

Prep Standard - Chemical Standard Summary

Order ID : Q3310

Test : Pesticide-TCL

Prepbatch ID : PB170054,

Sequence ID/Qc Batch ID: PL101025,

Standard ID :

EP2643,EP2646,PP24651,PP24663,PP24738,PP24739,PP24740,PP24741,PP24742,PP24744,PP24745,PP24746,PP24747,PP24748,PP24749,PP24750,PP24751,PP24752,PP24753,PP24754,PP24755,PP24756,PP24757,PP24758,PP24759,PP24760,PP24761,PP24762,PP24763,PP24764,PP24766,PP24942,

Chemical ID :

E3875,E3927,E3941,E3944,E3951,E3955,E3956,E3971,E3972,E3974,P12604,P12610,P13038,P13041,P13196,P13246,P13774,P13780,P13786,P13788,P13862,P9053,

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
230	1:1ACETONE/HEXANE	EP2643	09/16/2025	03/16/2026	Evelyn Huang	None	None	Riteshkumar Patel
09/16/2025								

FROM 4000.00000ml of E3971 + 4000.00000ml of E3972 = Final Quantity: 8000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2646	09/26/2025	01/28/2026	Evelyn Huang	Extraction_SC ALE_2	None	Riteshkumar Patel
(EX-SC-2)								

FROM 4000.00000gram of E3875 = Final Quantity: 4000.000 gram

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4027	Pesticide resolution Check Mixture 8081	PP24651	06/16/2025	12/11/2025	Abdul Mirza	None	None	Yogesh Patel
								07/22/2025

FROM 1.00000ml of P13246 + 99.00000ml of E3941 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
465	200 PPB Pest/PCB Surrogate Spike	PP24663	06/24/2025	12/24/2025	Abdul Mirza	None	None	Yogesh Patel
								07/21/2025

FROM 1.00000ml of P13786 + 999.00000ml of E3944 = Final Quantity: 1000.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3629	20 PPM PEST stock Solution 1st source(RESTEK)	PP24738	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 1.00000ml of P13038 + 9.00000ml of E3956 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1472	20 PPM Pest Stock Solution 2nd Source	PP24739	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 1.00000ml of P13041 + 9.00000ml of E3956 = Final Quantity: 10.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1273	20 PPM Mirex Stock (Primary Source)	PP24740	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 1.00000ml of P9053 + 9.00000ml of E3956 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3663	20 PPM MIREX Stock STD (Secondary source)	PP24741	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 1.00000ml of P13196 + 9.00000ml of E3956 = Final Quantity: 10.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
84	Pest/PCB Surrogate Stock 20 PPM	PP24742	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 1.00000ml of P13788 + 9.00000ml of E3956 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3630	100/100 PPB PEST Working std.1st Source(RESTEK)	PP24744	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 98.50000ml of E3956 + 0.50000ml of PP24738 + 0.50000ml of PP24740 + 0.50000ml of PP24742 = Final Quantity: 100.000 ml



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

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

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

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

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

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3746	1000/100 ppb Chlordane STD-RESTEK 2ND SOURCE	PP24747	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.10000ml of P12610 + 99.40000ml of E3956 + 0.50000ml of PP24742 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
383	1000/100 PPB Toxaphene STD (Restek)	PP24748	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.10000ml of P13774 + 99.40000ml of E3956 + 0.50000ml of PP24742 = Final Quantity: 100.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3669	1000/100 PPB TOXAPHENE STD 2nd source (RESTEK)	PP24749	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.10000ml of P13862 + 99.40000ml of E3956 + 0.50000ml of PP24742 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3631	75 PPB ICAL PEST STD(RESTEK)	PP24750	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.25000ml of E3956 + 0.75000ml of PP24744 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3632	50 PPB ICAL PEST STD(RESTEK)	PP24751	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.50000ml of E3956 + 0.50000ml of PP24744 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3633	25 PPB ICAL PEST STD(RESTEK)	PP24752	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.75000ml of E3956 + 0.25000ml of PP24744 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3634	5 PPB ICAL PEST STD(RESTEK)	PP24753	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.90000ml of E3956 + 0.10000ml of PP24751 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3988	50 PPB PEST ICV STD(RESTEK)	PP24754	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.50000ml of E3956 + 0.50000ml of PP24745 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
528	CHLOR 750 PPB STD	PP24755	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.25000ml of E3956 + 0.75000ml of PP24746 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
529	CHLOR 500 PPB STD	PP24756	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.50000ml of E3956 + 0.50000ml of PP24746 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
530	CHLOR 250 PPB STD	PP24757	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.75000ml of E3956 + 0.25000ml of PP24746 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3408	CHLOR 50 PPB STD	PP24758	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.90000ml of E3956 + 0.10000ml of PP24756 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
532	CHLOR 500 PPB ICV STD	PP24759	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.50000ml of E3956 + 0.50000ml of PP24747 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
533	TOX 750 PPB STD	PP24760	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.25000ml of E3956 + 0.75000ml of PP24748 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
534	TOX 500 PPB STD	PP24761	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.50000ml of E3956 + 0.50000ml of PP24748 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
535	TOX 250 PPB STD	PP24762	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.75000ml of E3956 + 0.25000ml of PP24748 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2217	TOX 100 PPB STD	PP24763	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.90000ml of E3956 + 0.10000ml of PP24748 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3670	TOX 500 PPB ICV std (RESTEK)	PP24764	07/21/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								07/24/2025

FROM 0.50000ml of PP24749 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
79	500 PPB Pesticide Spike Solution	PP24766	07/28/2025	01/21/2026	Abdul Mirza	None	None	Yogesh Patel
								08/19/2025

FROM 95.00000ml of E3955 + 2.50000ml of PP24739 + 2.50000ml of PP24741 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
758	PEM Mix w/Surr	PP24942	09/24/2025	03/24/2026	Abdul Mirza	None	None	Yogesh Patel
								10/10/2025

FROM 1.00000ml of P13780 + 99.00000ml of E3971 = Final Quantity: 100.000 ml

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 #
phenomenex	FS0006 / Cleanert SPE Silica, 1000 mg/6ml	Z0830QB1	04/18/2026	05/30/2025 / RUPESH	03/13/2025 / RUPESH	E3927

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	12/11/2025	06/11/2025 / Rajesh	06/04/2025 / Rajesh	E3941

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	06/20/2025 / RUPESH	05/14/2025 / RUPESH	E3944

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

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	04/18/2027	07/16/2025 / RUPESH	07/16/2025 / RUPESH	E3955

