



INDUSTRIAL COATINGS

(80333)

# ULTRAGUARD 333

## LIQUID DETERGENT IRON PHOSPHATE

### PRODUCT DESCRIPTION



### PRODUCT ADVANTAGES

- Can be used in a wide temperature range
- Very versatile for a variety of soils
- Long solution life
- Very economical to use

**ULTRAGUARD 333** is a liquid iron phosphate designed to spray clean and iron phosphate in a single operation. It is intended to be used in a typical three (3) stage detergent / iron application.

### TECHNICAL PROPERTIES



Composition:	Liquid
Appearance:	Clear Gardner 4 max
Odor:	Soap
Specific Gravity @ 60°F:	1.15
Pound per Gallon:	9.6
Flash Point:	None
Foaming Tendency:	Low above 125°F
Recommended Diluent:	Water
Behavior in Hard Water:	Good
Rinsability:	Good
Biodegradable Surfactants:	N/A
Recommended Concentration:	5% by volume
Recommended Temperatures:	110°F - 160°F
pH (concentrate):	2.8 – 3.1
pH (working solution):	4.1 – 4.8 pH @ 5% by volume

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## USE & CONTROL INSTRUCTIONS:

### Three Stage Spray Applications:

Stage #1 - **ULTRAGUARD 333** - 5% by volume  
Adjust to pH 4.1 – 4.8  
110-160°F for one minute

Stage #2 - Water rinse overflowing, room temperature to 130°F for 30 seconds

Stage #3 - Water rinse or CHEMSEAL rinse (the proper CHEMSEAL product will be recommended by your PPG representative)

Note: If the spray equipment consists of four or more stages, your PPG representative will recommend the most advantageous way to utilize those facilities.

When extra cleaning ability is required; it is recommended that WETTER 0816 (for high temperatures) or WETTER 0817 (for lower temperatures) be added to the **ULTRAGUARD 333** stages. Add 0.5 gallons (4.3#) of WETTER 0816 or WETTER 0817 per 100 gallons of **ULTRAGUARD 333** solution. Only add the WETTER 0816 or WETTER 0817 when extra cleaning ability are required, do not add the WETTER 0816 or WETTER 0817 instead of **ULTRAGUARD 333** for normal replenishment purposes.

### CONCENTRATION (Total Acid):

1. Pipette a 10-ml sample of the bath into a 150-ml beaker.
2. Add 5 - 10 drops of Phenolphthalein (N-10) indicator, and swirl to mix.
3. Slowly add 0.1N NaOH (T-1) through the burette, while swirling the sample to mix.
4. The end point is reached when the sample turns from colorless to pink, and remains pink for 30 seconds.
5. Each ml of 0.1N NaOH (T-1) is recorded as one (1) point of Total Acid.
6. To raise the Total Acid one (1.0) point, add 0.5 - 0.6 gallons of **ULTRAGUARD 333** per 100 gallons of bath.
7. Compare results in the chart to determine bath concentration.

$$\text{Mls of (T-1) x .55 = \% by volume}$$

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<u>% CONCENTRATION (by volume)</u>	<u>MILS TITRATED (T-1)</u>
1	1.8 ml
2	3.6 ml
3	5.4 ml
4	7.2 ml
5	9.0 ml
6	10.8 ml

The recommended range for Total Acid is approximately 9 points

The TA level is best controlled by the continuous addition of **ULTRAGUARD 333** concentration by using a metering pump rather than by infrequent additions of large amounts of chemical.

## pH Control

After the bath has been adjusted to yield a TA of slightly over 9 points pH control measurements can be made by the following methods.

### pH Control - By meter or slide comparator

The pH of the operating solution should be checked with either an electronic pH meter or a slide comparator.

Maintain the pH in the range of 4.1-4.8 for optimum quality. pH adjustments can be made in the following manner:

- a) To raise the pH approximately 0.1 unit, add approximately 103 ml of BUFFER per 100 gallons of operating solution.
- b) To lower the pH approximately 0.1 units, add approximately 170 ml of pH CONTROLLER concentrate per 100 gallons of operating solution or the addition of **ULTRAGUARD 333**.

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**PRECAUTIONS:**

Consult the most recent *Material Safety Data Sheet* for health and safety information relative to the handling and storage of this material.

Emergency 24 hour Chemtrec number: 800.424.9300

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