Birchwood Laboratories LLC
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TRU TEMP® 2nd GEN

Drop Count Titration Test Procedure

PREP


2.5ml Syringe


Plastic Pipette


50 mL Erlenmeyer Flask


1.0 mL **Tru Temp 2nd Gen** bath


15-30 mL Deionized water


5-10 drops **Tru Temp Indicator** (Phenolphthalein)


Tru Temp test Solution (3N HCl**)**

STEP 1. Transfer **1.0 mL** of **TRU TEMP 2nd GEN** bath into a 50 mL Erlenmeyer Flask using a 2.5ml syringe. Add 15-30 mL deionized water into the flask to make it easier to swirl. Rinse syringe after use.

STEP 2. Add 5-10 drops of phenolphthalein solution (**TRU TEMP INDICATOR).** Swirl the flask to mix. The solution will turn bright pink.

STEP 3. Using the pipette, add the 3.0 N HCl (**TRU TEMP TEST SOLUTION)** dropwise with constant swirling. Count the number of drops added until the solution turns clear. A 50% Tru Temp bath will use about 33 drops.

STEP 4. Record the number of drops and calculate concentration using the following equation:

% Tru Temp 2nd Gen = # drops added x 1.52

STEP 5. Make chemical additions if needed. This chart shows additions for 100% target concentration. Keep a Record of your concentrations and actions required in the table on the backside of this sheet.

Bath Concentration	**40-gallon bath**	**100-gallon of bath**
50% and above	None Required	None Required
45%	2 gal of **TRU TEMP 2nd GEN**	5 gal of **TRU TEMP 2nd GEN**
40%	4 gal of **TRU TEMP 2nd GEN**	10 gal of **TRU TEMP 2nd GEN**

It is a good idea to test the **Tru Temp® 2nd Gen** bath every day when first starting up the process line. After establishing a replenishment routine, the testing can be done every week, as dictated by the workload.

Birchwood Technologies® offers **FREE** bath analysis service to all customers. If you would like us to assist in this way, just send us a 4 oz. sample of the bath. We'll analyze and report the results.

07/2024 NIA

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TRU TEMP® 2nd GEN LOG RECORD

Tank Size **_____ Gals (e.g., 40, 100gal)**

#	Date	# Drops **Tru Temp® Test Solution**	% Actual Con. **Tru Temp® 2nd GEN**	% Desired Conc. **Tru Temp® 2nd GEN**	Actions
e.g.	2/15/2023	34 drops	51.68%	50%	No Action Required
e.g.	2/15/2023	26 Drops	39.52%	50%	Add 4 gallons of **Tru Temp 2nd Gen**
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OXYPRIME® XPL

Drop Count Titration Test Procedure

PREP


2.5mL syringe


Plastic Pipette


50ml Erlenmeyer Flask


2 ml **Oxyprime® XPL** Bath


10-15 mL Deionized water


5-10 drops **Bromocresol Indicator** (Oxyprime Indicator)


1.0N NaOH (Oxyprime Test Soln)

STEP 1. Using the syringe, transfer 2 mL of **OXYPRIME® XPL** bath into a 50 mL Erlenmeyer flask. Add 10-15 ml deionized water into the flask to make it easier to swirl.

STEP 2. Add 5-10 drops of **bromocresol green-methyl red solution** (OXYPRIME INDICATOR**).** Swirl the flask to mix. The solution will turn orange.

STEP 3. Using the pipette, add **1.0 N NaOH** (OXYPRIME TEST SOLUTION) dropwise with constant swirling. Count the number of drops until the solution turns blue. A 10% Oxyprime bath will use about 22 drops.

STEP 4. Record the number of drops and calculate concentration using the following equation:

% Oxyprime XPL = # drops added x 0.45

STEP 5. Make chemical additions if needed. This chart shows additions for 10% target concentration. Keep a Record of your concentrations and actions required in the table on the backside of this sheet.

Bath Concentration	**40-gallon bath**	**100-gallon of bath**
10% and above	None Required	None Required
9-7%	1 gallons of **OXYPRIME® XPL**	2 gal of **OXYPRIME® XPL**
6-4%	2 gallons of **OXYPRIME® XPL**	5 gal of **OXYPRIME® XPL**
Less 4%	3 gallons of **OXYPRIME® XPL**	8 gal of **OXYPRIME® XPL**

It is a good idea to test the **OXYPRIME® XPL** bath every day when first starting up the process line. After establishing a replenishment routine, the testing can be done every week, as dictated by the workload. Birchwood Technologies® offers **FREE** bath analysis service to all customers. If you would like us to assist in this way, just send us a 4 oz. sample of the bath. We'll analyze and report the results.

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OXYPRIME® XPL LOG RECORD

Tank Size **_____ Gals (e.g., 40, 100gal)**

#	Date	# Drops **Oxyprime test Solution**	% Actual Con. **Oxyprime XPL**	% Desired Conc. **Oxyprime XPL**	Actions
e.g.	2/15/2023	30 Drops	13.5%	10%	No Action Required
e.g.	2/15/2023	14 Drops	6.3%	10%	Add 2 gallons of **OXYPRIME® XPL**
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