

Prep Standard - Chemical Standard Summary

Order ID : Q3061

Test : Residual Chlorine,Turbidity

Prepbatch ID :

Sequence ID/Qc Batch ID: LB137137, LB137138,

Standard ID :

WP114701, WP114702, WP114703, WP114704, WP114705, WP114706, WP114707, WP114708, WP114709, WP114710, WP114711, WP114712, WP114713, WP114714, WP114715, WP114716, WP114717, WP114718, WP114719, WP114720, WP114721,

Chemical ID :

W3078, W3081, W3112, W3116, W3130, W3131, W3147,

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>
3443	Residual chlorine std, Intermediate 10PPM	WP114701	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025

FROM 42.75000ml of W3112 + 7.25000ml of W3130 = 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>
3444	Residual chlorine std, Intermediate-SS 10PPM	WP114702	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025

FROM 42.50000ml of W3112 + 7.50000ml of W3131 = Final Quantity: 50.000 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>
3710	Chlorine Calibration std, 0.0ppm	WP114703	09/10/2025	09/11/2025	Iwona Zarych	None	None	Jignesh Parikh
								09/11/2025

FROM 50.00000ml of W3112 = 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>
3707	Chlorine Calibration std, 0.1ppm	WP114704	09/10/2025	09/11/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3	Jignesh Parikh
							(WC)	09/11/2025

FROM 49.50000ml of W3112 + 0.50000ml of WP114701 = 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>
3708	Chlorine Calibration std, 0.2ppm	WP114705	09/10/2025	09/11/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
(WC)								
<u>FROM</u>	49.00000ml of W3112 + 1.00000ml of WP114701 = 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>
3799	Residual Chlorine Calibration and CCV std, 0.4PPM	WP114706	09/10/2025	09/11/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
(WC) <u>FROM</u> 96.00000ml of W3112 + 4.00000ml of WP114701 = 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>
3709	Chlorine Calibration std, 0.8ppm	WP114707	09/10/2025	09/11/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 09/11/2025
<u>FROM</u> 46.00000ml of W3112 + 4.00000ml of WP114701 = 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>
3711	Chlorine Calibration std, 1.6ppm	WP114708	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025
<u>FROM</u> 42.00000ml of W3112 + 8.00000ml of WP114701 = 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>
3452	Residual chlorine ICV-LCS, 0.4PPM	WP114709	09/10/2025	09/11/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 09/11/2025
<u>FROM</u> 48.00000ml of W3112 + 2.00000ml of WP114702 = 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>
3450	Residual chlorine LOD, 0.05PPM	WP114710	09/10/2025	09/11/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 09/11/2025
<u>FROM</u> 49.75000ml of W3112 + 0.25000ml of WP114701 = 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>
1167	hydrazine sulfate solution 1	WP114711	09/09/2025	10/09/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh 09/11/2025
<u>FROM</u>	1.00000gram of W3078 + 99.00000ml 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>
1843	HEXAMETHYLENETETRAMINE SOLUTION 1	WP114712	09/09/2025	10/09/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 09/11/2025
<u>FROM</u>	10.00000gram of W3081 + 90.00000ml of W3112 = Final Quantity: 100.000 ml							

Wet Chemistry STANDARD PREPARATION LOG

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1102	Formazin turbidity 400 NTU suspension	WP114713	09/09/2025	10/09/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025
FROM 90.00000ml of W3112 + 5.00000ml of WP114711 + 5.00000ml of WP114712 = Final Quantity: 100.000 ml								

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3713	Turbidity Calibration std, 0NTU	WP114714	09/10/2025	09/11/2025	Iwona Zarych	None	None	Jignesh Parikh 09/11/2025
FROM 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>
3718	Turbidity Calibration std, 40NTU	WP114715	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025

FROM 90.00000ml of W3112 + 10.00000ml of WP114713 = 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>
3714	Turbidity Calibration std, 20NTU	WP114716	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP114713 = 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>
3807	Turbidity Calibration - CCV std, 10 NTU	WP114717	09/10/2025	09/11/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025
FROM 97.50000ml of W3112 + 2.50000ml of WP114713 = 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>
3722	Turbidity Calibration std, 5NTU	WP114718	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025
FROM 87.50000ml of W3112 + 12.50000ml of WP114715 = 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>
3720	Turbidity Calibration std, 1NTU	WP114719	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025

FROM 97.50000ml of W3112 + 2.50000ml of WP114715 = 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>
1998	TURBIDITY LOD STD, 0.5NTU	WP114720	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025

FROM 5.00000ml of W3116 + 95.00000ml 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>
3739	Turbidity LOQ std, 1.0NTU	WP114721	09/10/2025	09/11/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 09/11/2025
<u>FROM</u>	10.00000ml of W3116 + 90.00000ml of W3112 = Final Quantity: 100.000 ml							

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J2177-1 / Hydrazine sulfate, 500 gms	BCCK9980	10/13/2028	01/26/2024 / lwona	01/26/2024 / lwona	W3078

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AA36462-36 / hexamethylenetetramine	M02K021	01/02/2027	02/26/2024 / lwona	02/26/2024 / lwona	W3081

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 #
HACH	2659949 / 10 NTU Standard 500 ml	A4151	05/30/2026	07/12/2024 / lwona	07/12/2024 / lwona	W3116

