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**PRODUCT  
INFORMATION****NOX-RUST® X-241M****Description**

NOX-RUST® X-241-M is a petroleum based sheet metal processing lubricant and preservative for use on coiled stock as a combination rust preventive and pre-lube; in blankers (auto-shear) as a wash which leaves behind a lubricant and rust preventive film; and as a rust preventive spray on steel and steel parts.

NOX-RUST® X-241-M is approved as a preservative and lubricant on sheet and coiled steel for both Ford and General Motors, as it is non-interfering with body and assembly sealers, adhesives, and cleaning systems.

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**Physical Properties****Typical Values**

Film Character:	Oily, non-drying
Flash Point (COC):	250°F minimum
Application:	Spray, dip, brush, or roller coat
Viscosity SUS @ 100°F:	81
Lbs/Gal:	7.4
Specific Gravity:	0.890
Removal:	Easily removed with conventional cleaning methods
Pour Point:	Less than 15°F

**Performance and Protective Properties**

**Acid Atmosphere Test:** Material will protect cold rolled steel from stain or corrosion for a minimum of 16 hours exposure to a 25 ppm HCl atmosphere. Test method – Ford Motor Company BJ7-6.

**Condensing Humidity Test:** Material will protect cold rolled steel from corrosion for a minimum of 72 hours exposure in the Cleveland Condensing Cabinet. Test Method: Ford Motor Co. BJ7-7.

**Humidity Cabinet (100°F / 100% RH) on:**

Cold Rolled Body Steel, 500 hrs., no stain or corrosion  
One Side Zincrometal, 500 hrs., no stain or corrosion  
Galvanized, Two Side, 500 hrs., no stain or corrosion  
Galvanized, One Side, 500 hrs., no stain or corrosion

**Stack Tests**

Cold Rolled Body Steel, 500 hrs., no stain or corrosion  
Galvanized Two Side, 500 hrs., no stain or corrosion  
Zincrometal, 500 hrs., no deterioration of zincrometal

Procedure: Zincrometal unpolished cold rolled steel and galvanized panels are coated with NOX-RUST X-241-M to a coating thickness of 0.5 mil. Panels are then stacked and clamped to form a tight bundle. Bundles are then exposed to a 100% relative humidity at 100°F for 500 hours.

## Atmospheric Testing

Cold rolled steel panels, coated to a 0.5 mil film thickness with NOX-RUST® X-241-M, hung in an industrial warehouse environment, showed no signs of corrosion, stain or varnish after 9 months. Experience in several stamping plants, using NOX-RUST® X-241-M as a forming lubricant, has shown that only the residual NOX-RUST® X-241-M protected formed parts for more than 3 months under high humidity storage conditions, without any signs of rust, stain, or varnishing.

## Automotive Specifications:

Approved, General Motors 998-1833; Ford Motor Co. M4B90A.

## Surface Preparation

The maximum performance of NOX-RUST® X-241-M 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® X-241-M 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. DO NOT THIN NOX-RUST® X-241-M. Incorrect thinning will affect film build, dry time and product performance. Daubert Chemical Company recommends that the ambient and product temperature be 50 - 95°F

(10 - 35°C) at time of application. NOX-RUST® X-241-M can be airless spray applied.

## Removal

*Removability and compatibility with phosphating systems:* material is easily removed during phosphate wash operations and has no adverse effect on subsequent priming, painting or welding operations.

## Storage

Store NOX-RUST® X-241-M at temperatures between 50-95°F (10-35°C). Mild agitation is recommended prior to use.

## 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, Inc.

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**CAUTION:** The data, statements and recommendations set forth 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. However, this product is subject to numerable 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 particular use or uses.

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REFER TO MATERIAL SAFETY DATA SHEET FOR HEALTH AND SAFETY INFORMATION.

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PAGE 2 OF 2

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