Hubbard-Hall
Chemical Services Since 1849

Product Bulletin

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MI PHOS PDT 56

2201012
3/15/06

MI-PHOS PDT 56 is a powdered blend of organic acids and inorganic salts that is used to condition medium carbon, high carbon and scaled steels to result in a black conversion coating when subsequently processed in a zinc phosphate.

MI-PHOS PDT 56 is freely soluble in water and is typically used at a concentration of 4-6 oz/gallon. The process bath is typically operated at a temperature of 165-195^{o}F with dwell times of from 2 minutes to 10 minutes. Higher or lower concentrations and process temperatures may be diluted by various surface characteristics of parts that are to be processed.

Experimentation within the specified ranges with small lots of parts is strongly recommended. Should difficulties arise or desirable results are not achieved, contact Hubbard-Hall's technical service laboratory or your technical sales representative.

Working solutions of **MI-PHOS PDT 56** are mildly acidic. Process equipment and tanks should be constructed of polypropylene, polyethylene or 316 stainless steel.

MI-PHOS PDT 56 should not be added to solutions other than working solutions of **MI-PHOS PDT 56**. **MI-PHOS PDT 56** should not be allowed to come in contact with oxidizers. Read and understand Material Safety Data Sheet prior to working with this product.

BURET CONTROL PROCEDURE FOR MI-PHOS PDT 56

Equipment Needed:

0.1N NaOH
Phenolphthalein Indicator
10 ml pipet
125 ml Erlenmeyer Flask

Pipet a 10 ml sample of the bath into Erlenmeyer Flask. Add 8 drops of phenolphthalein indicator. Titrate versus 0.1N NaOH to pink end point.

CALCULATION: **# OZ/GALLON = (# OF ML) X (.1606)**

Example: A 4-oz/gallon bath will give 24.9 ml.

pH Meter Control

Take 10-ml sample, add 25-ml tap water, titrate with 0.1N NaOH to pH 7.

CALCULATION: **MLS NAOH X 0.1763 = OZ/GALLON**

WARRANTY

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.