CHEMICAL RECEIPT LOG BOOK

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)	25C0362005	04/30/2026	07/16/2025 / RUPESH	07/16/2025 / RUPESH	E3956

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)	25C0362005	04/30/2026	09/15/2025 / Evelyn	09/04/2025 / Riteshkumar	E3971

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-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	25C0362006	04/10/2027	09/26/2025 / Riteshkumar	09/26/2025 / Riteshkumar	E3974

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32021 / Chlordane Std.	A0197993	01/21/2026	07/21/2025 / Abdul	07/03/2023 / Abdul	P12604

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32021 / Chlordane Std.	A0197993	01/21/2026	07/21/2025 / Abdul	07/03/2023 / Abdul	P12610

CHEMICAL RECEIPT LOG BOOK

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	01/21/2026	07/21/2025 / Abdul	12/26/2023 / Abdul	P13038

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	07/21/2026	07/21/2025 / Abdul	12/26/2023 / Abdul	P13041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	79136 / Mirex, 1000 ug/ml	042022	01/21/2026	07/21/2025 / Abdul	01/17/2024 / Abdul	P13196

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	12/17/2025	06/17/2025 / Abdul	02/09/2024 / Abdul	P13246

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32005 / Toxaphene Standard	A0203038	01/21/2026	07/21/2025 / Abdul	05/03/2024 / Ankita	P13774

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32074 / Pesticide Performance Evaluation Mix w/Surrogate	A0213999	03/24/2026	09/24/2025 / Abdul	11/19/2024 / Ankita	P13780

CHEMICAL RECEIPT LOG BOOK

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	A0214495	12/24/2025	06/24/2025 / Abdul	11/19/2024 / Ankita	P13786

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	A0214495	01/21/2026	07/21/2025 / Abdul	11/19/2024 / Ankita	P13788

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32005 / Toxaphene Standard	A0210240	01/21/2026	07/21/2025 / Abdul	12/09/2024 / Abdul	P13862

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	79136 / Mirex, 1000 ug/ml	112018	01/21/2026	07/21/2025 / Abdul	11/01/2019 / Stephen	P9053

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



Material No.: 9262-03

Batch No.: 25C0362006

Manufactured Date: 2025-01-29

Expiration Date: 2026-04-30

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	6
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	4
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	100.0 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	100 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	$< 0.01 \%$

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3974

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



**PRODUCTOS
QUÍMICOS
MONTERREY, S.A. DE C.V.**

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MÉXICO
CP 64070
TEL +52 81 13 52 67 67
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER:	6399	RELEASE DATE:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO 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 foreign 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.

RE-02-01, Ed. 3

E 3875

Cleanert Florisil

1g/6ml 30/pkg

LOT#: Z0830QB1

MFG#: G01256

CAT# FS0006



Made in China

Agela Technologies

固相萃取产品

E3927



Certificate of Analysis

1 Reagent Lane
 Fair Lawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
 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 RI on 6/11/25

E3941

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.

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

Avantor™



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) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	<= 0.3	0.2
Titration Base (μeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
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

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

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

E3944

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



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	SiO ₂
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 1/12/25.

E3951

Internal ID #: 793

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

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 ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	<0.1 %
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

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

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

Received on 7/16/25

E 3955

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

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

 **avantors**[™]



Material No.: 9262-03

Batch No.: 25C0362005

Manufactured Date: 2025-01-29

Expiration Date: 2026-04-30

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 HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	≤ 5	5
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	100.0 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	100 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	$< 0.01 \%$

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

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

Received on 7/16/25

E3956



Jamie Croak
Director Quality Operations, Bioscience Production

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



Material No.: 9262-03
Batch No.: 25C0362005
Manufactured Date: 2025-01-29
Expiration Date: 2026-04-30
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 HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	≤ 5	5
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	100.0 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	100 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	$< 0.01 \%$

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

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

E3971

Jamie Croak
Director Quality Operations, Bioscience Production

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



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) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
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

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

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

E3972

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



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



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. : 32291

Lot No.: A0199099

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 : June 30, 2027

Storage: 10°C or colder

Ship: Ambient

P130397 5
↓
P13043 1
✓
12-26-2023

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%

P13039
 ↓
 P13043
 5
 1
 JAW
 12/26/23

Quality Confirmation Test

Column:
 30m x .25mm x .2µm
 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.)

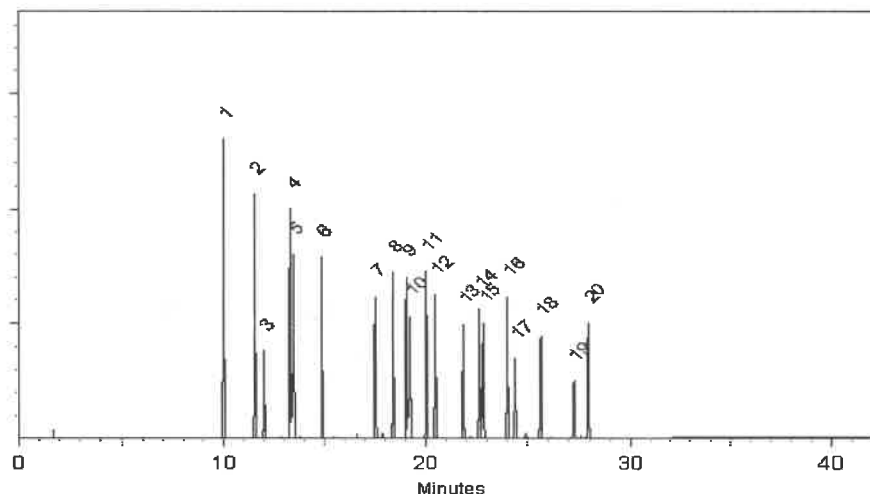
Inj. Temp:
 200°C

Det. Temp:
 300°C

Det. Type:
 ECD

Split Vent:
 Split ratio 50:1

Inj. Vol
 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.

