

## Prep Standard - Chemical Standard Summary

**Order ID :** Q1235

**Test :** PCB

**Prepbatch ID :** PB166412,

**Sequence ID/Qc Batch ID:** PO013125,PO020425,

**Standard ID :**

EP2565,EP2579,EP2580,PP23733,PP23735,PP23736,PP23737,PP23738,PP23739,PP23740,PP23741,PP23742,PP23743,PP23744,PP23745,PP23747,PP23748,PP23749,PP23750,PP23751,PP23752,PP23753,PP23754,PP23755,PP23756,PP23757,PP23758,PP23759,PP23760,PP23761,PP23762,PP23763,PP23764,PP23765,PP23766,PP23767,PP23768,PP23769,PP23770,PP23771,PP23772,PP23773,PP23774,PP23775,PP23776,PP23777,PP23778,PP23779,PP23780,PP23781,PP23782,PP23783,PP23784,PP23785,PP23786,PP23787,PP23788,PP23789,PP23790,PP23946,PP23947,PP24093,PP24123,

**Chemical ID :**

E2865,E3551,E3804,E3805,E3825,E3843,E3846,E3847,E3872,M5173,P10483,P10500,P11507,P11512,P11521,P11581,P11587,P11590,P11597,P12698,P12929,P12934,P12947,P12957,P13033,P13350,P13353,P13372,W3112,

## 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>              |
|------------------|----------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|-----------------------------------|
| 314              | 1.1 H2SO4 SOLN | <a href="#">EP2565</a> | 11/20/2024       | 05/20/2025             | Rajesh Parikh      | None           | None             | RUPESHKUMAR<br>SHAH<br>11/20/2024 |

**FROM** 1000.00000ml of M5173 + 1000.00000ml of W3112 = Final Quantity: 2000.000 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>              |
|------------------|-------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|-----------------------------------|
| 230              | 1:1ACETONE/HEXANE | <a href="#">EP2579</a> | 01/06/2025       | 06/16/2025             | Rajesh Parikh      | None           | None             | RUPESHKUMAR<br>SHAH<br>01/06/2025 |

**FROM** 8000.00000ml of E3846 + 8000.00000ml of E3847 = Final Quantity: 8000.000 ml

## 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>              |
|------------------|----------------------|------------------------|------------------|------------------------|--------------------|-------------------------------------|------------------|-----------------------------------|
| 3923             | Baked Sodium Sulfate | <a href="#">EP2580</a> | 01/17/2025       | 07/01/2025             | Rajesh Parikh      | Extraction_SC<br>ALE_2<br>(EX-SC-2) | None             | RUPESHKUMAR<br>SHAH<br>01/17/2025 |

**FROM** 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>       |
|------------------|---------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 84               | Pest/PCB Surrogate Stock 20 PPM | <a href="#">PP23733</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel<br>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> |
|------------------|-------------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 202              | AR1660 1000/100 ppb working solution 1st source | <a href="#">PP23735</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                                 |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P10483 + 99.40000ml of E3805 + 0.50000ml 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 203              | AR1660 750 PPB STD | <a href="#">PP23736</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23735 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 204              | AR1660 500 PPB STD | <a href="#">PP23737</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23735 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 205              | AR1660 250 PPB STD | <a href="#">PP23738</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23735 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 206              | AR1660 50 PPB STD | <a href="#">PP23739</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23737 = 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> |
|------------------|----------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 213              | AR1221 1000 PPB WORKING SOLUTION | <a href="#">PP23740</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                  |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P11581 + 99.40000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1079             | AR1221 750 PPB STD | <a href="#">PP23741</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23740 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 222              | AR1221 500 PPB STD | <a href="#">PP23742</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23740 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1080             | AR1221 250 PPB STD | <a href="#">PP23743</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23740 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1081             | AR1221 50 PPB STD | <a href="#">PP23744</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23742 = 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> |
|------------------|----------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 214              | AR1232 1000 PPB WORKING SOLUTION | <a href="#">PP23745</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                  |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P11587 + 99.40000ml of E3805 + 0.50000ml 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1063             | AR1232 750 PPB STD | <a href="#">PP23747</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23745 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 223              | AR1232 500 PPB STD | <a href="#">PP23748</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23745 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1064             | AR1232 250 PPB STD | <a href="#">PP23749</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23745 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1065             | AR1232 50 PPB STD | <a href="#">PP23750</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23748 = 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> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 215              | AR1242 1000 PPB WORKING STD | <a href="#">PP23751</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                             |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P12929 + 99.40000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1067             | AR1242 750 PPB STD | <a href="#">PP23752</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23751 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 224              | AR1242 500 PPB STD | <a href="#">PP23753</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23751 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1068             | AR1242 250 PPB STD | <a href="#">PP23754</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23751 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1069             | AR1242 50 PPB STD | <a href="#">PP23755</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23753 = 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> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 216              | AR1248 1000 PPB WORKING STD | <a href="#">PP23756</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                             |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P12934 + 99.40000ml of E3805 + 0.50000ml 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1075             | AR1248 750 PPB STD | <a href="#">PP23757</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23756 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 225              | AR1248 500 PPB STD | <a href="#">PP23758</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23756 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1076             | AR1248 250 PPB STD | <a href="#">PP23759</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23756 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1077             | AR1248 50 PPB STD | <a href="#">PP23760</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23758 = 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> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 217              | AR1254 1000 PPB WORKING STD | <a href="#">PP23761</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                             |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P11590 + 99.40000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1071             | AR1254 750 PPB STD | <a href="#">PP23762</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23761 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 226              | AR1254 500 PPB STD | <a href="#">PP23763</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23761 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1072             | AR1254 250 PPB STD | <a href="#">PP23764</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23761 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1073             | AR1254 50 PPB STD | <a href="#">PP23765</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23763 = 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> |
|------------------|----------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1529             | AR1262 1000 PPB Working Solution | <a href="#">PP23766</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                  |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P10500 + 99.40000ml of E3805 + 0.50000ml 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3753             | AR1262 750 PPB STD | <a href="#">PP23767</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23766 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1530             | AR1262 500 PPB STD | <a href="#">PP23768</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23766 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3754             | AR1262 250 PPB STD | <a href="#">PP23769</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23766 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3755             | AR1262 50 PPB STD | <a href="#">PP23770</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23768 = 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> |
|------------------|----------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1532             | AR1268 1000 PPB Working Solution | <a href="#">PP23771</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                  |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P11597 + 99.40000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3820             | AR1268 750 PPB STD | <a href="#">PP23772</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.25000ml of E3805 + 0.75000ml of PP23771 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1533             | AR1268 500 PPB STD | <a href="#">PP23773</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23771 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3821             | AR1268 250 PPB STD | <a href="#">PP23774</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.75000ml of E3805 + 0.25000ml of PP23771 = 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> |
|------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3822             | AR1268 50 PPB STD | <a href="#">PP23775</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                   |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.90000ml of E3805 + 0.10000ml of PP23773 = 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> |
|------------------|---------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 404              | AR1660 100 PPM Stock Solution<br>2nd Source | <a href="#">PP23776</a> | 10/03/2024       | 04/01/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                             |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 1.00000ml of P12947 + 9.00000ml of E3804 = 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> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 405              | AR1660 1000/100 PPB ICV STD | <a href="#">PP23777</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                             |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 98.50000ml of E3805 + 0.50000ml of PP23733 + 1.00000ml of PP23776 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 406              | AR1660 500 PPB ICV | <a href="#">PP23778</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23777 = 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> |
|------------------|-------------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3789             | AR1221 1000 PPB WORKING SOL.2ND SOURCE(AGILENT) | <a href="#">PP23779</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                                 |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 1.00000ml of P13372 + 98.50000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|-----------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3790             | AR1221 500 PPB ICV(AGILENT) | <a href="#">PP23780</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                             |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23779 = 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> |
|------------------|--------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1887             | AR1232 1000 PPB Working Sol.<br>2nd Source | <a href="#">PP23781</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                            |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 1.00000ml of P12698 + 98.50000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|--------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1889             | AR1242 1000 PPB Working Sol.<br>2nd Source | <a href="#">PP23782</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                            |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 1.00000ml of P11507 + 98.50000ml of E3805 + 0.50000ml 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1888             | AR1232 500 PPB ICV | <a href="#">PP23783</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23781 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1891             | AR1242 500 PPB ICV | <a href="#">PP23784</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23782 = 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> |
|------------------|--------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1890             | AR1248 1000 PPB Working Sol.<br>2nd Source | <a href="#">PP23785</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                            |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P11512 + 98.50000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1892             | AR1248 500 PPB ICV | <a href="#">PP23786</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23785 = 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> |
|------------------|--------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1893             | AR1254 1000 PPB Working Sol.<br>2nd Source | <a href="#">PP23787</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                            |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 1.00000ml of P12957 + 98.50000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|--------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1894             | AR1254 500 PPB ICV | <a href="#">PP23788</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                    |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23787 = 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> |
|------------------|------------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3757             | AR1262 1000 PPB Working Solution second source | <a href="#">PP23789</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                                |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.10000ml of P13033 + 99.40000ml of E3805 + 0.50000ml of PP23733 = 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> |
|------------------|------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3758             | AR1262 500 PPB STD ICV | <a href="#">PP23790</a> | 10/03/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                        |                         |                  |                        |                    |                |                  | 10/03/2024           |

