

Prep Standard - Chemical Standard Summary

Order ID : Q1421

Test : Pesticide-TCL

Prepbatch ID : PB166855,

Sequence ID/Qc Batch ID: PL022525,

Standard ID :

EP2583,EP2589,PP23673,PP23674,PP23675,PP23676,PP23677,PP23678,PP23679,PP23680,PP23681,PP23682,PP23683,PP23686,PP23687,PP23690,PP23693,PP23695,PP23698,PP23733,PP23793,PP24091,PP24095,PP24123,

Chemical ID :

E2865,E3551,E3792,E3805,E3806,E3843,E3846,E3847,E3872,E3873,E3877,P11146,P11896,P13036,P13039,P13245, P13349,P13350,P13353,P13359,P13402,



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Extractions STANDARD PREPARATION LOG

Recipe ID 230	NAME 1:1ACETONE/HEXANE	<u>NO.</u> EP2583	Prep Date 02/04/2025		<u>Prepared</u> <u>By</u> Rajesh Parikh	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By RUPESHKUMAR SHAH 02/04/2025
FROM	8000.00000ml of E3872 + 8000.0000	10ml of E381	73 = Final Qu	antity: 8000.00	0 ml			

<u>Recipe</u>				Expiration	Prepared			Supervised By
ID	NAME	<u>NO.</u>	Prep Date	<u>Date</u>	<u>By</u>	<u>ScaleID</u>	PipettelD	RUPESHKUMAR
3923	Baked Sodium Sulfate	<u>EP2589</u>	02/14/2025	07/01/2025	Rajesh Parikh	Extraction_SC	None	SHAH
						ALE_2		02/14/2025
FROM	4000.00000gram of E3551 = Final G	uantity: 400	0.000 gram			(EX-SC-2)		



Recipe ID 84	NAME Pest/PCB Surrogate Stock 20 PPM	<u>NO.</u> PP23673	Prep Date 09/21/2024	Expiration Date 03/11/2025	Prepared By Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	1.00000ml of P13349 + 9.00000ml of	f E3792 = F	inal Quantity:	10.000 ml				

<u>Recipe</u> <u>ID</u> 3629	NAME 20 PPM PEST stock Solution 1st source(RESTEK)	<u>NO.</u> PP23674	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	1.00000ml of P13036 + 9.00000ml of	I f E3792 = F	inal Quantity:	10.000 ml				



Recipe ID 1472	NAME 20 PPM Pest Stock Solution 2nd Source	<u>NO.</u> PP23675	Prep Date 09/21/2024	Expiration Date 03/11/2025	Prepared By Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	1.00000ml of P13039 + 9.00000ml o	f E3792 = F	inal Quantity:	10.000 ml				

<u>Recipe</u> <u>ID</u> 1273	NAME 20 PPM Mirex Stock (Primary Source)	<u>NO.</u> PP23676	<u>Prep Date</u> 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	PipettelD None	<u>Supervised By</u> Ankita Jodhani 10/01/2024
FROM	0.20000ml of P11146 + 9.80000ml of	E3792 = F	I inal Quantity:	10.000 ml				10/01/2024



<u>Recipe</u> <u>ID</u> 3663	NAME 20 PPM MIREX Stock STD (Secondary source)	<u>NO.</u> PP23677	Prep Date 09/21/2024	Expiration Date 03/11/2025	Prepared By Abdul Mirza	<u>ScaleID</u> None	PipetteID None	Supervised By Ankita Jodhani 10/01/2024
FROM	0.20000ml of P11146 + 9.80000ml of	E3792 = F	inal Quantity:	10.000 ml				
Recipe				Expiration	Prenared			Supervised By

<u>Recipe</u>				Expiration	Prepared			Supervised By
<u>ID</u>	NAME	<u>NO.</u>	Prep Date	<u>Date</u>	<u>By</u>	<u>ScaleID</u>	PipetteID	Ankita Jodhani
3630	100/100 PPB PEST Working	PP23678	09/21/2024	03/11/2025	Abdul Mirza	None	None	
	std.1st Source(RESTEK)							10/01/2024
FROM	98.50000ml of E3792 + 0.50000ml o	f PP23673 +	- 0.50000ml o	f PP23674 + 0.	50000ml of PP2	23676 = Final G	Quantity: 100.0	00
	ml							



Recipe ID 80	NAME 100/100 PPB Pesticide Working Solution 2nd Source	<u>NO.</u> PP23679	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	PipetteID None	Supervised By Ankita Jodhani 10/01/2024
FROM	98.50000ml of E3792 + 0.50000ml o ml	f PP23673 +	⊦ 0.50000ml o	f PP23675 + 0.	50000ml of PP2	23677 = Final C	Quantity: 100.0	00

NAME	<u>NO.</u>	Prep Date	Expiration Date	<u>Prepared</u> <u>By</u>	<u>ScaleID</u>	PipettelD	<u>Supervised By</u> Ankita Jodhani
1000/100 PPB Chlordane STD (Restek)	<u>PP23680</u>	09/21/2024	03/11/2025	Abdul Mirza	None	None	10/01/2024
0.10000ml of P11896 + 99.40000ml o	of E3792 + ().50000ml of F	PP23673 = Fin	al Quantity: 100).000 ml		
	1000/100 PPB Chlordane STD (Restek)	1000/100 PPB Chlordane STD (Restek)	1000/100 PPB Chlordane STD PP23680 09/21/2024 (Restek) 09/21/2024 09/21/2024	1000/100 PPB Chlordane STD PP23680 09/21/2024 03/11/2025 (Restek) (Restek	1000/100 PPB Chlordane STD PP23680 09/21/2024 03/11/2025 Abdul Mirza (Restek) (Res	1000/100 PPB Chlordane STD PP23680 09/21/2024 03/11/2025 Abdul Mirza None	1000/100 PPB Chlordane STD (Restek)PP2368009/21/202403/11/2025Abdul MirzaNoneNone



Recipe ID 3746	NAME 1000/100 ppb Chlordane STD-RESTEK 2ND SOURCE	<u>NO.</u> PP23681	Prep Date 09/21/2024	Expiration Date 03/11/2025	Prepared By Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	0.10000ml of P11896 + 99.40000ml o	of E3792 + ().50000ml of f	P23673 = Fin	al Quantity: 100).000 ml		
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Recipe				Expiration	Prepared			Supervised By
ID	NAME	<u>NO.</u>	Prep Date	<u>Date</u>	<u>By</u>	<u>ScaleID</u>	PipetteID	Ankita Jodhani
383	1000/100 PPB Toxaphene STD	PP23682	09/21/2024	03/11/2025	Abdul Mirza	None	None	
	(Restek)							10/01/2024
FROM	0.10000ml of P13359 + 99.40000ml	of E3792 + (0.50000ml of I	PP23673 = Fir	al Quantity: 100).000 ml		
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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID 3669	NAME 1000/100 PPB TOXAPHENE STD 2nd source (RESTEK)	<u>NO.</u> PP23683	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
<u>FROM</u>	0.10000ml of P13402 + 99.40000ml (of E3792 + (I 0.50000ml of I	I PP23673 = Fir	al Quantity: 100).000 ml	1	