Josh McCloskey
 Josh McCloskey - Operations Technician I

Date Mixed: 19-Jun-2023

Balance Serial # 1128360905

Jennifer Pollino
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 23-Jun-2023

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



CERTIFIED WEIGHT REPORT

Part Number: 79136
Lot Number: 042022
Description: Mirex

Solvent(s): Acetone
Lot# 81025

Expiration Date: 04/2027
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

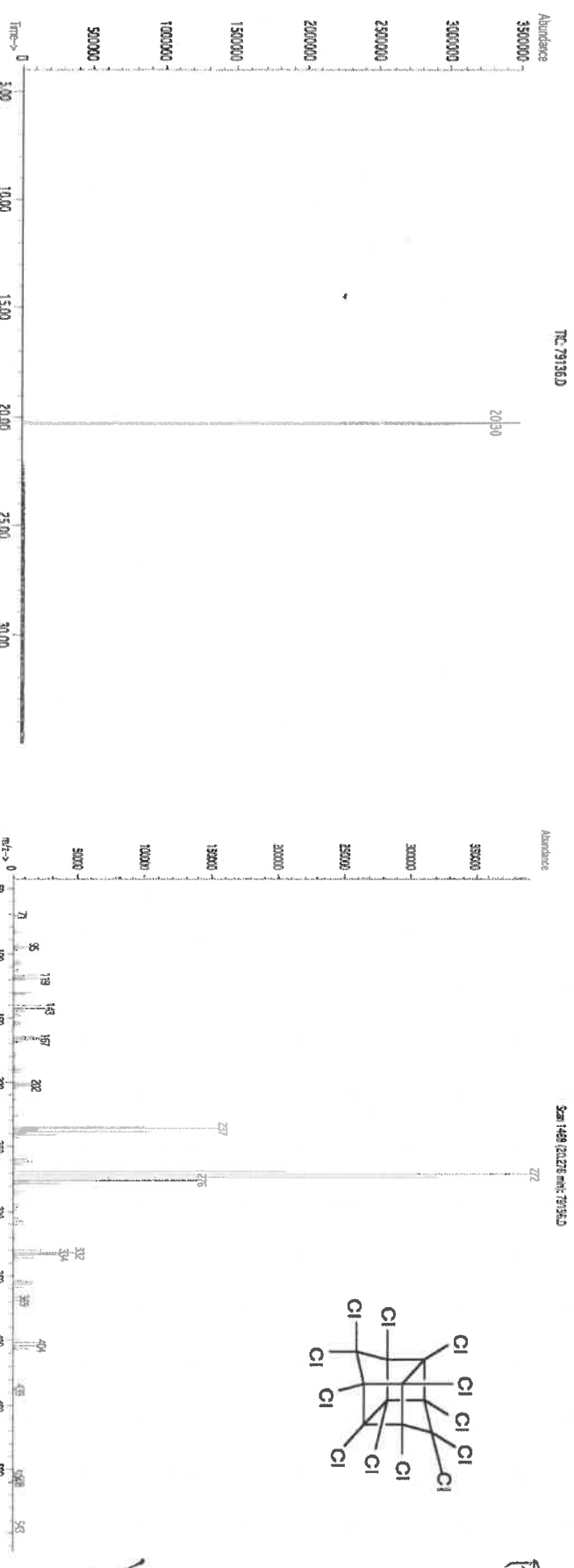
SE-05 Balance Uncertainty
0.006 Flask Uncertainty

Weight(s) shown below were combined and diluted to (mL): 50.0

Formulated By: <i>Prashant Chauhan</i>	DATE 04/2022
Reviewed By: <i>Pedro L. Renteria</i>	DATE 04/2022

SDS Information									
Expanded					(Solvent Safety Info. On Attached pg.)				
Compound	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Uncertainty (±) (µg/mL)	CAS#
									OSHA PEL (TWA)
									LD50

1. Mirex 437 9492400 1000 99.4 0.5 0.05034 0.05040 1001.1 10.3 2385-85-5 N/A or-rel 306mg/kg
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.



Handwritten notes:
P13195
P13199
5
01/17/2024

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening, sample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty 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).

01/17/2024
JALIN

5



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



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.:** A0197993
Description : Chlordane Standard
Chlordane Standard 1000µg/mL, Hexane, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2029 **Storage:** 10°C or colder
Ship: Ambient

P 12603
↓
P 12605
[3]
Kauf
7/3/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Chlordane 10% trans-Chlordane; 9% cis-Chlordane; 81% other isomers	57-74-9	978545	----%	1,005.0 µg/mL	+/- 55.7700

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

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

Tech Tips:

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

Quality Confirmation Test

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:

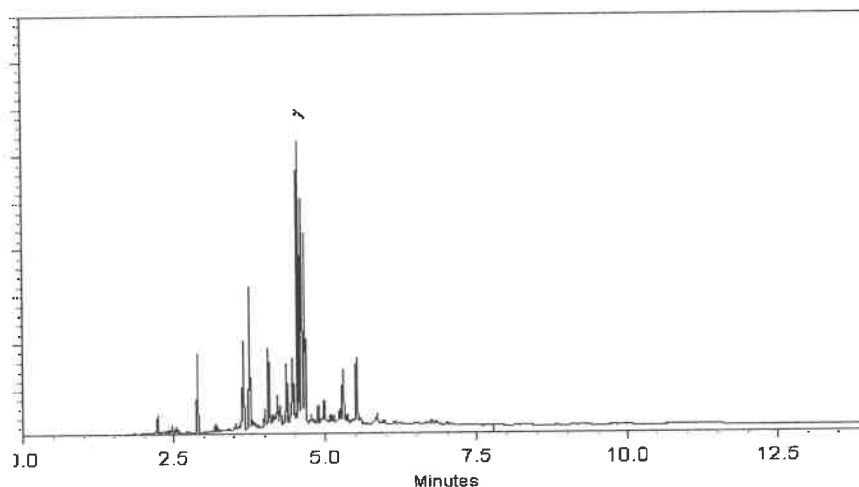
ECD

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.


Morgan Craighead - Mix Technician

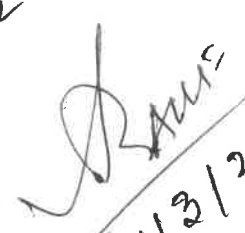
Date Mixed: 11-May-2023

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-May-2023

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

P 12603 } (3)
↓
P 12605

7/3/2023



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*



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.: A0197993
Description: Chlordane Standard
Chlordane Standard 1000µg/mL, Hexane, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: August 31, 2029 Storage: 10°C or colder
Ship: Ambient

Handwritten: P 12606, P 12610, 5 Five, 7/3/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty* (95% C.L.; K=2)
1	Chlordane 10% trans-Chlordane; 9% cis-Chlordane; 81% other isomers	57-74-9	978545	----	1,005.0 µg/mL	+/- 55.7700

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

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

Tech Tips:

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

Quality Confirmation Test

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:

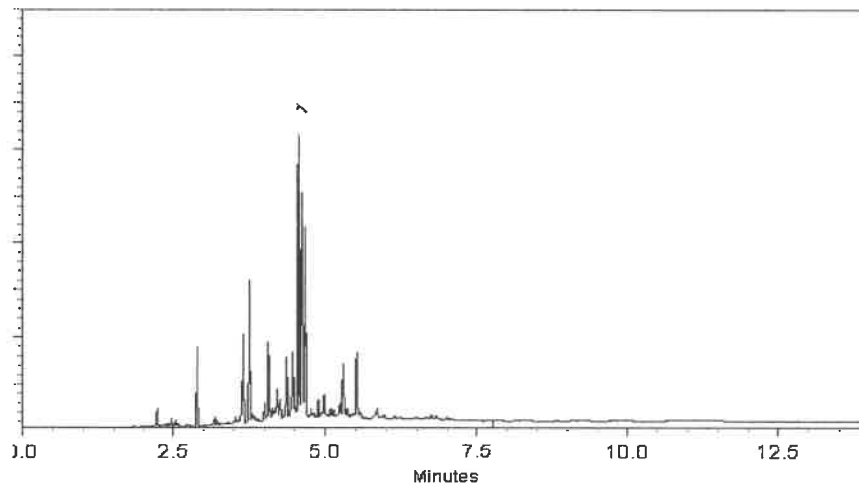
ECD

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.

Morgan Craighead - Mix Technician

Date Mixed: 11-May-2023

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-May-2023

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

www.restek.com

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 the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32291

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

Ship: Ambient

P 13034
↓
P 13038
12.26.2023

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	230410JLMA	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%

P13034
P13038
1
5
12/26/2023

Quality Confirmation Test

Column:
30m x .25mm x .2µm
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.)

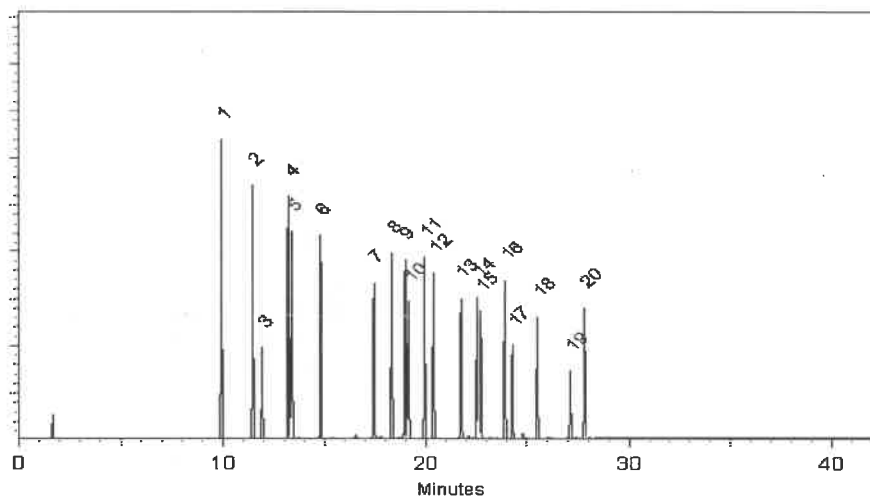
Inj. Temp:
200°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
Split ratio 50:1

Inj. Vol
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
Sam Moodler - Operations Tech I

Date Mixed: 31-Jul-2023

Balance Serial # B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 03-Aug-2023

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



CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

19161
013124

CLP Pesticides & PCBs Resolution Check Standard

9 components

Solvent(s):

Lot#

Expiration Date:

013129

Hexane

273615

Recommended Storage:

Refrigerate (4 °C)

Toluene

28508

(50%)
(50%)

Nominal Concentration (µg/mL):

Varied

NIST Test ID#:

6UTB

5E-05

Balance Uncertainty
Pipet Uncertainty

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

100.0

0.021

Formulated By: <i>Lawrence Barry</i>		013124
Reviewed By: <i>Pedro L. Rentes</i>		013124
DATE		DATE

SDS Information

Compound: trans-Chlordane

Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty (mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty (±) µg/mL	CAS#	OSHA PEL (TWA)	LD50
1. trans-Chlordane	19361	0.010	1.00	0.004	101.3	1.0	0.02	5103-74-2	0.5mg/m3 (skin)	or-rat 500mg/kg
2. Endosulfan I	19361	0.010	1.00	0.004	101.3	1.0	0.02	959-98-8	0.1mg/m3 (skin)	or-rat 18mg/kg
3. 4,4'-DDE	19361	0.010	1.00	0.004	201.6	2.0	0.03	72-55-9	N/A	or-rat 880mg/kg
4. Dieldrin	19361	0.010	1.00	0.004	202.8	2.0	0.03	60-57-1	0.25mg/m3 (skin)	or-rat 36300µg/kg
5. Endosulfan sulfate	19361	0.010	1.00	0.004	204.2	2.0	0.03	1031-07-8	N/A	or-rat 18mg/kg
6. Endrin ketone	19361	0.010	1.00	0.004	202.6	2.0	0.03	53494-70-5	N/A	N/A
7. 4,4-Methoxychlor	19361	0.010	1.00	0.004	1000.7	10.0	0.09	72-43-5	10mg/m3	or-rat 6000mg/kg
8. 2,4,5,6-Tetrachloro-m-xylene	19361	0.010	1.00	0.004	202.6	2.0	0.03	877-09-8	N/A	N/A
9. Decachlorobiphenyl (209)	19361	0.010	1.00	0.004	202.0	2.0	0.03	2051-24-3	N/A	N/A

