

### Nox-Rust® VCI Liquid 1200



#### Product Description

Nox-Rust® VCI liquid 1200 is a water solution. It is a silica-free, volatile corrosion inhibitor (VCI) solution designed to protect the interior metal surfaces of enclosed systems, such as boilers, tanks, turbines, heat exchangers and steam or condensate pipelines. This is particularly useful during extended periods of equipment inactivity, during storage or lay-up, or during and after hydrostatic testing. The chemical formulation provides continuous long and short-term corrosion protection for ferrous metals and compatible with copper and galvanized steel. This specially engineered VCI prevents corrosion on metal surfaces in both vapor and contact phases. The volatile component is attracted to the metal surface above the water line and forms a molecular barrier against oxidation, so even the most difficult to reach recesses are protected.

Nox-Rust 1200 can be applied using a variety of easy-to-use application methods—fogging nozzles or atomized spray. Prescribed doses can be introduced into the system by adjusting the volume and concentration of liquid. The liquid is safe and environmentally friendly. It does not contain phosphates, heavy metals, or nitrites. It replaces hydrocarbon and solvent-based liquids, nitrogen blankets, desiccants and other less dependable or costly preservation alternatives.

Nox-Rust 1200 typically does not require any special surface preparation prior to equipment shut-down, and does not need to be removed prior to start-up. The system does not need to be re-charged or actively maintained during the lay-up period. If the VCI layer on the metal surface is disturbed for any reason it reapplies instantaneously before corrosion can begin.

#### Typical Properties

Appearance:	Clear to tinted liquid.
Solubility:	Soluble in water
pH:	7-9 (@1% aqueous solution)
Specific gravity:	1.2 at 25°C
Melting point:	Not applicable
Flash point:	None
Odor:	None to very slight
Viscosity:	Similar to water

#### Packaging and Storage

Nox-Rust 1200 is available in convenient 5-gallon pails and 55 gallon drums.

#### Applications

Nox-Rust 1200 can be used to:

- 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.

- Preserve equipment and pipe systems that need to undergo hydrostatic testing prior to shipping and or storage.

### Application instructions

Surface preparation: Remove dirt, oil, grease and loose rust according to job specifications. Minimum SSPC-SP 1.

Nox-Rust<sup>®</sup> 1200 can be applied to boilers, heat exchangers, piping and other liquid containment or conveyance systems by fogging the liquid into voids in the system. This is particularly effective when there are deep recesses or cavities high up in the interior of the system. Additional liquid can be sprayed into the volume when space and access is available.

Typical Spray set up: Conventional—Binks 18 gun with 66/S tip/air-cap. Airless spray—Grayco 205-591 Bulldog, .015" tip, 17---1900 psi, 3/8" ID hose. Equivalent equipment is acceptable.

Use rate: When applying as an aqueous solution, dilute at 1:10 to 1:5 (inhibitor:water)

using potable water. Close all external openings to properly contain the VCI. System can be left filled or drained. Typical coverage: 800 sq. ft./gal @ 2 mils wet

For hydrostatic testing, add Nox-Rust 1200 to the hydrostatic test water @ 1:10 (inhibitor:water). Use this mixture for hydrostatic testing, drain as best possible. It is not necessary to dry the vessel after hydrostatic test, but it should be sealed. This should give protection for up to 6 months. For long-term protection, use a 1:5 dilution.

### Removal

Nox-Rust 1200 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, a simple cold-water flush, water spray is all that is required

### Shelf Life

The suggested shelf of this product is two years in its original container.

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