	0.320	0.317	10.24
28)		bis(2-Chloroet...		0.414	0.423	0.510	0.498	0.474	0.452	0.453	0.461	7.83
29)	C	2,4-Dichloroph...		0.267	0.270	0.339	0.349	0.337	0.327	0.323	0.316	10.66
30)		1,2,4-Trichlor...		0.355	0.335	0.377	0.378	0.357	0.346	0.343	0.356	4.60
31)		Naphthalene		1.072	1.028	1.164	1.147	1.084	1.044	1.010	1.078	5.41
32)		Benzoic acid			0.170	0.214	0.261	0.253	0.257	0.259	0.236	15.62
33)		4-Chloroaniline		0.343	0.391	0.489	0.510	0.477	0.465	0.471	0.449	13.27
34)	C	Hexachlorobuta...		0.226	0.219	0.247	0.242	0.227	0.226	0.217	0.229	4.97
35)		Caprolactam			0.105	0.127	0.132	0.123	0.120	0.123	0.122	7.52
36)	C	4-Chloro-3-met...		0.328	0.338	0.406	0.414	0.394	0.377	0.380	0.377	8.72
37)		2-Methylnaphth...		0.662	0.639	0.758	0.747	0.698	0.677	0.666	0.693	6.47
38)		1-Methylnaphth...		0.726	0.691	0.807	0.800	0.731	0.713	0.703	0.739	6.25

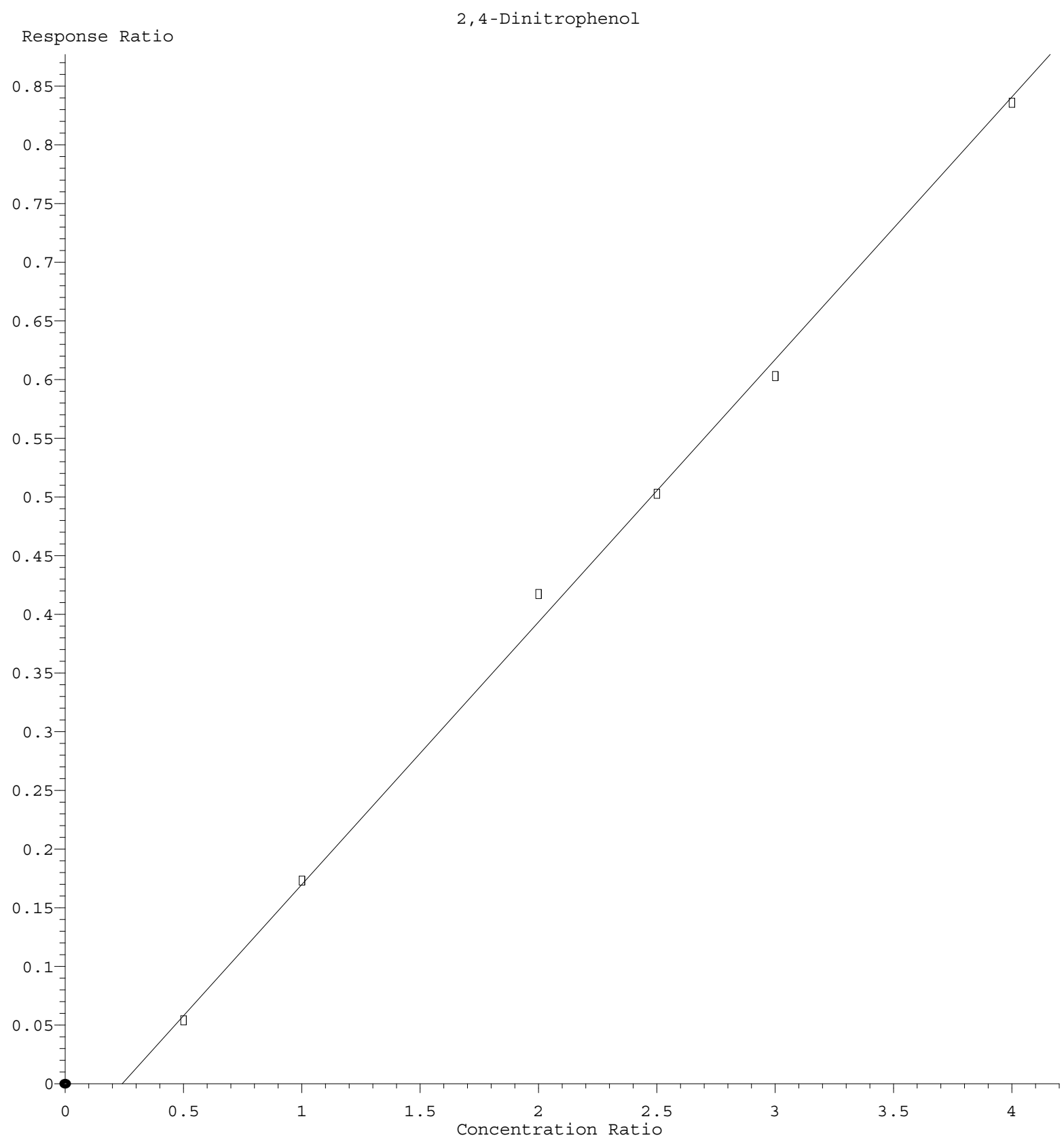
Method Path : Z:\svoasrv\HPCHEM1\BNA_P\Methods\
Method File : 8270E-BP091225.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.590	0.561	0.653	0.660	0.607	0.604	0.568	0.606	6.33
41)	P	Hexachlorocycl...		0.225	0.326	0.380	0.351	0.347	0.351	0.330	16.40
42)	S	2,4,6-Tribromo...	0.227	0.227	0.270	0.277	0.250	0.249	0.246	0.249	7.67
43)	C	2,4,6-Trichlor...	0.340	0.354	0.435	0.445	0.409	0.409	0.397	0.398	9.86
44)		2,4,5-Trichlor...	0.375	0.389	0.482	0.501	0.459	0.457	0.441	0.443	10.43
45)	S	2-Fluorobiphenyl	1.563	1.470	1.655	1.596	1.479	1.434	1.318	1.502	7.50
46)		1,1'-Biphenyl	1.458	1.375	1.599	1.587	1.465	1.425	1.366	1.468	6.37
47)		2-Chloronaphth...	1.140	1.090	1.252	1.240	1.164	1.132	1.073	1.156	5.96
48)		2-Nitroaniline	0.309	0.332	0.416	0.439	0.399	0.402	0.401	0.385	12.14
49)		Acenaphthylene	1.877	1.791	2.095	2.058	1.904	1.871	1.810	1.915	6.12
50)		Dimethylphthalate	1.545	1.433	1.682	1.659	1.493	1.446	1.430	1.527	6.95
51)		2,6-Dinitrotol...	0.286	0.291	0.353	0.358	0.329	0.330	0.318	0.324	8.57
52)	C	Acenaphthene	1.129	1.052	1.207	1.195	1.084	1.055	1.010	1.104	6.80
53)		3-Nitroaniline	0.266	0.282	0.370	0.394	0.358	0.357	0.355	0.340	13.91
54)	P	2,4-Dinitrophenol		0.108	0.173	0.209	0.201	0.201	0.209	0.183	21.35
55)		Dibenzofuran	1.834	1.754	1.967	1.922	1.766	1.719	1.640	1.800	6.39
56)	P	4-Nitrophenol		0.148	0.255	0.307	0.273	0.280	0.288	0.258	22.01
57)		2,4-Dinitrotol...	0.382	0.398	0.501	0.521	0.484	0.471	0.467	0.460	11.27
58)		Fluorene	1.485	1.382	1.579	1.546	1.385	1.350	1.292	1.431	7.46
59)		2,3,4,6-Tetrac...	0.362	0.361	0.434	0.446	0.404	0.393	0.395	0.399	8.21
60)		Diethylphthalate	1.573	1.472	1.697	1.644	1.518	1.473	1.465	1.549	5.98
61)		4-Chlorophenyl...	0.755	0.699	0.791	0.769	0.704	0.681	0.651	0.721	7.07
62)		4-Nitroaniline	0.258	0.281	0.381	0.404	0.373	0.376	0.365	0.349	15.91
63)		Azobenzene	1.421	1.383	1.648	1.643	1.510	1.468	1.410	1.498	7.29
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.093	0.135	0.151	0.143	0.137	0.139	0.133	15.14
66)	c	n-Nitrosodiphe...	0.597	0.573	0.681	0.664	0.628	0.594	0.547	0.612	7.88
67)		4-Bromophenyl-...	0.213	0.202	0.240	0.238	0.226	0.213	0.205	0.220	6.85
68)		Hexachlorobenzene	0.243	0.230	0.266	0.261	0.248	0.236	0.231	0.245	5.77
69)		Atrazine	0.215	0.210	0.260	0.260	0.240	0.227	0.227	0.234	8.54
70)	C	Pentachlorophenol		0.132	0.168	0.179	0.167	0.161	0.163	0.162	9.85
71)		Phenanthrene	1.163	1.095	1.247	1.213	1.131	1.065	1.027	1.135	6.96
72)		Anthracene	1.120	1.086	1.280	1.237	1.183	1.107	1.044	1.151	7.39
73)		Carbazole	0.994	0.998	1.185	1.173	1.105	1.038	0.999	1.070	7.82
74)		Di-n-butylphth...	1.232	1.213	1.468	1.438	1.339	1.281	1.220	1.313	8.00
75)	C	Fluoranthene	1.387	1.294	1.511	1.447	1.351	1.293	1.242	1.361	6.96
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine		0.523	0.537	0.653	0.631	0.578	0.536	0.576	9.47
78)		Pyrene	1.307	1.243	1.444	1.430	1.337	1.308	1.274	1.335	5.71
79)	S	Terphenyl-d14	1.133	1.093	1.198	1.177	1.111	1.054	1.017	1.112	5.78
80)		Butylbenzylpht...	0.519	0.511	0.636	0.647	0.608	0.587	0.588	0.585	9.02
81)		Benzo(a)anthra...	1.346	1.302	1.471	1.453	1.378	1.330	1.305	1.369	5.02
82)		3,3'-Dichlorob...		0.425	0.499	0.518	0.488	0.468	0.442	0.473	7.45
83)		Chrysene	1.316	1.253	1.397	1.375	1.317	1.268	1.210	1.305	5.11
84)		Bis(2-ethylhex...	0.800	0.781	0.930	0.945	0.861	0.857	0.818	0.856	7.31
85)	c	Di-n-octyl pht...		1.315	1.604	1.670	1.531	1.513	1.504	1.523	7.87

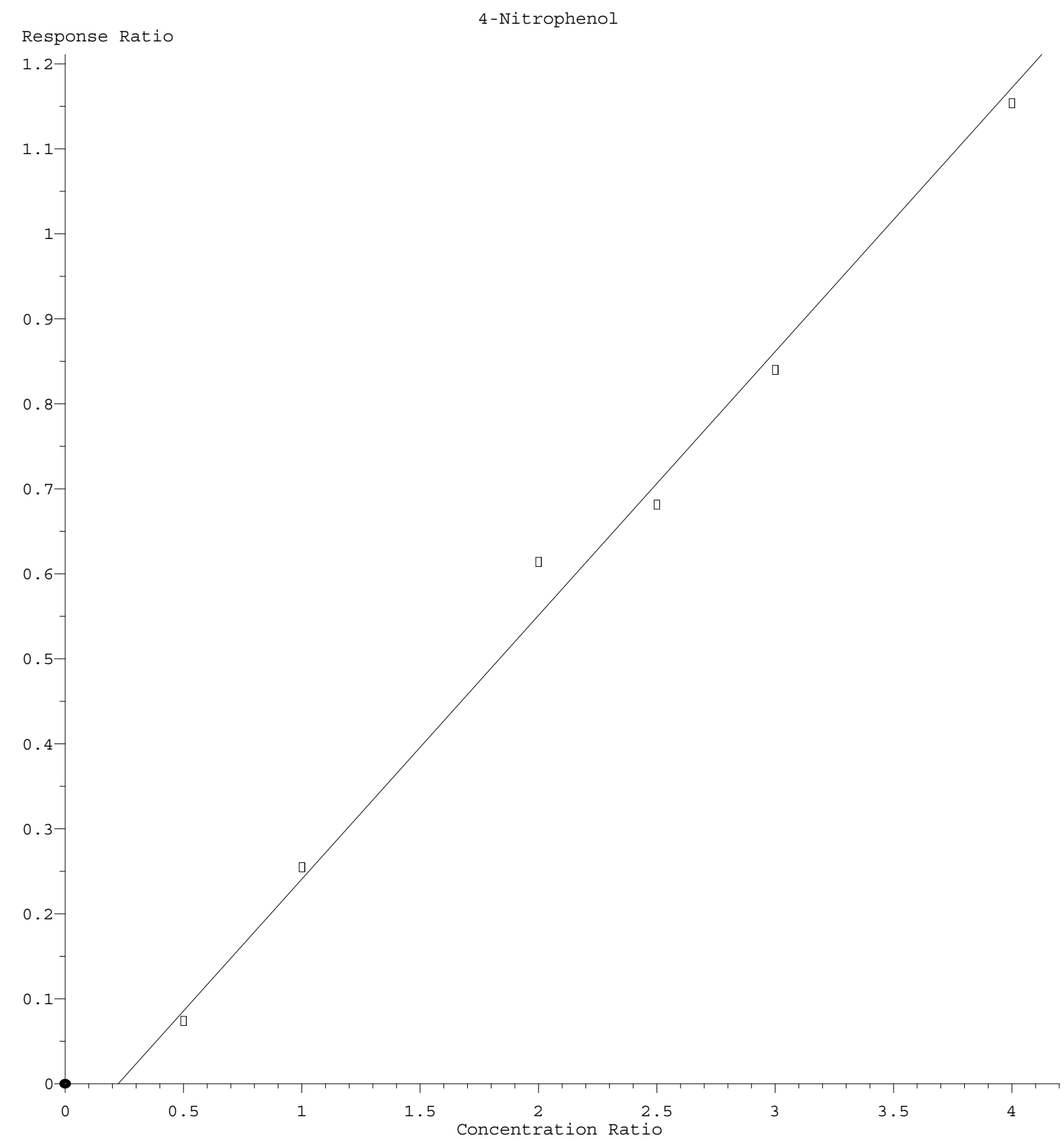
Method Path : Z:\svoasrv\HPCHEM1\BNA_P\Methods\
Method File : 8270E-BP091225.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.340	1.334	1.533	1.596	1.506	1.485	1.386	1.454	6.99
88)		Benzo(b)fluora...	1.124	1.145	1.304	1.336	1.252	1.216	1.186	1.223	6.45
89)		Benzo(k)fluora...	1.228	1.170	1.367	1.341	1.258	1.220	1.151	1.248	6.51
90)	C	Benzo(a)pyrene	1.131	1.100	1.276	1.307	1.221	1.208	1.141	1.198	6.45
91)		Dibenzo(a,h)an...	1.116	1.075	1.254	1.297	1.239	1.208	1.143	1.190	6.79
92)		Benzo(g,h,i)pe...	1.090	1.078	1.225	1.267	1.210	1.197	1.125	1.170	6.20

(#) = Out of Range



Response = 2.238e-001 * Amt - 5.399e-002
Coef of Det (r^2) = 0.998392 Curve Fit: wlr(1/a)
Method Name: Z:\svoasrv\HPCHEM1\BNA P\Methods\8270E-BP091225.M
Calibration Table Last Updated: Thu Sep 11 16:45:04 2025



Response = 3.103e-001 * Amt - 6.955e-002
Coef of Det (r^2) = 0.993923 Curve Fit: wlr(1/a)
Method Name: Z:\svoasrv\HPCHEM1\BNA P\Methods\8270E-BP091225.M
Calibration Table Last Updated: Thu Sep 11 16:45:04 2025

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025725.D
Acq On : 11 Sep 2025 08:56
Operator : CG/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC2.5

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 16:18:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.737	152	120353	20.000	ng	-0.02
21) Naphthalene-d8	10.513	136	495839	20.000	ng	-0.01
39) Acenaphthene-d10	14.372	164	354286	20.000	ng	0.00
64) Phenanthrene-d10	17.183	188	772731	20.000	ng	0.00
76) Chrysene-d12	21.624	240	878437	20.000	ng	-0.02
86) Perylene-d12	25.001	264	947867	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...	8.549	70	14459m	2.116	ng	

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

ICAL Form

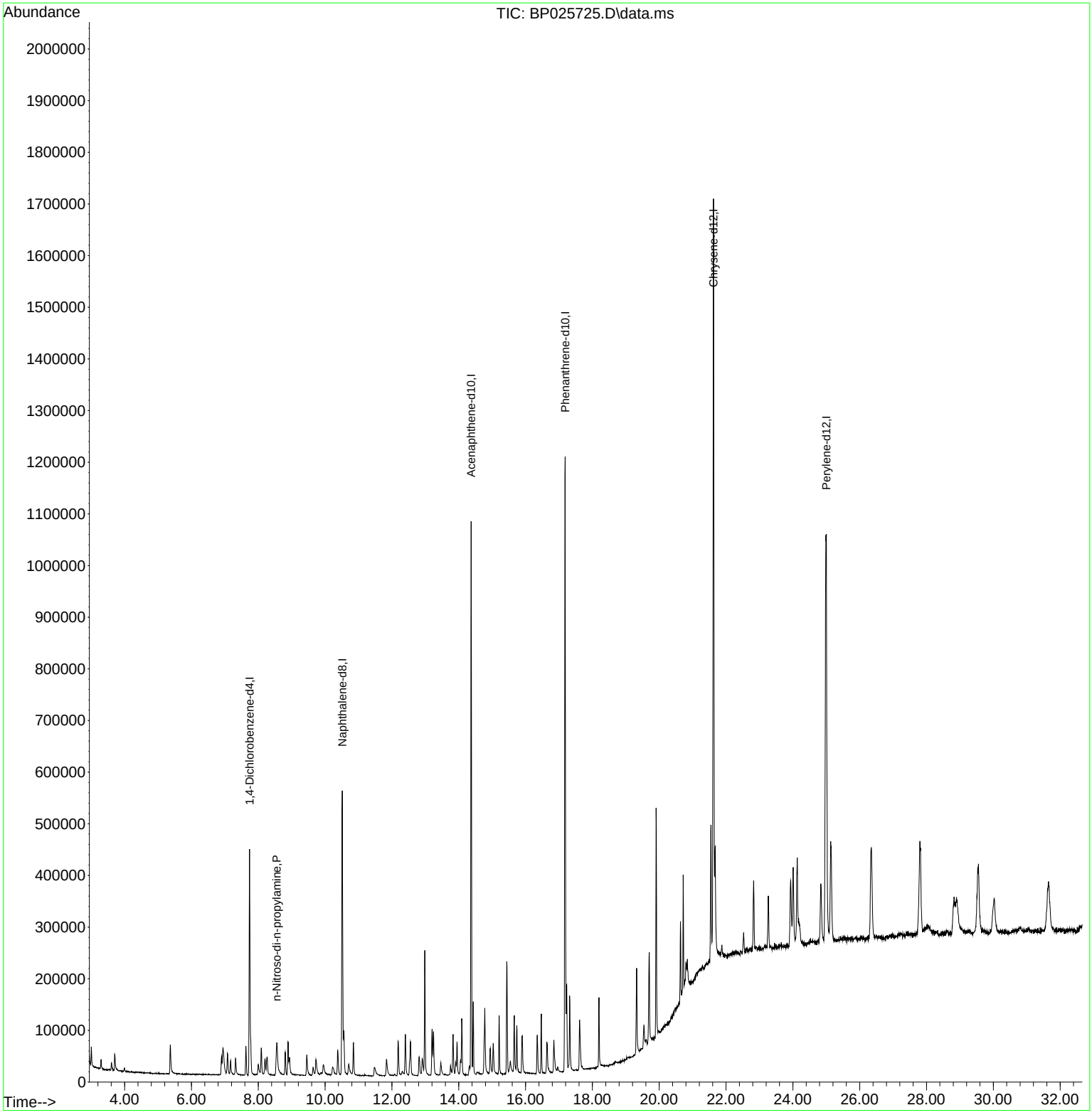
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025725.D
Acq On : 11 Sep 2025 08:56
Operator : CG/JU
Sample : SSTDICC2.5
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 16:18:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICC2.5

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025726.D
Acq On : 11 Sep 2025 09:37
Operator : CG/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 16:19:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICC005

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.760	152	118553	20.000	ng		0.00
21) Naphthalene-d8	10.531	136	483637	20.000	ng		0.00
39) Acenaphthene-d10	14.372	164	340469	20.000	ng		0.00
64) Phenanthrene-d10	17.184	188	730553	20.000	ng		0.00
76) Chrysene-d12	21.630	240	824671	20.000	ng		-0.01
86) Perylene-d12	24.995	264	899115	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.390	112	67503	9.187	ng		0.00
7) Phenol-d6	6.949	99	82479	8.446	ng		0.00
23) Nitrobenzene-d5	8.907	82	100673	9.182	ng		0.00
42) 2,4,6-Tribromophenol	15.907	330	38610	9.092	ng		0.00
45) 2-Fluorobiphenyl	12.990	172	266136	10.408	ng		0.00
79) Terphenyl-d14	19.901	244	466997	10.187	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	3.308	88	16745	5.430	ng		98
3) Pyridine	3.714	79	40793	4.804	ng		97
6) Aniline	7.096	93	58671	4.376	ng		96
8) 2-Chlorophenol	7.337	128	36433	4.520	ng		97
10) Phenol	6.978	94	44799	4.350	ng		98
11) bis(2-Chloroethyl)ether	7.184	93	38920	4.704	ng		94
12) 1,3-Dichlorobenzene	7.649	146	45950	5.009	ng		96
13) 1,4-Dichlorobenzene	7.796	146	45935	4.916	ng		99
14) 1,2-Dichlorobenzene	8.113	146	45308	4.991	ng		98
16) 2,2'-oxybis(1-Chloropr...	8.272	45	66422	4.909	ng		94
17) 2-Methylphenol	8.208	107	28845	4.155	ng		97
18) Hexachloroethane	8.825	117	17883	5.010	ng		98
19) n-Nitroso-di-n-propyla...	8.555	70	30598	4.546	ng		100
22) Acetophenone	8.578	105	57314	4.434	ng	#	96
24) Nitrobenzene	8.949	77	44286	4.502	ng		98
25) Isophorone	9.466	82	89058	4.621	ng		98
26) 2-Nitrophenol	9.660	139	17076	3.910	ng		92
27) 2,4-Dimethylphenol	9.731	122	31764	4.146	ng		99
28) bis(2-Chloroethoxy)met...	9.954	93	50074	4.495	ng		96
29) 2,4-Dichlorophenol	10.219	162	32238	4.220	ng		92
30) 1,2,4-Trichlorobenzene	10.396	180	42918	4.985	ng		96
31) Naphthalene	10.584	128	129655	4.972	ng		100
33) 4-Chloroaniline	10.707	127	41517	3.820	ng		96
34) Hexachlorobutadiene	10.866	225	27333	4.932	ng		94
36) 4-Chloro-3-methylphenol	11.837	107	39611	4.350	ng		97
37) 2-Methylnaphthalene	12.190	142	80091	4.782	ng		98
38) 1-Methylnaphthalene	12.407	142	87800	4.916	ng		97
40) 1,2,4,5-Tetrachloroben...	12.566	216	50181	4.864	ng		99
43) 2,4,6-Trichlorophenol	12.819	196	28904	4.262	ng		95
44) 2,4,5-Trichlorophenol	12.901	196	31943	4.232	ng		96
46) 1,1'-Biphenyl	13.201	154	124080	4.965	ng		97
47) 2-Chloronaphthalene	13.248	162	97044	4.932	ng		96
48) 2-Nitroaniline	13.460	65	26322	4.013	ng		95
49) Acenaphthylene	14.095	152	159767	4.900	ng		99
50) Dimethylphthalate	13.831	163	131492	5.059	ng		99
51) 2,6-Dinitrotoluene	13.948	165	24324	4.417	ng	#	81

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025726.D
Acq On : 11 Sep 2025 09:37
Operator : CG/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC005

Quant Time: Sep 11 16:19:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Acenaphthene	14.437	154	96066	5.109	ng		97
53) 3-Nitroaniline	14.301	138	22660	3.913	ng		94
55) Dibenzofuran	14.784	168	156097	5.094	ng		99
57) 2,4-Dinitrotoluene	14.748	165	32480	4.144	ng		90
58) Fluorene	15.442	166	126434	5.189	ng		97
59) 2,3,4,6-Tetrachlorophenol	15.025	232	30771	4.525	ng		96
60) Diethylphthalate	15.213	149	133865	5.077	ng		98
61) 4-Chlorophenyl-phenyle...	15.437	204	64305	5.236	ng		96
62) 4-Nitroaniline	15.489	138	21996m	3.710	ng		
63) Azobenzene	15.737	77	120979	4.745	ng		97
66) n-Nitrosodiphenylamine	15.660	169	108999	4.875	ng		98
67) 4-Bromophenyl-phenylether	16.354	248	38933	4.851	ng		99
68) Hexachlorobenzene	16.472	284	44390	4.960	ng		98
69) Atrazine	16.642	200	39255	4.593	ng		96
71) Phenanthrene	17.225	178	212489	5.127	ng		99
72) Anthracene	17.325	178	204585	4.866	ng		99
73) Carbazole	17.619	167	181532	4.644	ng		99
74) Di-n-butylphthalate	18.195	149	225100	4.692	ng		100
75) Fluoranthene	19.319	202	253297	5.096	ng		100
78) Pyrene	19.701	202	269369	4.895	ng		99
80) Butylbenzylphthalate	20.630	149	107059	4.437	ng		99
81) Benzo(a)anthracene	21.607	228	277557	4.916	ng		99
83) Chrysene	21.683	228	271250	5.040	ng		99
84) Bis(2-ethylhexyl)phtha...	21.542	149	164937	4.673	ng		100
87) Indeno(1,2,3-cd)pyrene	28.801	276	301229	4.607	ng	#	89
88) Benzo(b)fluoranthene	23.913	252	252672	4.595	ng		98
89) Benzo(k)fluoranthene	23.983	252	275940	4.918	ng		100
90) Benzo(a)pyrene	24.824	252	254148	4.720	ng		98
91) Dibenzo(a,h)anthracene	28.877	278	250801	4.687	ng		98
92) Benzo(g,h,i)perylene	29.983	276	245079	4.657	ng		97

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

ICAL Form

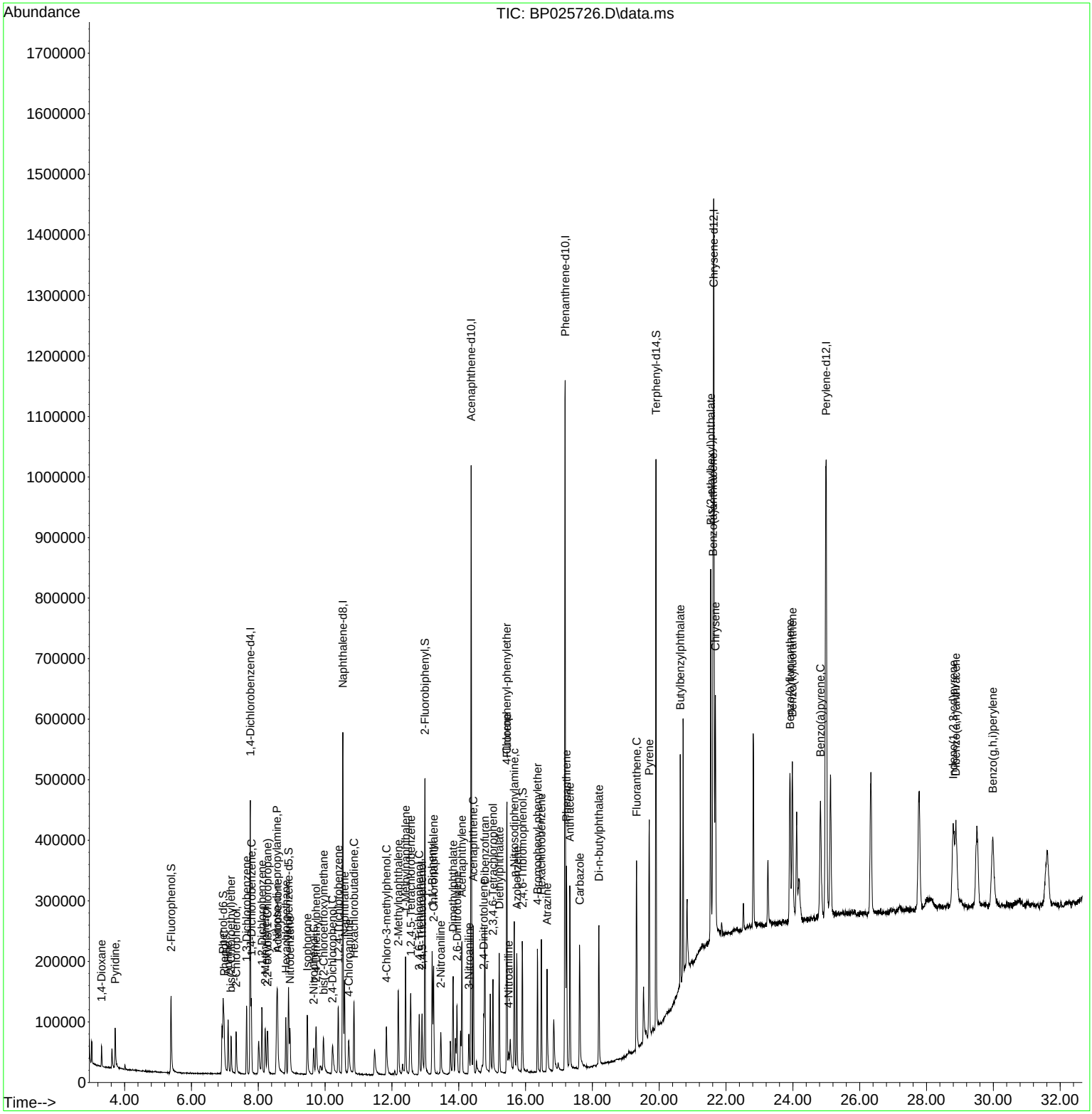
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025726.D
Acq On : 11 Sep 2025 09:37
Operator : CG/JU
Sample : SSTDICC005
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 16:19:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICC005

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025727.D
Acq On : 11 Sep 2025 10:18
Operator : CG/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 16:20:47 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.760	152	130279	20.000	ng		0.00
21) Naphthalene-d8	10.525	136	533074	20.000	ng		0.00
39) Acenaphthene-d10	14.366	164	373569	20.000	ng		-0.01
64) Phenanthrene-d10	17.183	188	783581	20.000	ng		0.00
76) Chrysene-d12	21.636	240	866064	20.000	ng		0.00
86) Perylene-d12	24.989	264	954952	20.000	ng		-0.01
System Monitoring Compounds							
5) 2-Fluorophenol	5.390	112	146309	18.121	ng		0.00
7) Phenol-d6	6.949	99	190237	17.726	ng		0.00
23) Nitrobenzene-d5	8.902	82	218368	18.070	ng		0.00
42) 2,4,6-Tribromophenol	15.895	330	84835	18.207	ng		-0.01
45) 2-Fluorobiphenyl	12.984	172	548995	19.568	ng		0.00
79) Terphenyl-d14	19.907	244	946504	19.661	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.308	88	32347	9.545	ng		98
3) Pyridine	3.714	79	85764	9.191	ng		98
4) n-Nitrosodimethylamine	3.619	42	41618	9.452	ng		98
6) Aniline	7.096	93	129012	8.757	ng		98
8) 2-Chlorophenol	7.337	128	77937	8.799	ng		98
9) Benzaldehyde	6.913	77	67547m	10.513	ng		
10) Phenol	6.978	94	99362	8.781	ng		99
11) bis(2-Chloroethyl)ether	7.190	93	79609	8.756	ng		99
12) 1,3-Dichlorobenzene	7.649	146	94257	9.350	ng		98
13) 1,4-Dichlorobenzene	7.796	146	96090	9.357	ng		99
14) 1,2-Dichlorobenzene	8.107	146	93300	9.352	ng		99
15) Benzyl Alcohol	8.007	79	71103	8.018	ng		98
16) 2,2'-oxybis(1-Chloropr...	8.278	45	138959	9.346	ng		98
17) 2-Methylphenol	8.207	107	67077	8.792	ng		99
18) Hexachloroethane	8.831	117	36252	9.242	ng		95
19) n-Nitroso-di-n-propyla...	8.554	70	68213	9.222	ng		98
20) 3+4-Methylphenols	8.537	107	88058	8.241	ng		99
22) Acetophenone	8.572	105	130184	9.138	ng	#	97
24) Nitrobenzene	8.943	77	96781	8.927	ng		97
25) Isophorone	9.466	82	193432	9.106	ng		98
26) 2-Nitrophenol	9.654	139	41028	8.524	ng		93
27) 2,4-Dimethylphenol	9.719	122	76321	9.038	ng		94
28) bis(2-Chloroethoxy)met...	9.937	93	112758	9.183	ng		99
29) 2,4-Dichlorophenol	10.207	162	71856	8.535	ng		96
30) 1,2,4-Trichlorobenzene	10.390	180	89376	9.419	ng		99
31) Naphthalene	10.572	128	274007	9.533	ng		99
32) Benzoic acid	9.837	122	45191m	7.198	ng		
33) 4-Chloroaniline	10.696	127	104287	8.705	ng		98
34) Hexachlorobutadiene	10.860	225	58279	9.541	ng		98
35) Caprolactam	11.466	113	28000m	8.645	ng		
36) 4-Chloro-3-methylphenol	11.825	107	90104	8.976	ng		97
37) 2-Methylnaphthalene	12.184	142	170398	9.230	ng		99
38) 1-Methylnaphthalene	12.401	142	184127	9.353	ng		97
40) 1,2,4,5-Tetrachloroben...	12.554	216	104709	9.250	ng		100
41) Hexachlorocyclopentadiene	12.531	237	42087	6.826	ng		94
43) 2,4,6-Trichlorophenol	12.807	196	66063	8.877	ng		98

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025727.D
Acq On : 11 Sep 2025 10:18
Operator : CG/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED
Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 16:20:47 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.890	196	72578	8.763	ng		95
46) 1,1'-Biphenyl	13.195	154	256914	9.370	ng		99
47) 2-Chloronaphthalene	13.242	162	203648	9.432	ng		99
48) 2-Nitroaniline	13.454	65	61991	8.613	ng		97
49) Acenaphthylene	14.089	152	334623	9.354	ng		99
50) Dimethylphthalate	13.825	163	267725	9.387	ng		99
51) 2,6-Dinitrotoluene	13.942	165	54414	9.005	ng		99
52) Acenaphthene	14.437	154	196467	9.523	ng		100
53) 3-Nitroaniline	14.284	138	52642	8.285	ng		98
54) 2,4-Dinitrophenol	14.513	184	20208	9.658	ng		96
55) Dibenzofuran	14.778	168	327607	9.743	ng		99
56) 4-Nitrophenol	14.648	139	27599	9.243	ng		88
57) 2,4-Dinitrotoluene	14.748	165	74291	8.639	ng		99
58) Fluorene	15.436	166	258111	9.654	ng		99
59) 2,3,4,6-Tetrachlorophenol	15.013	232	67402	9.034	ng		100
60) Diethylphthalate	15.213	149	274993	9.505	ng		100
61) 4-Chlorophenyl-phenyle...	15.431	204	130552	9.689	ng		98
62) 4-Nitroaniline	15.472	138	52570	8.082	ng		94
63) Azobenzene	15.731	77	258320	9.235	ng		99
65) 4,6-Dinitro-2-methylph...	15.536	198	36614	7.026	ng		94
66) n-Nitrosodiphenylamine	15.654	169	224671	9.369	ng		99
67) 4-Bromophenyl-phenylether	16.354	248	79245	9.206	ng		98
68) Hexachlorobenzene	16.472	284	90039	9.379	ng		99
69) Atrazine	16.636	200	82175	8.965	ng		98
70) Pentachlorophenol	16.836	266	51635	8.150	ng		93
71) Phenanthrene	17.230	178	429178	9.655	ng		99
72) Anthracene	17.325	178	425513	9.435	ng		98
73) Carbazole	17.607	167	390923	9.323	ng		99
74) Di-n-butylphthalate	18.189	149	475436	9.240	ng		99
75) Fluoranthene	19.319	202	507116	9.513	ng		100
77) Benzidine	19.525	184	226459	9.078	ng		100
78) Pyrene	19.689	202	538053	9.311	ng		98
80) Butylbenzylphthalate	20.636	149	221238	8.731	ng		95
81) Benzo(a)anthracene	21.613	228	563687	9.507	ng		100
82) 3,3'-Dichlorobenzidine	21.530	252	184095	8.980	ng		100
83) Chrysene	21.683	228	542537	9.599	ng		99
84) Bis(2-ethylhexyl)phtha...	21.542	149	338402	9.129	ng		100
85) Di-n-octyl phthalate	22.818	149	569524	8.637	ng		98
87) Indeno(1,2,3-cd)pyrene	28.789	276	637024	9.173	ng	#	85
88) Benzo(b)fluoranthene	23.918	252	546577	9.360	ng		99
89) Benzo(k)fluoranthene	23.989	252	558830	9.378	ng		99
90) Benzo(a)pyrene	24.830	252	525444	9.188	ng		99
91) Dibenzo(a,h)anthracene	28.871	278	513228	9.031	ng		97
92) Benzo(g,h,i)perylene	29.995	276	514884	9.213	ng		99

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

ICAL Form

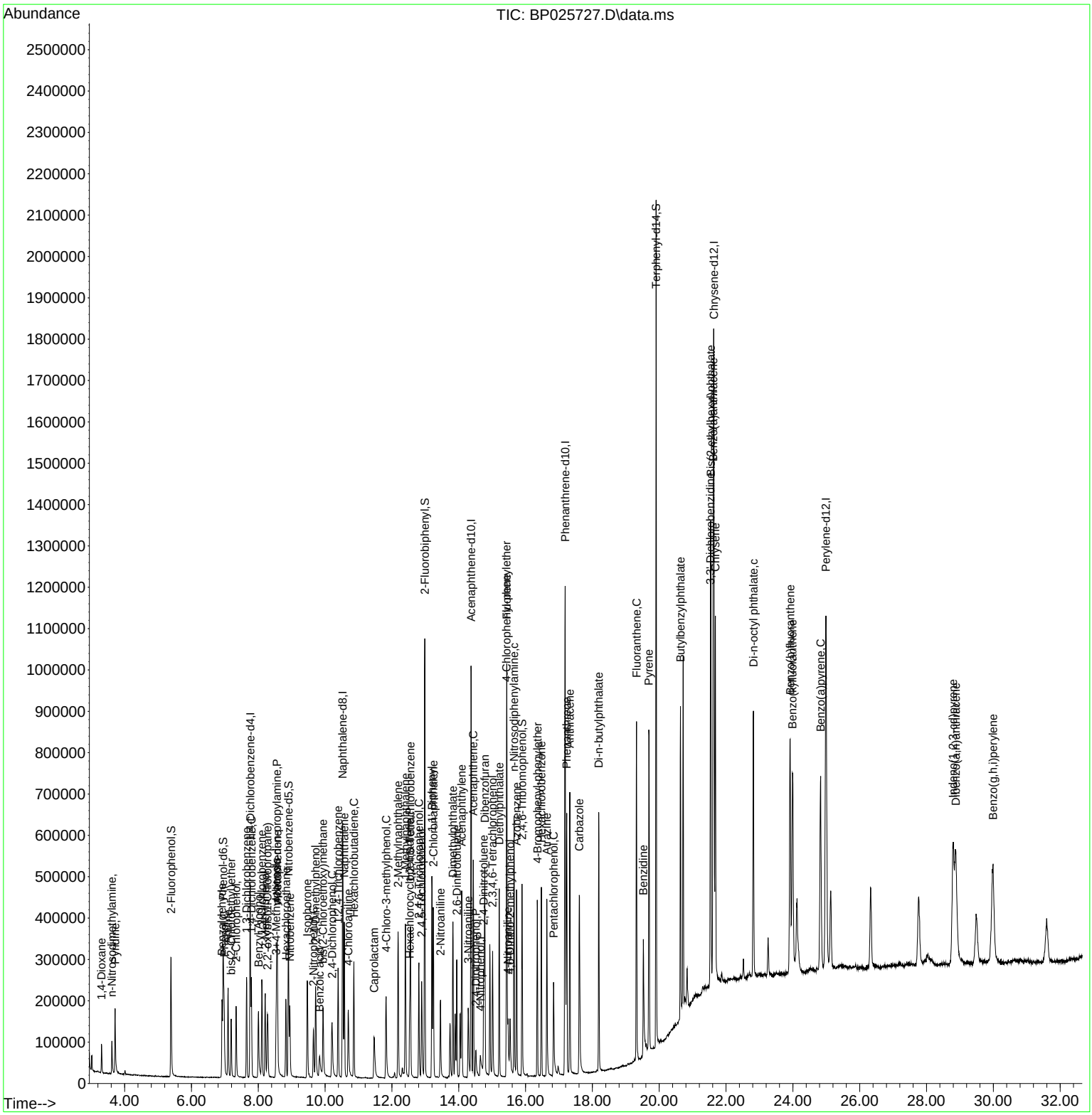
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025727.D
Acq On : 11 Sep 2025 10:18
Operator : CG/JU
Sample : SSTDICC010
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 16:20:47 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICC010

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025728.D
Acq On : 11 Sep 2025 10:59
Operator : CG/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC020

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 16:21:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.761	152	143999	20.000	ng		0.00
21) Naphthalene-d8	10.525	136	606294	20.000	ng		0.00
39) Acenaphthene-d10	14.378	164	418871	20.000	ng		0.00
64) Phenanthrene-d10	17.184	188	862789	20.000	ng		0.00
76) Chrysene-d12	21.630	240	931523	20.000	ng		-0.01
86) Perylene-d12	25.013	264	988151	20.000	ng		0.01
System Monitoring Compounds							
5) 2-Fluorophenol	5.384	112	380187	42.601	ng		0.00
7) Phenol-d6	6.943	99	516495	43.542	ng		0.00
23) Nitrobenzene-d5	8.902	82	594129	43.226	ng		0.00
42) 2,4,6-Tribromophenol	15.901	330	226554	43.363	ng		0.00
45) 2-Fluorobiphenyl	12.990	172	1386426	44.072	ng		0.00
79) Terphenyl-d14	19.901	244	2231186	43.089	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	3.308	88	80281	21.433	ng		99
3) Pyridine	3.708	79	219692	21.301	ng		98
4) n-Nitrosodimethylamine	3.614	42	103000	21.164	ng		100
6) Aniline	7.096	93	354574	21.775	ng		100
8) 2-Chlorophenol	7.337	128	208475	21.294	ng		99
9) Benzaldehyde	6.914	77	107710m	15.166	ng		
10) Phenol	6.972	94	266163	21.280	ng		98
11) bis(2-Chloroethyl)ether	7.190	93	217190	21.613	ng		97
12) 1,3-Dichlorobenzene	7.649	146	239289	21.475	ng		98
13) 1,4-Dichlorobenzene	7.790	146	244577	21.548	ng		97
14) 1,2-Dichlorobenzene	8.108	146	235224	21.333	ng		98
15) Benzyl Alcohol	8.002	79	205181	20.933	ng		99
16) 2,2'-oxybis(1-Chloropr...	8.272	45	356609	21.700	ng		99
17) 2-Methylphenol	8.202	107	182618	21.655	ng		100
18) Hexachloroethane	8.825	117	91098	21.012	ng		99
19) n-Nitroso-di-n-propyla...	8.555	70	187222	22.899	ng		99
20) 3+4-Methylphenols	8.525	107	247752	20.978	ng		98
22) Acetophenone	8.572	105	353588	21.823	ng	#	98
24) Nitrobenzene	8.943	77	266699	21.629	ng		98
25) Isophorone	9.466	82	522705	21.636	ng		100
26) 2-Nitrophenol	9.649	139	115173	21.038	ng		99
27) 2,4-Dimethylphenol	9.713	122	208989	21.760	ng		99
28) bis(2-Chloroethoxy)met...	9.937	93	309508	22.163	ng		99
29) 2,4-Dichlorophenol	10.190	162	205319	21.441	ng		98
30) 1,2,4-Trichlorobenzene	10.390	180	228468	21.170	ng		97
31) Naphthalene	10.578	128	705465	21.579	ng		100
32) Benzoic acid	9.843	122	129745	18.170	ng		99
33) 4-Chloroaniline	10.690	127	296539	21.763	ng		99
34) Hexachlorobutadiene	10.860	225	149942	21.583	ng		99
35) Caprolactam	11.472	113	76940	20.887	ng		98
36) 4-Chloro-3-methylphenol	11.819	107	245998	21.548	ng		97
37) 2-Methylnaphthalene	12.184	142	459751	21.896	ng		98
38) 1-Methylnaphthalene	12.413	142	489270	21.851	ng		100
40) 1,2,4,5-Tetrachloroben...	12.554	216	273360	21.536	ng		100
41) Hexachlorocyclopentadiene	12.537	237	136556	19.753	ng		99
43) 2,4,6-Trichlorophenol	12.807	196	182331	21.851	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025728.D
Acq On : 11 Sep 2025 10:59
Operator : CG/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC020

Manual Integrations APPROVED
Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 16:21:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.890	196	201778	21.728	ng		98
46) 1,1'-Biphenyl	13.207	154	669889	21.788	ng		99
47) 2-Chloronaphthalene	13.243	162	524481	21.665	ng		99
48) 2-Nitroaniline	13.460	65	174129	21.578	ng		99
49) Acenaphthylene	14.095	152	877353	21.873	ng		100
50) Dimethylphthalate	13.837	163	704532	22.031	ng		99
51) 2,6-Dinitrotoluene	13.948	165	147655	21.793	ng		99
52) Acenaphthene	14.443	154	505575	21.856	ng		99
53) 3-Nitroaniline	14.290	138	154856	21.735	ng		93
54) 2,4-Dinitrophenol	14.501	184	72511	20.292	ng		96
55) Dibenzofuran	14.790	168	823747	21.850	ng		98
56) 4-Nitrophenol	14.631	139	106678	20.895	ng		98
57) 2,4-Dinitrotoluene	14.754	165	209898	21.769	ng		93
58) Fluorene	15.442	166	661561	22.068	ng		99
59) 2,3,4,6-Tetrachlorophenol	15.025	232	181997	21.756	ng		98
60) Diethylphthalate	15.213	149	710972	21.918	ng		98
61) 4-Chlorophenyl-phenyle...	15.431	204	331129	21.917	ng		99
62) 4-Nitroaniline	15.472	138	159664	21.891	ng		99
63) Azobenzene	15.737	77	690423	22.012	ng		99
65) 4,6-Dinitro-2-methylph...	15.537	198	116319	20.272	ng		96
66) n-Nitrosodiphenylamine	15.660	169	587714	22.259	ng		99
67) 4-Bromophenyl-phenylether	16.360	248	206823	21.820	ng		97
68) Hexachlorobenzene	16.472	284	229447	21.707	ng		94
69) Atrazine	16.642	200	223909	22.185	ng		98
70) Pentachlorophenol	16.831	266	145273	20.824	ng		98
71) Phenanthrene	17.231	178	1075795	21.981	ng		99
72) Anthracene	17.319	178	1104346	22.239	ng		99
73) Carbazole	17.601	167	1022406	22.146	ng		99
74) Di-n-butylphthalate	18.183	149	1266684	22.358	ng		99
75) Fluoranthene	19.319	202	1303398	22.205	ng		100
77) Benzidine	19.513	184	499919	18.631	ng		99
78) Pyrene	19.695	202	1345082	21.640	ng		99
80) Butylbenzylphthalate	20.636	149	592103	21.726	ng		97
81) Benzo(a)anthracene	21.607	228	1370258	21.486	ng		100
82) 3,3'-Dichlorobenzidine	21.536	252	464513	21.065	ng		99
83) Chrysene	21.683	228	1301547	21.410	ng		99
84) Bis(2-ethylhexyl)phtha...	21.548	149	866210	21.725	ng		99
85) Di-n-octyl phthalate	22.830	149	1493820	21.062	ng		100
87) Indeno(1,2,3-cd)pyrene	28.795	276	1514360	21.074	ng	#	85
88) Benzo(b)fluoranthene	23.924	252	1288073	21.316	ng		98
89) Benzo(k)fluoranthene	23.995	252	1351055	21.911	ng		98
90) Benzo(a)pyrene	24.830	252	1260461	21.300	ng		99
91) Dibenzo(a,h)anthracene	28.883	278	1238767	21.066	ng		99
92) Benzo(g,h,i)perylene	29.995	276	1210808	20.937	ng		99

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

ICAL Form

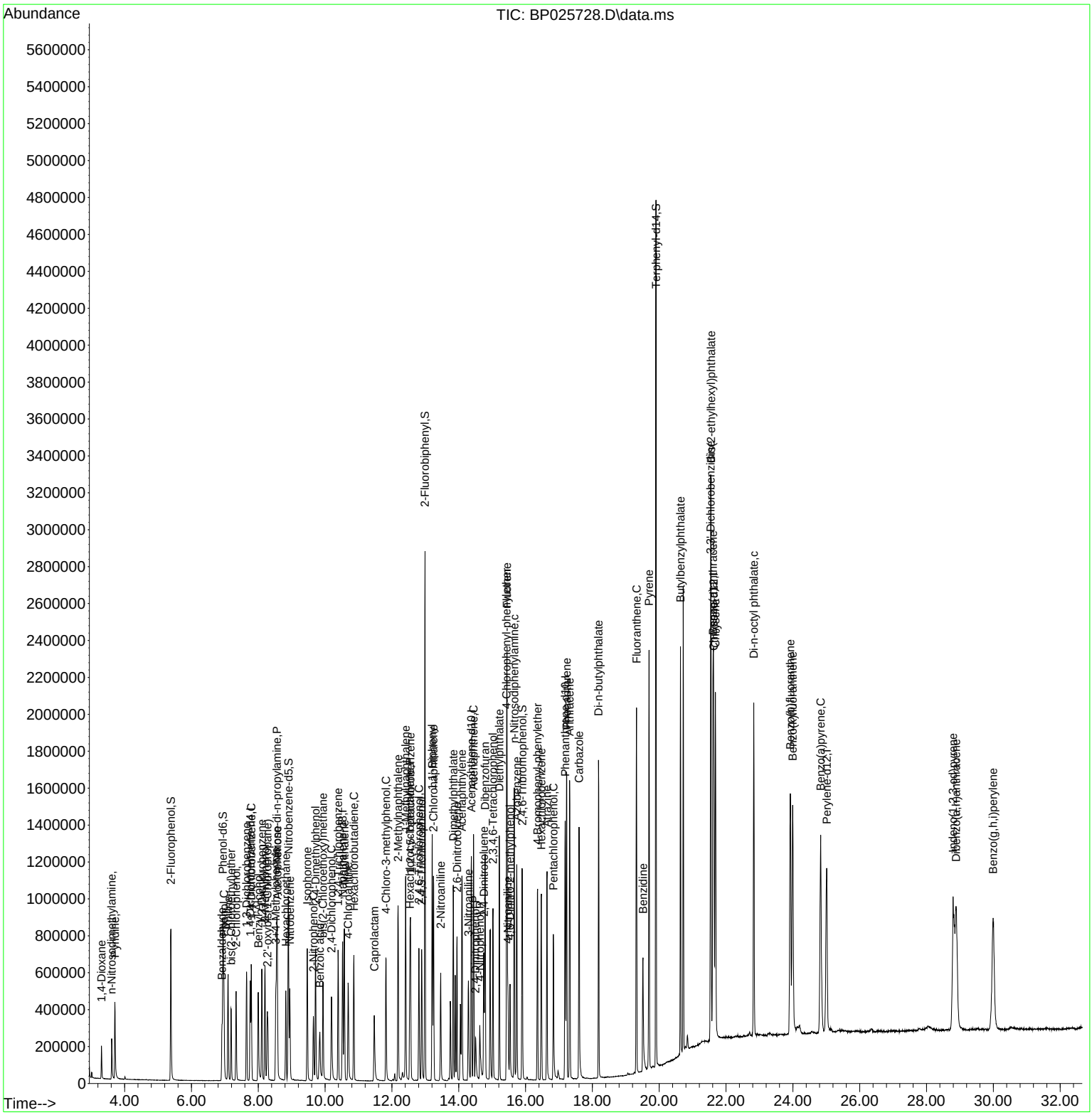
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025728.D
Acq On : 11 Sep 2025 10:59
Operator : CG/JU
Sample : SSTDICC020
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 16:21:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICC020

