



Better Chemistry. **Better Business.**

Metal Guard® 820

Product Code: 2508020
Revised Date: 05/12/2006

Metal Guard® 820
Indoor Rust Inhibitor for Steel

Metal Guard® 820 is a water-soluble alkaline liquid concentrate specifically formulated to provide temporary rust protection of steel indoors.

It leaves a dry, invisible, non-oily film that will not hinder subsequent operations. **Metal Guard® 820** solutions can be used as a final dip in tumbling or soak operations to prevent possible oxidation of steel parts. Being a water solution, it does not present a fire hazard nor does it present a toxicity problem.

SOLUTION MAKEUP

Metal Guard® 820 is commonly used at 1 to 3% (volume) with water and at temperatures ranging from ambient to 180°F. Higher temperatures facilitate faster drying and speed up production, while higher concentrations provide greater protection against oxidation. Solution replenishment is non-hazardous, whether added to a hot or cold bath.

PHYSICAL DATA

Specific gravity 1.111
Vapor pressure less than 17.5 at 20° C
Solubility in water infinite
Appearance and odor clear, red liquid

CONTROL

TITRATION PROCEDURE

1. Measure a 100 ml sample into a 250 ml erlenmeyer flask from a graduated cylinder.
2. Add 6 to 8 drops bromcresol purple indicator and mix.
3. Titrate with .5 N hydrochloric acid until the color changes from purple to yellow.
Note: Yellow color must persist for at least 30 seconds.
4. Record mls of 0.5 N HCL used.

Concentration (% vol) **Metal Guard® 820** = 0.62 X MLS 0.5 N HCL Used

TEST KIT PROCEDURE (This is a modified Test Kit)

1. Measure a 25 ml sample using graduated cylinder. Pour sample into mixing bottle.



Product Bulletin

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2. Add 5 drops bromocresol purple indicator and mix.
3. Add N-94 test kit solution dropwise while mixing solution until the color changes from purple to yellow.
Note: Yellow color must persist for at least 30 seconds.
4. Record number of drops N-94 used.

Concentration (%vol) **Metal Guard® 820** = Drops N-94 X 0.17

EQUIPMENT

Tanks may be made of mild steel, polypropylene, or stainless steel with provision for heating the bath, if required. It is not necessary to exhaust the solution.

CAUTION

Metal Guard® 820 is a water solution of chemicals, thus it does not present a fire hazard, however, it is an alkaline product and must be handled accordingly. Wear rubber gloves and chemical goggles when handling **Metal Guard® 820**.

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.