ZERUST®/EXCOR® Axxanol™ 33 is an oil-based rust preventative that forms a light oily film, providing powerful corrosion protection against aggressive environments such as salt air and humidity. Use Axxanol™ 33 to replace standard oil in dipping applications, such as in-line rolling mills, cold-rolled sheets and coils, wire bars, and cast and machined metals. As a result, ferrous and some non-ferrous metals are protected for up to 1 year<sup>‡</sup> during shipment, storage, and work-in-progress.

After application and allowing metals to completely dry, place them into ZERUST® Vapor Corrosion Inhibitor (VCI) film packaging products for a more robust solution that protects for years<sup>‡</sup> during indoor storage or challenging shipping conditions, such as ocean freight. The coating is compatible with most engine oil lubricants. However, if the coating needs to be removed from the metal surface, use a compatible ZERUST® AxxaWash™ product, commercial alkaline, or solvent cleaner. Axxanol™ 33 does not intentionally contain barium or heavy metals and complies with Global Automotive Declarable Substance, TSCA, RoHS, and REACH SVHC requirements.

For over 50 years, beginning with the invention of Vapor Corrosion Inhibiting (VCI) film packaging, ZERUST® has led the market in quality corrosion solution products. We are dedicated to providing expert corrosion management services and broadening the range of corrosion solutions for our customers. In addition, ZERUST® users have access to on-site support from ZERUST®/EXCOR® representatives in more than 70 countries. As a result, our customers have peace of mind when they choose ZERUST® for corrosion control management.

# **Typical Properties**

Appearance Yellow oil results in a light oily film.

Substrates Multimetal protection
Coverage\* 1019 ft² (95 m²) per gal

Wet film thickness (WFT)\* 1.5 mil (40  $\mu$ m) Engine oil compatibility†  $\leq 10\% \text{ v/v}$ 

VOC content EPA Method 24 1.03 lb/gal (123 g/L)

Flashpoint ASTM D93 199°F (93°C)

Kinematic viscosity  $\approx 20.1 \text{ cSt } @ 104^{\circ}\text{F } (40^{\circ}\text{C})$ 

\*The theoretical coverage estimates, based on the stated wet film thicknesses (WFT), should only be used as a guide. These estimates were generated based on internal lab measurements of product coating on flat, smooth 1010 steel stock. Actual coverage data will vary in actual use based on the method of application, type of equipment used, part geometry, surface roughness, drain-off time, drag-out rate, evaporative loss, etc.

† Engine oil compatibility test report performed by an independent lab. Available upon request.

This data sheet provides general guidelines for operation, application, and removal. Please contact your ZERUST®/EXCOR® account representative for more specific recommendations on your particular operation and conditions.

# **Operating Summary**

- Ready-to-use oil-based rust preventative liquid.
- Typical application temperature: ambient in most operations.
- See Safety Data Sheet (SDS) section 7 for safe handling recommendations.

# **Application Technologies**

• Can be used in immersion, brush, or spray processes.

#### **Product Removal**

• Axxanol™ 33 can be removed from the metal surface with the use of a compatible ZERUST® AxxaWash™ product, commercial alkaline, or solvent cleaner.

#### **Product Control**

- Spray application: do not reuse collected product from spray booths or drip pans.
- Immersion application: for extended dip tank use, contact your dedicated ZERUST®/EXCOR® account representative.
- Brush-on application: use a natural bristle brush. Decant into a smaller container. Do not reuse product. Do not contaminate the original product container with the brush.



product information and photos

### **Availability**

ZERUST®/EXCOR® Axxanol™ 33 is sold as a ready-to-use liquid product. Contact your ZERUST®/EXCOR® representative for ordering information.

Part Number	Quantity*
350-M-00003PL	5 Gal (19 L) Pail
350-M-00003DR	55 Gal (208 L) Drum

<sup>\*</sup>Product sold in US customary units. Metric units approximate.

## Protection Info<sup>‡</sup>

Indoor (unpackaged)<sup>‡</sup> Up to 1 year<sup>‡</sup> Indoor (w/ ZERUST® VCI packaging)<sup>‡</sup> For years<sup>‡</sup>

Outdoor\* Not recommended
Humidity ASTM D1748 Minimum 600 hours
Salt spray ASTM B117 Up to 20 hours

Compatible with packaging Yes

## **Storage**

- Store in a cool, dry place and away from sunlight in the original packaging.
- Optimal storage temperature is 50 90°F (10 32°C) for up to 2 years from the date of shipment.
- Reseal or close the container cap after each use.

## **Disposal**

• Dispose of in accordance with local, national, and international regulations.

#### **Precautions**

- The product may leave brownish stains on surfaces over time when used under certain conditions. Test before use and/or discuss with your ZERUST®/EXCOR® representative.
- Always mix well before use.
- Avoid placing metal surfaces in direct contact with wood or cardboard (sources of moisture and acid).
- Wear personal protective equipment as stipulated in the Safety Data Sheet (SDS).
- Refer to SDS for more safety information.

#### **‡ DECLARATION**

Corrosion protection claims are based on Northern Technologies International Corporation (NTIC) internal laboratory testing performed under controlled parameters on contaminate-free substrates. Real-world application corrosion protection duration on different substrates will vary and depends on factors such as, but not limited to, the application or use, environmental / storage conditions, surface cleanliness, type of substrates, and coating thickness (where applicable). The use of the term "Up to" in reference to time is defined as any time duration from zero up to a specified time frame, but in no event beyond the specified time frame. The use of the term "for years" is based on NTIC's experience with its products but is in no way guaranteed. The use of the term "Up to" in reference to volume is defined as any volume from zero up to a specified volume but in no event beyond the specified volume of protection. It is the customer's / user's obligation to evaluate product performance, corrosion protection duration, safety, and suitability for intended use within the scope advised in the data sheet and to comply with all applicable laws and regulations. LIMITED WARRANTY/DISCLAIMER Warranty is limited to the replacement of a product that fails to meet specifications. For full warranty and disclaimer information, visit www.zerust.com/warranty.

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A product of: Northern Technologies International Corp 4201 Woodland Road Circle Pines, MN 55014

Phone. +1 763.225.6600 Fax. +1 763.225.6645 sales@zerust.com www.zerust.com

Rev A

