

Prep Standard - Chemical Standard Summary

Order ID : Q1486

Test : Pesticide-TCL

Prepbatch ID : PB166986,

Sequence ID/Qc Batch ID: PL030525,

Standard ID :

EP2590,EP2592,PP23673,PP23674,PP23675,PP23676,PP23677,PP23678,PP23679,PP23680,PP23681,PP23682,PP
23683,PP23687,PP23690,PP23693,PP23698,PP23733,PP23793,PP24091,PP24095,PP24123,PPP23695,

Chemical ID :

E2865,E3551,E3792,E3805,E3806,E3843,E3846,E3847,E3876,E3877,P11146,P11896,P13036,P13039,P13245,P1334
9,P13350,P13353,P13359,P13402,P23686,



| <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 | EP2590 | 02/26/2025 | 07/01/2025 | RUPESHKUMAR SHAH | Extraction_SCALE_2 (EX-SC-2) | None | Riteshkumar Patel 02/26/2025 |
| <u>FROM</u> 4000.00000gram of E3551 = Final Quantity: 4000.000 gram | | | | | | | | |

| <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 | EP2592 | 02/27/2025 | 08/12/2025 | RUPESHKUMAR SHAH | None | None | Riteshkumar Patel 02/27/2025 |
| <u>FROM</u> 4000.00000ml of E3876 + 4000.00000ml of E3877 = Final Quantity: 8000.000 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 | 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

[illegible]

| <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> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 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

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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 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

| <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

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-9254-03 / Acetone, Ultra Resi (cs/4x4L) | 24H2762008 | 08/25/2025 | 02/25/2025 / | 02/12/2025 / Rajesh | E3876 |

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

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

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek | 32021 / Chlordane Std. | A0181737 | 03/21/2025 | 09/21/2024 / Abdul | 06/17/2022 / Abdul | P11896 |

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 | 03/21/2025 | 09/21/2024 / Abdul | 12/26/2023 / Abdul | P13036 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek | 32291 / Pesticide Mix, CLP method, organochlorine Std AB#1, 200ug/mL, hexane/toluene, 1mL/ampul | A0199099 | 03/21/2025 | 09/21/2024 / Abdul | 12/26/2023 / Abdul | P13039 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 19161 / 8081 pesticide resolution check mixture | 013124 | 06/23/2025 | 12/23/2024 / Abdul | 02/09/2024 / Abdul | P13245 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek | 32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL | A0206810 | 03/21/2025 | 09/21/2024 / Abdul | 04/22/2024 / Abdul | P13349 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek | 32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL | A0206810 | 04/03/2025 | 10/03/2024 / Ankita | 04/22/2024 / Abdul | P13350 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek | 32000 / Pesticide Mix, CLP method, Pesticide Surrogate Mix, 200ug/mL, Acetone, 1mL | A0206810 | 07/20/2025 | 01/20/2025 / Abdul | 04/22/2024 / Abdul | P13353 |

CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek | 32005 / Toxaphene Standard | A0203830 | 03/21/2025 | 09/21/2024 / Abdul | 05/03/2024 / Abdul | P13359 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek | 32005 / Toxaphene Standard | A0203038 | 03/21/2025 | 09/21/2024 / Abdul | 05/15/2024 / Abdul | P13402 |

Sand
Purified
Washed and Ignited



Material No.: 3382-05
Batch No.: 0000243821
Manufactured Date: 2018/04/09
Retest Date: 2025/04/07
Revision No: 1

Certificate of Analysis

| Test | Specification | Result |
|---------------------------|---------------|--------|
| Substances Soluble in 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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CP 64070
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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

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

Recd. by RP on 2/12/25

E 3876



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

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 RP on 2/12/25

Harout Sahagian **E3877**

Harout Sahagian - Quality Control Manager - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.

If there are any questions with this certificate, please call at (800) 227-6701.

*Based on suggested storage condition.