**FROM** 0.50000ml of E3805 + 0.50000ml of PP23789 = 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> |
|------------------|---------------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3817             | AR1268 1000 ppb Working Soln.<br>2nd source | <a href="#">PP23946</a> | 11/07/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                             |                         |                  |                        |                    |                |                  | 11/13/2024           |

**FROM** 1.00000ml of P11521 + 98.50000ml of E3825 + 0.50000ml of PP23733 = 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> |
|------------------|------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3823             | AR1268 500 PPB STD ICV | <a href="#">PP23947</a> | 11/07/2024       | 03/30/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                        |                         |                  |                        |                    |                |                  | 11/13/2024           |

**FROM** 0.50000ml of E3825 + 0.50000ml of PP23946 = 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> |
|------------------|----------------------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3857             | 5000 PPB PCB SPIKE SOLUTION 2ND SOURCE | <a href="#">PP24093</a> | 12/20/2024       | 04/03/2025             | Ankita Jodhani     | None           | None             | Yogesh Patel         |
|                  |                                        |                         |                  |                        |                    |                |                  | 01/16/2025           |

**FROM** 0.50000ml of P12947 + 99.50000ml of E3843 = 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 | <a href="#">PP24123</a> | 01/20/2025       | 06/26/2025             | Abdul Mirza        | None           | None             | Ankita Jodhani<br>01/20/2025 |
| <b><u>FROM</u></b> 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 | 9005-05 / Acetone Ultra (cs/4x4L) | 24E0761004 | 11/05/2025      | 10/01/2024 / Rajesh     | 09/25/2024 / Rajesh         | E3804          |

| 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 # |
|------------------|-------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L) | 24G1962003 | 11/06/2025      | 11/06/2024 / Rajesh     | 11/01/2024 / Rajesh         | E3825          |

| 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 # |
|------------------|---------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L) | 0000281827 | 06/02/2025      | 06/01/2022 /            | 04/05/2022 / william        | M5173          |

| Supplier | ItemCode / ItemName                                              | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32039 / PCB Mix, Aroclor 1016/1260, 1000ug/mL, hexane, 1mL/ampul | A0163157 | 04/03/2025      | 10/03/2024 / Ankita     | 03/19/2021 / Abdul          | P10483         |

| Supplier | ItemCode / ItemName                                       | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32409 / PCB Stock Solution, Aroclor 1262 Std, 1mL, Hexane | A0167722 | 04/03/2025      | 10/03/2024 / Ankita     | 03/19/2021 / Ankita         | P10500         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier             | ItemCode / ItemName     | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------------------|-------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Agilent Technologies | PP-312-1 / Aroclor 1242 | 0006665550 | 04/03/2025      | 10/03/2024 / Ankita     | 02/21/2022 / Ankita         | P11507         |

| Supplier             | ItemCode / ItemName     | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------------------|-------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Agilent Technologies | PP-342-1 / Aroclor 1248 | 0006626997 | 04/03/2025      | 10/03/2024 / Ankita     | 02/21/2022 / Ankita         | P11512         |

| Supplier             | ItemCode / ItemName     | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------------------|-------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Agilent Technologies | PP-382-1 / Aroclor 1268 | 0006587800 | 05/07/2025      | 11/07/2024 / Ankita     | 02/21/2022 / Ankita         | P11521         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32007 / PCB Mix, Aroclor 1221, 1000ug/mL, Hexane, 1mL/ampul | A0175456 | 04/03/2025      | 10/03/2024 / Ankita     | 03/18/2022 / Abdul          | P11581         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32008 / PCB Mix, Aroclor 1232, 1000ug/mL, Hexane, 1mL/ampul | A0173309 | 04/03/2025      | 10/03/2024 / Ankita     | 03/18/2022 / Abdul          | P11587         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32011 / PCB Mix, Aroclor 1254, 1000ug/mL, Hexane, 1mL/ampul | A0175403 | 04/03/2025      | 10/03/2024 / Ankita     | 03/18/2022 / Abdul          | P11590         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                       | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32410 / PCB Stock Solution, Aroclor 1268 Std, 1mL, Hexane | A0181782 | 04/03/2025      | 10/03/2024 / Ankita     | 03/18/2022 / Abdul          | P11597         |

| Supplier                | ItemCode / ItemName            | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------------|--------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc | 91867 / Aroclor 1232 100 ug/mL | 020823 | 04/03/2025      | 10/03/2024 / Ankita     | 08/07/2023 / Ankita         | P12698         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32009 / PCB Mix, Aroclor 1242, 1000ug/mL, Hexane, 1mL/ampul | a0203672 | 04/03/2025      | 10/03/2024 / Ankita     | 12/07/2023 / Ankita         | P12929         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 32010 / PCB Mix, Aroclor 1248, 1000ug/mL, Hexane, 1mL/ampul | a0202803 | 04/03/2025      | 10/03/2024 / Ankita     | 12/07/2023 / Ankita         | P12934         |

| Supplier                 | ItemCode / ItemName       | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 20064 / Aroclor 1016/1260 | 022023 | 04/03/2025      | 10/03/2024 / Ankita     | 12/20/2023 / Yogesh         | P12947         |

| Supplier                 | ItemCode / ItemName | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | / Aroclor 1254      | 121823 | 04/03/2025      | 10/03/2024 / Ankita     | 12/20/2023 / Yogesh         | P12957         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                | ItemCode / ItemName  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------------|----------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc | 90165 / Aroclor 1262 | 112322 | 04/03/2025      | 10/03/2024 / Ankita     | 12/20/2023 / Yogesh         | P13033         |

| 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 # |
|----------------------|-------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Agilent Technologies | PP-292-1 / Aroclor 1221 | 0006783205 | 04/03/2025      | 10/03/2024 / Ankita     | 05/02/2024 / Ankita         | P13372         |

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------|---------------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 07/03/2029      | 07/03/2024 / Iwona      | 07/03/2024 / Iwona          | W3112          |

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

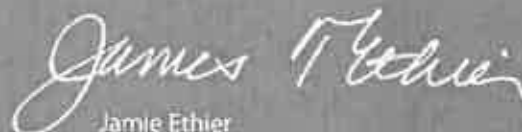
## Certificate of Analysis

| 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



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

MIRADOR 201, COL. MIRADOR  
MONTERREY, N.L. MEXICO  
CP 64070  
TEL +52 81 13 52 57 57  
www.pqm.com.mx

## CERTIFICATE OF ANALYSIS

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

| TEST                                     | SPECIFICATIONS | LOT VALUES  |
|------------------------------------------|----------------|-------------|
| Assay (Na <sub>2</sub> SO <sub>4</sub> ) | 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 <sub>4</sub> )             | 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

Material No.: 9005-05  
Batch No.: 24E0761004  
Manufactured Date: 2024-05-02  
Retest Date: 2029-05-01  
Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water) | ≥ 99.5 %      | 99.8 %      |
| Color (APHA)                                                            | ≤ 10          | < 5         |
| Residue after Evaporation                                               | ≤ 5 ppm       | < 1 ppm     |
| Titration Acid (μeq/g)                                                  | ≤ 0.3         | 0.1         |
| Titration Base (μeq/g)                                                  | ≤ 0.5         | 0.1         |
| Water (H <sub>2</sub> O)                                                | ≤ 0.5 %       | 0.1 %       |
| Solubility in H <sub>2</sub> O                                          | Passes Test   | Passes Test |
| Chloride (Cl)                                                           | ≤ 0.2 ppm     | < 0.2 ppm   |
| Phosphate (PO <sub>4</sub> )                                            | ≤ 0.05 ppm    | < 0.05 ppm  |
| Trace Impurities – Aluminum (Al)                                        | ≤ 50.0 ppb    | < 5.0 ppb   |
| Arsenic and Antimony (as As)                                            | ≤ 5.0 ppb     | < 5.0 ppb   |
| Trace Impurities – Barium (Ba)                                          | ≤ 20.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Beryllium (Be)                                       | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Bismuth (Bi)                                         | ≤ 20.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Boron (B)                                            | ≤ 10.0 ppb    | < 5.0 ppb   |
| Trace Impurities – Cadmium (Cd)                                         | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Calcium (Ca)                                         | ≤ 25.0 ppb    | 3.6 ppb     |
| Trace Impurities – Chromium (Cr)                                        | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Cobalt (Co)                                          | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Copper (Cu)                                          | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Gallium (Ga)                                         | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Germanium (Ge)                                       | ≤ 10.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Gold (Au)                                            | ≤ 20 ppb      | < 5 ppb     |
| Trace Impurities – Iron (Fe)                                            | ≤ 20.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Lead (Pb)                                            | ≤ 10.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Lithium (Li)                                         | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Magnesium (Mg)                                       | ≤ 20 ppb      | < 1 ppb     |
| Trace Impurities – Manganese (Mn)                                       | ≤ 10.0 ppb    | < 1.0 ppb   |

