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TECHNICAL DATA

E-Kleen™ 101

Heavy Duty, High Caustic, Low Silicate Soak Cleaner for Steel

E-Kleen 101 is formulated with a high degree of detergency to maintain its cleaning efficiency under the heaviest workloads.

OPERATING PARAMETERS

Concentration: 6 to 10 oz/gal in water
Temperature: 160 to 200°F
Time: 3 to 10 minutes

The required cleaning time will depend upon the type and degree of soil on the surfaces and on the concentration and temperature of the **E-Kleen 101** solution.

EQUIPMENT

Tanks should be constructed of mild steel or stainless steel. Racks, baskets and barrels must be compatible with other metal finishing solutions used thereafter. Do not use galvanized steel, bronze, copper, tin or aluminum. Immersion heaters may be of mild steel. Adequate forced ventilation must be provided.

SOLUTION MAKE-UP

Dissolve the powdered **E-Kleen 101** in warm water while stirring. When charging a production tank, pre-mixing in a partially filled tank is recommended.

The **E-Kleen 101** solution concentration is maintained with periodic additions of cleaner to replace that consumed by removing soils and by dragout. When making replenishments to a hot cleaning solution they should be made cautiously to avoid spattering of the solution due to heat being generated when the chemicals are dissolved

The strength of the solution is determined chemically with either a burette titration or dropping bottle test. When the cleaning solution becomes excessively contaminated with soils, it should be dumped and a new cleaning solution made up.

SOLUTION CONTROL

A. Burette Titration Method

1. Take a sample of the **E-Kleen 101** solution from the bath with a beaker and allow to cool to room temperature.
2. Measure out 25 ml of the sample with a 25 ml pipet and transfer to a clean 250 ml Erlenmeyer flask. Add 25 ml of water.
3. Add 5 drops of 0.5% Methyl Orange Indicator to produce a yellow colored solution.
4. Titrate with 1.0N Hydrochloric Acid (HCl) to an orange-pink color.
5. Calculation:
   Concentration of **E-Kleen 101 (oz/gal)** = ml of HCl x 0.315

B. Dropping Bottle Method (Test kit available from **EPI**)

1. Take a 10 ml sample of the cleaner solution and add along with 10 ml of water to a 150 ml beaker.
2. Add 4 to 7 drops of Phenolphthalein Indicator to beaker.
3. Add dropwise 5N Sulfuric Acid from a dropping bottle while counting the drops and swirling the solution.
4. Stop adding the drops when the color changes suddenly from pink to colorless.
5. Calculation:
   Concentration of **E-Kleen 101 (oz/gal)** = number of drops Acid x 0.25

CAUTION

THIS MATERIAL CONTAINS CAUSTIC SODA. MAY CAUSE SEVERE BURNS. Do not get in eyes, on skin or on clothing. Avoid breathing dusts or mists. Do not take internally. When handling, wear goggles or face shield. While making up solutions or adding powder to solution, add slowly to surface of solution to avoid violent spattering. 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 mix **E-Kleen 101** with acidic materials or any other chemical substances. **Do not** work with **E-Kleen 101** without first reading and understanding the **MATERIAL SAFETY DATA SHEET** furnished by **EPI**.

PACKAGING

50 lb, 100 lb and 400 lb (net) in plastic lined, non-returnable containers. Keep lid on when not in use. Store indoors in a dry area.

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 or the inability to use the product.**

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