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	14268-10 / Chlorine Std, Pk of 16	A4144	01/31/2026	07/25/2024 / lwona	07/25/2024 / lwona	W3130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	14268-10 / Chlorine Std, Pk of 16	A4166	02/28/2026	07/25/2024 / lwona	07/25/2024 / lwona	W3131

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	14064-99 / Total Chlorine Powder Pillows	A4230	08/31/2029	10/01/2024 / lwona	10/01/2024 / lwona	W3147

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

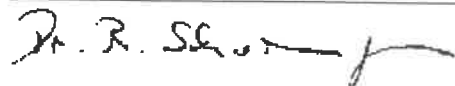
Product Name:

Certificate of AnalysisHydrazine sulfate salt - ACS reagent, $\geq 99.0\%$

Product Number: 216046
Batch Number: BCKK9980
Brand: SIAL
CAS Number: 10034-93-2
Formula: $\text{H}_4\text{N}_2 \cdot \text{H}_2\text{SO}_4$
Formula Weight: 130.12 g/mol
Quality Release Date: 13 OCT 2023



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals or Chunk(s)	Crystals
Redox Titration With Iodine	$\geq 99.0 \%$	99.4 %
Residue on Ignition	$\leq 0.05 \%$	0.01 %
Infrared Spectrum	Conforms to Structure	Conforms
Meets ACS Requirements	Corresponds to Requirements	Corresponds
ACS Specifications	Corresponds to Requirements	Corresponds
Heavy Metals $\leq 0.002 \%$ (as Pb), Insoluble Matter $\leq 0.005 \%$ (C= 6.67%, H ₂ O)		
Iron (Fe)	$\leq 10 \text{ mg/kg}$	$< 10 \text{ mg/kg}$
Chloride (Cl)	$\leq 50 \text{ mg/kg}$	$< 50 \text{ mg/kg}$



Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland CH

W3081 Recieved on 02/26/2024 by IZ

Product No.: 036462

Product: Hexamethylenetetramine, ACS, 99+%

Lot No.: M02K021

	Appearance	White solid	
Test	Limits	Results	
Assay	99.0 % min	100.7 %	
Loss on drying	2.0 % max	0.2 %	
Heavy metals (as Pb)	0.001 % max	< 0.001 %	
Residue after ignition	0.1 % max	< 0.1 %	

Retest Date: January 2, 2027

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Certificate of Analysis List

For request number 2018129

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
2659949	4151	N/A	N/A	StablCal sup TS sup Standard, 10 NTU

Total Enclosures: 1

*Certificate of Analysis*

Page 1

COMMODITY: **StablCal|sup|TS|sup Standard, 10 NTU**COMMODITY NUMBER: **2659949**

MANUFACTURE DATE:

LOT NUMBER: **A4151****6/4/2024**

DATE OF ANALYSIS:

6/7/2024

<i>TEST</i>	<i>SPECIFICATIONS</i>	<i>RESULTS</i>
Turbidity	9.5 to 10.5 NTU	9.99 NTU

The expiration date is May 2026

Formazin and StablCal® solutions provided by Hach are not NIST traceable because the NIST does not carry turbidity standards. However, the use of Formazin and StablCal® as used in Hach method 8195 are accepted by the EPA as a primary standard to be used in the calibration of turbidity instruments.

Certified by _____

Scott Als
Analytical Services Chemist



An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

Certificate of Analysis

PRODUCT: Chlorine Solution Ampule 50-75 mg/l

PRODUCT NUMBER: 1426810

LOT NUMBER: A4144

MANUFACTURE DATE: 05/28/2024

DATE OF ANALYSIS: 05/30/2024

TEST	SPECIFICATIONS	RESULTS
Standard Deviation for the ampules sampled	0 to 0.4 mg/L	0.10 mg/L
Mean Chlorine Concentration ampules sampled.	50 to 75 mg/L	60.9 mg/L

The expiration date is Jan 2026

Certified by: *Scott Als*

Analytical Services Chemist



An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

Certificate of Analysis

PRODUCT: Chlorine Solution Ampule 50-75 mg/l

PRODUCT NUMBER: 1426810

LOT NUMBER: A4166

MANUFACTURE DATE: 06/24/2024

DATE OF ANALYSIS: 06/25/2024

TEST	SPECIFICATIONS	RESULTS
Standard Deviation for the ampules sampled	0 to 0.4 mg/L	0.10 mg/L
Mean Chlorine Concentration ampules sampled.	50 to 75 mg/L	61.9 mg/L

The expiration date is Feb 2026

Certified by: *Scott Als*

Analytical Services Chemist



An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

Certificate of Analysis

PRODUCT: DPD Total Chlorine Reagent

PRODUCT NUMBER: 1406499

LOT NUMBER: A4230

MANUFACTURE DATE: 08/27/2024

DATE OF ANALYSIS: 08/28/2024

TEST	SPECIFICATIONS	RESULTS
Percent Recovery for a 2.5 ppm Standard. Chlorine concentration determined using DPD compared to the actual concentration.	93 to 107 %	95.7 %
pH of reagent in 50 mL of DI water.	6.2 to 6.5	6.40
Percent Recovery for a 5.0 ppm Standard. Chlorine concentration determined using DPD compared to the actual concentration.	93 to 107 %	96.2 %
Hardness Blank: 1000 ppm as Calcium Carbonate Hardness standard vs DI water measured at 530 nm in 1 cm cells.	0 to 0.009 abs	0.0020 abs

The expiration date is Aug 2029

Certified by: *Scott Als*

Analytical Services Chemist