CERTIFIED REFERENCE MATERIAL

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)

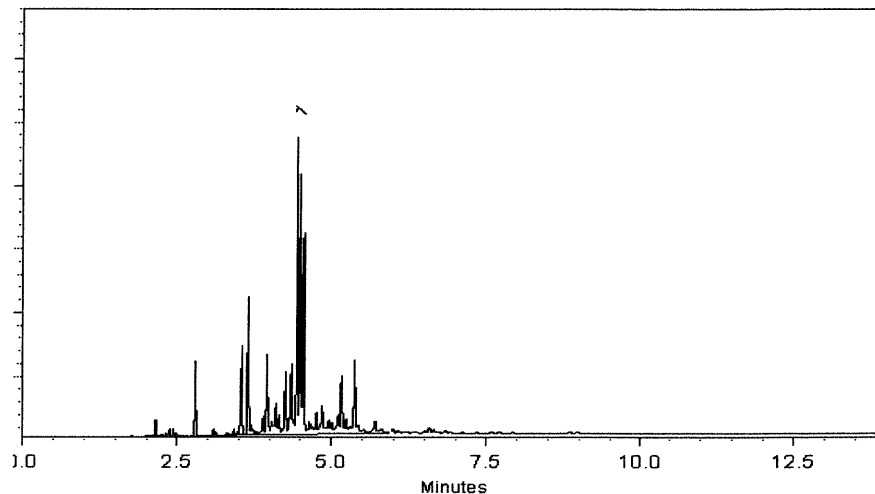
Carrier Gas:
helium-constant pressure 20 psi.

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

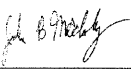
Inj. Temp:
250°C

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
↓
P 11896 / (5)


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
↓
P130431
1
Kauf-
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.)

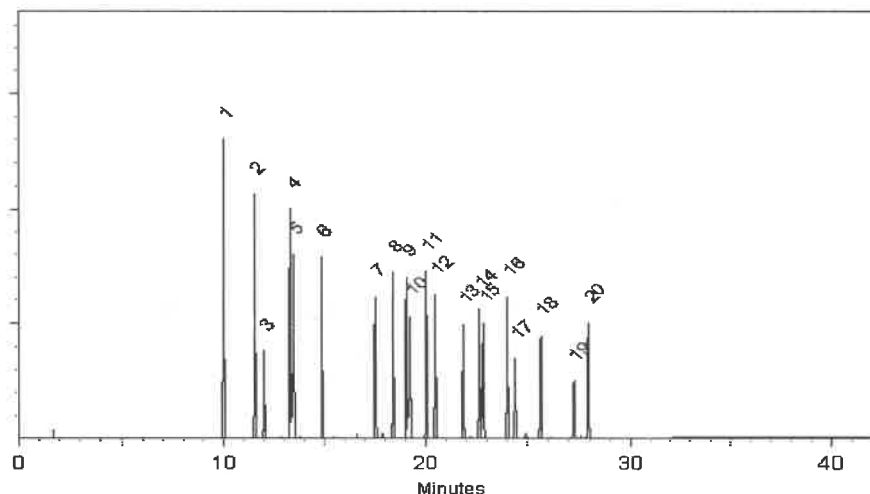
Inj. Temp:
 200°C

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

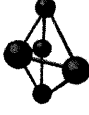
Jennifer Pollino
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 23-Jun-2023

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



Certified Reference Material CRM



CERTIFIED WEIGHT REPORT

Part Number:
Lot Number:
Description:

79136
102821
Mirex

Solvent(s):
Lot#
Acetone
81025

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test ID#:

102826
Refrigerate (4 °C)
1000
6UTB

5E-05 Balance Uncertainty
0.006 Flask Uncertainty

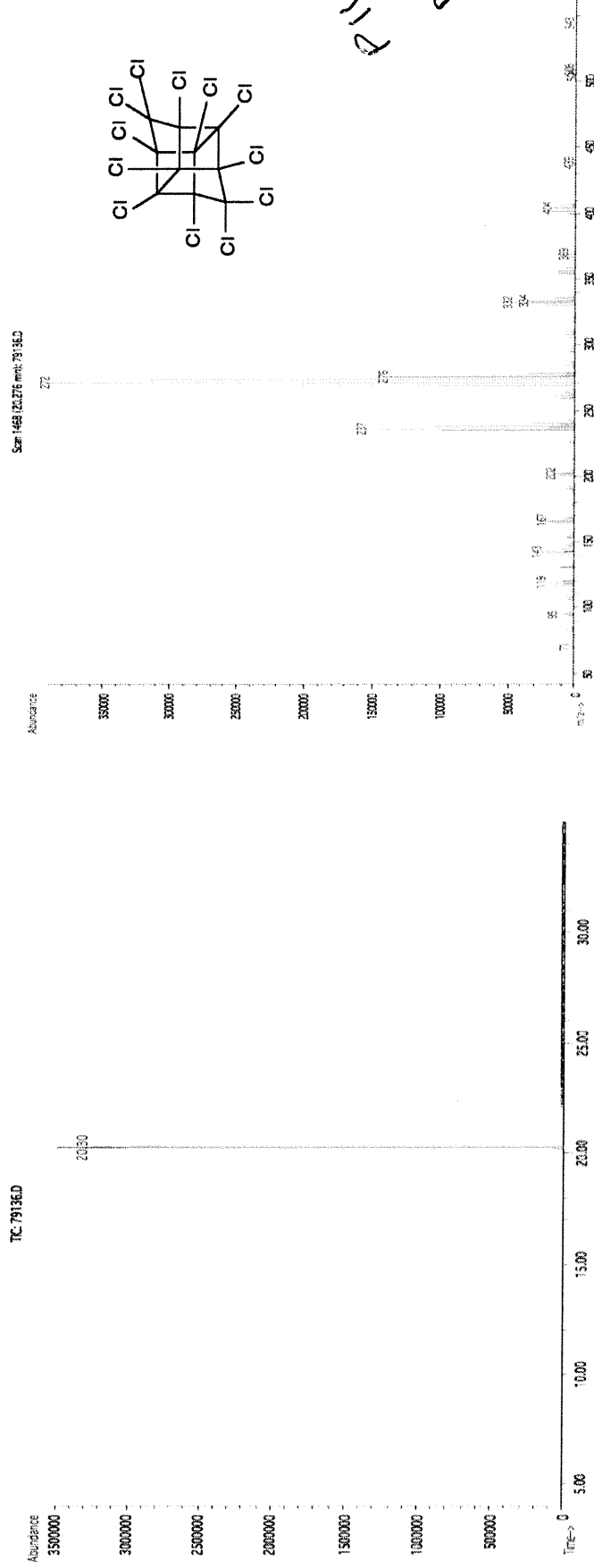
Weight(s) shown below were combined and diluted to (mL):

50.0

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight (g) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded SDS Information | | |
|----------|-----|------------|----------------------|------------|-------------|-------------------|-------------------|---------------------|---------------------------|--|----------------------|
| | | | | | | | | | Uncertainty (+/-) (µg/mL) | (Solvent Safety Info. On Attached pg.) | (SHA PEL (TWA) LD50) |

| | | | | | | | | | | | | |
|----------|-----|---------|------|------|-----|---------|---------|--------|------|-----------|-----|------------------|
| 1. Mirex | 437 | 9492400 | 1000 | 99.4 | 0.5 | 0.05034 | 0.05039 | 1000.9 | 10.3 | 2385-85-5 | N/A | orl-rat 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.



- 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

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.)

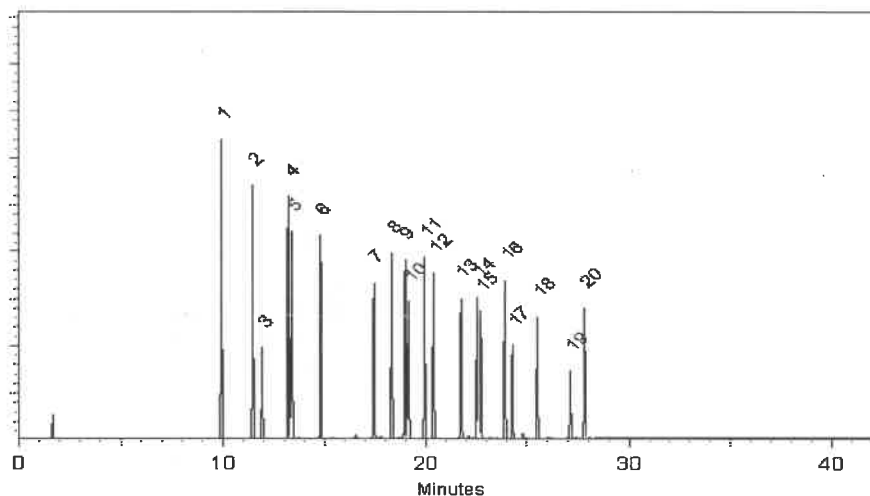
Inj. Temp:
200°C

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%)

Nominal Concentration (µg/mL):

Varied

28508

(50%)

NIST Test ID#:

6UTB

5E-05

Balance Uncertainty

28508

(50%)

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

100.0

Pipet Uncertainty

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

SDS Information

| Compound | Part Number | Lot Number | Dil. Factor | Initial Vol. (mL) | Uncertainty (mL) | Initial Conc. (µg/mL) | Final Conc. (µg/mL) | Expanded Uncertainty (±) µg/mL | (Solvent Safety Info. On Attached pg.) | CAS# | OSHA PEL (TWA) | LD50 |
|----------|-------------|------------|-------------|-------------------|------------------|-----------------------|---------------------|--------------------------------|--|------|----------------|------|
|----------|-------------|------------|-------------|-------------------|------------------|-----------------------|---------------------|--------------------------------|--|------|----------------|------|

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|---------------------------------|-------|--------|-------|------|-------|--------|------|------|------------|------------------|-------------------|
| 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

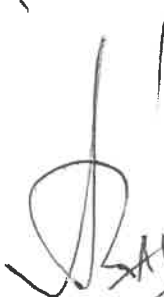
Balance Serial # 1128360905


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
↓
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

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.