Recd by RP on 9/25/24

E 3804

>>> Continued on page 2 >>>

Acetone  
CMOS

 **avantor™**



Material No.: 9005-05  
Batch No.: 24E0761004

| Test                                              | Specification | Result     |
|---------------------------------------------------|---------------|------------|
| Trace Impurities – Molybdenum (Mo)                | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Nickel (Ni)                    | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Niobium (Nb)                   | ≤ 50.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Potassium (K)                  | ≤ 10.0 ppb    | < 10.0 ppb |
| Trace Impurities – Silicon (Si)                   | ≤ 50 ppb      | < 10 ppb   |
| Trace Impurities – Silver (Ag)                    | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Sodium (Na)                    | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Strontium (Sr)                 | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Tantalum (Ta)                  | ≤ 50.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Thallium (Tl)                  | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Tin (Sn)                       | ≤ 20.0 ppb    | < 10.0 ppb |
| Trace Impurities – Titanium (Ti)                  | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Vanadium (V)                   | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Zinc (Zn)                      | ≤ 20.0 ppb    | 7.9 ppb    |
| Trace Impurities – Zirconium (Zr)                 | ≤ 10.0 ppb    | < 1.0 ppb  |
| Particle Count – 0.5 µm and greater (Rion KS42AF) | ≤ 100 par/ml  | 8 par/ml   |
| Particle Count – 1.0 µm and greater (Rion KS42AF) | ≤ 8 par/ml    | 2 par/ml   |

>>> Continued on page 3 >>>

Acetone  
CMOS

 **avantor™**



Material No.: 9005-05  
Batch No.: 24E0761004

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Microelectronic Use

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



Michelle Bales  
Sr. Manager, Quality Assurance

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 <sub>6</sub> 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 <sub>2</sub> SO <sub>4</sub>                           | 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

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



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

## Certificate of Analysis

| Test                                                                            | Specification  | Result      |
|---------------------------------------------------------------------------------|----------------|-------------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)            | $\leq 5$       | 3           |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)            | $\leq 10$      | 1           |
| ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL) | $\leq 5$       | 1           |
| Assay (Total Saturated C <sub>6</sub> Isomers) (by GC, corrected for water)     | $\geq 99.5 \%$ | 99.7 %      |
| Assay (as n-Hexane) (by GC, corrected for water)                                | $\geq 95 \%$   | 98 %        |
| Color (APHA)                                                                    | $\leq 10$      | 5           |
| Residue after Evaporation                                                       | $\leq 1.0$ ppm | 0.1 ppm     |
| Substances Darkened by H <sub>2</sub> SO <sub>4</sub>                           | Passes Test    | Passes Test |
| Water (by KF, coulometric)                                                      | $\leq 0.05 \%$ | < 0.01 %    |

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

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

£3825

Jamie Croak  
Director Quality Operations, Bioscience Production

Acetone  
BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> 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 <sub>2</sub> 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

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

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 <sub>3</sub> ) <sub>2</sub> 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 <sub>2</sub> 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)            | $\leq 5$       | 3           |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)            | $\leq 10$      | 1           |
| ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL) | $\leq 5$       | 1           |
| Assay (Total Saturated C <sub>6</sub> Isomers) (by GC, corrected for water)     | $\geq 99.5 \%$ | 99.7 %      |
| Assay (as n-Hexane) (by GC, corrected for water)                                | $\geq 95 \%$   | 98 %        |
| Color (APHA)                                                                    | $\leq 10$      | 5           |
| Residue after Evaporation                                                       | $\leq 1.0$ ppm | 0.1 ppm     |
| Substances Darkened by H <sub>2</sub> SO <sub>4</sub>                           | Passes Test    | Passes Test |
| Water (by KF, coulometric)                                                      | $\leq 0.05 \%$ | < 0.01 %    |

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

Country of Origin: 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 <sub>8</sub> 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 <sub>2</sub> SO <sub>4</sub>                           | 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

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis



Material No.: 9530-33  
Batch No.: 0000281827  
Manufactured Date: 2021/03/30  
Retest Date: 2026/03/29  
Revision No: 1

## Certificate of Analysis

| Test                                      | Specification | Result  |
|-------------------------------------------|---------------|---------|
| ACS – Assay (as HCl) (by acid–base titrn) | 36.5 – 38.0 % | 37.6    |
| ACS – Color (APHA)                        | <= 10         | 5       |
| ACS – Residue after Ignition              | <= 3 ppm      | 1       |
| ACS – Specific Gravity at 60°/60°F        | 1.185 – 1.192 | 1.189   |
| ACS – Bromide (Br)                        | <= 0.005 %    | < 0.005 |
| ACS – Extractable Organic Substances      | <= 5 ppm      | < 1     |
| ACS – Free Chlorine (as Cl <sub>2</sub> ) | <= 0.5 ppm    | < 0.5   |
| Phosphate (PO <sub>4</sub> )              | <= 0.05 ppm   | < 0.03  |
| Sulfate (SO <sub>4</sub> )                | <= 0.5 ppm    | < 0.3   |
| Sulfite (SO <sub>3</sub> )                | <= 0.8 ppm    | 0.3     |
| Ammonium (NH <sub>4</sub> )               | <= 3 ppm      | < 1     |
| Trace Impurities – Arsenic (As)           | <= 0.010 ppm  | < 0.003 |
| Trace Impurities – Aluminum (Al)          | <= 10.0 ppb   | 0.5     |
| Arsenic and Antimony (as As)              | <= 5 ppb      | < 3     |
| Trace Impurities – Barium (Ba)            | <= 1.0 ppb    | < 0.2   |
| Trace Impurities – Beryllium (Be)         | <= 1.0 ppb    | < 0.2   |
| Trace Impurities – Bismuth (Bi)           | <= 10.0 ppb   | < 1.0   |
| Trace Impurities – Boron (B)              | <= 20.0 ppb   | < 5.0   |
| Trace Impurities – Cadmium (Cd)           | <= 1.0 ppb    | < 0.3   |
| Trace Impurities – Calcium (Ca)           | <= 50.0 ppb   | 15.0    |
| Trace Impurities – Chromium (Cr)          | <= 1.0 ppb    | < 0.4   |
| Trace Impurities – Cobalt (Co)            | <= 1.0 ppb    | < 0.3   |
| Trace Impurities – Copper (Cu)            | <= 1.0 ppb    | < 0.1   |
| Trace Impurities – Gallium (Ga)           | <= 1.0 ppb    | < 0.2   |

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

| Test                                                   | Specification | Result |
|--------------------------------------------------------|---------------|--------|
| Trace Impurities – Germanium (Ge)                      | <= 3.0 ppb    | < 2.0  |
| Trace Impurities – Gold (Au)                           | <= 4.0 ppb    | 3.0    |
| Heavy Metals (as Pb)                                   | <= 100 ppb    | < 50   |
| Trace Impurities – Iron (Fe)                           | <= 15.0 ppb   | 1.0    |
| Trace Impurities – Lead (Pb)                           | <= 1.0 ppb    | < 0.5  |
| Trace Impurities – Lithium (Li)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Magnesium (Mg)                      | <= 10.0 ppb   | < 0.4  |
| Trace Impurities – Manganese (Mn)                      | <= 1.0 ppb    | < 0.4  |
| Trace Impurities – Mercury (Hg)                        | <= 0.5 ppb    | 0.2    |
| Trace Impurities – Molybdenum (Mo)                     | <= 10.0 ppb   | < 5.0  |
| Trace Impurities – Nickel (Ni)                         | <= 4.0 ppb    | < 0.3  |
| Trace Impurities – Niobium (Nb)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Potassium (K)                       | <= 9.0 ppb    | < 2.0  |
| Trace Impurities – Selenium (Se), For Information Only | ppb           | 1.0    |
| Trace Impurities – Silicon (Si)                        | <= 100.0 ppb  | 18.0   |
| Trace Impurities – Silver (Ag)                         | <= 1.0 ppb    | < 0.3  |
| Trace Impurities – Sodium (Na)                         | <= 100.0 ppb  | < 5.0  |
| Trace Impurities – Strontium (Sr)                      | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Tantalum (Ta)                       | <= 1.0 ppb    | < 0.9  |
| Trace Impurities – Thallium (Tl)                       | <= 5.0 ppb    | < 2.0  |
| Trace Impurities – Tin (Sn)                            | <= 5.0 ppb    | < 0.8  |
| Trace Impurities – Titanium (Ti)                       | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Vanadium (V)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Zinc (Zn)                           | <= 5.0 ppb    | 0.4    |
| Trace Impurities – Zirconium (Zr)                      | <= 1.0 ppb    | < 0.1  |

For Laboratory, Research or Manufacturing Use

Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality



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. : 32039 Lot No.: A0163157  
Description : Aroclor® 1016/1260 Mix  
Aroclor® 1016/1260 Mix 1,000 µg/mL, Hexane, 1mL/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : November 30, 2026 Storage: 25°C nominal  
Handling: This product contains PCBs. Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                  | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                       |
|---------------|-----------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------|
| 1             | Aroclor 1016<br>CAS # 12674-11-2 (Lot 04)<br>Purity ----% | 1,007.0 µg/mL               | +/- 5.8683 µg/mL Gravimetric<br>+/- 31.9082 µg/mL Unstressed<br>+/- 41.6868 µg/mL Stressed |
| 2             | Aroclor 1260<br>CAS # 11096-82-5 (Lot 07)<br>Purity ----% | 1,008.0 µg/mL               | +/- 5.8741 µg/mL Gravimetric<br>+/- 31.9399 µg/mL Unstressed<br>+/- 41.7282 µg/mL Stressed |