Recipe				Expiration	Prepared			Supervised By
<u>ID</u>	NAME	<u>NO.</u>	Prep Date	<u>Date</u>	<u>By</u>	<u>ScaleID</u>	PipetteID	Ankita Jodhani
3632	50 PPB ICAL PEST	PP23686	09/21/2024	03/11/2025	Abdul Mirza	None	None	
	STD(RESTEK)							10/01/2024
FROM	0.50000ml of E3792 + 0.50000ml of	PP23678 =	Final Quantity	y: 1.000 ml				

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Recipe ID 3988	NAME 50 PPB PEST ICV STD(RESTEK)	<u>NO.</u> PP23687	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	0.50000ml of E3792 + 0.50000ml of I	PP23679 =	Final Quantity	y: 1.000 ml				

<u>Recipe</u> <u>ID</u> 529	NAME CHLOR 500 PPB STD	<u>NO.</u> PP23690	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	<u>Supervised By</u> Ankita Jodhani 10/01/2024
<u>FROM</u>	0.50000ml of E3792 + 0.50000ml of l	PP23680 =	Final Quantity	y: 1.000 ml				1010 11202 1



Recipe ID 532	NAME CHLOR 500 PPB ICV STD	<u>NO.</u> PP23693	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	0.50000ml of E3792 + 0.50000ml of	PP23681 =	Final Quantit	y: 1.000 ml				

Recipe ID 534	NAME TOX 500 PPB STD	<u>NO.</u> PP23695	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	0.50000ml of E3792 + 0.50000ml of l	PP23682 =	Final Quantity	y: 1.000 ml			<u> </u>	10/01/2024



Recipe ID 3670	NAME TOX 500 PPB ICV std (RESTEK)	<u>NO.</u> PP23698	Prep Date 09/21/2024	Expiration Date 03/11/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 10/01/2024
FROM	0.50000ml of E3792 + 0.50000ml of I	PP23683 =	Final Quantity	y: 1.000 ml				

NAME	<u>NO.</u>	Prep Date	Expiration Date	<u>Prepared</u> <u>By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u> Yogesh Patel
Pest/PCB Surrogate Stock 20 PPM	<u>PP23733</u>	10/03/2024	03/30/2025	Ankita Jodhani	None	None	10/03/2024
1.00000ml of P13350 + 9.00000ml of	f E3805 = F	inal Quantity:	10.000 ml				
	Pest/PCB Surrogate Stock 20 PPM	Pest/PCB Surrogate Stock 20 PP23733 PPM	Pest/PCB Surrogate Stock 20PP2373310/03/2024PPM10/03/2024	NAME NO. Prep Date Date Pest/PCB Surrogate Stock 20 PP23733 10/03/2024 03/30/2025	NAMENO.Prep DateDateByPest/PCB Surrogate Stock 20PP2373310/03/202403/30/2025Ankita JodhaniPPMImage: Stock 20Image: Stock 20Image: Stock 20Image: Stock 20Image: Stock 20	NAMENO.Prep DateDateByScaleIDPest/PCB Surrogate Stock 20PP2373310/03/202403/30/2025Ankita JodhaniNonePPM	NAMENO.Prep DateDateByScaleIDPipetteIDPest/PCB Surrogate Stock 20PP2373310/03/202403/30/2025Ankita JodhaniNoneNonePPM



Recipe ID 518	NAME Pest/PCB I.BLK 20 PPB	<u>NO.</u> PP23793	Prep Date 10/03/2024	Expiration Date 03/30/2025	<u>Prepared</u> <u>By</u> Ankita Jodhani	<u>ScaleID</u> None	PipetteID None	Supervised By Yogesh Patel 10/03/2024
<u>FROM</u>	99.90000ml of E3805 + 0.10000ml of	PP23733	= Final Quanti	ty: 100.000 ml				
Recipe	NAME	NO	Dran Data	Expiration	Prepared	SeelelD	DinettelD	Supervised By

Recipe				Expiration	Prepared			Supervised By
ID	NAME	<u>NO.</u>	Prep Date	Date	By	<u>ScaleID</u>	PipetteID	Ankita Jodhani
79	500 PPB Pesticide Spike Solution	PP24091	12/17/2024	03/11/2025	Abdul Mirza	None	None	
								12/18/2024
FROM	95.00000ml of E3843 + 2.50000ml of	f PP23675 +	+ 2.50000ml o	f PP23677 = F	inal Quantity: 1	00.000 ml		



Recipe ID 4027	NAME Pesticide resolution Check Mixture 8081	<u>NO.</u> PP24095	Prep Date 12/23/2024	Expiration Date 06/16/2025	Prepared By Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 12/30/2024
FROM	1.00000ml of P13245 + 99.00000ml	of E3847 =	Final Quantity	/: 100.000 ml				

<u>Recipe</u> <u>ID</u> 465	NAME 200 PPB Pest/PCB Surrogate Spike	<u>NO.</u> PP24123	Prep Date 01/20/2025	Expiration Date 06/26/2025	<u>Prepared</u> <u>By</u> Abdul Mirza	<u>ScaleID</u> None	<u>PipetteID</u> None	Supervised By Ankita Jodhani 01/20/2025
FROM	1.00000ml of P13353 + 999.00000ml	l of E3846 =	I = Final Quanti	ty: 1000.000 n	nl			01/20/2023



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)	0000243821	06/30/2025	04/30/2020 / RAJESH	04/28/2020 / RAJESH	E2865
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24C1862008	03/11/2025	09/12/2024 / Rajesh	09/11/2024 / Rajesh	E3792
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24C1862008	03/30/2025	09/30/2024 / Rajesh	09/25/2024 / Rajesh	E3805
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Agela Technologies Inc.	FS0006 / Cleanert Florisil cartridge	M06518	03/25/2025	10/01/2024 / Rajesh	09/25/2024 / Rajesh	E3806

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	06/05/2025	12/05/2024 / Rajesh	12/05/2024 / Rajesh	E3843



ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	06/26/2025	12/26/2024 / Rajesh	12/13/2024 / Rajesh	E3846
ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	06/16/2025	12/16/2024 / Rajesh	12/13/2024 / Rajesh	E3847
ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	07/29/2025	01/29/2025 / Rajesh	01/29/2025 / Rajesh	E3872
	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) ItemCode / ItemName BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L) ItemCode / ItemName BA-9262-03 / Hexane,	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) 24H2762008 ItemCode / ItemName Lot # BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L) 24G1962003 ItemCode / ItemName Lot # BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L) 24G1962003 ItemCode / ItemName Lot # BA-9262-03 / Hexane, 24G1962003	ItemCode / ItemNameLot #DateBA-9254-03 / Acetone, Ultra Resi (cs/4x4L)24H276200806/26/2025ItemCode / ItemNameLot #Expiration DateBA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)24G196200306/16/2025ItemCode / ItemNameLot #Expiration DateItemCode / ItemNameLot #Expiration DateBA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)24G196200306/16/2025ItemCode / ItemNameLot #Expiration DateBA-9262-03 / Hexane, BA-9262-03 / Hexane,24G196200307/29/2025	ItemCode / ItemNameLot #DateOpened ByBA-9254-03 / Acetone, Ultra Resi (cs/4x4L)24H276200806/26/202512/26/2024 / RajeshItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByBA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)24G196200306/16/202512/16/2024 / RajeshItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByBA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)24G196200306/16/202512/16/2024 / RajeshItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByBA-9262-03 / Hexane, BA-9262-03 / Hexane,24G196200307/29/202501/29/2025 /	ItemCode / ItemNameLot #DateOpened ByReceived ByBA-9254-03 / Acetone, Ultra Resi (cs/4x4L)24H276200806/26/202512/26/2024 / Rajesh12/13/2024 / RajeshItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received ByBA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)24G196200306/16/202512/16/2024 / Rajesh12/13/2024 / Received ByItemCode / ItemNameLot #Expiration DateDate Opened / Opened ByReceived Date / Received ByBA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)Lot #Expiration DateDate Opened / Received ByReceived Date / Received ByBA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)Lot #Expiration DateDate Opened / Received ByReceived Date / Received ByBA-9262-03 / Hexane,Lot #Expiration DateDate Opened J Opened ByReceived Date / Received Date / Opened ByBA-9262-03 / Hexane,24G196200307/29/202501/29/2025 / 01/29/2025 /01/29/2025 /

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	07/29/2025	01/29/2025 / Rajesh	01/29/2025 / Rajesh	E3873

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	243570	08/12/2025	02/12/2025 / Rajesh	02/12/2025 / Rajesh	E3877

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	79136 / Mirex, 1000 ug/ml	102821	03/21/2025	09/21/2024 / Abdul	10/29/2021 / Abdul	P11146



Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32021 / Chlordane Std.	A0181737	03/21/2025	09/21/2024 / Abdul	06/17/2022 / Abdul	P11896
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32291 / Pesticide Mix, CLP method, organochlorine Std AB#1, 200ug/mL, hexane/toluene, 1mL/ampul	A0200423	03/21/2025	09/21/2024 / Abdul	12/26/2023 / Abdul	P13036
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32291 / Pesticide Mix, CLP method, organochlorine Std AB#1, 200ug/mL, hexane/toluene, 1mL/ampul	A0199099	03/21/2025	09/21/2024 / Abdul	12/26/2023 / Abdul	P13039
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	19161 / 8081 pesticide resolution check mixture	013124	06/23/2025	12/23/2024 / Abdul	02/09/2024 / Abdul	P13245
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL	A0206810	03/21/2025	09/21/2024 / Abdul	04/22/2024 / Abdul	P13349
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL	A0206810	04/03/2025	10/03/2024 / Ankita	04/22/2024 / Abdul	P13350



Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL	A0206810	07/20/2025	01/20/2025 / Abdul	04/22/2024 / Abdul	P13353
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32005 / Toxaphene Standard	A0203830	03/21/2025	09/21/2024 / Abdul	05/03/2024 / Abdul	P13359
Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32005 / Toxaphene Standard	A0203038	03/21/2025	09/21/2024 / Abdul	05/15/2024 / Abdul	P13402

Sand Purified Washed and Ignited



Material No.: 3382-05 Batch No.: 0000243821 Manufactured Date: 2018/04/09 Retest Date: 2025/04/07

Revision No: 1

Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCI	<= 0.16 %	0.01

For Laboratory, Research or Manufacturing Use Meets Reagent Specifications for testing USP/NF monographs

Country of Origin:	US
Packaging Site:	Paris Mfg Ctr & DC





For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700 Avantor Performance Materials, LLC 100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700



PRODUCTOS QUIMICOS MONTERREY, S.A. DE CY. MIRADOR 201, COL. MIRADOR MONTERREY, N.L. MEXICO CP 64070 TEL +52 81 13 52 57 57 WWW.pgm.com.mx

CERTIFICATE OF ANALYSIS

				NA.CO
SPECIFICATION NUMBER :	-		E DATE:	Na ₂ SO ₄ ABR/21/2023
	3201	N.a.L.a.M.O	E 1974 I E.	ADR/2 1/2023
TEST	SPECI	FICATIONS	LOT V	ALUES
Assay (Na ₂ SO ₄)	Min. 99	1.0%	99.7 %	
pH of a 5% solution at 25°C	5.2 - 9.	2	6.1	
Insoluble matter	Max. 0.	01%	0.005	1
Loss on ignition	Max. 0.	5%	0.1 %	16
Chloride (Cl)	Max. 0.	001%	<0.001	0/
Nitrogen compounds (as N)	Max. 5	ppm	<0.001 <5 ppn	
Phosphate (PO ₄)	Max. 0.		<0.001	
Heavy metals (as Pb)	Max. S			
Iron (Fe)	Max, 0,	9 R ·	<5 ppn <0.001	
Calcium (Ca)	Max. 0.	01%	0.002 %	
Magnesium (Mg)	Max. 0.	005%	0.002 9	
Potassium (K)	Max. 0.		0.003 %	
Extraction-concentration suit	ability Passes	test	Passes	*
Appearance	Passes		Passes	
Identification	Passes	test	Passes	test
Solubility and foreing matter		test	Passes	: test
Retained on US Standard No.		h	0.1 %	
Retained on US Standard No.	60 sieve Min. 94	a/ ₀	97.3 %	
Through US Standard No. 60	sieve Max. 5%	46	2.5 %	
Through US Standard No. 100) sieve Max. 10	1%	0.1 %	
an second a second s	CON	MENTS	ಕ್ಷಿತ್ರಾಲೆಗೂ ಕಾರ್ಯಕ್ರಿ ಕ್ರಿತಿ ನಿರ್ದೇಶಕರ್ಷ ಪ್ರಾರಂಭ	
91 <i>0</i> 91			n+	15 HANDOWNI
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			1	
		QC: Ph	C Irma Belma	res

If you need further details, please call our factory or contact our local distributor.

