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TECHNICAL DATA

EPI COAGULANT AND EPI POLYMER

EPI Coagulant and EPI Polymer for Waste Water Treatment

DESCRIPTION

EPI Coagulant (which is **cationic**) and **EPI Polymer** (which is **anionic**) are designed specifically for use with the waste treatment from rinse waters following any of the **EPI** non-cyanide alkaline copper plating processes. The use of **EPI Coagulant** followed by caustic, in place of lime for pH adjustment significantly reduces sludge volume and the associated cost for disposal.

EPI Polymer works in conjunction with **EPI Coagulant** to form a quick settling, heavy metal hydroxide floc and offers a highly clarified effluent for discharge or recycle.

EPI Coagulant and **EPI Polymer** can also be used for waste water treatment of cleaners and conversion coatings which contain high phosphates.

WASTE WATER TREATMENT PROCEDURE

The following procedure is applicable for waste treatment of rinse water by itself or when it is mixed with rinse waters from other plating solutions.

Note: When cyanides and chromates are present they should be segregated and treated separately before mixing in with other plant effluents. Likewise, oil and grease from cleaning solutions should be separated by lowering the pH of the cleaner rinse water and decanting at the top.

1. Under slow agitation in the flocculation tank, add 1 gallon **EPI Coagulant** per every 1000 gallons of waste water.

   Depending upon the level of phosphates from cleaners, plating solutions and conversion coatings, the **EPI Coagulant** addition will have to be increased, sometimes to as much as 5 gallons/1000 gallons of waste water.

2. Adjust the pH to between 9.5 - 10 using 50% liquid caustic soda. Allow to mix for 20 to 30 minutes.

3. Then, add either 1/2 to 1 gallon of **EPI Liquid Polymer** or 1 to 2 gallons of a solution of **EPI Polymer** by mixing 1/4 lb of the powder polymer into 100 gallons of water.

4. Mix until a good heavy floc is formed. Turn off agitation and allow the floc to settle.

5. The supernatant is checked for metal content by AA to be under the limits per EPA for POTW disposal. The pH is adjusted, if needed, to meet disposal standards.

6. The settled metal hydroxide floc is pumped through a filtration system, where it is dewatered and the resultant filter cake is sent to land disposal under a permit.

Note: As is normal to any waste treatment operation, laboratory testing should be done using a sample of the composite waste water to optimize the dose levels of the coagulant and polymer and determine the pH for best flocculation.

Contact **EPI** Technical Service for help and assistance.

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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