

**PRESTO BLACK<sup>®</sup> STEEL COLOR CHANGE KIT**

DROP COUNT TITRATION PROCEDURE

PREP



12.5 ml  
syringe



Plastic  
Pipette



50ml  
Erlenmeyer  
Flask



10 mL Presto  
Black Steel bath



15-20 mL  
Deionized  
Water



**Thymolphthalein**  
**soln** (Presto Black  
Indicator)



**1N NaOH**  
(Presto Black  
test Solution)



**STEP 1. Measure 10 mL of the Presto Black<sup>®</sup> Steel bath** using syringe and transfer to a 50 mL flask. Add 15-20 mL deionized water to make it easier to swirl.



**STEP 2. Add 5-10 drops of Thymolphthalein solution** (Presto Black Indicator) and mix. The solution will remain colorless.



**STEP 3. Using the pipette, add 1.0 N NaOH** (Presto Black Test Solution) to the flask dropwise with constant swirling. Count the number of drops until the color changes to permanent **Dark Blue**. Record the number of drops used. A 10% bath will use approximately 21 drops.

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

$$\% \text{ Presto Black Steel} = \# \text{ drops added} \times .475$$










**STEP 5. Make chemical additions if needed.** The following chart shows common additions needed for a 40-gallon and 100-gallon tank. Record results and actions taken in your bath maintenance log.

# Drops Used	Bath Concentration	Addition per 40-gallons	Addition per 100-gallons
20 +	9.5% and above	None Required	None Required
18-19	8.5-9%	.5 gal <b>PB Steel</b>	1 gal <b>PB Steel</b>
16-17	7.5-8%	1 gal <b>PB Steel</b>	2 gal <b>PB Steel</b>
14-15	6.5-7 %	1.5 gal <b>PB Steel</b>	3 gal <b>PB Steel</b>

It is a good idea to test the **Presto Black<sup>®</sup> Steel** every day when first starting up the process line. After a replenishment routine has been established, the testing can be done every week, as dictated by the workload. Birchwood Technologies<sup>®</sup> 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.

**SAFE PREP TEST KIT**

DROP COUNT TITRATION PROCEDURE

<b>PREP</b>							
	12.5 ml syringe	Plastic Pipette	50ml Erlenmeyer Flask	10 mL Safe Prep bath	15-20 mL Deionized Water	<b>Thymolphthalein soln</b> (Presto Black Indicator)	<b>1N NaOH</b> (Presto Black test Solution)



**STEP 1.** Measure 10 mL of the **Safe Prep** bath using syringe and transfer to a 50 mL flask. Add 15-20 mL deionized water to make it easier to swirl.



**STEP 2.** Add **5-10 drops of Thymolphthalein solution** (Presto Black Indicator) and mix. The solution will remain colorless.



**STEP 3.** Using the pipette, add **1.0 N NaOH** (Presto Black Test Solution) to the flask dropwise with constant swirling. Count the number of drops until the color changes to permanent **Dark Blue**. Record the number of drops used. A 10% bath will use approximately 25 drops.



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

$$\% \text{ Safe Prep} = \# \text{ drops added} \times .40$$

**STEP 5.** Make chemical additions if needed. The following chart shows common additions needed for a 40-gallon and 100-gallon tank. Record results and actions taken in your bath maintenance log.

# Drops Used	Bath Concentration	Addition per 40-gallons	Addition per 100-gallons
23+	9% and above	None Required	None Required
20-22	8 – 9 %	0.5 gal <b>Safe Prep</b>	1 gal <b>Safe Prep</b>
18-19	7.5 – 8%	1 gal <b>Safe Prep</b>	2 gal <b>Safe Prep</b>
16-17	6.5 – 7%	1.5 gal <b>Safe Prep</b>	3 gal <b>Safe Prep</b>

It is a good idea to test the **SAFE PREP**<sup>®</sup> bath every day when first starting up the processline. After a replenishment routine has been established, the testing can be done every week, as dictated by the workload. Birchwood Technologies<sup>®</sup> 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.