

Prep Standard - Chemical Standard Summary

Order ID : Q1232

Test : Pesticide-TCL

Prepbatch ID : PB166413,

Sequence ID/Qc Batch ID: pl013125,

Standard ID :

EP2579,EP2580,PP23673,PP23674,PP23675,PP23676,PP23677,PP23678,PP23679,PP23680,PP23681,PP23682,PP
23683,PP23686,PP23687,PP23690,PP23693,PP23695,PP23698,PP23733,PP23793,PP24091,PP24095,PP24123,

Chemical ID :

E2865,E3551,E3792,E3805,E3806,E3843,E3846,E3847,E3872,P11146,P11896,P13036,P13039,P13245,P13349,P133
50,P13353,P13359,P13402,

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	EP2579	01/06/2025	06/16/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 01/06/2025

FROM 8000.00000ml of E3846 + 8000.00000ml of E3847 = 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	EP2580	01/17/2025	07/01/2025	Rajesh Parikh	Extraction_SC ALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 01/17/2025

FROM 4000.00000gram of E3551 = 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>
84	Pest/PCB Surrogate Stock 20 PPM	PP23673	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 1.00000ml of P13349 + 9.00000ml of E3792 = 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>
3629	20 PPM PEST stock Solution 1st source(RESTEK)	PP23674	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 1.00000ml of P13036 + 9.00000ml of E3792 = 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>
1472	20 PPM Pest Stock Solution 2nd Source	PP23675	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 1.00000ml of P13039 + 9.00000ml of E3792 = 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>
1273	20 PPM Mirex Stock (Primary Source)	PP23676	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.20000ml of P11146 + 9.80000ml of E3792 = 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>
3663	20 PPM MIREX Stock STD (Secondary source)	PP23677	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.20000ml of P11146 + 9.80000ml of E3792 = 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)	PP23678	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 98.50000ml of E3792 + 0.50000ml of PP23673 + 0.50000ml of PP23674 + 0.50000ml of PP23676 = 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>
80	100/100 PPB Pesticide Working Solution 2nd Source	PP23679	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani 10/01/2024
<u>FROM</u> 98.50000ml of E3792 + 0.50000ml of PP23673 + 0.50000ml of PP23675 + 0.50000ml of PP23677 = 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>
386	1000/100 PPB Chlordane STD (Restek)	PP23680	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani 10/01/2024
<u>FROM</u> 0.10000ml of P11896 + 99.40000ml of E3792 + 0.50000ml of PP23673 = 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>
3746	1000/100 ppb Chlordane STD-RESTEK 2ND SOURCE	PP23681	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.10000ml of P11896 + 99.40000ml of E3792 + 0.50000ml of PP23673 = 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)	PP23682	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.10000ml of P13359 + 99.40000ml of E3792 + 0.50000ml of PP23673 = 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)	PP23683	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.10000ml of P13402 + 99.40000ml of E3792 + 0.50000ml of PP23673 = 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>
3632	50 PPB ICAL PEST STD(RESTEK)	PP23686	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.50000ml of E3792 + 0.50000ml of PP23678 = 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>
3988	50 PPB PEST ICV STD(RESTEK)	PP23687	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.50000ml of E3792 + 0.50000ml of PP23679 = 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	PP23690	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.50000ml of E3792 + 0.50000ml of PP23680 = 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	PP23693	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.50000ml of E3792 + 0.50000ml of PP23681 = 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>
534	TOX 500 PPB STD	PP23695	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.50000ml of E3792 + 0.50000ml of PP23682 = 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>
3670	TOX 500 PPB ICV std (RESTEK)	PP23698	09/21/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/01/2024

FROM 0.50000ml of E3792 + 0.50000ml of PP23683 = 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>
84	Pest/PCB Surrogate Stock 20 PPM	PP23733	10/03/2024	03/30/2025	Ankita Jodhani	None	None	Yogesh Patel
								10/03/2024

