

TRU TEMP[®]2nd GEN or XL
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
Distilled
water



5 - 10 drops Tru
Temp Indicator
(phenolphthalein)



Tru Temp
Test Solution
(3.0 N HCl)



STEP 1. Transfer 1.0 mL of **TRU TEMP[®] 2ND GEN or XL** bath into a 50 mL Erlenmeyer Flask using 2.5ml syringe. Add 15-30mL 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 3.0 N HCl (**TRU TEMP TEST SOLUTION**) dropwise with constant swirling. Count the number of drops until the solution turns clear. A 50% Tru Temp bath will use about 29 drops.



STEP 4. Calculate the bath concentration using the following equation:

$$\% \text{ TruTemp}^{\text{®}}2^{\text{nd}} \text{ gen} = \# \text{ drops added} \times 1.72$$

STEP 5. Make chemical additions if needed. This chart shows additions for 50% target concentration. Keep a record of your bath concentration and actions completed in your logbook.

Bath Concentration	40-gallon bath	100-gallon of bath
50% and above	None Required	None Required
49-39%	2.5 gallons of Tru Temp [®] 2nd Gen	6 gal of Tru Temp [®] 2nd Gen
38-28%	7 gallons of Tru Temp [®] 2nd Gen	17 gal of Tru Temp [®] 2nd Gen
Less than 28%	14.5 gallons of Tru Temp [®] 2nd Gen	36 gal of Tru Temp [®] 2nd Gen

The GO NO GO Procedure for Tru Temp baths can be found at <https://birchwoodtechnologies.com/resources/sds-instruction-sheets/>

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.

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
Oxyprime Indicator
(Bromocresol soln)



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:

$$\% \text{ Oxyprime XPL} = \# \text{ drops added} \times 0.45$$

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 your logbook.

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

The GO NO GO Procedure for all Oxyprime[®] products can be found at <https://birchwoodtechnologies.com/resources/sds-instruction-sheets/>

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.