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

P 10476

P 10480

AR  
02/19/21

**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:**

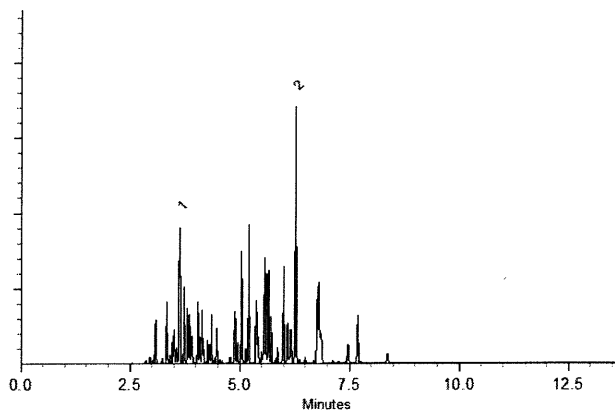
250°C

**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.

Tom Suckar - Mix Technician

Date Mixed: 03-Aug-2020

Balance: B442140311

Justine Albertson - Operations Tech-ARM QC

Date Passed: 05-Aug-2020

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



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. : 32409 Lot No.: A0167722  
Description : Aroclor® 1262 Standard  
Aroclor® 1262 Standard 1,000 µg/mL, 1mL/ampul, Hexane  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : April 30, 2027 Storage: 25°C nominal  
Handling: This product contains PCBs. Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                        | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) |
|---------------|---------------------------------|-----------------------------|--------------------------------------|
| 1             | Aroclor 1262                    | 1,004.0 µg/mL               | +/- 5.9635 µg/mL Gravimetric         |
|               | CAS # 37324-23-5 (Lot 10849100) |                             | +/- 31.8340 µg/mL Unstressed         |
|               | Purity ----%                    |                             | +/- 41.5787 µg/mL Stressed           |

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

P10496  
↓  
P10500

AJ  
09/19/21

**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:**

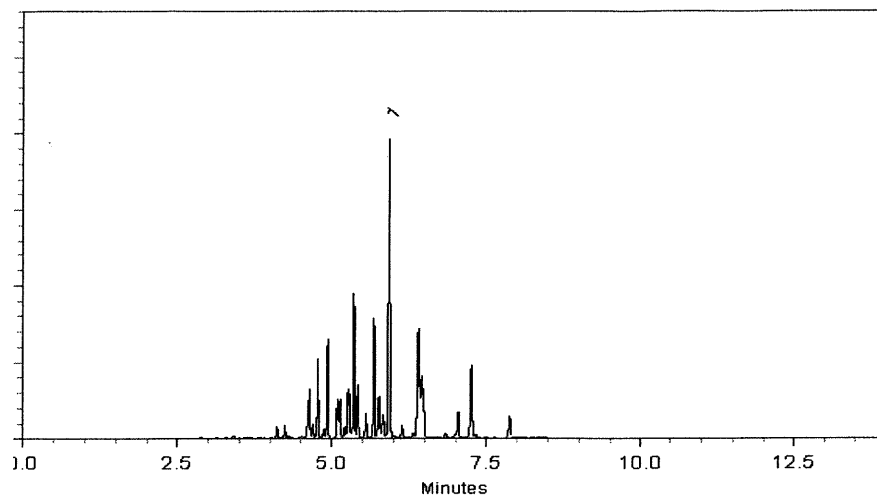
250°C

**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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

Date Mixed: 03-Jan-2021

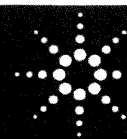
Balance: B707717271

*Marlene Cowan*  
Marlene Cowan - Operations Tech I

Date Passed: 05-Jan-2021

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

ISO 17034



Agilent

Trusted Answers

## Reference Material Certificate

Product Name: Aroclor 1242 Standard

Lot Number: 0006665550

Product Number: PP-312-1

Lot Issue Date: 08-Feb-2022

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Jan-2027

| Component Name | CERTIFIED VALUES |                      |  | CAS#        | Analyte Lot |
|----------------|------------------|----------------------|--|-------------|-------------|
|                | Concentration    | Expanded Uncertainty |  |             |             |
| Aroclor 1242   | 100.4            | ± 0.5 µg/mL          |  | 053469-21-9 | NT01020     |

Matrix: isooctane (2,2,4-trimethylpentane)

**Description:**

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Safety:**

Refer to the Safety Data Sheet on [www.agilent.com](http://www.agilent.com) for information regarding this analytical reference material.

**Intended Use:**

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Expiration of Certification:**

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

P11503  
↓  
P11507A7  
02/21/22

Page: 1 of 2

CSD-QA-015.1

ISO 17034



**Agilent**

Trusted Answers

**Maintenance of Certification:**

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

Monica Bourgeois  
QMS Representative



ISO 17034 Cert  
No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015  
Quality Management System. Cert# 951215321

Page: 2 of 2

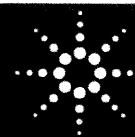
[www.agilent.com/quality/](http://www.agilent.com/quality/)

CSD-QA-015.1



ISO 17025  
Cert No. AT-

ISO 17034



Agilent

Trusted Answers

## Reference Material Certificate

Product Name: Aroclor 1248 Standard

Lot Number: 0006626997

Product Number: PP-342-1

Lot Issue Date: 17-Aug-2021

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 30-Sep-2025

| Component Name | CERTIFIED VALUES |                      | CAS#        | Analyte Lot |
|----------------|------------------|----------------------|-------------|-------------|
|                | Concentration    | Expanded Uncertainty |             |             |
| Aroclor 1248   | 100.3            | ± 0.5 µg/mL          | 012672-29-6 | NT01582     |

Matrix: isooctane (2,2,4-trimethylpentane)

## Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

## Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

## Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

## Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

## Safety:

Refer to the Safety Data Sheet on [www.agilent.com](http://www.agilent.com) for information regarding this analytical reference material.

## Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

## Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

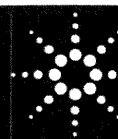
P11508

↓  
P11512

AJ

2/21/22

ISO 17034



**Agilent**

Trusted Answers

**Maintenance of Certification:**

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

Monica Bourgeois  
QMS Representative



ISO 17034 Cert  
No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015  
Quality Management System. Cert# 951215321

Page: 2 of 2

[www.agilent.com/quality/](http://www.agilent.com/quality/)

CSD-QA-015.1



ISO 17025 Cert  
No. AT-1937



# Certificate of Analysis

P11518  
↓  
P11522  
AJ  
02/21/22

**Product Name:** Aroclor 1268 Standard

**Product Number:** PP-382-1

**Lot Issue Date:** 09-Feb-2021

**Lot Number:** 0006587800

**Expiration Date:** 31-Mar-2029

**Description:**

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte      | CAS#        | Analyte Lot | Concentration ± Uncertainty |
|--------------|-------------|-------------|-----------------------------|
| Aroclor 1268 | 011100-14-4 | RM00937     | 100.0 ± 0.5 µg/mL           |

**Matrix:** isooctane (2,2,4-trimethylpentane)

**Storage Conditions:** Store at Room Temperature (15° to 30°C).

**Traceability:**

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

**Homogeneity:**

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

**Hazards:**

Refer to the Safety Data Sheet on [www.agilent.com](http://www.agilent.com) for information regarding this RM.

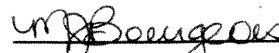
**Expiration of Certification:**

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

**Maintenance of Certification:**

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

  
Monica Bourgeois  
QMS Representative



ISO 17034 Cert  
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026  
Page: 1 of 1

[www.agilent.com/quality/](http://www.agilent.com/quality/)  
CSD-QA-015.1



ISO 17025 Cert  
No. AT-1937



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. : 32007 Lot No.: A0175456  
Description : Aroclor® 1221 Standard  
Aroclor® 1221 Standard 1,000 µg/mL, Hexane, 1mL/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : November 30, 2027 Storage: 25°C nominal  
Handling: This product contains PCBs. Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                        | Grav. Conc.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2)                                                    |
|---------------|-----------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------|
| 1             | Aroclor 1221<br>CAS # 11104-28-2 (Lot 10210500)<br>Purity ----% | 1,002.0 µg/mL                  | +/- 5.9516 µg/mL Gravimetric<br>+/- 31.7706 µg/mL Unstressed<br>+/- 41.4958 µg/mL Stressed |

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

P 11578  
↓  
P 11582 / (S)

AR  
04/30/22

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

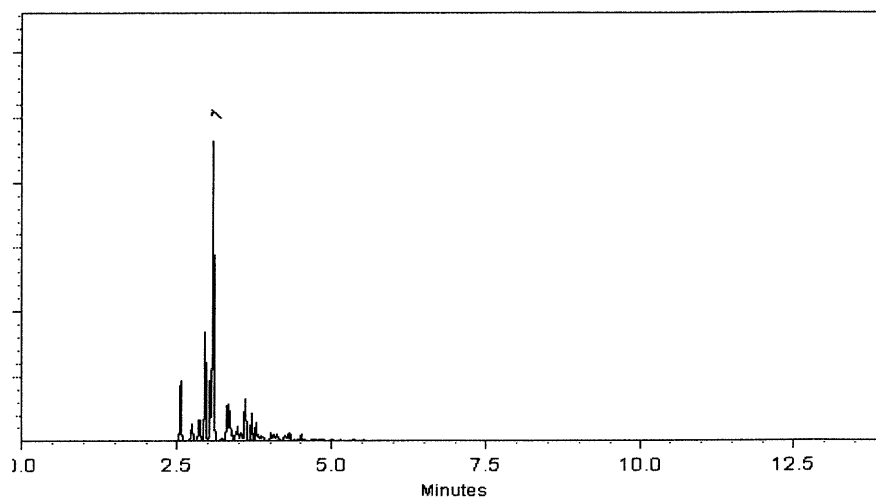
**Carrier Gas:**  
helium-constant pressure 20 psi.

