

Axxanol™ 46-BIO

Technical Data Sheet

ZERUST®/EXCOR® Axxanol™ 46-BIO is a sprayable bio-based rust preventative that forms a clear, thin, oily, moisture-barrier film that's also a light lubricant oil. This property makes it ideal for cleaning and protecting equipment for up to 1 year‡ during shipment, storage, and work-in-progress. Additionally, Axxanol™ 46-BIO is made from renewable vegetable oil, making it less flammable than conventional mineral-oil-based corrosion protective compounds (CPC).

This environmentally friendly rust preventative is formulated to match the performance of MIL-PRF-3150 medium preservative oils, except for its viscosity. With a kinematic viscosity of 46, it flows more efficiently than conventional 100-centipoise MIL-PRF-3150 oils. Axxanol™ 46-BIO's lightweight and viscous nature make it an excellent choice for compressed-air spray applications. It also exhibits favorable comparisons with MIL-PRF-63460 cleaner-lubricant-preservatives and light CPC grades of MIL-PRF-16173. Axxanol™ 46-BIO does not intentionally contain VOC, 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	Dark amber bio-based oil results in a clear, thin, oily, moisture-barrier film.
Substrates	Ferrous, aluminum, zinc, solder protection, and compatible with copper
Coverage*	647 ft² (60 m²) per gal
Wet film thickness (WFT)	2.5 mil (63 µm)
VOC content EPA Method 24	Components contain no VOC according to CARB
Flashpoint ASTM D93	435°F (224°C)
Kinematic viscosity	≈ 46 cSt @ 104°F (40°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.

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 bio-based rust preventative liquid.
- Typical application temperature: 50 – 110°F (10 – 43°C) 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™ 46-BIO 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.

Scan QR for more

product information and photos

Availability

ZERUST®/EXCOR® Axxanol™ 46-BIO is sold as a ready-to-use liquid product. Contact your ZERUST®/EXCOR® representative for ordering information.

Part Number	Quantity*
350-M-00011GL	1 Gal (3.8 L) Jug
350-M-00011PL	5 Gal (19 L) Pail
350-M-00011DR	55 Gal (208 L) Drum

*Product sold in US customary units. Metric units approximate.

Protection Info‡

Indoor (unpackaged)‡	Up to 1 year‡
Indoor (w/ ZERUST® VCI packaging)‡	Not recommended
Outdoor‡	Not recommended
Salt spray ASTM B117	Up to 24 hours
Compatible with packaging	No

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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