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025729.D
Acq On : 11 Sep 2025 12:21
Operator : CG/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 16:22:59 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICCC040

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.760	152	144640	20.000	ng	0.00
21) Naphthalene-d8	10.525	136	617318	20.000	ng	0.00
39) Acenaphthene-d10	14.378	164	418121	20.000	ng	0.00
64) Phenanthrene-d10	17.183	188	868840	20.000	ng	0.00
76) Chrysene-d12	21.630	240	926553	20.000	ng	-0.01
86) Perylene-d12	24.995	264	1000954	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.384	112	787836	87.888	ng	0.00
7) Phenol-d6	6.943	99	1076622	90.359	ng	0.00
23) Nitrobenzene-d5	8.902	82	1224870	87.524	ng	0.00
42) 2,4,6-Tribromophenol	15.895	330	462583	88.699	ng	-0.01
45) 2-Fluorobiphenyl	12.990	172	2669440	85.008	ng	0.00
79) Terphenyl-d14	19.901	244	4362586	84.704	ng	-0.01
Target Compounds						Qvalue
2) 1,4-Dioxane	3.308	88	157988	41.993	ng	99
3) Pyridine	3.708	79	452870	43.715	ng	98
4) n-Nitrosodimethylamine	3.614	42	208606	42.674	ng	98
6) Aniline	7.096	93	725768	44.373	ng	98
8) 2-Chlorophenol	7.331	128	436310	44.368	ng	99
9) Benzaldehyde	6.913	77	253178m	35.491	ng	
10) Phenol	6.972	94	568213	45.227	ng	99
11) bis(2-Chloroethyl)ether	7.190	93	449932	44.575	ng	99
12) 1,3-Dichlorobenzene	7.649	146	484132	43.256	ng	98
13) 1,4-Dichlorobenzene	7.796	146	488797	42.874	ng	100
14) 1,2-Dichlorobenzene	8.107	146	478270	43.182	ng	98
15) Benzyl Alcohol	8.002	79	436860	44.371	ng	99
16) 2,2'-oxybis(1-Chloropr...	8.278	45	721206	43.691	ng	100
17) 2-Methylphenol	8.202	107	381511	45.040	ng	97
18) Hexachloroethane	8.825	117	187163	42.979	ng	96
19) n-Nitroso-di-n-propyla...	8.554	70	381756	46.485	ng	100
20) 3+4-Methylphenols	8.525	107	526118	44.351	ng	98
22) Acetophenone	8.572	105	726426	44.034	ng	99
24) Nitrobenzene	8.943	77	554186	44.142	ng	99
25) Isophorone	9.472	82	1061978	43.173	ng	100
26) 2-Nitrophenol	9.649	139	250189	44.885	ng	96
27) 2,4-Dimethylphenol	9.713	122	439626	44.957	ng	99
28) bis(2-Chloroethoxy)met...	9.937	93	615359	43.278	ng	99
29) 2,4-Dichlorophenol	10.190	162	430954	44.201	ng	99
30) 1,2,4-Trichlorobenzene	10.396	180	466981	42.499	ng	99
31) Naphthalene	10.578	128	1416256	42.548	ng	100
32) Benzoic acid	9.884	122	322344	44.337	ng	98
33) 4-Chloroaniline	10.684	127	629600	45.380	ng	99
34) Hexachlorobutadiene	10.860	225	299180	42.296	ng	98
35) Caprolactam	11.490	113	162983	43.455	ng	99
36) 4-Chloro-3-methylphenol	11.825	107	511595	44.012	ng	97
37) 2-Methylnaphthalene	12.184	142	922799	43.164	ng	99
38) 1-Methylnaphthalene	12.407	142	987208	43.302	ng	99
40) 1,2,4,5-Tetrachloroben...	12.560	216	551785	43.550	ng	100
41) Hexachlorocyclopentadiene	12.537	237	317811	46.055	ng	99
43) 2,4,6-Trichlorophenol	12.801	196	372542	44.726	ng	99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025729.D
Acq On : 11 Sep 2025 12:21
Operator : CG/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 16:22:59 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICCC040

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.884	196	418700	45.167	ng		98
46) 1,1'-Biphenyl	13.207	154	1327491	43.254	ng		99
47) 2-Chloronaphthalene	13.242	162	1037016	42.913	ng		99
48) 2-Nitroaniline	13.454	65	366901	45.547	ng		97
49) Acenaphthylene	14.101	152	1721169	42.987	ng		100
50) Dimethylphthalate	13.837	163	1387323	43.460	ng		99
51) 2,6-Dinitrotoluene	13.948	165	299565	44.293	ng		99
52) Acenaphthene	14.442	154	998942	43.262	ng		99
53) 3-Nitroaniline	14.284	138	329431	46.320	ng		98
54) 2,4-Dinitrophenol	14.507	184	174477	42.110	ng		98
55) Dibenzofuran	14.784	168	1607411	42.712	ng		99
56) 4-Nitrophenol	14.619	139	256685	44.044	ng		98
57) 2,4-Dinitrotoluene	14.754	165	435664	45.264	ng		99
58) Fluorene	15.448	166	1292575	43.194	ng		100
59) 2,3,4,6-Tetrachlorophenol	15.019	232	373358	44.710	ng		98
60) Diethylphthalate	15.219	149	1374845	42.459	ng		100
61) 4-Chlorophenyl-phenyle...	15.436	204	643036	42.637	ng		99
62) 4-Nitroaniline	15.472	138	338121	46.442	ng		100
63) Azobenzene	15.736	77	1373602	43.872	ng		99
65) 4,6-Dinitro-2-methylph...	15.536	198	261709	45.293	ng		94
66) n-Nitrosodiphenylamine	15.654	169	1153503	43.383	ng		99
67) 4-Bromophenyl-phenylether	16.348	248	413274	43.298	ng		99
68) Hexachlorobenzene	16.472	284	453064	42.564	ng		97
69) Atrazine	16.636	200	451179	44.392	ng		98
70) Pentachlorophenol	16.836	266	311192	44.297	ng		98
71) Phenanthrene	17.230	178	2106998	42.751	ng		100
72) Anthracene	17.319	178	2149009	42.974	ng		100
73) Carbazole	17.601	167	2037704	43.830	ng		99
74) Di-n-butylphthalate	18.189	149	2498531	43.793	ng		100
75) Fluoranthene	19.313	202	2514212	42.535	ng		99
77) Benzidine	19.501	184	1209219	45.307	ng		100
78) Pyrene	19.689	202	2650721	42.875	ng		99
80) Butylbenzylphthalate	20.636	149	1198520	44.213	ng		99
81) Benzo(a)anthracene	21.613	228	2693098	42.456	ng		100
82) 3,3'-Dichlorobenzidine	21.524	252	960752	43.803	ng		99
83) Chrysene	21.677	228	2548856	42.152	ng		100
84) Bis(2-ethylhexyl)phtha...	21.542	149	1750717	44.144	ng		99
85) Di-n-octyl phthalate	22.818	149	3094664	43.867	ng		100
87) Indeno(1,2,3-cd)pyrene	28.824	276	3195673	43.902	ng	#	83
88) Benzo(b)fluoranthene	23.930	252	2674118	43.687	ng		99
89) Benzo(k)fluoranthene	24.007	252	2685118	42.989	ng		99
90) Benzo(a)pyrene	24.836	252	2617139	43.660	ng		100
91) Dibenzo(a,h)anthracene	28.906	278	2596318	43.586	ng		99
92) Benzo(g,h,i)perylene	30.006	276	2536855	43.305	ng		99

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

ICAL Form

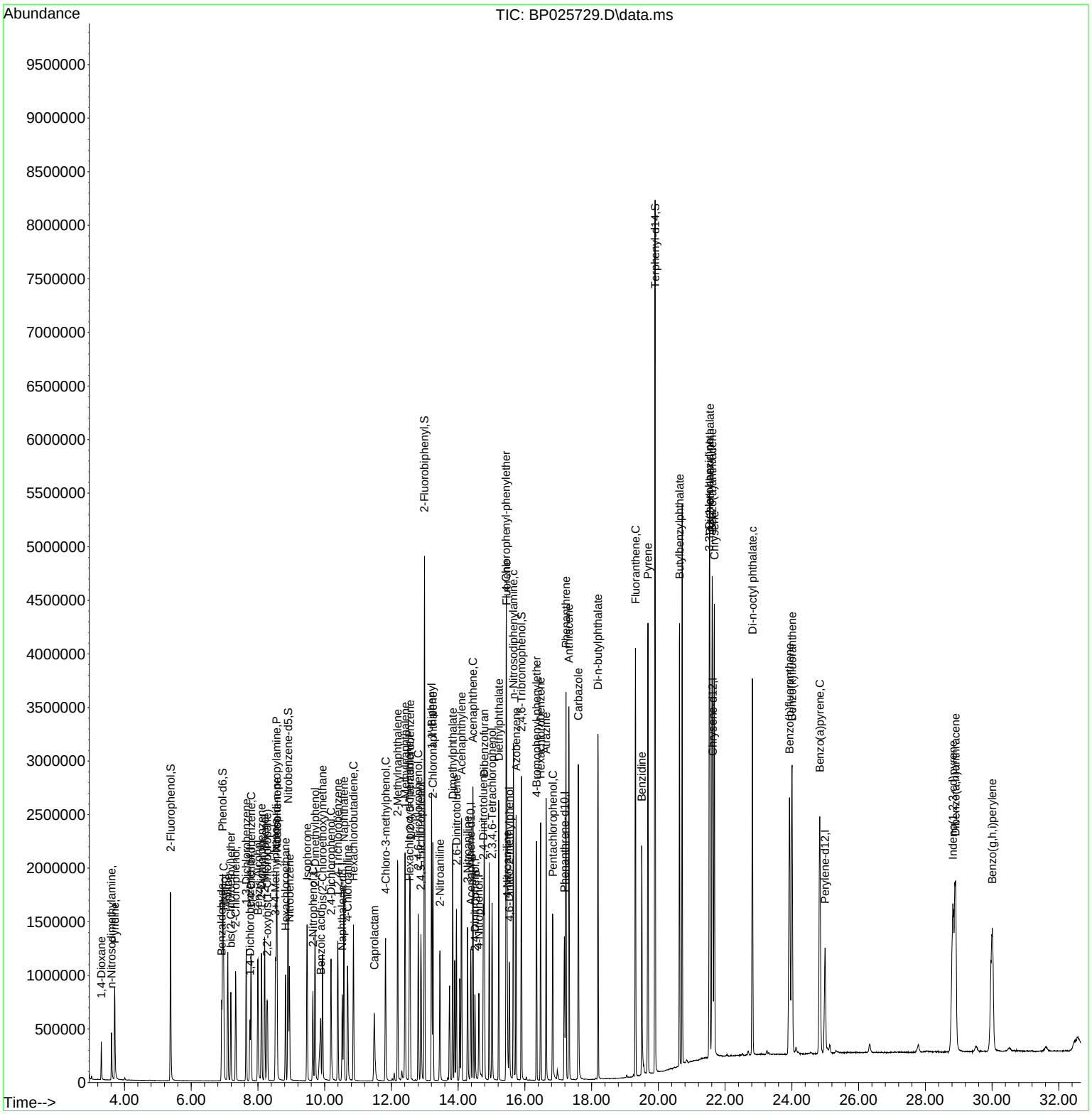
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025729.D
Acq On : 11 Sep 2025 12:21
Operator : CG/JU
Sample : SSTDICCC040
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 16:22:59 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICCC040

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025731.D
Acq On : 11 Sep 2025 13:43
Operator : CG/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC060

Quant Time: Sep 11 16:25:18 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.754	152	144908	20.000	ng		0.00
21) Naphthalene-d8	10.531	136	594465	20.000	ng		0.00
39) Acenaphthene-d10	14.389	164	399973	20.000	ng		0.01
64) Phenanthrene-d10	17.189	188	829072	20.000	ng		0.00
76) Chrysene-d12	21.636	240	850069	20.000	ng		0.00
86) Perylene-d12	24.995	264	937177	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.384	112	1076648	119.885	ng		0.00
7) Phenol-d6	6.949	99	1441118	120.727	ng		0.00
23) Nitrobenzene-d5	8.907	82	1624115	120.514	ng		0.00
42) 2,4,6-Tribromophenol	15.901	330	596882	119.643	ng		0.00
45) 2-Fluorobiphenyl	12.995	172	3440852	114.546	ng		0.00
79) Terphenyl-d14	19.913	244	5375608	113.763	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.308	88	214449	56.894	ng		99
3) Pyridine	3.708	79	608506	58.630	ng		98
4) n-Nitrosodimethylamine	3.614	42	283590	57.906	ng		98
6) Aniline	7.090	93	984589	60.086	ng		99
8) 2-Chlorophenol	7.331	128	593699	60.261	ng		99
9) Benzaldehyde	6.913	77	468269	65.521	ng		98
10) Phenol	6.972	94	761185	60.475	ng		99
11) bis(2-Chloroethyl)ether	7.190	93	594817	58.820	ng		97
12) 1,3-Dichlorobenzene	7.649	146	647387	57.736	ng		98
13) 1,4-Dichlorobenzene	7.790	146	669205	58.590	ng		98
14) 1,2-Dichlorobenzene	8.107	146	645593	58.182	ng		99
15) Benzyl Alcohol	7.996	79	587082	59.518	ng		100
16) 2,2'-oxybis(1-Chloropr...	8.278	45	940663	56.880	ng		100
17) 2-Methylphenol	8.207	107	515294	60.722	ng		99
18) Hexachloroethane	8.825	117	255454	58.553	ng		96
19) n-Nitroso-di-n-propyla...	8.560	70	500512	60.833	ng		99
20) 3+4-Methylphenols	8.531	107	706319	59.431	ng		99
22) Acetophenone	8.578	105	959504	60.398	ng	#	99
24) Nitrobenzene	8.949	77	732954	60.626	ng		98
25) Isophorone	9.472	82	1411439	59.586	ng		100
26) 2-Nitrophenol	9.654	139	341952	63.706	ng		96
27) 2,4-Dimethylphenol	9.713	122	571131	60.651	ng		99
28) bis(2-Chloroethoxy)met...	9.948	93	805869	58.855	ng		100
29) 2,4-Dichlorophenol	10.190	162	583539	62.152	ng		98
30) 1,2,4-Trichlorobenzene	10.396	180	617864	58.392	ng		99
31) Naphthalene	10.578	128	1861226	58.065	ng		99
32) Benzoic acid	9.901	122	457710	65.376	ng		100
33) 4-Chloroaniline	10.690	127	828517	62.014	ng		99
34) Hexachlorobutadiene	10.860	225	402426	59.079	ng		99
35) Caprolactam	11.495	113	213931	59.232	ng		98
36) 4-Chloro-3-methylphenol	11.819	107	672438	60.073	ng		97
37) 2-Methylnaphthalene	12.190	142	1207999	58.676	ng		98
38) 1-Methylnaphthalene	12.407	142	1271354	57.909	ng		99
40) 1,2,4,5-Tetrachloroben...	12.560	216	724963	59.814	ng		100
41) Hexachlorocyclopentadiene	12.537	237	416561	63.104	ng		99
43) 2,4,6-Trichlorophenol	12.807	196	490224	61.525	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025731.D
Acq On : 11 Sep 2025 13:43
Operator : CG/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC060

Quant Time: Sep 11 16:25:18 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.884	196	548795	61.887	ng		97
46) 1,1'-Biphenyl	13.201	154	1710115	58.250	ng		100
47) 2-Chloronaphthalene	13.248	162	1358189	58.754	ng		99
48) 2-Nitroaniline	13.460	65	481928	62.541	ng		97
49) Acenaphthylene	14.113	152	2244987	58.613	ng		99
50) Dimethylphthalate	13.836	163	1735637	56.838	ng		99
51) 2,6-Dinitrotoluene	13.960	165	395721	61.166	ng		98
52) Acenaphthene	14.454	154	1266404	57.334	ng		100
53) 3-Nitroaniline	14.295	138	428446	62.976	ng		98
54) 2,4-Dinitrophenol	14.513	184	241144	58.695	ng		99
55) Dibenzofuran	14.789	168	2062085	57.280	ng		99
56) 4-Nitrophenol	14.619	139	335924	58.606	ng		94
57) 2,4-Dinitrotoluene	14.760	165	564986	61.363	ng		98
58) Fluorene	15.448	166	1619859	56.587	ng		100
59) 2,3,4,6-Tetrachlorophenol	15.025	232	471644	59.043	ng		100
60) Diethylphthalate	15.225	149	1767001	57.046	ng		100
61) 4-Chlorophenyl-phenyle...	15.442	204	817173	56.642	ng		99
62) 4-Nitroaniline	15.478	138	451315	64.802	ng		97
63) Azobenzene	15.742	77	1761607	58.817	ng		99
65) 4,6-Dinitro-2-methylph...	15.536	198	341390	61.918	ng		97
66) n-Nitrosodiphenylamine	15.660	169	1476982	58.214	ng		99
67) 4-Bromophenyl-phenylether	16.354	248	530862	58.285	ng		97
68) Hexachlorobenzene	16.483	284	586880	57.781	ng		95
69) Atrazine	16.642	200	563586	58.112	ng		97
70) Pentachlorophenol	16.836	266	400840	59.795	ng		100
71) Phenanthrene	17.230	178	2648539	56.316	ng		100
72) Anthracene	17.325	178	2753779	57.710	ng		100
73) Carbazole	17.607	167	2580907	58.177	ng		99
74) Di-n-butylphthalate	18.189	149	3187132	58.542	ng		100
75) Fluoranthene	19.313	202	3216943	57.034	ng		100
77) Benzidine	19.513	184	1473612	60.181	ng		99
78) Pyrene	19.689	202	3334872	58.794	ng		99
80) Butylbenzylphthalate	20.630	149	1497716	60.222	ng		98
81) Benzo(a)anthracene	21.613	228	3391233	58.272	ng		99
82) 3,3'-Dichlorobenzidine	21.530	252	1193448	59.308	ng		99
83) Chrysene	21.677	228	3234610	58.306	ng		100
84) Bis(2-ethylhexyl)phtha...	21.542	149	2185686	60.070	ng		99
85) Di-n-octyl phthalate	22.830	149	3857923	59.606	ng		100
87) Indeno(1,2,3-cd)pyrene	28.824	276	4176186	61.276	ng	#	85
88) Benzo(b)fluoranthene	23.930	252	3417862	59.638	ng		99
89) Benzo(k)fluoranthene	24.007	252	3431342	58.674	ng		100
90) Benzo(a)pyrene	24.848	252	3396800	60.523	ng		99
91) Dibenzo(a,h)anthracene	28.906	278	3396390	60.898	ng		99
92) Benzo(g,h,i)perylene	30.012	276	3366014	61.370	ng		99

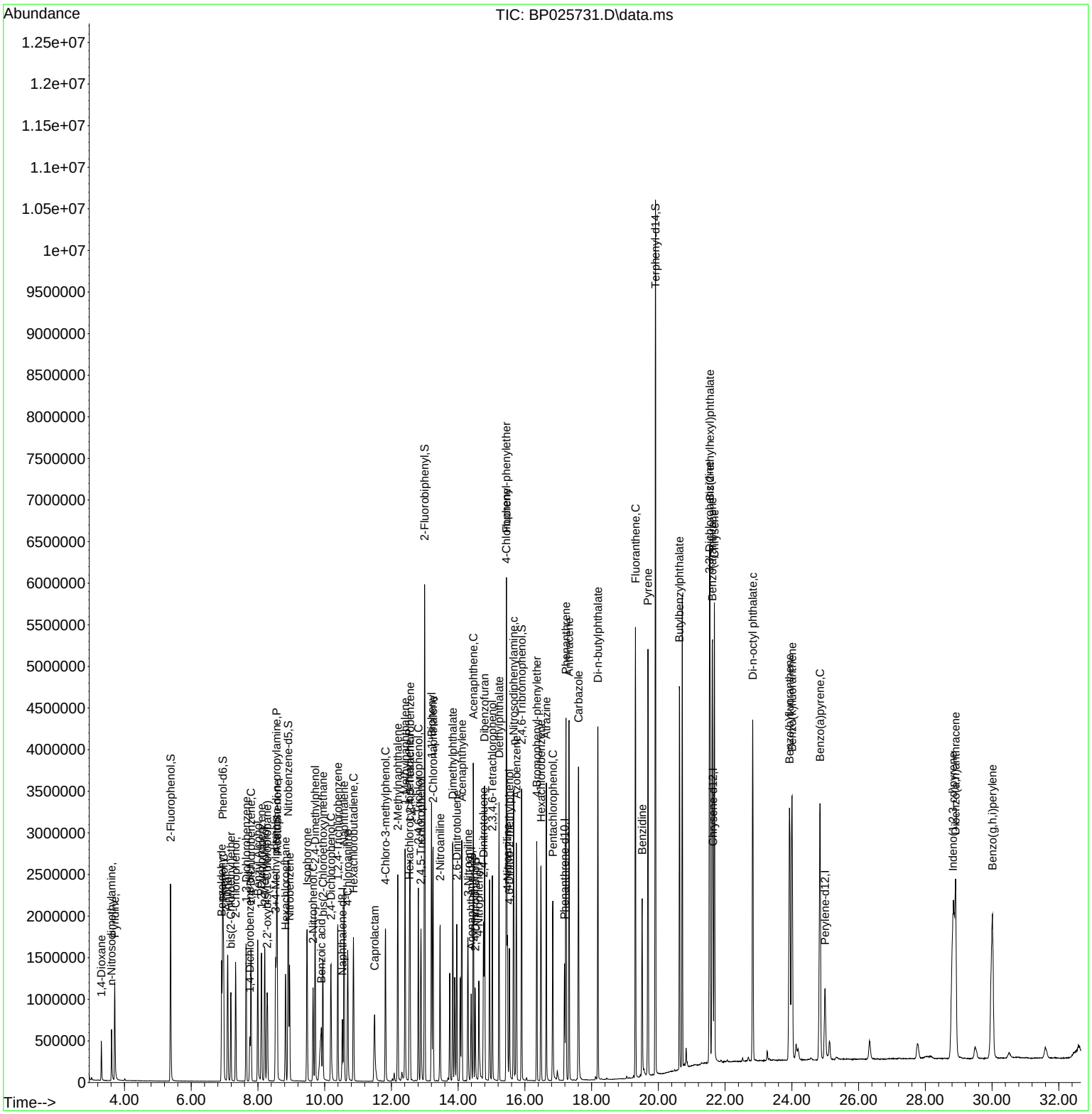
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025731.D
Acq On : 11 Sep 2025 13:43
Operator : CG/JU
Sample : SSTDICC060
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC060

Quant Time: Sep 11 16:25:18 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025732.D
Acq On : 11 Sep 2025 14:24
Operator : CG/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC080

Quant Time: Sep 11 16:26:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.761	152	156685	20.000	ng		0.00
21) Naphthalene-d8	10.531	136	657507	20.000	ng		0.00
39) Acenaphthene-d10	14.384	164	457251	20.000	ng		0.00
64) Phenanthrene-d10	17.189	188	963896	20.000	ng		0.00
76) Chrysene-d12	21.642	240	964091	20.000	ng		0.00
86) Perylene-d12	24.995	264	1072676	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.384	112	1519863	156.516	ng		0.00
7) Phenol-d6	6.949	99	2060064	159.607	ng		0.00
23) Nitrobenzene-d5	8.908	82	2312828	155.163	ng		0.00
42) 2,4,6-Tribromophenol	15.901	330	901504	158.067	ng		0.00
45) 2-Fluorobiphenyl	12.996	172	4820104	140.360	ng		0.00
79) Terphenyl-d14	19.913	244	7841805	146.328	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.308	88	293942	72.123	ng		100
3) Pyridine	3.708	79	864675	77.049	ng		97
4) n-Nitrosodimethylamine	3.614	42	406094	76.687	ng		100
6) Aniline	7.096	93	1418325	80.049	ng		99
8) 2-Chlorophenol	7.337	128	852861	80.059	ng		99
9) Benzaldehyde	6.914	77	614881	79.569	ng		100
10) Phenol	6.972	94	1090983	80.162	ng		99
11) bis(2-Chloroethyl)ether	7.190	93	855627	78.251	ng		98
12) 1,3-Dichlorobenzene	7.649	146	917305	75.659	ng		97
13) 1,4-Dichlorobenzene	7.796	146	935253	75.728	ng		99
14) 1,2-Dichlorobenzene	8.108	146	905715	75.489	ng		99
15) Benzyl Alcohol	8.002	79	865116	81.113	ng		99
16) 2,2'-oxybis(1-Chloropr...	8.278	45	1365629	76.370	ng		99
17) 2-Methylphenol	8.208	107	747211	81.433	ng		100
18) Hexachloroethane	8.825	117	362679	76.881	ng		96
19) n-Nitroso-di-n-propyla...	8.560	70	721517	81.103	ng		99
20) 3+4-Methylphenols	8.531	107	1023340	79.634	ng		99
22) Acetophenone	8.572	105	1366991	77.798	ng	#	98
24) Nitrobenzene	8.949	77	1052990	78.746	ng		98
25) Isophorone	9.484	82	2070061	79.012	ng		100
26) 2-Nitrophenol	9.649	139	504228	84.931	ng		96
27) 2,4-Dimethylphenol	9.713	122	842469	80.887	ng		99
28) bis(2-Chloroethoxy)met...	9.937	93	1190837	78.631	ng		99
29) 2,4-Dichlorophenol	10.190	162	850329	81.883	ng		99
30) 1,2,4-Trichlorobenzene	10.390	180	902735	77.134	ng		99
31) Naphthalene	10.578	128	2657135	74.948	ng		99
32) Benzoic acid	9.925	122	680741	87.910	ng		98
33) 4-Chloroaniline	10.684	127	1237939	83.774	ng		98
34) Hexachlorobutadiene	10.866	225	571616	75.871	ng		100
35) Caprolactam	11.513	113	324639	81.266	ng		96
36) 4-Chloro-3-methylphenol	11.825	107	998570	80.654	ng		96
37) 2-Methylnaphthalene	12.190	142	1750889	76.891	ng		99
38) 1-Methylnaphthalene	12.407	142	1849786	76.178	ng		99
40) 1,2,4,5-Tetrachloroben...	12.554	216	1039713	75.038	ng		100
41) Hexachlorocyclopentadiene	12.537	237	641317	84.983	ng		98
43) 2,4,6-Trichlorophenol	12.807	196	725824	79.683	ng		99

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025732.D
Acq On : 11 Sep 2025 14:24
Operator : CG/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC080

Quant Time: Sep 11 16:26:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	2,4,5-Trichlorophenol	12.884	196	806956	79.601	ng		97
46)	1,1'-Biphenyl	13.201	154	2497929	74.426	ng		100
47)	2-Chloronaphthalene	13.243	162	1962349	74.255	ng		98
48)	2-Nitroaniline	13.454	65	733091	83.218	ng		97
49)	Acenaphthylene	14.107	152	3311359	75.625	ng		99
50)	Dimethylphthalate	13.843	163	2615037	74.909	ng		99
51)	2,6-Dinitrotoluene	13.954	165	580821	78.530	ng		100
52)	Acenaphthene	14.443	154	1846398	73.121	ng		100
53)	3-Nitroaniline	14.290	138	649230	83.474	ng		100
54)	2,4-Dinitrophenol	14.507	184	382175	79.506	ng		93
55)	Dibenzofuran	14.790	168	2999483	72.882	ng		99
56)	4-Nitrophenol	14.625	139	527475	78.823	ng		98
57)	2,4-Dinitrotoluene	14.760	165	853243	81.062	ng		98
58)	Fluorene	15.454	166	2363617	72.225	ng		100
59)	2,3,4,6-Tetrachlorophenol	15.019	232	722846	79.155	ng		98
60)	Diethylphthalate	15.225	149	2678679	75.646	ng		100
61)	4-Chlorophenyl-phenyle...	15.442	204	1190470	72.181	ng		97
62)	4-Nitroaniline	15.472	138	667122	83.790	ng		99
63)	Azobenzene	15.742	77	2578205	75.299	ng		99
65)	4,6-Dinitro-2-methylph...	15.542	198	537070	83.783	ng		97
66)	n-Nitrosodiphenylamine	15.666	169	2109969	71.530	ng		100
67)	4-Bromophenyl-phenylether	16.354	248	792238	74.816	ng		97
68)	Hexachlorobenzene	16.478	284	892102	75.546	ng		96
69)	Atrazine	16.648	200	876809	77.763	ng		99
70)	Pentachlorophenol	16.837	266	629802	80.808	ng		98
71)	Phenanthrene	17.236	178	3960390	72.431	ng		100
72)	Anthracene	17.331	178	4027019	72.588	ng		100
73)	Carbazole	17.607	167	3852545	74.694	ng		99
74)	Di-n-butylphthalate	18.195	149	4705330	74.340	ng		100
75)	Fluoranthene	19.325	202	4786922	72.998	ng		100
77)	Benzidine	19.519	184	2065703	74.384	ng		100
78)	Pyrene	19.701	202	4911699	76.353	ng		100
80)	Butylbenzylphthalate	20.642	149	2268963	80.443	ng		98
81)	Benzo(a)anthracene	21.619	228	5031313	76.229	ng		100
82)	3,3'-Dichlorobenzidine	21.536	252	1705366	74.725	ng		99
83)	Chrysene	21.689	228	4667905	74.190	ng		99
84)	Bis(2-ethylhexyl)phtha...	21.542	149	3154011	76.431	ng		100
85)	Di-n-octyl phthalate	22.824	149	5799888	79.012	ng		100
87)	Indeno(1,2,3-cd)pyrene	28.848	276	5948880	76.261	ng	#	84
88)	Benzo(b)fluoranthene	23.936	252	5088293	77.570	ng		99
89)	Benzo(k)fluoranthene	24.013	252	4938760	73.783	ng		99
90)	Benzo(a)pyrene	24.842	252	4896947	76.231	ng		99
91)	Dibenzo(a,h)anthracene	28.918	278	4903653	76.817	ng		98
92)	Benzo(g,h,i)perylene	30.036	276	4826771	76.886	ng		99

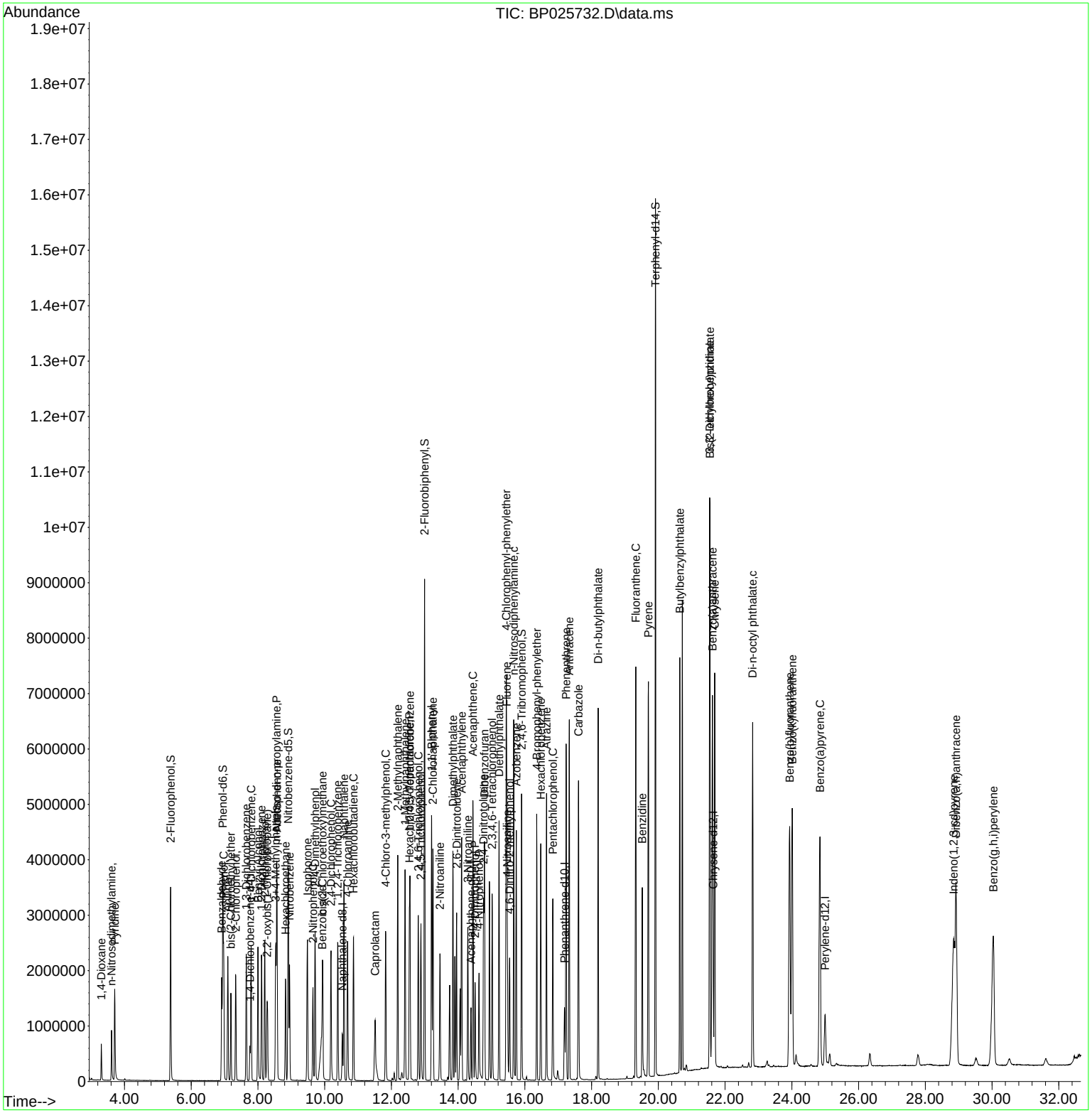
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025732.D
Acq On : 11 Sep 2025 14:24
Operator : CG/JU
Sample : SSTDICC080
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC080

Quant Time: Sep 11 16:26:30 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025733.D
Acq On : 11 Sep 2025 15:20
Operator : CG/JU
Sample : SSTDICC050
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC050

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 16:27:42 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.719	152	132227	20.000	ng		-0.04
21) Naphthalene-d8	10.507	136	558379	20.000	ng		-0.02
39) Acenaphthene-d10	14.372	164	384529	20.000	ng		0.00
64) Phenanthrene-d10	17.178	188	764105	20.000	ng		0.00
76) Chrysene-d12	21.636	240	796095	20.000	ng		0.00
86) Perylene-d12	24.995	264	864239	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.343	112	847611	103.433	ng		-0.04
7) Phenol-d6	6.913	99	1140979	104.750	ng		-0.04
23) Nitrobenzene-d5	8.878	82	1303272	102.956	ng		-0.02
42) 2,4,6-Tribromophenol	15.895	330	480931	100.273	ng		-0.01
45) 2-Fluorobiphenyl	12.984	172	2843494	98.461	ng		0.00
79) Terphenyl-d14	19.907	244	4423580	99.962	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.290	88	169936	49.409	ng		99
3) Pyridine	3.684	79	483875	51.092	ng		98
4) n-Nitrosodimethylamine	3.590	42	224792	50.302	ng		100
6) Aniline	7.060	93	784152	52.443	ng		99
8) 2-Chlorophenol	7.296	128	466182	51.856	ng		100
9) Benzaldehyde	6.878	77	398852m	61.160	ng		
10) Phenol	6.937	94	601415	52.364	ng		98
11) bis(2-Chloroethyl)ether	7.155	93	475247	51.503	ng		97
12) 1,3-Dichlorobenzene	7.613	146	511619	50.003	ng		97
13) 1,4-Dichlorobenzene	7.760	146	525685	50.438	ng		100
14) 1,2-Dichlorobenzene	8.072	146	509835	50.354	ng		99
15) Benzyl Alcohol	7.960	79	466422	51.821	ng		99
16) 2,2'-oxybis(1-Chloropr...	8.249	45	757264	50.182	ng		99
17) 2-Methylphenol	8.172	107	406974	52.557	ng		99
18) Hexachloroethane	8.796	117	201387	50.587	ng		96
19) n-Nitroso-di-n-propyla...	8.525	70	406549	54.152	ng		99
20) 3+4-Methylphenols	8.502	107	559714	51.612	ng		99
22) Acetophenone	8.543	105	767098	51.407	ng	#	98
24) Nitrobenzene	8.919	77	583136	51.351	ng		98
25) Isophorone	9.443	82	1138308	51.161	ng		100
26) 2-Nitrophenol	9.625	139	269275	53.408	ng		98
27) 2,4-Dimethylphenol	9.690	122	456881	51.654	ng		98
28) bis(2-Chloroethoxy)met...	9.919	93	661544	51.437	ng		99
29) 2,4-Dichlorophenol	10.160	162	470034	53.298	ng		99
30) 1,2,4-Trichlorobenzene	10.366	180	498270	50.132	ng		99
31) Naphthalene	10.560	128	1513087	50.255	ng		100
32) Benzoic acid	9.866	122	353386	53.738	ng		99
33) 4-Chloroaniline	10.672	127	666499	53.111	ng		99
34) Hexachlorobutadiene	10.837	225	316676	49.495	ng		99
35) Caprolactam	11.466	113	172043	50.713	ng		99
36) 4-Chloro-3-methylphenol	11.801	107	549567	52.269	ng		96
37) 2-Methylnaphthalene	12.172	142	974364	50.386	ng		99
38) 1-Methylnaphthalene	12.390	142	1019849	49.456	ng		98
40) 1,2,4,5-Tetrachloroben...	12.543	216	583660	50.090	ng		100
41) Hexachlorocyclopentadiene	12.525	237	337711	53.214	ng		99
43) 2,4,6-Trichlorophenol	12.790	196	393647	51.389	ng		99

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025733.D
Acq On : 11 Sep 2025 15:20
Operator : CG/JU
Sample : SSTDICC050
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDICC050

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 16:27:42 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.866	196	441307	51.765	ng		98
46) 1,1'-Biphenyl	13.190	154	1408553	49.905	ng		99
47) 2-Chloronaphthalene	13.237	162	1118909	50.347	ng		99
48) 2-Nitroaniline	13.448	65	383740	51.799	ng		94
49) Acenaphthylene	14.095	152	1830164	49.702	ng		100
50) Dimethylphthalate	13.831	163	1435428	48.895	ng		100
51) 2,6-Dinitrotoluene	13.948	165	316613	50.904	ng		98
52) Acenaphthene	14.442	154	1042525	49.094	ng		99
53) 3-Nitroaniline	14.284	138	343785	52.561	ng		96
54) 2,4-Dinitrophenol	14.507	184	193294	49.740	ng		96
55) Dibenzofuran	14.784	168	1697428	49.045	ng		98
56) 4-Nitrophenol	14.613	139	261984	48.388	ng		99
57) 2,4-Dinitrotoluene	14.748	165	465265	52.562	ng		95
58) Fluorene	15.436	166	1331644	48.387	ng		98
59) 2,3,4,6-Tetrachlorophenol	15.013	232	388785	50.625	ng		100
60) Diethylphthalate	15.219	149	1459705	49.018	ng		99
61) 4-Chlorophenyl-phenyle...	15.436	204	676706	48.790	ng		99
62) 4-Nitroaniline	15.472	138	358915	53.605	ng		99
63) Azobenzene	15.731	77	1452024	50.428	ng		99
65) 4,6-Dinitro-2-methylph...	15.531	198	272418	53.609	ng		98
66) n-Nitrosodiphenylamine	15.654	169	1199673	51.304	ng		100
67) 4-Bromophenyl-phenylether	16.354	248	431960	51.458	ng		99
68) Hexachlorobenzene	16.472	284	474297	50.667	ng		96
69) Atrazine	16.636	200	458144	51.256	ng		97
70) Pentachlorophenol	16.825	266	318100	51.487	ng		98
71) Phenanthrene	17.219	178	2161060	49.858	ng		100
72) Anthracene	17.325	178	2260277	51.395	ng		100
73) Carbazole	17.595	167	2110925	51.629	ng		100
74) Di-n-butylphthalate	18.189	149	2558689	50.995	ng		100
75) Fluoranthene	19.313	202	2580366	49.638	ng		100
77) Benzidine	19.513	184	1255790	54.762	ng		100
78) Pyrene	19.695	202	2660397	50.083	ng		99
80) Butylbenzylphthalate	20.636	149	1209410	51.926	ng		100
81) Benzo(a)anthracene	21.613	228	2742275	50.315	ng		99
82) 3,3'-Dichlorobenzidine	21.536	252	971634	51.559	ng		99
83) Chrysene	21.683	228	2620241	50.434	ng		100
84) Bis(2-ethylhexyl)phtha...	21.542	149	1714419	50.312	ng		99
85) Di-n-octyl phthalate	22.824	149	3047268	50.273	ng		100
87) Indeno(1,2,3-cd)pyrene	28.836	276	3254187	51.778	ng	#	85
88) Benzo(b)fluoranthene	23.942	252	2704281	51.169	ng		99
89) Benzo(k)fluoranthene	24.007	252	2718438	50.407	ng		100
90) Benzo(a)pyrene	24.848	252	2637187	50.954	ng		99
91) Dibenzo(a,h)anthracene	28.900	278	2677885	52.067	ng		98
92) Benzo(g,h,i)perylene	30.024	276	2614577	51.692	ng		98

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

ICAL Form

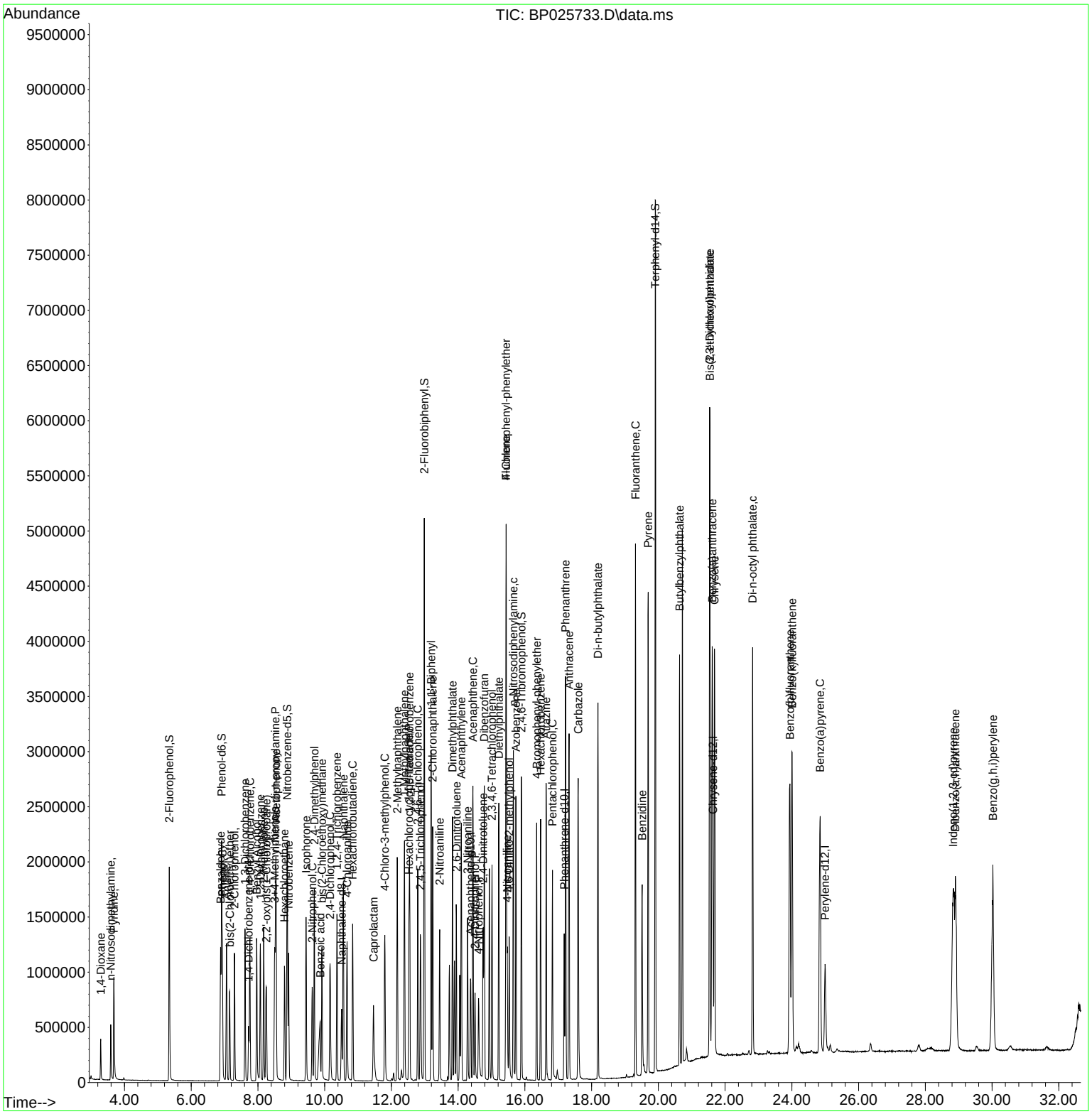
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025733.D
Acq On : 11 Sep 2025 15:20
Operator : CG/JU
Sample : SSTDICC050
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 16:27:42 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:16:10 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
SSTDICC050

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025



ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.754	152	124267	20.000	ng		0.00
21) Naphthalene-d8	10.525	136	536934	20.000	ng		0.00
39) Acenaphthene-d10	14.378	164	375383	20.000	ng		0.00
64) Phenanthrene-d10	17.183	188	771844	20.000	ng		0.00
76) Chrysene-d12	21.636	240	780297	20.000	ng		0.00
86) Perylene-d12	25.006	264	833580	20.000	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.372	112	602093	78.179	ng		-0.01
7) Phenol-d6	6.937	99	816056	79.719	ng		-0.01
23) Nitrobenzene-d5	8.895	82	840657	69.063	ng		0.00
42) 2,4,6-Tribromophenol	15.895	330	359192	76.715	ng		-0.01
45) 2-Fluorobiphenyl	12.989	172	1948137	69.102	ng		0.00
79) Terphenyl-d14	19.913	244	3054578	70.424	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.302	88	122286	37.832	ng		97
3) Pyridine	3.702	79	354452	39.824	ng		98
4) n-Nitrosodimethylamine	3.608	42	165978	39.520	ng		97
6) Aniline	7.084	93	582343	41.441	ng		99
8) 2-Chlorophenol	7.325	128	347453	41.125	ng		99
9) Benzaldehyde	6.907	77	259870m	42.354	ng		
10) Phenol	6.966	94	446406	41.357	ng		99
11) bis(2-Chloroethyl)ether	7.178	93	354776	40.910	ng		97
12) 1,3-Dichlorobenzene	7.643	146	388972	40.451	ng		99
13) 1,4-Dichlorobenzene	7.784	146	395520	40.380	ng		99
14) 1,2-Dichlorobenzene	8.101	146	380347	39.971	ng		98
15) Benzyl Alcohol	7.990	79	350290	41.411	ng		99
16) 2,2'-oxybis(1-Chloropr...	8.266	45	582311	41.060	ng		100
17) 2-Methylphenol	8.196	107	307102	42.200	ng		99
18) Hexachloroethane	8.819	117	151554	40.508	ng		97
19) n-Nitroso-di-n-propyla...	8.548	70	312448	43.761	ng		99
20) 3+4-Methylphenols	8.519	107	419059	41.117	ng		99
22) Acetophenone	8.566	105	589415	41.077	ng	#	99
24) Nitrobenzene	8.937	77	442005	40.477	ng		98
25) Isophorone	9.466	82	867997	40.570	ng		99
26) 2-Nitrophenol	9.643	139	203715	42.019	ng		98
27) 2,4-Dimethylphenol	9.707	122	353536	41.566	ng		100
28) bis(2-Chloroethoxy)met...	9.931	93	506887	40.986	ng		100
29) 2,4-Dichlorophenol	10.184	162	351168	41.410	ng		99
30) 1,2,4-Trichlorobenzene	10.390	180	377799	39.530	ng		97
31) Naphthalene	10.572	128	1147015	39.618	ng		100
32) Benzoic acid	9.866	122	261084	41.287	ng		99
33) 4-Chloroaniline	10.690	127	511290	42.370	ng		99
34) Hexachlorobutadiene	10.854	225	240927	39.159	ng		100
35) Caprolactam	11.478	113	129656	39.662	ng		97
36) 4-Chloro-3-methylphenol	11.819	107	414385	40.986	ng		96
37) 2-Methylnaphthalene	12.184	142	751182	40.396	ng		98
38) 1-Methylnaphthalene	12.401	142	804402	40.566	ng		100
40) 1,2,4,5-Tetrachloroben...	12.554	216	455659	40.058	ng		100
41) Hexachlorocyclopentadiene	12.531	237	251065	40.525	ng		99
43) 2,4,6-Trichlorophenol	12.801	196	311792	41.695	ng		98

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.878	196	335762	40.344	ng		98
46) 1,1'-Biphenyl	13.201	154	1121205	40.692	ng		100
47) 2-Chloronaphthalene	13.242	162	849751	39.167	ng		99
48) 2-Nitroaniline	13.454	65	296601	41.012	ng		99
49) Acenaphthylene	14.101	152	1431405	39.820	ng		100
50) Dimethylphthalate	13.836	163	1131460	39.480	ng		100
51) 2,6-Dinitrotoluene	13.948	165	245080	40.363	ng		98
52) Acenaphthene	14.454	154	808647	39.008	ng		99
53) 3-Nitroaniline	14.289	138	260323	40.770	ng		99
54) 2,4-Dinitrophenol	14.513	184	139609	38.055	ng		98
55) Dibenzofuran	14.783	168	1329616	39.353	ng		99
56) 4-Nitrophenol	14.619	139	192803	37.582	ng		96
57) 2,4-Dinitrotoluene	14.754	165	353669	40.928	ng		96
58) Fluorene	15.442	166	1043250	38.831	ng		99
59) 2,3,4,6-Tetrachlorophenol	15.019	232	297719	39.712	ng		100
60) Diethylphthalate	15.219	149	1163950	40.039	ng		100
61) 4-Chlorophenyl-phenyle...	15.436	204	536069	39.592	ng		97
62) 4-Nitroaniline	15.466	138	272817	41.707	ng		99
63) Azobenzene	15.736	77	1114737	39.657	ng		99
65) 4,6-Dinitro-2-methylph...	15.536	198	204888	39.916	ng		97
66) n-Nitrosodiphenylamine	15.660	169	939618	39.780	ng		100
67) 4-Bromophenyl-phenylether	16.354	248	339813	40.075	ng		97
68) Hexachlorobenzene	16.472	284	375085	39.667	ng		97
69) Atrazine	16.642	200	364755	40.399	ng		99
70) Pentachlorophenol	16.836	266	248287	39.784	ng		99
71) Phenanthrene	17.224	178	1716732	39.210	ng		99
72) Anthracene	17.319	178	1778123	40.026	ng		100
73) Carbazole	17.601	167	1614641	39.095	ng		100
74) Di-n-butylphthalate	18.189	149	2015320	39.763	ng		100
75) Fluoranthene	19.324	202	2020319	38.475	ng		100
77) Benzidine	19.513	184	735659m	32.730	ng		
78) Pyrene	19.701	202	2122125	40.759	ng		99
80) Butylbenzylphthalate	20.636	149	950670	41.644	ng		98
81) Benzo(a)anthracene	21.612	228	2127849	39.832	ng		100
82) 3,3'-Dichlorobenzidine	21.542	252	705014	38.168	ng		99
83) Chrysene	21.689	228	2042185	40.103	ng		99
84) Bis(2-ethylhexyl)phtha...	21.548	149	1354255	40.547	ng		99
85) Di-n-octyl phthalate	22.836	149	2374831	39.973	ng		100
87) Indeno(1,2,3-cd)pyrene	28.836	276	2435714	40.180	ng	#	84
88) Benzo(b)fluoranthene	23.936	252	2038540	39.991	ng		99
89) Benzo(k)fluoranthene	24.006	252	2155908	41.447	ng		99
90) Benzo(a)pyrene	24.842	252	1988484	39.834	ng		99
91) Dibenzo(a,h)anthracene	28.900	278	2021392	40.748	ng		99
92) Benzo(g,h,i)perylene	30.018	276	1934037	39.644	ng		99