Read. by Ri on 7/293 E 3551

RE-02-01, Ed. 1

Hexanes (95% n-hexane) BAKER RESI-ANALYZED® Reagent For Organic Residue Analysis





Material No.: 9262-03 Batch No.: 24C1862008 Manufactured Date: 2024-01-30 Expiration Date: 2025-04-30 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 Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive impurities (as Ethylene Dibromide) - Single impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C6 Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 1 0	5
Residue after Evaporation	≤ 1.0 ppm	0.4 ppm
Substances Darkened by H2SO4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

Recd by RP on 09/11/24 E 3192



100

Director Quality Operations, Bioscience Production

Hexanes (95% n-hexane) BAKER RESI-ANALYZED® Reagent For Organic Residue Analysis

(Vavantor"



Material No.: 9262-03 Batch No.: 24C1862008 Manufactured Date: 2024-01-30 Expiration Date: 2025-04-30 Revision No.: 0

Certificate of Analysis

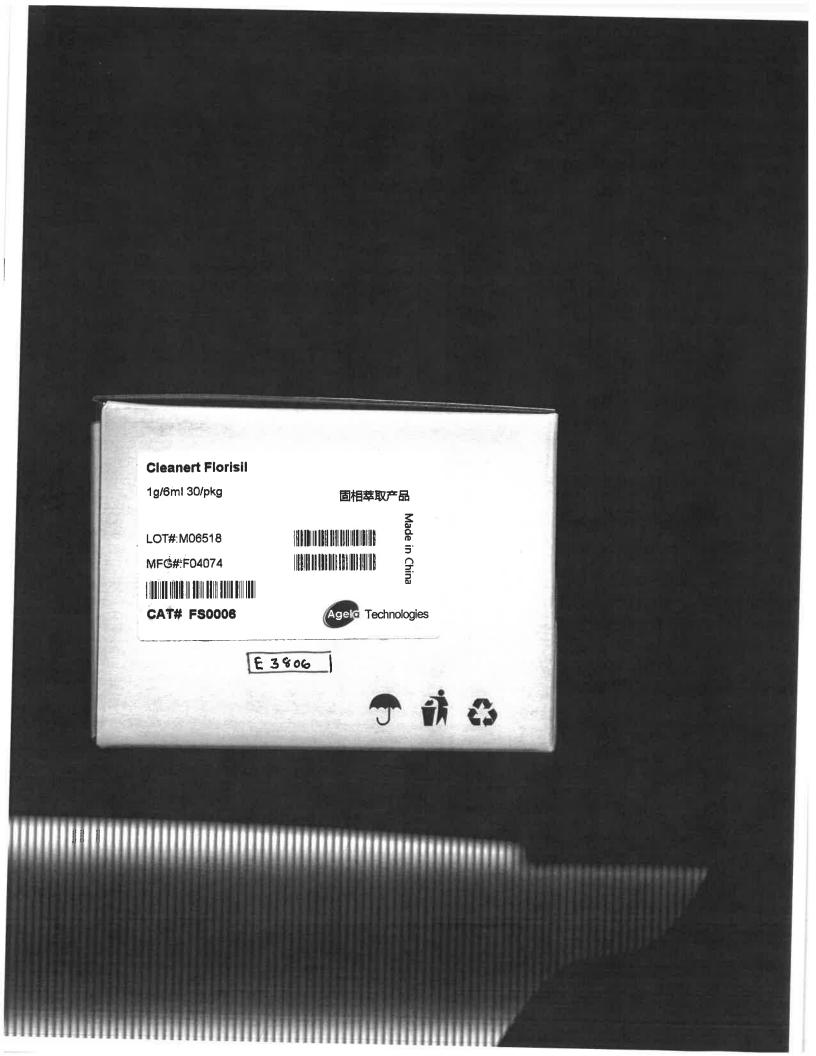
Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) – Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C $_6$ Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.4 ppm
Substances Darkened by H2SO4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

Recd. by RP on 9/25/24 E 3805





Acetone BAKER RESI-ANALYZED® Reagent For Organic Residue Analysis





Material No.: 9254-03 Batch No.: 24H2762008 Manufactured Date: 2024-04-18 Expiration Date:2027-04-18 **Revision No.: 0**

Certificate of Analysis

Test	Specification	Result
Assay ((CH3)2CO) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H2O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak	<= 5	1
(ng/mL) ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

Recd. 51 RP on 12/5/24

E 3843

{l'Ioak Jamie Croak Director Quality Operations, Bioscience Production

Acetone

BAKER RESI-ANALYZED® Reagent

For Organic Residue Analysis





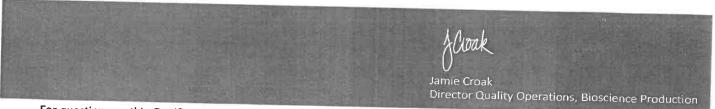
Material No.: 9254-03 Batch No.: 24H2762008 Manufactured Date: 2024-04-18 Expiration Date:2027-04-18 **Revision No.: 0**

Certificate of Analysis

Test	Specification	Result
Assay ((CH3)2CO) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H2O)	<= 0.5 %	
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	<0.1 % 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



For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700 Arrandan Daufannanan Masandala I I m

n-Hexane 95% ULTRA RESI-ANALYZED For Organic Residue Analysis





Material No.: 9262-03 Batch No.: 24G1962003 Manufactured Date: 2024-05-23 Expiration Date: 2025-08-22 Revision No.: 0

Certificate of Analysis

Test	C 10	
FID-Sensitive Immunity of a	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL) ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak	≤ 10	1
	≤ 5	1
Assay (Total Saturated C₅ Isomers) (by GC, corrected for water) Assay (as n-Hexane) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Color (APHA)	≥ 95 %	98 %
Residue after Evaporation	≤ 10	5
ubstances Darkened by H2SO4	≤ 1.0 ppm	0.1 ppm
Nater (by KF, coulometric)	Passes Test	Passes Test
	≤ 0.05 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

Recd. by RP on 12/13/24 E3847



n-Hexane 95% ULTRA RESI-ANALYZED For Organic Residue Analysis





Material No.: 9262-03 Batch No.: 24G1962003 Manufactured Date: 2024-05-23 Expiration Date: 2025-08-22 Revision No.: 0

Certificate of Analysis

Test	Constitute of	
FID Sensitive to a set	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	3
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	I
Assay (Total Saturated C6 Isomers) (by GC, corrected for water)	-	1
Assay (as n-Hexane) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Color (APHA)	≥ 95 %	98 %
Residue after Evaporation	≤ 10	5
	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H2SO4	Passes Test	
Vater (by KF, coulometric)	≤ 0.05 %	Passes Test
	- 0.05 /0	< 0.01 %

For Laboratory,Research,or Manufacturing Use MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

Reed 57 RP on 1/29/25 E 3872



Acetone BAKER RESI-ANALYZED® Reagent For Organic Residue Analysis



Material No.: 9254-03 Batch No.: 24H2762008 Manufactured Date: 2024-04-18 Expiration Date:2027-04-18 Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH3)2CO) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H2O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2–Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory,Research,or Manufacturing Use MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

Recd. 57 Rp on 1/29/25 [E3873]



