

E-Kleen™ SR 1041

Liquid Additive Concentrate for Smut Removing Soak & Electrocleaner Cleaning on Steel & Iron

E-Kleen SR 1041 contains:

- No phosphates, silicates & gluconates
- Floats oil

E-Kleen SR 1041 is blended with the metal finishers own liquid sodium hydroxide (50% by weight) or potassium hydroxide liquid (45% by weight) saving the finisher money and offering revolutionary cleaning power in removing carbonaceous smut on steel and difficult to clean metal working fluids.

E-Kleen SR 1041 is free rinsing, leaving a surface free of residual cleaning solutions which is necessary for use prior to plating, **Ultra-Blak**, **Kool-Blak** or **Insta-Blak**.

Solution Make-up

	<u>Optimum</u>	<u>Range</u>
E-Kleen SR 1041	5	1 – 10% by volume
Liquid sodium hydroxide (50% by weight) or potassium hydroxide liquid (45% by weight)	7.5	5 – 15% by volume
Temperature	150°F	130 - 190°F

1. Refer to Technical Data Sheet to determine concentration parameters for operation.
2. Thoroughly clean Electro-cleaner cathodes (if equipped) and tank of oil, grease and settled soils. Rinse out entire tank.
3. Fill tank two-thirds (2/3) full of fresh water.
4. Begin to heat water to approximately 100°F.
5. Under good agitation, slowly add the appropriate amount of liquid Sodium hydroxide (50% by weight) or liquid Potassium hydroxide (45% by weight).
6. When completely mixed and remaining under agitation, add the determined quantity of E-Kleen SR 1041.
7. Continue agitating the solution while adding water to reach the proper working volume.
8. Continue heating solution until reaching desired temperature per the Technical Data Sheet.

VOLTAGE

4-6 volts for anodic current

AMPERAGE

25 to 75 amps per square foot

EQUIPMENT

Tanks should be constructed of mild steel or stainless steel. Racks, baskets and barrels must be of a material compatible with other metal finishing solutions used thereafter. Do not use galvanized steel, bronze, copper, tin or aluminum. Heaters may be of mild steel or stainless steel.

SOLUTION CONTROL

A. Titration Method

1. Take a sample of the **E-Kleen SR 1041** solution from the bath with a beaker and allow to cool to room temperature.
2. Measure out 20 ml of the sample with a 20 ml pipet and transfer to a clean 250 ml Erlenmeyer flask. Add 25 ml of water.
3. Add 5 drops of Phenolphthalein Indicator.
4. Titrate with 1.0N Hydrochloric Acid until the color suddenly changes from pink to colorless.

5. Calculation:

Concentration of liquid sodium hydroxide (50% by weight) = ml of HCL x 0.286 x Normality of HCL

Concentration of liquid potassium hydroxide (45% by weight) = ml of HCL x 0.45 x Normality of HCL

Add **E-Kleen SR 1041** in ratio of how you made up the bath. For example, if you made up the bath at 5% by volume liquid sodium hydroxide (50%) and 1% **E-Kleen SR 1041** you would add 1 part **E-Kleen SR 1041** for every 5 parts of liquid sodium hydroxide (50% by weight). If you added 5 gallons of liquid sodium hydroxide (50%) you would add 1 gallon of **E-Kleen SR 1041**.

B. Dropping Bottle Method (Test Kit Available from **EPI**).

1. Measure out 5 ml of the **E-Kleen SR 1041** solution with a 10 ml graduated cylinder and add to a 250 ml beaker. Add 10 ml of DI water.
2. Add 4 to 5 drops Phenolphthalein Indicator to the solution.
3. Add dropwise 5N Sulfuric Acid solution while counting the drops and swirling the solution.
4. Stop adding the drops when the color suddenly changes from pink to colorless.
5. Calculation:

Concentration of liquid sodium hydroxide (50%) (% by volume) = number drops Acid x 0.24.

Concentration of liquid potassium hydroxide (45%) (% by volume)= number drops x 0.37

Caution

E-Kleen SR 1041 may cause irritation. Do not get in eyes, on skin or on clothing. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. For eyes, call a physician.

Do not work with **E-Kleen SR 1041** without first reading and understanding the **Material Safety Data Sheet** furnished by **EPI**.

Packaging

5 gallon and 55 gallon, (net) in plastic, non-returnable containers. Keep lid on when not in use.

IMPORTANT NOTICE! For Industrial Use Only

The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: seller's and manufacturer's only obligation shall be to replace such quantity of the product as proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection therewith. **Neither seller nor manufacturer shall be liable either in tort or in contract for any loss or damage, direct, incidental or consequential, arising out of the use of the inability to use the product.**

08/09/13