**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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

**Date Mixed:** 16-Aug-2021      **Balance:** B442140311

*Marlene Cowan*  
Marlene Cowan - Operations Tech I

**Date Passed:** 18-Aug-2021

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

P11578  
↓  
P11582 / (S)

AR  
04/30/22



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. : 32008 Lot No.: A0173309  
Description : Aroclor® 1232 Standard  
Aroclor® 1232 Standard 1,000 µg/mL, Hexane, 1mL/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : September 30, 2027 Storage: 25°C nominal  
Handling: This product contains PCBs. Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                        | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) |
|---------------|---------------------------------|-----------------------------|--------------------------------------|
| 1             | Aroclor 1232                    | 1,001.0 µg/mL               | +/- 5.9456 µg/mL Gravimetric         |
|               | CAS # 11141-16-5 (Lot 15665-01) |                             | +/- 31.7389 µg/mL Unstressed         |
|               | Purity ----%                    |                             | +/- 41.4544 µg/mL Stressed           |

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

P11583  
↓  
P11587 / (S)

AR  
04/30/22

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

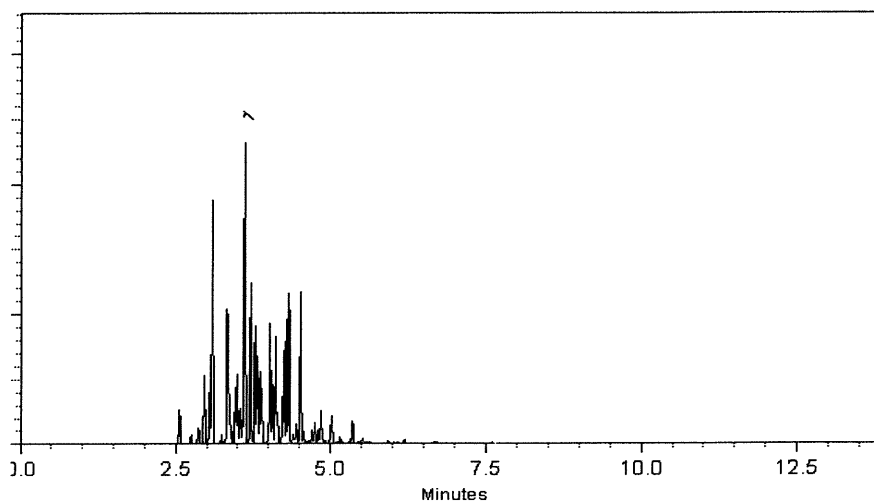
**Carrier Gas:**  
helium-constant pressure 20 psi.

**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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

**Date Mixed:** 13-Jun-2021      **Balance:** B442140311

*Alexis Shelow*  
Alexis Shelow - Operations Tech I

**Date Passed:** 16-Jun-2021

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

P11583  
↓  
P11587      (5)

AR  
04/30/22



CERTIFIED REFERENCE MATERIAL

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

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## 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. :** 32011 **Lot No.:** A0175403  
**Description :** Aroclor® 1254 Standard  
Aroclor® 1254 Standard 1,000 µg/mL, Hexane, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** November 30, 2027 **Storage:** 25°C nominal  
**Handling:** This product contains PCBs. **Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                         | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                       |
|---------------|------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------|
| 1             | Aroclor 1254<br>CAS # 11097-69-1 (Lot 124-191-B)<br>Purity ----% | 1,000.7 µg/mL               | +/- 5.9437 µg/mL Gravimetric<br>+/- 31.7284 µg/mL Unstressed<br>+/- 41.4406 µg/mL Stressed |

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

P11588  
↓  
P11592 / (S)

AR  
04/30/2022

**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:**

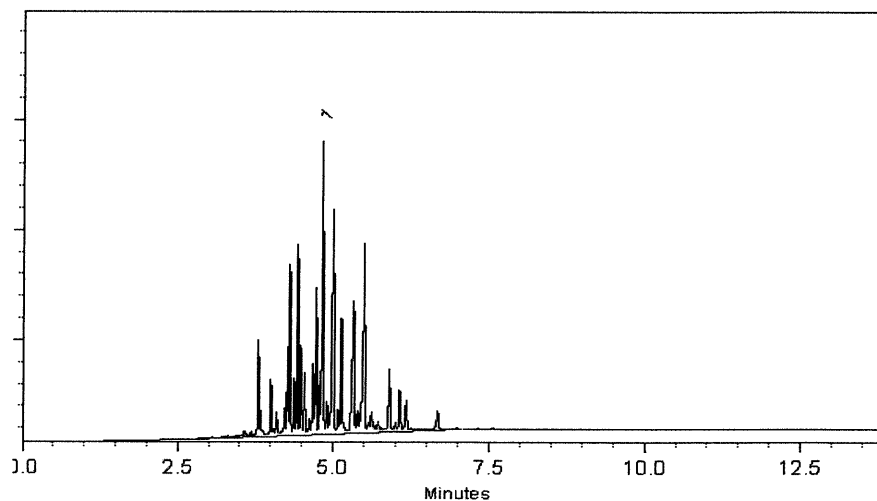
250°C

**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.

*Cathleen Soltis*

Cathleen Soltis - Mix Technician

Date Mixed: 15-Aug-2021

Balance: 1128360905

*Alexis Shelow*

Alexis Shelow - Operations Tech I

Date Passed: 17-Aug-2021

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

P11588  
↓  
P11592 / (5)

AR  
04/30/22



CERTIFIED REFERENCE MATERIAL

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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. : 32410 Lot No.: A0181782  
Description : Aroclor® 1268 Standard  
Aroclor® 1268 Standard 1,000 µg/mL, 1mL/ampul, Hexane  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : May 31, 2028 Storage: 25°C nominal  
Handling: This product contains PCBs. Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                        | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                       |
|---------------|-----------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------|
| 1             | Aroclor 1268<br>CAS # 11100-14-4 (Lot 10947000)<br>Purity ----% | 1,001.4 µg/mL               | +/- 5.9480 µg/mL Gravimetric<br>+/- 31.7516 µg/mL Unstressed<br>+/- 41.4710 µg/mL Stressed |

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

P 11593  
↓  
P 11597  
⑤

UAR  
04/30/2022

**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:**

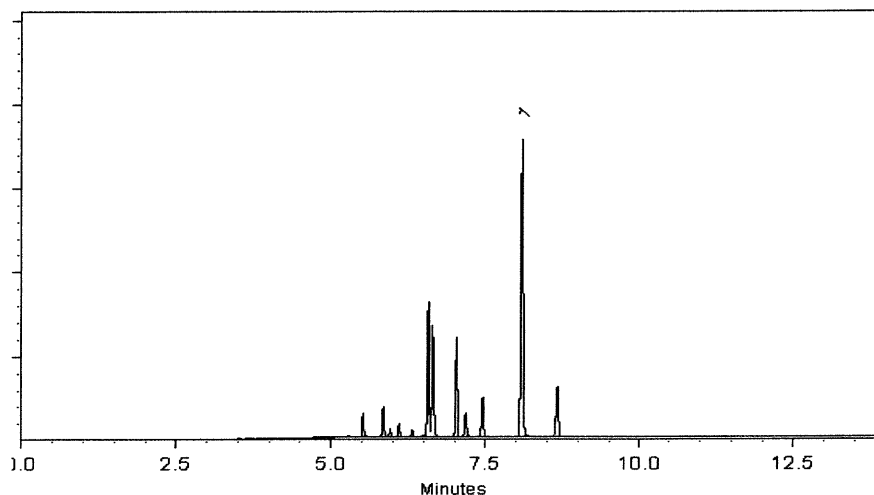
250°C

**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.

*Penelope S. Riglin*  
Penelope Riglin - Operations Tech I

Date Mixed: 14-Feb-2022

Balance: 1128360905

*Clara Windle*  
Clara Windle - Operations Technician I

Date Passed: 17-Feb-2022

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

P 11593 / (5)  
↓  
P 11597  
[Signature]  
04/30/2022



## CERTIFIED WEIGHT REPORT

Part Number: **91867**  
 Lot Number: **020823**  
 Description: **WP 037 - Aroclor 1232**  
**PCB Technical Mixture**  
 Expiration Date: **020833**  
 Recommended Storage: **Ambient (20 °C)**  
 Nominal Concentration ( $\mu\text{g/mL}$ ): **100**  
 NIST Test ID#: **6UTB**

Solvent(  
Aceton

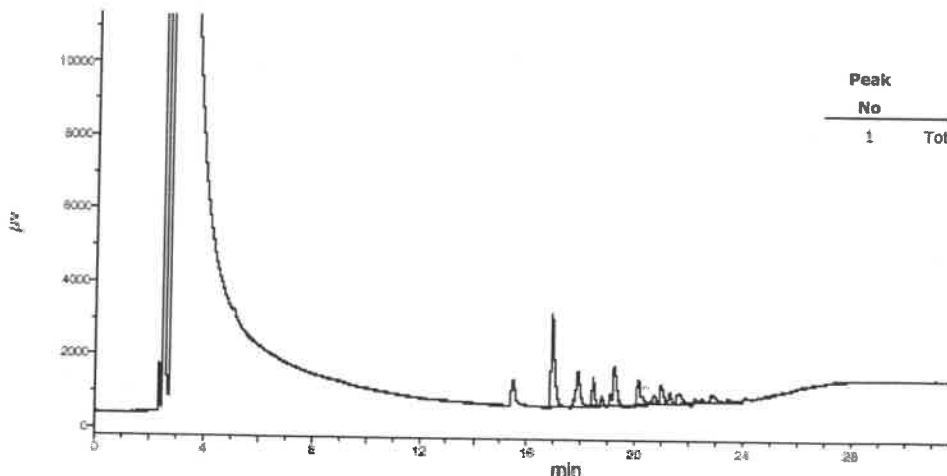
Weight(s) shown below were combined and diluted to (mL): **100.0**  
 5E-05 Balance Uncertainty  
 0.057 Flask Uncertainty

| Compound        | RM# | Lot Number | Nominal Conc ( $\mu\text{g/mL}$ ) | Purity (%) | Uncertainty Purity | Target Weight (g) |
|-----------------|-----|------------|-----------------------------------|------------|--------------------|-------------------|
| 1. Aroclor 1232 | 17  | 45-6A      | 100                               | 100        | 0.5                | 0.01000           |