Certificate of Analysis ThermoFisher SCIENTIFIC

System

Certificate of Analysis

1 Reagent Lane	
Fair Lawn, NJ 07410	
201.796.7100 tel	Thermo Fisher Scientific's Quality System has been found to conform to Quality Management
201.796.1329 fax	Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	H303	Quality Test / Release Date	11/07/2024
Lot Number	243570		
Description	HEXANES - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Nov/2029
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ASSAY (N-HEXANE)	%	>= 60	69
ASSAY (SUM C6 HYDROCARBONS)	%	>= 99.9	>99.9
COLOR	APHA	<= 5	<5
DENSITY AT 25 DEGREES C	GM/ML	Inclusive Between 0.653 - 0.673	0.669
EVAPORATION RESIDUE	ppm	<= 1	<1
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 195 NM	ABS. UNITS	<= 1	0.74
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.17
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.07	0.05
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.001
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<10
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.375 - 1.385	1.379
SUITABILITY FOR GC/MS		= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.005	<0.005
THIOPHENE	PASS/FAIL	= PASS TEST	PASS TEST
WATER (H2O)	%	<= 0.01	<0.01
WATER-SOLUBLE TITRABLE ACID	MEQ/G	<= 0.0003	0.0001

Recd-by om 2/12/25 E387

Harout Sahagian - Quality Control Manager - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above. If there are any questions with this certificate, please call at (800) 227-6701. *Based on suggested storage condition.



* CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #322202

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

www.restek.com

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. :	32021	Lot No.:	A0181737	
Description :	Chlordane Standard			
	Chlordane Standard 1000µg/	mL, Hexane, 1mL/ampul		
Container Size :	2 mL	Pkg Amt:	> 1 mL	
Expiration Date :	May 31, 2028	Storage:	10°C or colder	
		Ship:	Ambient	

CERTIFIED VALUES

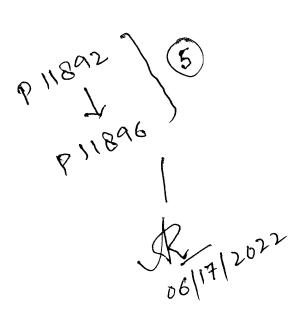
11 July

Elution	Compound	Grav. Conc.	Expanded Uncertainty
Order		(weight/volume)	(95% C.L.; K=2)
1	Chlordane CAS # 57-74-9 (Lot 978545) Purity %	1,006.0 µg/mL	+/- 5.9753 μg/mL Gravimetric +/- 31.8975 μg/mL Unstressed +/- 41.6615 μg/mL Stressed

Hexane	
CAS #	110-54-3
Purity	99%
	CAS #

Tech Tips:

CAS #57-74-9 nomenclature is based on EPA method 8081B.



Column: 30m x .25mm x .2um Rtx-CLP II (cat.# 11323)

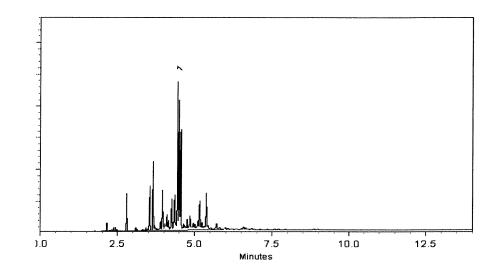
Carrier Gas: helium-constant pressure 20 psi.

Temp. Program: 200°C to 300°C @ 25°C/min. (hold 10 min.)

Inj. Temp: 250°C

Det. Temp: 300°C

Det. Type: ECD



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.



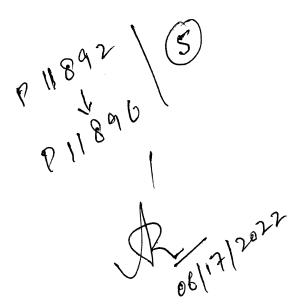
Date Mixed: 11-Feb-2022

Balance: B442140311



,# . Date Passed: 24-Feb-2022

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





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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis chromatographic plus



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : Description :	32291 Organochlorine Pesticide Mix AB #1	Lot No.: <u>A0199099</u>	- P1302
-	Organochlorine Pesticide Mix AB #1 1mL/ampul	200µg/mL, Hexane/Toluene(50:50),	- P1301
Container Size : Expiration Date :	2 mL June 30, 2027	Pkg Amt: > 1 mL Storage: 10°C or colder	- RAUE 9.2023
		Ship: Ambient	- 12.20

CERTIFIED VALUES

Elution Order	Compound	CAS#	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	alpha-BHC	319-84-6	14434500	99%	200.0 µg/mL	+/- 8.9732
2	gamma-BHC (Lindane)	58-89-9	14184400	98%	200.1 μg/mL	+/- 8.9762
3	beta-BHC	319-85-7	BCCC6425	99%	200.3 µg/mL	+/- 8.9844
4	delta-BHC	319-86-8	14450800	98%	200.0 µg/mL	+/- 8.9740
5	Heptachlor	76-44-8	813251	99%	200.1 µg/mL	+/- 8.9754
6	Aldrin	309-00-2	14389400	98%	200.0 μg/mL	+/- 8.9718
7	Heptachlor epoxide (isomer B)	1024-57-3	14448800	99%	200.1 μg/mL	+/- 8.9754
8	trans-Chlordane	5103-74-2	32943	98%	199.9 μg/mL	+/- 8.9696
9	cis-Chlordane	5103-71-9	31766	98%	200.1 μg/mL	+/- 8.9762
10	Endosulfan I	959-98-8	BCCF4060	99%	200.1 μg/mL	+/- 8.9754
11	4,4'-DDE	72-55-9	GHYQG	99%	200.1 μg/mL	+/- 8.9777
12	Dieldrin	60-57-1	11129900	98%	200.0 µg/mL	+/- 8.9718
13	Endrin	72-20-8	14123200	98%	199.9 μg/mL	+/- 8.9696
14	4,4'-DDD	72-54-8	HAN02	99%	200.1 μg/mL	+/- 8.9777
15	Endosulfan II	33213-65-9	14374700	99%	200.0 μg/mL	+/- 8.9732
16	4,4'-DDT	50-29-3	230410JLMA	98%	200.0 μg/mL	+/- 8.9718



17	Endrin aldehyde	7421-93-4	30720	98%	200.1 µg/mL	+/- 8.9784
18	Endosulfan sulfate	1031-07-8	BCCH9010	99%	200.0 µg/mL	+/- 8.9732
19	Methoxychlor	72-43-5	13668200	99%	200.1 µg/mL	+/- 8.9777
20	Endrin ketone	53494-70-5	1-ABS-16-7	98%	200.0 µg/mL	+/- 8.9740

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

Solvent: Hexane/Toluene (50:50) CAS # 110-54-3/108-88-3 Purity 99%

P 13039 5 P13043 5 P13043 5 12126123

Quality Confirmation Test

Column: 30m x .25mm x .2um Rtx-CLP II (cat.# 11323) **Carrier Gas:** helium-constant pressure 20 psi. Temp. Program: 150°C to 300°C @ 4°C/min. (hold 5 min.) Inj. Temp: 200°C Det. Temp: 300°C Det. Type: ECD Split Vent: Split ratio 50:1 Inj. Vol 10 1µI Ö 20 30 Minutes

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.