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

ICAL Form

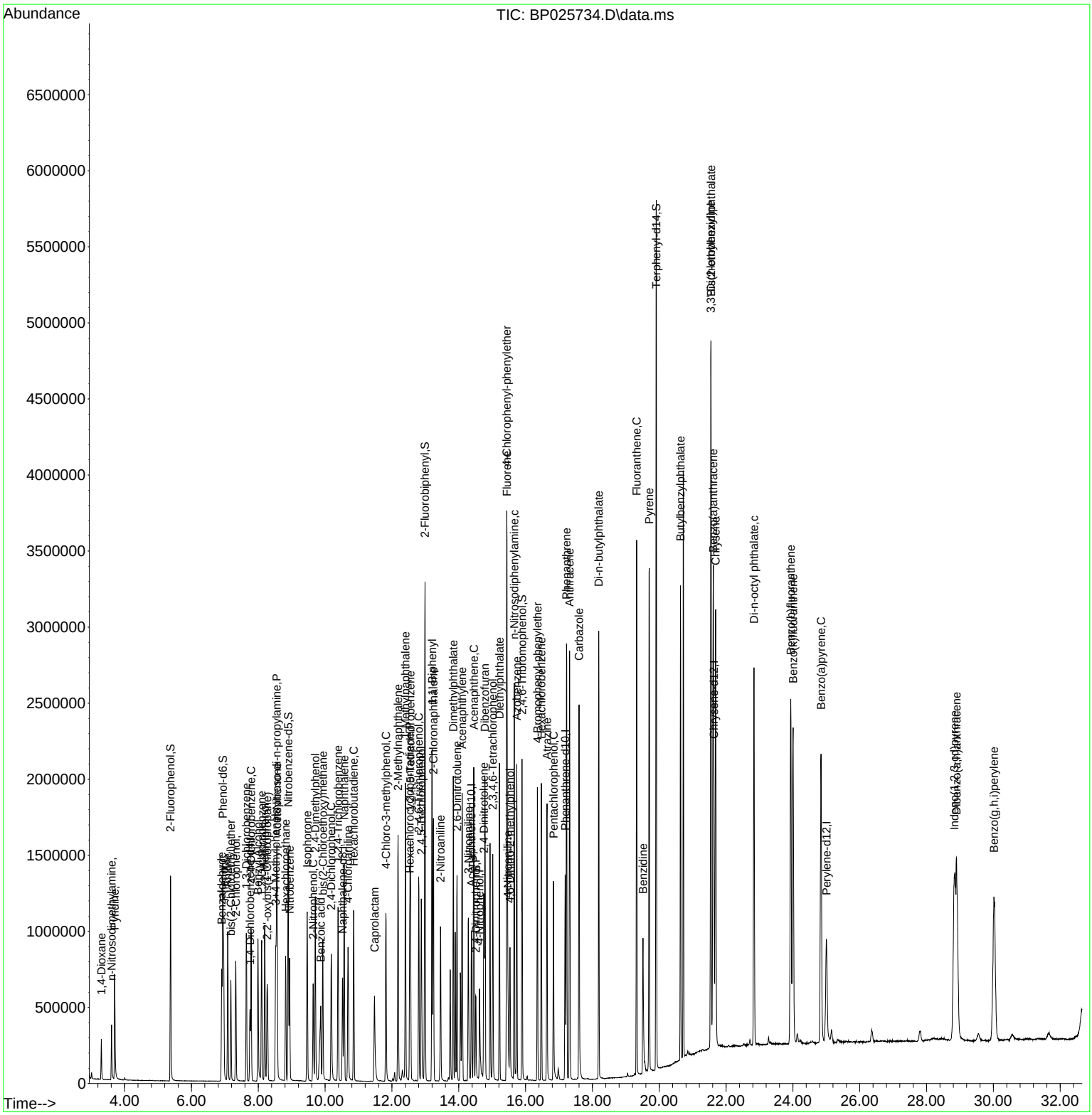
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Manual Integrations APPROVED

Reviewed By :Rahul Chavli 09/12/2025
Supervised By :Jagrut Upadhyay 09/12/2025



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	86	0.00
2		1,4-Dioxane	0.520	0.492	5.4	77	0.00
3		Pyridine	1.432	1.426	0.4	78	0.00
4		n-Nitrosodimethylamine	0.676	0.668	1.2	80	0.00
5	S	2-Fluorophenol	1.240	1.211	2.3	76	-0.01
6		Aniline	2.262	2.343	-3.6	80	-0.01
7	S	Phenol-d6	1.648	1.642	0.4	76	-0.01
8		2-Chlorophenol	1.360	1.398	-2.8	80	-0.01
9		Benzaldehyde	0.987	1.046	-6.0	103	0.00
10	C	Phenol	1.737	1.796	-3.4	79	0.00
11		bis(2-Chloroethyl)ether	1.396	1.427	-2.2	79	0.00
12		1,3-Dichlorobenzene	1.548	1.565	-1.1	80	0.00
13	C	1,4-Dichlorobenzene	1.576	1.591	-1.0	81	0.00
14		1,2-Dichlorobenzene	1.531	1.530	0.1	80	0.00
15		Benzyl Alcohol	1.361	1.409	-3.5	80	-0.01
16		2,2'-oxybis(1-Chloropropane	2.282	2.343	-2.7	81	-0.01
17		2-Methylphenol	1.171	1.236	-5.6	80	0.00
18		Hexachloroethane	0.602	0.610	-1.3	81	0.00
19	P	n-Nitroso-di-n-propylamine	1.149	1.257	-9.4	82	0.00
20		3+4-Methylphenols	1.640	1.686	-2.8	80	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	87	0.00
22		Acetophenone	0.534	0.549	-2.8	81	0.00
23	S	Nitrobenzene-d5	0.453	0.391	13.7	69	0.00
24		Nitrobenzene	0.407	0.412	-1.2	80	-0.01
25		Isophorone	0.797	0.808	-1.4	82	0.00
26	C	2-Nitrophenol	0.181	0.190	-5.0	81	0.00
27		2,4-Dimethylphenol	0.317	0.329	-3.8	80	0.00
28		bis(2-Chloroethoxy)methane	0.461	0.472	-2.4	82	-0.01
29	C	2,4-Dichlorophenol	0.316	0.327	-3.5	81	0.00
30		1,2,4-Trichlorobenzene	0.356	0.352	1.1	81	0.00
31		Naphthalene	1.078	1.068	0.9	81	0.00
32		Benzoic acid	0.236	0.243	-3.0	81	-0.01
33		4-Chloroaniline	0.449	0.476	-6.0	81	0.00
34	C	Hexachlorobutadiene	0.229	0.224	2.2	81	0.00
35		Caprolactam	0.122	0.121	0.8	80	0.00
36	C	4-Chloro-3-methylphenol	0.377	0.386	-2.4	81	0.00
37		2-Methylnaphthalene	0.693	0.700	-1.0	81	0.00
38		1-Methylnaphthalene	0.739	0.749	-1.4	81	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00
40		1,2,4,5-Tetrachlorobenzene	0.606	0.607	-0.2	83	0.00
41	P	Hexachlorocyclopentadiene	0.330	0.334	-1.2	79	0.00
42	S	2,4,6-Tribromophenol	0.249	0.239	4.0	78	-0.01
43	C	2,4,6-Trichlorophenol	0.398	0.415	-4.3	84	0.00
44		2,4,5-Trichlorophenol	0.443	0.447	-0.9	80	0.00
45	S	2-Fluorobiphenyl	1.502	1.297	13.6	73	0.00
46		1,1'-Biphenyl	1.468	1.493	-1.7	84	0.00
47		2-Chloronaphthalene	1.156	1.132	2.1	82	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	0.385	0.395	-2.6	81	0.00
49		Acenaphthylene	1.915	1.907	0.4	83	0.00
50		Dimethylphthalate	1.527	1.507	1.3	82	0.00
51		2,6-Dinitrotoluene	0.324	0.326	-0.6	82	0.00
52	C	Acenaphthene	1.104	1.077	2.4	81	0.00
53		3-Nitroaniline	0.340	0.347	-2.1	79	0.00
54	P	2,4-Dinitrophenol	0.183	0.186	-1.6	80	0.00
55		Dibenzofuran	1.800	1.771	1.6	83	0.00
56	P	4-Nitrophenol	0.258	0.257	0.4	75	0.00
57		2,4-Dinitrotoluene	0.460	0.471	-2.4	81	0.00
58		Fluorene	1.431	1.390	2.9	81	-0.01
59		2,3,4,6-Tetrachlorophenol	0.399	0.397	0.5	80	0.00
60		Diethylphthalate	1.549	1.550	-0.1	85	0.00
61		4-Chlorophenyl-phenylether	0.721	0.714	1.0	83	0.00
62		4-Nitroaniline	0.349	0.363	-4.0	81	-0.01
63		Azobenzene	1.498	1.485	0.9	81	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	89	0.00
65		4,6-Dinitro-2-methylphenol	0.133	0.133	0.0	78	0.00
66	c	n-Nitrosodiphenylamine	0.612	0.609	0.5	81	0.00
67		4-Bromophenyl-phenylether	0.220	0.220	0.0	82	0.00
68		Hexachlorobenzene	0.245	0.243	0.8	83	0.00
69		Atrazine	0.234	0.236	-0.9	81	0.00
70	C	Pentachlorophenol	0.162	0.161	0.6	80	0.00
71		Phenanthrene	1.135	1.112	2.0	81	0.00
72		Anthracene	1.151	1.152	-0.1	83	0.00
73		Carbazole	1.070	1.046	2.2	79	0.00
74		Di-n-butylphthalate	1.313	1.306	0.5	81	0.00
75	C	Fluoranthene	1.361	1.309	3.8	80	0.01
76	I	Chrysene-d12	1.000	1.000	0.0	84	0.00
77		Benzidine	0.576	0.471	18.2	61	0.00
78		Pyrene	1.335	1.360	-1.9	80	0.01
79	S	Terphenyl-d14	1.112	0.979	12.0	70	0.00
80		Butylbenzylphthalate	0.585	0.609	-4.1	79	0.00
81		Benzo(a)anthracene	1.369	1.363	0.4	79	0.00
82		3,3'-Dichlorobenzidine	0.473	0.452	4.4	73	0.00
83		Chrysene	1.305	1.309	-0.3	80	0.00
84		Bis(2-ethylhexyl)phthalate	0.856	0.868	-1.4	77	0.00
85	c	Di-n-octyl phthalate	1.523	1.522	0.1	77	0.00
86	I	Perylene-d12	1.000	1.000	0.0	83	0.00
87		Indeno(1,2,3-cd)pyrene	1.454	1.461	-0.5	76	0.00
88		Benzo(b)fluoranthene	1.223	1.223	0.0	76	0.00
89		Benzo(k)fluoranthene	1.248	1.293	-3.6	80	0.00
90	C	Benzo(a)pyrene	1.198	1.193	0.4	76	0.00
91		Dibenzo(a,h)anthracene	1.190	1.212	-1.8	78	-0.02
92		Benzo(g,h,i)perylene	1.170	1.160	0.9	76	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	86	0.00
2		1,4-Dioxane	40.000	37.832	5.4	77	0.00
3		Pyridine	40.000	39.824	0.4	78	0.00
4		n-Nitrosodimethylamine	40.000	39.520	1.2	80	0.00
5	S	2-Fluorophenol	80.000	78.179	2.3	76	-0.01
6		Aniline	40.000	41.441	-3.6	80	-0.01
7	S	Phenol-d6	80.000	79.719	0.4	76	-0.01
8		2-Chlorophenol	40.000	41.125	-2.8	80	-0.01
9		Benzaldehyde	40.000	42.354	-5.9	103	0.00
10	C	Phenol	40.000	41.357	-3.4	79	0.00
11		bis(2-Chloroethyl)ether	40.000	40.910	-2.3	79	0.00
12		1,3-Dichlorobenzene	40.000	40.451	-1.1	80	0.00
13	C	1,4-Dichlorobenzene	40.000	40.380	-1.0	81	0.00
14		1,2-Dichlorobenzene	40.000	39.971	0.1	80	0.00
15		Benzyl Alcohol	40.000	41.411	-3.5	80	-0.01
16		2,2'-oxybis(1-Chloropropane	40.000	41.060	-2.7	81	-0.01
17		2-Methylphenol	40.000	42.200	-5.5	80	0.00
18		Hexachloroethane	40.000	40.508	-1.3	81	0.00
19	P	n-Nitroso-di-n-propylamine	40.000	43.761	-9.4	82	0.00
20		3+4-Methylphenols	40.000	41.117	-2.8	80	0.00
21	I	Naphthalene-d8	20.000	20.000	0.0	87	0.00
22		Acetophenone	40.000	41.077	-2.7	81	0.00
23	S	Nitrobenzene-d5	80.000	69.063	13.7	69	0.00
24		Nitrobenzene	40.000	40.477	-1.2	80	-0.01
25		Isophorone	40.000	40.570	-1.4	82	0.00
26	C	2-Nitrophenol	40.000	42.019	-5.0	81	0.00
27		2,4-Dimethylphenol	40.000	41.566	-3.9	80	0.00
28		bis(2-Chloroethoxy)methane	40.000	40.986	-2.5	82	-0.01
29	C	2,4-Dichlorophenol	40.000	41.410	-3.5	81	0.00
30		1,2,4-Trichlorobenzene	40.000	39.530	1.2	81	0.00
31		Naphthalene	40.000	39.618	1.0	81	0.00
32		Benzoic acid	40.000	41.287	-3.2	81	-0.01
33		4-Chloroaniline	40.000	42.370	-5.9	81	0.00
34	C	Hexachlorobutadiene	40.000	39.159	2.1	81	0.00
35		Caprolactam	40.000	39.662	0.8	80	0.00
36	C	4-Chloro-3-methylphenol	40.000	40.986	-2.5	81	0.00
37		2-Methylnaphthalene	40.000	40.396	-1.0	81	0.00
38		1-Methylnaphthalene	40.000	40.566	-1.4	81	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	90	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	40.058	-0.1	83	0.00
41	P	Hexachlorocyclopentadiene	40.000	40.525	-1.3	79	0.00
42	S	2,4,6-Tribromophenol	80.000	76.715	4.1	78	-0.01
43	C	2,4,6-Trichlorophenol	40.000	41.695	-4.2	84	0.00
44		2,4,5-Trichlorophenol	40.000	40.344	-0.9	80	0.00
45	S	2-Fluorobiphenyl	80.000	69.102	13.6	73	0.00
46		1,1'-Biphenyl	40.000	40.692	-1.7	84	0.00
47		2-Chloronaphthalene	40.000	39.167	2.1	82	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	41.012	-2.5	81	0.00
49		Acenaphthylene	40.000	39.820	0.4	83	0.00
50		Dimethylphthalate	40.000	39.480	1.3	82	0.00
51		2,6-Dinitrotoluene	40.000	40.363	-0.9	82	0.00
52	C	Acenaphthene	40.000	39.008	2.5	81	0.00
53		3-Nitroaniline	40.000	40.770	-1.9	79	0.00
54	P	2,4-Dinitrophenol	40.000	38.055	4.9	80	0.00
55		Dibenzofuran	40.000	39.353	1.6	83	0.00
56	P	4-Nitrophenol	40.000	37.582	6.0	75	0.00
57		2,4-Dinitrotoluene	40.000	40.928	-2.3	81	0.00
58		Fluorene	40.000	38.831	2.9	81	-0.01
59		2,3,4,6-Tetrachlorophenol	40.000	39.712	0.7	80	0.00
60		Diethylphthalate	40.000	40.039	-0.1	85	0.00
61		4-Chlorophenyl-phenylether	40.000	39.592	1.0	83	0.00
62		4-Nitroaniline	40.000	41.707	-4.3	81	-0.01
63		Azobenzene	40.000	39.657	0.9	81	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	89	0.00
65		4,6-Dinitro-2-methylphenol	40.000	39.916	0.2	78	0.00
66	c	n-Nitrosodiphenylamine	40.000	39.780	0.5	81	0.00
67		4-Bromophenyl-phenylether	40.000	40.075	-0.2	82	0.00
68		Hexachlorobenzene	40.000	39.667	0.8	83	0.00
69		Atrazine	40.000	40.399	-1.0	81	0.00
70	C	Pentachlorophenol	40.000	39.784	0.5	80	0.00
71		Phenanthrene	40.000	39.210	2.0	81	0.00
72		Anthracene	40.000	40.026	-0.1	83	0.00
73		Carbazole	40.000	39.095	2.3	79	0.00
74		Di-n-butylphthalate	40.000	39.763	0.6	81	0.00
75	C	Fluoranthene	40.000	38.475	3.8	80	0.01
76	I	Chrysene-d12	20.000	20.000	0.0	84	0.00
77		Benzidine	40.000	32.730	18.2	61	0.00
78		Pyrene	40.000	40.759	-1.9	80	0.01
79	S	Terphenyl-d14	80.000	70.424	12.0	70	0.00
80		Butylbenzylphthalate	40.000	41.644	-4.1	79	0.00
81		Benzo(a)anthracene	40.000	39.832	0.4	79	0.00
82		3,3'-Dichlorobenzidine	40.000	38.168	4.6	73	0.00
83		Chrysene	40.000	40.103	-0.3	80	0.00
84		Bis(2-ethylhexyl)phthalate	40.000	40.547	-1.4	77	0.00
85	c	Di-n-octyl phthalate	40.000	39.973	0.1	77	0.00
86	I	Perylene-d12	20.000	20.000	0.0	83	0.00
87		Indeno(1,2,3-cd)pyrene	40.000	40.180	-0.4	76	0.00
88		Benzo(b)fluoranthene	40.000	39.991	0.0	76	0.00
89		Benzo(k)fluoranthene	40.000	41.447	-3.6	80	0.00
90	C	Benzo(a)pyrene	40.000	39.834	0.4	76	0.00
91		Dibenzo(a,h)anthracene	40.000	40.748	-1.9	78	-0.02
92		Benzo(g,h,i)perylene	40.000	39.644	0.9	76	0.00

ICAL Form

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025734.D
Acq On : 11 Sep 2025 16:54
Operator : CG/JU
Sample : SSTDICV040
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
ICVBP091225

Quant Time: Sep 11 17:15:43 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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

Raw Data: **BP025824.D**

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: Alliance Contract: ALWA01

Lab Code: ACE SDG No.: Q3157

Instrument ID: BNA_P Calibration Date/Time: 09/23/2025 11:03

Lab File ID: BP025824.D Init. Calib. Date(s): 09/11/2025 09/11/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 08:56 15:20

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.240	1.206		-2.7	
Benzaldehyde	0.987	1.329		34.7	
Phenol-d6	1.648	1.633		-0.9	
Phenol	1.737	1.706		-1.8	20.0
bis(2-Chloroethyl)ether	1.396	1.328		-4.9	
2-Chlorophenol	1.360	1.331		-2.1	
2-Methylphenol	1.171	1.149		-1.9	
2,2-oxybis(1-Chloropropane)	2.283	2.095		-8.2	
Acetophenone	0.534	0.515		-3.6	
3+4-Methylphenols	1.640	1.568		-4.4	
n-Nitroso-di-n-propylamine	1.149	1.124	0.050	-2.2	
Nitrobenzene-d5	0.453	0.430		-5.1	
Hexachloroethane	0.602	0.565		-6.1	
Nitrobenzene	0.407	0.386		-5.2	
Isophorone	0.797	0.768		-3.6	
2-Nitrophenol	0.181	0.188		3.9	20.0
2,4-Dimethylphenol	0.317	0.312		-1.6	
bis(2-Chloroethoxy)methane	0.461	0.446		-3.3	
2,4-Dichlorophenol	0.316	0.312		-1.3	20.0
Naphthalene	1.078	1.001		-7.1	
4-Chloroaniline	0.449	0.449		0.0	
Hexachlorobutadiene	0.229	0.215		-6.1	20.0
Caprolactam	0.122	0.155		27.0	
4-Chloro-3-methylphenol	0.377	0.368		-2.4	20.0
2-Methylnaphthalene	0.693	0.664		-4.2	
Hexachlorocyclopentadiene	0.330	0.318	0.050	-3.6	
2,4,6-Trichlorophenol	0.398	0.398		0.0	20.0
2-Fluorobiphenyl	1.502	1.396		-7.1	
2,4,5-Trichlorophenol	0.443	0.437		-1.4	
1,1-Biphenyl	1.468	1.383		-5.8	
2-Chloronaphthalene	1.156	1.081		-6.5	
2-Nitroaniline	0.385	0.383		-0.5	
Dimethylphthalate	1.527	1.475		-3.4	
Acenaphthylene	1.915	1.813		-5.3	
2,6-Dinitrotoluene	0.324	0.326		0.6	
3-Nitroaniline	0.340	0.357		5.0	
Acenaphthene	1.104	1.016		-8.0	20.0
2,4-Dinitrophenol	0.183	0.213	0.050	16.4	
4-Nitrophenol	0.258	0.354	0.050	37.2	

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: Alliance Contract: ALWA01

Lab Code: ACE SDG No.: Q3157

Instrument ID: BNA_P Calibration Date/Time: 09/23/2025 11:03

Lab File ID: BP025824.D Init. Calib. Date(s): 09/11/2025 09/11/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 08:56 15:20

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.800	1.653		-8.2	
2,4-Dinitrotoluene	0.460	0.473		2.8	
Diethylphthalate	1.549	1.520		-1.9	
4-Chlorophenyl-phenylether	0.721	0.681		-5.5	
Fluorene	1.431	1.345		-6.0	
4-Nitroaniline	0.349	0.384		10.0	
4,6-Dinitro-2-methylphenol	0.133	0.144		8.3	
n-Nitrosodiphenylamine	0.612	0.565		-7.7	20.0
2,4,6-Tribromophenol	0.249	0.260		4.4	
4-Bromophenyl-phenylether	0.220	0.208		-5.5	
Hexachlorobenzene	0.245	0.232		-5.3	
Atrazine	0.234	0.230		-1.7	
Pentachlorophenol	0.162	0.151		-6.8	20.0
Phenanthrene	1.135	1.040		-8.4	
Anthracene	1.151	1.047		-9.0	
Carbazole	1.070	1.022		-4.5	
Di-n-butylphthalate	1.313	1.327		1.1	
Fluoranthene	1.361	1.304		-4.2	20.0
Pyrene	1.335	1.221		-8.5	
Terphenyl-d14	1.112	0.988		-11.2	
Butylbenzylphthalate	0.585	0.595		1.7	
3,3-Dichlorobenzidine	0.473	0.471		-0.4	
Benzo(a)anthracene	1.369	1.272		-7.1	
Chrysene	1.305	1.192		-8.7	
Bis(2-ethylhexyl)phthalate	0.856	0.871		1.8	
Di-n-octyl phthalate	1.523	1.613		5.9	20.0
Benzo(b)fluoranthene	1.223	1.198		-2.0	
Benzo(k)fluoranthene	1.248	1.146		-8.2	
Benzo(a)pyrene	1.198	1.117		-6.8	20.0
Indeno(1,2,3-cd)pyrene	1.454	1.226		-15.7	
Dibenzo(a,h)anthracene	1.190	1.016		-14.6	
Benzo(g,h,i)perylene	1.171	0.928		-20.8	
1,2,4,5-Tetrachlorobenzene	0.606	0.580		-4.3	
1,4-Dioxane	0.520	0.466		-10.4	20.0
2,3,4,6-Tetrachlorophenol	0.399	0.403		1.0	

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.755	152	220036	20.000	ng	0.00
21) Naphthalene-d8	10.519	136	921644	20.000	ng	0.00
39) Acenaphthene-d10	14.378	164	640458	20.000	ng	0.00
64) Phenanthrene-d10	17.178	188	1402357	20.000	ng	0.00
76) Chrysene-d12	21.630	240	1584555	20.000	ng	-0.01
86) Perylene-d12	25.007	264	1726843	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.390	112	1061729	77.858	ng	0.00
7) Phenol-d6	6.955	99	1436927	79.275	ng	0.00
23) Nitrobenzene-d5	8.902	82	1585779	75.897	ng	0.00
42) 2,4,6-Tribromophenol	15.895	330	667252	83.527	ng	-0.01
45) 2-Fluorobiphenyl	12.984	172	3575606	74.336	ng	0.00
79) Terphenyl-d14	19.907	244	6261661	71.090	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.302	88	205285	35.867	ng	99
3) Pyridine	3.702	79	593406	37.653	ng	97
4) n-Nitrosodimethylamine	3.608	42	273722	36.808	ng	97
6) Aniline	7.090	93	963366	38.718	ng	99
8) 2-Chlorophenol	7.331	128	585815	39.159	ng	100
9) Benzaldehyde	6.908	77	584867	53.834	ng	98
10) Phenol	6.984	94	750633	39.274	ng	98
11) bis(2-Chloroethyl)ether	7.178	93	584333	38.054	ng	99
12) 1,3-Dichlorobenzene	7.643	146	640982	37.646	ng	100
13) 1,4-Dichlorobenzene	7.790	146	652360	37.614	ng	98
14) 1,2-Dichlorobenzene	8.102	146	631418	37.475	ng	99
15) Benzyl Alcohol	7.996	79	573313	38.277	ng	98
16) 2,2'-oxybis(1-Chloropr...	8.266	45	922143	36.722	ng	99
17) 2-Methylphenol	8.207	107	505819	39.254	ng	99
18) Hexachloroethane	8.813	117	248818	37.559	ng	97
19) n-Nitroso-di-n-propyla...	8.549	70	494558	39.119	ng	98
20) 3+4-Methylphenols	8.537	107	690109	38.241	ng	97
22) Acetophenone	8.566	105	949454	38.549	ng	99
24) Nitrobenzene	8.943	77	712120	37.992	ng	97
25) Isophorone	9.460	82	1414869	38.527	ng	100
26) 2-Nitrophenol	9.643	139	346627	41.652	ng	93
27) 2,4-Dimethylphenol	9.707	122	574336	39.339	ng	98
28) bis(2-Chloroethoxy)met...	9.931	93	822701	38.755	ng	99
29) 2,4-Dichlorophenol	10.196	162	575405	39.529	ng	100
30) 1,2,4-Trichlorobenzene	10.384	180	621445	37.881	ng	98
31) Naphthalene	10.572	128	1845082	37.128	ng	100
32) Benzoic acid	9.901	122	436495	40.214	ng	98
33) 4-Chloroaniline	10.678	127	828104	39.979	ng	98
34) Hexachlorobutadiene	10.854	225	396965	37.589	ng	99
35) Caprolactam	11.501	113	285853	50.943	ng	96
36) 4-Chloro-3-methylphenol	11.831	107	678445	39.093	ng	99
37) 2-Methylnaphthalene	12.178	142	1223450	38.330	ng	98
38) 1-Methylnaphthalene	12.395	142	1276709	37.509	ng	99
40) 1,2,4,5-Tetrachloroben...	12.554	216	743526	38.311	ng	99
41) Hexachlorocyclopentadiene	12.531	237	406967	38.502	ng	99
43) 2,4,6-Trichlorophenol	12.801	196	510135	39.984	ng	98

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

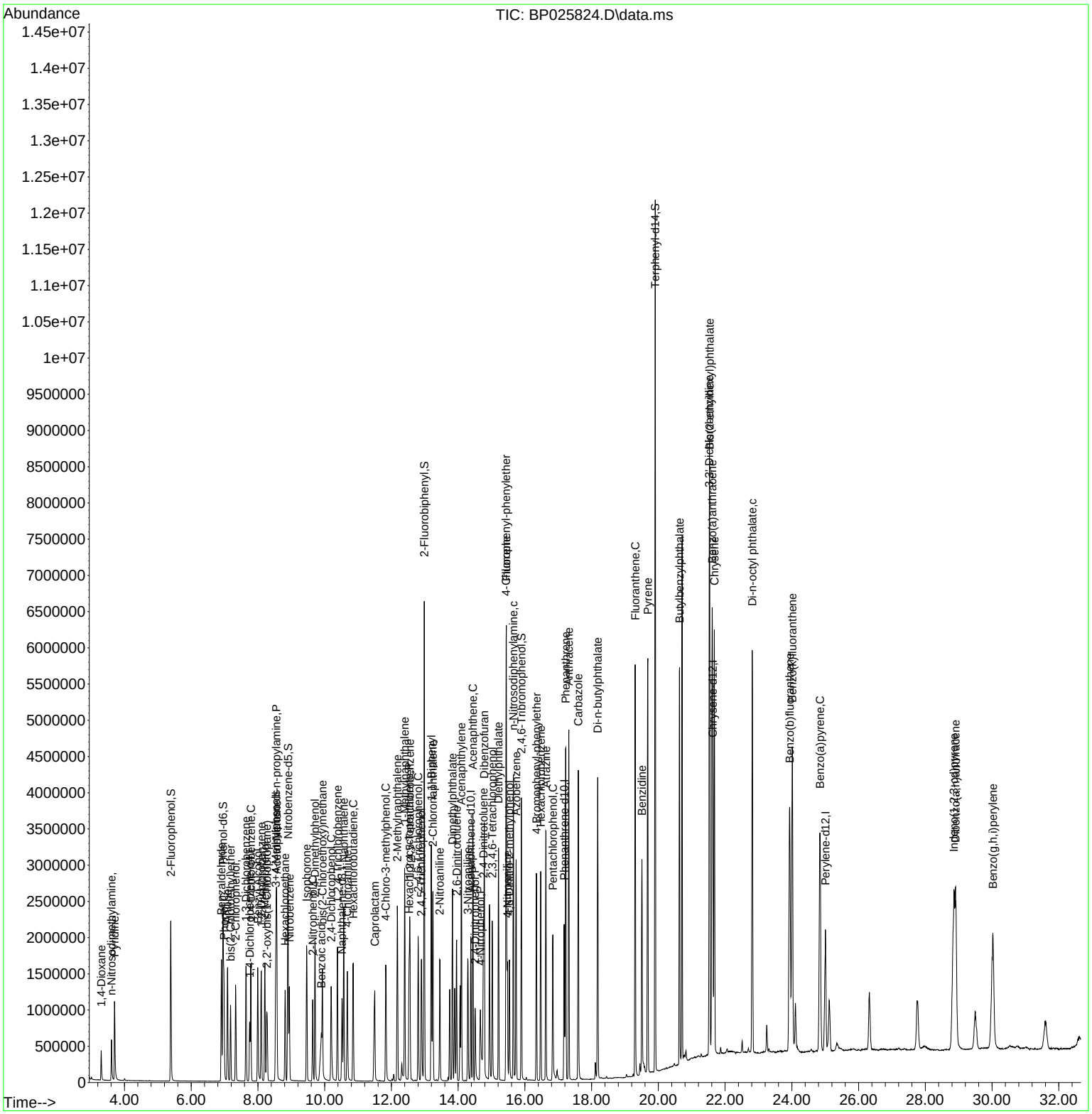
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.895	196	559153	39.379	ng		96
46) 1,1'-Biphenyl	13.195	154	1771502	37.684	ng		99
47) 2-Chloronaphthalene	13.242	162	1384278	37.397	ng		99
48) 2-Nitroaniline	13.448	65	490839	39.780	ng		97
49) Acenaphthylene	14.095	152	2321959	37.860	ng		99
50) Dimethylphthalate	13.831	163	1889211	38.637	ng		100
51) 2,6-Dinitrotoluene	13.954	165	416994	40.252	ng		98
52) Acenaphthene	14.442	154	1301580	36.800	ng		100
53) 3-Nitroaniline	14.290	138	457492	41.995	ng		99
54) 2,4-Dinitrophenol	14.507	184	272913	42.899	ng		99
55) Dibenzofuran	14.784	168	2117510	36.734	ng		99
56) 4-Nitrophenol	14.666	139	453699	50.134	ng		97
57) 2,4-Dinitrotoluene	14.760	165	605241	41.052	ng		93
58) Fluorene	15.442	166	1722462	37.577	ng		99
59) 2,3,4,6-Tetrachlorophenol	15.025	232	515744	40.321	ng		97
60) Diethylphthalate	15.207	149	1946579	39.246	ng		99
61) 4-Chlorophenyl-phenyle...	15.436	204	871831	37.740	ng		99
62) 4-Nitroaniline	15.478	138	491635	44.052	ng		97
63) Azobenzene	15.736	77	1853147	38.641	ng		99
65) 4,6-Dinitro-2-methylph...	15.536	198	404632	43.387	ng		95
66) n-Nitrosodiphenylamine	15.654	169	1585806	36.952	ng		99
67) 4-Bromophenyl-phenylether	16.348	248	584559	37.943	ng		97
68) Hexachlorobenzene	16.478	284	651073	37.896	ng		95
69) Atrazine	16.631	200	645026	39.320	ng		97
70) Pentachlorophenol	16.836	266	424480	37.435	ng		99
71) Phenanthrene	17.225	178	2917571	36.676	ng		99
72) Anthracene	17.319	178	2936929	36.387	ng		100
73) Carbazole	17.601	167	2865218	38.183	ng		100
74) Di-n-butylphthalate	18.183	149	3721772	40.416	ng		100
75) Fluoranthene	19.307	202	3657440	38.336	ng		100
77) Benzidine	19.507	184	2023181	44.326	ng		100
78) Pyrene	19.683	202	3869246	36.596	ng		99
80) Butylbenzylphthalate	20.636	149	1884621	40.653	ng		100
81) Benzo(a)anthracene	21.613	228	4031152	37.160	ng		100
82) 3,3'-Dichlorobenzidine	21.524	252	1491956	39.775	ng		99
83) Chrysene	21.677	228	3776225	36.517	ng		99
84) Bis(2-ethylhexyl)phtha...	21.536	149	2760305	40.698	ng		99
85) Di-n-octyl phthalate	22.813	149	5110532	42.360	ng		99
87) Indeno(1,2,3-cd)pyrene	28.853	276	4233442	33.711	ng	#	76
88) Benzo(b)fluoranthene	23.936	252	4136561	39.172	ng		99
89) Benzo(k)fluoranthene	24.013	252	3957661	36.727	ng		100
90) Benzo(a)pyrene	24.842	252	3858917	37.315	ng		99
91) Dibenzo(a,h)anthracene	28.906	278	3509249	34.148	ng		98
92) Benzo(g,h,i)perylene	30.024	276	3204332	31.706	ng		98

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration



Sample Results: **BP025824.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
LabSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	152#	0.00
2		1,4-Dioxane	0.520	0.466	10.4	130	0.00
3		Pyridine	1.432	1.348	5.9	131	0.00
4		n-Nitrosodimethylamine	0.676	0.622	8.0	131	0.00
5	S	2-Fluorophenol	1.240	1.206	2.7	135	0.00
6		Aniline	2.262	2.189	3.2	133	0.00
7	S	Phenol-d6	1.648	1.633	0.9	133	0.00
8		2-Chlorophenol	1.360	1.331	2.1	134	0.00
9		Benzaldehyde	0.987	1.329	-34.7#	231#	0.00
10	C	Phenol	1.737	1.706	1.8	132	0.01
11		bis(2-Chloroethyl)ether	1.396	1.328	4.9	130	0.00
12		1,3-Dichlorobenzene	1.548	1.457	5.9	132	0.00
13	C	1,4-Dichlorobenzene	1.576	1.482	6.0	133	0.00
14		1,2-Dichlorobenzene	1.531	1.435	6.3	132	0.00
15		Benzyl Alcohol	1.361	1.303	4.3	131	0.00
16		2,2'-oxybis(1-Chloropropane	2.282	2.095	8.2	128	-0.01
17		2-Methylphenol	1.171	1.149	1.9	133	0.00
18		Hexachloroethane	0.602	0.565	6.1	133	-0.01
19	P	n-Nitroso-di-n-propylamine	1.149	1.124	2.2	130	0.00
20		3+4-Methylphenols	1.640	1.568	4.4	131	0.01
21	I	Naphthalene-d8	1.000	1.000	0.0	149	0.00
22		Acetophenone	0.534	0.515	3.6	131	0.00
23	S	Nitrobenzene-d5	0.453	0.430	5.1	129	0.00
24		Nitrobenzene	0.407	0.386	5.2	128	0.00
25		Isophorone	0.797	0.768	3.6	133	0.00
26	C	2-Nitrophenol	0.181	0.188	-3.9	139	0.00
27		2,4-Dimethylphenol	0.317	0.312	1.6	131	0.00
28		bis(2-Chloroethoxy)methane	0.461	0.446	3.3	134	-0.01
29	C	2,4-Dichlorophenol	0.316	0.312	1.3	134	0.01
30		1,2,4-Trichlorobenzene	0.356	0.337	5.3	133	0.00
31		Naphthalene	1.078	1.001	7.1	130	0.00
32		Benzoic acid	0.236	0.237	-0.4	135	0.02
33		4-Chloroaniline	0.449	0.449	0.0	132	-0.01
34	C	Hexachlorobutadiene	0.229	0.215	6.1	133	0.00
35		Caprolactam	0.122	0.155	-27.0#	175#	0.02
36	C	4-Chloro-3-methylphenol	0.377	0.368	2.4	133	0.01
37		2-Methylnaphthalene	0.693	0.664	4.2	133	0.00
38		1-Methylnaphthalene	0.739	0.693	6.2	129	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	153#	0.00
40		1,2,4,5-Tetrachlorobenzene	0.606	0.580	4.3	135	0.00
41	P	Hexachlorocyclopentadiene	0.330	0.318	3.6	128	0.00
42	S	2,4,6-Tribromophenol	0.249	0.260	-4.4	144	-0.01
43	C	2,4,6-Trichlorophenol	0.398	0.398	0.0	137	0.00
44		2,4,5-Trichlorophenol	0.443	0.437	1.4	134	0.01
45	S	2-Fluorobiphenyl	1.502	1.396	7.1	134	0.00
46		1,1'-Biphenyl	1.468	1.383	5.8	133	0.00
47		2-Chloronaphthalene	1.156	1.081	6.5	133	0.00

Sample Results: **BP025824.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
LabSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	0.385	0.383	0.5	134	0.00
49		Acenaphthylene	1.915	1.813	5.3	135	0.00
50		Dimethylphthalate	1.527	1.475	3.4	136	0.00
51		2,6-Dinitrotoluene	0.324	0.326	-0.6	139	0.00
52	C	Acenaphthene	1.104	1.016	8.0	130	-0.01
53		3-Nitroaniline	0.340	0.357	-5.0	139	0.00
54	P	2,4-Dinitrophenol	0.183	0.213	-16.4	156#	0.00
55		Dibenzofuran	1.800	1.653	8.2	132	0.00
56	P	4-Nitrophenol	0.258	0.354	-37.2#	177#	0.05
57		2,4-Dinitrotoluene	0.460	0.473	-2.8	139	0.00
58		Fluorene	1.431	1.345	6.0	133	-0.01
59		2,3,4,6-Tetrachlorophenol	0.399	0.403	-1.0	138	0.00
60		Diethylphthalate	1.549	1.520	1.9	142	-0.01
61		4-Chlorophenyl-phenylether	0.721	0.681	5.5	136	0.00
62		4-Nitroaniline	0.349	0.384	-10.0	145	0.00
63		Azobenzene	1.498	1.447	3.4	135	0.00
64	I	Phenanthrene-d10	1.000	1.000	0.0	161#	0.00
65		4,6-Dinitro-2-methylphenol	0.133	0.144	-8.3	155#	0.00
66	c	n-Nitrosodiphenylamine	0.612	0.565	7.7	137	0.00
67		4-Bromophenyl-phenylether	0.220	0.208	5.5	141	0.00
68		Hexachlorobenzene	0.245	0.232	5.3	144	0.00
69		Atrazine	0.234	0.230	1.7	143	0.00
70	C	Pentachlorophenol	0.162	0.151	6.8	136	0.00
71		Phenanthrene	1.135	1.040	8.4	138	0.00
72		Anthracene	1.151	1.047	9.0	137	0.00
73		Carbazole	1.070	1.022	4.5	141	0.00
74		Di-n-butylphthalate	1.313	1.327	-1.1	149	0.00
75	C	Fluoranthene	1.361	1.304	4.2	145	0.00
76	I	Chrysene-d12	1.000	1.000	0.0	171#	-0.01
77		Benzidine	0.576	0.638	-10.8	167#	0.00
78		Pyrene	1.335	1.221	8.5	146	0.00
79	S	Terphenyl-d14	1.112	0.988	11.2	144	0.00
80		Butylbenzylphthalate	0.585	0.595	-1.7	157#	0.00
81		Benzo(a)anthracene	1.369	1.272	7.1	150	0.00
82		3,3'-Dichlorobenzidine	0.473	0.471	0.4	155#	-0.01
83		Chrysene	1.305	1.192	8.7	148	-0.01
84		Bis(2-ethylhexyl)phthalate	0.856	0.871	-1.8	158#	-0.01
85	c	Di-n-octyl phthalate	1.523	1.613	-5.9	165#	-0.02
86	I	Perylene-d12	1.000	1.000	0.0	173#	0.00
87		Indeno(1,2,3-cd)pyrene	1.454	1.226	15.7	132	0.02
88		Benzo(b)fluoranthene	1.223	1.198	2.0	155#	0.00
89		Benzo(k)fluoranthene	1.248	1.146	8.2	147	0.01
90	C	Benzo(a)pyrene	1.198	1.117	6.8	147	0.00
91		Dibenzo(a,h)anthracene	1.190	1.016	14.6	135	-0.01
92		Benzo(g,h,i)perylene	1.170	0.928	20.7	126	0.01

Sample Results: **BP025824.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
LabSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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: **BP025824.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
LabSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	152	0.00
2		1,4-Dioxane	40.000	35.867	10.3	130	0.00
3		Pyridine	40.000	37.653	5.9	131	0.00
4		n-Nitrosodimethylamine	40.000	36.808	8.0	131	0.00
5	S	2-Fluorophenol	80.000	77.858	2.7	135	0.00
6		Aniline	40.000	38.718	3.2	133	0.00
7	S	Phenol-d6	80.000	79.275	0.9	133	0.00
8		2-Chlorophenol	40.000	39.159	2.1	134	0.00
9		Benzaldehyde	40.000	53.834	-34.6#	231	0.00
10	C	Phenol	40.000	39.274	1.8	132	0.01
11		bis(2-Chloroethyl)ether	40.000	38.054	4.9	130	0.00
12		1,3-Dichlorobenzene	40.000	37.646	5.9	132	0.00
13	C	1,4-Dichlorobenzene	40.000	37.614	6.0	133	0.00
14		1,2-Dichlorobenzene	40.000	37.475	6.3	132	0.00
15		Benzyl Alcohol	40.000	38.277	4.3	131	0.00
16		2,2'-oxybis(1-Chloropropane	40.000	36.722	8.2	128	-0.01
17		2-Methylphenol	40.000	39.254	1.9	133	0.00
18		Hexachloroethane	40.000	37.559	6.1	133	-0.01
19	P	n-Nitroso-di-n-propylamine	40.000	39.119	2.2	130	0.00
20		3+4-Methylphenols	40.000	38.241	4.4	131	0.01
21	I	Naphthalene-d8	20.000	20.000	0.0	149	0.00
22		Acetophenone	40.000	38.549	3.6	131	0.00
23	S	Nitrobenzene-d5	80.000	75.897	5.1	129	0.00
24		Nitrobenzene	40.000	37.992	5.0	128	0.00
25		Isophorone	40.000	38.527	3.7	133	0.00
26	C	2-Nitrophenol	40.000	41.652	-4.1	139	0.00
27		2,4-Dimethylphenol	40.000	39.339	1.7	131	0.00
28		bis(2-Chloroethoxy)methane	40.000	38.755	3.1	134	-0.01
29	C	2,4-Dichlorophenol	40.000	39.529	1.2	134	0.01
30		1,2,4-Trichlorobenzene	40.000	37.881	5.3	133	0.00
31		Naphthalene	40.000	37.128	7.2	130	0.00
32		Benzoic acid	40.000	40.214	-0.5	135	0.02
33		4-Chloroaniline	40.000	39.979	0.1	132	-0.01
34	C	Hexachlorobutadiene	40.000	37.589	6.0	133	0.00
35		Caprolactam	40.000	50.943	-27.4#	175	0.02
36	C	4-Chloro-3-methylphenol	40.000	39.093	2.3	133	0.01
37		2-Methylnaphthalene	40.000	38.330	4.2	133	0.00
38		1-Methylnaphthalene	40.000	37.509	6.2	129	0.00
39	I	Acenaphthene-d10	20.000	20.000	0.0	153	0.00
40		1,2,4,5-Tetrachlorobenzene	40.000	38.311	4.2	135	0.00
41	P	Hexachlorocyclopentadiene	40.000	38.502	3.7	128	0.00
42	S	2,4,6-Tribromophenol	80.000	83.527	-4.4	144	-0.01
43	C	2,4,6-Trichlorophenol	40.000	39.984	0.0	137	0.00
44		2,4,5-Trichlorophenol	40.000	39.379	1.6	134	0.01
45	S	2-Fluorobiphenyl	80.000	74.336	7.1	134	0.00
46		1,1'-Biphenyl	40.000	37.684	5.8	133	0.00
47		2-Chloronaphthalene	40.000	37.397	6.5	133	0.00

Sample Results: **BP025824.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
LabSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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	39.780	0.5	134	0.00
49		Acenaphthylene	40.000	37.860	5.4	135	0.00
50		Dimethylphthalate	40.000	38.637	3.4	136	0.00
51		2,6-Dinitrotoluene	40.000	40.252	-0.6	139	0.00
52	C	Acenaphthene	40.000	36.800	8.0	130	-0.01
53		3-Nitroaniline	40.000	41.995	-5.0	139	0.00
54	P	2,4-Dinitrophenol	40.000	42.899	-7.2	156	0.00
55		Dibenzofuran	40.000	36.734	8.2	132	0.00
56	P	4-Nitrophenol	40.000	50.134	-25.3#	177	0.05
57		2,4-Dinitrotoluene	40.000	41.052	-2.6	139	0.00
58		Fluorene	40.000	37.577	6.1	133	-0.01
59		2,3,4,6-Tetrachlorophenol	40.000	40.321	-0.8	138	0.00
60		Diethylphthalate	40.000	39.246	1.9	142	-0.01
61		4-Chlorophenyl-phenylether	40.000	37.740	5.6	136	0.00
62		4-Nitroaniline	40.000	44.052	-10.1	145	0.00
63		Azobenzene	40.000	38.641	3.4	135	0.00
64	I	Phenanthrene-d10	20.000	20.000	0.0	161	0.00
65		4,6-Dinitro-2-methylphenol	40.000	43.387	-8.5	155	0.00
66	c	n-Nitrosodiphenylamine	40.000	36.952	7.6	137	0.00
67		4-Bromophenyl-phenylether	40.000	37.943	5.1	141	0.00
68		Hexachlorobenzene	40.000	37.896	5.3	144	0.00
69		Atrazine	40.000	39.320	1.7	143	0.00
70	C	Pentachlorophenol	40.000	37.435	6.4	136	0.00
71		Phenanthrene	40.000	36.676	8.3	138	0.00
72		Anthracene	40.000	36.387	9.0	137	0.00
73		Carbazole	40.000	38.183	4.5	141	0.00
74		Di-n-butylphthalate	40.000	40.416	-1.0	149	0.00
75	C	Fluoranthene	40.000	38.336	4.2	145	0.00
76	I	Chrysene-d12	20.000	20.000	0.0	171	-0.01
77		Benzidine	40.000	44.326	-10.8	167	0.00
78		Pyrene	40.000	36.596	8.5	146	0.00
79	S	Terphenyl-d14	80.000	71.090	11.1	144	0.00
80		Butylbenzylphthalate	40.000	40.653	-1.6	157	0.00
81		Benzo(a)anthracene	40.000	37.160	7.1	150	0.00
82		3,3'-Dichlorobenzidine	40.000	39.775	0.6	155	-0.01
83		Chrysene	40.000	36.517	8.7	148	-0.01
84		Bis(2-ethylhexyl)phthalate	40.000	40.698	-1.7	158	-0.01
85	c	Di-n-octyl phthalate	40.000	42.360	-5.9	165	-0.02
86	I	Perylene-d12	20.000	20.000	0.0	173	0.00
87		Indeno(1,2,3-cd)pyrene	40.000	33.711	15.7	132	0.02
88		Benzo(b)fluoranthene	40.000	39.172	2.1	155	0.00
89		Benzo(k)fluoranthene	40.000	36.727	8.2	147	0.01
90	C	Benzo(a)pyrene	40.000	37.315	6.7	147	0.00
91		Dibenzo(a,h)anthracene	40.000	34.148	14.6	135	-0.01
92		Benzo(g,h,i)perylene	40.000	31.706	20.7	126	0.01

Sample Results: **BP025824.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025824.D
Acq On : 23 Sep 2025 11:03
Operator : CG/JU
Sample : SSTDCCC040
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
BNA_P
LabSampleId :
SSTDCCC040

Quant Time: Sep 23 11:40:41 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 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

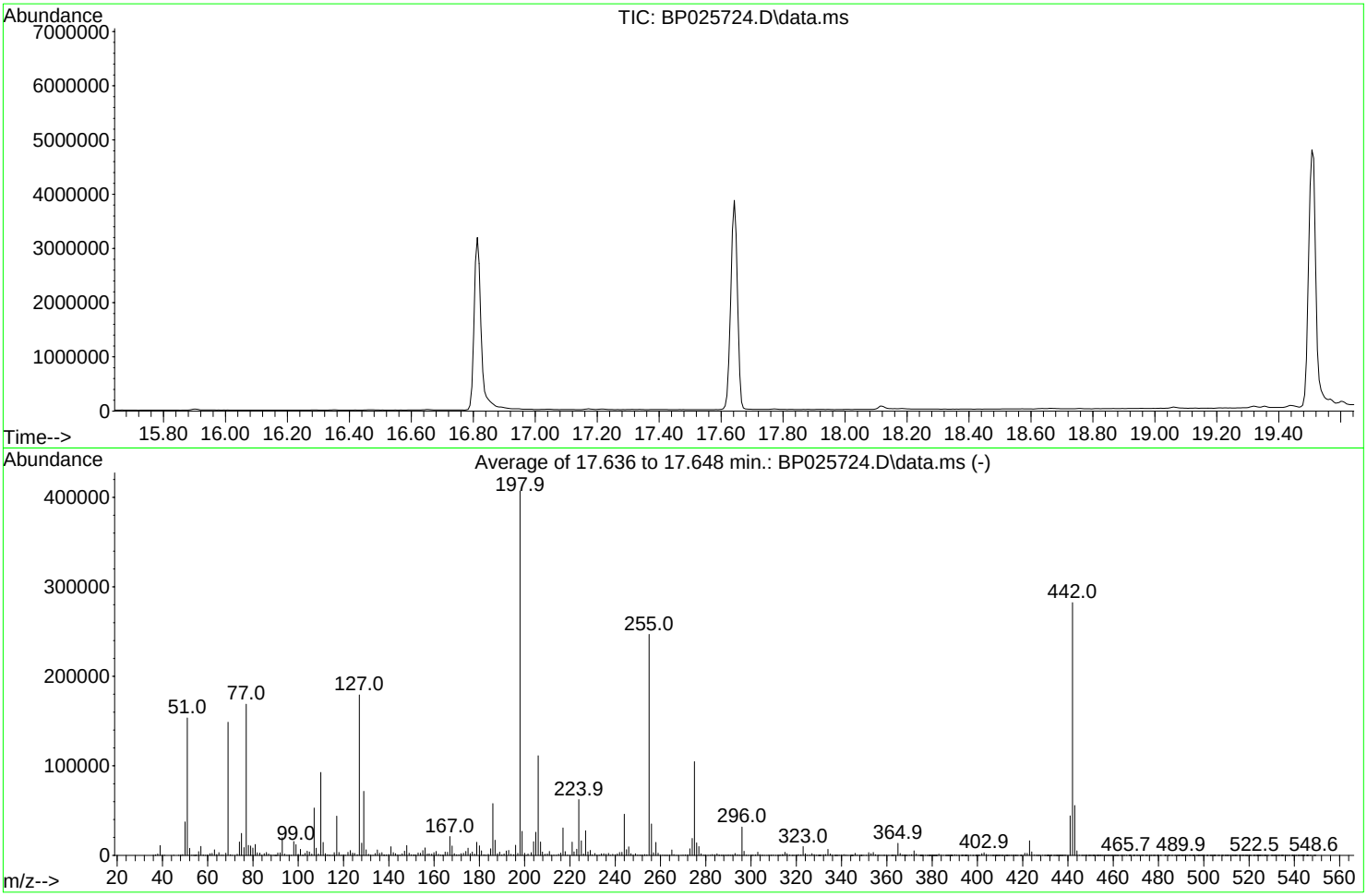
Sample Results: **BP025724.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025724.D
Acq On : 11 Sep 2025 08:09
Operator : CG/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Sep 11 16:45:04 2025