- 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 Measure Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

## Comments

GC3-M1 Analysis by Melissa Stonier  
 Column ID SPB-608 30 meter X 0.53mm X 5 $\mu\text{m}$  film thickness  
 Flow rates: Helium (carrier) = 5mL/min, Helium (make-up) = 25mL/min  
 Hydrogen (make-up) = 30mL/min, Air (make-up) = 350mL/min  
 Oven Profile: Temp 1 = 150°C (Time 1 = 4 min), Temp 2 = 290°C (Time 2 = 13.5 min)  
 Rate = 8°C/min, Total run time = 35 min  
 Injector temp. = 200°C, FID Temp. = 300°C. FID Signal = Edaq Channel 1  
 Standard injection = 1.5 $\mu\text{L}$ , Range=3





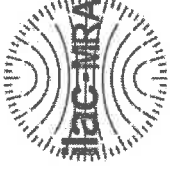
110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

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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.:** 32009 **Lot No.:** A0203672

**Description:** Aroclor® 1242 Standard

Aroclor® 1242 Standard 1,000 µg/mL, Hexane, 1mL/ampul

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

**Expiration Date:** January 31, 2030 **Storage:** 25°C nominal

**Handling:** This product contains PCBs. **Ship:** Ambient

p12928

→

p12932

AJ

12/27/23

### CERTIFIED VALUES

| Elution Order | Compound     | CAS #      | Lot # | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty* (95% C.L.; K=2) |
|---------------|--------------|------------|-------|--------|-----------------------------|---------------------------------------|
| 1             | Aroclor 1242 | 53469-21-9 | 01141 | —%     | 1,004.7 µg/mL               | +/- 55.7515                           |

**Solvent:** Hexane

**CAS #** 110-54-3

**Purity** 99%

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

## 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:**

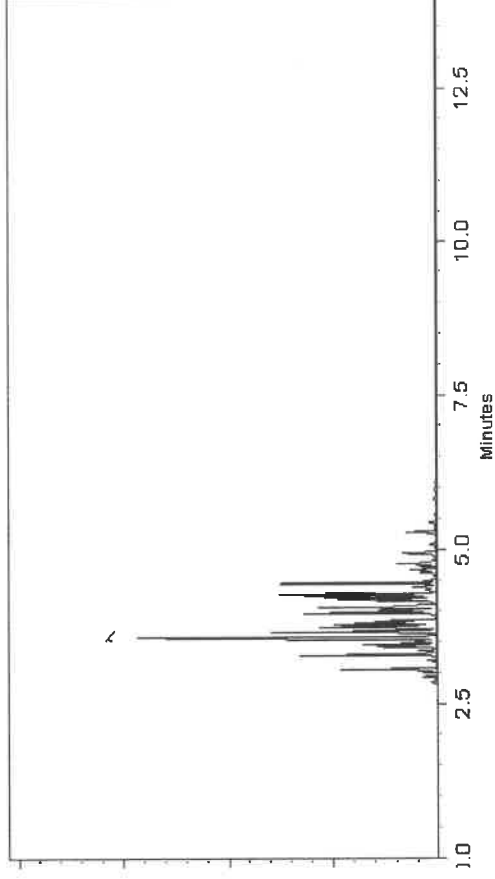
ECD

**Split Vent:**

10 ml/min.

**Inj. Vol**

0.2ul



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.

Russ Boothamer - Operations Technician I

Date Mixed: 26-Oct-2023 Balance Serial # B442140311

Jennifer Polino - Operations Tech III - ARM QC

Date Passed: 06-Nov-2023

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



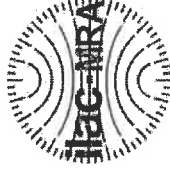
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Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

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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.:** 32010 **Lot No.:** A0202803

**Description:** Aroclor® 1248 Standard

Aroclor® 1248 Standard 1,000µg/mL, Hexane, 1mL/ampul

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

**Expiration Date:** January 31, 2030 **Storage:** 25°C nominal

**Handling:** This product contains PCBs. **Ship:** Ambient

P1219697  
P1219697  
A1  
12104123

### CERTIFIED VALUES

| Elution Order | Compound     | CAS #      | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty* (95% C.L.; K=2) |
|---------------|--------------|------------|----------|--------|-----------------------------|---------------------------------------|
| 1             | Aroclor 1248 | 12672-29-6 | 13897600 | ---%   | 1,001.7 µg/mL               | +/- 55.5850                           |

**Solvent:** Hexane

**CAS #** 110-54-3

**Purity** 99%

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

## 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:**

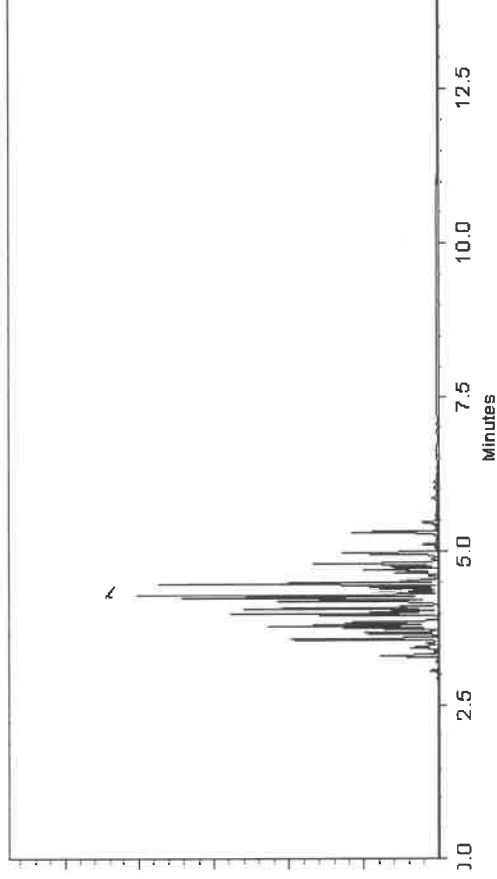
ECD

**Split Vent:**

10 ml/min.

**Inj. Vol**

0.2ul



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.

*[Signature]*  
Laith Clemente - Operations Technician I

Date Mixed: 03-Oct-2023

Balance Serial # 1128360905

*[Signature]*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-Oct-2023

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



Certified Reference Material CRM

CERTIFIED WEIGHT REPORT

Part Number: 20084  
Lot Number: 022023  
Description: CLP PCB'S - Aroclor Mix  
Aroclors 1016 & 1260  
Expiration Date: 022033  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 1000  
NIST Test ID#: 6UTB

Solvent(s): Hexane  
Lot#: 273615  
Balance Uncertainty: 5E-05  
Flask Uncertainty: 0.010

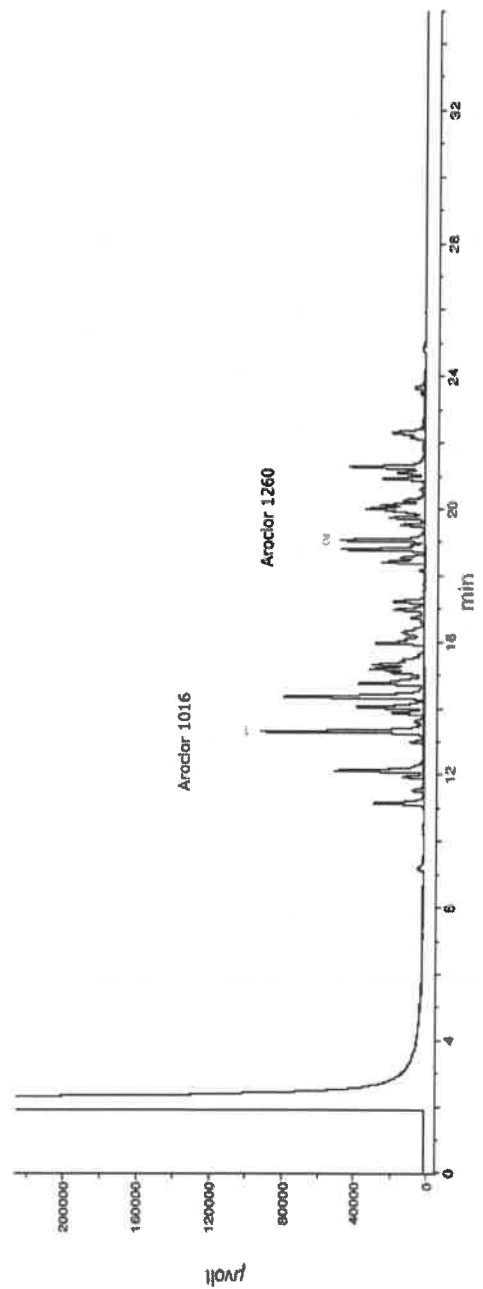
Formulated By: Benson Chan  
Reviewed By: Pedro L. Rentas  
DATE: 022023  
DATE: 022023