FROM 1.00000ml of P13350 + 9.00000ml of E3805 = 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>
518	Pest/PCB I.BLK 20 PPB	PP23793	10/03/2024	03/30/2025	Ankita Jodhani	None	None	Yogesh Patel
								10/03/2024

FROM 99.90000ml of E3805 + 0.10000ml of PP23733 = 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>
79	500 PPB Pesticide Spike Solution	PP24091	12/17/2024	03/11/2025	Abdul Mirza	None	None	Ankita Jodhani
								12/18/2024

FROM 95.00000ml of E3843 + 2.50000ml of PP23675 + 2.50000ml of PP23677 = 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>
4027	Pesticide resolution Check Mixture 8081	PP24095	12/23/2024	06/16/2025	Abdul Mirza	None	None	Ankita Jodhani
								12/30/2024

FROM 1.00000ml of P13245 + 99.00000ml of E3847 = 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	PP24123	01/20/2025	06/26/2025	Abdul Mirza	None	None	Ankita Jodhani
								01/20/2025

FROM 1.00000ml of P13353 + 999.00000ml of E3846 = Final Quantity: 1000.000 ml

CHEMICAL RECEIPT LOG BOOK

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

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	06/16/2025	12/16/2024 / Rajesh	12/13/2024 / Rajesh	E3847

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)	24G1962003	07/29/2025	01/29/2025 / Rajesh	01/29/2025 / Rajesh	E3872

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

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	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

CHEMICAL RECEIPT LOG BOOK

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 HCl	$\leq 0.16\%$	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

E 2865


Jamie Ethier
Vice President Global Quality

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



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CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO ₄)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

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

Recd. by R3 on 7/24/23 E 3551

RC-02-01, Ed. 3

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

Avantor™



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 H ₂ SO ₄	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

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor™



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 H ₂ SO ₄	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

Jamie Croak
Director Quality Operations, Bioscience Production

Cleanert Florisil

1g/6ml 30/pkg

固相萃取产品

LOT#: M06518

MFG#: F04074



Made in China

CAT# FS0006

 Agela Technologies

E 3806



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

Recd. by RP on 12/5/24

E 3843

Jamie Croak
Director Quality Operations, Bioscience Production

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

 **avantors™**



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

Rec'd by RP On 12/13/24

E 3846



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

Certificate of Analysis

Test	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	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	0.1 ppm
Substances Darkened by H ₂ SO ₄	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 12/13/24

E3847



Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor™



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

Certificate of Analysis

Test	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	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C ₈ 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	0.1 ppm
Substances Darkened by H ₂ SO ₄	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 1/29/25

E 3872

Jamie Croak
Director Quality Operations, Bioscience Production



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

Solvent: Hexane

CAS # 110-54-3

Purity 99%

Tech Tips:

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

P 11892
↓
P 11896
5

06/17/2022

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

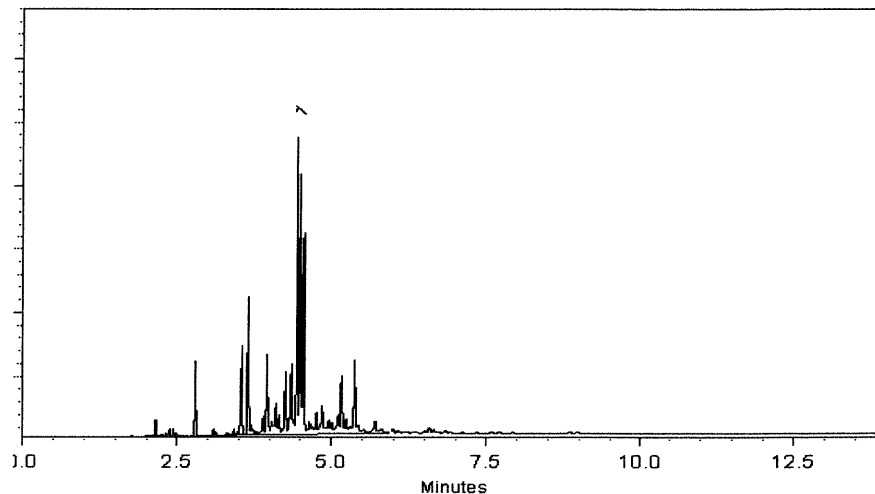
Carrier Gas:
helium-constant pressure 20 psi.