1913243
1913244
1913245
1913246
1913247
1913248
1913249
1913250
1913251
1913252
1913253
1913254
1913255
1913256
1913257
1913258
1913259
1913260
1913261
1913262
1913263
1913264
1913265
1913266
1913267
1913268
1913269
1913270
1913271
1913272
1913273
1913274
1913275
1913276
1913277
1913278
1913279
1913280
1913281
1913282
1913283
1913284
1913285
1913286
1913287
1913288
1913289
1913290
1913291
1913292
1913293
1913294
1913295
1913296
1913297
1913298
1913299
1913300
1913301
1913302
1913303
1913304
1913305
1913306
1913307
1913308
1913309
1913310
1913311
1913312
1913313
1913314
1913315
1913316
1913317
1913318
1913319
1913320
1913321
1913322
1913323
1913324
1913325
1913326
1913327
1913328
1913329
1913330
1913331
1913332
1913333
1913334
1913335
1913336
1913337
1913338
1913339
1913340
1913341
1913342
1913343
1913344
1913345
1913346
1913347
1913348
1913349
1913350
1913351
1913352
1913353
1913354
1913355
1913356
1913357
1913358
1913359
1913360
1913361
1913362
1913363
1913364
1913365
1913366
1913367
1913368
1913369
1913370
1913371
1913372
1913373
1913374
1913375
1913376
1913377
1913378
1913379
1913380
1913381
1913382
1913383
1913384
1913385
1913386
1913387
1913388
1913389
1913390
1913391
1913392
1913393
1913394
1913395
1913396
1913397
1913398
1913399
1913400
1913401
1913402
1913403
1913404
1913405
1913406
1913407
1913408
1913409
1913410
1913411
1913412
1913413
1913414
1913415
1913416
1913417
1913418
1913419
1913420
1913421
1913422
1913423
1913424
1913425
1913426
1913427
1913428
1913429
1913430
1913431
1913432
1913433
1913434
1913435
1913436
1913437
1913438
1913439
1913440
1913441
1913442
1913443
1913444
1913445
1913446
1913447
1913448
1913449
1913450
1913451
1913452
1913453
1913454
1913455
1913456
1913457
1913458
1913459
1913460
1913461
1913462
1913463
1913464
1913465
1913466
1913467
1913468
1913469
1913470
1913471
1913472
1913473
1913474
1913475
1913476
1913477
1913478
1913479
1913480
1913481
1913482
1913483
1913484
1913485
1913486
1913487
1913488
1913489
1913490
1913491
1913492
1913493
1913494
1913495
1913496
1913497
1913498
1913499
1913500
1913501
1913502
1913503
1913504
1913505
1913506
1913507
1913508
1913509
1913510
1913511
1913512
1913513
1913514
1913515
1913516
1913517
1913518
1913519
1913520
1913521
1913522
1913523
1913524
1913525
1913526
1913527
1913528
1913529
1913530
1913531
1913532
1913533
1913534
1913535
1913536
1913537
1913538
1913539
1913540
1913541
1913542
1913543
1913544
1913545
1913546
1913547
1913548
1913549
1913550
1913551
1913552
1913553
1913554
1913555
1913556
1913557
1913558
1913559
1913560
1913561
1913562
1913563
1913564
1913565
1913566
1913567
1913568
1913569
1913570
1913571
1913572
1913573
1913574
1913575
1913576
1913577
1913578
1913579
1913580
1913581
1913582
1913583
1913584
1913585
1913586
1913587
1913588
1913589
1913590
1913591
1913592
1913593
1913594
1913595
1913596
1913597
1913598
1913599
1913600
1913601
1913602
1913603
1913604
1913605
1913606
1913607
1913608
1913609
1913610
1913611
1913612
1913613
1913614
1913615
1913616
1913617
1913618
1913619
1913620
1913621
1913622
1913623
1913624
1913625
1913626
1913627
1913628
1913629
1913630
1913631
1913632
1913633
1913634
1913635
1913636
1913637
1913638
1913639
1913640
1913641
1913642
1913643
1913644
1913645
1913646
1913647
1913648
1913649
1913650
1913651
1913652
1913653
1913654
1913655
1913656
1913657
1913658
1913659
1913660
1913661
1913662
1913663
1913664
1913665
1913666
1913667
1913668
1913669
1913670
1913671
1913672
1913673
1913674
1913675
1913676
1913677
1913678
1913679
1913680
1913681
1913682
1913683
1913684
1913685
1913686
1913687
1913688
1913689
1913690
1913691
1913692
1913693
1913694
1913695
1913696
1913697
1913698
1913699
1913700
1913701
1913702
1913703
1913704
1913705
1913706
1913707
1913708
1913709
1913710
1913711
1913712
1913713
1913714
1913715
1913716
1913717
1913718
1913719
1913720
1913721
1913722
1913723
1913724
1913725
1913726
1913727
1913728
1913729
1913730
1913731
1913732
1913733
1913734
1913735
1913736
1913737
1913738
1913739
1913740
1913741
1913742
1913743
1913744
1913745
1913746
1913747
1913748
1913749
1913750
1913751
1913752
1913753
1913754
1913755
1913756
1913757
1913758
1913759
1913760
1913761
1913762
1913763
1913764
1913765
1913766
1913767
1913768
1913769
1913770
1913771
1913772
1913773
1913774
1913775
1913776
1913777
1913778
1913779
1913780
1913781
1913782
1913783
1913784
1913785
1913786
1913787
1913788
1913789
1913790
1913791
1913792
1913793
1913794
1913795
1913796
1913797
1913798
1913799
1913800
1913801
1913802
1913803
1913804
1913805
1913806
1913807
1913808
1913809
1913810
1913811
1913812
1913813
1913814
1913815
1913816
1913817
1913818
1913819
1913820
1913821
1913822
1913823
1913824
1913825
1913826
1913827
1913828
1913829
1913830
1913831
1913832
1913833
1913834
1913835
1913836
1913837
1913838
1913839
1913840
1913841
1913842
1913843
1913844
1913845
1913846
1913847
1913848
1913849
1913850
1913851
1913852
1913853
1913854
1913855
1913856
1913857
1913858
1913859
1913860
1913861
1913862
1913863
1913864
1913865
1913866
1913867
1913868
1913869
1913870
1913871
1913872
1913873
1913874
1913875
1913876
1913877
1913878
1913879
1913880
1913881
1913882
1913883
1913884
1913885
1913886
1913887
1913888
1913889
1913890
1913891
1913892
1913893
1913894
1913895
1913896
1913897
1913898
1913899
1913900
1913901
1913902
1913903
1913904
1913905
1913906
1913907
1913908
1913909
1913910
1913911
1913912
1913913
1913914
1913915
1913916
1913917
1913918
1913919
1913920
1913921
1913922
1913923
1913924
1913925
1913926
1913927
1913928
1913929
1913930
1913931
1913932
1913933
1913934
1913935
1913936
1913937
1913938
1913939
1913940
1913941
1913942
1913943
1913944
1913945
1913946
1913947
1913948
1913949
1913950
1913951
1913952
1913953
1913954
1913955
1913956
1913957
1913958
1913959
1913960
1913961
1913962
1913963
1913964
1913965
1913966
1913967
1913968
1913969
1913970
1913971
1913972
1913973
1913974
1913975
1913976
1913977
1913978
1913979
1913980
1913981
1913982
1913983
1913984
1913985
1913986
1913987
1913988
1913989
1913990
1913991
1913992
1913993
1913994
1913995
1913996
1913997
1913998
1913999
1914000
1914001
1914002
1914003
1914004
1914005
1914006
1914007
1914008
1914009
1914010
1914011
1914012
1914013
1914014
1914015
1914016
1914017
1914018
1914019
1914020
1914021
1914022
1914023
1914024
1914025
1914026
1914027
1914028
1914029
1914030
1914031
1914032
1914033
1914034
1914035
1914036
1914037
1914038
1914039
1914040
1914041
1914042
1914043
1914044
1914045
1914046
1914047
1914048
1914049
1914050
1914051
1914052
1914053
1914054
1914055
1914056
1914057
1914058
1914059
1914060
1914061
1914062
1914063
1914064
1914065
1914066
1914067
1914068
1914069
1914070
1914071
1914072
1914073
1914074
1914075
1914076
1914077
1914078
1914079
1914080
1914081
1914082
1914083
1914084
1914085
1914086
1914087
1914088
1914089
1914090
1914091
1914092
1914093
1914094
1914095
1914096
1914097
1914098
1914099
1914100
1914101
1914102
1914103
1914104
1914105
1914106
1914107
1914108
1914109
1914110
1914111
1914112
1914113
1914114
1914115
1914116
1914117
1914118
1914119
1914120
1914121
1914122
1914123
1914124
1914125
1914126
1914127
1914128
1914129
1914130
1914131
1914132
1914133
1914134
1914135
1914136
1914137
1914138
1914139
1914140
1914141
1914142
1914143
1914144
1914145
1914146
1914147
1914148
1914149
1914150
1914151
1914152
1914153
1914154
1914155
1914156
1914157
1914158
1914159
1914160
1914161
1914162
1914163
1914164
1914165
1914166
1914167
1914168
1914169
1914170
1914171
1914172
1914173
1914174
1914175
1914176
1914177
1914178
1914179
1914180
1914181
1914182
1914183
1914184
1914185
1914186
1914187
1914188
1914189
1914190
1914191
1914192
1914193
1914194
1914195
1914196
1914197
1914198
1914199
1914200
1914201
1914202
1914203
1914204
1914205
1914206
1914207
1914208
1914209
1914210
1914211
1914212
1914213
1914214
1914215
1914216
1914217
1914218
1914219
1914220
1914221
1914222
1914223
1914224
1914225
1914226
1914227
1914228
1914229
1914230
1914231
1914232
1914233
1914234
1914235
1914236
1914237
1914238
1914239
1914240
1914241
1914242
1914243
1914244
1914245
1914246
1914247
1914248
1914249
1914250
1914251
1914252
1914253
1914254
1914255
1914256
1914257
1914258
1914259
1914260
1914261
1914262
1914263
1914264
1914265
1914266
1914267
1914268
1914269
1914270
1914271
1914272
1914273
1914274
1914275
1914276
1914277
1914278
1914279
1914280
1914281
1914282
1914283
1914284
1914285
1914286
1914287
1914288
1914289
1914290
1914291
1914292
1914293
1914294
1914295
1914296
1914297
1914298
1914299
1914300
1914301
1914302
191