AutoFind: Scans 2499, 2500, 2501; Background Corrected with Scan 2490

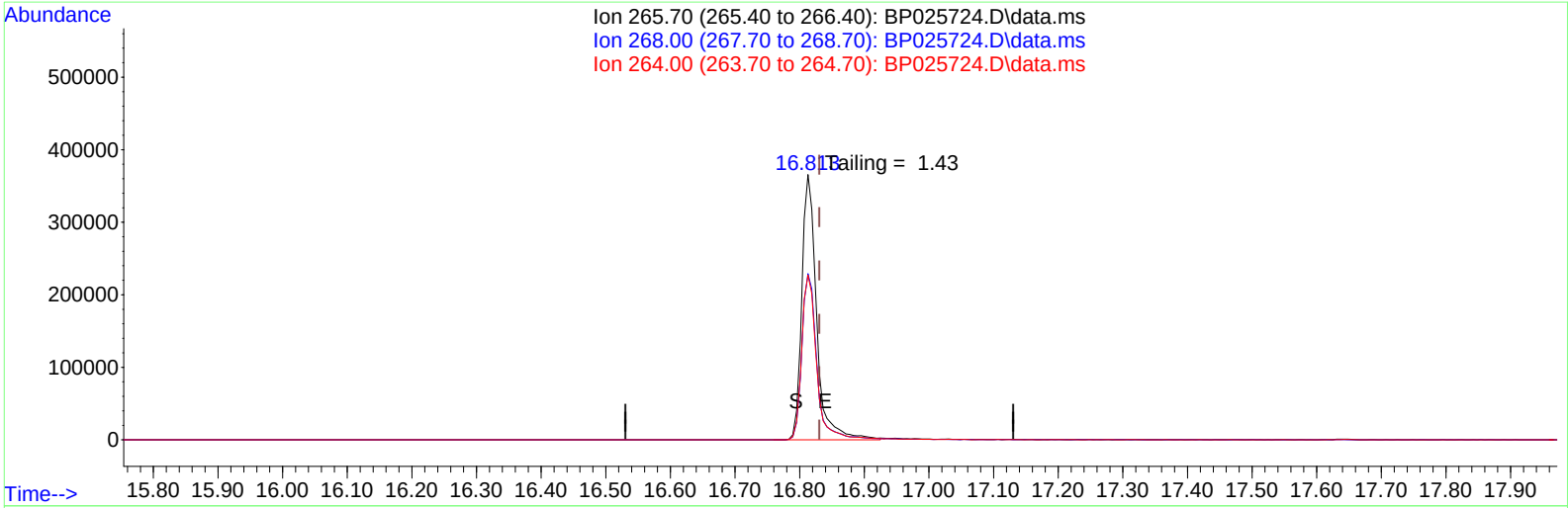
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	2392	PASS
69	69	100	100	100.0	148681	PASS
70	69	0.00	2	0.5	775	PASS
197	198	0.00	2	0.6	2274	PASS
198	198	100	100	100.0	407104	PASS
199	198	5	9	6.6	26775	PASS
365	198	1	100	3.3	13409	PASS
441	443	0.01	150	79.1	44067	PASS
442	442	100	100	100.0	282368	PASS
443	442	15	24	19.7	55680	PASS

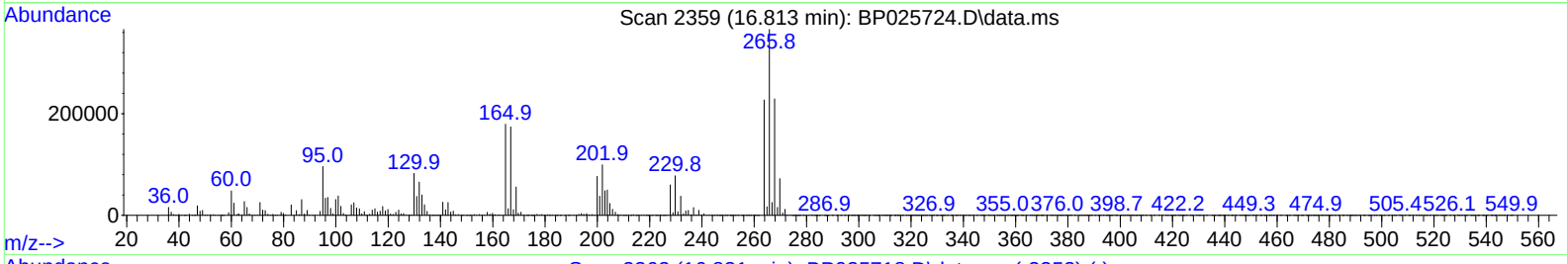
Sample Results: **BP025724.D**

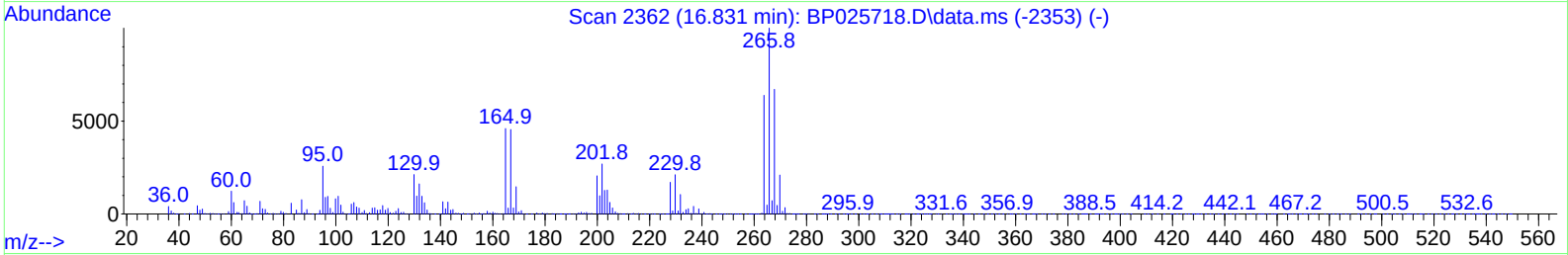
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025724.D
Acq On : 11 Sep 2025 08:09
Operator : CG/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
DFTPP

Quant Time: Sep 11 12:58:54 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091125.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 09:20:45 2025
Response via : Initial Calibration







TIC: BP025724.D\data.ms

(70) Pentachlorophenol (C)

16.813min (-0.018) 7217.81 ng

response 589827

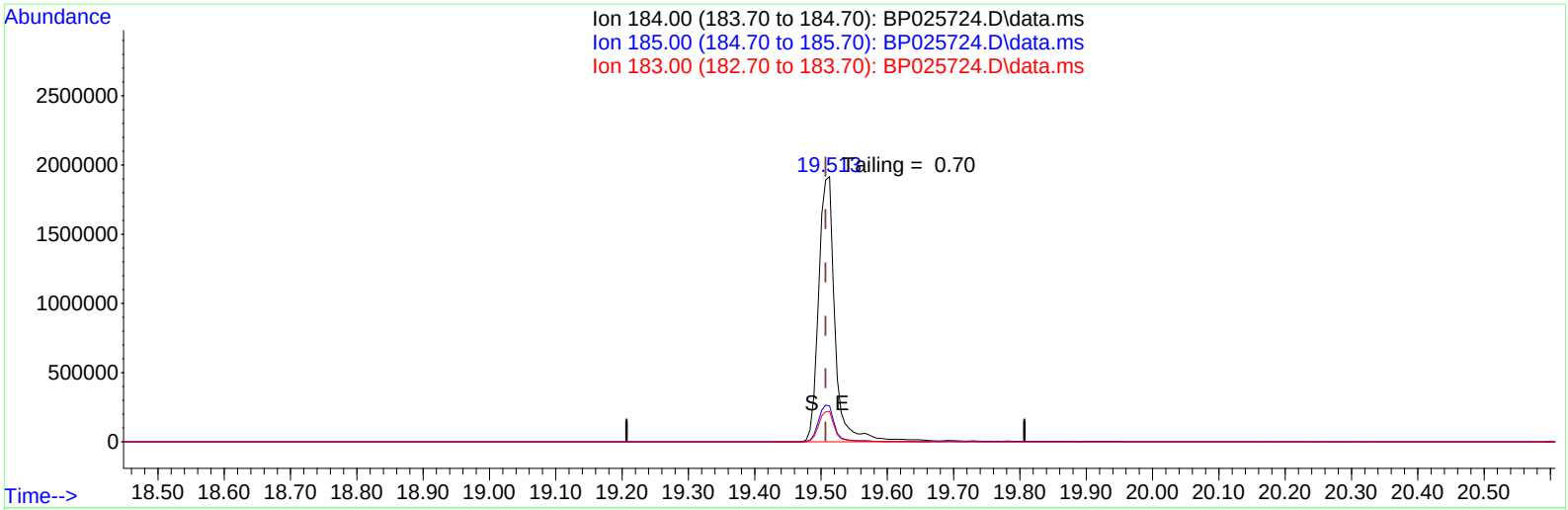
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	67.10	62.64
264.00	63.80	62.05
0.00	0.00	0.00

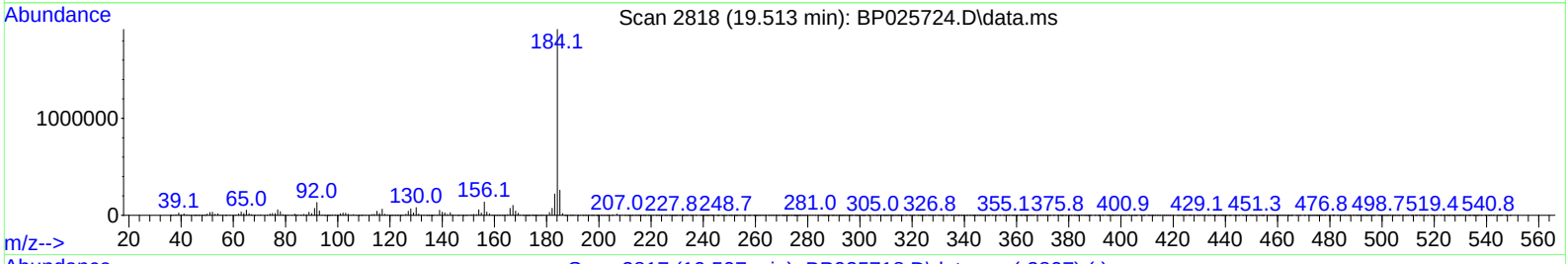
Sample Results: **BP025724.D**

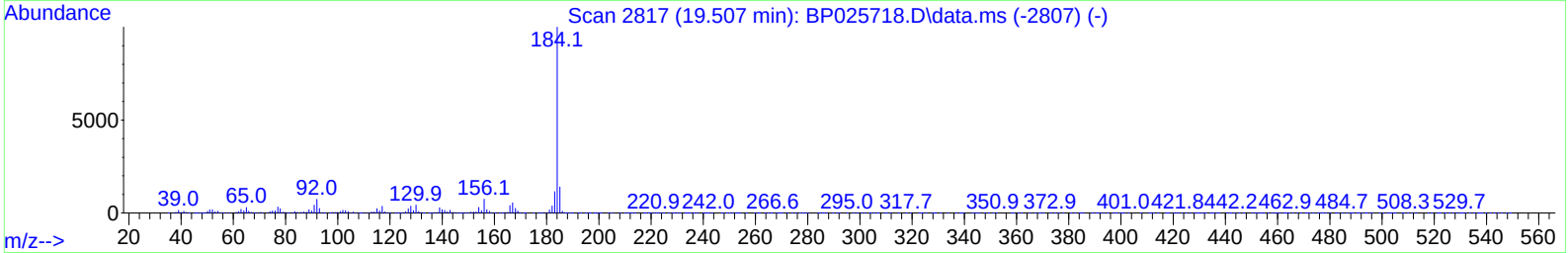
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP091225\
Data File : BP025724.D
Acq On : 11 Sep 2025 08:09
Operator : CG/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
DFTPP

Quant Time: Sep 11 12:58:54 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091125.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 09:20:45 2025
Response via : Initial Calibration







TIC: BP025724.D\data.ms

(77) Benzidine

19.513min (+ 0.006) 4369.52 ng

response 3272403

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.00	13.55
183.00	11.50	11.52
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
9/12/2025	BNA_P	BP025724.D
Compound Name	**Response**	**Retention Time**
DDT	1712718	20.801
DDD	33235	20.342
DDE	3389	19.813
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
36624	1749342	2.09

Instrument :
BNA_P
ClientSampleId :
DFTPP

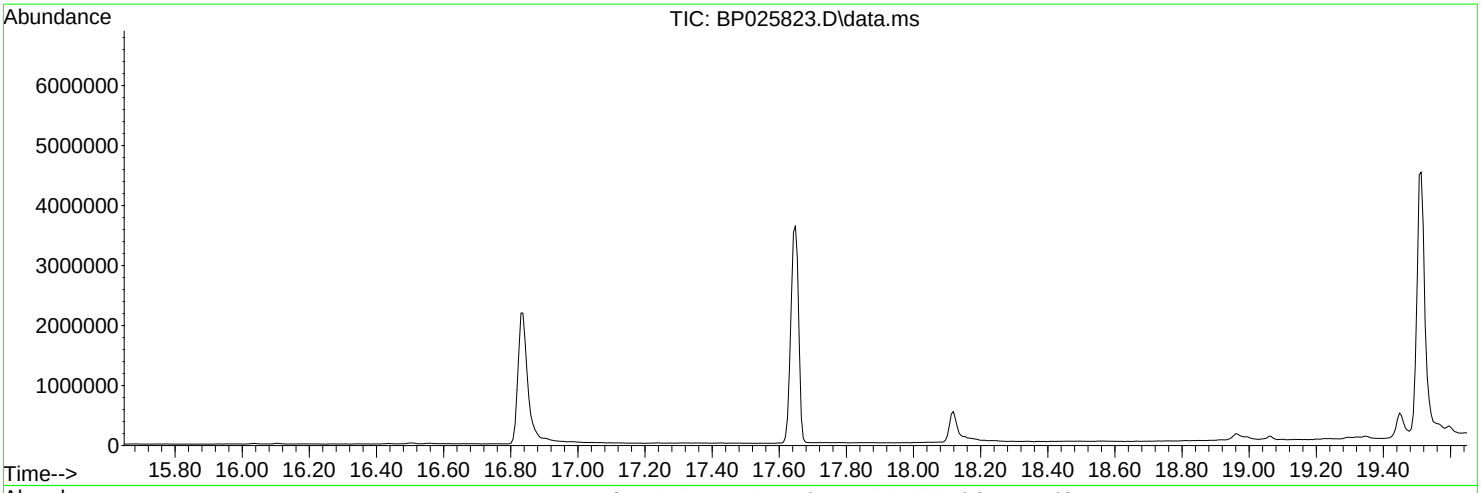
Sample Results: **BP025823.D**

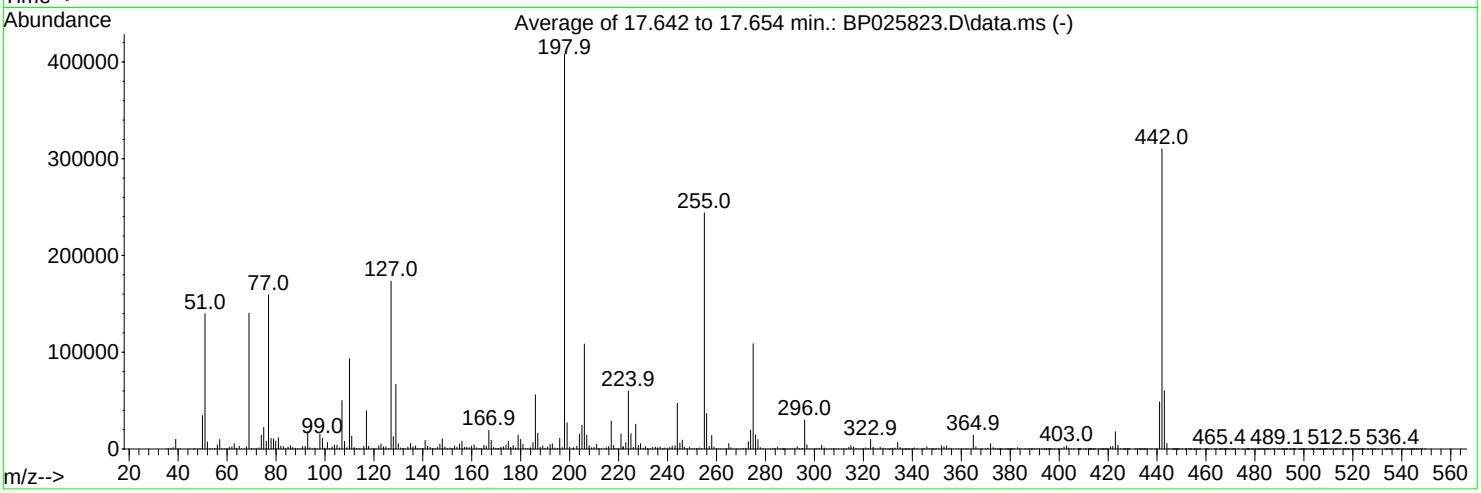
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025823.D
Acq On : 23 Sep 2025 09:41
Operator : CG/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Sep 11 16:45:04 2025





AutoFind: Scans 2500, 2501, 2502; Background Corrected with Scan 2491

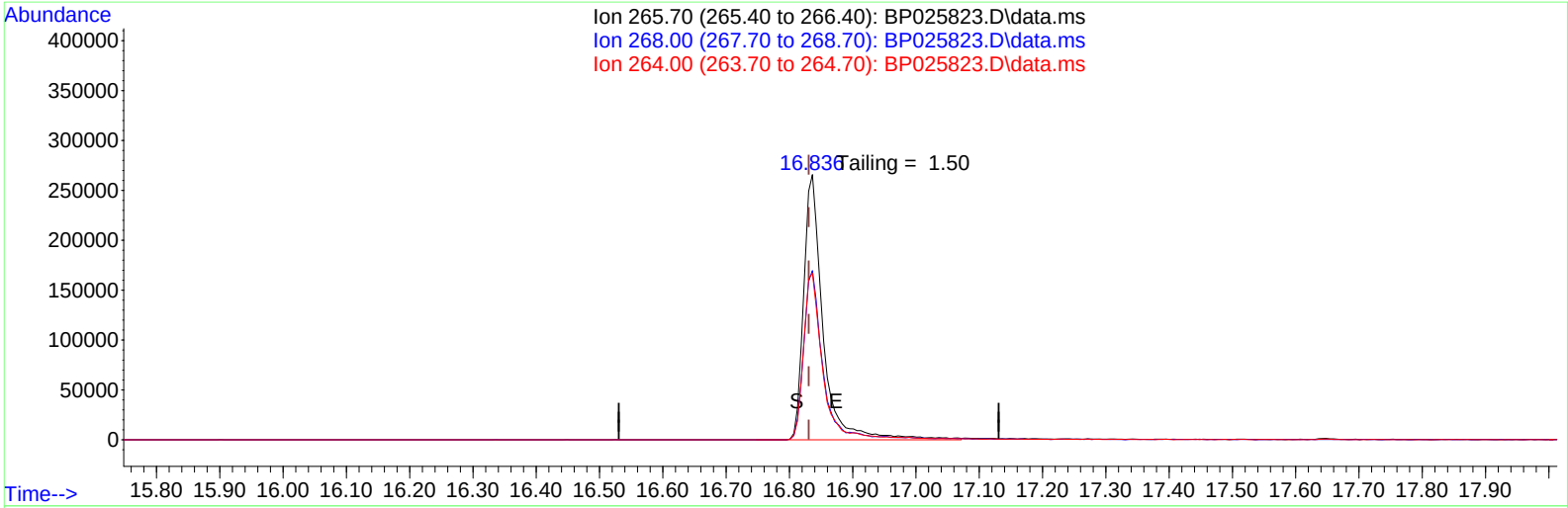
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.7	2328	PASS
69	69	100	100	100.0	140370	PASS
70	69	0.00	2	0.4	543	PASS
197	198	0.00	2	0.3	1363	PASS
198	198	100	100	100.0	408114	PASS
199	198	5	9	6.6	27121	PASS
365	198	1	100	3.5	14163	PASS
441	443	0.01	150	80.8	48712	PASS
442	442	100	100	100.0	310208	PASS
443	442	15	24	19.4	60252	PASS

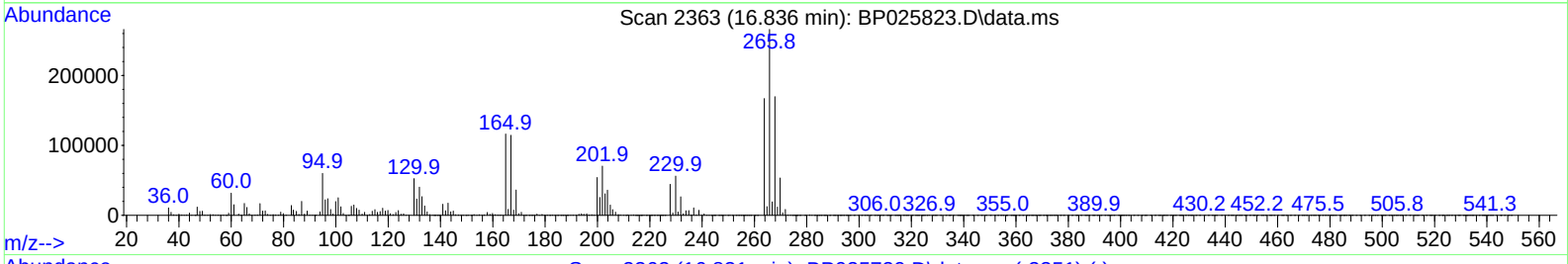
Sample Results: **BP025823.D**

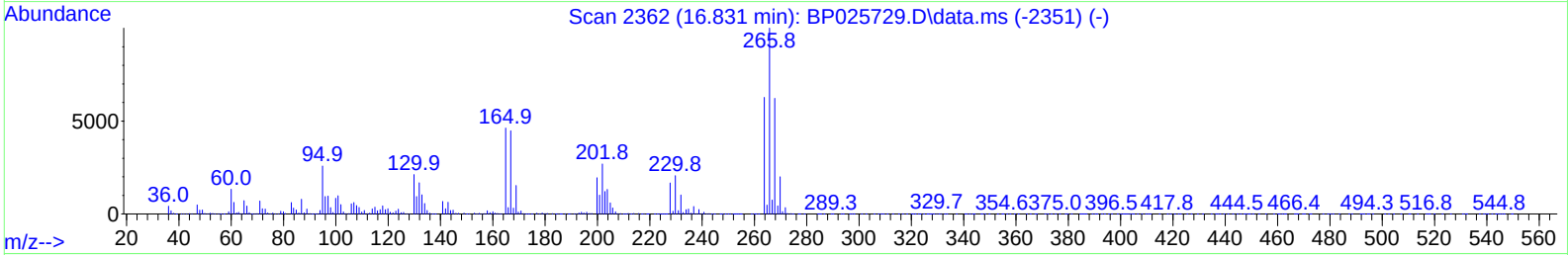
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025823.D
Acq On : 23 Sep 2025 09:41
Operator : CG/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
DFTPP

Quant Time: Sep 23 11:28:49 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration







TIC: BP025823.D\data.ms

(70) Pentachlorophenol (C)

16.836min (+ 0.006) 4627969.76 ng

response 561305

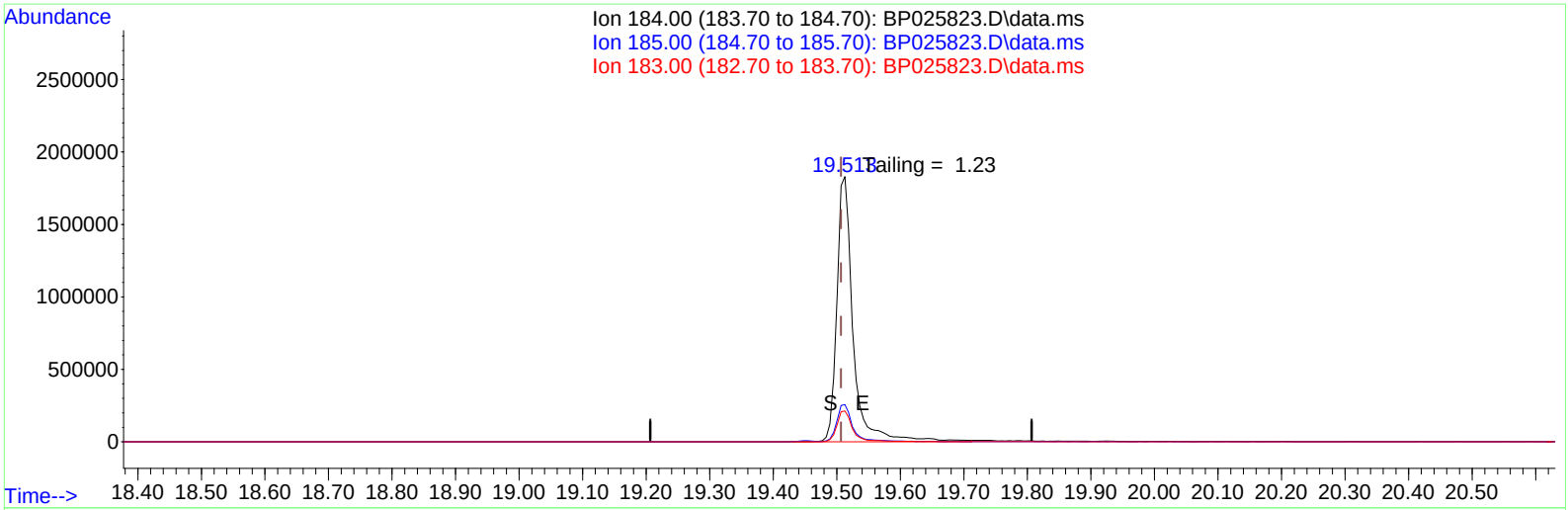
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	62.30	63.82
264.00	62.70	62.81
0.00	0.00	0.00

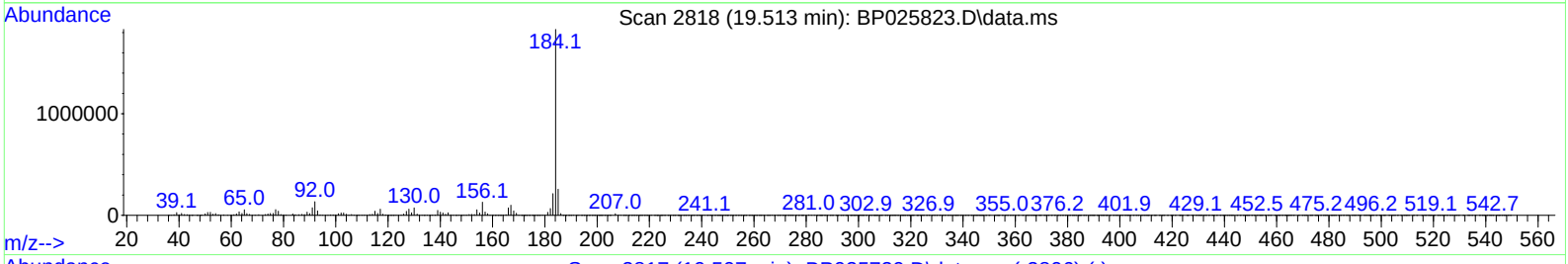
Sample Results: **BP025823.D**

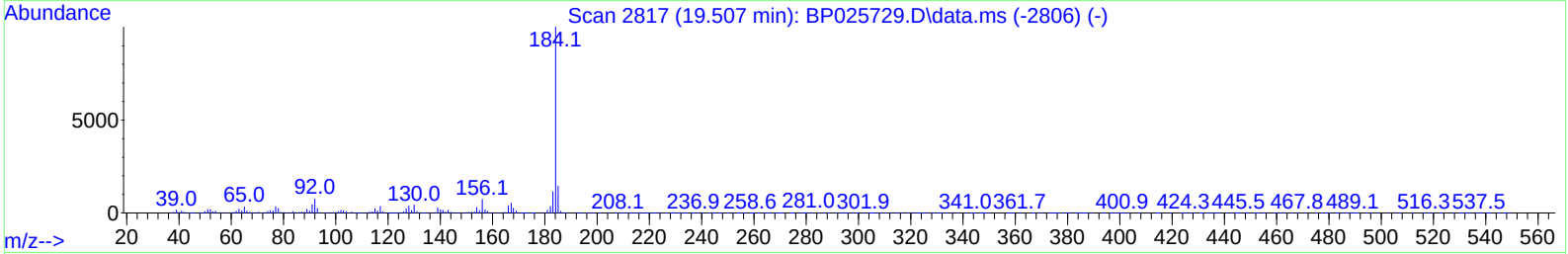
Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025823.D
Acq On : 23 Sep 2025 09:41
Operator : CG/JU
Sample : DFTPP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
DFTPP

Quant Time: Sep 23 11:28:49 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration







TIC: BP025823.D\data.ms

(77) Benzidine

19.513min (+ 0.006) 1208647.75 ng

response 3203028

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	14.40	14.05
183.00	11.50	11.63
0.00	0.00	0.00

DDT Breakdown

Date	Instrument Name	DFTPP Data File
9/23/2025	BNA_P	BP025823.D
Compound Name	**Response**	**Retention Time**
DDT	1692869	20.789
DDD	20863	20.33
DDE	303	19.983
SUM(DDD+DDE)	**SUM(DDT+DDD+DDE)**	**% Breakdown Of DDT**
21166	1714035	1.23

Instrument :
BNA_P
ClientSampleId :
DFTPP

Raw Data: **BP025828.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	
Project:	Yard Soil Cleanup	Date Received:	
Client Sample ID:	PB169774BL	SDG No.:	Q3157
Lab Sample ID:	PB169774BL	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025828.D	1	09/22/25 09:30	09/23/25 13:48	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	160	U	160	330	ug/Kg
108-95-2	Phenol	22.1	U	22.1	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	24.3	U	24.3	170	ug/Kg
95-57-8	2-Chlorophenol	24.4	U	24.4	170	ug/Kg
95-48-7	2-Methylphenol	29.9	U	29.9	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	37.5	U	37.5	170	ug/Kg
98-86-2	Acetophenone	29.5	U	29.5	170	ug/Kg
65794-96-9	3+4-Methylphenols	41.1	U	41.1	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	47.4	U	47.4	80.0	ug/Kg
67-72-1	Hexachloroethane	17.6	U	17.6	170	ug/Kg
98-95-3	Nitrobenzene	18.3	U	18.3	170	ug/Kg
78-59-1	Isophorone	32.8	U	32.8	170	ug/Kg
88-75-5	2-Nitrophenol	58.2	U	58.2	170	ug/Kg
105-67-9	2,4-Dimethylphenol	64.8	U	64.8	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	30.8	U	30.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	28.3	U	28.3	170	ug/Kg
91-20-3	Naphthalene	22.7	U	22.7	170	ug/Kg
106-47-8	4-Chloroaniline	35.4	U	35.4	170	ug/Kg
87-68-3	Hexachlorobutadiene	25.3	U	25.3	170	ug/Kg
105-60-2	Caprolactam	52.1	U	52.1	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	28.7	U	28.7	170	ug/Kg
91-57-6	2-Methylnaphthalene	25.6	U	25.6	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	120	U	120	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	19.8	U	19.8	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	29.1	U	29.1	170	ug/Kg
92-52-4	1,1-Biphenyl	21.8	U	21.8	170	ug/Kg
91-58-7	2-Chloronaphthalene	22.5	U	22.5	170	ug/Kg
88-74-4	2-Nitroaniline	48.1	U	48.1	170	ug/Kg
131-11-3	Dimethylphthalate	27.1	U	27.1	170	ug/Kg

Raw Data: **BP025828.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	
Project:	Yard Soil Cleanup	Date Received:	
Client Sample ID:	PB169774BL	SDG No.:	Q3157
Lab Sample ID:	PB169774BL	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025828.D	1	09/22/25 09:30	09/23/25 13:48	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	28.9	U	28.9	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	33.6	U	33.6	170	ug/Kg
99-09-2	3-Nitroaniline	46.0	U	46.0	170	ug/Kg
83-32-9	Acenaphthene	21.3	U	21.3	170	ug/Kg
51-28-5	2,4-Dinitrophenol	230	U	230	330	ug/Kg
100-02-7	4-Nitrophenol	110	U	110	330	ug/Kg
132-64-9	Dibenzofuran	22.7	U	22.7	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	50.1	U	50.1	170	ug/Kg
84-66-2	Diethylphthalate	28.3	U	28.3	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	26.7	U	26.7	170	ug/Kg
86-73-7	Fluorene	25.3	U	25.3	170	ug/Kg
100-01-6	4-Nitroaniline	64.2	U	64.2	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	100	U	100	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	32.9	U	32.9	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	27.8	U	27.8	170	ug/Kg
118-74-1	Hexachlorobenzene	25.3	U	25.3	170	ug/Kg
1912-24-9	Atrazine	34.0	U	34.0	170	ug/Kg
87-86-5	Pentachlorophenol	51.3	U	51.3	330	ug/Kg
85-01-8	Phenanthrene	20.9	U	20.9	170	ug/Kg
120-12-7	Anthracene	33.3	U	33.3	170	ug/Kg
86-74-8	Carbazole	31.2	U	31.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	47.9	U	47.9	170	ug/Kg
206-44-0	Fluoranthene	30.0	U	30.0	170	ug/Kg
129-00-0	Pyrene	36.0	U	36.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	71.4	U	71.4	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	36.7	U	36.7	330	ug/Kg
56-55-3	Benzo(a)anthracene	23.0	U	23.0	170	ug/Kg
218-01-9	Chrysene	19.9	U	19.9	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	59.2	U	59.2	170	ug/Kg
117-84-0	Di-n-octyl phthalate	86.8	U	86.8	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	19.0	U	19.0	170	ug/Kg

Raw Data: **BP025828.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	
Project:	Yard Soil Cleanup	Date Received:	
Client Sample ID:	PB169774BL	SDG No.:	Q3157
Lab Sample ID:	PB169774BL	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025828.D	1	09/22/25 09:30	09/23/25 13:48	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	22.4	U	22.4	170	ug/Kg
50-32-8	Benzo(a)pyrene	29.5	U	29.5	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	29.1	U	29.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	27.4	U	27.4	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	25.7	U	25.7	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	25.6	U	25.6	170	ug/Kg
123-91-1	1,4-Dioxane	45.2	U	45.2	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	27.4	U	27.4	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	123		18 - 112	82%	SPK: 150
13127-88-3	Phenol-d6	117		15 - 107	78%	SPK: 150
4165-60-0	Nitrobenzene-d5	72.8		18 - 107	73%	SPK: 100
321-60-8	2-Fluorobiphenyl	71.4		20 - 109	71%	SPK: 100
118-79-6	2,4,6-Tribromophenol	134		10 - 116	89%	SPK: 150
1718-51-0	Terphenyl-d14	67.4		10 - 105	67%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	227000	7.749			
1146-65-2	Naphthalene-d8	890000	10.519			
15067-26-2	Acenaphthene-d10	601000	14.372			
1517-22-2	Phenanthrene-d10	1400000	17.178			
1719-03-5	Chrysene-d12	1750000	21.636			
1520-96-3	Perylene-d12	1630000	25.001			

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_P\Data\BP092325\
Data File : BP025828.D
Acq On : 23 Sep 2025 13:48
Operator : CG/JU
Sample : PB169774BL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Quant Time: Sep 23 14:09:18 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

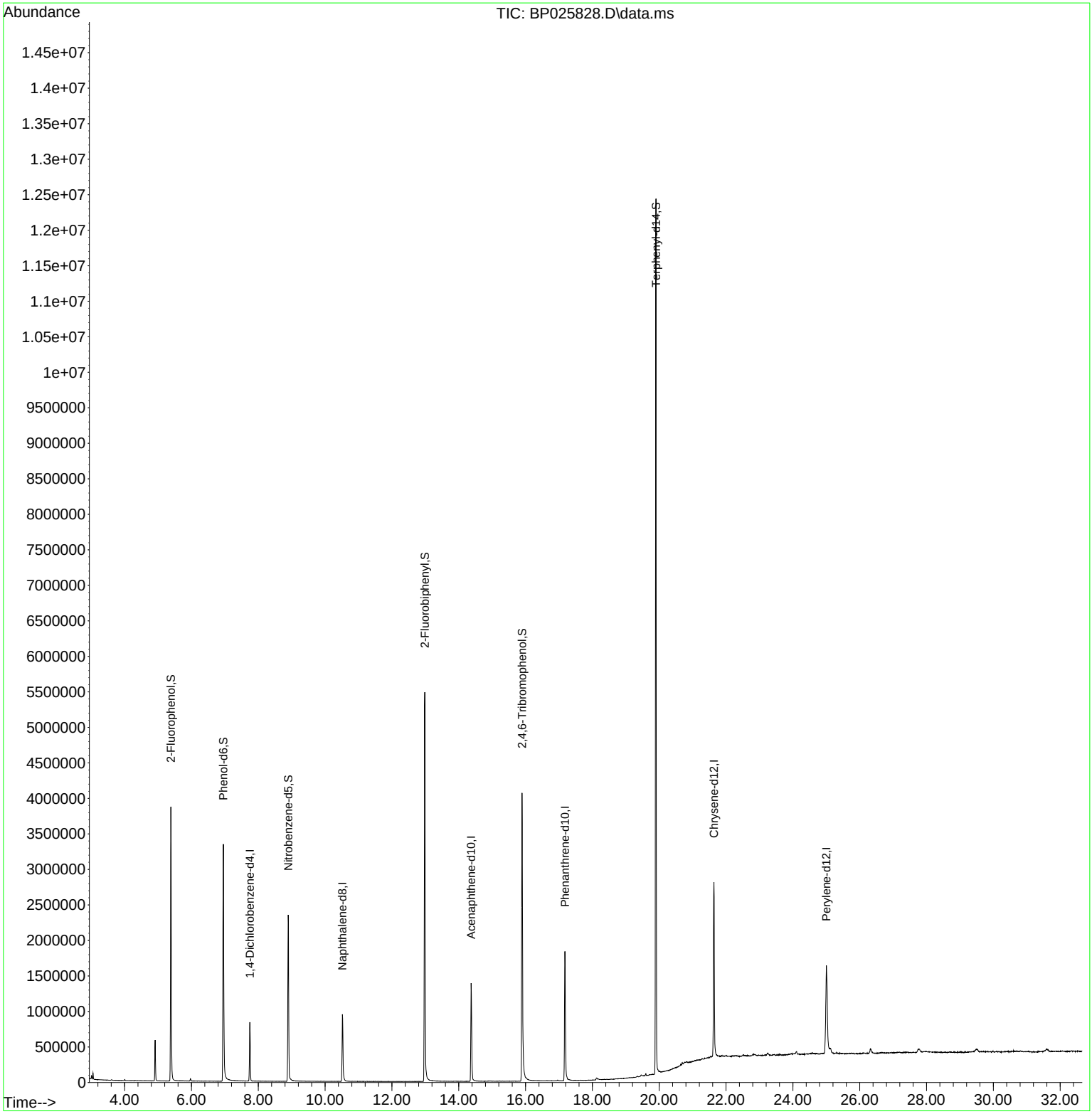
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.749	152	226989	20.000	ng	-0.01
21) Naphthalene-d8	10.519	136	889928	20.000	ng	0.00
39) Acenaphthene-d10	14.372	164	600979	20.000	ng	0.00
64) Phenanthrene-d10	17.178	188	1402806	20.000	ng	0.00
76) Chrysene-d12	21.636	240	1747164	20.000	ng	0.00
86) Perylene-d12	25.001	264	1629648	20.000	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.384	112	1734129	123.270	ng	0.00
7) Phenol-d6	6.955	99	2180413	116.609	ng	0.00
23) Nitrobenzene-d5	8.896	82	1469707	72.849	ng	0.00
42) 2,4,6-Tribromophenol	15.895	330	1002082	133.682	ng	-0.01
45) 2-Fluorobiphenyl	12.984	172	3221809	71.381	ng	0.00
79) Terphenyl-d14	19.901	244	6542411	67.365	ng	-0.01
Target Compounds						Qvalue

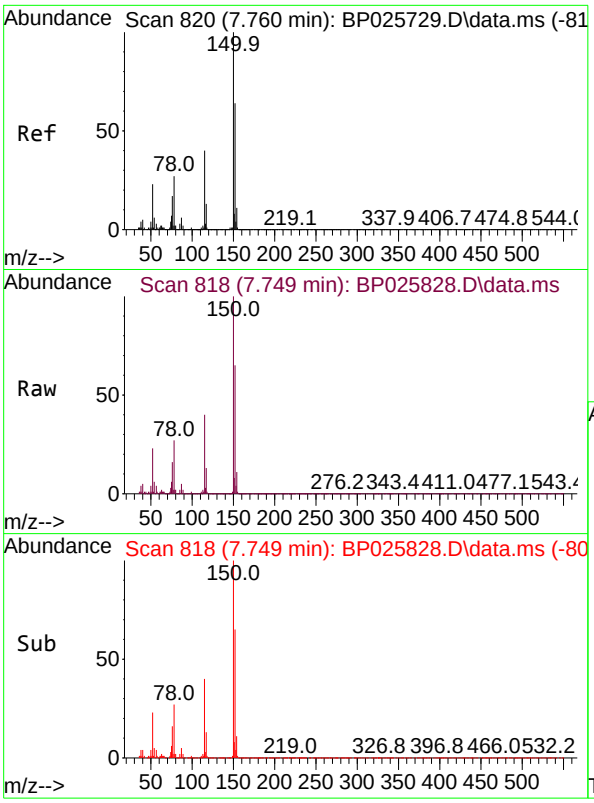
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025828.D
Acq On : 23 Sep 2025 13:48
Operator : CG/JU
Sample : PB169774BL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Quant Time: Sep 23 14:09:18 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration



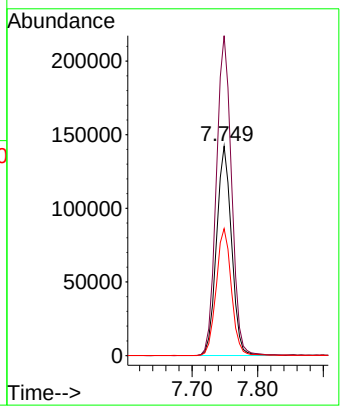


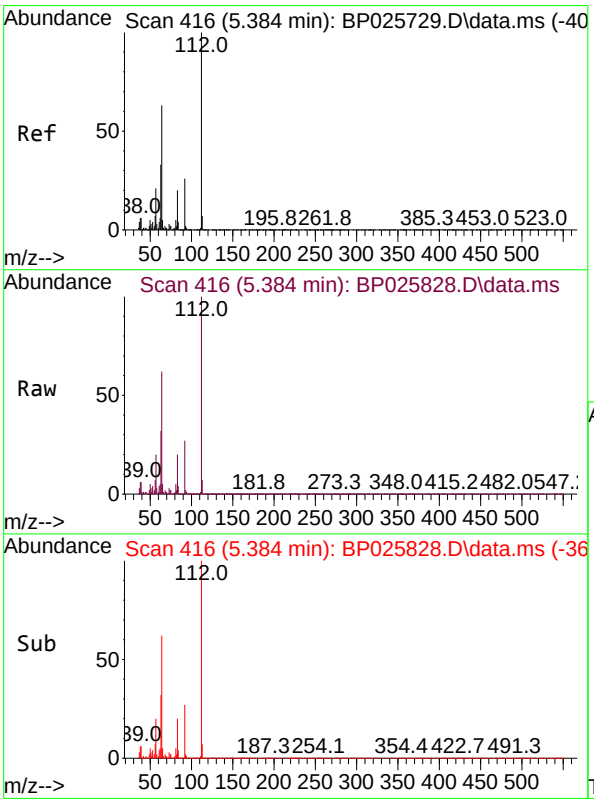
#1
1,4-Dichlorobenzene-d4
Concen: 20.000 ng
RT: 7.749 min Scan# 81
Delta R.T. -0.011 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Tgt Ion:152 Resp: 226989

Ion	Ratio	Lower	Upper
152	100		
150	152.8	124.3	186.5
115	60.6	50.3	75.5

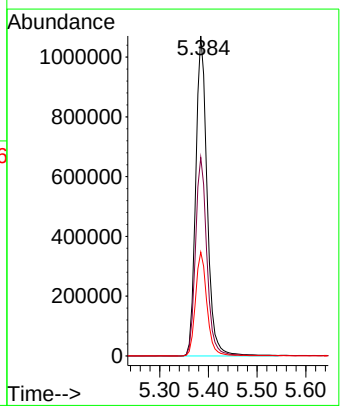


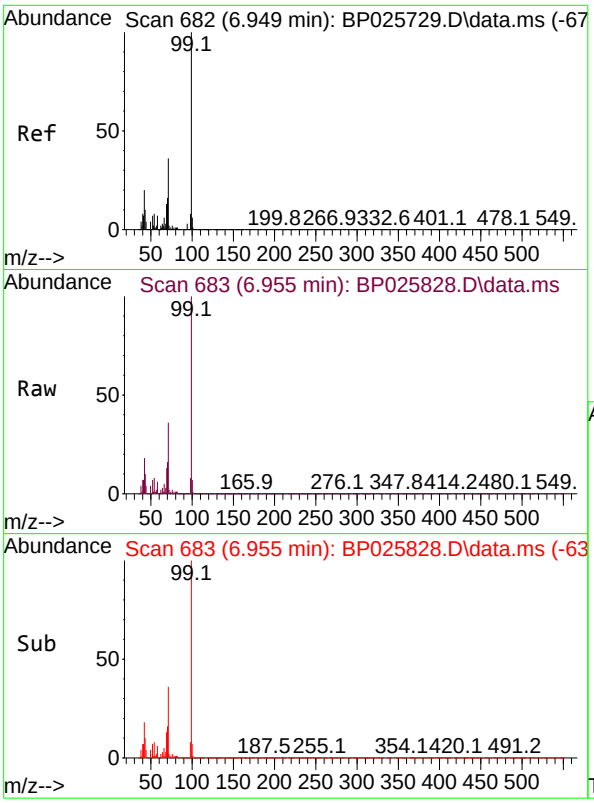


#5
2-Fluorophenol
Concen: 123.270 ng
RT: 5.384 min Scan# 416
Delta R.T. 0.000 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Tgt Ion:112 Resp: 1734129

Ion	Ratio	Lower	Upper
112	100		
64	62.0	50.2	75.4
63	32.5	26.7	40.1



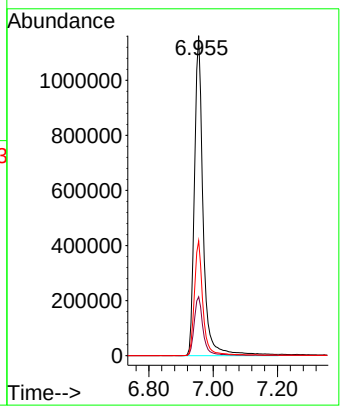


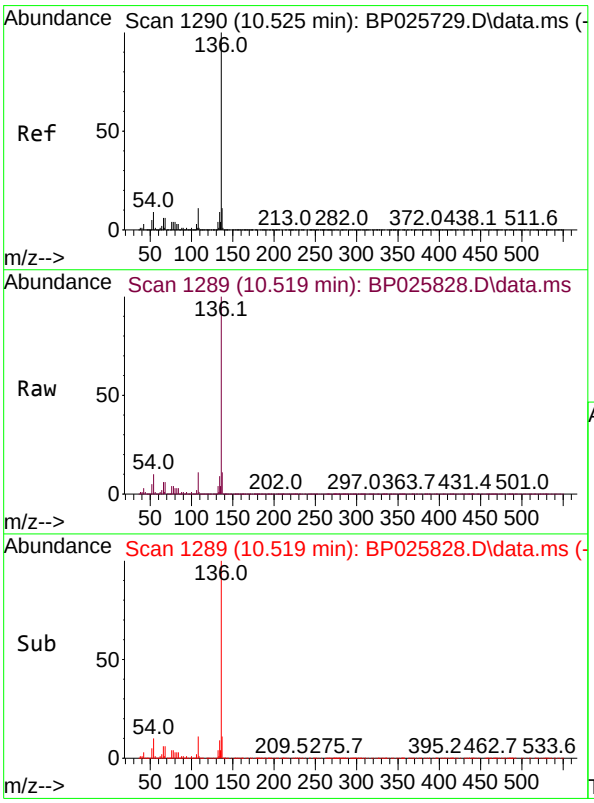
#7
Phenol-d6
Concen: 116.609 ng
RT: 6.955 min Scan# 68
Delta R.T. 0.006 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Tgt Ion: 99 Resp: 2180413

Ion	Ratio	Lower	Upper
99	100		
42	18.4	15.6	23.4
71	35.9	28.6	43.0

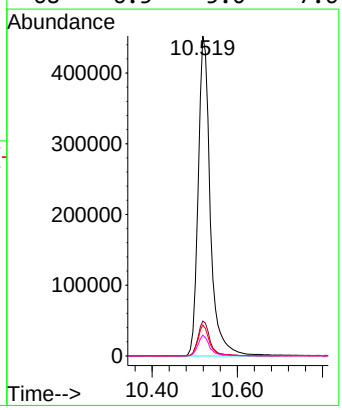


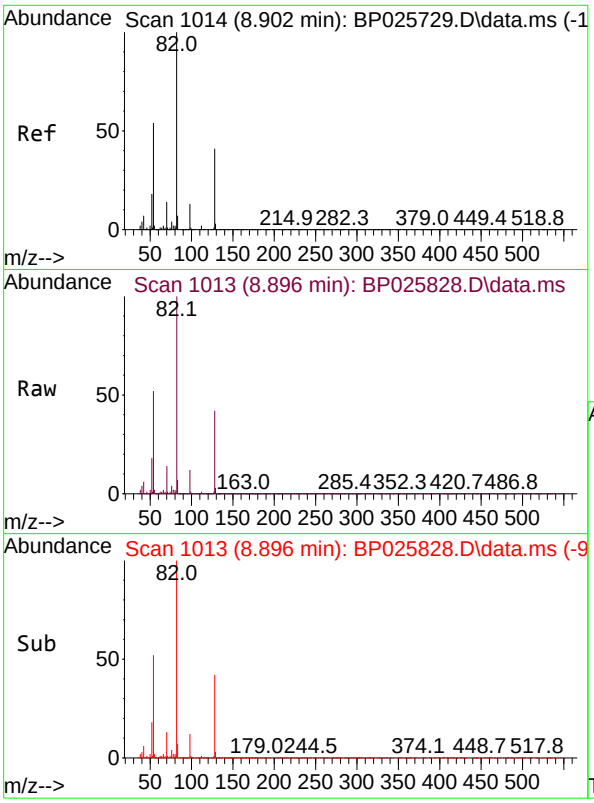


#21
Naphthalene-d8
Concen: 20.000 ng
RT: 10.519 min Scan# 1289
Delta R.T. -0.006 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Tgt Ion:136 Resp: 889928

Ion	Ratio	Lower	Upper
136	100		
137	10.9	8.7	13.1
54	9.7	7.5	11.3
68	6.5	5.0	7.6



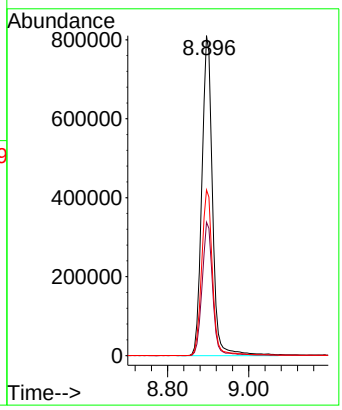


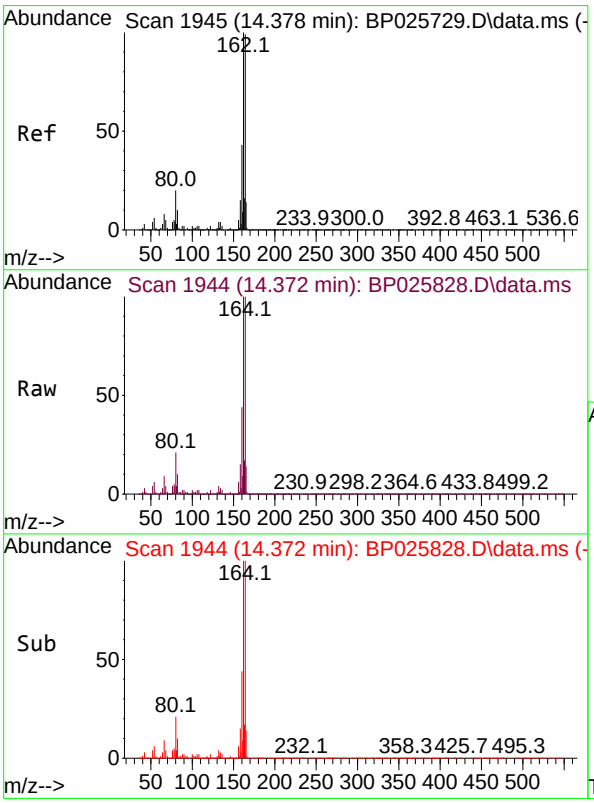
#23
Nitrobenzene-d5
Concen: 72.849 ng
RT: 8.896 min Scan# 10
Delta R.T. -0.006 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Tgt Ion: 82 Resp: 1469707

