

**Nox-Rust® 1100 VCI-10 Liquid
Engine Lay-Up and Preservation**



Product Description

Nox-Rust® VCI Liquid 1100 is a volatile corrosion inhibitive lubricating liquid for use in the preservation of ferrous and/or other metal parts in enclosed systems. Combining the protective properties of preservation oil with those of volatile corrosion inhibitors, Nox-Rust 1100 liquid provides long term protection against rust in "closed" systems or voids.

How VCI Works – When the metals are in the proximity of the VCI, the chemicals volatilize from the carrier to the metals and form a molecular layer of protection on the surface of the metal. This protective layer prevents moisture, salt, dirt, oxygen and other materials from depositing on the metal and causing corrosion.

Types of Engines – For lay-up and preservation of engines in

- Power Generation
- Aerospace and Aviation
- Marine
- Machinery

- Military
- Rail
- Motorcycles
- Mining, Exploration, Drilling and Construction
- Agricultural
- Racing, Sport and Collector

Directions

Start with a cold engine (below 100° F). Add required amounts of Nox-Rust 1100 to the crankcase, oil bath air cleaners, and multi-plunger injection pumps. Crank engine over for 20 seconds if possible. Add required amounts of Nox-Rust 1100 to each cylinder through spark plug, glow plug, or injector openings and replace plugs or injectors. Store engine for up to one year. If storing more than one year inspect and re-preserve annually, as necessary.

Amounts to be Added

For specific amounts of Nox-Rust 1100 for each engine model, see the application service bulletin. If bulletin not available, protect engine as follows;

For Carburetor Engines

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|---|-------------------------------------|----------------------------------|
| <u>Crankcase</u> including crankshaft, bearings, rocker arms and surfaces normally lubricated by crankcase oil. | <input checked="" type="checkbox"/> | 1 oz. per quart of crankcase oil |
| | -or- | |
| <u>Oil Bath Cleaner</u> | <input checked="" type="checkbox"/> | 1% by volume |

<u>Fuel Tanks</u>	<input checked="" type="checkbox"/>	1/3 oz. per engine cylinder
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<u>Fuel Tanks</u>	<input checked="" type="checkbox"/>	2 oz. per gallon on tank volume
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For Diesel Engines

Add same amount as carburetor engines and

<u>Injection Pumps</u>	<input checked="" type="checkbox"/>	1/2 oz. per engine cylinder
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<u>Fuel Tanks</u>	<input checked="" type="checkbox"/>	Fog 1 oz. per each 7 1/2 gallons (1 cu. ft) capacity. If tank contains oil or gasoline, add 1 oz. for each gallon present.
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- ☑ Fill governor with Nox-Rust 1100 if lubricated separately from engine.

For Drive Clutch and Steering Clutch Assemblies

- ☑ Fog 3 oz. of Nox-Rust 1100 to the hydraulic test oil. After testing, add an additional 3 oz.

For Transmissions

- ☑ Add 2% Nox-Rust 1100 to the lubricant.

Sealing - Nox-Rust 1100 gives off a protective vapor which penetrates engine interiors. All openings should be taped or reasonably well closed.

Metals Protected - Nox-Rust 1100 primarily protects ferrous metals (steel and iron) and other metal parts in enclosed systems. While it may cause some discoloration of aluminum, it will not harm aluminum.

Removal – Engines stored in Nox-Rust 1100 may be put into use without concern for removal of Nox-Rust 1100. Injection pumps and hydraulic governors, however, should be drained and refilled with the recommended lubricant.

Packaging and Storage - Nox-Rust 1100 is available in conveniently sized 5 gal (18.9 l) pails and 55 gal (208 l) drums.

Store sealed, in a dry location, out of direct sunlight in temperatures not to exceed 100°F (40°C) or below 40°F (5°C).

Other products - Daubert Cromwell has many corrosion inhibitor products for all preservation and packaging requirements, including:

VCI Paper:

- Nox-Rust[®], Vapor Wrapper[®], Protek Wrap[®], Ferro-Galv, Coppertex[®], Silver Saver[®], Alumitex[®], and Uniwrap[®] papers;

VCI Films:

- Premium Metal-Guard, Metal-Guard, Ferro-Film, Clear Pak[®] polyethylene films and bags;

Daubrite[®] emitters

Nox-Rust VCI Liquids

Nox-Rust VCI Powders

The data, statements and recommendations in this product information 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.