



Better Chemistry. Better Business.

Metal Guard® 800-D

Product Code: 2508004
Revised Date: 03/11/2009

Metal Guard® 800-D

DESCRIPTION

Metal Guard® 800-D is clear, non-flammable, mildly alkaline, liquid rust preventative which is used in metal finishing processes for protecting ferrous metals against rust during an “in-process” operation. Furthermore, the versatility of **Metal Guard® 800-D** allows it to be used in immersion operations, power wash machines and vibratory tumbling flow-through systems. Solutions of **Metal Guard® 800-D** will not cause rusting when the work (steel or cast iron) remains immersed. **Metal Guard® 800-D** does not contain inorganic salts, therefore, no powder residues are left on the surface of the metal after application.

FEATURES AND BENEFITS

- Excellent short-term rust protection
- Easily soluble in water
- Effective at low concentrations
- Low-foam

TYPICAL APPLICATIONS

- In-process rust inhibitor
- Low foam spray cleaner
- Vibratory burnishing compound

PHYSICAL DATA

Specific gravity 1.050
 Solubility in water complete
 Appearance and odor pink solution, slight ammonia odor
 pH (conc.) 11.00



Product Bulletin

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OPERATING CONDITIONS

IMMERSION METHOD:

Metal Guard® 800-D is used 0.5 to 5.0% by volume. This dip may be the final step after a sequence of wet operations such as tumbling, cleaning, etc. No visible films remain, and the parts have temporary indoor protection for indefinite periods. **Metal Guard® 800-D** may also be used as a corrosion inhibitor in iron casting inspection where the part is immersed in water and air pressure applied. Parts do not rust while they are immersed in the water, and also are protected after exposure to air.

Metal Guard® 800-D affords some protection after parts are rinsed subsequent to dipping. However, no rinsing after the dip is preferred for best rust protection.

POWER WASH METHOD:

The non-foaming characteristics of **Metal Guard® 800-D** make it an ideal product for use in the final rinse in power washers.

Concentration	0.1 to 1.0 (vol.) in final rinse
Temperature	100 to 160°F (37 to 71° C)

VIBRATORY TUMBLING FLOW-THRU SYSTEMS:

Because, **Metal Guard® 800-D** is a liquid it is ideal for use in vibratory tumbling flow-thru systems via automatic aspirators or similar arrangements. **Metal Guard® 800-D** make-up is easy because there are no solubility or crystallization problems.

Concentrations for gravity feed flow-thru systems would be 0.5 to 3.0% by volume.

In some vibratory flow-thru systems, **Metal Guard® 800-D** may be the compound used throughout the tumbling cycle. It functions as a cleaner, rust inhibitor, lubricant and burnisher. Its mild nature makes it ideal for use in vibratory finishing of zinc surfaces.



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CONTROL PROCEDURES

TITRATION PROCEDURE

1. Pipette a 25 ml sample of **Metal Guard[®] 800-D** into a 250 ml Erlenmeyer flask.
2. Add about 25 ml of distilled water.
3. Add 4 to 5 drops of mixed indicator. (50% Bromocresol green, 50% methyl red).
4. Titrate with 0.5 N hydrochloric acid until the color changes from blue to yellow.

$$\text{MI 0.5 N HCl titrated} \times 0.37 = \% \text{ (volume) Metal Guard}^{\text{®}} \text{ 800-D}$$

TEST KIT PROCEDURE

1. Fill test bottle $\frac{1}{4}$ full with water.
2. Add 5 mls **Metal Guard[®] 800-D** solution using a 10 ml graduated cylinder.
3. Add 5 drops M.O. indicator.
4. Add N-94 solution drop-wise until solution turns from yellow to red-orange.
5. Record number of drops of N-94 solution used.

$$\% \text{ (vol.) Metal Guard}^{\text{®}} \text{ 800-D} = 0.105 \times \text{Number drops N-94 solution used}$$

CAUTION

Metal Guard[®] 800-D is a mildly alkaline liquid. Avoid skin, eye and oral contact. Wear protective clothing, gloves and goggles when handling the product. Flush exposed areas immediately with clean, cold water. Contact a doctor immediately in case of injury.

WASTE DISPOSAL

Neutralize solutions of **Metal Guard[®] 800-D** to a pH between 6 and 8 with a mineral acid. Use caution when adding the acid since neutralization generates heat. Discharge the neutralized solution to sewer or settling lagoon. In order to be completely informed on the latest disposal regulation for your area, please contact the local authorities.

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.