Ion	Ratio	Lower	Upper
82	100		
128	41.7	32.9	49.3
54	51.8	43.4	65.2

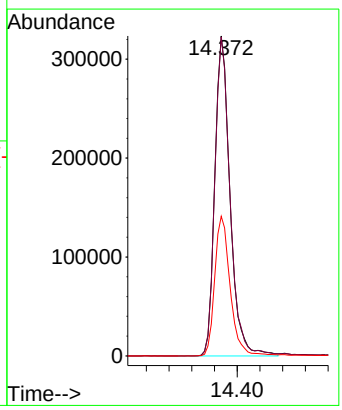


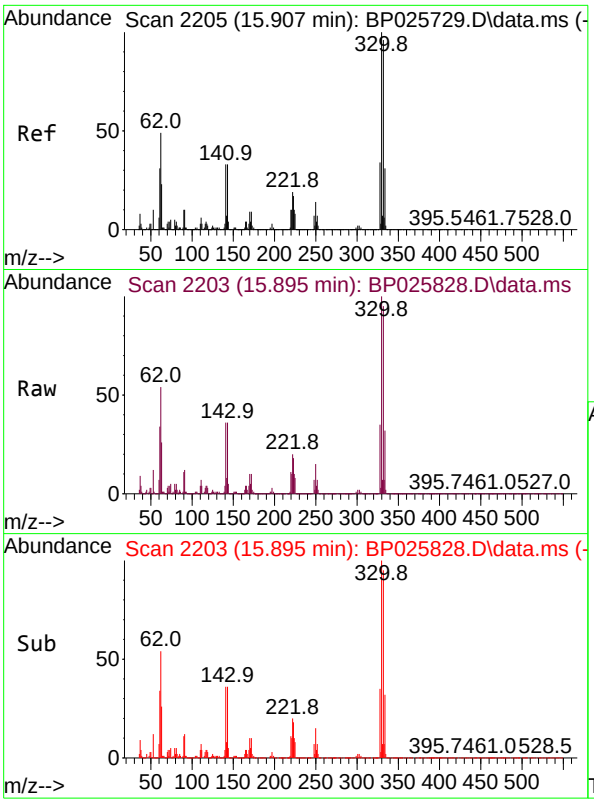


#39
Acenaphthene-d10
Concen: 20.000 ng
RT: 14.372 min Scan# 1944
Delta R.T. -0.006 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Tgt Ion:164 Resp: 600979

Ion	Ratio	Lower	Upper
164	100		
162	99.7	80.6	120.8
160	43.7	35.0	52.6



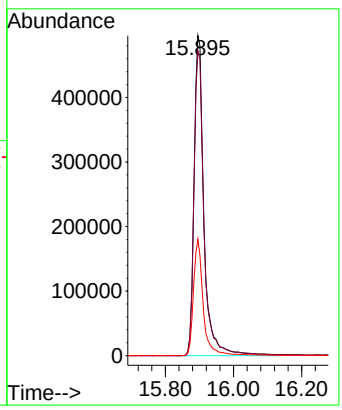


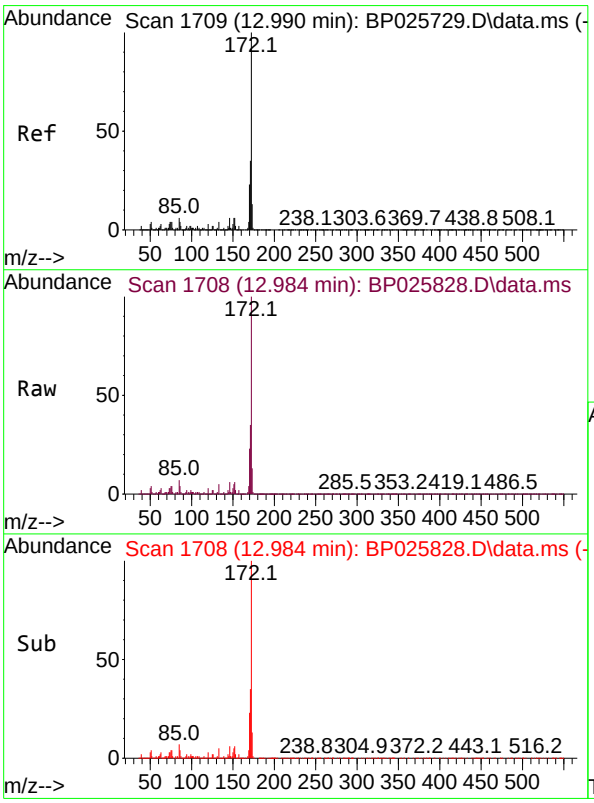
#42
2,4,6-Tribromophenol
Concen: 133.682 ng
RT: 15.895 min Scan# 2
Delta R.T. -0.012 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Tgt Ion:330 Resp: 1002082

Ion	Ratio	Lower	Upper
330	100		
332	96.1	76.9	115.3
141	35.6	31.0	46.4

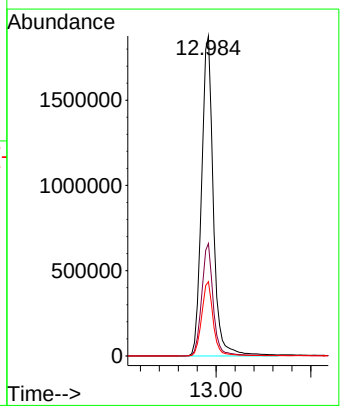


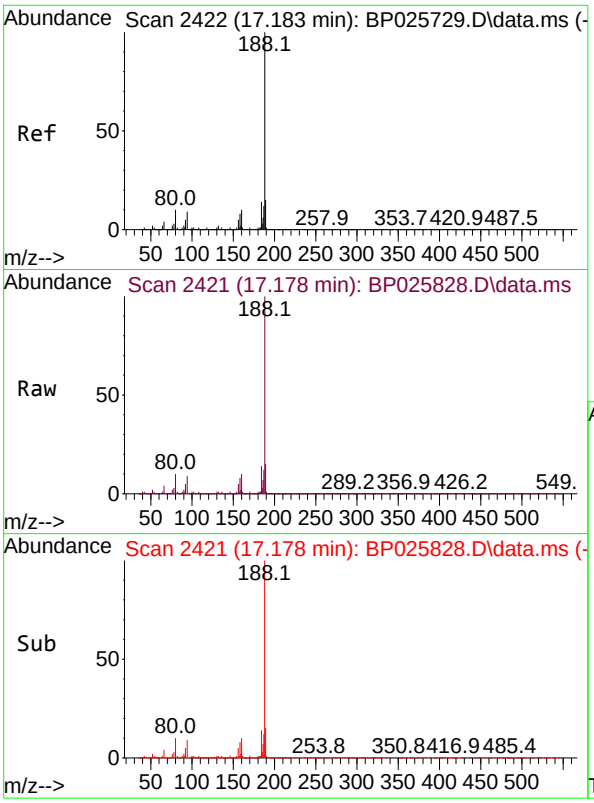


#45
2-Fluorobiphenyl
Concen: 71.381 ng
RT: 12.984 min Scan# 1708
Delta R.T. -0.006 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Tgt Ion:172 Resp: 3221809

Ion	Ratio	Lower	Upper
172	100		
171	35.1	27.8	41.6
170	23.2	18.6	27.8



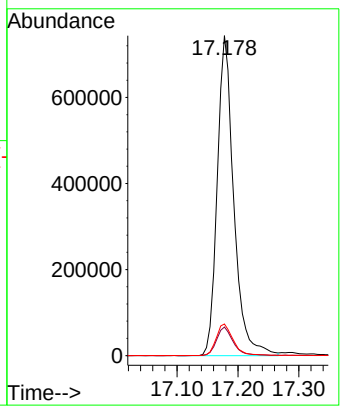


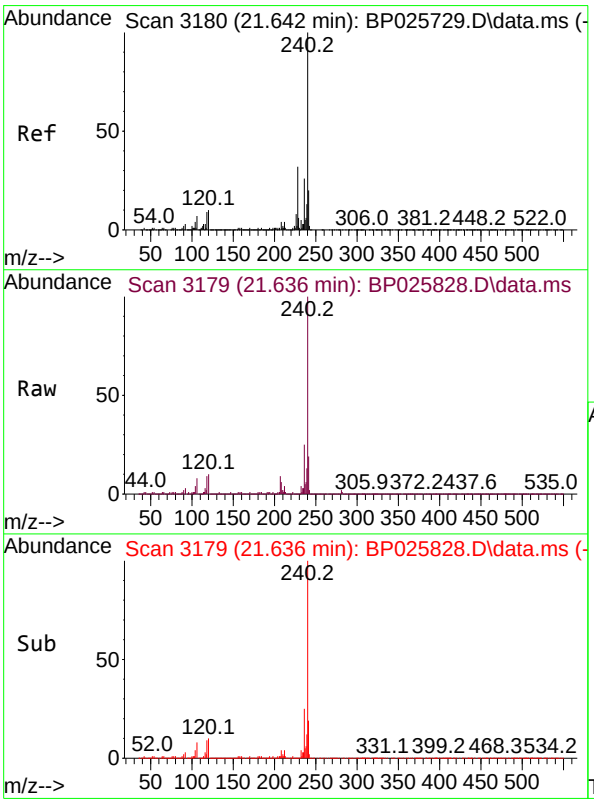
#64
Phenanthrene-d10
Concen: 20.000 ng
RT: 17.178 min Scan# 24
Delta R.T. -0.006 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Tgt Ion:188 Resp: 1402806

Ion	Ratio	Lower	Upper
188	100		
94	8.9	7.4	11.0
80	9.9	7.7	11.5

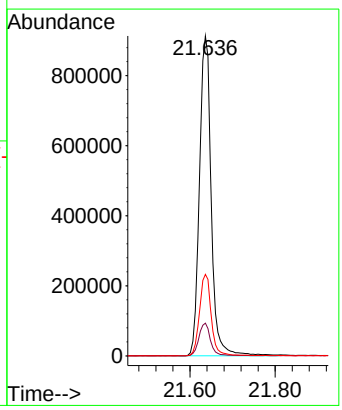


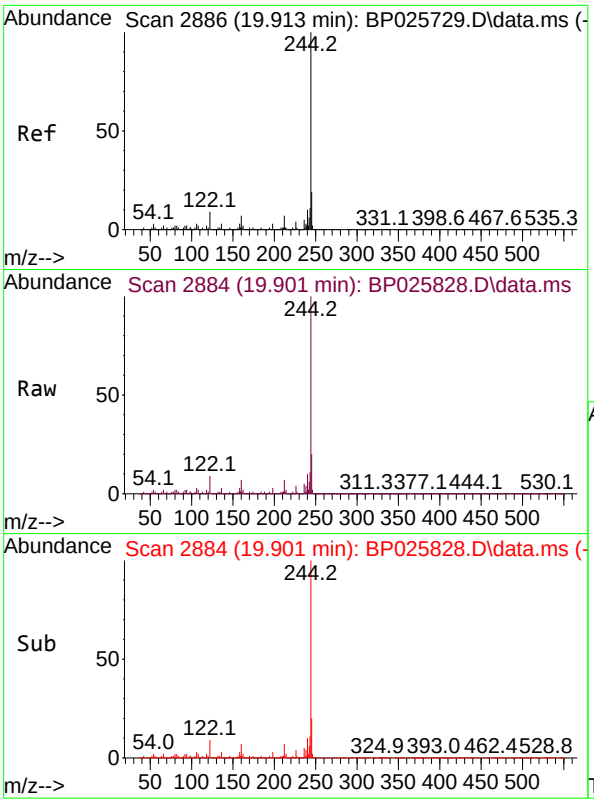


#76
Chrysene-d12
Concen: 20.000 ng
RT: 21.636 min Scan# 3179
Delta R.T. -0.006 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Tgt Ion:240 Resp: 1747164

Ion	Ratio	Lower	Upper
240	100		
120	10.2	8.0	12.0
236	25.5	20.7	31.1



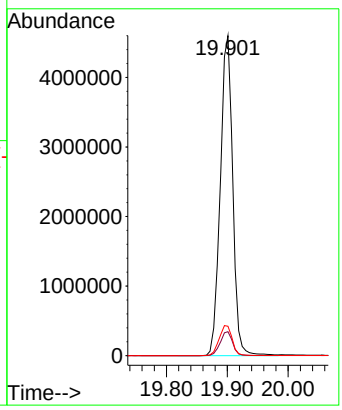


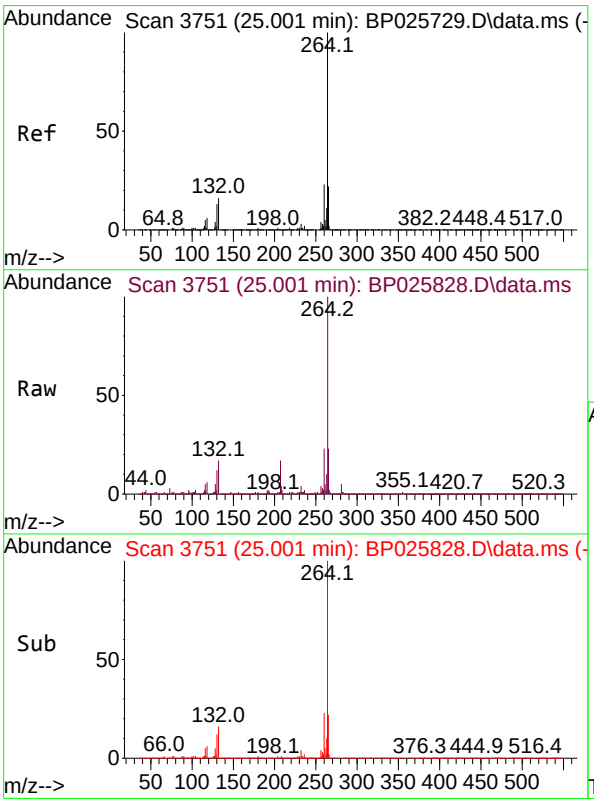
#79
Terphenyl-d14
Concen: 67.365 ng
RT: 19.901 min Scan# 28
Delta R.T. -0.012 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Tgt Ion:244 Resp: 6542411

Ion	Ratio	Lower	Upper
244	100		
212	7.5	5.9	8.9
122	9.2	7.1	10.7

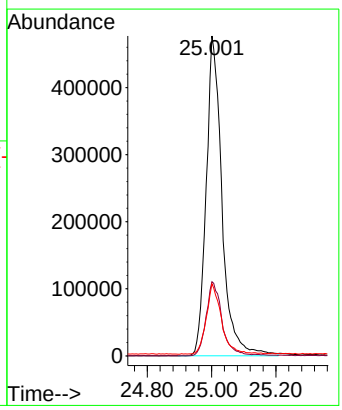




#86
Perylene-d12
Concen: 20.000 ng
RT: 25.001 min Scan# 3751
Delta R.T. 0.000 min
Lab File: BP025828.D
Acq: 23 Sep 2025 13:48

Tgt Ion:264 Resp: 1629648

Ion	Ratio	Lower	Upper
264	100		
260	23.2	18.3	27.5
265	22.5	17.3	25.9



Sample Results: **BP025828.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025828.D
Acq On : 23 Sep 2025 13:48
Operator : CG/JU
Sample : PB169774BL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BL

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

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

Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

Signal : TIC: BP025828.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.914	330	336	349	rBV	574471	820813	4.61%	1.164%
2	5.384	409	416	438	rBV	3860382	6244630	35.09%	8.854%
3	6.955	676	683	705	rBV	3334717	6171122	34.68%	8.750%
4	7.749	811	818	829	rBV	827962	1337323	7.51%	1.896%
5	8.896	1005	1013	1043	rBV	2343957	4306005	24.20%	6.105%
6	10.519	1281	1289	1308	rBV	945456	1854218	10.42%	2.629%
7	12.984	1700	1708	1733	rBV	5480868	9382902	52.72%	13.303%
8	14.372	1936	1944	1960	rBV	1382542	2571630	14.45%	3.646%
9	15.895	2194	2203	2222	rBV	4060008	8025980	45.10%	11.379%
10	17.178	2414	2421	2436	rBV	1819891	3493450	19.63%	4.953%
11	19.901	2877	2884	2898	rBV	12325651	17796532	100.00%	25.232%
12	21.636	3172	3179	3191	rBV2	2443982	4576971	25.72%	6.489%
13	25.001	3742	3751	3767	rBV	1224290	3949354	22.19%	5.599%

Sum of corrected areas: 70530930

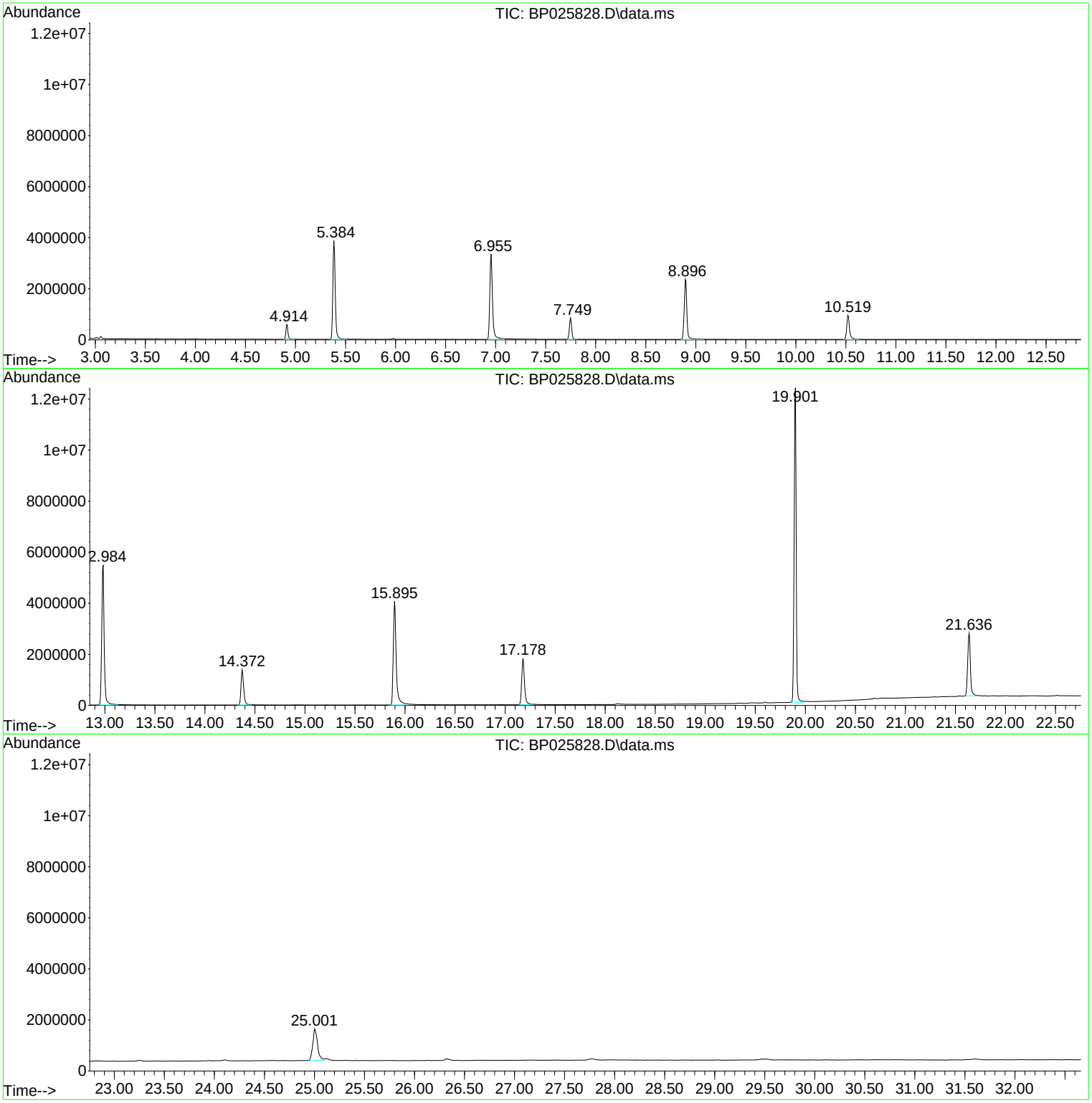
Sample Results: **BP025828.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025828.D
Acq On : 23 Sep 2025 13:48
Operator : CG/JU
Sample : PB169774BL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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



Library Search Compound Report

Sample Results: **BP025828.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025828.D
Acq On : 23 Sep 2025 13:48
Operator : CG/JU
Sample : PB169774BL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

No Library Search Compounds Detected
****

Sample Results: **BP025828.D**

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025828.D
Acq On : 23 Sep 2025 13:48
Operator : CG/JU
Sample : PB169774BL
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BL

Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION

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

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

Raw Data: **BP025829.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	
Project:	Yard Soil Cleanup	Date Received:	
Client Sample ID:	PB169774BS	SDG No.:	Q3157
Lab Sample ID:	PB169774BS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025829.D	1	09/22/25 09:30	09/23/25 14:29	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	530		160	330	ug/Kg
108-95-2	Phenol	1500		22.1	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1400		24.3	170	ug/Kg
95-57-8	2-Chlorophenol	1500		24.4	170	ug/Kg
95-48-7	2-Methylphenol	1500		29.9	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		37.5	170	ug/Kg
98-86-2	Acetophenone	1400		29.5	170	ug/Kg
65794-96-9	3+4-Methylphenols	1400		41.1	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1400		47.4	79.9	ug/Kg
67-72-1	Hexachloroethane	1300		17.6	170	ug/Kg
98-95-3	Nitrobenzene	1400		18.3	170	ug/Kg
78-59-1	Isophorone	1300		32.8	170	ug/Kg
88-75-5	2-Nitrophenol	1500		58.2	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1500		64.8	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1400		30.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1500		28.3	170	ug/Kg
91-20-3	Naphthalene	1300		22.7	170	ug/Kg
106-47-8	4-Chloroaniline	840		35.4	170	ug/Kg
87-68-3	Hexachlorobutadiene	1400		25.3	170	ug/Kg
105-60-2	Caprolactam	1500		52.1	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1500		28.7	170	ug/Kg
91-57-6	2-Methylnaphthalene	1400		25.6	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2400		120	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1500		19.8	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1500		29.1	170	ug/Kg
92-52-4	1,1-Biphenyl	1400		21.8	170	ug/Kg
91-58-7	2-Chloronaphthalene	1300		22.5	170	ug/Kg
88-74-4	2-Nitroaniline	1500		48.1	170	ug/Kg
131-11-3	Dimethylphthalate	1400		27.1	170	ug/Kg

Raw Data: **BP025829.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	
Project:	Yard Soil Cleanup	Date Received:	
Client Sample ID:	PB169774BS	SDG No.:	Q3157
Lab Sample ID:	PB169774BS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025829.D	1	09/22/25 09:30	09/23/25 14:29	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1400		28.9	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1500		33.6	170	ug/Kg
99-09-2	3-Nitroaniline	1200		46.0	170	ug/Kg
83-32-9	Acenaphthene	1300		21.3	170	ug/Kg
51-28-5	2,4-Dinitrophenol	3100	E	230	330	ug/Kg
100-02-7	4-Nitrophenol	2600		110	330	ug/Kg
132-64-9	Dibenzofuran	1400		22.7	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1500		50.1	170	ug/Kg
84-66-2	Diethylphthalate	1500		28.3	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1400		26.7	170	ug/Kg
86-73-7	Fluorene	1400		25.3	170	ug/Kg
100-01-6	4-Nitroaniline	1500		64.2	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1600		100	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1400		32.9	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1400		27.8	170	ug/Kg
118-74-1	Hexachlorobenzene	1400		25.3	170	ug/Kg
1912-24-9	Atrazine	1400		34.0	170	ug/Kg
87-86-5	Pentachlorophenol	2800	E	51.3	330	ug/Kg
85-01-8	Phenanthrene	1400		20.9	170	ug/Kg
120-12-7	Anthracene	1400		33.3	170	ug/Kg
86-74-8	Carbazole	1400		31.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	1500		47.9	170	ug/Kg
206-44-0	Fluoranthene	1400		30.0	170	ug/Kg
129-00-0	Pyrene	1500		36.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	1600		71.4	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1200		36.7	330	ug/Kg
56-55-3	Benzo(a)anthracene	1400		23.0	170	ug/Kg
218-01-9	Chrysene	1400		19.9	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1600		59.2	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1600		86.7	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1700		19.0	170	ug/Kg

Raw Data: **BP025829.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	
Project:	Yard Soil Cleanup	Date Received:	
Client Sample ID:	PB169774BS	SDG No.:	Q3157
Lab Sample ID:	PB169774BS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025829.D	1	09/22/25 09:30	09/23/25 14:29	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1700		22.4	170	ug/Kg
50-32-8	Benzo(a)pyrene	1500		29.5	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1400		29.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1400		27.4	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1400		25.7	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1400		25.6	170	ug/Kg
123-91-1	1,4-Dioxane	1000		45.2	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1500		27.4	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	122		18 - 112	81%	SPK: 150
13127-88-3	Phenol-d6	119		15 - 107	79%	SPK: 150
4165-60-0	Nitrobenzene-d5	69.3		18 - 107	69%	SPK: 100
321-60-8	2-Fluorobiphenyl	67.8		20 - 109	68%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		10 - 116	80%	SPK: 150
1718-51-0	Terphenyl-d14	74.3		10 - 105	74%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	242000	7.749			
1146-65-2	Naphthalene-d8	992000	10.519			
15067-26-2	Acenaphthene-d10	682000	14.366			
1517-22-2	Phenanthrene-d10	1450000	17.16			
1719-03-5	Chrysene-d12	1420000	21.624			
1520-96-3	Perylene-d12	1140000	24.983			

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_P\Data\BP092325\
Data File : BP025829.D
Acq On : 23 Sep 2025 14:29
Operator : CG/JU
Sample : PB169774BS
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BS

Quant Time: Sep 23 14:54:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.749	152	241907	20.000	ng		-0.01
21) Naphthalene-d8	10.519	136	991516	20.000	ng		0.00
39) Acenaphthene-d10	14.366	164	681683	20.000	ng		-0.01
64) Phenanthrene-d10	17.160	188	1453274	20.000	ng		-0.02
76) Chrysene-d12	21.624	240	1418311	20.000	ng		-0.02
86) Perylene-d12	24.983	264	1138065	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.390	112	1830257	122.080	ng		0.00
7) Phenol-d6	6.955	99	2366182	118.740	ng		0.00
23) Nitrobenzene-d5	8.896	82	1557808	69.304	ng		0.00
42) 2,4,6-Tribromophenol	15.884	330	1018199	119.751	ng		-0.02
45) 2-Fluorobiphenyl	12.978	172	3471744	67.812	ng		-0.01
79) Terphenyl-d14	19.901	244	5857684	74.299	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	3.308	88	194181	30.860	ng		99
3) Pyridine	3.702	79	565178	32.620	ng		97
4) n-Nitrosodimethylamine	3.608	42	321046	39.268	ng		100
6) Aniline	7.090	93	837788	30.626	ng		99
8) 2-Chlorophenol	7.331	128	739270	44.949	ng		99
9) Benzaldehyde	6.908	77	190835	15.977	ng		99
10) Phenol	6.978	94	934880	44.492	ng		99
11) bis(2-Chloroethyl)ether	7.184	93	698972	41.404	ng		97
12) 1,3-Dichlorobenzene	7.637	146	755512	40.361	ng		97
13) 1,4-Dichlorobenzene	7.784	146	768201	40.288	ng		98
14) 1,2-Dichlorobenzene	8.096	146	749457	40.459	ng		99
15) Benzyl Alcohol	7.996	79	693124	42.093	ng		100
16) 2,2'-oxybis(1-Chloropr...	8.266	45	1088593	39.431	ng		99
17) 2-Methylphenol	8.207	107	621168	43.847	ng		98
18) Hexachloroethane	8.813	117	292678	40.185	ng		97
19) n-Nitroso-di-n-propyla...	8.549	70	563967	40.576	ng		99
20) 3+4-Methylphenols	8.531	107	843947	42.538	ng		99
22) Acetophenone	8.566	105	1091248	41.184	ng	#	99
24) Nitrobenzene	8.937	77	828000	41.062	ng		98
25) Isophorone	9.460	82	1601081	40.525	ng		99
26) 2-Nitrophenol	9.643	139	405058	45.243	ng		93
27) 2,4-Dimethylphenol	9.713	122	706022	44.952	ng		97
28) bis(2-Chloroethoxy)met...	9.925	93	946822	41.458	ng		99
29) 2,4-Dichlorophenol	10.190	162	716400	45.747	ng		99
30) 1,2,4-Trichlorobenzene	10.384	180	734720	41.630	ng		99
31) Naphthalene	10.566	128	2152887	40.269	ng		99
32) Benzoic acid	9.913	122	552842	47.343	ng		98
33) 4-Chloroaniline	10.684	127	563526	25.289	ng		99
34) Hexachlorobutadiene	10.849	225	462758	40.731	ng		99
35) Caprolactam	11.496	113	264114	43.752	ng		96
36) 4-Chloro-3-methylphenol	11.831	107	834826	44.714	ng		97
37) 2-Methylnaphthalene	12.178	142	1412464	41.134	ng		99
38) 1-Methylnaphthalene	12.396	142	1476903	40.333	ng		100
40) 1,2,4,5-Tetrachloroben...	12.548	216	852296	41.260	ng		99
41) Hexachlorocyclopentadiene	12.525	237	823538	73.200	ng		98
43) 2,4,6-Trichlorophenol	12.795	196	606716	44.678	ng		99

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025829.D
Acq On : 23 Sep 2025 14:29
Operator : CG/JU
Sample : PB169774BS
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BS

Quant Time: Sep 23 14:54:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

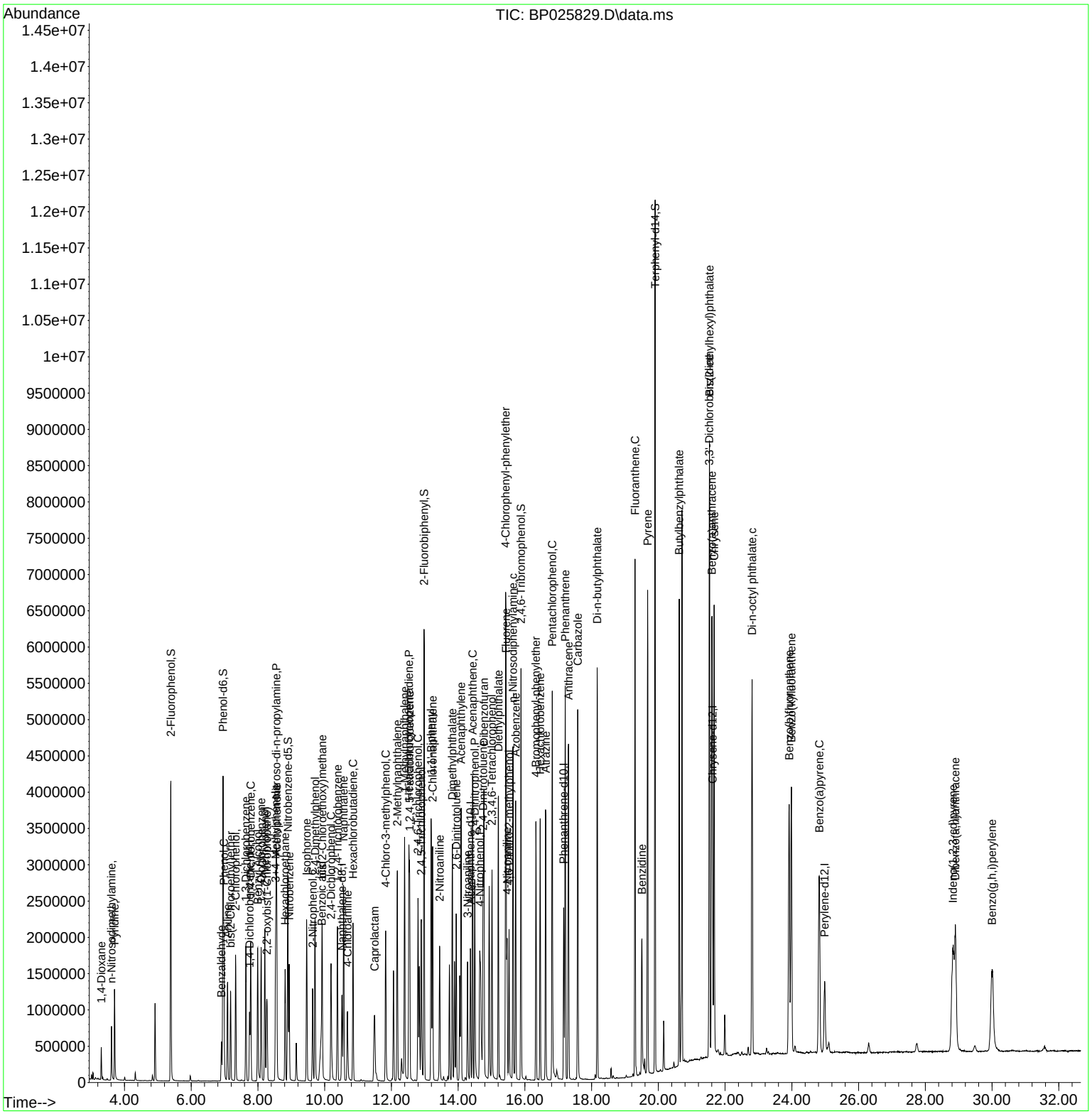
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.895	196	667729	44.182	ng		97
46) 1,1'-Biphenyl	13.190	154	2048301	40.937	ng		100
47) 2-Chloronaphthalene	13.237	162	1595487	40.496	ng		99
48) 2-Nitroaniline	13.443	65	589416	44.880	ng		98
49) Acenaphthylene	14.090	152	2691532	41.231	ng		99
50) Dimethylphthalate	13.825	163	2182559	41.937	ng		100
51) 2,6-Dinitrotoluene	13.942	165	490244	44.461	ng		98
52) Acenaphthene	14.437	154	1511693	40.156	ng		99
53) 3-Nitroaniline	14.284	138	410915	35.439	ng		98
54) 2,4-Dinitrophenol	14.495	184	667460	92.312	ng		97
55) Dibenzofuran	14.772	168	2504803	40.824	ng		99
56) 4-Nitrophenol	14.648	139	768428	77.126	ng		97
57) 2,4-Dinitrotoluene	14.748	165	719986	45.882	ng		96
58) Fluorene	15.437	166	1998268	40.958	ng		99
59) 2,3,4,6-Tetrachlorophenol	15.013	232	608441	44.691	ng		98
60) Diethylphthalate	15.207	149	2302476	43.615	ng		99
61) 4-Chlorophenyl-phenyle...	15.425	204	1019460	41.462	ng		97
62) 4-Nitroaniline	15.466	138	551265	46.407	ng		97
63) Azobenzene	15.725	77	2164974	42.413	ng		98
65) 4,6-Dinitro-2-methylph...	15.525	198	454463	47.023	ng		93
66) n-Nitrosodiphenylamine	15.642	169	1855030	41.711	ng		99
67) 4-Bromophenyl-phenylether	16.331	248	670251	41.981	ng		97
68) Hexachlorobenzene	16.460	284	745391	41.866	ng		94
69) Atrazine	16.625	200	712462	41.910	ng		96
70) Pentachlorophenol	16.819	266	976380	83.091	ng		98
71) Phenanthrene	17.207	178	3375172	40.942	ng		99
72) Anthracene	17.307	178	3428247	40.986	ng		100
73) Carbazole	17.583	167	3294726	42.368	ng		99
74) Di-n-butylphthalate	18.166	149	4217646	44.196	ng		100
75) Fluoranthene	19.301	202	4029329	40.754	ng		100
77) Benzidine	19.507	184	1468939	35.955	ng		100
78) Pyrene	19.677	202	4236623	44.767	ng		99
80) Butylbenzylphthalate	20.624	149	2016722	48.602	ng		99
81) Benzo(a)anthracene	21.601	228	4175782	43.005	ng		99
82) 3,3'-Dichlorobenzidine	21.524	252	1193425	35.546	ng		99
83) Chrysene	21.671	228	3844315	41.533	ng		100
84) Bis(2-ethylhexyl)phtha...	21.530	149	2895302	47.692	ng		100
85) Di-n-octyl phthalate	22.807	149	5129788	47.503	ng		99
87) Indeno(1,2,3-cd)pyrene	28.824	276	3400109	41.083	ng	#	83
88) Benzo(b)fluoranthene	23.918	252	3464231	49.777	ng		98
89) Benzo(k)fluoranthene	23.989	252	3538734	49.829	ng		99
90) Benzo(a)pyrene	24.824	252	3124450	45.844	ng		99
91) Dibenzo(a,h)anthracene	28.901	278	2858622	42.208	ng		98
92) Benzo(g,h,i)perylene	30.000	276	2762595	41.477	ng		99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025829.D
Acq On : 23 Sep 2025 14:29
Operator : CG/JU
Sample : PB169774BS
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
PB169774BS

Quant Time: Sep 23 14:54:10 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration



Raw Data: **BP025835.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	OR-500-COMP-40MS	SDG No.:	Q3157
Lab Sample ID:	Q3153-05MS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	86.8
Sample Wt/Vol:	50.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025835.D	1	09/22/25 09:30	09/23/25 18:41	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	880		110	230	ug/Kg
108-95-2	Phenol	1100		15.3	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1000		16.8	120	ug/Kg
95-57-8	2-Chlorophenol	1100		16.9	120	ug/Kg
95-48-7	2-Methylphenol	1100		20.7	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1000		25.9	120	ug/Kg
98-86-2	Acetophenone	1100		20.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	1100		28.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1000		32.8	55.3	ug/Kg
67-72-1	Hexachloroethane	1100		12.2	120	ug/Kg
98-95-3	Nitrobenzene	1000		12.6	120	ug/Kg
78-59-1	Isophorone	990		22.7	120	ug/Kg
88-75-5	2-Nitrophenol	1100		40.2	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1100		44.8	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1000		21.3	120	ug/Kg
120-83-2	2,4-Dichlorophenol	1100		19.6	120	ug/Kg
91-20-3	Naphthalene	1000		15.7	120	ug/Kg
106-47-8	4-Chloroaniline	440		24.5	120	ug/Kg
87-68-3	Hexachlorobutadiene	1000		17.5	120	ug/Kg
105-60-2	Caprolactam	980		36.0	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1100		19.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	1000		17.7	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1700		80.2	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1100		13.7	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1100		20.1	120	ug/Kg
92-52-4	1,1-Biphenyl	1100		15.1	120	ug/Kg
91-58-7	2-Chloronaphthalene	1000		15.5	120	ug/Kg
88-74-4	2-Nitroaniline	1000		33.2	120	ug/Kg
131-11-3	Dimethylphthalate	1000		18.7	120	ug/Kg

Raw Data: **BP025835.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	OR-500-COMP-40MS	SDG No.:	Q3157
Lab Sample ID:	Q3153-05MS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	86.8
Sample Wt/Vol:	50.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025835.D	1	09/22/25 09:30	09/23/25 18:41	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1000		20.0	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	1000		23.2	120	ug/Kg
99-09-2	3-Nitroaniline	670		31.8	120	ug/Kg
83-32-9	Acenaphthene	1000		14.7	120	ug/Kg
51-28-5	2,4-Dinitrophenol	1700		160	230	ug/Kg
100-02-7	4-Nitrophenol	1700		73.9	230	ug/Kg
132-64-9	Dibenzofuran	1000		15.7	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	1000		34.6	120	ug/Kg
84-66-2	Diethylphthalate	1000		19.6	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1000		18.5	120	ug/Kg
86-73-7	Fluorene	1000		17.5	120	ug/Kg
100-01-6	4-Nitroaniline	950		44.4	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	980		71.2	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1100		22.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1100		19.2	120	ug/Kg
118-74-1	Hexachlorobenzene	1100		17.5	120	ug/Kg
1912-24-9	Atrazine	1100		23.5	120	ug/Kg
87-86-5	Pentachlorophenol	2000	E	35.5	230	ug/Kg
85-01-8	Phenanthrene	1000		14.4	120	ug/Kg
120-12-7	Anthracene	1000		23.0	120	ug/Kg
86-74-8	Carbazole	990		21.6	120	ug/Kg
84-74-2	Di-n-butylphthalate	1100		33.1	120	ug/Kg
206-44-0	Fluoranthene	960		20.7	120	ug/Kg
129-00-0	Pyrene	1100		24.9	120	ug/Kg
85-68-7	Butylbenzylphthalate	1200		49.3	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	900		25.4	230	ug/Kg
56-55-3	Benzo(a)anthracene	1000		15.9	120	ug/Kg
218-01-9	Chrysene	1000		13.8	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1200		40.9	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1200		60.0	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	1000		13.1	120	ug/Kg

Raw Data: **BP025835.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	OR-500-COMP-40MS	SDG No.:	Q3157
Lab Sample ID:	Q3153-05MS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	86.8
Sample Wt/Vol:	50.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025835.D	1	09/22/25 09:30	09/23/25 18:41	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1000		15.5	120	ug/Kg
50-32-8	Benzo(a)pyrene	1000		20.4	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1000		20.1	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1000		18.9	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1000		17.8	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1100		17.7	120	ug/Kg
123-91-1	1,4-Dioxane	760		31.2	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1000		18.9	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	106		18 - 112	71%	SPK: 150
13127-88-3	Phenol-d6	106		15 - 107	71%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.1		18 - 107	57%	SPK: 100
321-60-8	2-Fluorobiphenyl	48.9		20 - 109	49%	SPK: 100
118-79-6	2,4,6-Tribromophenol	98.9		10 - 116	66%	SPK: 150
1718-51-0	Terphenyl-d14	56.1		10 - 105	56%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	186000	7.748			
1146-65-2	Naphthalene-d8	779000	10.513			
15067-26-2	Acenaphthene-d10	543000	14.372			
1517-22-2	Phenanthrene-d10	1060000	17.177			
1719-03-5	Chrysene-d12	916000	21.63			
1520-96-3	Perylene-d12	1000000	24.983			

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_P\Data\BP092325\
Data File : BP025835.D
Acq On : 23 Sep 2025 18:41
Operator : CG/JU
Sample : Q3153-05MS
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
OR-500-COMP-40MS

Quant Time: Sep 23 19:02:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.748	152	185533	20.000	ng		-0.01
21) Naphthalene-d8	10.513	136	778843	20.000	ng		-0.01
39) Acenaphthene-d10	14.372	164	542949	20.000	ng		0.00
64) Phenanthrene-d10	17.177	188	1061855	20.000	ng		0.00
76) Chrysene-d12	21.630	240	915774	20.000	ng		-0.01
86) Perylene-d12	24.983	264	1000886	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.384	112	1221294	106.214	ng		0.00
7) Phenol-d6	6.948	99	1620877	106.054	ng		0.00
23) Nitrobenzene-d5	8.895	82	1008582	57.123	ng		0.00
42) 2,4,6-Tribromophenol	15.895	330	669768	98.900	ng		-0.01
45) 2-Fluorobiphenyl	12.978	172	1995004	48.925	ng		-0.01
79) Terphenyl-d14	19.901	244	2856312	56.111	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	3.302	88	158243	32.790	ng		100
3) Pyridine	3.702	79	456011	34.316	ng		96
4) n-Nitrosodimethylamine	3.607	42	247598	39.487	ng		94
6) Aniline	7.090	93	642202	30.610	ng		99
8) 2-Chlorophenol	7.331	128	605842	48.029	ng		98
9) Benzaldehyde	6.901	77	351617	38.383	ng		98
10) Phenol	6.978	94	753571	46.760	ng		97
11) bis(2-Chloroethyl)ether	7.178	93	566234	43.733	ng		96
12) 1,3-Dichlorobenzene	7.643	146	621228	43.271	ng		98
13) 1,4-Dichlorobenzene	7.784	146	631436	43.178	ng		98
14) 1,2-Dichlorobenzene	8.095	146	618252	43.518	ng		98
15) Benzyl Alcohol	7.995	79	568826	45.041	ng		99
16) 2,2'-oxybis(1-Chloropr...	8.266	45	928898	43.870	ng		98
17) 2-Methylphenol	8.207	107	515645	47.458	ng		98
18) Hexachloroethane	8.813	117	259942	46.535	ng		98
19) n-Nitroso-di-n-propyla...	8.548	70	473018	44.373	ng		98
20) 3+4-Methylphenols	8.531	107	697791	45.858	ng		99
22) Acetophenone	8.566	105	1011017	48.575	ng	#	98
24) Nitrobenzene	8.937	77	689791	43.549	ng		97
25) Isophorone	9.460	82	1337131	43.086	ng		98
26) 2-Nitrophenol	9.642	139	336132	47.797	ng		94
27) 2,4-Dimethylphenol	9.713	122	579607	46.980	ng		99
28) bis(2-Chloroethoxy)met...	9.931	93	809394	45.118	ng		98
29) 2,4-Dichlorophenol	10.189	162	599729	48.754	ng		100
30) 1,2,4-Trichlorobenzene	10.384	180	620051	44.726	ng		99
31) Naphthalene	10.566	128	1828945	43.551	ng		98
32) Benzoic acid	9.907	122	482441	52.596	ng		98
33) 4-Chloroaniline	10.684	127	334376	19.103	ng		99
34) Hexachlorobutadiene	10.848	225	400265	44.851	ng		99
35) Caprolactam	11.489	113	201916	42.582	ng		97
36) 4-Chloro-3-methylphenol	11.831	107	670998	45.753	ng		98
37) 2-Methylnaphthalene	12.172	142	1213176	44.977	ng		99
38) 1-Methylnaphthalene	12.407	142	1264939	43.977	ng		98
40) 1,2,4,5-Tetrachloroben...	12.548	216	820790	49.888	ng		99
41) Hexachlorocyclopentadiene	12.525	237	646359	72.132	ng		99
43) 2,4,6-Trichlorophenol	12.807	196	516683	47.770	ng		100

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025835.D
Acq On : 23 Sep 2025 18:41
Operator : CG/JU
Sample : Q3153-05MS
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
OR-500-COMP-40MS

Quant Time: Sep 23 19:02:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

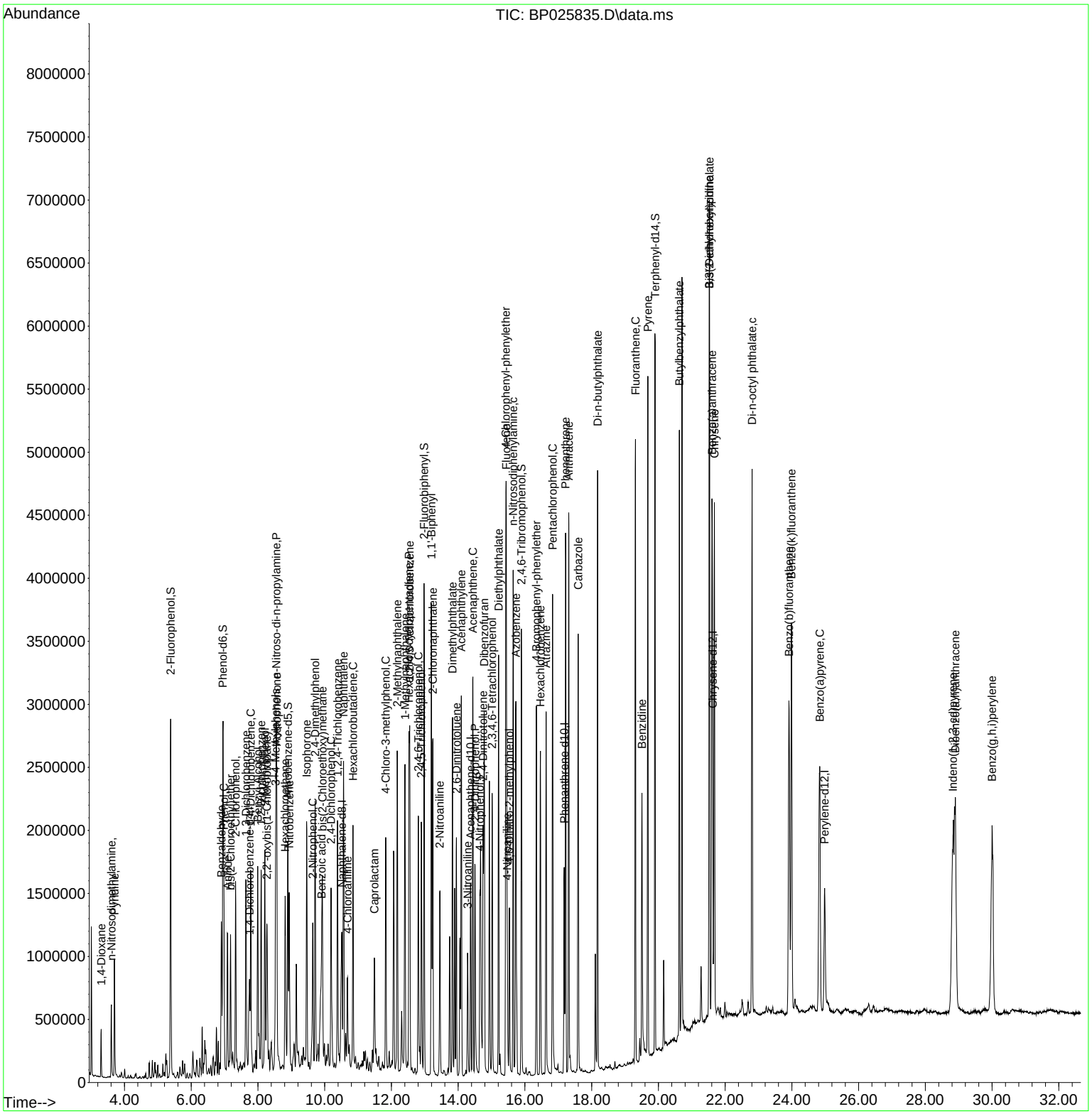
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.895	196	558959	46.435	ng		98
46) 1,1'-Biphenyl	13.195	154	1938288	48.636	ng		100
47) 2-Chloronaphthalene	13.242	162	1383490	44.088	ng		98
48) 2-Nitroaniline	13.448	65	462913	44.254	ng		99
49) Acenaphthylene	14.095	152	2320876	44.638	ng		100
50) Dimethylphthalate	13.830	163	1816929	43.832	ng		100
51) 2,6-Dinitrotoluene	13.948	165	392775	44.723	ng		98
52) Acenaphthene	14.442	154	1302208	43.430	ng		100
53) 3-Nitroaniline	14.283	138	266886	28.898	ng		97
54) 2,4-Dinitrophenol	14.507	184	418688	73.727	ng		97
55) Dibenzofuran	14.777	168	2133886	43.666	ng		98
56) 4-Nitrophenol	14.648	139	574100	72.623	ng		96
57) 2,4-Dinitrotoluene	14.748	165	563759	45.106	ng		94
58) Fluorene	15.442	166	1704140	43.854	ng		99
59) 2,3,4,6-Tetrachlorophenol	15.019	232	488665	45.065	ng		97
60) Diethylphthalate	15.213	149	1888547	44.915	ng		99
61) 4-Chlorophenyl-phenyle...	15.430	204	876026	44.732	ng		96
62) 4-Nitroaniline	15.472	138	389612	41.180	ng		97
63) Azobenzene	15.730	77	1978890	48.673	ng		98
65) 4,6-Dinitro-2-methylph...	15.536	198	301041	42.630	ng		95
66) n-Nitrosodiphenylamine	15.648	169	1517394	46.696	ng		100
67) 4-Bromophenyl-phenylether	16.342	248	559305	47.946	ng		98
68) Hexachlorobenzene	16.466	284	606055	46.588	ng		96
69) Atrazine	16.636	200	591977	47.658	ng		98
70) Pentachlorophenol	16.830	266	747253	87.033	ng		99
71) Phenanthrene	17.218	178	2601634	43.192	ng		99
72) Anthracene	17.318	178	2711056	44.359	ng		99
73) Carbazole	17.595	167	2437888	42.906	ng		100
74) Di-n-butylphthalate	18.177	149	3365104	48.261	ng		100
75) Fluoranthene	19.313	202	3014541	41.729	ng		100
77) Benzidine	19.507	184	1508877	57.200	ng		100
78) Pyrene	19.683	202	3030748	49.599	ng		99
80) Butylbenzylphthalate	20.630	149	1444373	53.910	ng		98
81) Benzo(a)anthracene	21.607	228	2856867	45.568	ng		100
82) 3,3'-Dichlorobenzidine	21.524	252	847697	39.104	ng		99
83) Chrysene	21.677	228	2641572	44.200	ng		99
84) Bis(2-ethylhexyl)phtha...	21.530	149	2103785	53.670	ng		99
85) Di-n-octyl phthalate	22.806	149	3566683	51.153	ng		99
87) Indeno(1,2,3-cd)pyrene	28.830	276	3305488	45.414	ng	#	82
88) Benzo(b)fluoranthene	23.912	252	2770396	45.263	ng		99
89) Benzo(k)fluoranthene	23.989	252	2797880	44.797	ng		100
90) Benzo(a)pyrene	24.836	252	2665693	44.473	ng		99
91) Dibenzo(a,h)anthracene	28.900	278	2709752	45.494	ng		99
92) Benzo(g,h,i)perylene	30.000	276	2666848	45.527	ng		99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025835.D
Acq On : 23 Sep 2025 18:41
Operator : CG/JU
Sample : Q3153-05MS
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
OR-500-COMP-40MS