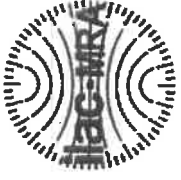
110 Benner Circle
Belleville, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

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 the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32005 **Lot No.:** A0203038

Description : Toxaphene Standard

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

Expiration Date : January 31, 2028 **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	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%

Handwritten notes and signatures:

- Signature: *[Signature]*
- Date: *11/19/24*
- Time: *11:19:24*
- Signature: *[Signature]*
- Date: *11/19/24*
- Time: *11:19:24*
- Signature: *[Signature]*
- Date: *11/19/24*
- Time: *11:19:24*

Quality Confirmation Test

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.)

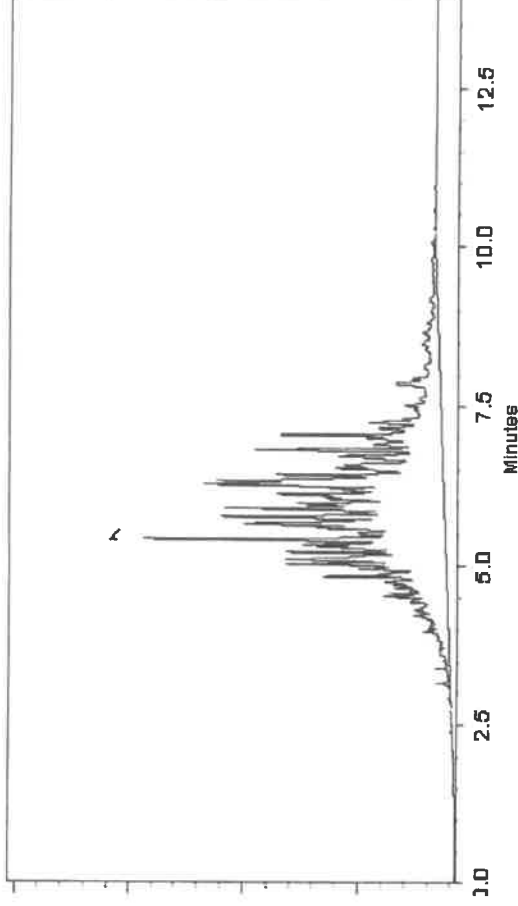
Inj. Temp:
250°C

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.

<i>J.P.</i> Dakota Parson - Operations Technician I	Date Mixed: 10-Oct-2023	Balance Serial # 1128353505
Jennifer Pollino - Operations Tech III - ARM QC	Date Passed: 16-Oct-2023	

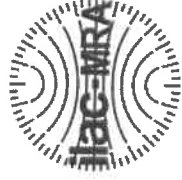
Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FW 80397

(Signature)
P13773
P19779
A7
11/19/24
(Signature)
10-5-20



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

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.: 32074 **Lot No.:** A0213999

Description: Pesticide Performance Eval Mix w/Surrogate

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

Expiration Date: July 31, 2028 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

918760 AJ
11/19/24

918764

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%	2.0 µg/mL	+/- 0.1506
2	alpha-BHC	319-84-6	15279000	99%	1.0 µg/mL	+/- 0.0749
3	gamma-BHC (Lindane)	58-89-9	14931300	97%	1.0 µg/mL	+/- 0.0756
4	beta-BHC	319-85-7	BCCC6425	99%	1.0 µg/mL	+/- 0.0749
5	Endrin	72-20-8	15076100	98%	5.0 µg/mL	+/- 0.3769
6	4,4'-DDT	50-29-3	231103JLM	97%	10.0 µg/mL	+/- 0.7512
7	Methoxychlor	72-43-5	14979500	98%	24.8 µg/mL	+/- 1.8543
8	Decachlorobiphenyl (BZ# 209)	2051-24-3	30638	99%	2.0 µg/mL	+/- 0.1513

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

Solvent: Hexane
CAS # 110-54-3
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.

