

PRODUCT DATA

RUST VETO® 4221

Rust Veto 4221 is a water emulsifiable rust preventive. The product is readily emulsifiable in either moderately hard or soft water. No special mixing procedures are required.

An emulsion of **Rust Veto 4221** will deposit a thin, protective film on treated surfaces. The thin film will typically provide corrosion protection, on plain carbon or low alloy steel, for six months indoors. Film removal is accomplished with hot water and detergent.

APPLICATIONS

Rust Veto 4221, emulsified in water, provides excellent in-plant rust protection. In-process inventory can be protected for up to six months, even in the most humid plant conditions. Flammable solvent-type rust preventives and their hazards are eliminated when emulsified **Rust Veto 4221** is used.

Parts can be dipped into an emulsion of **Rust Veto 4221**, or because of the product's low foaming tendency, parts can be successfully treated in the final stage of power spray washers.

As a final preservative of blackened or phosphated parts, **Rust Veto 4221** has received wide acceptance. The thin film deposited by **Rust Veto 4221** results in finished parts without an "oily" feel.

For most dipping applications, a dilution of 9 parts of water to 1 part of **Rust Veto 4221** is recommended. For power spray washer application, the typical concentration should be 1 part to 20 parts water.



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TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Appearance, Neat	Clear, amber oil
Specific Gravity @ 60°F (15.5°C)	.91
Viscosity @ 100°F, SUS	160 - 170
Viscosity @ 37.7°C, cSt	34.25 - 36.3
Flash Point, °F, COC	210 minimum (98.8°C)
Pour Point, °F	15 (-9.4°C)
Humidity Protection, 1010 Steel treated with a 10% emulsion	20 days minimum
Salt Spray (5%) Protection, 1010 Steel treated with a 10% emulsion	4 - 6 hours minimum

CONCENTRATION DETERMINATION (Rust Veto 4221 Emulsions)

Apparatus and Reagents

50 ml pipet

Babcock bottle (Kimble 15066)

- 1:1 dilution sulfuric acid
- * When preparing 1:1 dilution of sulfuric acid, always add acid to water slowly. Mixture will become hot. Handle with care.

Procedure

1. Pipet 50 ml of the emulsion into a Babcock bottle.
2. Add 1:1 dilution of sulfuric acid up to 80% mark.
3. Place bottle in oven at 140-150°F overnight.
4. Calculate the concentration of rust preventive.
% Concentration = cc of oil* x 2

- * **On a Babcock bottle each division equals .2 cc**

INSTRUCTIONS FOR USE

Rust Veto 4221 mixes easily with water. Upon addition of the required amount of **Rust Veto 4221** to the water, a minimum of mixing is required to form a white emulsion. The product's performance is relatively unaffected by make-up water quality; either moderately hard or soft water may be used.

If an emulsion of **Rust Veto 4221** is left standing still for several days, a layer of oil and/or cream may form on the surface. Any separated oil is easily mixed back into the emulsion.

Emulsions of **Rust Veto 4221** remain stable when hot; to a maximum temperature of 175°F.

SHIPPING INFORMATION

Rust Veto 4221 is available in 55 U.S. gallon (208 liter) drums and in bulk.

SHIPPING CLASSIFICATION - Petroleum Oil - NOS

SHELF LIFE - One (1) year

STORAGE/HANDLING/DISPOSABILITY

No health or safety hazards exist when **Rust Veto 4221** is stored, used and disposed of in accordance with instructions given on the Material Safety Data Sheet for this product.

WARRANTY

The information given here is considered to be correct and is offered for your consideration, investigation and verification. No warranties are expressed or implied, since the use of our products is beyond our control. Statements concerning the use of Houghton products are not to be construed as recommending the infringement of any patent.

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