Quant Time: Sep 23 19:02:35 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration



Raw Data: **BP025836.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	OR-500-COMP-40MSD	SDG No.:	Q3157
Lab Sample ID:	Q3153-05MSD	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	86.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025836.D	1	09/22/25 09:30	09/23/25 19:22	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	950		110	230	ug/Kg
108-95-2	Phenol	1200		15.3	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1100		16.8	120	ug/Kg
95-57-8	2-Chlorophenol	1200		16.8	120	ug/Kg
95-48-7	2-Methylphenol	1200		20.6	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1100		25.9	120	ug/Kg
98-86-2	Acetophenone	1200		20.4	120	ug/Kg
65794-96-9	3+4-Methylphenols	1200		28.4	230	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1100		32.7	55.2	ug/Kg
67-72-1	Hexachloroethane	1100		12.2	120	ug/Kg
98-95-3	Nitrobenzene	1000		12.6	120	ug/Kg
78-59-1	Isophorone	1000		22.6	120	ug/Kg
88-75-5	2-Nitrophenol	1200		40.2	120	ug/Kg
105-67-9	2,4-Dimethylphenol	1100		44.7	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1100		21.3	120	ug/Kg
120-83-2	2,4-Dichlorophenol	1200		19.5	120	ug/Kg
91-20-3	Naphthalene	1000		15.7	120	ug/Kg
106-47-8	4-Chloroaniline	470		24.4	120	ug/Kg
87-68-3	Hexachlorobutadiene	1000		17.5	120	ug/Kg
105-60-2	Caprolactam	1100		36.0	230	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1200		19.8	120	ug/Kg
91-57-6	2-Methylnaphthalene	1100		17.7	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1400		80.1	230	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1100		13.7	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1100		20.1	120	ug/Kg
92-52-4	1,1-Biphenyl	1200		15.1	120	ug/Kg
91-58-7	2-Chloronaphthalene	1100		15.5	120	ug/Kg
88-74-4	2-Nitroaniline	1100		33.2	120	ug/Kg
131-11-3	Dimethylphthalate	1000		18.7	120	ug/Kg

Raw Data: **BP025836.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	OR-500-COMP-40MSD	SDG No.:	Q3157
Lab Sample ID:	Q3153-05MSD	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	86.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025836.D	1	09/22/25 09:30	09/23/25 19:22	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1100		20.0	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	1100		23.2	120	ug/Kg
99-09-2	3-Nitroaniline	750		31.8	120	ug/Kg
83-32-9	Acenaphthene	1000		14.7	120	ug/Kg
51-28-5	2,4-Dinitrophenol	1600		160	230	ug/Kg
100-02-7	4-Nitrophenol	1900	E	73.9	230	ug/Kg
132-64-9	Dibenzofuran	1000		15.7	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	1100		34.6	120	ug/Kg
84-66-2	Diethylphthalate	1100		19.5	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1100		18.4	120	ug/Kg
86-73-7	Fluorene	1000		17.5	120	ug/Kg
100-01-6	4-Nitroaniline	1000		44.3	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	960		71.1	230	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1100		22.7	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1200		19.2	120	ug/Kg
118-74-1	Hexachlorobenzene	1100		17.5	120	ug/Kg
1912-24-9	Atrazine	1100		23.5	120	ug/Kg
87-86-5	Pentachlorophenol	2100	E	35.4	230	ug/Kg
85-01-8	Phenanthrene	1000		14.4	120	ug/Kg
120-12-7	Anthracene	1100		23.0	120	ug/Kg
86-74-8	Carbazole	1000		21.5	120	ug/Kg
84-74-2	Di-n-butylphthalate	1100		33.1	120	ug/Kg
206-44-0	Fluoranthene	920		20.7	120	ug/Kg
129-00-0	Pyrene	1200		24.9	120	ug/Kg
85-68-7	Butylbenzylphthalate	1300		49.3	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	1000		25.3	230	ug/Kg
56-55-3	Benzo(a)anthracene	1100		15.9	120	ug/Kg
218-01-9	Chrysene	1100		13.7	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1300		40.9	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1200		59.9	230	ug/Kg
205-99-2	Benzo(b)fluoranthene	1100		13.1	120	ug/Kg

Raw Data: **BP025836.D**

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

Report of Analysis

Client:	Always Available Construction LLC.	Date Collected:	09/19/25
Project:	Yard Soil Cleanup	Date Received:	09/19/25
Client Sample ID:	OR-500-COMP-40MSD	SDG No.:	Q3157
Lab Sample ID:	Q3153-05MSD	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	86.8
Sample Wt/Vol:	50.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BP025836.D	1	09/22/25 09:30	09/23/25 19:22	PB169774

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1100		15.5	120	ug/Kg
50-32-8	Benzo(a)pyrene	1100		20.4	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1100		20.1	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1100		18.9	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1100		17.7	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1200		17.7	120	ug/Kg
123-91-1	1,4-Dioxane	790		31.2	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1100		18.9	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	114		18 - 112	76%	SPK: 150
13127-88-3	Phenol-d6	116		15 - 107	77%	SPK: 150
4165-60-0	Nitrobenzene-d5	59.7		18 - 107	60%	SPK: 100
321-60-8	2-Fluorobiphenyl	49.7		20 - 109	50%	SPK: 100
118-79-6	2,4,6-Tribromophenol	103		10 - 116	69%	SPK: 150
1718-51-0	Terphenyl-d14	59.6		10 - 105	60%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	217000	7.749			
1146-65-2	Naphthalene-d8	953000	10.519			
15067-26-2	Acenaphthene-d10	680000	14.378			
1517-22-2	Phenanthrene-d10	1330000	17.178			
1719-03-5	Chrysene-d12	1030000	21.63			
1520-96-3	Perylene-d12	1170000	24.983			

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_P\Data\BP092325\
Data File : BP025836.D
Acq On : 23 Sep 2025 19:22
Operator : CG/JU
Sample : Q3153-05MSD
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
OR-500-COMP-40MSD

Quant Time: Sep 24 00:25:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.749	152	217289	20.000	ng		-0.01
21) Naphthalene-d8	10.519	136	953089	20.000	ng		0.00
39) Acenaphthene-d10	14.378	164	680180	20.000	ng		0.00
64) Phenanthrene-d10	17.178	188	1328394	20.000	ng		0.00
76) Chrysene-d12	21.630	240	1034217	20.000	ng		-0.01
86) Perylene-d12	24.983	264	1170740	20.000	ng		-0.02
System Monitoring Compounds							
5) 2-Fluorophenol	5.384	112	1531231	113.706	ng		0.00
7) Phenol-d6	6.955	99	2068358	115.554	ng		0.00
23) Nitrobenzene-d5	8.896	82	1290830	59.742	ng		0.00
42) 2,4,6-Tribromophenol	15.895	330	873331	102.940	ng		-0.01
45) 2-Fluorobiphenyl	12.978	172	2540663	49.735	ng		-0.01
79) Terphenyl-d14	19.901	244	3425629	59.588	ng		-0.01
Target Compounds							Qvalue
2) 1,4-Dioxane	3.302	88	193313	34.203	ng		98
3) Pyridine	3.696	79	565406	36.330	ng		97
4) n-Nitrosodimethylamine	3.602	42	307620	41.889	ng		96
6) Aniline	7.090	93	782642	31.852	ng		100
8) 2-Chlorophenol	7.331	128	763462	51.679	ng		100
9) Benzaldehyde	6.902	77	441734	41.174	ng		98
10) Phenol	6.978	94	980277	51.938	ng		98
11) bis(2-Chloroethyl)ether	7.178	93	700414	46.190	ng		97
12) 1,3-Dichlorobenzene	7.643	146	762912	45.374	ng		98
13) 1,4-Dichlorobenzene	7.784	146	781033	45.602	ng		99
14) 1,2-Dichlorobenzene	8.096	146	763926	45.913	ng		99
15) Benzyl Alcohol	7.996	79	720051	48.682	ng		97
16) 2,2'-oxybis(1-Chloropr...	8.266	45	1139680	45.958	ng		98
17) 2-Methylphenol	8.208	107	660395	51.898	ng		98
18) Hexachloroethane	8.813	117	317661	48.557	ng		98
19) n-Nitroso-di-n-propyla...	8.549	70	592827	47.485	ng		98
20) 3+4-Methylphenols	8.531	107	897449	50.359	ng		98
22) Acetophenone	8.561	105	1285073	50.454	ng	#	99
24) Nitrobenzene	8.943	77	876654	45.227	ng		99
25) Isophorone	9.460	82	1709367	45.010	ng		99
26) 2-Nitrophenol	9.643	139	434310	50.467	ng		95
27) 2,4-Dimethylphenol	9.719	122	747285	49.497	ng		98
28) bis(2-Chloroethoxy)met...	9.931	93	1022801	46.591	ng		98
29) 2,4-Dichlorophenol	10.196	162	783843	52.072	ng		99
30) 1,2,4-Trichlorobenzene	10.384	180	773723	45.607	ng		99
31) Naphthalene	10.572	128	2335848	45.452	ng		99
32) Benzoic acid	9.925	122	662628	59.033	ng		99
33) 4-Chloroaniline	10.684	127	437777	20.438	ng		100
34) Hexachlorobutadiene	10.849	225	493457	45.184	ng		99
35) Caprolactam	11.496	113	283114	48.790	ng		97
36) 4-Chloro-3-methylphenol	11.831	107	898040	50.039	ng		97
37) 2-Methylnaphthalene	12.178	142	1573442	47.669	ng		99
38) 1-Methylnaphthalene	12.402	142	1642442	46.662	ng		99
40) 1,2,4,5-Tetrachloroben...	12.549	216	1049634	50.925	ng		99
41) Hexachlorocyclopentadiene	12.525	237	700371	62.390	ng		99
43) 2,4,6-Trichlorophenol	12.807	196	675638	49.863	ng		99

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025836.D
Acq On : 23 Sep 2025 19:22
Operator : CG/JU
Sample : Q3153-05MSD
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
OR-500-COMP-40MSD

Quant Time: Sep 24 00:25:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration

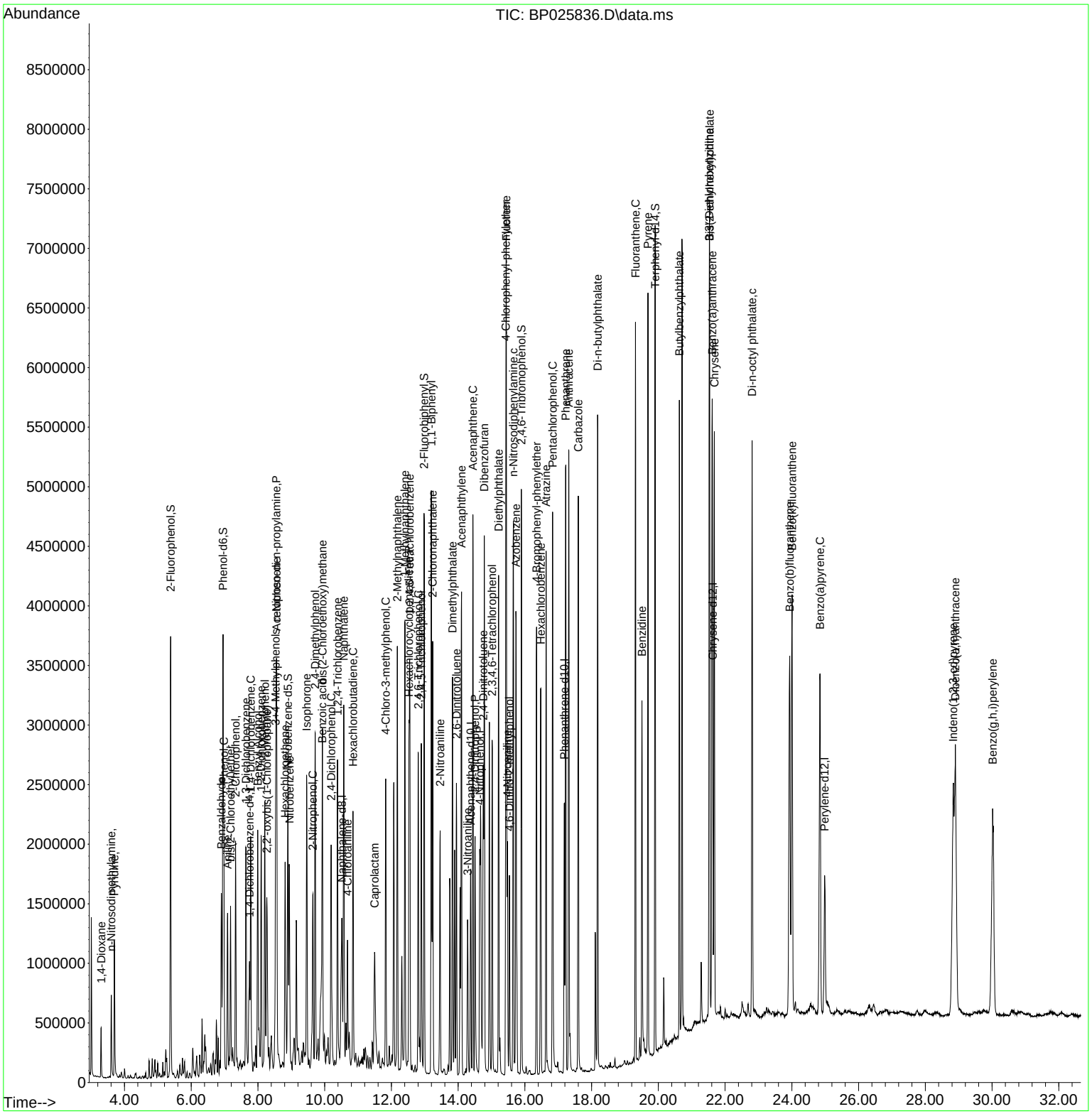
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2,4,5-Trichlorophenol	12.896	196	744929	49.399	ng		97
46) 1,1'-Biphenyl	13.196	154	2502608	50.127	ng		100
47) 2-Chloronaphthalene	13.237	162	1830796	46.572	ng		99
48) 2-Nitroaniline	13.460	65	633517	48.344	ng		95
49) Acenaphthylene	14.101	152	3070378	47.139	ng		100
50) Dimethylphthalate	13.831	163	2353902	45.329	ng		100
51) 2,6-Dinitrotoluene	13.948	165	526872	47.889	ng		97
52) Acenaphthene	14.443	154	1701595	45.300	ng		99
53) 3-Nitroaniline	14.284	138	379482	32.800	ng		100
54) 2,4-Dinitrophenol	14.507	184	505801	71.269	ng		98
55) Dibenzofuran	14.784	168	2764922	45.164	ng		100
56) 4-Nitrophenol	14.648	139	810918	81.313	ng		97
57) 2,4-Dinitrotoluene	14.754	165	761214	48.616	ng		95
58) Fluorene	15.443	166	2203790	45.270	ng		99
59) 2,3,4,6-Tetrachlorophenol	15.019	232	654182	48.157	ng		98
60) Diethylphthalate	15.213	149	2470212	46.895	ng		99
61) 4-Chlorophenyl-phenyle...	15.431	204	1137004	46.344	ng		99
62) 4-Nitroaniline	15.478	138	539050	45.479	ng		98
63) Azobenzene	15.731	77	2639220	51.818	ng		99
65) 4,6-Dinitro-2-methylph...	15.537	198	367242	41.570	ng		97
66) n-Nitrosodiphenylamine	15.654	169	2015521	49.580	ng		99
67) 4-Bromophenyl-phenylether	16.348	248	749563	51.363	ng		98
68) Hexachlorobenzene	16.478	284	805838	49.516	ng		94
69) Atrazine	16.637	200	765489	49.262	ng		99
70) Pentachlorophenol	16.831	266	958569	89.244	ng		99
71) Phenanthrene	17.225	178	3381879	44.880	ng		100
72) Anthracene	17.319	178	3509419	45.901	ng		100
73) Carbazole	17.601	167	3104556	43.676	ng		100
74) Di-n-butylphthalate	18.178	149	4348685	49.853	ng		100
75) Fluoranthene	19.313	202	3610257	39.948	ng		99
77) Benzidine	19.507	184	1934401	64.932	ng		100
78) Pyrene	19.689	202	3582986	51.921	ng		99
80) Butylbenzylphthalate	20.630	149	1718336	56.790	ng		99
81) Benzo(a)anthracene	21.613	228	3331030	47.046	ng		100
82) 3,3'-Dichlorobenzidine	21.525	252	1065724	43.531	ng		99
83) Chrysene	21.677	228	3150883	46.684	ng		100
84) Bis(2-ethylhexyl)phtha...	21.536	149	2446096	55.257	ng		100
85) Di-n-octyl phthalate	22.807	149	4183044	53.122	ng		99
87) Indeno(1,2,3-cd)pyrene	28.836	276	4079428	47.915	ng	#	77
88) Benzo(b)fluoranthene	23.936	252	3326956	46.470	ng		99
89) Benzo(k)fluoranthene	24.007	252	3429343	46.941	ng		99
90) Benzo(a)pyrene	24.842	252	3246023	46.298	ng		99
91) Dibenzo(a,h)anthracene	28.901	278	3357344	48.188	ng		99
92) Benzo(g,h,i)perylene	30.018	276	3268828	47.708	ng		99

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

Data Path : Z:\svoasrv\HPCHEM1\BNA_P\Data\BP092325\
Data File : BP025836.D
Acq On : 23 Sep 2025 19:22
Operator : CG/JU
Sample : Q3153-05MSD
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
BNA_P
ClientSampleId :
OR-500-COMP-40MSD

Quant Time: Sep 24 00:25:50 2025
Quant Method : Z:\svoasrv\HPCHEM1\BNA_P\Methods\8270E-BP091225.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Thu Sep 11 16:45:04 2025
Response via : Initial Calibration



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

Manual Integration Report

Sequence:	BP091225	Instrument	BNA_p

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDICC2.5	BP025725.D	n-Nitroso-di-n-propylamine	Rahul	9/12/2025 10:21:39 AM	Jagrut	9/12/2025 11:46:19 AM	Peak Integrated by Software
SSTDICC005	BP025726.D	4-Nitroaniline	Rahul	9/12/2025 10:21:42 AM	Jagrut	9/12/2025 11:46:21 AM	Peak Integrated by Software
SSTDICC010	BP025727.D	Benzaldehyde	Rahul	9/12/2025 10:21:45 AM	Jagrut	9/12/2025 11:46:23 AM	Peak Integrated by Software
SSTDICC010	BP025727.D	Benzoic acid	Rahul	9/12/2025 10:21:45 AM	Jagrut	9/12/2025 11:46:23 AM	Peak Integrated by Software
SSTDICC010	BP025727.D	Caprolactam	Rahul	9/12/2025 10:21:45 AM	Jagrut	9/12/2025 11:46:23 AM	Peak Integrated by Software
SSTDICC020	BP025728.D	Benzaldehyde	Rahul	9/12/2025 10:21:48 AM	Jagrut	9/12/2025 11:46:26 AM	Peak Integrated by Software
SSTDICCC040	BP025729.D	Benzaldehyde	Rahul	9/12/2025 10:21:51 AM	Jagrut	9/12/2025 11:46:29 AM	Peak Integrated by Software
SSTDICC050	BP025733.D	Benzaldehyde	Rahul	9/12/2025 10:21:53 AM	Jagrut	9/12/2025 11:49:15 AM	Peak Integrated by Software
SSTDICV040	BP025734.D	Benzaldehyde	Rahul	9/12/2025 10:21:56 AM	Jagrut	9/12/2025 11:49:18 AM	Peak Integrated by Software
SSTDICV040	BP025734.D	Benzidine	Rahul	9/12/2025 10:21:56 AM	Jagrut	9/12/2025 11:49:18 AM	Peak Integrated by Software
SSTDCCC040	BP025744.D	Benzaldehyde	Rahul	9/15/2025 8:28:08 AM	Jagrut	9/15/2025 10:12:19 AM	Peak Integrated by Software
SSTDCCC040	BP025744.D	Benzo(g,h,i)perylene	Rahul	9/15/2025 8:28:08 AM	Jagrut	9/15/2025 10:12:19 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	BP091225	Instrument	BNA_p

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

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

Manual Integration Report

Sequence:	BP092325	Instrument	BNA_p

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_P

Daily Analysis Runlog For Sequence/QCBatch ID # BP091225

Review By	Rahul	Review On	9/12/2025 10:23:37 AM		
Supervise By	Jagrut	Supervise On	9/12/2025 11:49:47 AM		
SubDirectory	BP091225	HP Acquire Method	BNA_P	HP Processing Method	BP091225

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6833,SP6834,SP6835,SP6836,SP6837,SP6838,SP6839,SP6840
CCC	SP6836
Internal Standard/PEM	S13174,10ul/1000ul sample
ICV/I.BLK	SP6796
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BP025724.D	11 Sep 2025 08:09	CG/JU	Ok
2	SSTDICC2.5	BP025725.D	11 Sep 2025 08:56	CG/JU	Ok,M
3	SSTDICC005	BP025726.D	11 Sep 2025 09:37	CG/JU	Ok,M
4	SSTDICC010	BP025727.D	11 Sep 2025 10:18	CG/JU	Ok,M
5	SSTDICC020	BP025728.D	11 Sep 2025 10:59	CG/JU	Ok,M
6	SSTDICCC040	BP025729.D	11 Sep 2025 12:21	CG/JU	Ok,M
7	SSTDICC050	BP025730.D	11 Sep 2025 13:02	CG/JU	Not Ok
8	SSTDICC060	BP025731.D	11 Sep 2025 13:43	CG/JU	Ok
9	SSTDICC080	BP025732.D	11 Sep 2025 14:24	CG/JU	Ok
10	SSTDICC050	BP025733.D	11 Sep 2025 15:20	CG/JU	Ok,M
11	SSTDICV040	BP025734.D	11 Sep 2025 16:54	CG/JU	Ok,M
12	PB169633BL	BP025735.D	11 Sep 2025 17:35	CG/JU	Ok
13	DFTPP	BP025736.D	12 Sep 2025 09:03	CG/JU	Ok
14	SSTDCCC040	BP025737.D	12 Sep 2025 10:24	CG/JU	Ok
15	PB169490BL	BP025738.D	12 Sep 2025 11:05	CG/JU	Ok
16	Q2893-02	BP025739.D	12 Sep 2025 11:46	CG/JU	Ok,M
17	Q2893-08	BP025740.D	12 Sep 2025 12:27	CG/JU	Ok,M
18	Q2893-01	BP025741.D	12 Sep 2025 13:08	CG/JU	Ok,M
19	Q2893-07	BP025742.D	12 Sep 2025 13:49	CG/JU	Ok,M
20	PB169499BL	BP025743.D	12 Sep 2025 14:30	CG/JU	Ok
21	SSTDCCC040	BP025744.D	12 Sep 2025 15:35	CG/JU	Ok,M

M : Manual Integration

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

Instrument ID: BNA_P

Daily Analysis Runlog For Sequence/QCBatch ID # BP092325

Review By	Rahul	Review On	9/24/2025 8:36:47 AM				
Supervise By	mohammad	Supervise On	9/25/2025 4:53:29 AM				
SubDirectory	BP092325	HP Acquire Method	BNA_P		HP Processing Method	BP091225	

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6833,SP6834,SP6835,SP6836,SP6837,SP6838,SP6839,SP6840
CCC	SP6836
Internal Standard/PEM	S13175,10ul/1000ul sample
ICV/I.BLK	SP6796
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BP025823.D	23 Sep 2025 09:41	CG/JU	Ok
2	SSTDCCC040	BP025824.D	23 Sep 2025 11:03	CG/JU	Ok
3	PB169765BL	BP025825.D	23 Sep 2025 11:44	CG/JU	Ok
4	PB169765BS	BP025826.D	23 Sep 2025 12:25	CG/JU	Ok
5	PB169765BSD	BP025827.D	23 Sep 2025 13:07	CG/JU	Ok
6	PB169774BL	BP025828.D	23 Sep 2025 13:48	CG/JU	Ok
7	PB169774BS	BP025829.D	23 Sep 2025 14:29	CG/JU	Ok
8	Q3135-01	BP025830.D	23 Sep 2025 15:14	CG/JU	Ok
9	Q3151-02	BP025831.D	23 Sep 2025 15:55	CG/JU	Ok
10	Q3145-01	BP025832.D	23 Sep 2025 16:37	CG/JU	Ok
11	Q3153-01	BP025833.D	23 Sep 2025 17:18	CG/JU	Ok
12	Q3153-05	BP025834.D	23 Sep 2025 18:00	CG/JU	Ok
13	Q3153-05MS	BP025835.D	23 Sep 2025 18:41	CG/JU	Ok
14	Q3153-05MSD	BP025836.D	23 Sep 2025 19:22	CG/JU	Ok
15	Q3145-03	BP025837.D	23 Sep 2025 20:04	CG/JU	Ok
16	Q3157-01	BP025838.D	23 Sep 2025 20:45	CG/JU	Ok

M : Manual Integration

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

Instrument ID: BNA_P

Daily Analysis Runlog For Sequence/QCBatch ID # BP091225

Review By	Rahul	Review On	9/12/2025 10:23:37 AM		
Supervise By	Jagrut	Supervise On	9/12/2025 11:49:47 AM		
SubDirectory	BP091225	HP Acquire Method	BNA_P	HP Processing Method	BP091225

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6833,SP6834,SP6835,SP6836,SP6837,SP6838,SP6839,SP6840
CCC	SP6836
Internal Standard/PEM	S13174,10ul/1000ul sample
ICV/I.BLK	SP6796
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BP025724.D	11 Sep 2025 08:09		CG/JU	Ok
2	SSTDICC2.5	SSTDICC2.5	BP025725.D	11 Sep 2025 08:56		CG/JU	Ok,M
3	SSTDICC005	SSTDICC005	BP025726.D	11 Sep 2025 09:37		CG/JU	Ok,M
4	SSTDICC010	SSTDICC010	BP025727.D	11 Sep 2025 10:18		CG/JU	Ok,M
5	SSTDICC020	SSTDICC020	BP025728.D	11 Sep 2025 10:59		CG/JU	Ok,M
6	SSTDICCC040	SSTDICCC040	BP025729.D	11 Sep 2025 12:21	Compound#54 & 56 are Kept on LR	CG/JU	Ok,M
7	SSTDICC050	SSTDICC050	BP025730.D	11 Sep 2025 13:02	Not Used	CG/JU	Not Ok
8	SSTDICC060	SSTDICC060	BP025731.D	11 Sep 2025 13:43		CG/JU	Ok
9	SSTDICC080	SSTDICC080	BP025732.D	11 Sep 2025 14:24		CG/JU	Ok
10	SSTDICC050	SSTDICC050	BP025733.D	11 Sep 2025 15:20		CG/JU	Ok,M
11	SSTDICV040	ICVBP091225	BP025734.D	11 Sep 2025 16:54		CG/JU	Ok,M
12	PB169633BL	PB169633BL	BP025735.D	11 Sep 2025 17:35		CG/JU	Ok
13	DFTPP	DFTPP	BP025736.D	12 Sep 2025 09:03		CG/JU	Ok
14	SSTDCCC040	SSTDCCC040	BP025737.D	12 Sep 2025 10:24		CG/JU	Ok
15	PB169490BL	PB169490BL	BP025738.D	12 Sep 2025 11:05		CG/JU	Ok
16	Q2893-02	LOQ-SOIL-02-QT3-202	BP025739.D	12 Sep 2025 11:46	LOQ-SOIL-10PPM	CG/JU	Ok,M
17	Q2893-08	LOQ-WATER-02-QT3-2	BP025740.D	12 Sep 2025 12:27	LOQ-WATER-10 PPM	CG/JU	Ok,M

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

Instrument ID: BNA_P

Daily Analysis Runlog For Sequence/QCBatch ID # BP091225

Review By	Rahul	Review On	9/12/2025 10:23:37 AM		
Supervise By	Jagrut	Supervise On	9/12/2025 11:49:47 AM		
SubDirectory	BP091225	HP Acquire Method	BNA_P	HP Processing Method	BP091225

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6833,SP6834,SP6835,SP6836,SP6837,SP6838,SP6839,SP6840
CCC	SP6836
Internal Standard/PEM	S13174,10ul/1000ul sample
ICV/I.BLK	SP6796
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

18	Q2893-01	LOD-MDL-SOIL-01-QT	BP025741.D	12 Sep 2025 13:08	LOD-MDL-SOIL-8PPM	CG/JU	Ok,M
19	Q2893-07	LOD-MDL-WATER-01-(	BP025742.D	12 Sep 2025 13:49	LOD-MDL-WATER-8PPM	CG/JU	Ok,M
20	PB169499BL	PB169499BL	BP025743.D	12 Sep 2025 14:30		CG/JU	Ok
21	SSTDCCC040	SSTDCCC040EC	BP025744.D	12 Sep 2025 15:35		CG/JU	Ok,M

M : Manual Integration

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

Instrument ID: BNA_P

Daily Analysis Runlog For Sequence/QCBatch ID # BP092325

Review By	Rahul	Review On	9/24/2025 8:36:47 AM		
Supervise By	mohammad	Supervise On	9/25/2025 4:53:29 AM		
SubDirectory	BP092325	HP Acquire Method	BNA_P	HP Processing Method	BP091225

STD. NAME	STD REF.#
Tune/Reschk	SP6757
Initial Calibration Stds	SP6833,SP6834,SP6835,SP6836,SP6837,SP6838,SP6839,SP6840
CCC	SP6836
Internal Standard/PEM	S13175,10ul/1000ul sample
ICV/I.BLK	SP6796
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BP025823.D	23 Sep 2025 09:41		CG/JU	Ok
2	SSTDCCC040	SSTDCCC040	BP025824.D	23 Sep 2025 11:03	CCC fail highside for comp#9,35,56 & marginally lowside for comp#92	CG/JU	Ok
3	PB169765BL	PB169765BL	BP025825.D	23 Sep 2025 11:44		CG/JU	Ok
4	PB169765BS	PB169765BS	BP025826.D	23 Sep 2025 12:25	few compound recovery fail	CG/JU	Ok
5	PB169765BSD	PB169765BSD	BP025827.D	23 Sep 2025 13:07	few compound recovery fail	CG/JU	Ok
6	PB169774BL	PB169774BL	BP025828.D	23 Sep 2025 13:48		CG/JU	Ok
7	PB169774BS	PB169774BS	BP025829.D	23 Sep 2025 14:29		CG/JU	Ok
8	Q3135-01	MH-121	BP025830.D	23 Sep 2025 15:14		CG/JU	Ok
9	Q3151-02	1402	BP025831.D	23 Sep 2025 15:55		CG/JU	Ok
10	Q3145-01	SP-A	BP025832.D	23 Sep 2025 16:37		CG/JU	Ok
11	Q3153-01	OR-500-COMP-39	BP025833.D	23 Sep 2025 17:18		CG/JU	Ok
12	Q3153-05	OR-500-COMP-40	BP025834.D	23 Sep 2025 18:00		CG/JU	Ok
13	Q3153-05MS	OR-500-COMP-40MS	BP025835.D	23 Sep 2025 18:41		CG/JU	Ok
14	Q3153-05MSD	OR-500-COMP-40MSD	BP025836.D	23 Sep 2025 19:22		CG/JU	Ok
15	Q3145-03	SP-B	BP025837.D	23 Sep 2025 20:04		CG/JU	Ok
16	Q3157-01	20-DEAD-1	BP025838.D	23 Sep 2025 20:45		CG/JU	Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 9/22/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 09/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 09/20/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC: LB137247

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3143-05	SVOC-GPC-BLANK	1	1.00	1.00	2.00	2.00	100.0	
Q3143-06	PEST-GPC-BLANK	2	1.00	1.00	2.00	2.00	100.0	
Q3143-07	PEST-GPC-BLANK-SPIKE	3	1.00	1.00	2.00	2.00	100.0	
Q3143-08	SVOC-GPC2-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q3143-09	PEST-GPC2-BLANK	5	1.00	1.00	2.00	2.00	100.0	
Q3143-10	PEST -GPC2-BLANK-SPIKE	6	1.00	1.00	2.00	2.00	100.0	
Q3145-01	SP-A	7	1.14	10.75	11.89	10.28	85.0	
Q3145-02	SP-A-EPH-2	8	1.19	10.41	11.6	10.1	85.6	
Q3145-03	SP-B	9	1.19	10.10	11.29	9.75	84.8	
Q3145-04	SP-B-EPH-2	10	1.13	10.64	11.77	10.28	86.0	
Q3146-01	MECHANIC-ST-PAINT-CHIPS	11	1.00	1.00	2.00	2.00	100.0	PAINT CHIPS SAMPLE
Q3147-01	S-1	12	1.18	10.22	11.4	10.7	93.2	
Q3147-02	S-2	13	1.16	10.55	11.71	10.8	91.4	
Q3147-03	S-3	14	1.19	10.42	11.61	10.84	92.6	
Q3147-04	S-4	15	1.16	10.21	11.37	10.34	89.9	
Q3147-05	S-5	16	1.19	10.13	11.32	10.6	92.9	
Q3147-06	S-6	17	1.19	10.36	11.55	10.74	92.2	
Q3147-07	S-7	18	1.19	10.72	11.91	11.00	91.5	
Q3147-08	S-8	19	1.16	10.55	11.71	10.7	90.4	
Q3147-09	S-9	20	1.19	10.28	11.47	10.55	91.1	
Q3147-10	S-10	21	1.19	10.77	11.96	11.32	94.1	
Q3147-11	S-11	22	1.17	10.58	11.75	10.97	92.6	
Q3147-12	S-12	23	1.13	10.67	11.8	10.88	91.4	
Q3147-13	S-13	24	1.19	10.70	11.89	11.15	93.1	
Q3147-14	S-14	25	1.19	10.39	11.58	10.85	93.0	
Q3147-15	S-15	26	1.11	10.77	11.88	10.96	91.5	
Q3147-16	S-16	27	1.19	10.32	11.51	10.47	89.9	
Q3147-17	S-17	28	1.15	10.58	11.73	10.8	91.2	

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 9/22/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 09/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 09/20/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC: LB137247

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3147-18	S-18	29	1.18	10.70	11.88	10.95	91.3	
Q3147-19	S-19	30	1.14	10.92	12.06	11.17	91.8	
Q3147-20	S-20	31	1.15	11.56	12.71	11.72	91.4	
Q3147-21	S-21	32	1.18	10.61	11.79	10.96	92.2	
Q3147-22	S-22	33	1.19	11.06	12.25	11.15	90.1	
Q3147-23	S-23	34	1.15	10.40	11.55	10.6	90.9	
Q3147-24	S-24	35	1.19	10.75	11.94	11.14	92.6	
Q3147-25	S-25	36	1.18	10.24	11.42	10.72	93.2	
Q3147-26	S-26	37	1.15	10.35	11.5	11.04	95.6	
Q3147-27	S-27	38	1.15	10.26	11.41	10.27	88.9	
Q3147-28	S-28	39	1.16	11.34	12.5	11.72	93.1	
Q3147-29	S-29	40	1.19	11.23	12.42	11.42	91.1	
Q3147-30	S-30	41	1.13	10.34	11.47	10.94	94.9	
Q3147-31	S-31	42	1.15	11.25	12.4	11.9	95.6	
Q3147-32	S-32	43	1.15	10.91	12.06	11.51	95.0	
Q3150-01	MER Rd Con Ed	44	1.15	10.51	11.66	10.67	90.6	
Q3150-02	MER Rd Con Ed	45	1.15	10.51	11.66	10.67	90.6	
Q3150-03	Mid Site Grid 5-7	46	1.16	10.02	11.18	8.85	76.7	
Q3150-04	Mid Site Grid 5-7	47	1.16	10.02	11.18	8.85	76.7	
Q3151-01	MH-OIL	48	1.00	1.00	2.00	2.00	100.0	oil sample
Q3152-01	EO-02-091925	49	1.14	10.86	12.00	11.16	92.3	
Q3152-02	EO-02-091925-E2	50	1.14	10.38	11.52	10.64	91.5	
Q3153-01	OR-500-COMP-39	51	1.18	10.64	11.82	11.07	93.0	
Q3153-02	OR-500-VOC-115	52	1.17	10.52	11.69	11.13	94.7	
Q3153-03	OR-500-115	53	1.19	10.49	11.68	10.88	92.4	
Q3153-05	OR-500-COMP-40	54	1.19	10.15	11.34	10.00	86.8	
Q3153-06	OR-500-VOC-116	55	1.14	10.30	11.44	10.41	90.0	
Q3153-07	OR-500-116	56	1.13	10.37	11.5	10.15	87.0	

PERCENT SOLID

Supervisor: Iwona
Analyst: JIGNESH
Date: 9/22/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 09/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 09/20/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC: LB137247

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3155-01	COMP-1	57	1.11	10.26	11.37	10.12	87.8	
Q3155-02	COMP-2	58	1.14	10.30	11.44	10.52	91.1	
Q3155-03	COMP-3	59	1.18	10.23	11.41	10.57	91.8	
Q3157-01	20-DEAD-1	60	1.19	10.91	12.1	11.11	90.9	

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

WORKLIST(Hardcopy Internal Chain)

ID 137247

WorkList Name : %1-091925 **WorkList ID :** 191953 **Department :** Wet-Chemistry **Date :** 09-19-2025 09:51:17

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3143-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	I52	09/12/2025	Chemtech -SO
Q3143-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	I52	09/12/2025	Chemtech -SO
Q3143-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	ALLI03	I52	09/12/2025	Chemtech -SO
Q3143-08	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	I52	09/12/2025	Chemtech -SO
Q3143-09	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	I52	09/12/2025	Chemtech -SO
Q3143-10	PEST -GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	ALLI03	I52	09/12/2025	Chemtech -SO
Q3145-01	SP-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3145-02	SP-A-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3145-03	SP-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3145-04	SP-B-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3146-01	MECHANIC-ST-PAINT-CHIPS	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	09/19/2025	Chemtech -SO
Q3147-01	S-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-02	S-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-03	S-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-04	S-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-05	S-5	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-06	S-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-07	S-7	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-08	S-8	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-09	S-9	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-10	S-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO

Date/Time 09-19-25 15:00

Raw Sample Received by: JD WC

Raw Sample Relinquished by: [signature]

Date/Time 09-19-25 17:20

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature]

WORKLIST(Hardcopy Internal Chain)

VB 137247

WorkList Name : %1-091925 **WorkList ID :** 191953 **Department :** Wet-Chemistry **Date :** 09-19-2025 09:51:17

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3147-11	S-11	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-12	S-12	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-13	S-13	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-14	S-14	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-15	S-15	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-16	S-16	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-17	S-17	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-18	S-18	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-19	S-19	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-20	S-20	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-21	S-21	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-22	S-22	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-23	S-23	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-24	S-24	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-25	S-25	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-26	S-26	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-27	S-27	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-28	S-28	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-29	S-29	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-30	S-30	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3147-31	S-31	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO

Date/Time 09.19.25 15:00

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature] SM

Date/Time 09.19.25 17:20

Raw Sample Received by: [signature] SM

Raw Sample Relinquished by: [signature]

WORKLIST(Hardcopy Internal Chain)

JB 137247

WorkList Name : %1-091925 **WorkList ID :** 191953 **Department :** Wet-Chemistry **Date :** 09-19-2025 09:51:17

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3147-32	S-32	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/15/2025	Chemtech -SO
Q3150-01	MER Rd Con Ed	Solid	Percent Solids	Cool 4 deg C	SCAL01	J23	09/18/2025	Chemtech -SO
Q3150-02	MER Rd Con Ed	Solid	Percent Solids	Cool 4 deg C	SCAL01	J23	09/18/2025	Chemtech -SO
Q3150-03	Mid Site Grid 5-7	Solid	Percent Solids	Cool 4 deg C	SCAL01	J23	09/18/2025	Chemtech -SO
Q3150-04	Mid Site Grid 5-7	Solid	Percent Solids	Cool 4 deg C	SCAL01	J23	09/18/2025	Chemtech -SO
Q3151-01	MH-OIL	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3152-01	EO-02-091925	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/19/2025	Chemtech -SO
Q3152-02	EO-02-091925-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/19/2025	Chemtech -SO
Q3153-01	OR-500-COMP-39	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3153-02	OR-500-VOC-115	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3153-03	OR-500-115	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3153-05	OR-500-COMP-40	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3153-06	OR-500-VOC-116	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3153-07	OR-500-116	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/19/2025	Chemtech -SO
Q3155-01	COMP-1	Solid	Percent Solids	Cool 4 deg C	POWE02	D41	09/19/2025	Chemtech -SO
Q3155-02	COMP-2	Solid	Percent Solids	Cool 4 deg C	POWE02	D41	09/19/2025	Chemtech -SO
Q3155-03	COMP-3	Solid	Percent Solids	Cool 4 deg C	POWE02	D41	09/19/2025	Chemtech -SO
Q3157-01	20-DEAD-1	Solid	Percent Solids	Cool 4 deg C	ALWA01	D31	09/19/2025	Chemtech -SO

Date/Time 09-19-25 15:00
Raw Sample Received by: JB WJC
Raw Sample Relinquished by: SM

Date/Time 09-19-25 17:20
Raw Sample Received by: SM
Raw Sample Relinquished by: JB WJC

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB169774

SOP ID: M3541-ASE Extraction-15

Clean Up SOP #: N/A

Matrix : Solid

Weigh By: EH

Balance check: EH

Balance ID: EX-SC-2

pH Strip Lot#: N/A

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 3,7

Extraction Start Date : 09/22/2025

Extraction Start Time : 09:30

Extraction End Date : 09/22/2025

Extraction End Time : 12:45

Concentration By: EH

Supervisor By : ritesh

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	SP6865
Surrogate	1.0ML	100/150 PPM	SP6869
N/A	N/A	N/A	N/A
N/A	1.0ML	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2641
Baked Na2SO4	N/A	EP2639
Methylene Chloride	N/A	E3973
Sand	N/A	E3951
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
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5ML Vial Lot # 2210443.

KD Bath ID: N/A

KD Bath Temperature: N/A

Envap ID: NEVAP-02

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
9/22/25	RJ (Ext-Lab)	Rel/Stor
12:50	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB169774

Analytical Method: M3541-ASE Extraction-15

Concentration Date: 09/22/2025

Sample ID	Client Sample ID	Test	Wt/ mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB169774BL	SBLK774	SVOC-TCL BNA -20	30.01	N/A	Evelyn	ritesh	1			U2-1
PB169774BS	SLCS774	SVOC-TCL BNA -20	30.02	N/A	Evelyn	ritesh	1			2
Q3145-01	SP-A	SVOC-TCL BNA -20	50.06	N/A	Evelyn	ritesh	1	E		3
Q3145-03	SP-B	SVOC-TCL BNA -20	50.03	N/A	Evelyn	ritesh	1	E		4
Q3150-02	MER RD CON ED	SVOCMS Group1	30.04	N/A	Evelyn	ritesh	1			5
Q3150-04	MID SITE GRID 5-7	SVOCMS Group1	30.07	N/A	Evelyn	ritesh	1			6
Q3152-01	EO-02-091925	SVOC-TCL BNA -20	50.05	N/A	Evelyn	ritesh	1	E		U3-1
Q3153-01	OR-500-COMP-39	SVOC-TCL BNA -20	50.08	N/A	Evelyn	ritesh	1	D		2
Q3153-05	OR-500-COMP-40	SVOC-TCL BNA -20	50.03	N/A	Evelyn	ritesh	1	D		3
Q3153-05MS	OR-500-COMP-40MS	SVOC-TCL BNA -20	50.01	N/A	Evelyn	ritesh	1	D		4
Q3153-05MS D	OR-500-COMP-40MSD	SVOC-TCL BNA -20	50.06	N/A	Evelyn	ritesh	1	D		5
Q3155-01	COMP-1	SVOCMS Group1	30.05	N/A	Evelyn	ritesh	1	E		6
Q3155-02	COMP-2	SVOCMS Group1	30.03	N/A	Evelyn	ritesh	1	E		U4-1
Q3155-03	COMP-3	SVOCMS Group1	30.06	N/A	Evelyn	ritesh	1	E		2
Q3157-01	20-DEAD-1	SVOC-TCL BNA -20	30.08	N/A	Evelyn	ritesh	1	E		3

RJ
9/22

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

9:47-34
9:30

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q3145 **WorkList ID :** 191986 **Department :** Extraction **Date :** 09-22-2025 09:18:49

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3145-01	SP-A	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	D31	09/19/2025	8270E
Q3145-03	SP-B	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	D31	09/19/2025	8270E
Q3150-02	MER Rd Con Ed	Solid	SVOCMS Group1	Cool 4 deg C	SCAL01	J23	09/18/2025	8270E
Q3150-04	Mid Site Grid 5-7	Solid	SVOCMS Group1	Cool 4 deg C	SCAL01	J23	09/18/2025	8270E
Q3152-01	EO-02-091925	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG05	D31	09/19/2025	8270E
Q3153-01	OR-500-COMP-39	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	D31	09/19/2025	8270E
Q3153-05	OR-500-COMP-40	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG03	D31	09/19/2025	8270E
Q3155-01	COMP-1	Solid	SVOCMS Group1	Cool 4 deg C	POWE02	D41	09/19/2025	8270E
Q3155-02	COMP-2	Solid	SVOCMS Group1	Cool 4 deg C	POWE02	D41	09/19/2025	8270E
Q3155-03	COMP-3	Solid	SVOCMS Group1	Cool 4 deg C	POWE02	D41	09/19/2025	8270E
Q3157-01	20-DEAD-1	Solid	SVOC-TCL BNA -20	Cool 4 deg C	ALWA01	D31	09/19/2025	8270E

Date/Time 9/22/25 9:25
Raw Sample Received by: RJ LEZ-(ccb) SH
Raw Sample Relinquished by: SH

Date/Time 9/22/25 9:50
Raw Sample Received by: SH
Raw Sample Relinquished by: RJ LEZ-(ccb)

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

Prep Standard - Chemical Standard Summary

Order ID : Q3157

Test : SVOC-TCL BNA -20

Prepbatch ID : PB169774,

Sequence ID/Qc Batch ID: BG092225,BG092325,BP092225,BP092325,BP092425,BP092525,

Standard ID :
EP2639,EP2641,SP6757,SP6795,SP6796,SP6832,SP6833,SP6834,SP6835,SP6836,SP6837,SP6838,SP6839,SP6840,SP6856,SP6857,SP6858,SP6859,SP6860,SP6861,SP6862,SP6863,SP6864,SP6865,SP6869,

Chemical ID :
10ul/1000ul sample,E3875,E3904,E3932,E3939,E3942,E3951,E3954,E3965,E3972,E3973,S10105,S11073,S11484,S11496,S11652,S11807,S11808,S12115,S12195,S12197,S12199,S12200,S12216,S12220,S12221,S12245,S12272,S12277,S12278,S12306,S12307,S12498,S12507,S12508,S12544,S12552,S12553,S12554,S12555,S12556,S12557,S12558,S12559,S12577,S12667,S12670,S12739,S12776,S12903,S12904,S12986,S13057,S13078,S13089,S13090,S13091,S13092,S13093,S13094,S13095,S13096,S13118,S13119,S13120,S13149,S13160,S13170,S13175,S13207,S13208,S13209,S13210,S13211,S13214,S13233,S13239,S13240,S13241,S13242,S13243,S13244,S13269,

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	EP2639	09/12/2025	01/28/2026	Riteshkumar Patel	Extraction_SCALE_2 (EX-SC-2)	None	Evelyn Huang 09/12/2025

FROM 4000.00000gram of E3875 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2641	09/16/2025	03/16/2026	Evelyn Huang	None	None	Riteshkumar Patel 09/16/2025

FROM 8000.00000ml of E3972 + 8000.00000ml of E3973 = Final Quantity: 16000.000 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
3895	50 ug/ml DFTPP 8270E	SP6757	03/31/2025	09/30/2025	Rahul Chavli	None	None	Jagrut Upadhyay 04/01/2025

FROM 1.00000ml of S12577 + 19.00000ml of E3904 = Final Quantity: 20.000 ml

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)	SP6795	06/05/2025	09/18/2025	Jagrut Upadhyay	None	None	Rahul Chavli 06/10/2025

FROM 0.04000ml of S12195 + 0.08000ml of S12216 + 0.10000ml of S11073 + 0.20000ml of S12498 + 0.20000ml of S12544 + 0.20000ml of S12986 + 1.18000ml of E3939 = Final Quantity: 2.000 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
416	40 ng BNA ICV, 40 PPM	SP6796	06/05/2025	09/18/2025	Jagrut Upadhyay	None	None	Rahul Chavli 06/10/2025

FROM 0.01000ml of S12667 + 0.60000ml of E3939 + 0.40000ml of SP6795 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4178	8270/625.1 Stock Solution-2 100 ng	SP6832	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.20000ml of S13211 + 0.26700ml of S10105 + 0.40000ml of S11496 + 0.40000ml of S12278 + 0.50000ml of S12115 + 0.50000ml of S13209 + 0.50000ml of S13210 + 0.60000ml of S12277 + 1.00000ml of S12272 + 1.00000ml of S13057 + 1.00000ml of S13078 + 1.00000ml of S13208 + 2.63300ml of E3942 = Final Quantity: 10.000 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
4179	80 ng BNA ICC	SP6833	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.20000ml of E3942 + 0.80000ml of SP6832 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4180	60 ng BNA ICC	SP6834	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.40000ml of E3942 + 0.60000ml of SP6832 = 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
4181	50 ng BNA ICC	SP6835	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.50000ml of E3942 + 0.50000ml of SP6832 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4182	40 ng BNA ICC	SP6836	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.60000ml of E3942 + 0.40000ml of SP6832 = 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
4183	20 ng BNA ICC	SP6837	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.80000ml of E3942 + 0.20000ml of SP6832 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4184	10 ng BNA ICC	SP6838	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.90000ml of E3942 + 0.10000ml of SP6832 = 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
4185	5 ng BNA ICC	SP6839	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.95000ml of E3942 + 0.05000ml of SP6832 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4186	2.5 ng BNA ICC	SP6840	06/19/2025	10/28/2025	Jagrut Upadhyay	None	None	Rahul Chavli 07/21/2025

FROM 0.01000ml of S12670 + 0.50000ml of E3942 + 0.50000ml of SP6839 = 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
4215	New 8270E/625.1 ICAL Stock Solution 100 ng	SP6856	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.04000ml of S13207 + 0.20000ml of S12197 + 0.30000ml of S12306 + 0.40000ml of S12220 + 0.50000ml of S11807 + 0.50000ml of S12245 + 0.50000ml of S12776 + 0.50000ml of S13214 + 0.50000ml of S13233 + 0.70000ml of S12307 + 1.00000ml of S12739 + 4.86000ml of E3954 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4216	80ng ICC	SP6857	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.20000ml of E3954 + 0.80000ml of SP6856 = 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
4217	60ng ICC	SP6858	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.40000ml of E3954 + 0.60000ml of SP6856 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4218	50ng ICC	SP6859	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.50000ml of E3954 + 0.50000ml of SP6856 = 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
4219	40ng ICC	SP6860	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.60000ml of E3954 + 0.40000ml of SP6856 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4220	20ng ICC	SP6861	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.80000ml of E3954 + 0.20000ml of SP6856 = 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
4221	10ng ICC	SP6862	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.75000ml of E3954 + 0.25000ml of SP6860 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4222	5ng ICC	SP6863	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.87500ml of E3954 + 0.12500ml of SP6860 = 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
4223	2.5ng ICC	SP6864	08/12/2025	12/16/2025	Jagrut Upadhyay	None	None	mohammad ahmed 08/22/2025

