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

Prep Standard - Chemical Standard Summary

Order ID : Q1168

Test : VOCGC Group 1

Prepbatch ID : PB166328,

Sequence ID/Qc Batch ID: PQ013025,

Standard ID :
PP24133,PP24134,PP24135,PP24136,PP24142,PP24143,PP24144,PP24145,PP24146,PP24147,PP24149,PP24152,
PP24153,

Chemical ID :
E3872,M5884,P10225,P12215,P13234,V14624,W3112,

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2263	EDB-DBCP 2 PPM Stock Solution	PP24133	01/28/2025	07/13/2025	Ankita Jodhani	None	None	Yogesh Patel 01/29/2025

FROM 0.01000ml of P10225 + 0.01000ml of P13234 + 9.98000ml of V14624 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2264	EDB-DBCP 2 PPM Stock Solution 2nd Source	PP24134	01/28/2025	07/13/2025	Ankita Jodhani	None	None	Yogesh Patel 01/29/2025

FROM 0.10000ml of P12215 + 9.90000ml of V14624 = Final Quantity: 10.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2517	EDB-DBCP 100 PPB Working Solution	PP24135	01/28/2025	07/13/2025	Ankita Jodhani	None	None	Yogesh Patel 01/29/2025

FROM 9.50000ml of V14624 + 0.50000ml of PP24133 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2518	EDB-DBCP 100 PPB Working Sol. 2nd Source	PP24136	01/28/2025	07/13/2025	Ankita Jodhani	None	None	Yogesh Patel 01/29/2025

FROM 9.50000ml of V14624 + 0.50000ml of PP24134 = Final Quantity: 10.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2269	M8011-504.1 0.5 PPB STD	PP24142	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.17500ml of PP24135 = Final Quantity: 35.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2270	M8011-504.1 0.25 PPB STD	PP24143	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.08750ml of PP24135 = Final Quantity: 35.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2271	M8011-504.1 0.1 PPB STD	PP24144	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.03500ml of PP24135 = Final Quantity: 35.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2272	M8011-504.1 0.05 PPB STD	PP24145	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.17500ml of PP24135 = Final Quantity: 35.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2273	M8011-504.1 0.025 PPB STD	PP24146	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.00880ml of PP24135 = Final Quantity: 35.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2274	M8011-504.1 0.1 PPB ICV STD	PP24147	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.03500ml of PP24136 = Final Quantity: 35.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2519	M8011-504.1 0.1 PPB CCC	PP24149	01/30/2025	01/31/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.03500ml of PP24135 = Final Quantity: 35.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3653	M8011-504.1 LOD 0.025 PPB	PP24152	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.00880ml of PP24135 = Final Quantity: 35.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3759	M8011-504.1 LOQ 0.025 PPB	PP24153	01/30/2025	03/01/2025	Ankita Jodhani	None	None	Yogesh Patel 01/31/2025

FROM 35.00000ml of W3112 + 0.00880ml of PP24135 = Final Quantity: 35.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	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-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30270 / 1,2-Dibromo-3-Chloropropane Standard, 2,000 ug/ml	A0164665	07/28/2025	01/28/2025 / Ankita	01/19/2021 / Abdul	P10225

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30239 / 504.1 Calibration Mix (3 components)	A0170154	07/28/2025	01/28/2025 / Ankita	11/28/2022 / Ankita	P12215

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30272 / 1,2-Dibromoethane Standard, 2000 ug/ml	A0183330	07/28/2025	01/28/2025 / Ankita	02/02/2024 / Ankita	P13234

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	23I0762004	07/13/2025	01/13/2025 / SAM	11/26/2024 / SAM	V14624

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CHEMICAL RECEIPT LOG BOOK

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

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.01
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

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

Ken Koehnlein
Sr. Manager, Quality Assurance

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

avantor™ | J.T.Baker®

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

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C_6 Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

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

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

Recd by RP on 1/29/25

E3872

Jamie Croak
Director Quality Operations, Bioscience Production

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier

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 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

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Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30270 **Lot No.:** A0164665

Description : 1,2-Dibromo-3-chloropropane Standard

1,2-Dibromo-3-Chloropropane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : September 30, 2025 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dibromo-3-chloropropane	2,009.8 µg/mL	+/- 18.6904 µg/mL	Gravimetric
	CAS # 96-12-8 (Lot FBL01)		+/- 113.6299 µg/mL	Unstressed
	Purity 97%		+/- 116.2454 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

P10222
↓
P10225

AR
01/19/2020

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

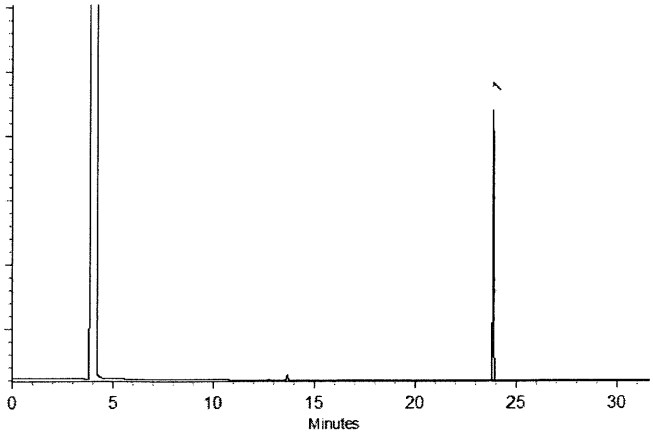
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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.