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

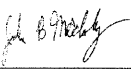
Inj. Temp:
250°C

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.


Josh McCloskey - Operations Technician I

Date Mixed: 11-Feb-2022


Balance: B442140311


Marlene Cowan - Operations Tech I

Date Passed: 24-Feb-2022

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

P 11892 / (5)
P 11896 /


06/17/2022



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 .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.)

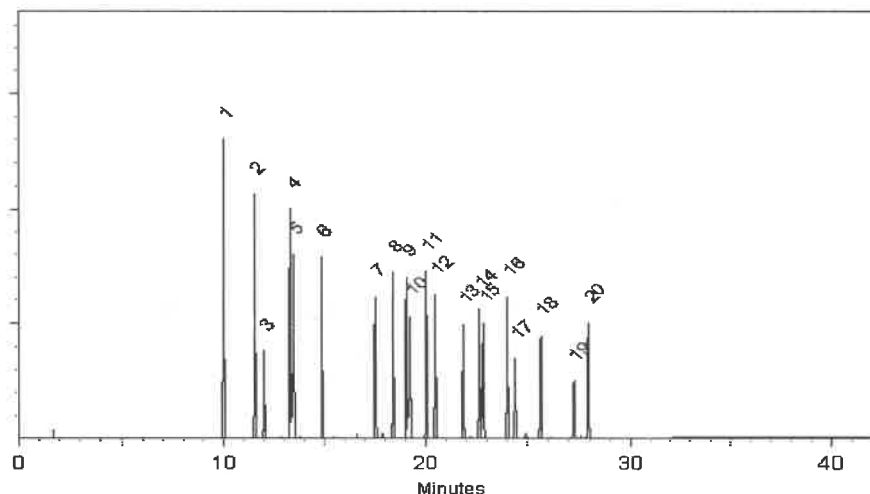
Inj. Temp:
 200°C

Det. Temp:
 300°C

Det. Type:
 ECD

Split Vent:
 Split ratio 50:1

Inj. Vol
 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:
Lot Number:
Description:

79136
102821
Mirex

Solvent(s):	Lot#
Acetone	81025

Expiration Date: 102826
Recommended Storage: Refrigerate (4 °C)

Nominal Concentration ($\mu\text{g/mL}$):
NIST Test ID#:

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

5E-05 Balance Uncertainty
0.006 Flask Uncertainty

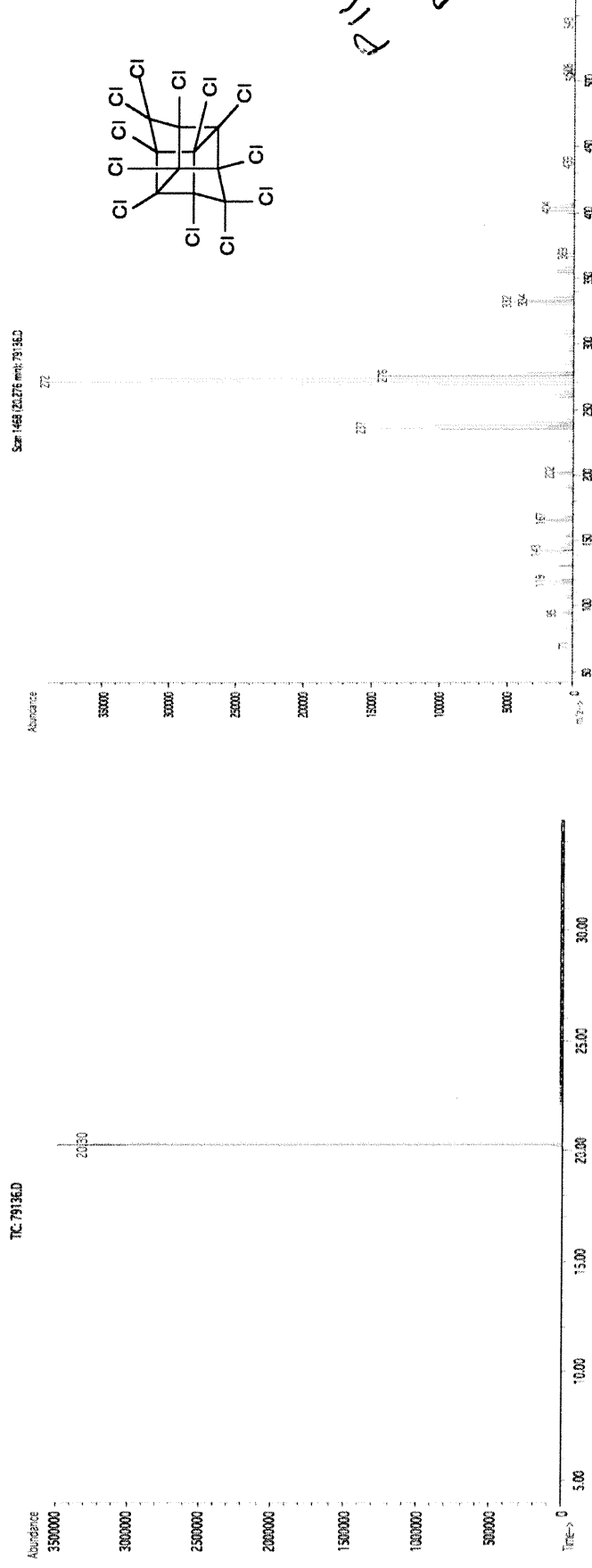
102821	DATE
102821	DATE

SDS Information

[illegible]