FROM 0.01000ml of S13170 + 0.50000ml of E3954 + 0.50000ml of SP6863 = Final Quantity: 1.010 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
171	8270/625 Spike Solution, 50/100 PPM	SP6865	08/25/2025	10/30/2025	Jagrut Upadhyay	None	None	Rahul Chavli 08/26/2025

FROM 0.40000ml of S11484 + 0.40000ml of S11652 + 0.40000ml of S12552 + 0.40000ml of S13149 + 0.40000ml of S13160 + 0.40000ml of S13207 + 0.90000ml of S12507 + 0.90000ml of S13089 + 1.10000ml of S13120 + 1.20000ml of S12553 + 1.20000ml of S12554 + 1.20000ml of S12555 + 1.20000ml of S12556 + 1.20000ml of S12557 + 1.20000ml of S12558 + 1.20000ml of S12559 + 1.20000ml of S13269 + 1.30000ml of S11808 + 1.30000ml of S12508 + 1.30000ml of S13090 + 1.30000ml of S13091 + 1.30000ml of S13092 + 1.30000ml of S13093 + 1.30000ml of S13094 + 1.30000ml of S13095 + 1.30000ml of S13096 + 1.30000ml of S13118 + 1.30000ml of S13119 + 1.30000ml of S13239 + 1.30000ml of S13240 + 1.30000ml of S13241 + 1.30000ml of S13242 + 1.30000ml of S13243 + 1.30000ml of S13244 + 163.00000ml of E3932 = 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
19	8270/CLP Surrogate Solution, 100 PPM BN/150 PPM ACID	SP6869	09/10/2025	01/02/2026	Jagrut Upadhyay	None	None	Rahul Chavli 09/16/2025

FROM 3.00000ml of S12197 + 3.00000ml of S12220 + 5.60000ml of S12221 + 5.60000ml of S12903 + 5.80000ml of S12904 + 6.00000ml of S12199 + 6.00000ml of S12200 + 965.00000ml of E3965 = Final Quantity: 1000.000 ml

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	417203	01/28/2026	07/28/2025 / RUPESH	01/29/2025 / Rajesh	E3875

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-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	11/05/2025	05/05/2025 / RUPESH	04/23/2025 / RUPESH	E3932

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)	25A2862010	11/22/2025	05/22/2025 / RUPESH	02/28/2025 / RUPESH	E3939

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)	25A2862010	12/13/2025	06/13/2025 / Rajesh	02/28/2025 / Rajesh	E3942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3382-05 / Sand, Purified (cs/4x2.5kg)	25A2756718	12/31/2028	07/09/2025 / RUPESH	04/28/2020 / RUPESH	E3951

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)	25B1862001	03/19/2026	07/14/2025 / RUPESH	06/11/2025 / RUPESH	E3954

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	05/24/2027	08/22/2025 / RUPESH	08/20/2025 / RUPESH	E3965

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	05/24/2027	09/16/2025 / Evelyn	09/04/2025 / Riteshkumar	E3972

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)	25C1262005	04/16/2026	09/15/2025 / Riteshkumar	09/15/2025 / Riteshkumar	E3973

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	12/19/2025	06/19/2025 / Jagrut	12/09/2021 / Christian	S10105

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	11/16/2025	05/16/2025 / Jagrut	02/06/2023 / Christian	S11073

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	555870 / Custom Standard, 2,4-dinitrophenol Std [CS 5328-3]	A0200549	10/30/2025	04/30/2025 / Rahul	08/10/2023 / yogesh	S11484

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	10/28/2025	04/28/2025 / Jagrut	08/11/2023 / Yogesh	S11496

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	01/30/2026	07/30/2025 / Rahul	11/09/2023 / Yogesh	S11652

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	A0200655	01/01/2026	07/01/2025 / Rahul	11/21/2023 / rahul	S11807

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	A0200655	02/25/2026	08/25/2025 / Jagrut	11/21/2023 / rahul	S11808

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	10/28/2025	04/28/2025 / Jagrut	03/08/2024 / Rahul	S12115

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	09/18/2025	03/18/2025 / anahy	03/15/2024 / Rahul	S12195

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	01/02/2026	07/02/2025 / Jagrut	03/15/2024 / Rahul	S12197

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	03/10/2026	09/10/2025 / Jagrut	03/15/2024 / Rahul	S12199

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	03/10/2026	09/10/2025 / Jagrut	03/15/2024 / Rahul	S12200

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	09/18/2025	03/18/2025 / anahy	03/15/2024 / Rahul	S12216

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	01/02/2026	07/02/2025 / Jagrut	03/15/2024 / Rahul	S12220

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	A0206381	03/10/2026	09/10/2025 / Jagrut	03/15/2024 / Rahul	S12221

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30409 / Pyridine, 2000 PPM in P & T Methanol	A0206650	12/16/2025	06/16/2025 / Jagrut	05/14/2024 / Rahul	S12245

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	12/03/2025	06/03/2025 / Jagrut	05/24/2024 / Rahul	S12272

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	11/05/2025	05/05/2025 / Jagrut	05/24/2024 / Rahul	S12277

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	12/19/2025	06/19/2025 / Jagrut	05/24/2024 / Rahul	S12278

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31902 / CLP/SVOA Additions Mix (Atrazine, Benzaldehyde, Caprolactam) 1000ug/mL	A0206859	01/31/2026	08/12/2025 / Jagrut	05/30/2024 / Rahul	S12306

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	31902 / CLP/SVOA Additions Mix (Atrazine, Benzaldehyde, Caprolactam) 1000ug/mL	A0206859	01/31/2026	08/12/2025 / Jagrut	05/30/2024 / Rahul	S12307

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	12/04/2025	06/04/2025 / Jagrut	07/23/2024 / RAHUL	S12498

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	01/01/2026	07/01/2025 / Rahul	07/23/2024 / RAHUL	S12507

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12508

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	12/04/2025	06/04/2025 / Jagrut	07/23/2024 / RAHUL	S12544

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	01/01/2026	07/01/2025 / Rahul	07/23/2024 / RAHUL	S12552

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12553

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12554

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12555

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12556

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12557

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12558

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	02/25/2026	08/25/2025 / Jagrut	07/23/2024 / RAHUL	S12559

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,	A0212955	06/30/2027	03/31/2025 / Rahul	08/01/2024 / Rahul	S12577

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	11/28/2025	05/28/2025 / Rahul	09/20/2024 / anahy	S12667

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	12/16/2025	06/16/2025 / anahy	09/20/2024 / anahy	S12670

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31900 / SOM01.1 Mega Mix, 500-1000 ug/ml	A0215529	02/12/2026	08/12/2025 / Jagrut	10/08/2024 / anahy	S12739

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	90494 / 1-Methylnaphthalene, 2000 ug/mL, in methylene chloride	061323	02/12/2026	08/12/2025 / Jagrut	11/08/2024 / anahy	S12776

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	A0216785	03/10/2026	09/10/2025 / Jagrut	12/09/2024 / anahy	S12903

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	A0216785	03/10/2026	09/10/2025 / Jagrut	12/09/2024 / anahy	S12904

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	09/30/2025	06/04/2025 / Jagrut	12/11/2024 / anahy	S12986

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)	531243	12/19/2025	06/19/2025 / Jagrut	01/16/2025 / anahy	S13057

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)	525551	11/05/2025	05/05/2025 / Jagrut	03/10/2025 / anahy	S13078

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]	A0221014	11/30/2025	07/01/2025 / Rahul	05/20/2025 / Rahul	S13089

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]	A0221014	11/30/2025	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13090

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]	A0221014	11/30/2025	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13091

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]	A0221014	11/30/2025	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13092

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]	A0221014	11/30/2025	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13093

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]	A0221014	11/30/2025	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13094

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]	A0221014	11/30/2025	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13095

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]	A0221014	11/30/2025	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13096

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	A0218894	02/25/2026	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13118

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	A0218894	02/25/2026	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13119

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	A0218894	02/25/2026	08/25/2025 / Jagrut	05/20/2025 / Rahul	S13120

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]	A0201702	02/25/2026	08/25/2025 / Jagrut	11/13/2023 / Rahul	S13149

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]	A0226283	02/25/2026	08/25/2025 / Jagrut	06/04/2025 / Rahul	S13160

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	A0224359	02/11/2026	08/11/2025 / Rahul	06/02/2025 / anahy	S13170

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	A0224359	03/15/2026	09/15/2025 / rahul	06/02/2025 / anahy	S13175

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]	A0226493	02/12/2026	08/12/2025 / Jagrut	06/11/2025 / anahy	S13207

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	70434 / Acetophenone, Single compound solution, 1000 PPM	121622	12/19/2025	06/19/2025 / Rahul	06/19/2025 / Rahul	S13208

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91126 / Benzoic acid 2000 ug/mL	060625	12/19/2025	06/19/2025 / Rahul	06/19/2025 / Rahul	S13209

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	90495 / 1,1-Biphenyl 2000 ug/mL	042325	12/19/2025	06/19/2025 / Rahul	06/19/2025 / Rahul	S13210

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	34571 / 1,2,4,5-Tetrachlorobenzene 5000 ug/mL	092324	12/19/2025	06/19/2025 / Rahul	06/19/2025 / Rahul	S13211

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31879 / Benzoic Acid, 2000 µg/mL, Methylene Chloride, 1 mL/ampul	A0221395	02/12/2026	08/12/2025 / Jagrut	07/10/2025 / anahy	S13214

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	582978 / Custom Calibration Standard - C8 2,000µg/mL, Methylene chloride, 1mL/ampul, Chromatographic, CS-347186	A0228192	02/12/2026	08/12/2025 / Jagrut	08/01/2025 / Rahul	S13233

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]	A0228451	02/25/2026	08/25/2025 / Jagrut	08/06/2025 / Rahul	S13239

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]	A0228451	02/25/2026	08/25/2025 / Jagrut	08/06/2025 / Rahul	S13240

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]	A0228451	02/25/2026	08/25/2025 / Jagrut	08/06/2025 / Rahul	S13241

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]	A0228451	02/25/2026	08/25/2025 / Jagrut	08/06/2025 / Rahul	S13242

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]	A0228451	02/25/2026	08/25/2025 / Jagrut	08/06/2025 / Rahul	S13243

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]	A0228451	02/25/2026	08/25/2025 / Jagrut	08/06/2025 / Rahul	S13244

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]	A0228494	02/25/2026	08/25/2025 / Jagrut	08/06/2025 / Rahul	S13269

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® 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)

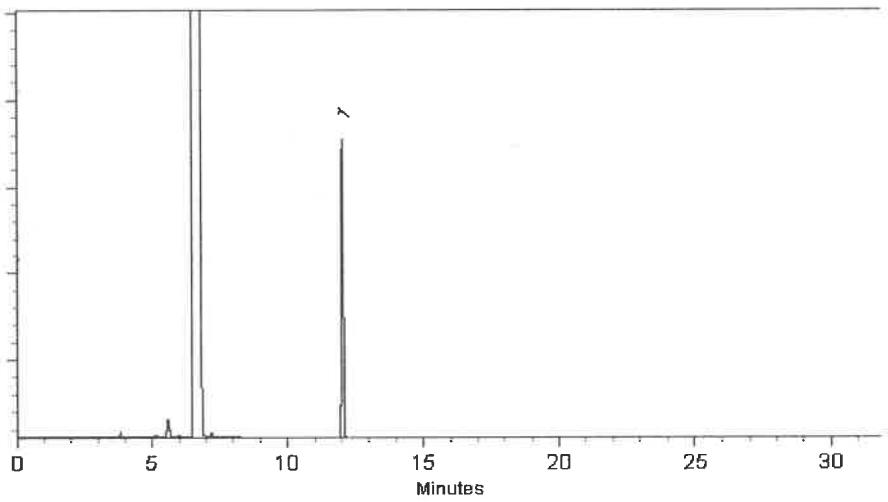
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

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

Rec on 8/20/25

E3965

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MÉXICO
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:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.2
Insoluble matter	Max. 0.01%	0.001 %
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%	0.001 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.001 %
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%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	96.2 %
Through US Standard No. 60 sieve	Max. 5%	3.5 %
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.

E 3875

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 RS

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3932

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

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor | J.T.Baker

Material No.: 9266-A4
Batch No.: 25A2862010
Manufactured Date: 2024-12-18
Expiration Date:2026-03-19
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 %	99.9 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.3 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

E3939

J Croak
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.: 25A2862010
Manufactured Date: 2024-12-18
Expiration Date:2026-03-19
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 %	99.9 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.3 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

E3942

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

VWR®
BDH® CHEMICALS

Certificate of Analysis

Material	BDH9274-2.5KG
Material Description	BDH SAND STDD OTTAWA W+I 2.5KG
Grade	NOT APPLICABLE
Batch	25A2756718
Reassay Date	12/31/2028
CAS Number	14808-60-7
Molecular Formula	SiO2
Molecular Mass	60.09
Date of Manufacture	12/05/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Beige granules.	Beige granules.
Moisture	<= 0.1 %	0.1 %
Particle Size 30-40 mesh	>= 80 %	99 %
CUSTOMER PART # BDH9274-2.5KG		

Received on 7/9/25.

E3951

Internal ID #: 793

Signature	Additional Information
We certify that this batch conforms to the specifications listed above.	Analysis may have been rounded to significant digits in specification limits
This document has been electronically produced and is valid without a signature.	Product meets analytical specifications of the grades listed.
Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA	

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 25B1862001
Manufactured Date: 2024-12-18
Expiration Date:2026-03-19
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 %	99.9 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.3 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

RS 7/14/25

E3954

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

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

E3972

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

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 25C1262005
Manufactured Date: 2025-01-15
Expiration Date:2026-04-16
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	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	0.1 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 3973

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

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.:** A0200655

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11795 ↓ S11808 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	SHBQ1693	99%	2,007.0 µg/mL	+/- 24.9775

* 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.)

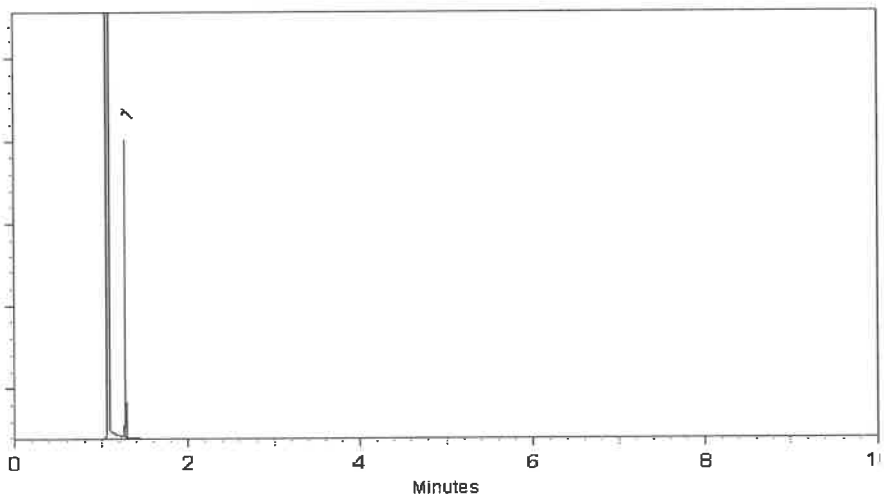
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 06-Aug-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 08-Aug-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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.:** A0200655

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

S11795 ↓ S11808 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	SHBQ1693	99%	2,007.0 µg/mL	+/- 24.9775

* 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.)

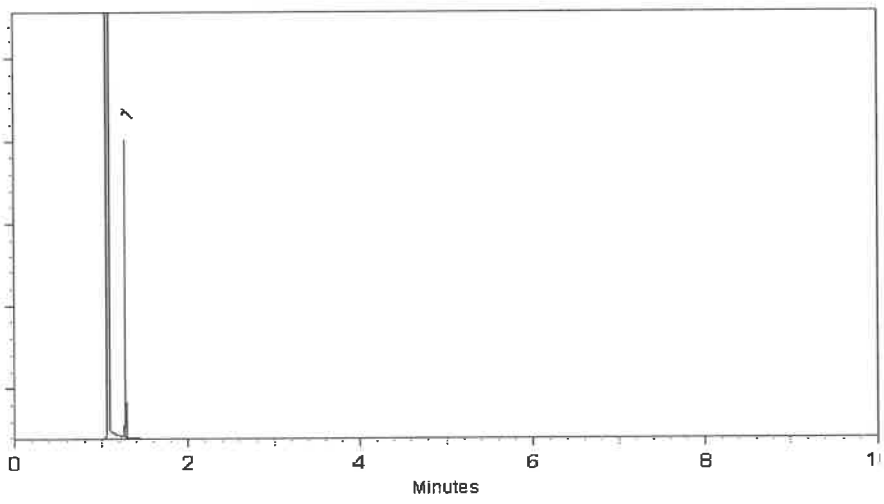
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 06-Aug-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 08-Aug-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  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. : 31087 **Lot No.:** A0206206

Description : Acid Surrogate Mix (4/89 SOW)

Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

S12187 ↓ S12206 } RC/ 03/18/24

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	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.)

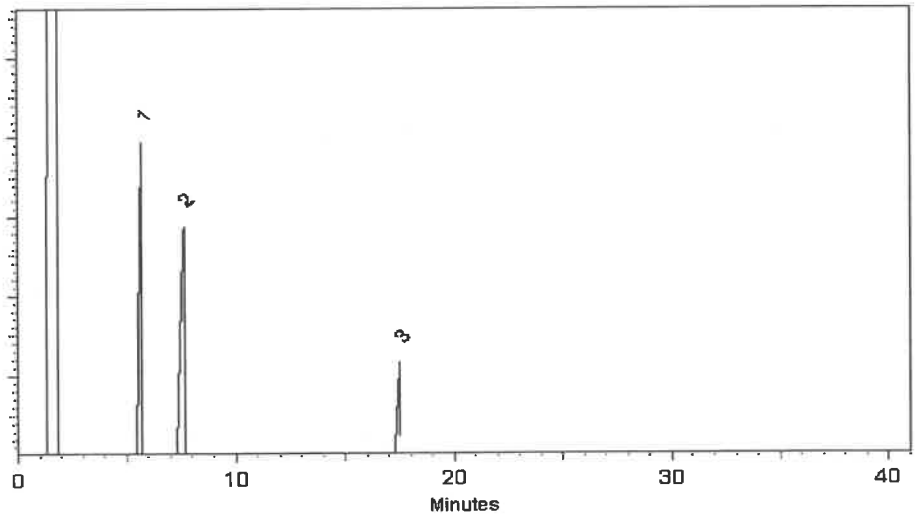
Inj. Temp:
250°C

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

S12187 ↓ S12206 } RC/ 03/18/24

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	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.)

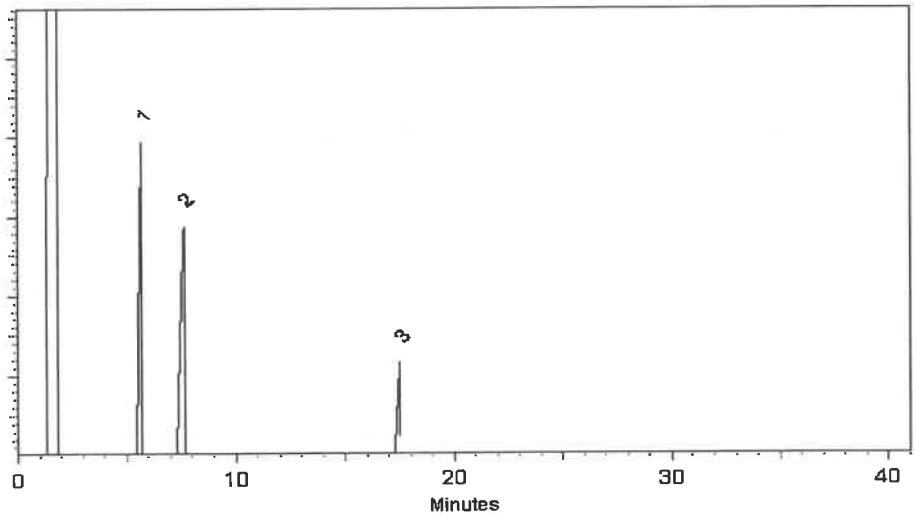
Inj. Temp:
250°C

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

S12187 ↓ S12206 } RC/ 03/18/24

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	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.)

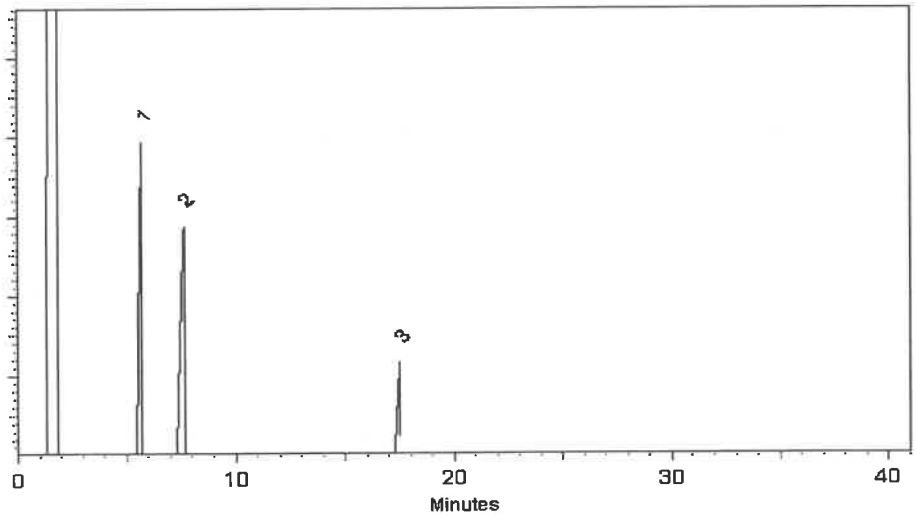
Inj. Temp:
250°C

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

S12187 ↓ S12206 } RC/ 03/18/24

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2032 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	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.)

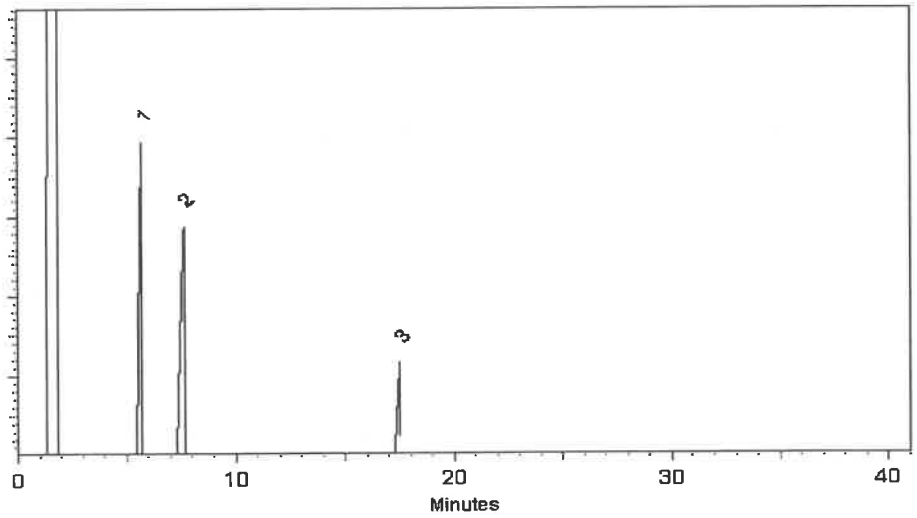
Inj. Temp:
250°C

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.)

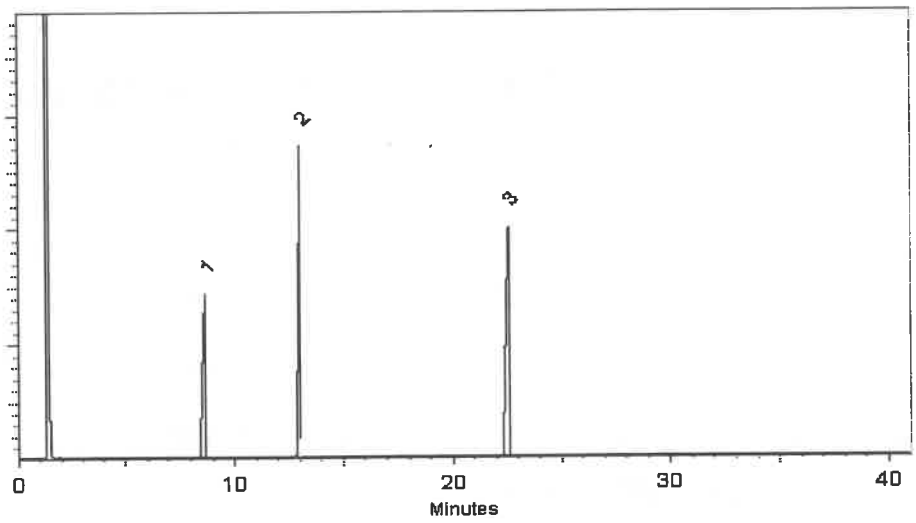
Inj. Temp:
250°C

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.)

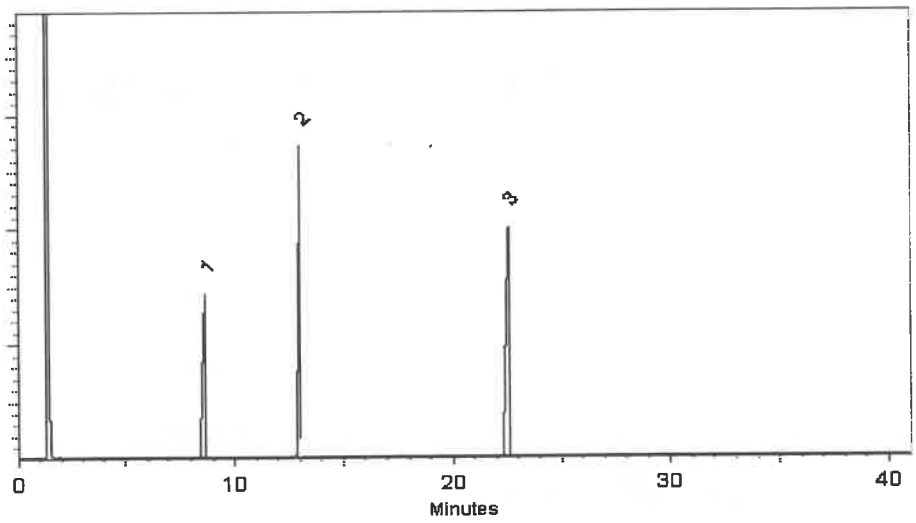
Inj. Temp:
250°C

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

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.)

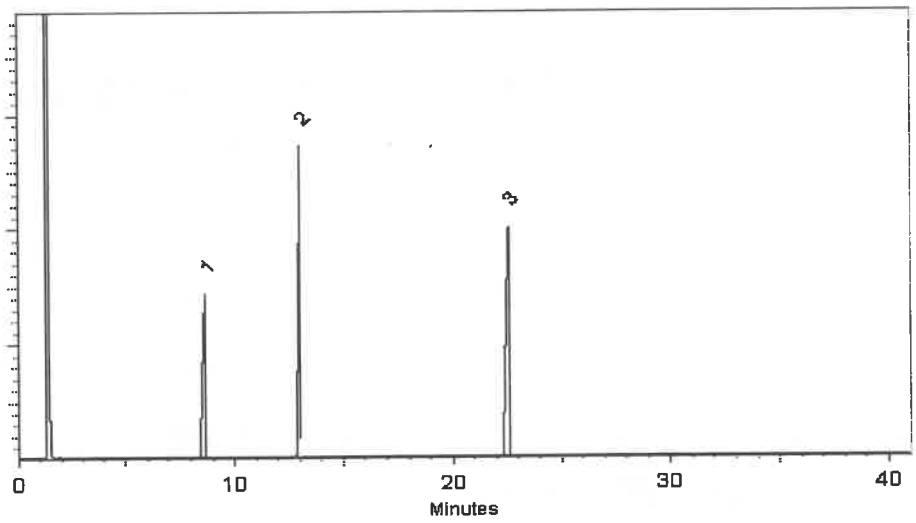
Inj. Temp:
250°C

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. : 30409 **Lot No.:** A0206650

Description : Pyridine Standard

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

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

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

Ship: Ambient

S12242 ↓ S12254 RC/ 5/15/24

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%	2,020.0 µg/mL	+/- 33.0924

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

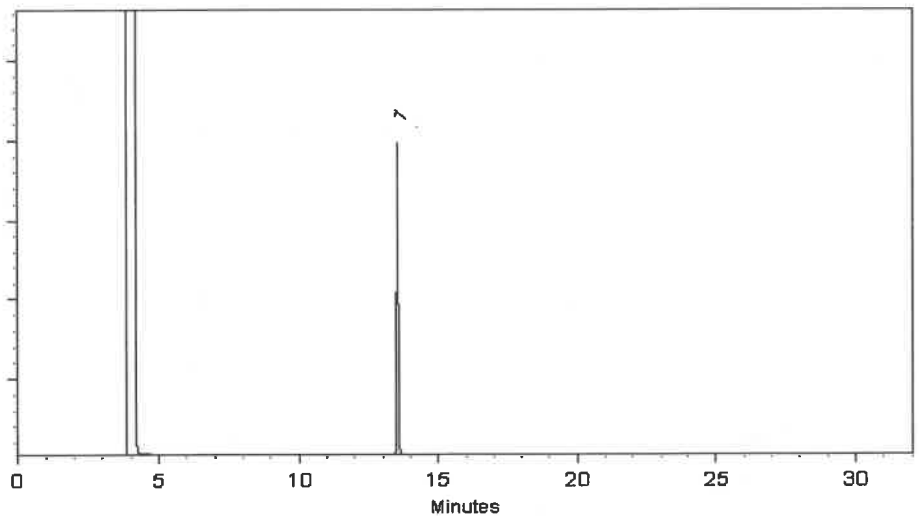
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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

Sam Moodler - Operations Tech I

Date Mixed: 16-Jan-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 18-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.

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

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.

S12302 ↓ S12311 } RC/ 5/30/24

Catalog No. : 31902 **Lot No.:** A0206859

Description : Additions Standard

Additions Standard 1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,005.0 µg/mL	+/- 29.5419
2	epsilon-Caprolactam	105-60-2	I16X016	99%	1,008.8 µg/mL	+/- 29.6521
3	Atrazine	1912-24-9	5FYWL	99%	1,008.8 µg/mL	+/- 29.6521

* 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.)

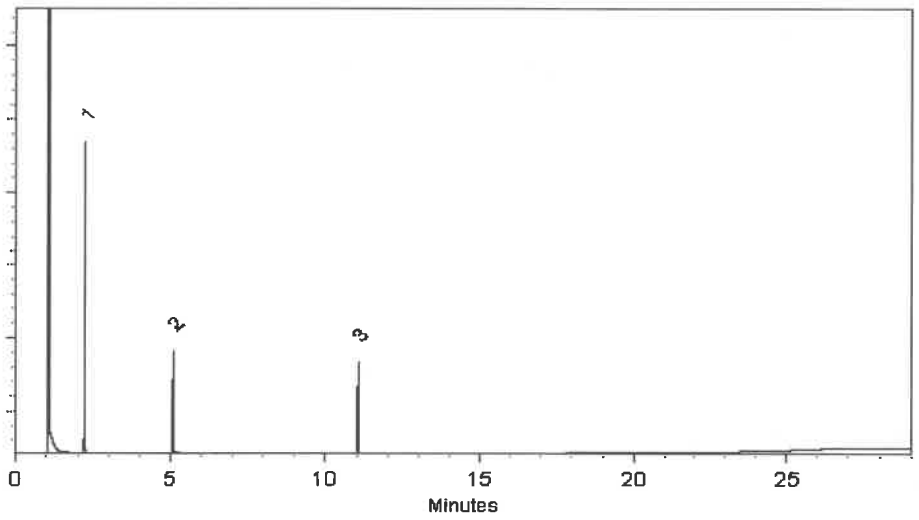
Inj. Temp:
250°C

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.

Stacey Wanner - Operations Technician I

Date Mixed: 23-Jan-2024 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-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.

S12302 ↓ S12311 } RC/ 5/30/24

Catalog No. : 31902 **Lot No.:** A0206859

Description : Additions Standard

Additions Standard 1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzaldehyde	100-52-7	RD231129RSRA	99%	1,005.0 µg/mL	+/- 29.5419
2	epsilon-Caprolactam	105-60-2	I16X016	99%	1,008.8 µg/mL	+/- 29.6521
3	Atrazine	1912-24-9	5FYWL	99%	1,008.8 µg/mL	+/- 29.6521

* 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.)

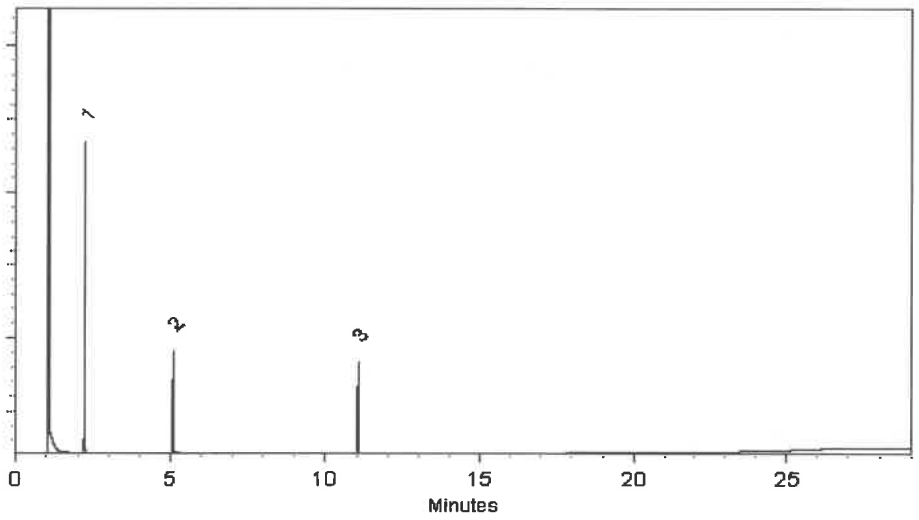
Inj. Temp:
250°C

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.

Stacey Wanner - Operations Technician I

Date Mixed: 23-Jan-2024 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-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

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. : 31615 **Lot No.:** A0212955

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 : June 30, 2027 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,004.5 µg/mL	+/- 44.8902
2	DFTPP (Decafluorotriphenylphosphine)	5074-71-5	Q117-147	99%	1,004.5 µg/mL	+/- 44.8902
3	Benzidine	92-87-5	S240430RSR	99%	1,006.0 µg/mL	+/- 44.9572
4	4,4'-DDT	50-29-3	S240530RSR	97%	1,000.1 µg/mL	+/- 44.6922

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

S12577 ↓ S12579 RC 8/2/24

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.)

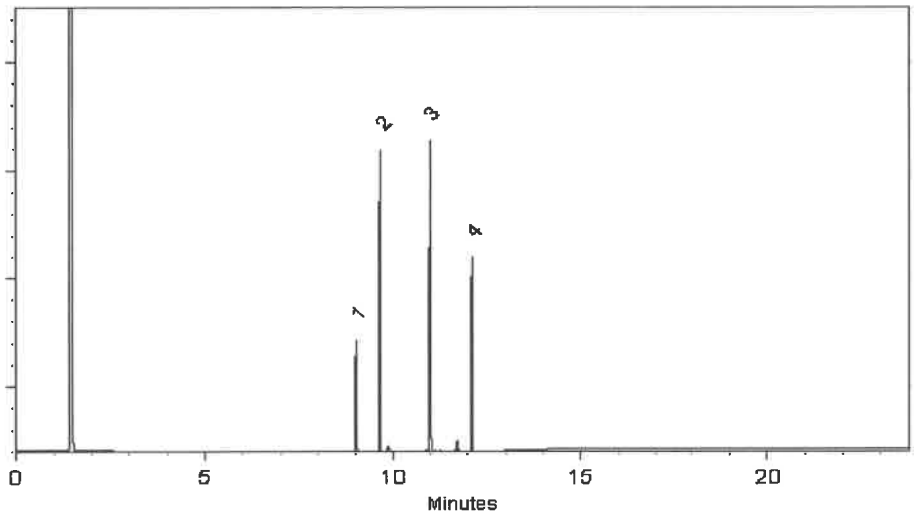
Inj. Temp:
250°C

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.

Ethan Winiarski - Operations Tech I

Date Mixed: 19-Jun-2024 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 26-Jun-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. : 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

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. : 31900 **Lot No.:** A0215529

Description : OLM 01.1 Revised SV MegaMix

OLM 01.1 Revised SV MegaMix 500-1000 µg/mL, Methylene chloride, 1mL/ampul

S12736 ↓ S12754 AC 10/9/24

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

Expiration Date : February 28, 2026 **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	Phenol	108-95-2	MKCK1120	99%	1,008.6 µg/mL	+/- 19.3211
2	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,002.3 µg/mL	+/- 19.2013
3	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.2 µg/mL	+/- 19.2564
4	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,006.3 µg/mL	+/- 19.2768
5	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,009.3 µg/mL	+/- 19.3354
6	Acetophenone	98-86-2	STBH8205	99%	1,003.8 µg/mL	+/- 18.5851
7	Hexachloroethane	67-72-1	QTORH	99%	1,000.6 µg/mL	+/- 19.1690
8	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.5 µg/mL	+/- 19.2599
9	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	500.3 µg/mL	+/- 9.5854
10	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.1 µg/mL	+/- 9.6213
11	Nitrobenzene	98-95-3	10224044	99%	1,003.2 µg/mL	+/- 19.2181
12	Isophorone	78-59-1	MKCC9506	99%	1,007.0 µg/mL	+/- 19.2911
13	2-Nitrophenol	88-75-5	RP230509C	99%	1,003.4 µg/mL	+/- 19.2217
14	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,008.1 µg/mL	+/- 19.3115
15	Bis(2-chloroethoxy)methane	111-91-1	15174900	99%	1,002.3 µg/mL	+/- 19.2001
16	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,002.3 µg/mL	+/- 19.2001

17	Naphthalene	91-20-3	STBL1057	99%	1,003.6	µg/mL	+/- 19.2253
18	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.5	µg/mL	+/- 19.2791
19	Hexachlorobutadiene	87-68-3	RP240110CTH	97%	1,003.9	µg/mL	+/- 19.2316
20	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.1	µg/mL	+/- 19.2718
21	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,003.8	µg/mL	+/- 19.2301
22	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,000.5	µg/mL	+/- 19.1832
23	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,001.3	µg/mL	+/- 19.1811
24	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.1	µg/mL	+/- 19.2349
25	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,008.6	µg/mL	+/- 19.3221
26	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,002.3	µg/mL	+/- 19.2001
27	Biphenyl	92-52-4	MKCS5928	99%	1,001.3	µg/mL	+/- 18.5388
28	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,000.5	µg/mL	+/- 19.1832
29	Acenaphthylene	208-96-8	214935V16F	97%	999.9	µg/mL	+/- 19.1561
30	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.8	µg/mL	+/- 19.2672
31	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,001.2	µg/mL	+/- 19.1798
32	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 19.1570
33	3-Nitroaniline	99-09-2	RP240708RSR	99%	1,005.5	µg/mL	+/- 19.2791
34	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	1,008.8	µg/mL	+/- 19.3259
35	Dibenzofuran	132-64-9	MKCD9952	99%	1,002.5	µg/mL	+/- 18.5619
36	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,002.5	µg/mL	+/- 19.2049
37	4-Nitrophenol	100-02-7	RP230627	99%	1,004.4	µg/mL	+/- 19.2421
38	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,001.5	µg/mL	+/- 19.2024
39	Fluorene	86-73-7	10241100	99%	1,004.2	µg/mL	+/- 19.2373
40	4-Chlorophenyl phenyl ether	7005-72-3	MKCT7248	99%	1,003.0	µg/mL	+/- 19.2145
41	Diethylphthalate	84-66-2	BCCJ6241	99%	1,002.1	µg/mL	+/- 19.1978
42	4-Nitroaniline	100-01-6	RP240510RSR	99%	1,005.0	µg/mL	+/- 19.2695
43	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S240410RSR	99%	1,001.1	µg/mL	+/- 19.1786
44	Diphenylamine	122-39-4	MKCT1512	99%	1,004.5	µg/mL	+/- 19.2599
45	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.9	µg/mL	+/- 19.2708
46	Hexachlorobenzene	118-74-1	15458400	99%	1,009.2	µg/mL	+/- 19.3331
47	Pentachlorophenol	87-86-5	RP240411RSR	99%	1,008.9	µg/mL	+/- 19.3283
48	Phenanthrene	85-01-8	MKCS5188	99%	1,006.2	µg/mL	+/- 19.2756
49	Anthracene	120-12-7	101492T18R	99%	1,001.6	µg/mL	+/- 19.1882
50	Carbazole	86-74-8	15276700	99%	1,004.0	µg/mL	+/- 19.2503
51	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,002.5	µg/mL	+/- 19.2049
52	Fluoranthene	206-44-0	MKCQ4728	99%	1,008.7	µg/mL	+/- 19.3235

53	Pyrene	129-00-0	BCCK2592	99%	1,002.9	µg/mL	+/- 19.2121
54	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.6	µg/mL	+/- 19.2444
55	Benz(a)anthracene	56-55-3	I50012022BAA	99%	1,009.1	µg/mL	+/- 19.3307
56	Chrysene	218-01-9	RP240719RSR	99%	1,005.9	µg/mL	+/- 19.2708
57	3,3'-Dichlorobenzidine	91-94-1	S231019RSR	99%	1,001.5	µg/mL	+/- 19.2024
58	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,006.3	µg/mL	+/- 19.2768
59	Di-n-octyl phthalate	117-84-0	15276800	99%	1,008.9	µg/mL	+/- 19.3283
60	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,006.4	µg/mL	+/- 19.2792
61	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,001.9	µg/mL	+/- 19.1942
62	Benzo(a)pyrene	50-32-8	O45GL	98%	1,003.9	µg/mL	+/- 19.2327
63	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,003.7	µg/mL	+/- 19.2281
64	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	1,004.2	µg/mL	+/- 19.2373
65	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	1,001.5	µg/mL	+/- 19.1863

* 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.

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part Number: 90494
Lot Number: 061323
Description: 1-Methylnaphthalene

Expiration Date: 061328
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

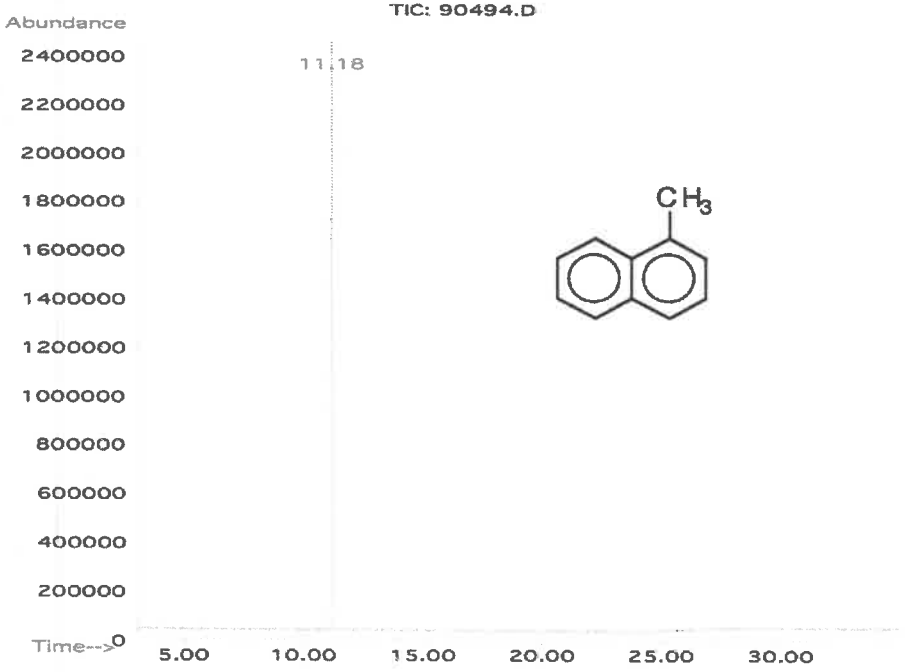
Solvent(s): **Lot#**
Methylene chloride C21F09CAS0000DCM

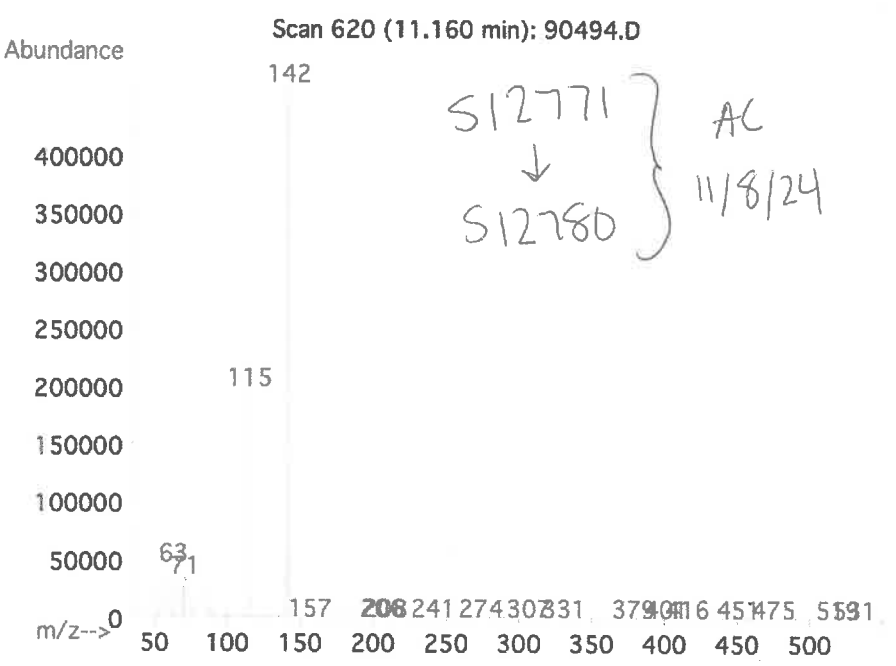
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.031 Flask Uncertainty

Formulated By: Prashant Chauhan	061323 DATE
Reviewed By: Pedro L. Rentas	061323 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1-Methylnaphthalene	313	04413BX	2000	98	0.2	0.20417	0.20430	2001.2	8.3	90-12-0	N/A	orl-rat 1840mg/kg

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.





S12771 ↓ S12780 } AC 11/8/24

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

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.

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 **Page 1 of 1**

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110816-01	531243	≤ -10 °C	Methylene Chloride	1/2/2030	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	337.7.4P	997 ± 5.81
benzidine	92-87-5	99.9	124.18.6.2P	993.8 ± 5.78
caprolactam	105-60-2	99.9	271.1.6P	999 ± 5.82

513057
↓
513061
AC
1/16/25

*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: 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.

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	525551	-18°C +/- 4°C	Methylene Chloride	9/3/2029	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	97.9	74.421.2P	994.7 ± 30.56

This RM is intended for use as a calibration standard or a quality control standard for chromatography equipment such as GC, GC/MS, HPLC, and HPLC/MS. It may also be used for various USEPA, NIOSH and ASTM methods.

Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)
y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored. The minimum sample size recommended for use is 1µL.

S13078 ↓ S13087 } AC 3/10/25

Manufactured by

Raevyn Steele
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.