Weight(s) shown below were combined and diluted to (mL): 200.0

| Compound        | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Purity Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | CAS#       | OSHA PEL (TWA) | LD50              |
|-----------------|-----|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|------------|----------------|-------------------|
| 1. Aroclor 1016 | 15  | 020491JC   | 1000                 | 100        | 0.2                | 0.20004          | 0.20060          | 1002.8              | 4.0                                | 12674-11-2 | N/A            | N/A               |
| 2. Aroclor 1260 | 21  | 020491JC   | 1000                 | 100        | 0.2                | 0.20004          | 0.20081          | 1003.9              | 4.0                                | 11086-82-5 | 0.5mg/m3       | orl-rat 1315mg/kg |

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

Comments  
GC3-M1 Analysis by Melissa Stortier  
Column ID SPB-608 30 meter X 0.53mm X5µm film thickness  
Flow rates: Helium (carrier) = 5mL/min, Helium (make-up) = 25mL/min  
Hydrogen (make-up) = 30mL/min, Air (make-up) = 350mL/min  
Oven Profile: Temp 1 = 150°C (Time 1 = 4 min), Temp 2 = 280°C (Time 2 = 13.5 min)  
Rate = 8°C/min, Total run time = 35 min  
Injector temp. = 200°C, FID Temp. = 300°C, FID Signal = Etdaq Channel 1  
Standard Injection = 1.5µL, Range=3







CERTIFIED WEIGHT REPORT

Part Number: 99139  
Lot Number: 121823  
Description: Aroclor 1254

Solvent(s): Iso-octane

Lot# 82227

Expiration Date: 121833  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 100  
NIST Test ID#: 6UTB

Volume(s) shown below were combined and diluted to (mL): 20.0  
Note: Aroclor 1254 is a mix of isomers.

Balance Uncertainty

Flask Uncertainty

5E-05

0.003

20.0

0.017

100.1

1003.3

1.8

11097-69-1

0.5mg/m3 (skin)

or-rat 1295mg/kg

121823

DATE

121823

DATE

Formulated By: Anthony Mahoney

Reviewed By: Pedro L. Rentas

Expanded

Uncertainty

(+/-) (µg/mL)

CAS#

OSHA PEL (TWA)

LD50

SDS Information

(Solvent Safety Info. On Attached pg.)

121823

DATE

121823

DATE

Formulated By: Anthony Mahoney

Reviewed By: Pedro L. Rentas

Expanded

Uncertainty

(+/-) (µg/mL)

CAS#

OSHA PEL (TWA)

LD50

SDS Information

(Solvent Safety Info. On Attached pg.)

121823

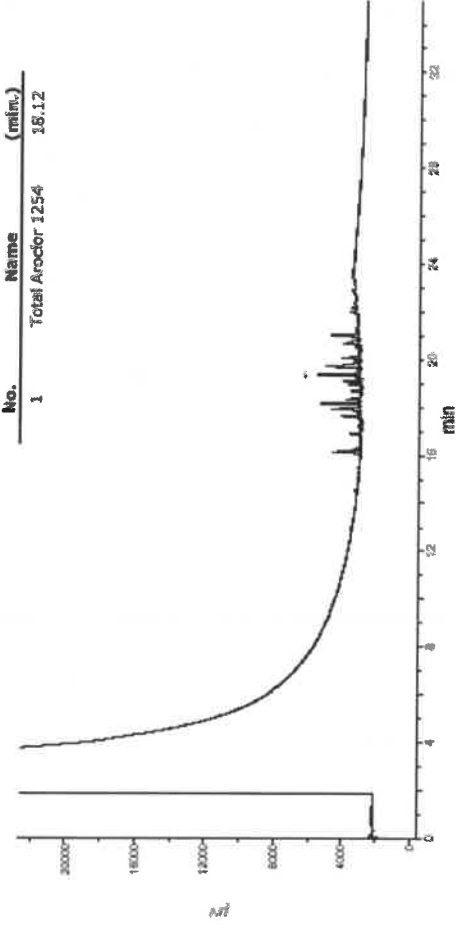
DATE

1. Aroclor 1254

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

Comments  
GC3-M1 Analysis by Melissa Stonier  
Column ID SPB-608 30 meter X 0.53mm X 5µm film thickness  
Flow rates: Helium (carrier) = 5mL/min, Helium (make-up) = 25mL/min  
Hydrogen (make-up) = 30mL/min, Air (make-up) = 350mL/min  
Oven Profile: Temp 1 = 150 °C (Time 1 = 4 min), Temp 2 = 250 °C (Time 2 = 13.5 min)  
Rate = 8 °C/min, Total run time = 35 min  
Injector temp. = 200 °C, FID Temp. = 300 °C, FID Signal = EDAQ Channel 1  
Standard injection = 1.5µL, Range=3

| Peak No. | Name               | FID RT (min.) |
|----------|--------------------|---------------|
| 1        | Total Aroclor 1254 | 18.12         |







**CERTIFIED WEIGHT REPORT**

**Part Number:** 90165  
**Lot Number:** 112322  
**Description:** Atrocior 1262  
**Expiration Date:** 112332  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 1000  
**NIST Test ID#:** 6LUTB  
**Weight(s) shown were combined and diluted to (mL):** 50.0

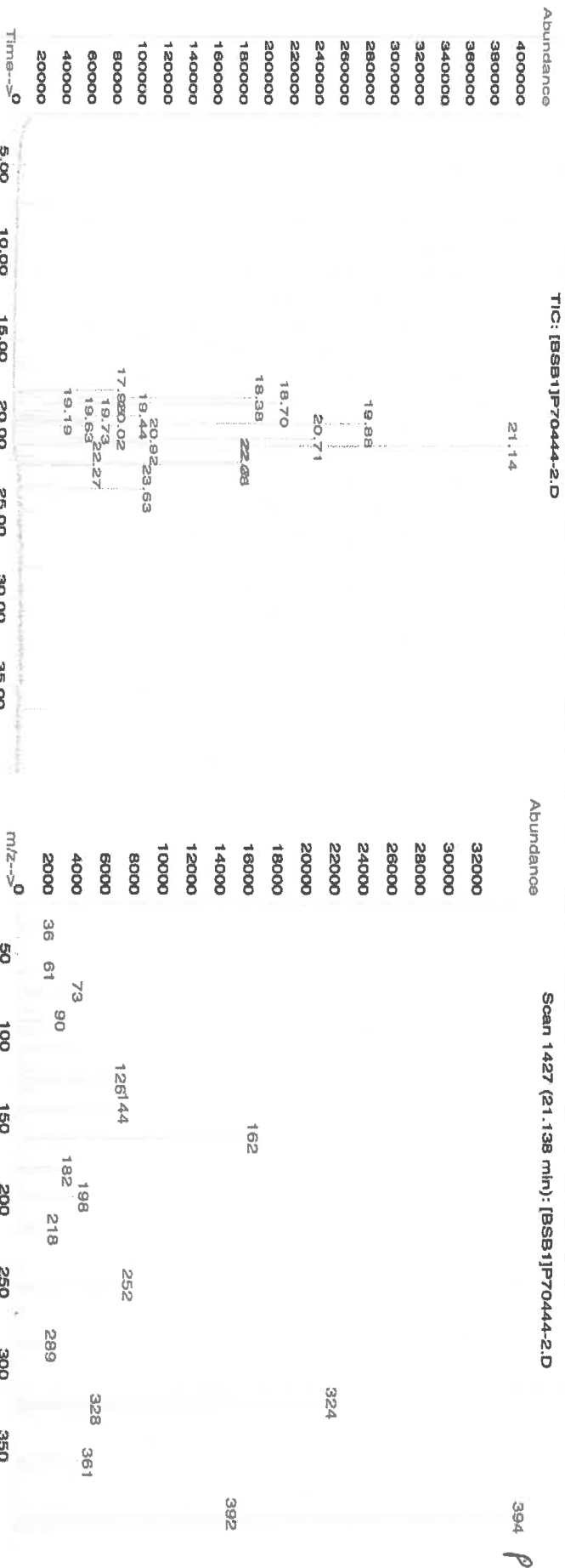
**Solvent(s):** Hexane  
**Lot#** 273615  
**Balance Uncertainty** 5E-05  
**Flask Uncertainty** 0.005

|                |                  |        |      |
|----------------|------------------|--------|------|
| Formulated By: | Prashant Chauhan | 112322 | DATE |
| Reviewed By:   | Pedro L. Rentes  | 112322 | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded Uncertainty (±) (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 |
|----------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|----------------------------------|------|----------------|------|
|----------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|----------------------------------|------|----------------|------|

1. Atrocior 1262 444 W-130-05 1000 100 0.2 0.05003 0.05016 1002.7 4.5 37324-23-5 N/A or-tal 11300mg/kg

Method GC/MSD-7.M: Column:(30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 150°C (0min.), Temp 2 = 290°C (12.5 min.), Rate = 8°C/min., Injector B = 200°C, Detector B = 290°C.



- 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).

