



Dampney Protective Coatings

Rust Rinse™ 450 Corrosion Removing and Metal Conditioning Compound (MIL-C-10578D, TYPE 1)

Description

Rust Rinse 450 is a concentrated phosphoric acid-based corrosion removing and metal conditioning compound. When diluted with water and applied to metal surfaces it will remove rust and provide a slight etching action for ferrous and nonferrous metals. It converts the surface of steel to insoluble salts of phosphoric acid for the purpose of inhibiting corrosion and improving the adhesion and performance of paints and/or corrosion preventive compounds.

Recommended Uses

- Conditioner for ferrous and nonferrous metals prior to painting
- Rust remover for ferrous metals
- Blasted or pickled steel
- Galvanized steel or aluminum surfaces

Features

- Excellent wettability
- Quick rust penetration
- Uniform deposition of insoluble phosphate coating
- Provides uniform etching of surface

Not Recommended For

- Heavily rusted or scaled surfaces
- Use under Wash Primer (zinc chromate-vinyl butyral type)
- Surfaces which will operate at temperatures above 500°F (260°C)

Surface preparation

Surface must be free from oil, grease, heavy rust, scale, dirt or paint. Remove oil and grease from surface per specification SSPC-SP1, "Solvent Cleaning". Remove heavy rust by blasting, wire brushing or scraping.

Mixing

Use a nonmetal or stainless steel container. Dilute 1 part of Rust Rinse 450 with 3 parts of clean water by volume. Mix thoroughly.

Application guidelines

After proper dilution apply by clean rags, sponge or bristle brush. Rub solution well into metal surface and allow it to remain on surface long enough to wet it thoroughly and to react with rust deposits (5-10 minutes for steel, 2-3 minutes for galvanized or aluminum surfaces). Rinse surface with water, preferably hot, to remove residue. Remove any dark, gummy residue which remains by wiping off with damp rags.

Allow surface to dry until a grayish-white deposit forms. Remove any loose, powdery deposits by brushing surface or wiping with clean, dry rags. Repeat application if treated surface is not rust-free and grayish-white in color.

Application Equipment

Apply only by manual methods indicated above. Spray application is not recommended. Wear protective clothing and equipment described in "Precautionary Information" section of this bulletin.

Drying Time

Do not allow surface to become completely dry. Rinse with water per instructions in "Application Guidelines" above.

Recoat Time

Coat as soon as surfaces are dry.

Cleanup

Clean up using clean water only.

Storage

Store in a dry place with temperature between 50-85°F (10-29°C).

Packaging

Rust Rinse 450 is available in either 1-gallon plastic jugs or 5-gallon plastic cans.

Precautionary Information

Caution! Corrosive. Combustible.

Contains phosphoric acid and ethylene glycol monobutyl ether.

Harmful if inhaled. May affect the brain or nervous system, causing dizziness, headache or nausea. Causes nose and throat irritation. Causes eye and skin irritation. May be harmful if absorbed through skin.

Do not breathe vapors or spray mist. Avoid contact with eyes, skin and clothing. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application and until work areas are exhausted of vapors and mists. Follow respirator manufacturer's directions for respirator use. Wash thoroughly after handling. Keep away from heat and flame. Use with adequate ventilation. Wear rubber gloves, chemical splash goggles and protective clothing.

Use skin cream. In confined areas, or unventilated spaces, require a constant-flow, airline, hood-type respirator and use explosion-proof lights and electrical equipment.

First Aid

Eye contact-Flush immediately with running water for at least 15 minutes, including under eyelids. Obtain medical attention.

Skin contact-Remove contaminated clothing and shoes. Promptly wash contact area with soap and water. Wash clothing before reuse. Destroy contaminated shoes.

Inhalation-If affected by inhalation of vapor or mist, remove person to fresh air. Administer oxygen or artificial respiration as needed. Obtain medical attention.

Ingestion-If swallowed obtain medical attention immediately.

Spillage and Disposal

Keep containers closed when not in use. Keep closures tight and containers upright to prevent leakage. In case of spill, neutralize with soda ash or soda ash/slaked lime mixture. Dispose of in accordance with federal, state and local regulations. Flush spill area with water. Prevent spillage from entering waterways.

See Material Safety Data Sheet (MSDS) for complete precautionary information.

If you cannot strictly comply with these warnings and instructions do not use this product.

FOR INDUSTRIAL USE ONLY.

WARRANTY

Dampney protective coating products are expressly warranted to meet applicable technical and quality specifications. The technical data contained herein are accurate at the date of issuance but are subject to change without prior notification. No warranty of current accuracy is hereby given or implied. User must contact Dampney to verify correctness before ordering. Dampney assumes no responsibility for coverage, performance or injuries resulting from handling or use and **LIABILITY, IF ANY, SHALL BE LIMITED TO PRODUCT REPLACEMENT.** In no event will Dampney be responsible for consequential damages, except insofar as mandated by law. Dampney **DISCLAIMS ALL OTHER WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

PHYSICAL PROPERTIES

Properties	Rust Rinse 450
Generic Type	Phosphoric acid pretreatment
Color	Clear
Number of components	1
% solids by volume (undiluted)	36
Weight per gallon	10.9 lbs. (1.3 kg/liter)
Temperature resistance	500°F (260°C)
Dry film thickness per coat	Not applicable. Produces water insoluble phosphate coating with minimum weight of 7.5 mg./sq.ft. of surface area
Application temperature	
Ambient Air	50-120°F (10-49°C)
Metal surface	50-120°F (10-49°C)
Drying Time	
To touch	Not applicable
To handle	Not applicable
To recoat	2 hr @ 50°F (10°C); 1 hr. @ 70°F (21°C); 30 minutes @ 90°F (32°C)
Flash point	135°F (57°C) minimum
Shelf life	1 year
Pot life	Not applicable

Military Specification

Rust Rinse 450 meets the requirements of Military Specification MIL-C-10578D, Type I, Corrosion Removing and Metal Conditioning Compound (Phosphoric Acid Base).