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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

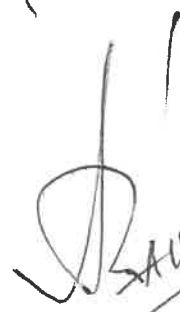
Balance Serial # 1128360905


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
10


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
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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



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Laith Clemente - Operations Technician I

Date Mixed: 22-Jan-2024

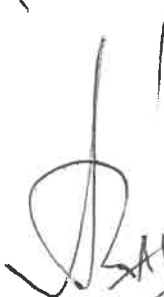
Balance Serial # 1128360905


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
10


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04/25/2025



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chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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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
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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:

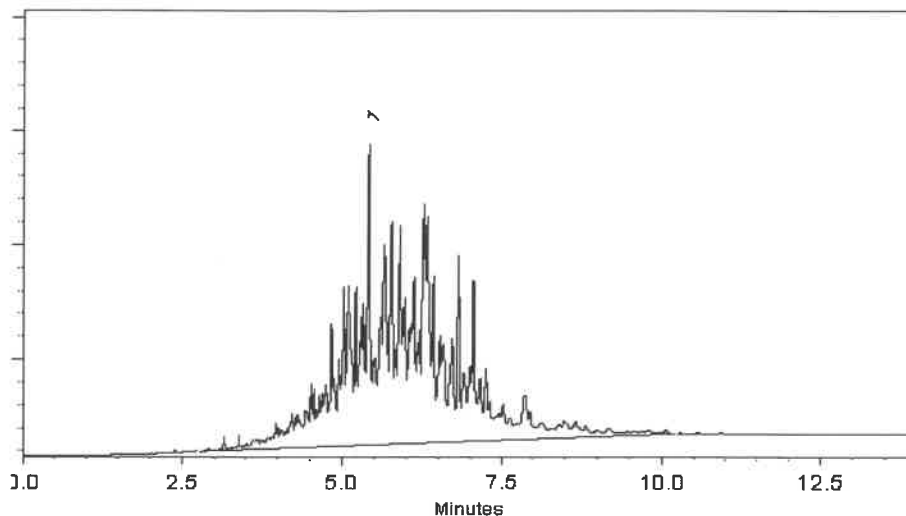
ECD

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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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:

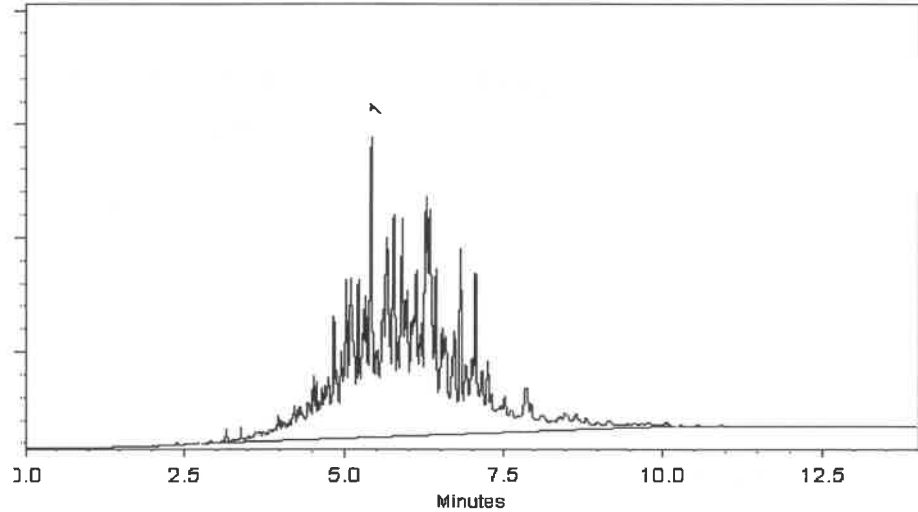
ECD

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