Quality Confirmation Test

Column:

30m x .25mm x .2µm
Rtx-CLP II (cat.# 111323)

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:

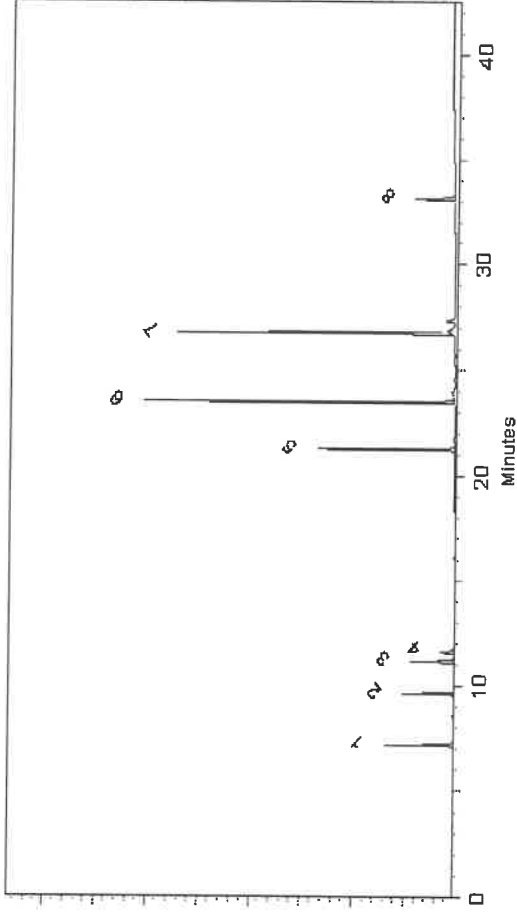
ECD

Split Vent:

Split ratio 50:1

Inj. Vol

1µl



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

Malina Homan

Malina Homan - Operations Technician I

Date Mixed: 17-Jul-2024

Balance Serial # 1128353505

Jennifer Pollino

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Jul-2024

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



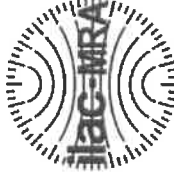
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

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 the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0214495

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

P19785
AJ
11/19/24
P19789

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%	200.2 µg/mL	+/- 11.1087
2	Decachlorobiphenyl (BZ# 209)	2051-24-3	30679	99%	201.4 µg/mL	+/- 11.1753

* 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.

Quality Confirmation Test

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.)

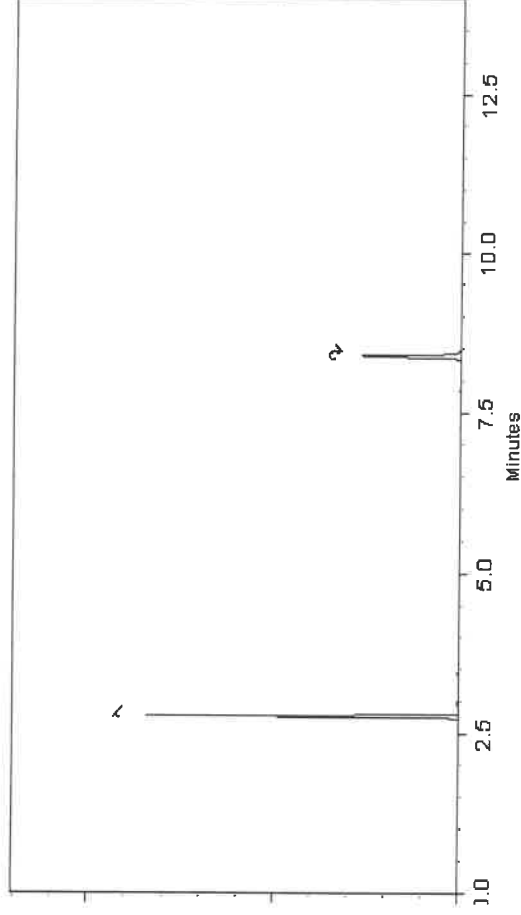
Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
10 ml/min.

Inj. Vol
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.

A. O. P.
Aaron Enyart - Operations Tech I

Date Mixed: 29-Jul-2024 **Balance Serial #** B345965662

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Aug-2024

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



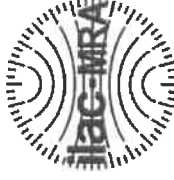
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

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 the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32000 **Lot No.:** A0214495

Description : Pesticide Surrogate Mix

Pesticide Surrogate Mix 200 µg/mL, Acetone, 1mL/ampul

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

Expiration Date : October 31, 2030 **Storage:** 10°C or colder

Handling: Contains PCBs - sonicate prior to use. **Ship:** Ambient

P19785
AJ
11/19/24
P19789

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%	200.2 µg/mL	+/- 11.1087
2	Decachlorobiphenyl (BZ# 209)	2051-24-3	30679	99%	201.4 µg/mL	+/- 11.1753

* 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.

Quality Confirmation Test

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.)

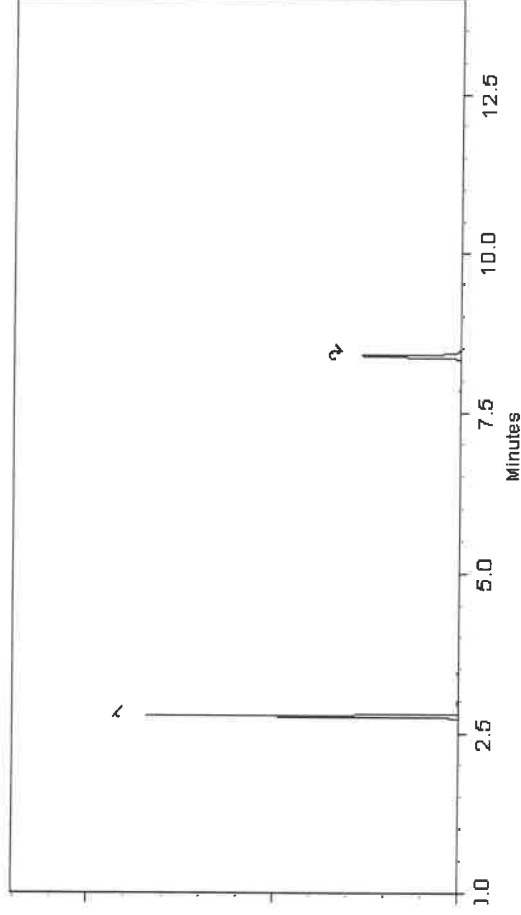
Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
ECD

Split Vent:
10 ml/min.

Inj. Vol
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.

