

Product Data

NOX-RUST® 1010SFG VCI Powder

Description

Nox-Rust® 1010SFG is a water soluble, silica-free, fine grind powder that prevents corrosion on ferrous/non-ferrous metal surfaces of enclosed systems such as boilers, tanks, turbines, heat exchangers and steam or condensate pipelines. Designed for use on metals in storage for extended periods of equipment inactivity, including storage or lay-up, or during and after hydrostatic testing.

Features



Proven Daubert Cromwell corrosion inhibitor chemistry

- Long-lasting corrosion protection, even in the presence of moisture
- Prevents corrosion on metal surfaces in both vapor and contact phases
- Extends into deep and difficult to reach spaces, voids and recesses.
- Non-toxic, safe and environmentally friendly.
- Does not contain phosphates, heavy metals, or nitrites
- Replaces hydrocarbon and solvent-based liquids, nitrogen blankets, desiccants and other less dependable or costly preservation alternatives.
- Safe for use in the workplace.

Applications



Typical Applications

- Preserve or lay-up boilers, either wet or dry
- Protect internal surfaces of compressors, turbines, engines, tanks, heat exchangers, pipe systems
- Protect steam lines, condensate returns, heating and cooling systems
- Preserve tubes, pipes and vessels
- Clean, dry corrosion protection for metal surfaces during storage and shipment
- Preserve equipment that needs to undergo hydrostatic testing prior to shipping and/or storage

Guidelines for Use



Guidelines for Use

Typically, no special surface preparation is required prior to equipment shut-down, and powder does not need to be removed prior to restart. System does not need to be re-charged or actively maintained during the lay-up period. If the VCI layer is disturbed for any reason, it self-reapplies on the metal.

- **Dry Application:** Sprinkle or dust loose powder into accessible areas. Fog the dry powder into voids in the system using a low-pressure air hose. This is effective when there are deep recesses or cavities high up in the interior of the system. For pipes the following estimates can be used:

Diameter of pipe, ft	<or =1	1-3	3-6	6-9	9-12
Usage in lbs per 50 ft ³	0.5	1	2	3	4

For other applications, use 5 lbs/3,000 square feet of surface area (8 gm/sq. meter)

- **Wet Application:** When applying as an aqueous solution, add 0.5 to 1.0% Nox-Rust 1010SFG to water. Close all external openings to properly contain the VCI. System can be left filled or drained.
- **Hydrostatic Testing:** Add Nox-Rust 1010SFG to the hydrostatic test water @ 1% by weight. Use this mixture for hydrostatic testing. Drain as best as possible. It is not necessary to dry the vessel after hydrostatic test, but it should be sealed. Protection should last up to 6 months. For long-term protection, use 5% by weight.

Nox-Rust® VCI Powder Product Family

Product	Packaging	Description	Protection
1000SF Powder	25 lb (11.4 Kg) box, 50 lb (38 Kg) drum	Free-Flowing White Powder	Ferrous
1000SF Pouch	8½" x 11" pouch, Each	Pouch Emitter – Protects 900 ft ³ of enclosed space	Ferrous
1010SFG Powder	25 lb (11.4 Kg) box, 50 lb (38 Kg) drum	Fine Grind Free-Flowing White Powder	Multi-Metal
1015 Pouch	3 ¾" x 4" pouch, each	Pouch Emitter – Protects 15 ft ³ of enclosed space	Ferrous

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Technical Data

NOX-RUST® 1010SFG VCI Powder



Physical Data

Physical Properties

Typical Values

Appearance	Free-flowing off-white powder. Fine grind.
Solubility	Soluble in water up to 10 g/100 ml at 71°F (25°C)
pH	6-9 (@10% aqueous solution)
Melting Point	>194°F (90°C)
Odor	Slight ammonia odor
Inhibitor Protection	24 months minimum, inside dry storage

Protective Properties

Metal Carbon Steel	Provides full protection in contact, vapor phase and at the interface.
Copper	Compatible

- * Results are typical values and are not specifications.
- ** Protection times are based on proper protection from moisture and other environmental elements.
- *** For best results, Daubert Cromwell always recommends testing before use.

Storage

Store sealed, in a dry location, out of direct sunlight in temperatures not to exceed 150°F (65°C)

Shelf Life

12 months from date of shipping, when stored in the original, shipping container used by Daubert Cromwell and not in high humidity and not at high temperatures, or stored outside.

Removal

Does not typically need to be removed. There is no build up because the powder is completely water-soluble and there is no silica contribution because the powder is 100% silica-free. However, if removal is desired, use a cold-water flush, water spray, or air gun..

WARRANTY The data, statements and recommendations in this product specification sheet are based on testing, research and other development work, which has been carefully conducted by us, and we believe such data, statements and recommendations will serve as reliable guidelines. Physical properties shown above represent typical values and are not intended for use in writing specifications. However, this product is subject to numerous uses under varying conditions over which we have no control, and accordingly, we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and use. All products manufactured by us are warranted to be first class material and free from defects in material and

workmanship. Liability under this warranty is limited to the net purchase price of any such products proven defective or, at our option, to the repair or replacement of said products upon their return to us transportation prepaid. All claims on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other material and products. We make no warranty, express or implied, as to the suitability of any of our products for any particular use, and we shall not be subject to liability from any damages resulting from their use in operations not under our direct control. This warranty is exclusive of all other warranties, express or implied, and no representative of ours or any other person is authorized to assume for us any other liability in connection with the sale of our products.

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