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Gh Binally

Josh McCloskey - Operations Technician I

5 Rolling

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 23-Jun-2023

19-Jun-2023

Balance Serial #

Date Mixed:

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

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Absolute Standards, Inc. 800-368-1131 www.absolutestandards.com	лс.				Ŭ	srtified F	Referenc	Certified Reference Material CRM	al CRM				http	NAB ISO 170 R-1539 Cert s://Absolute:	ANAB ISO 17034 Accredited AR-1539 Certificate Number https://Absolutestandards.com
CERTIFIED WEIGHT REPORT Part Number: Lot Number: Description: Expiration Date: Recommended Stressor	T Part Number: Lot Number: Description: Expiration Date:	79136 102821 Mirex 102826	79136 102821 Mirex 102826	5			Solvent(s): Acetone	Lot# 81025		Formu	Eormulated By:	AL B.	Ś	102821 DATE	
Nominal Concentration (µg/mL): 1000 NIST Test ID#: 6UTB Weight(s) shown below were combined and diluted to (mL):	ration (µg/mL): NIST Test ID#: vere combined and	diluted to (r	t n	50.0 Nominal	5E-05 Ba 0.006 Pa	Balance Uncertainty Flask Uncertainty I Incertainty	tty Tarret			Reviewed By Expanded		Pedro L. Rentas Pedro L. Rentas SDS Information	Market Contraction	102821 DATE	
<u>Compound</u> 1. Mirex	- 4	RM# Nun 437 949;	Number Co 9492400	Conc (ug/mL) 1000	(%) 99.4	Purity 0.5	Weight (g) 0.05034	Weight (g) 0.05039			8	OSHA PEL (TWA) NA	TWA)	LD50	
Method GC7MSD-1.M: Column: SPB-608 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 150°C (4min.), Temp 2 = 290°C (13.5 min.), Rate = 8°C/min., Injector B= 200°C, Detector B = 290°C. Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.	mn: SPB-608 Scan Rate = 2	8 (30m X 0. 2. Analysis	25mm ID 2	X 0.25μm fi I by Candic	Im thickn t Warren.	ess) Temp	1 = 150°C ([,]	4min.), Tem	p 2 = 290°C	(13.5 min.), Rate = 8°C/mi	n., Injector B=	200°C, Deter	00°C, Detector B	
Abundance Abundance	Ĕ	TC: 79136.D					end X	Abundance		8	Sem 1448 (23,276 mint; 73,36.0]	
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	 The certi Standarc Standard All Stand Uncertain 	• The certified value is the concentration calculated from gravimetric • Standards are prepared gravimetrically using balances that are call • Standards are certified ($++$) 0.5% of the stated value, unless otherwis • All Standards, after opening ampule, should be stored with caps tig • Uncertainty Reference: Taylor, B.N. and Kuval, C.E., "Guldefines	the concentra ed gravimetri I (+/-) 0.5% o pening ampul :: Tavlor, B.J	tion calculate ically using b f the stated vi le, should be i N. and Kuvat	d from gra llances that the, unless tored with C.E., "Gu"	vimetric and volu t are calibrated w otherwise stated caps tight and un idelines for Evalu	volumetric me ed with weight: tted. d under appro valuatine and	and volumetric measurements unless otherwise stated. In ated with weights traceable to NIST (see above). Se stated. Int and under appropriate laboratory conditions.	aless otherwise NIST (see abov bry conditions.	stated. re). v NIST Mea	 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. Usindards, after opening ampule, stored with caps tight and under appropriate laboratory conditions. Uncertainty Reference: Taylor, BA, and Kurst, C.E., "Guidelins (for rand under appropriate laboratory conditions. 				
	NIST T ₆	schnical Note	1297, US.G	overnment Pr	inting Office	ce, Washingto	n, DC, (1994).								

Lot # 102821 Part # 79136

1 of 1



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE. This Reference Material is intended for Laboratory Use Only as a standard for ら the qualitative and/or quantitative determination of the analyte(s) listed. P 13037 32291 Catalog No. : Lot No.: A0200423 **Description :** Organochlorine Pesticide Mix AB #1 Organochlorine Pesticide Mix AB #1 200µg/mL, Hexane/Toluene(50:50), 1mL/ampul **Container Size :** 2 mL Pkg Amt: > 1 mL **Expiration Date :** July 31, 2027 Storage: 10°C or colder 6

Ship:

Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	alpha-BHC	319-84-6	14434500	99%	200.5 µg/mL	+/- 8.9956
2	gamma-BHC (Lindane)	58-89-9	14184400	98%	199.9 μg/mL	+/- 8.9696
3	beta-BHC	319-85-7	BCCC6425	99%	200.0 µg/mL	+/- 8.9732
4	delta-BHC	319-86-8	14450800	98%	199.9 μg/mL	+/- 8.9696
5	Heptachlor	76-44-8	813251	99%	202.0 µg/mL	+/- 9.0629
6	Aldrin	309-00-2	14389400	98%	200.9 μg/mL	+/- 9.0136
7	Heptachlor epoxide (isomer B)	1024-57-3	14448800	99%	200.0 μg/mL	+/- 8.9732
8	trans-Chlordane	5103-74-2	34616	99%	200.5 µg/mL	+/- 8.9956
9	cis-Chlordane	5103-71-9	31766	98%	201.4 µg/mL	+/- 9.0356
10	Endosulfan I	959-98-8	BCCF4060	99%	200.0 µg/mL	+/- 8.9732
11	4,4'-DDE	72-55-9	GHYQG	99%	201.5 µg/mL	+/- 9.0405
12	Dieldrin	60-57-1	14515000	98%	199.9 µg/mL	+/- 8.9696
13	Endrin	72-20-8	14485300	98%	200.4 µg/mL	+/- 8.9916
14	4,4'-DDD	72-54-8	HAN02	99%	200.5 µg/mL	+/- 8.9956
15	Endosulfan II	33213-65-9	14374700	99%	200.0 µg/mL	+/- 8.9732
16	4,4'-DDT	50-29-3	230410ЛСМА	98%	201.9 μg/mL	+/- 9.0575



17	Endrin aldehyde	7421-93-4	30720	98%	201.4	µg/mL	+/-	9.0356
18	Endosulfan sulfate	1031-07-8	BCCH9010	99%	200.5	μg/mL	+/-	8.9956
19	Methoxychlor	72-43-5	14563200	98%	200.9	µg/mL	+/-	9.0136
20	Endrin ketone	53494-70-5	14537700	98%	199.9	µg/mL	+/-	8.9696

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

Solvent: Hexane/Toluene (50:50) CAS # 110-54-3/108-88-3 Purity 99%

Column:

P13034 5 P130 4 38 5 P130 1 Arut 126/2023

> Registered Quality System Certificate #FM 80397

Quality Confirmation Test

30m x .25mm x .2um Rtx-CLP II (cat.# 11323) **Carrier Gas:** helium-constant pressure 20 psi. Temp. Program: 150°C to 300°C @ 4°C/min. (hold 5 min.) Inj. Temp: 200°C Det. Temp: 300°C Det. Type: ECD Split Vent: Split ratio 50:1 Inj. Vol 1µI D 10 20 30 40 Minutes 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. Samuel Moodler m Moodler - Operations Tech I B442140311 Date Mixed: 31-Jul-2023 **Balance Serial #** Manufactured under Restek's ISO 9001:2015 Jennifer Pollino - Operations Tech III - ARM QC Date Passed: 03-Aug-2023



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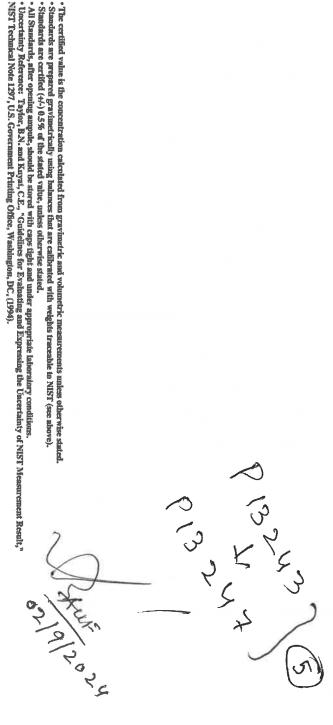
1 of 1

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT Part Number: Lot Number: Description: Expiration Date: Recommended Storage: Nominal Concentration (ug/mL): NIST Test IDst:		19161 013124 CLP Pesticides & 9 components 013129 013129 Refrigerate (4 °C) Varied 6UTB	ides & PCB; ents (4 °C)	s Resolut	19161 013124 CLP Pesticides & PCB's Resolution Check Standard 9 components Solvent(s): 9 components Hexane 9 components Hexane 9 components Toluene 2 components Solvent(s): 9 components Hexane 2 components Solvent(s): 9 components Solvent(s): 9 components Solvent(s):	1dard Lot# 273615 28508	(509	5 S		Formulated By:	Formulated By:
on Date: Storage: (µg/mL):		9 compone 013129 Refrigerate Varied	ents (4 °C)	1	Solvent(s): Hexane Toluene	Lot# 273615 28508	(50%) (50%)	Form	ulated	ulated By:	al a
NIST Test ID#: 6UTB	and dilute		1000	5E-05	Balance Uncertainty			Review	ved B	ved By:	ved By: Pedro L. Rentas
								Ē	Expanded	anded	anded SDS Information
	Part	Lot	Dil.	Initial	Uncertainty	Initial	Final	Unci	Uncertainty		(Solvent S
Compound	Number	Number	Factor	Val. (mL)	Vol. (mL) Pipette (mL)	Conc.(ug/mL)	Conc.(ug/mL) Conc.(ug/mL)		(+/-) µg/mL) µg/mL CAS#	
trans-Chlordane	19361	013124	0.010	1.00	0.004	101.3	1.0		0.02	0.02 5103-74-2	
Endosulfan I	19361	013124	0.010	1.00	0.004	101.3	1.0		0.02).02 959-98-8	959-98-8
4,4'-DDE	19361	013124	0.010	1.00	0.004	201.6	2.0		0.03		72-55-9
Dieldrin	19361	013124	0.010	1.00	0.004	202.8	2.0		0.03	0.03 60-57-1	
Endosulfan sulfate	19361	013124	0.010	1.00	0.004	204.2	2.0		0.03	0.03 1031-07-8	1031-07-8 N/A
Endrin ketone	19361	013124	0.010	1.00	0.004	202.6	2.0		0.03	0.03 53494-70-5	
	10001										



10mg/m3 NA ¥ NNA R orl-rat 6000mg/kg ON-Lat I Ruding/KB NIA NA NA

Endrin ketone
 4,4'-Methoxychlor

19361

013124

0.010 0.010

0.010

1.00 1.0

0.004 0.004

19361 19361

013124 013124

0.010

1.00

0.004

202.6 1000.7

10.0 2.0

0.03 0.03 0.09

2051-24-3 877-09-8

72-43-5

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Decachlorobiphenyl (209) 2,4,5,6-Tetrachloro-m-xylene



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



SO/IEC 17025 Accordite 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. P133401 32000 Lot No.: A0206810 Catalog No. : **Description:** Pesticide Surrogate Mix Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul > 1 mL **Container Size :** 2 mL Pkg Amt: **Expiration Date :** April 30, 2030 10°C or colder Storage: Handling: Contains PCBs - sonicate prior to Ship: Ambient use.

CERTIFIED VALUES

Elution Order	Compound	CAS#	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2,4,5,6-Tetrachloro-m-xylene	877-09-8	RP220407	99%	200.3 μg/mL	+/- 11.1143
2	Decachlorobiphenyl (BZ# 209)	2051-24-3	30638	99%	200.6 µg/mL	+/- 11.1298

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

Solvent: Acetone CAS # 67-64-1 Purity 99%

Tech Tips:

Decachlorobiphenyl has poor solubility in most organic solvents. The maximum concentration that can be prepared in acetone, hexane, or isooctane is 200µg/mL. Temperature will affect the solubility as well. Storing solutions at reduced temperatures will cause decachlorobiphenyl to precipitate.

Products containing decachlorobiphenyl must be sonicated for a minimum of 10 minutes prior to opening the ampul. Because each ultrasonic bath operates at a different energy level, 10 minutes is a guideline only. Longer sonication time will not affect product quality.

These precautions apply to working solutions prepared in your laboratory as well. The amount of compound that precipitates depends on concentration AND temperature. If you store your standards at a temperature lower than 4°C (even dilute solutions), allow extra sonication time.

Column: 30m x .25mm x .2um Rtx-CLP II (cat.# 11323) **Carrier Gas:** helium-constant pressure 20 psi. Temp. Program: 200°C to 300°C @ 25°C/min. (hold 10 min.) Inj. Temp: 250°C Det. Temp: 300°C Det. Type: ECD Split Vent: 10 ml/min. Inj. Vol



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

Laith Clemente - Operations Technician I

Jennifer Pollino - Operations Tech III - ARM QC

Gunifor & Adding

1μl

Date Mixed:

Date Passed:

22-Jan-2024

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24-Jan-2024

1128360905 Balance Serial #

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

13348 0 P13357 1/5Aut 25/2025



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



SO/IEC 17025 Accordite Testing Laboratory Certificate #3222.02

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CERTIFIED VALUES

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Laith Clemente - Operations Technician I

Jennifer Pollino - Operations Tech III - ARM QC

Gunifor & Adding

1μl

Date Mixed:

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22-Jan-2024

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1128360905 Balance Serial #

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

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SO/IEC 17025 Accordite 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. P133401 32000 Lot No.: A0206810 Catalog No. : **Description:** Pesticide Surrogate Mix Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul > 1 mL **Container Size :** 2 mL Pkg Amt: **Expiration Date :** April 30, 2030 10°C or colder Storage: Handling: Contains PCBs - sonicate prior to Ship: Ambient use.