A. O. P.
Aaron Enyart - Operations Tech I

Date Mixed: 29-Jul-2024 **Balance Serial #** B345965662

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Aug-2024

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

www.restek.com

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 the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32005 **Lot No.:** A0210240

Description : Toxaphene Standard
Toxaphene Standard 1000 µg/mL, Hexane, 1mL/ampul

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

Expiration Date : July 31, 2028 **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	Toxaphene	8001-35-2	1051817	----%	1,009.3 µg/mL	+/- 56.0105

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

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

P13861
P13862

12/9/2024

Quality Confirmation Test

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:

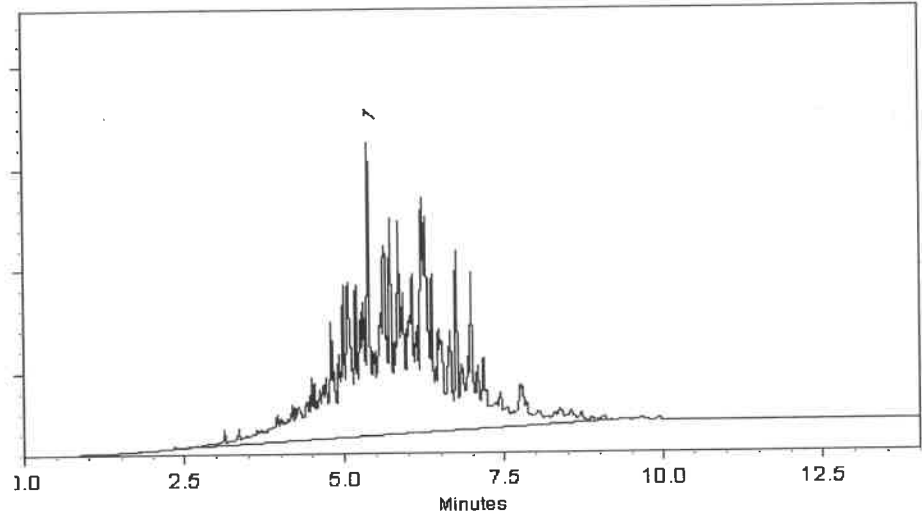
ECD

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.


Amanda Miller - Operations Tech III - ARM QC

Date Mixed: 11-Apr-2024

Balance Serial # B442140311

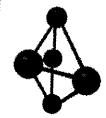

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 26-Apr-2024

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

P13861 } ②
P13862 }


12/9/2024



CERTIFIED WEIGHT REPORT

Part Number: **72072**
Lot Number: **112018**
Description: **n-Tetracosane-d50**

Expiration Date: **112028**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **2684186**

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

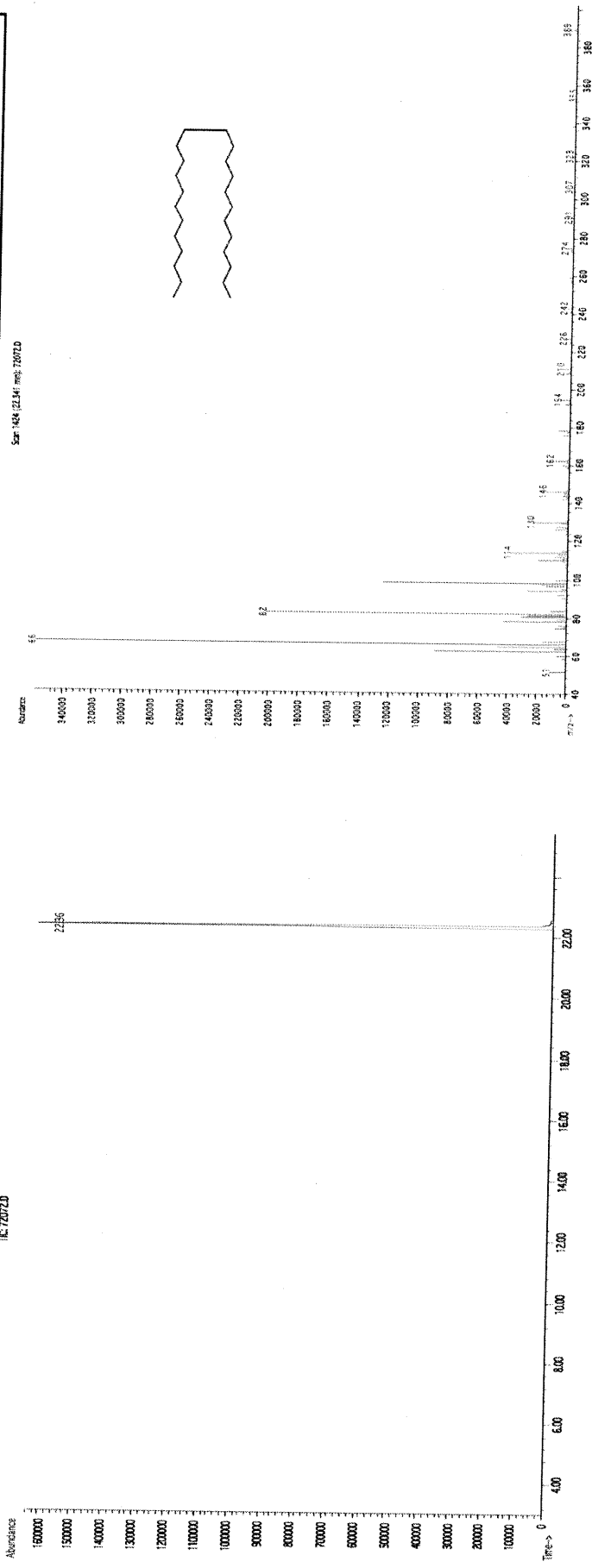
Solvent(s): **Methylene chloride**
Lot#: **102669**

Received by
SG on 11/11/19
p9044-p9053
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

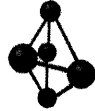
<i>Prashant Chauhan</i>	
Formulated By:	Prashant Chauhan
DATE	112018
<i>Pedro Rentas</i>	
Reviewed By:	Pedro Rentas
DATE	112018

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty	Target Weight (g)	Actual Weight (g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)
1. n-Tetracosane-d50	2072	PR-17753/09216TC1	1000	98	0.2	0.20411	0.20415	1000.2	4.2	18416-32-3 N/A
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= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.										

TC 720720



• 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).
• 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 40, "P72072 L112018 [1000µg/mL in MeCl2]"

Run Length: 35.00 min, 20999 points at 10 points/second.

Created: Thu, Nov 22, 2018 at 7:23:18 AM.

Sampled: Sequence "112018-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 1.5µm 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 µL, Range = 3