Jeremy Johnson - Mfg. Supervisor

Date Mixed: 22-Sep-2020 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

Date Passed: 24-Sep-2020

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

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30239 **Lot No.:** A0170154

Description : 504.1 Calibration Mix

504.1 Calibration Std 200µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : March 31, 2026 **Storage:** 0°C or colder

Ship: Ambient

P12211
↓
P12215

AJ
11/28/22

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dibromoethane (EDB)		200.5 µg/mL	+/- 1.4217	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBP2268V)		+/- 11.2713	µg/mL	Unstressed
	Purity 99%			+/- 11.5336	µg/mL	Stressed
2	1,2,3-Trichloropropane		200.0 µg/mL	+/- 1.4182	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot BCBH8722V)		+/- 11.2431	µg/mL	Unstressed
	Purity 99%			+/- 11.5049	µg/mL	Stressed
3	1,2-Dibromo-3-chloropropane		199.8 µg/mL	+/- 1.4169	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)		+/- 11.2330	µg/mL	Unstressed
	Purity 97%			+/- 11.4945	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

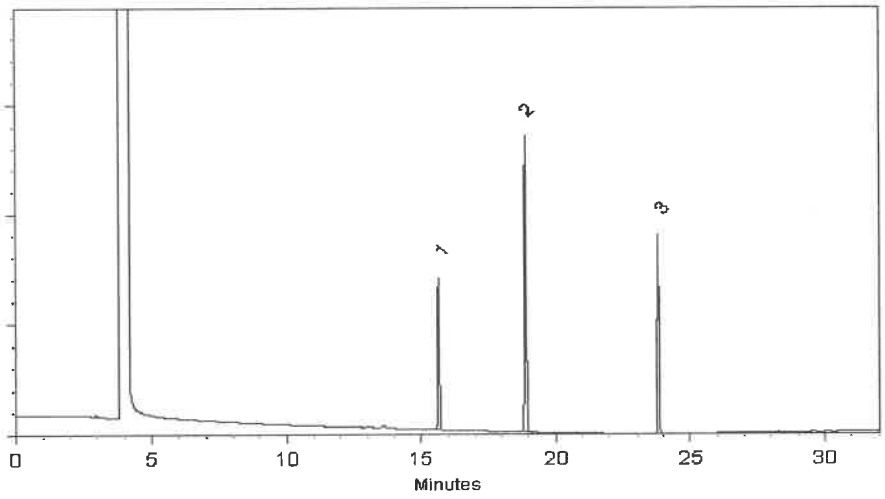
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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.

Erik Strommer - Operations Tech I

Date Mixed: 15-Mar-2021 **Balance:** B251644995

Alexis Shelow - Operations Tech I

Date Passed: 16-Mar-2021

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30272 **Lot No.:** A0183330

Description : 1,2-Dibromoethane Standard

1,2-Dibromoethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : March 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 (Lot BCBZ7221) **Purity** 99%	2,016.0 µg/mL	+/- 18.7477 +/- 113.9782 +/- 116.6017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

P13233
↓
P13237

AJ
02/02/24

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

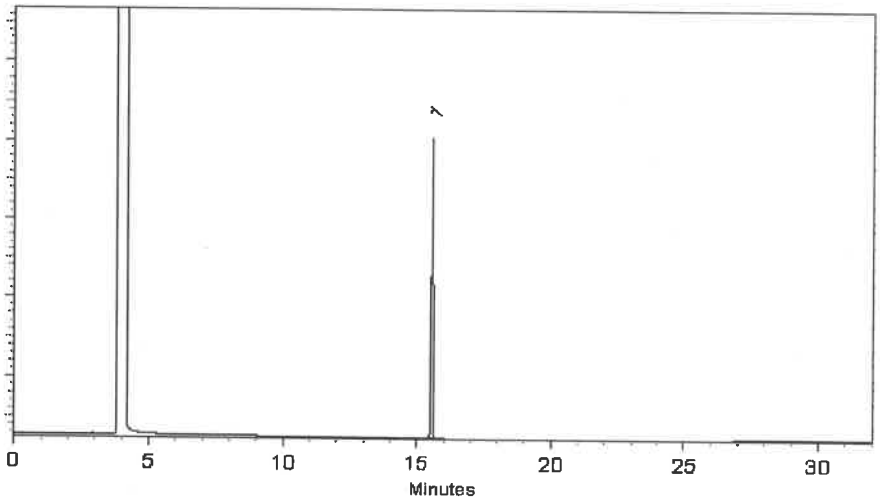
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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.

Jess Hoy - Operations Tech I

Date Mixed: 25-Mar-2022 **Balance:** 1127510105

Amanda Miller - Operations Tech-ARM QC

Date Passed: 30-Mar-2022

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