

## **NOX-RUST® VCI-10 OIL**

### **Description**

NOX-RUST® VCI-10 is a volatile corrosion inhibitive lubricating oil for use in the preservation of ferrous metal parts in enclosed systems. Having combined the protective properties of a preservative oil with

those of volatile corrosion inhibitors, NOX-RUST® VCI-10 makes possible long-term protection against rust within what are termed "closed" systems or voids.

## **PRODUCT INFORMATION**

### **Physical Properties**

Viscosity @ 100°F sus  
Pour Point  
Flash Point  
Specific Gravity  
Film Thickness @ 77°F  
Approximate Coverage  
Volatile  
Accelerated Corrosion Test, Humidity JAN-H-792, 100%  
RH @ 120°F  
Vapor Phase Protection, MIL-P-46002A Procedure:

### **Typical Values**

210  
-10°F  
300°F  
0.9058  
0.5 mils  
3000 sq ft per gallon  
6%  
300 Hours  
Pass

NOX-RUST® VCI-10 is intended for use in the preservation of enclosed systems where the volatile components will provide protection above the oil level. It provides an effective contact preservative oil film. Typical examples of "closed" systems in which NOX-RUST® VCI-10 is used to protect metal from damaging rust include: fuel tanks, storage tanks, cylinders, transmissions, metal containers, gear housings, clutch compartments, crankcases, hydraulic and coolant circulating systems.

Conventional lubricating or preservative oils slushed or fogged into such systems will drain away from the vertical metal surfaces in about six months, exposing the metal to moisture, condensation and corrosion. While NOX-RUST® VCI-10 also drains away, the vaporizing rust inhibitors evolving from the product spread throughout the void or system and neutralize the corrosion-causing tendency of the moisture present in the air. NOX-RUST® VCI-10, being highly fortified with contact inhibitors, also protects the metal below the oil level.

### **How Nox-Rust® VCI-10 is Used**

Since drive clutch and steering clutch assemblies are subject to corrosion within their compartments during shipment and storage, this problem was overcome by fogging three ounces of NOX-RUST® VCI-10 into each chamber and plugging the orifice to retain vapor. Corrosion of hydraulic cylinders can cause leakage. Protection of cylinders and circulating systems is provided by adding 2% NOX-RUST® VCI-10 to the hydraulic test oil. After testing, an additional three ounces are added.

To forestall rust which will foul a diesel injection system, one ounce of NOX-RUST® VCI-10 per each 7 ½ gallons (1 cubic foot) capacity is fogged into the fuel tanks. If tank contains oil or gasoline, one ounce of NOX-RUST® VCI-10 is added for each gallon present.

To protect crankshaft, bearings, rocker arms and all surfaces normally lubricated by crankcase oil, 1% NOX-RUST® VCI-10, by volume, is added to the crankcase oil. To protect upper cylinder walls and valves in diesel or gasoline engines, eight ounces of NOX-RUST® VCI-10 are introduced through the air filter and sucked into the cylinders by turning over the motor with ignition off. For transmissions, 2% NOX-RUST® VCI-10 is added to the lubricant.

The usual properties of NOX-RUST® VCI-10 can be used to advantage for winter layaway of farm and road building equipment and for summer storage of school buses, snow plows, etc. It may also be fogged into shipping cases to protect unpainted auto and truck body sections during shipments.

NOX-RUST® VCI-10 can be used full strength in systems with ferrous metals only. Where non-ferrous metals are present, NOX-RUST® VCI-10 must be diluted to two percent or less, depending on the metals present.

## Surface Preparation

The maximum performance of NOX-RUST® VCI-10 can be achieved only when the metal surfaces to be protected are clean, dry and free of rust, oil and mill scale. Daubert Chemical Company recommends that the metal substrate temperature be 50-95°F (10-35°C) at the time of product application.

## Application

NOX-RUST® VCI-10 is formulated to be used as supplied. Ensure uniform consistency prior to use. Continued stirring is generally not required. If the product thickens due to cold storage or loss of solvent during use, contact

Daubert Chemical Company. Daubert Chemical Company recommends that the ambient and product temperature be 50 - 95°F (10 - 35°C) at time of application. NOX-RUST® VCI-10 can be spray or dip applied. **NOX-RUST® VCI-10 NEEDS TO BE AT ROOM TEMPERATURE BEFORE USING.**

## Caution

Adequate ventilation is required for cure and to ensure against formation of a combustible liquid. THE PARTIALLY CURED FILM SHOULD NOT BE EXPOSED TO IGNITION SOURCES SUCH AS FLARES, FLAMES, SPARKS, EXCESSIVE HEAT, OR TORCHES. Refer to Daubert's Material Safety Data Sheet for additional handling and first aid information.

## Note:

The addition of any product over or under this coating is not recommended. The use of additional coatings could result in chemical incompatibility, thus adversely affecting the performance of this coating as stated in the lab data section. If a product other than Daubert Chemical Company's recommended product is required, written authorization must be obtained from Daubert Chemical Company

December 1, 2020:co

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