CERTIFIED VALUES

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

Laith Clemente - Operations Technician I

Jennifer Pollino - Operations Tech III - ARM QC

Gunifor & Adding

1μl

Date Mixed:

Date Passed:

22-Jan-2024

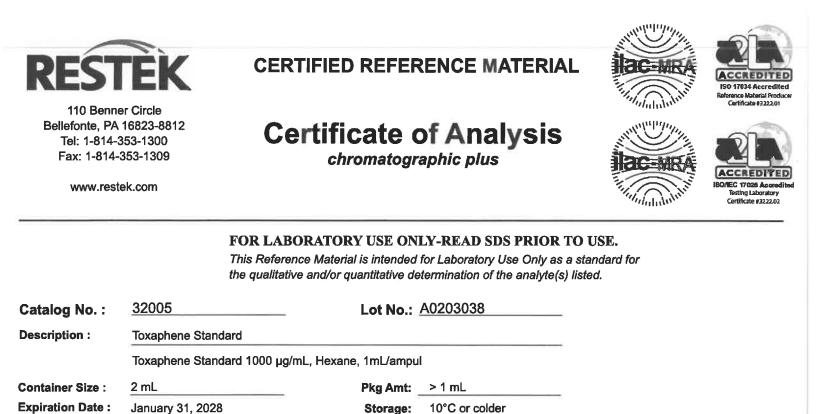
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24-Jan-2024

1128360905 Balance Serial #

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

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CERTIFIED VALUES

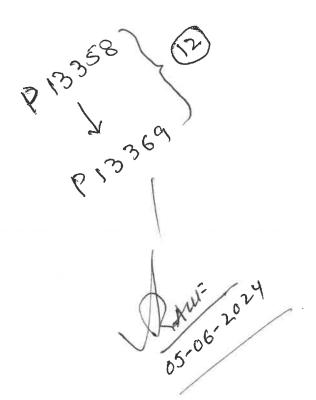
Elution Order		Compound	CAS#	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Toxaphene		8001-35-2	1051817	%	1,009.0 µg/mL	+/- 55.9920

Ship:

Ambient

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

Solvent: Hexane CAS # 110-54-3 Purity 99%





Column: 30m x .25mm x .2um Rtx-CLP II (cat.# 11323)

Carrier Gas: helium-constant pressure 20 psi.

Temp. Program: 200°C to 300°C @ 25°C/min. (hold 10 min.)

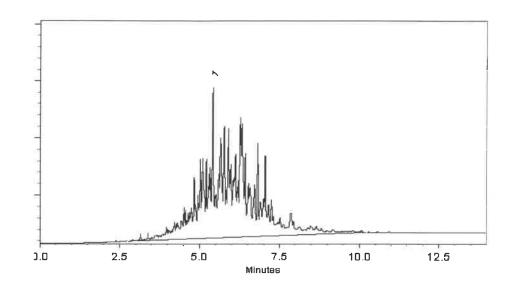
Inj. Temp: 250°C

Det. Temp: 300°C

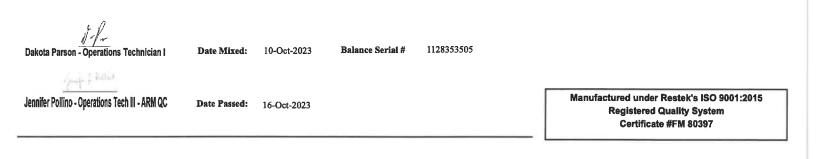
Det. Type: ECD

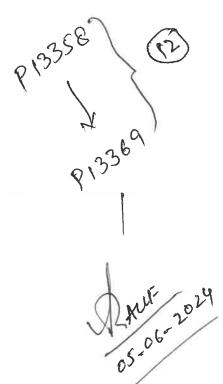
Split Vent: 300 ml/min.

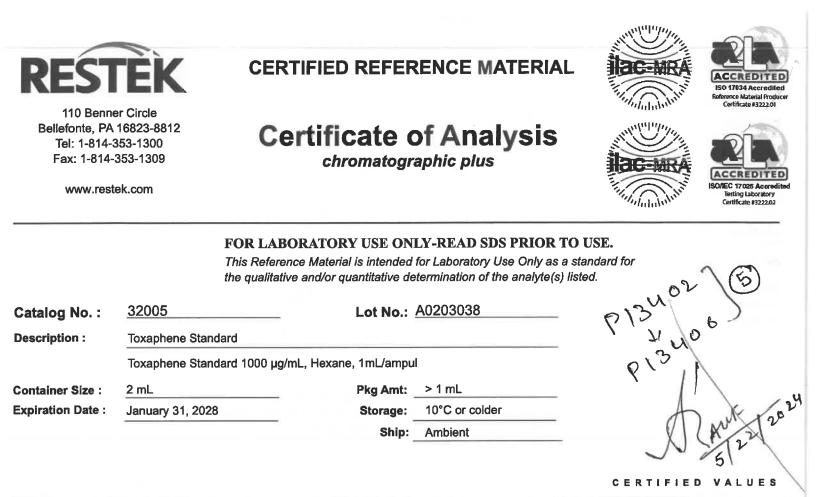
Inj. Vol 0.2μl



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.







Elution Order	Compound	CAS#	Lot #	Purîty	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Toxaphene	8001-35-2	1051817	%	1,009.0 μg/mL	+/- 55.9920

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

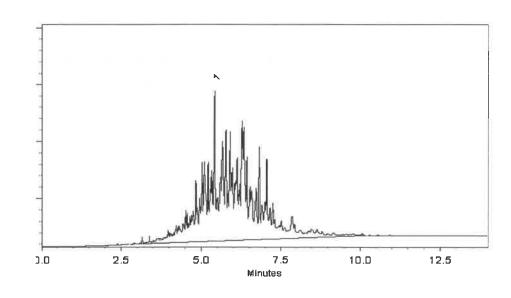
Solvent: Hexane CAS # 110-54-3 Purity 99%

Column: 30m x .25mm x .2um Rtx-CLP II (cat.# 11323) Carrier Gas: helium-constant pressure 20 psi. Temp. Program: 200°C to 300°C @ 25°C/min. (hold 10 min.) inj. Temp: 250°C Det. Temp: 300°C

Det. Type: ECD

Split Vent: 300 ml/min.

Inj. Vol 0.2μl



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.

 July
 July

 Dakota Parson - Operations Technician I
 Date Mixed:
 10-Oct-2023
 Balance Serial #
 1128353505

 July
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 Manufactured under Restek's ISO 9001:2015

 Jennifer Pollino - Operations Tech III - ARM QC
 Date Passed:
 16-Oct-2023
 Balance Serial #
 1128353505

