

Prep Standard - Chemical Standard Summary

Order ID : Q3529

Test : COD,TSS

Prepbatch ID :

Sequence ID/Qc Batch ID: LB137760, LB137774,

Standard ID :

WP114652, WP114653, WP114654, WP114655, WP114656, WP114657, WP114658, WP114659, WP114661, WP115434, WP115435, WP115436, WP115437, WP115438, WP115439, WP115440,

Chemical ID :

W3112, W3169, W3219, W3230,



<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>
2456	COD Stock std, 1000ppm	WP114652	09/08/2025	09/15/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 09/11/2025
<u>FROM</u>	0.08500gram of W3219 + 100.00000ml of W3112 = 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>
2457	COD Stock std-SS, 1000ppm	WP114653	09/08/2025	09/15/2025	Iwona Zarych	WETCHEM_SCALE_5 (WC SC-5)	None	Jignesh Parikh 09/11/2025
<u>FROM</u> 0.08500gram of W3169 + 100.00000ml of W3112 = Final Quantity: 100.000 ml								

Wet Chemistry 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>
139	COD calibration std. 0 ppm	WP114654	09/08/2025	09/15/2025	Iwona Zarych	None	None	Jignesh Parikh
								09/11/2025

FROM 10.00000ml of W3112 = 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>
138	COD calibration std. 10 ppm	WP114655	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh
								09/11/2025

FROM 9.90000ml of W3112 + 0.10000ml of WP114652 = 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>
137	COD calibration std. 50 ppm	WP114656	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 09/11/2025
<u>FROM</u> 9.50000ml of W3112 + 0.50000ml of WP114652 = 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>
4161	COD calibration std. 75 ppm	WP114657	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 09/11/2025
<u>FROM</u> 9.25000ml of W3112 + 0.75000ml of WP114652 = Final Quantity: 10.000 ml								

Wet Chemistry 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>
136	COD calibration std. 100 ppm	WP114658	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025
FROM 9.00000ml of W3112 + 1.00000ml of WP114652 = 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>
135	COD calibration std. 150 ppm	WP114659	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025
FROM 8.50000ml of W3112 + 1.50000ml of WP114652 = Final Quantity: 10.000 ml								

Wet Chemistry 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>
2459	COD ICV-LCS std, 50ppm	WP114661	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025

FROM 9.50000ml of W3112 + 0.50000ml of WP114653 = 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>
2456	COD Stock std, 1000ppm	WP115434	11/04/2025	11/11/2025	Eman Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 11/05/2025

FROM 0.08500gram of W3169 + 100.00000ml of W3112 = 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>
2457	COD Stock std-SS, 1000ppm	WP115435	11/04/2025	11/11/2025	Eman Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 11/05/2025
<u>FROM</u> 0.08500gram of W3219 + 100.00000ml of W3112 = 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>
3580	COD LOD std, 5ppm	WP115436	11/04/2025	11/11/2025	Eman Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/05/2025
<u>FROM</u> 49.75000ml of W3112 + 0.25000ml of WP115434 = Final Quantity: 50.000 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>
2069	COD LOQ std, 10.0PPM	WP115437	11/04/2025	11/11/2025	Eman Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/05/2025
<u>FROM</u> 49.50000ml of W3112 + 0.50000ml of WP115435 = Final Quantity: 50.000 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>
2458	COD CCV std, 50ppm	WP115438	11/04/2025	11/11/2025	Eman Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/05/2025
<u>FROM</u> 9.50000ml of W3112 + 0.50000ml of WP115434 = 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>
2459	COD ICV-LCS std, 50ppm	WP115439	11/04/2025	11/11/2025	Eman Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/05/2025
<u>FROM</u> 9.50000ml of W3112 + 0.50000ml of WP115435 = 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>
4162	RL CHECK	WP115440	11/04/2025	11/11/2025	Eman Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		(WC)						
9.90000ml of W3112 + 0.10000ml of WP115434 = Final Quantity: 10.000 ml								

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 / lwona	07/03/2024 / lwona	W3112

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24H0956262	04/28/2026	01/03/2025 / lwona	01/03/2025 / lwona	W3169

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	2025040493	06/30/2030	06/26/2025 / lwona	06/26/2025 / lwona	W3219

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Environmental Express LTD	B1010 / COD Digestion Vials Low Level 0-150Mg/L	5GE0517	05/31/2030	10/03/2025 / lwona	07/11/2025 / lwona	W3230



Material	BDH9260-500G
Material Description	BDH POTASS HYDRGN PHTHLTE 500G
Grade	ACS GRADE
Batch	24H0956262
Reassay Date	04/28/2026
CAS Number	877-24-7
Molecular Formula	HOCC6H4COOK
Molecular Mass	204.22
Date of Manufacture	04/29/2023
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White crystals.	White crystals.
Assay (dried basis)	99.95 - 100.05 %	99.98 %
Chlorine Compounds	<= 0.003 %	<0.003 %
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm
Insoluble Matter	<= 0.005 %	0.003 %
Iron	<= 5 ppm	<5 ppm
pH (0.05M, Water) @25C	4.00 - 4.02	4.00
Sodium	<= 0.005 %	<0.005 %
Sulfur Compounds	<= 0.002 %	<0.002 %

Internal ID #: 322

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

Certificate Of Analysis



Date of Release: 4/8/2025

Name: **Potassium Hydrogen Phthalate**

ACS

Item No: **PX1476 All Sizes**

Lot / Batch No: **2025040493**

Country of Origin: **USA**

Item	Specifications	Analysis
Assay (Dried Basis)	99.95-100.05%	99.98%
Chlorine compounds (as Cl)	0.003% max.	<0.003%
Color	White	Passes Test
Form	Crystals	Passes Test
Heavy metals (by ICP-OES)	5 ppm max.	<5 ppm
Insoluble Matter	0.005% max.	<0.005%
Iron (Fe)	5 ppm max.	<5 ppm
pH of a 0.05m solution @ 25.0C	4.00-4.02	4.00
Sodium (Na)	0.005% max.	<0.005%
Sulfur compounds (as S)	0.002% max.	<0.002%

Joe Schoellkopf

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation

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U.S.A.

Form number: 00005624CA, Rev. 2.0

W 3228

W 3229

W 3230

Rec. on 7/11/25 by 12



environmental
express®

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May 12, 2025

CERTIFICATE OF ANALYSIS

Environmental Express certifies that the following COD Reagent Vials have been rigorously checked against NIST Traceable standards and also compared for conformance to another major brand name product. Environmental Express COD Vial performance is evaluated using bench top spectrophotometers. Acceptance guidelines are strict and ensure dependable, quality results.

Environmental Express further certifies that the COD products listed below are recognized by the United States Environmental Protection Agency (USEPA) as equivalent to an approved Water Pollutant Testing Procedure for COD (Federal Register, Vol. 45, No. 78, Monday, April 20th, 1980, page 26811) and as such can be used for National Pollution Discharge Elimination System (NPDES) reporting.

<u>Cat. No.</u>	<u>Lot No.</u>	<u>Product Description</u>	<u>Expiration Date</u>
B1010	5GE0517	COD Reagent Vials, 0 - 150 ppm	May-30