	1. Mirex	2. Dieldrin	3. DDT	4. Aldrin	5. Dieldrin	6. DDT	7. Aldrin	8. Dieldrin	9. DDT	10. Aldrin	11. Dieldrin	12. DDT	13. Aldrin	14. Dieldrin	15. DDT	16. Aldrin	17. Dieldrin	18. DDT	19. Aldrin	20. Dieldrin	21. DDT	22. Aldrin	23. Dieldrin	24. DDT	25. Aldrin	26. Dieldrin	27. DDT	28. Aldrin	29. Dieldrin	30. DDT	31. Aldrin	32. Dieldrin	33. DDT	34. Aldrin	35. Dieldrin	36. DDT	37. Aldrin	38. Dieldrin	39. DDT	40. Aldrin	41. Dieldrin	42. DDT	43. Aldrin	44. Dieldrin	45. DDT	46. Aldrin	47. Dieldrin	48. DDT	49. Aldrin	50. Dieldrin	51. DDT	52. Aldrin	53. Dieldrin	54. DDT	55. Aldrin	56. Dieldrin	57. DDT	58. Aldrin	59. Dieldrin	60. DDT	61. Aldrin	62. Dieldrin	63. DDT	64. Aldrin	65. Dieldrin	66. DDT	67. Aldrin	68. Dieldrin	69. DDT	70. Aldrin	71. Dieldrin	72. DDT	73. Aldrin	74. Dieldrin	75. DDT	76. Aldrin	77. Dieldrin	78. DDT	79. Aldrin	80. Dieldrin	81. DDT	82. Aldrin	83. Dieldrin	84. DDT	85. Aldrin	86. Dieldrin	87. DDT	88. Aldrin	89. Dieldrin	90. DDT	91. Aldrin	92. Dieldrin	93. DDT	94. Aldrin	95. Dieldrin	96. DDT	97. Aldrin	98. Dieldrin	99. DDT	100. Aldrin	101. Dieldrin	102. DDT	103. Aldrin	104. Dieldrin	105. DDT	106. Aldrin	107. Dieldrin	108. DDT	109. Aldrin	110. Dieldrin	111. DDT	112. Aldrin	113. Dieldrin	114. DDT	115. Aldrin	116. Dieldrin	117. DDT	118. Aldrin	119. Dieldrin	120. DDT	121. Aldrin	122. Dieldrin	123. DDT	124. Aldrin	125. Dieldrin	126. DDT	127. Aldrin	128. Dieldrin	129. DDT	130. Aldrin	131. Dieldrin	132. DDT	133. Aldrin	134. Dieldrin	135. DDT	136. Aldrin	137. Dieldrin	138. DDT	139. Aldrin	140. Dieldrin	141. DDT	142. Aldrin	143. Dieldrin	144. DDT	145. Aldrin	146. Dieldrin	147. DDT	148. Aldrin	149. Dieldrin	150. DDT	151. Aldrin	152. Dieldrin	153. DDT	154. Aldrin	155. Dieldrin	156. DDT	157. Aldrin	158. Dieldrin	159. DDT	160. Aldrin	161. Dieldrin	162. DDT	163. Aldrin	164. Dieldrin	165. DDT	166. Aldrin	167. Dieldrin	168. DDT	169. Aldrin	170. Dieldrin	171. DDT	172. Aldrin	173. Dieldrin	174. DDT	175. Aldrin	176. Dieldrin	177. DDT	178. Aldrin	179. Dieldrin	180. DDT	181. Aldrin	182. Dieldrin	183. DDT	184. Aldrin	185. Dieldrin	186. DDT	187. Aldrin	188. Dieldrin	189. DDT	190. Aldrin	191. Dieldrin	192. DDT	193. Aldrin	194. Dieldrin	195. DDT	196. Aldrin	197. Dieldrin	198. DDT	199. Aldrin	200. Dieldrin	201. DDT	202. Aldrin	203. Dieldrin	204. DDT	205. Aldrin	206. Dieldrin	207. DDT	208. Aldrin	209. Dieldrin	210. DDT	211. Aldrin	212. Dieldrin	213. DDT	214. Aldrin	215. Dieldrin	216. DDT	217. Aldrin	218. Dieldrin	219. DDT	220. Aldrin	221. Dieldrin	222. DDT	223. Aldrin	224. Dieldrin	225. DDT	226. Aldrin	227. Dieldrin	228. DDT	229. Aldrin	230. Dieldrin	231. DDT	232. Aldrin	233. Dieldrin	234. DDT	235. Aldrin	236. Dieldrin	237. DDT	238. Aldrin	239. Dieldrin	240. DDT	241. Aldrin	242. Dieldrin	243. DDT	244. Aldrin	245. Dieldrin	246. DDT	247. Aldrin	248. Dieldrin	249. DDT	250. Aldrin	251. Dieldrin	252. DDT	253. Aldrin	254. Dieldrin	255. DDT	256. Aldrin	257. Dieldrin	258. DDT	259. Aldrin	260. Dieldrin	261. DDT	262. Aldrin	263. Dieldrin	264. DDT	265. Aldrin	266. Dieldrin	267. DDT	268. Aldrin	269. Dieldrin	270. DDT	271. Aldrin	272. Dieldrin	273. DDT	274. Aldrin	275. Dieldrin	276. DDT	277. Aldrin	278. Dieldrin	279. DDT	280. Aldrin	281. Dieldrin	282. DDT	283. Aldrin	284. Dieldrin	285. DDT	286. Aldrin	287. Dieldrin	288. DDT	289. Aldrin	290. Dieldrin	291. DDT	292. Aldrin	293. Dieldrin	294. DDT	295. Aldrin	296. Dieldrin	297. DDT	298. Aldrin	299. Dieldrin	300. DDT	301. Aldrin	302. Dieldrin	303. DDT	304. Aldrin	305. Dieldrin	306. DDT	307. Aldrin	308. Dieldrin	309. DDT	310. Aldrin	311. Dieldrin	312. DDT	313. Aldrin	314. Dieldrin	315. DDT	316. Aldrin	317. Dieldrin	318. DDT	319. Aldrin	320. Dieldrin	321. DDT	322. Aldrin	323. Dieldrin	324. DDT	325. Aldrin	326. Dieldrin	327. DDT	328. Aldrin	329. Dieldrin	330. DDT	331. Aldrin	332. Dieldrin	333. DDT	334. Aldrin	335. Dieldrin	336. DDT	337. Aldrin	338. Dieldrin	339. DDT	340
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Method GC7MSD-1.M: Column: SPB-608 (30m X 0.25mm ID X 0.25 μ m 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.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.

- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).

• Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.

- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.

- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result, NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC. (1994).



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 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
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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.)

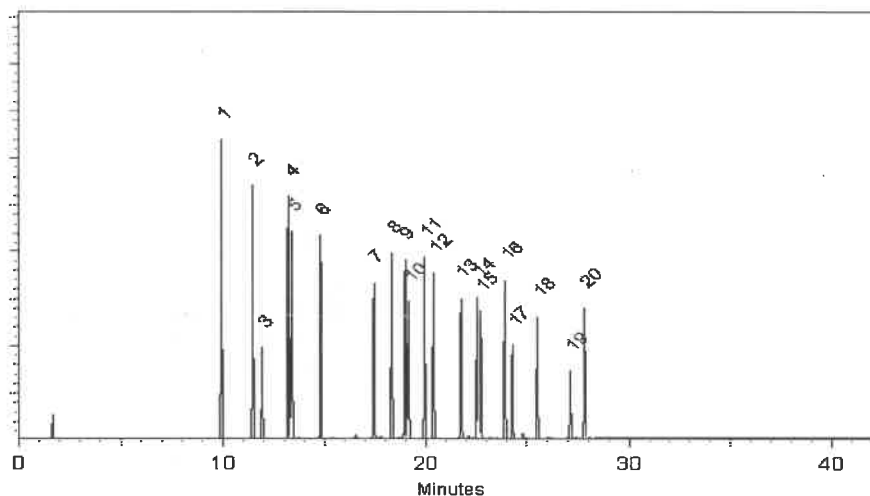
Inj. Temp:
200°C

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
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

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):

9 components
013129
Refrigerate (4 °C)
Varied
6UTB

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

5E-05
0.021
Balance Uncertainty
Pipet Uncertainty

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

Compound

1. trans-Chlordane	19361	013124	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	013124	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	013124	0.010	1.00	0.004	201.6	2.0	0.03	72-55-9	N/A	or-rat 880mg/kg
4. Dieldrin	19361	013124	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	013124	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	013124	0.010	1.00	0.004	202.6	2.0	0.03	53494-70-5	N/A	N/A
7. 4,4'-Methoxychlor	19361	013124	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	013124	0.010	1.00	0.004	202.6	2.0	0.03	877-09-8	N/A	N/A
9. Decachlorobiphenyl (209)	19361	013124	0.010	1.00	0.004	202.0	2.0	0.03	2051-24-3	N/A	N/A

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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.:** A0206810

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

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

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

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

P13348
↓
P13357
10
DAUF
04/25/2024

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.

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.


Laith Clemente - Operations Technician I

Date Mixed: 22-Jan-2024

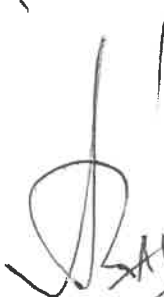
Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Jan-2024

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

P 13348
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P 13357
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SAUF
04/25/2025



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

Catalog No. : 32000 **Lot No.:** A0206810

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

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

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

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

P13348
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P13357
10
DAUF
04/25/2024

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.

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.


Laith Clemente - Operations Technician I

Date Mixed: 22-Jan-2024

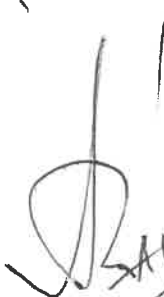
Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Jan-2024

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

P 13348
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SAUF
04/25/2025



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

Catalog No. : 32000 **Lot No.:** A0206810

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

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

Expiration Date : April 30, 2030 **Storage:** 10°C or colder

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

P13348
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DAUF
04/25/2024

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.

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.