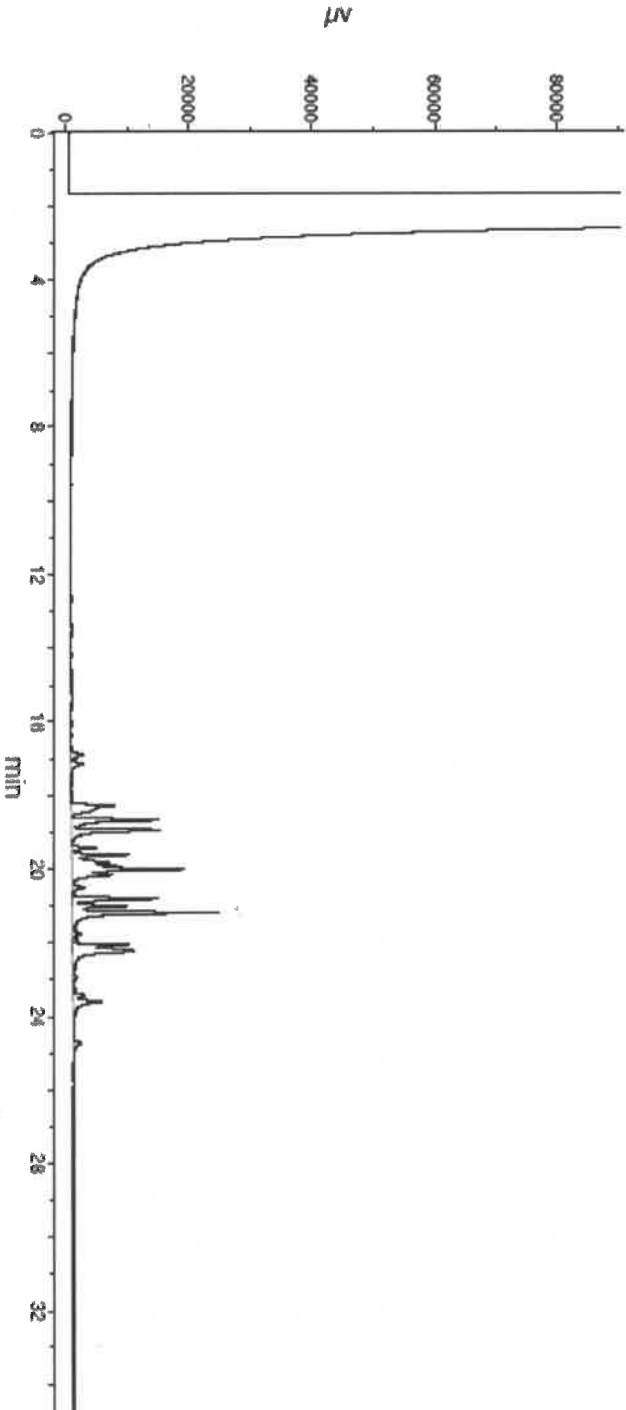


# Run 20, "P90165 L112322 [1000µg/mL in hexane]"

Run Length: 35.00 min, 21000 points at 10 points/second.  
Created: Thu, Dec 8, 2022 at 2:31:02 AM.  
Sampled: Sequence "120722-GC3M1", Method "GC3-M1".  
Analyzed using Method "GC3-M1".

## Comments

GC3-M1 Analysis by Melissa Stonier  
Column ID SPB-608 30 meter X 0.53mm X5µm film thickness  
Flow rates: Helium (carrier) = 5mL/min, Helium (make-up) = 25mL/min  
Hydrogen (make-up) = 30mL/min, Air (make-up) = 350mL/min  
Oven Profile: Temp 1 = 150°C (Time 1 = 4 min), Temp 2 = 290°C (Time 2 = 13.5 min)  
Rate = 8°C/min, Total run time = 35 min  
Injector temp. = 200°C, FID Temp. = 300°C. FID Signal = Edaq Channel 1  
Standard injection = 1.5µL, Range=3





110 Benner Circle  
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Tel: 1-814-353-1300  
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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  
↓  
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:**

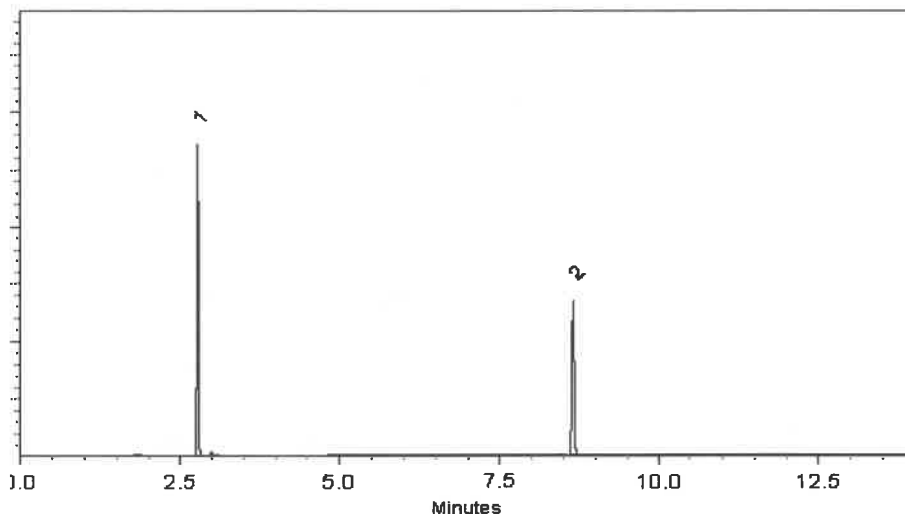
ECD

**Split Vent:**

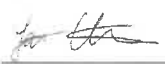
10 ml/min.

**Inj. Vol**

1µl

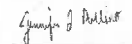


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Laith Clemente - Operations Technician I

Date Mixed: 22-Jan-2024

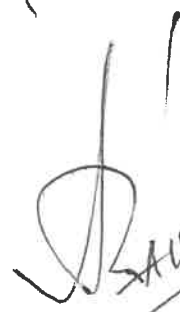
Balance Serial # 1128360905

  
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

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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

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

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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.

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**Inj. Temp:**

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**Det. Type:**

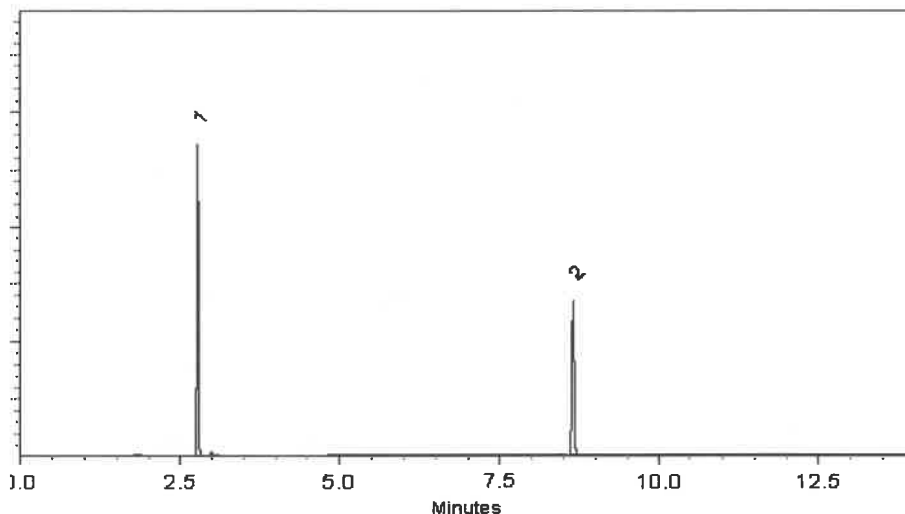
ECD

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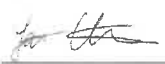
10 ml/min.

**Inj. Vol**

1µl

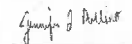


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Laith Clemente - Operations Technician I

Date Mixed: 22-Jan-2024

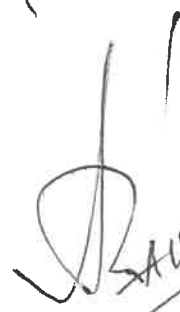
Balance Serial # 1128360905

  
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

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P 13357  
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SAUF  
04/25/2025



ISO 17034

## Reference Material Certificate

### Product Information Sheet

**Product Name:** Aroclor 1221 Standard  
**Product Number:** PP-292-1  
**Storage Conditions:** Store at Room Temperature (15° to 30°C).

**Lot Number:** 0006783205  
**Lot Issue Date:** 20-Feb-2024  
**Expiration Date:** 31-Mar-2032

| Component Name | Concentration | Uncertainty | CAS#        | Analyte Lot |
|----------------|---------------|-------------|-------------|-------------|
| Aroclor 1221   | 100.3 ±       | 0.5 µg/mL   | 011104-28-2 | NT01017     |

**Matrix:** isooctane (2,2,4-trimethylpentane)

#### Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

#### Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

#### Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

#### Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

#### Safety:

Refer to the Safety Data Sheet on [www.agilent.com](http://www.agilent.com) for information regarding this analytical reference material.

#### Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

#### Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

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CSD-QA-015.2

ISO 17025

Cert No. AT-1937

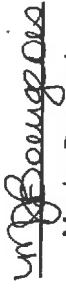
250 Smith Street North Kingstown, Rhode Island 02852 [www.agilent.com/quality](http://www.agilent.com/quality)



**Maintenance of Certification:**

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

**Sample lot approver:**

  
Monica Bourgeois  
QMS Representative



ISO 17034  
Cert No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO  
9001:2015 Quality Management System. Cert# 951215321

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[www.agilent.com/quality/](http://www.agilent.com/quality/)  
CSD-QA-015.2

ISO 17025  
Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 [www.agilent.com/quality](http://www.agilent.com/quality)