*Not a certified valu

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.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

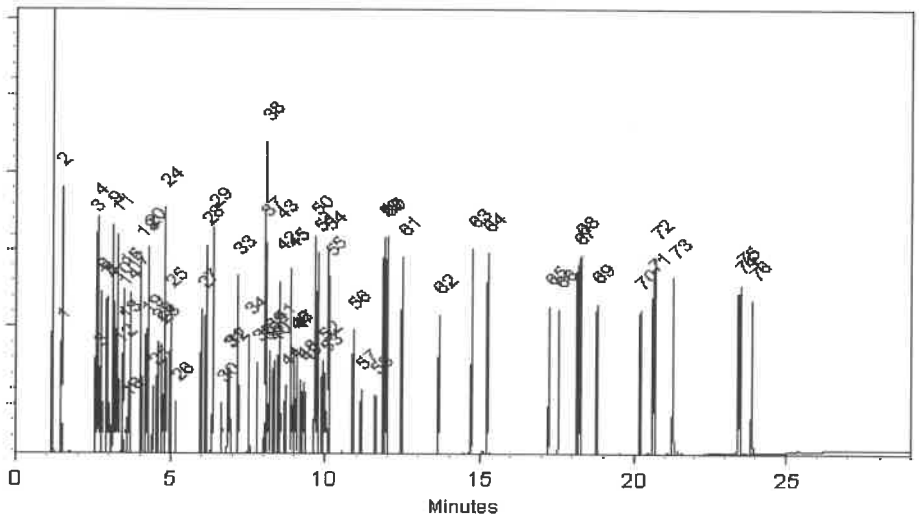
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31850 **Lot No.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

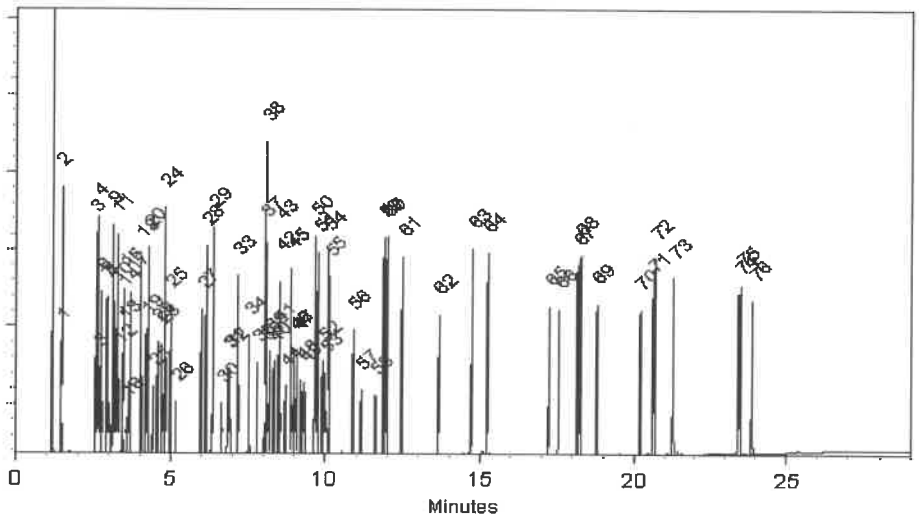
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31850 **Lot No.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

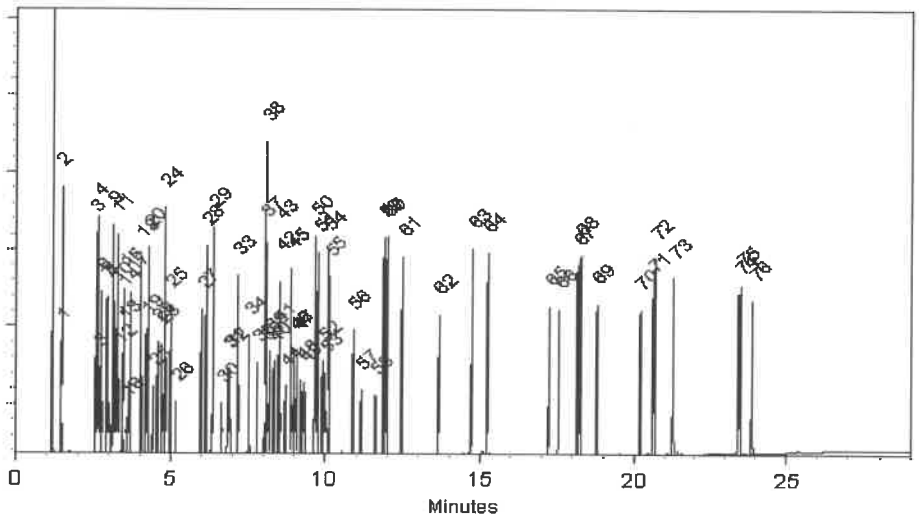
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31850 **Lot No.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

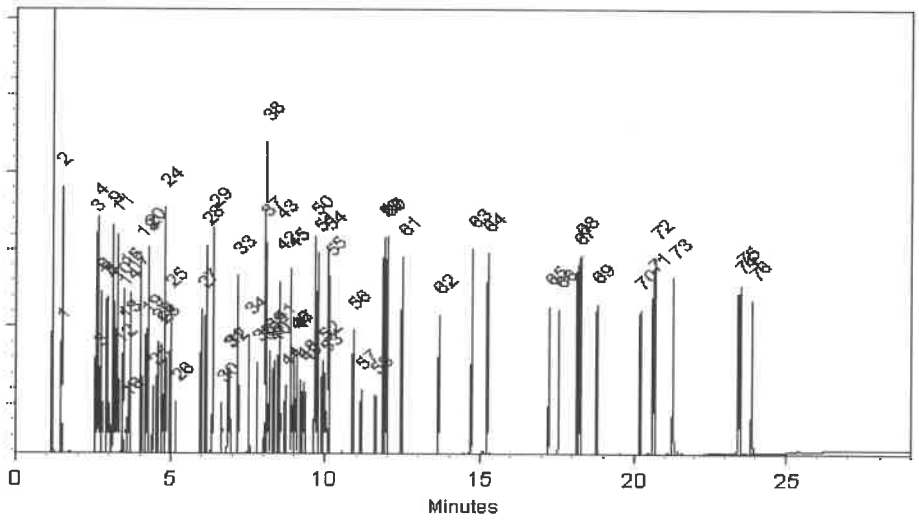
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31850 **Lot No.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

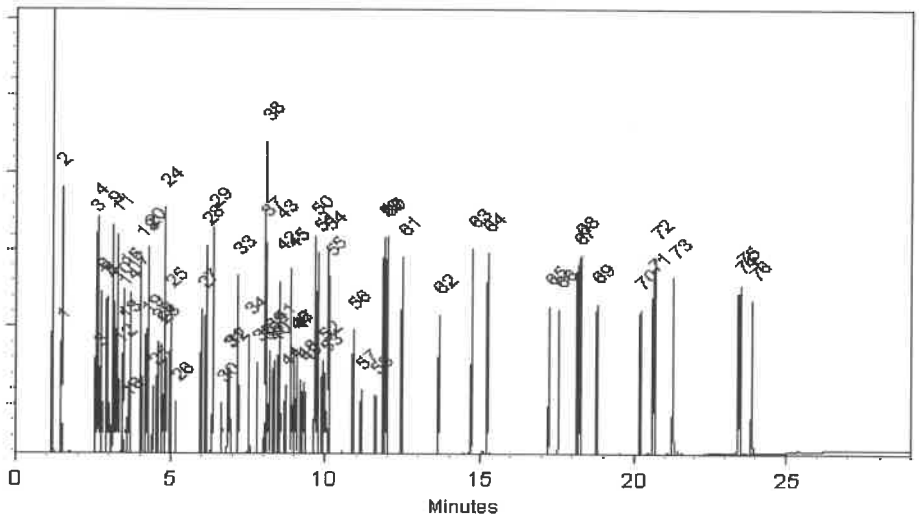
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31850 **Lot No.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

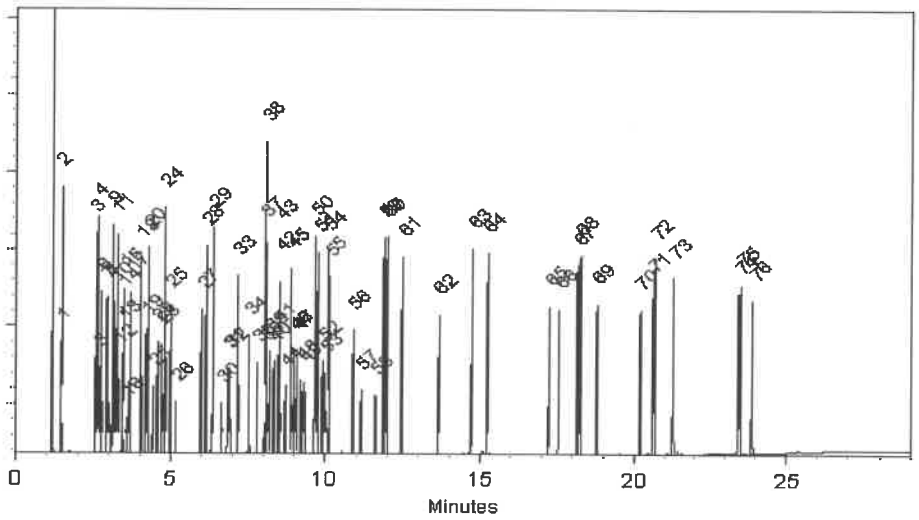
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31850 **Lot No.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

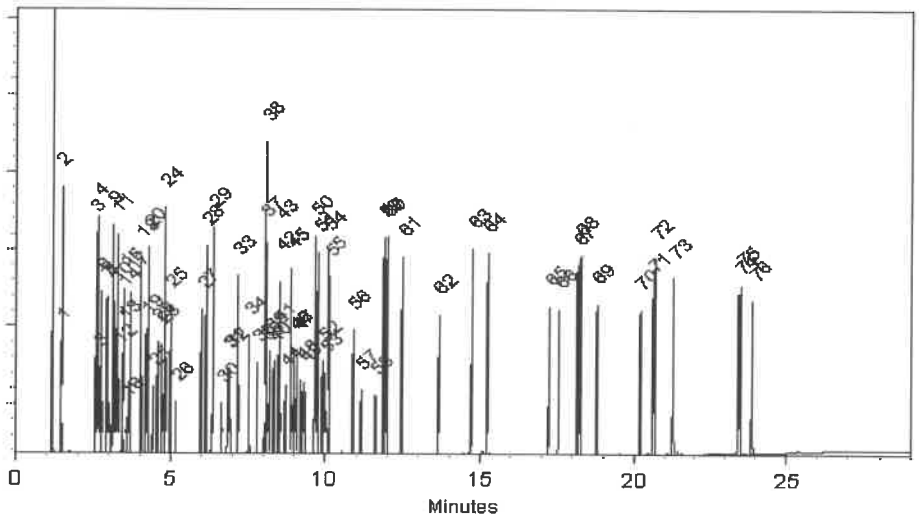
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31850 **Lot No.:** A0221014

S13088 ↓ S13117 RC 5/20/25.

Description : 8270 MegaMix®

8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 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	SHBR4811	99%	1,005.2 µg/mL	+/- 36.5730
2	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	1,005.5 µg/mL	+/- 36.5848
3	Phenol	108-95-2	MKCK1120	99%	1,005.3 µg/mL	+/- 36.5780
4	Aniline	62-53-3	X22F726	99%	1,005.4 µg/mL	+/- 36.5816
5	Bis(2-chloroethyl)ether	111-44-4	002891T24M	99%	1,004.7 µg/mL	+/- 36.5562
6	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.3 µg/mL	+/- 36.5766
7	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.6 µg/mL	+/- 36.5530
8	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,006.3 µg/mL	+/- 36.6125
9	Benzyl alcohol	100-51-6	SHBK5469	99%	1,005.5 µg/mL	+/- 36.5853
10	1,2-Dichlorobenzene	95-50-1	SHBL6287	99%	1,004.6 µg/mL	+/- 36.5507
11	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,004.8 µg/mL	+/- 36.5575
12	2,2'-oxybis(1-chloropropane)	108-60-1	29-MAR-45-5	99%	1,005.4 µg/mL	+/- 36.5803
13	3-Methylphenol (m-cresol)	108-39-4	STBL3873	99%	502.7 µg/mL	+/- 18.2888
14	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	502.6 µg/mL	+/- 18.2869
15	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,004.6 µg/mL	+/- 36.5502
16	Hexachloroethane	67-72-1	DAXRI	99%	1,004.6 µg/mL	+/- 36.5530
17	Nitrobenzene	98-95-3	10224044	99%	1,005.3 µg/mL	+/- 36.5780

18	Isophorone	78-59-1	MKCR3249	99%	1,004.6	µg/mL	+/- 36.5511
19	2-Nitrophenol	88-75-5	RP230710	99%	1,005.7	µg/mL	+/- 36.5916
20	2,4-Dimethylphenol	105-67-9	DIRAF	99%	1,004.9	µg/mL	+/- 36.5612
21	Bis(2-chloroethoxy)methane	111-91-1	15705100	99%	1,004.3	µg/mL	+/- 36.5402
22	2,4-Dichlorophenol	120-83-2	BCCK6969	99%	1,004.7	µg/mL	+/- 36.5571
23	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,004.6	µg/mL	+/- 36.5516
24	Naphthalene	91-20-3	STBL1057	99%	1,006.8	µg/mL	+/- 36.6335
25	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,005.9	µg/mL	+/- 36.5980
26	Hexachlorobutadiene	87-68-3	X05J	98%	1,004.1	µg/mL	+/- 36.5328
27	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.4	µg/mL	+/- 36.5793
28	2-Methylnaphthalene	91-57-6	STBL3028	99%	1,006.3	µg/mL	+/- 36.6144
29	1-Methylnaphthalene	90-12-0	5234.00-8	98%	990.2	µg/mL	+/- 36.0269
30	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	1,005.9	µg/mL	+/- 36.5975
31	2,4,6-Trichlorophenol	88-06-2	STBK8870	99%	1,004.7	µg/mL	+/- 36.5566
32	2,4,5-Trichlorophenol	95-95-4	3YFRE	97%	1,004.7	µg/mL	+/- 36.5571
33	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,005.3	µg/mL	+/- 36.5757
34	2-Nitroaniline	88-74-4	RP240715RSR	99%	1,004.8	µg/mL	+/- 36.5584
35	1,4-Dinitrobenzene	100-25-4	RP240703RSR	99%	1,004.5	µg/mL	+/- 36.5475
36	Acenaphthylene	208-96-8	214935V18H	95%	1,000.1	µg/mL	+/- 36.3888
37	1,3-Dinitrobenzene	99-65-0	TRC3-1075941-2-1	99%	1,004.9	µg/mL	+/- 36.5616
38	Dimethylphthalate	131-11-3	358221L17K	99%	1,004.5	µg/mL	+/- 36.5489
39	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.2	µg/mL	+/- 36.5734
40	1,2-Dinitrobenzene	528-29-0	RP240701RSR	99%	1,005.9	µg/mL	+/- 36.6003
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	+/- 36.5525
43	2,4-Dinitrophenol	51-28-5	D240927RSR	99%	1,005.0	µg/mL	+/- 36.5657
44	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.4	µg/mL	+/- 36.5803
45	2,4-Dinitrotoluene	121-14-2	102869V26E	99%	1,005.4	µg/mL	+/- 36.5803
46	4-Nitrophenol	100-02-7	20241120-1-AN	99%	1,005.7	µg/mL	+/- 36.5930
47	2,3,4,6-Tetrachlorophenol	58-90-2	PR-34476	99%	1,004.9	µg/mL	+/- 36.5616
48	2,3,5,6-Tetrachlorophenol	935-95-5	RP240523RSR	99%	1,005.2	µg/mL	+/- 36.5739
49	Fluorene	86-73-7	10246250	98%	1,005.8	µg/mL	+/- 36.5948
50	4-Chlorophenyl phenyl ether	7005-72-3	002531K02D	99%	1,004.8	µg/mL	+/- 36.5584
51	Diethylphthalate	84-66-2	STBL3611	99%	1,005.3	µg/mL	+/- 36.5762
52	4-Nitroaniline	100-01-6	RP240830RSR	99%	1,005.5	µg/mL	+/- 36.5844
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	S241008RSR	99%	1,004.8	µg/mL	+/- 36.5589

54	Diphenylamine	122-39-4	MKCT1512	99%	1,005.2	µg/mL	+/- 36.5725
55	Azobenzene	103-33-3	BCCL3292	99%	1,004.7	µg/mL	+/- 36.5566
56	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,005.6	µg/mL	+/- 36.5875
57	Hexachlorobenzene	118-74-1	15828800	99%	1,005.3	µg/mL	+/- 36.5789
58	Pentachlorophenol	87-86-5	RP240517RSR	99%	1,005.4	µg/mL	+/- 36.5825
59	Phenanthrene	85-01-8	MKCT3391	99%	1,004.8	µg/mL	+/- 36.5584
60	Anthracene	120-12-7	MKCW9141	99%	1,005.5	µg/mL	+/- 36.5834
61	Carbazole	86-74-8	15630800	99%	1,005.3	µg/mL	+/- 36.5789
62	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.5	µg/mL	+/- 36.5848
63	Fluoranthene	206-44-0	A0458721	99%	1,005.4	µg/mL	+/- <0.0001
64	Pyrene	129-00-0	BCCL8032	99%	1,005.2	µg/mL	+/- 36.5734
65	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,004.8	µg/mL	+/- 36.5584
66	Bis(2-ethylhexyl)adipate	103-23-1	MKCR8567	99%	1,004.5	µg/mL	+/- 36.5480
67	Benz(a)anthracene	56-55-3	I60012022BAA	99%	1,005.5	µg/mL	+/- 36.5844
68	Chrysene	218-01-9	RP241212RSR	99%	1,005.5	µg/mL	+/- 36.5848
69	Bis(2-ethylhexyl)phthalate	117-81-7	MKCS8065	99%	1,004.7	µg/mL	+/- 36.5548
70	Di-n-octyl phthalate	117-84-0	15817300	99%	1,004.8	µg/mL	+/- 36.5607
71	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,005.1	µg/mL	+/- 36.5716
72	Benzo(k)fluoranthene	207-08-9	012022K	98%	1,004.6	µg/mL	+/- 36.5511
73	Benzo(a)pyrene	50-32-8	NQLXA	98%	1,004.2	µg/mL	+/- 36.5377
74	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,004.1	µg/mL	+/- 36.5337
75	Dibenz(a,h)anthracene	53-70-3	712061504-1-1	99%	1,005.7	µg/mL	+/- 36.5930
76	Benzo(g,h,i)perylene	191-24-2	RP241014RSR	98%	1,005.4	µg/mL	+/- 36.5814

* 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.

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.)

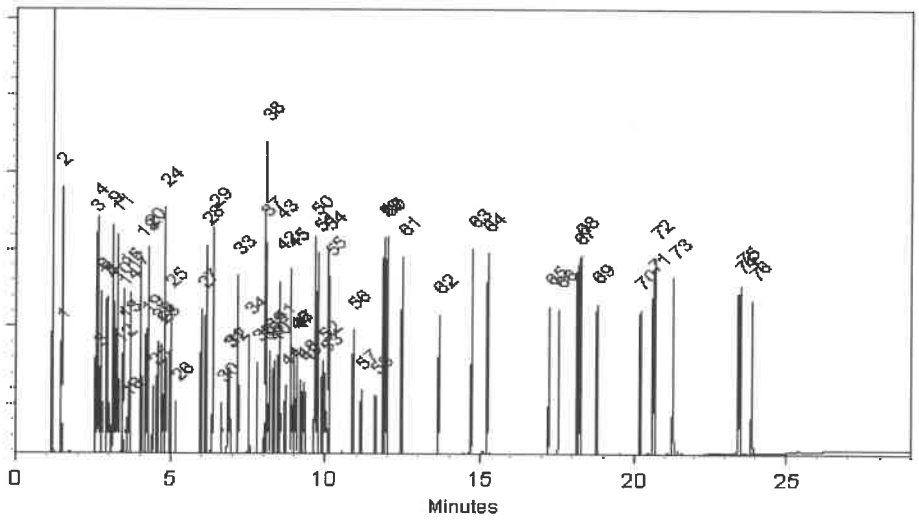
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 12-Jan-2025 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 21-Jan-2025

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. : 31853 **Lot No.:** A0218894

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 30, 2029 **Storage:** 0°C or colder

Ship: Ambient

513118 ↓ 513147 } RC/ 5/20/25.

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	SHBQ1693	99%	2,002.4 µg/mL	+/- 24.9202

* 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.)

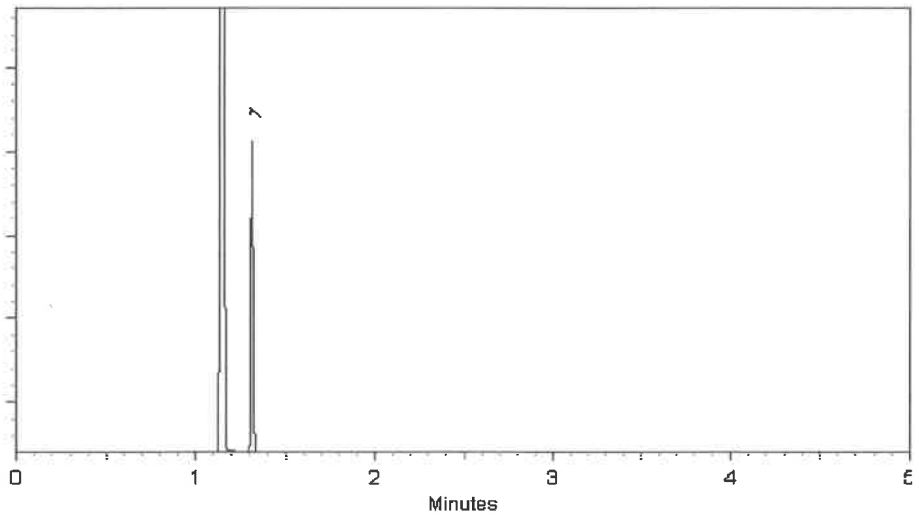
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 07-Nov-2024 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 11-Nov-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. : 31853 **Lot No.:** A0218894

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 30, 2029 **Storage:** 0°C or colder

Ship: Ambient

513118 ↓ 513147 } RC/ 5/20/25.

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	SHBQ1693	99%	2,002.4 µg/mL	+/- 24.9202

* 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.)

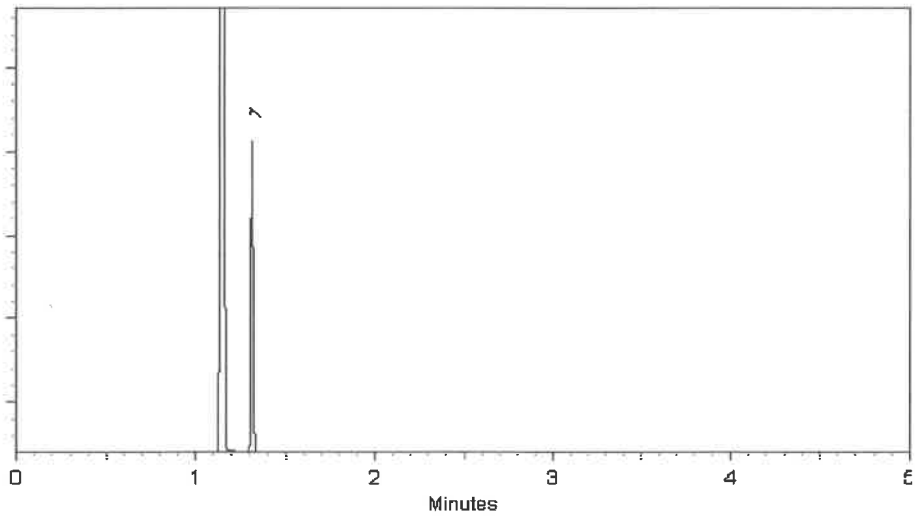
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 07-Nov-2024 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 11-Nov-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. : 31853 **Lot No.:** A0218894

Description : 1,4-dioxane

1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : November 30, 2029 **Storage:** 0°C or colder

Ship: Ambient

513118 ↓ 513147 } RC/ 5/20/25.

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	SHBQ1693	99%	2,002.4 µg/mL	+/- 24.9202

* 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.)

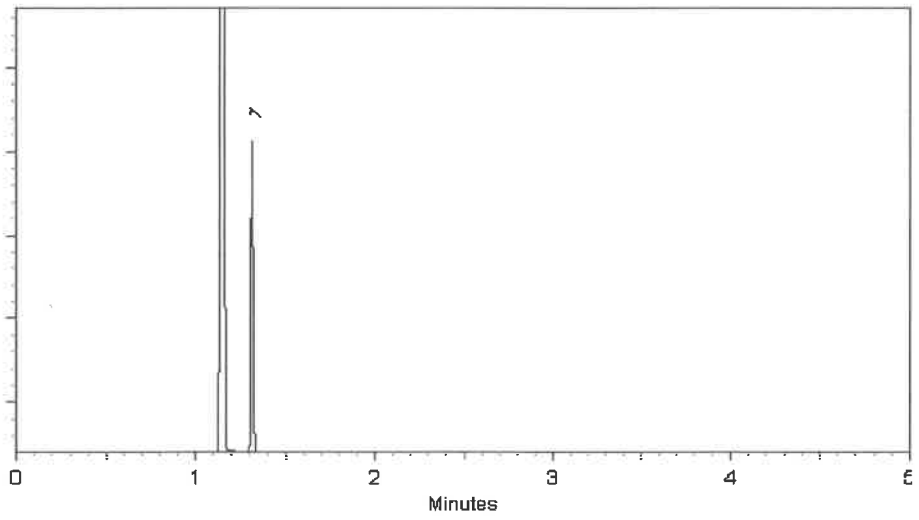
Inj. Temp:
250°C

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.

Penelope Riglin - Operations Tech I

Date Mixed: 07-Nov-2024 **Balance Serial #** 1128360905

Dillan Murphy - Operations Technician I

Date Passed: 11-Nov-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. : 555871 **Lot No.:** A0226283

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 : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

S13158 ↓ S13167 } RC/ 6/4/25

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	4-Nitrophenol	100-02-7	20241120-1-AN	99%	25,192.0 µg/mL	+/- 783.0517

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

Morgan Craighead - Mix Technician

Date Mixed: 02-Jun-2025 **Balance:** C322230531

REVIEWED

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. : 31206 **Lot No.:** A0224359

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

S13168 ↓ S13197 } AC 6/9/25

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

Expiration Date : March 31, 2031 **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%	2,000.0 µg/mL	+/- 90.0812
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,000.8 µg/mL	+/- 90.1187
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,000.8 µg/mL	+/- 90.1187
4	Phenanthrene-d10	1517-22-2	PR-34099	99%	2,000.0 µg/mL	+/- 90.0812
5	Chrysene-d12	1719-03-5	PR-33506	99%	2,000.8 µg/mL	+/- 90.1187
6	Perylene-d12	1520-96-3	PR-33205	99%	2,000.0 µg/mL	+/- 90.0812

* 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

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.:** A0224359

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

S13168 ↓ S13197 } AC 6/9/25

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

Expiration Date : March 31, 2031 **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%	2,000.0 µg/mL	+/- 90.0812
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,000.8 µg/mL	+/- 90.1187
3	Acenaphthene-d10	15067-26-2	PR-33507	99%	2,000.8 µg/mL	+/- 90.1187
4	Phenanthrene-d10	1517-22-2	PR-34099	99%	2,000.0 µg/mL	+/- 90.0812
5	Chrysene-d12	1719-03-5	PR-33506	99%	2,000.8 µg/mL	+/- 90.1187
6	Perylene-d12	1520-96-3	PR-33205	99%	2,000.0 µg/mL	+/- 90.0812

* 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

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.

S13198 → S13207 } AC 6/11/25

Catalog No. : 555868 **Lot No.:** A0226493

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, 2028 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzidine	92-87-5	S250227ECS	99%	25,004.0 µg/mL	+/- 495.8040

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

Laith Clemente - Operations Technician I **Date Mixed:** 09-Jun-2025 **Balance:** 1122030677

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part Number: 70434
Lot Number: 121622
Description: Acetophenone

Expiration Date: 121627
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

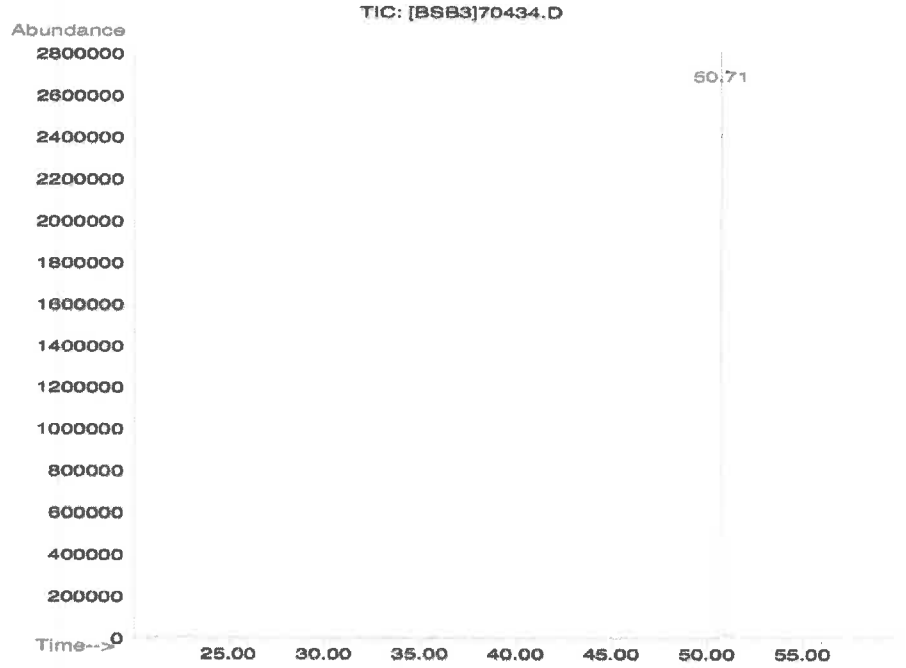
Solvent(s): **Lot#**
Methylene chloride C21F09CAS0000DCM

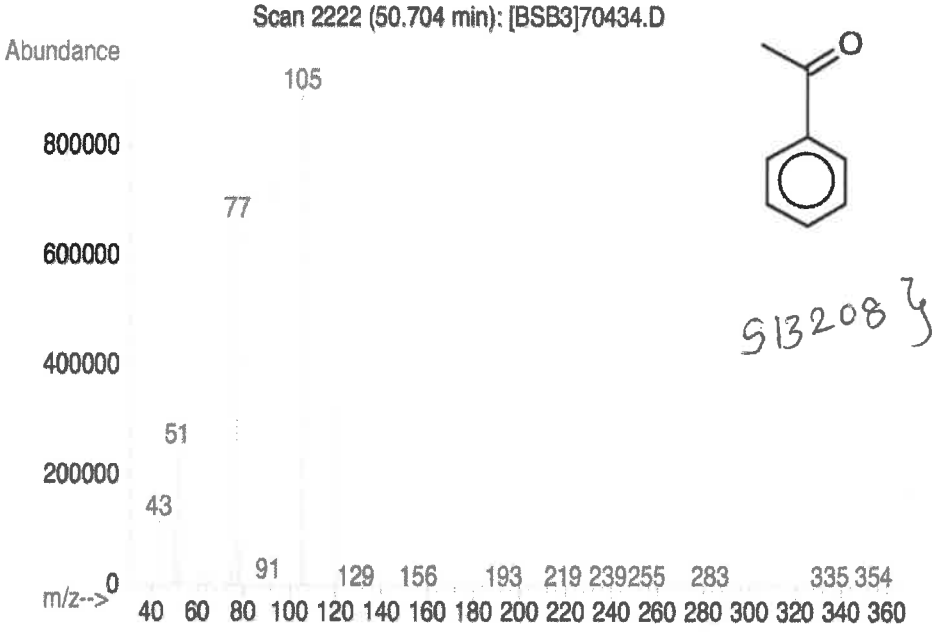
		121622
Formulated By:	Benson Chan	DATE
		121622
Reviewed By:	Pedro L. Rentas	DATE

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetophenone	434	04511JX	1000	99	0.2	0.05055	0.05075	1004.0	4.5	98-86-2	N/A	orl-rat 815mg/kg

Method: GC6MSD-1. **Detector:** MSD. **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp.= 200°C, Detector Temp. = 220°C. **Analyst:** Candice Warren. Solvent delay = 25 minutes.

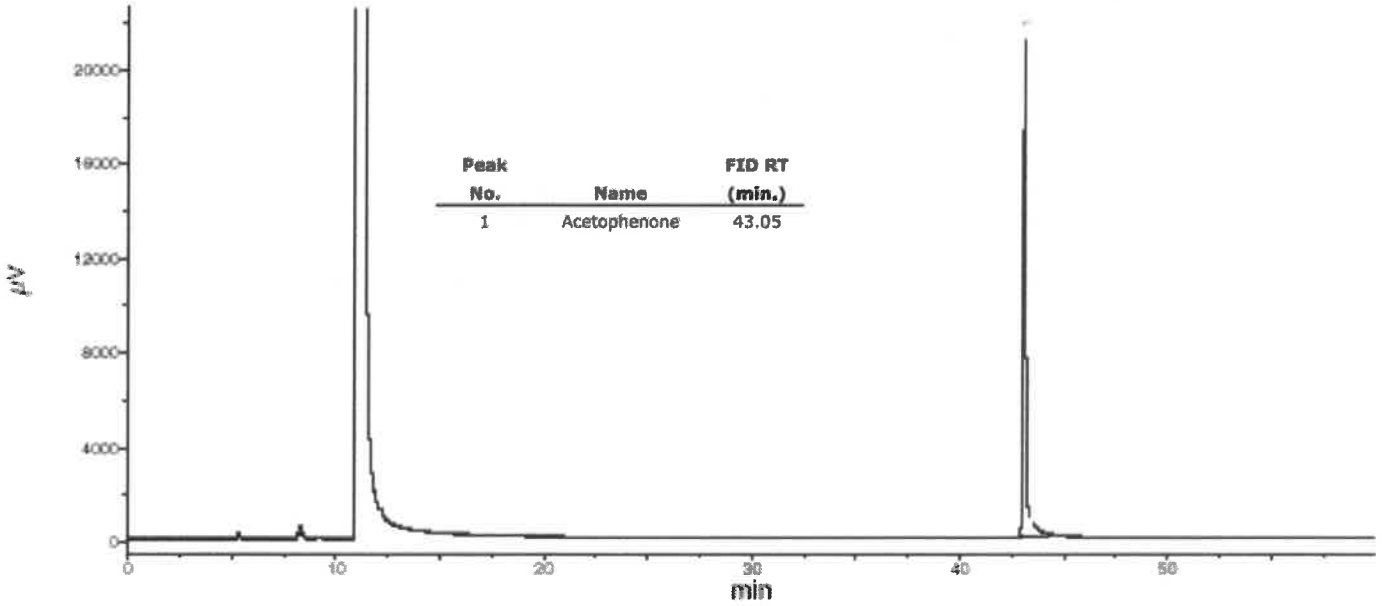




S13208 Y RC/ 6/19/25

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

Comments
GC13-M1 Analysis by Melissa Stonier
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak No.	Name	FID RT (min.)
1	Acetophenone	43.05

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

Certified Reference Material CRM

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

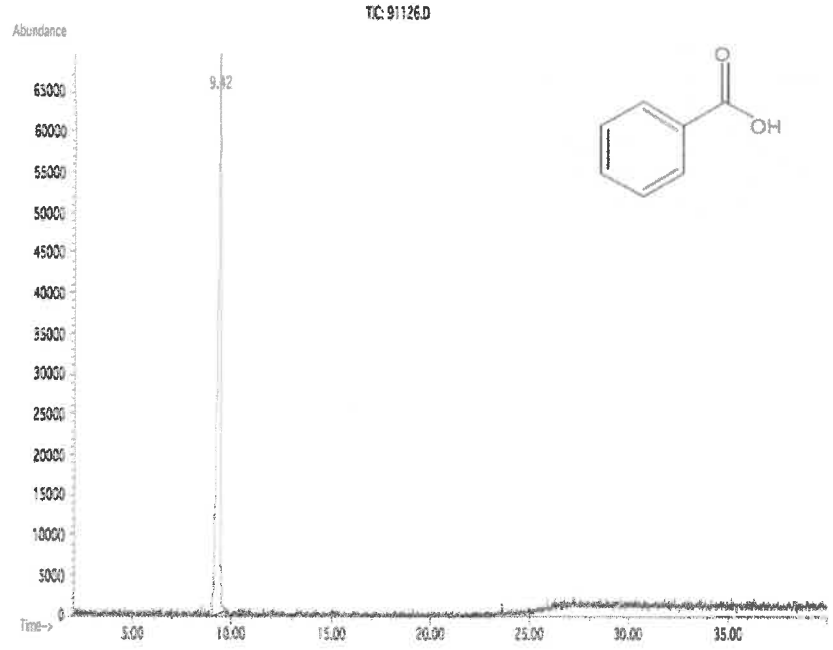
CERTIFIED WEIGHT REPORT

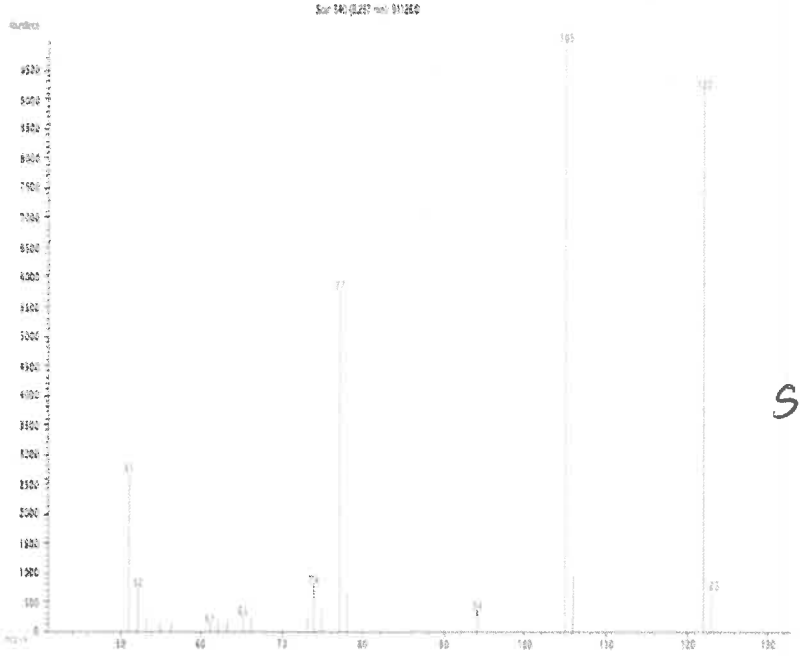
Part Number:	**91126**	**Solvent(s):**	**Lot#**	
Lot Number:	060625	Methylene chloride	23343	
Description:	Benzoic acid			
Expiration Date:	060630			
Recommended Storage:	Refrigerate (4 °C)			
Nominal Concentration (µg/mL):	2000			
NIST Test ID#:	6UTB	5E-05	Balance Uncertainty	
Weight(s) shown below were combined and diluted to (mL):	100.0	0.031	Flask Uncertainty	

		060625
Formulated By:	Anthony Mahoney	DATE
		060625
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzoic acid	34	11930AW	2000.0	99	0.2	0.20211	0.20227	2001.6	8.2	65-85-0	N/A	orl-rat 1700mg/kg

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C. Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Melissa Stonier.





S13209 RC 6/19/25

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated by an ISO 17025 certified organization with weights traceable through NIST to the SI kilogram (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Rev 1.0, 2/25/2025

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part Number: 34571
Lot Number: 092324
Description: 1,2,4,5-Tetrachlorobenzene

Solvent(s): Methanol **Lot#** EI863-US

Expiration Date: 092334
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

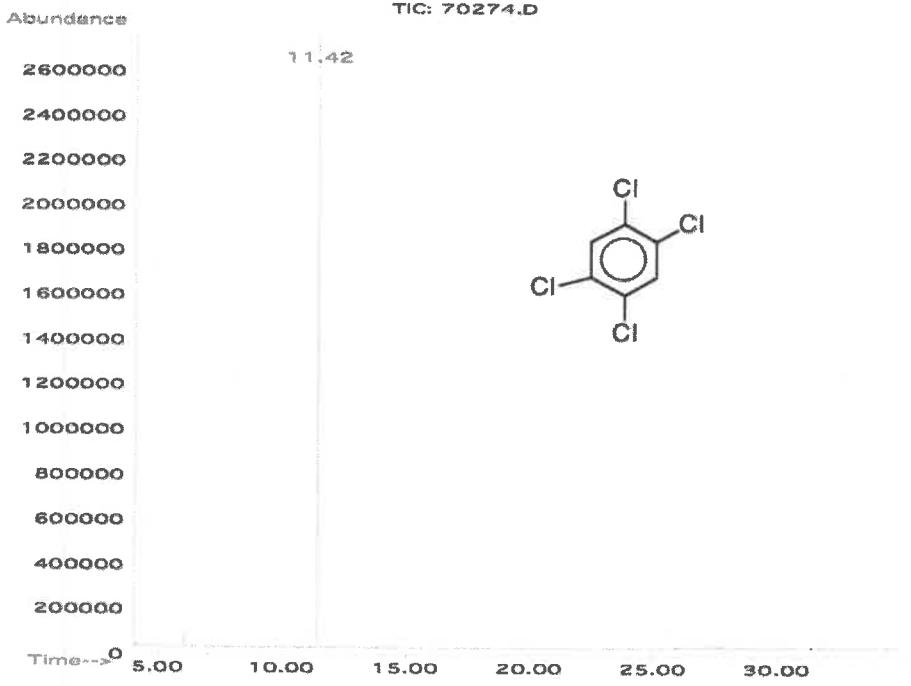
Weight(s) shown below were combined and diluted to (mL): 25.0 | 5E-05 Balance Uncertainty | 0.004 Flask Uncertainty

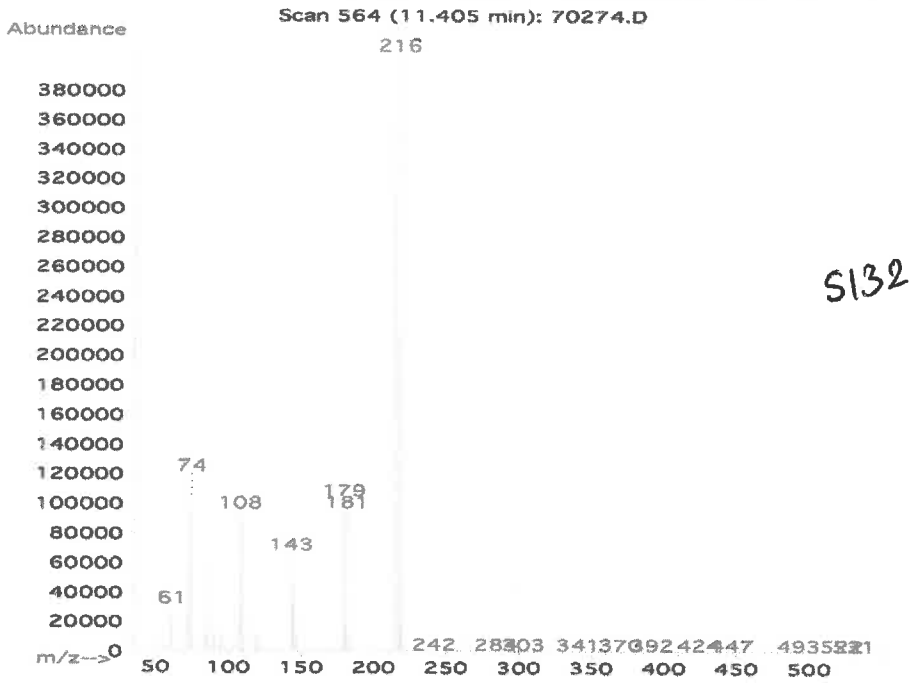
CAUTION: Sonicate Before Use

	Formulated By: Lawrence Barry	DATE
092324		
	Reviewed By: Pedro L. Rentas	DATE
092324		

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,2,4,5-Tetrachlorobenzene	274	10408AS	5000	98	0.20	0.12761	0.12765	5001.4	20.8	95-94-3	N/A	orl-rat 1500mg/kg

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.





S132113 RC 6/19/25.

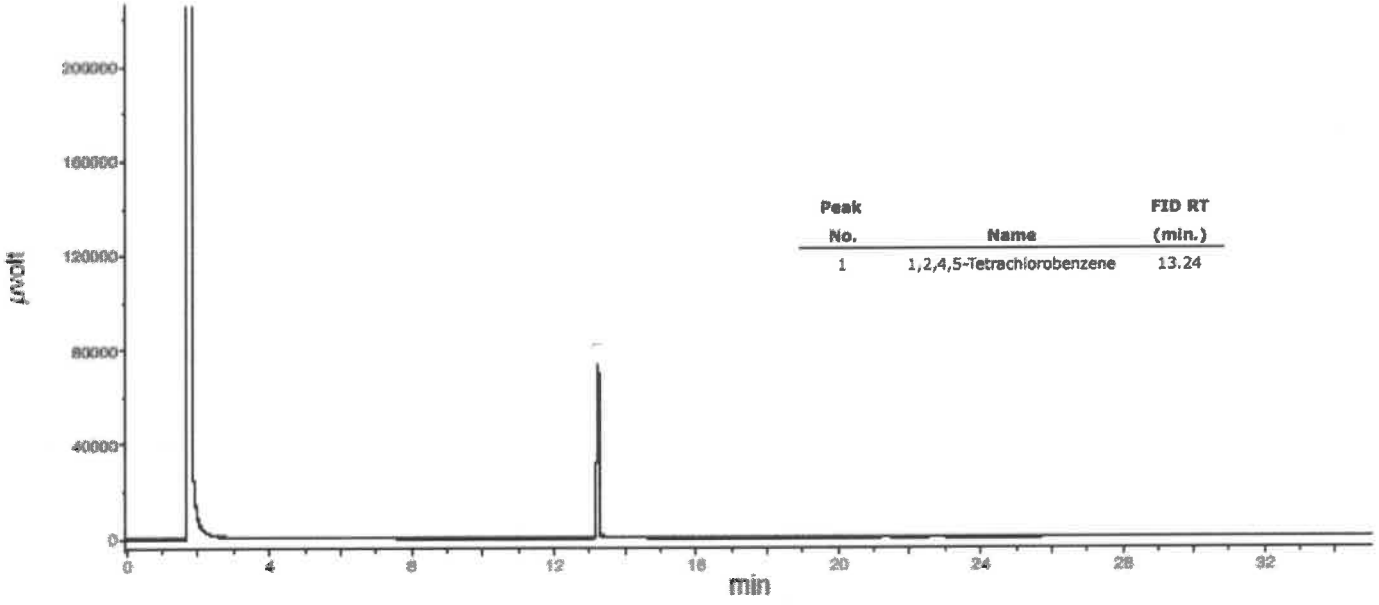
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value,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

Run 31, "P34571 L092324 [5000µg/mL in MeOH]"

Run Length: 35.00 min, 20999 points at 10 points/second.
Created: Fri, Jan 3, 2025 at 11:24:40 AM.
Sampled: Sequence "010225-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments

GC4-M1 Analysis by Melissa Stonier
Column ID SPB5 L#60062-01A : 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 7



Peak No.	Name	FID RT (min.)
1	1,2,4,5-Tetrachlorobenzene	13.24

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

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. : 31879 **Lot No.:** A0221395

Description : Benzoic Acid Mix

Benzoic Acid 2000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2029 **Storage:** 10°C or colder

Ship: Ambient

S13214 ↓ S13218 AC 7/10/25

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzoic acid	65-85-0	MKCR2694	99%	2,002.2 µg/mL	+/- 60.5426

* 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

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. : 582978 **Lot No.:** A0228192

Description : Custom Calibration Standard - C8

Custom Calibration Standard - C8 2,000µg/mL, Methylene chloride, 1mL/ampul

513229 ↓ 513238 } RC/ 8/1/25

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

Expiration Date : July 31, 2028 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	N-Nitrosodimethylamine	62-75-9	S241226RSR	99%	2,000.0 µg/mL	+/- 35.7537
2	Aniline	62-53-3	X22F726	99%	2,002.5 µg/mL	+/- 35.7984
3	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	2,005.0 µg/mL	+/- 35.8431
4	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	2,005.0 µg/mL	+/- 35.8431
5	Benzyl alcohol	100-51-6	094986W07G	99%	2,015.0 µg/mL	+/- 36.0218
6	1,2-Dichlorobenzene	95-50-1	SHBR4446	99%	2,015.0 µg/mL	+/- 36.0218
7	1,2,4-Trichlorobenzene	120-82-1	SHBR1701	99%	2,020.0 µg/mL	+/- 36.1112
8	Azobenzene	103-33-3	BCCL3292	99%	2,005.0 µg/mL	+/- 35.8431

* 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.)

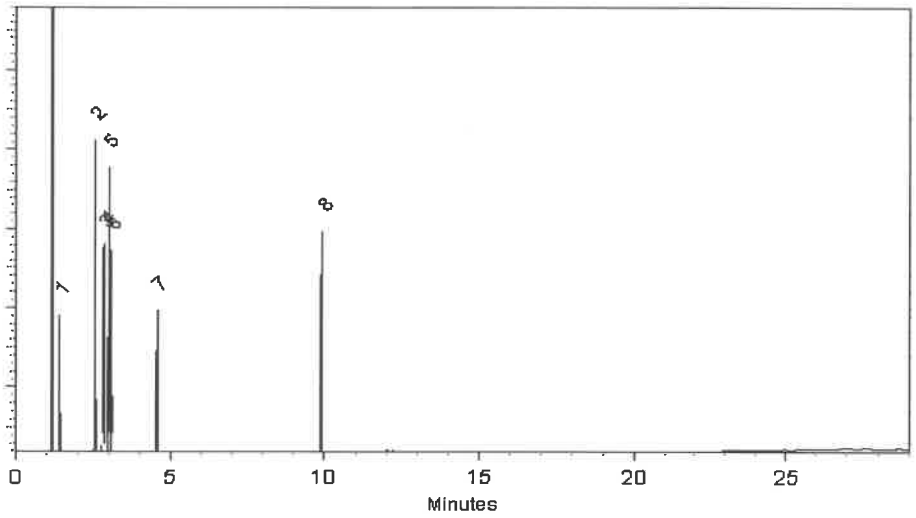
Inj. Temp:
250°C

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.

Wilner Torres - Operation Tech I **Date Mixed:** 27-Jul-2025 **Balance Serial #** B345965662

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 30-Jul-2025 REVIEWED

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

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. : 555223 **Lot No.:** A0228451

S13239 ↓ S13268 } RC 08/06/25

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 : August 31, 2027 **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	S250226RSR	99%	1,006.0 µg/mL	+/- 23.0947
2	Atrazine	1912-24-9	5FYWL	99%	1,007.0 µg/mL	+/- 23.1176
3	Benzidine	92-87-5	S250227ECS	99%	1,003.0 µg/mL	+/- 23.0258
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,003.0 µg/mL	+/- 23.0258

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tom Suckar - Mix Technician **Date Mixed:** 01-Aug-2025 **Balance:** 1128360905

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

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. : 555223 **Lot No.:** A0228451

S13239 ↓ S13268 } RC 08/06/25

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 : August 31, 2027 **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	S250226RSR	99%	1,006.0 µg/mL	+/- 23.0947
2	Atrazine	1912-24-9	5FYWL	99%	1,007.0 µg/mL	+/- 23.1176
3	Benzidine	92-87-5	S250227ECS	99%	1,003.0 µg/mL	+/- 23.0258
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,003.0 µg/mL	+/- 23.0258

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tom Suckar - Mix Technician **Date Mixed:** 01-Aug-2025 **Balance:** 1128360905

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

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. : 555223 **Lot No.:** A0228451

S13239 ↓ S13268 } RC 08/06/25

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 : August 31, 2027 **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	S250226RSR	99%	1,006.0 µg/mL	+/- 23.0947
2	Atrazine	1912-24-9	5FYWL	99%	1,007.0 µg/mL	+/- 23.1176
3	Benzidine	92-87-5	S250227ECS	99%	1,003.0 µg/mL	+/- 23.0258
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,003.0 µg/mL	+/- 23.0258

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tom Suckar - Mix Technician **Date Mixed:** 01-Aug-2025 **Balance:** 1128360905

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

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. : 555223 **Lot No.:** A0228451

S13239 ↓ S13268 } RC 08/06/25

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 : August 31, 2027 **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	S250226RSR	99%	1,006.0 µg/mL	+/- 23.0947
2	Atrazine	1912-24-9	5FYWL	99%	1,007.0 µg/mL	+/- 23.1176
3	Benzidine	92-87-5	S250227ECS	99%	1,003.0 µg/mL	+/- 23.0258
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,003.0 µg/mL	+/- 23.0258

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tom Suckar - Mix Technician **Date Mixed:** 01-Aug-2025 **Balance:** 1128360905

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

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. : 555223 **Lot No.:** A0228451

S13239 ↓ S13268 } RC 08/06/25

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 : August 31, 2027 **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	S250226RSR	99%	1,006.0 µg/mL	+/- 23.0947
2	Atrazine	1912-24-9	5FYWL	99%	1,007.0 µg/mL	+/- 23.1176
3	Benzidine	92-87-5	S250227ECS	99%	1,003.0 µg/mL	+/- 23.0258
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,003.0 µg/mL	+/- 23.0258

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tom Suckar - Mix Technician **Date Mixed:** 01-Aug-2025 **Balance:** 1128360905

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

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. : 555223 **Lot No.:** A0228451

S13239 ↓ S13268 } RC 08/06/25

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 : August 31, 2027 **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	S250226RSR	99%	1,006.0 µg/mL	+/- 23.0947
2	Atrazine	1912-24-9	5FYWL	99%	1,007.0 µg/mL	+/- 23.1176
3	Benzidine	92-87-5	S250227ECS	99%	1,003.0 µg/mL	+/- 23.0258
4	epsilon-Caprolactam	105-60-2	Y16H012	99%	1,003.0 µg/mL	+/- 23.0258

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tom Suckar - Mix Technician **Date Mixed:** 01-Aug-2025 **Balance:** 1128360905

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. : 555224 **Lot No.:** A0228494

S13269 ↓ S13298 } RC 1 08/06/25

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 : August 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,002.0 µg/mL	+/- 29.453715
2	Acetophenone	98-86-2	STBH8205	99%	1,001.0 µg/mL	+/- 29.424320
3	Benzaldehyde	100-52-7	RD250319RSR	99%	1,003.0 µg/mL	+/- 29.483110
4	Benzoic acid	65-85-0	MKCX1578	99%	1,001.0 µg/mL	+/- 29.424320
5	Biphenyl	92-52-4	MKCS5928	99%	1,002.0 µg/mL	+/- 29.453715

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Laith Clemente - Operations Technician I **Date Mixed:** 04-Aug-2025 **Balance:** 1128360905

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

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. : 555869 **Lot No.:** A0201702

Description : Custom Hexachlorocyclopentadiene Standard

Custom Hexachlorocyclopentadiene 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

513148 ↓ 513157 RC 11/13/23

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Hexachlorocyclopentadiene	77-47-4	099063P13G	99%	25,244.0 µg/mL	+/- 450.6896

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

Brittany Federinko - Operations Tech I

Date Mixed: 05-Sep-2023 **Balance:** B707717271

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

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

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

ALLIANCE PROJECT NO.
QUOTE NO. Q3157
COC Number 2045138

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Always Available Construction
ADDRESS: 20 Dead River Rd-
CITY Warren STATE: NJ ZIP: 07059
ATTENTION: Michael Roth
PHONE: (973) 699-4453 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Yard Soil Cleanup
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

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

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

ANALYSIS

1: VOCs
2: TCLP VOA
3: GHG + DEG
4: SVOC, Best. PCBs
5: Met. TOP-TAL
6: Mercury + Cyn.
7: Full TCLP
8:
9:

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES E/F 1	E 2	E 3	E 4	E 5	E 6	E 7	8	9	COMMENTS
1.	20 Dead-1	S.	X		9/19/25	1:45pm	11	X	X	X	X	X	X	X			
2.	20 Dead-1	W		X	9/19/25	1:45pm	4	X	X								
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	9/19/25 1423	1.
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 26.1 °C
Comments: JRB #1

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other _____

Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR 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.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3157 ALWA01
Client Name : Always Available Construct
Client Contact : MIchael Roth
Invoice Name : Always Available Construct
Invoice Contact : MIchael Roth

Order Date : 9/19/2025 2:22:59 PM
Project Name : Yard Soil Cleanup
Receive DateTime : 9/19/2025 2:23:00 PM
Purchase Order :

Project Mgr :
Report Type : Level 1
EDD Type : EXCEL NOCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3157-01	20-DEAD-1	Solid	09/19/2025	13:45					
					VOC-TCLVOA-10	TCL+30/TAL	8260D		10 Bus. Days
Q3157-03	TB	Water	09/19/2025	13:45					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q3157-04	~~TB~~	Water	09/19/2025	13:45					
					~~TCLP VOA~~		8260D		10 Bus. Days

Relinguished By : [signature]
Date / Time : 9/19/25 1446

Received By : Sam
Date / Time : 09/19/25 14:46
Storage Area : VOA Refridgerator Room

Rg H 6
FZ 2
Rg 4