Laith Clemente - Operations Technician I

Date Mixed: 22-Jan-2024

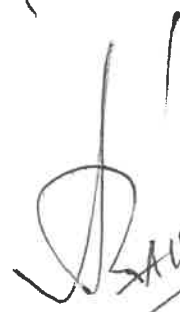
Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Jan-2024

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

P 13348
↓
P 13357
10


SAUF
04/25/2025



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



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

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

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%

P 13358
↓
P 13369
(12)

✓
05-06-2024

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:

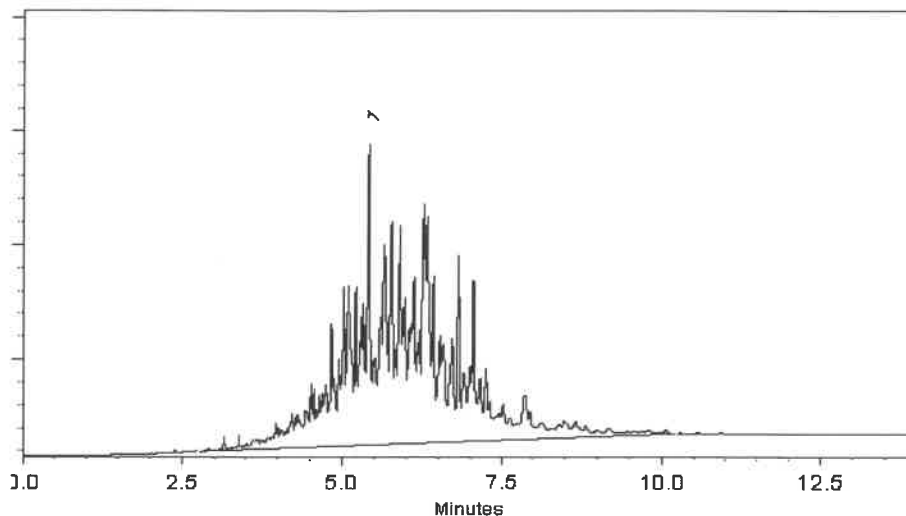
ECD

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.


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 #FM 80397

P13358 } (12)
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P13369
|


05-06-2024



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

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

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

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

Expiration Date : January 31, 2028 **Storage:** 10°C or colder
Ship: Ambient

P13402
P13406
5/22/2024

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%

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:

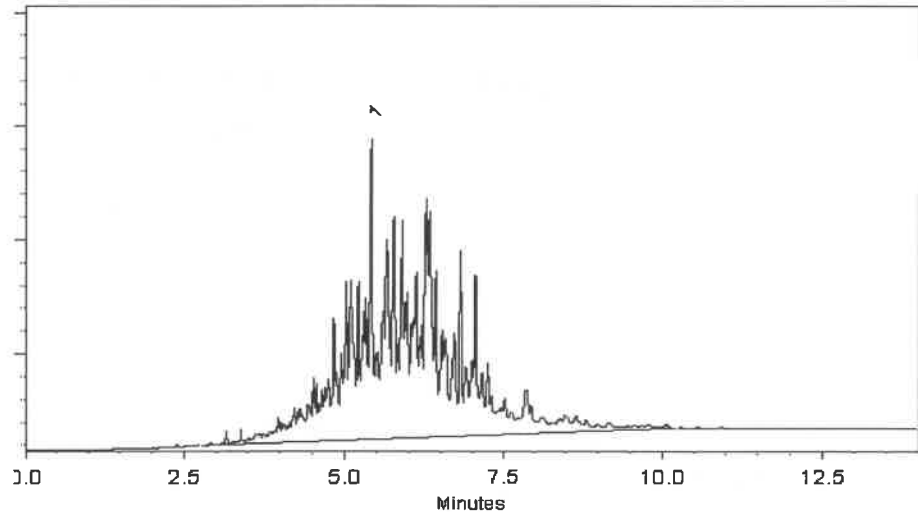
ECD

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.


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 #FM 80397

P13402
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P13406 } (5)

5/22/2024