

AxxaWash™ KMS-310AL

Technical Data Sheet

ZERUST®/EXCOR® AxxaWash™ KMS-310AL is a low-foaming, alkaline, water-based cleaner compatible with hard water that's designed to remove medium to heavy-duty soils from aluminum and ferrous alloys. AxxaWash™ KMS-310AL does not contain alkylphenol ethoxylates, boron salts, phosphates, solvents, or VOCs, is non-flammable, and complies with Global Automotive Declarable Substance, TSCA, and RoHS requirements. AxxaWash™ KMS-310AL does contain low levels of silicate.

For over 50 years, beginning with the invention of Vapor Corrosion Inhibiting (VCI) film packaging, ZERUST®/EXCOR® has led the market in quality corrosion solution products. In addition to ZERUST® VCI film and other packaging products, ZERUST® offers an increasing range of cost-effective, high-performance wash fluids and rust-preventative products. These products are formulated to work synergistically to provide enhanced, comprehensive corrosion solutions for our customers. Backed by our global expert technical support and testing services, a comprehensive corrosion management program can be designed and deployed to meet individual customer's needs.

Typical Properties

Appearance	Clear, slight yellow; some precipitate may be noticed over time
Substrates	Aluminum and ferrous substrates. Test before use on any cast alloys (Not compatible with galvanized, copper, bronze, and brass).
pH (concentrate)	11 – 12
pH (5% solution)	10 – 11

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

- Dilute between 1 – 10% in water.
- Typical operating temperature: 120 – 140°F (49 – 60°C) in most operations.
- Deionized or reverse osmosis water is recommended for bath makeup and rinsing to improve bath life and reduce corrosion potential.

Application Technologies

- Typically used in multi-stage systems with one or two rinse stages.
- Can be used in immersion, ultrasonic, spray, and drum washer processes.

Product Removal

- AxxaWash™ KMS-310AL should be rinsed and removed from the metal surface with the use of purified water (RO, DI, Distilled).
- City water may be used, but care should be used as chlorides and hard water (calcium and magnesium) can impact downstream processes.

Product Control

AxxaWash™ KMS-310AL is controlled by titration. To test the concentration:

- Pipette a 20 mL sample of the bath solution into a beaker.
- Add 100 mLs of DI, RO, or distilled water.
- Add 5 – 7 drops of phenolphthalein indicator solution. The solution should turn pink.
- Titrate with 0.1 N hydrochloric or sulfuric acid until the pink color disappears.
- Use the following table to determine concentration.

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product information
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% AxxaWash™ KMS-310AL	Titrant Volume (mLs)
1	0.9
3	2.8
5	4.5
7	6.1
9	7.6

Availability

ZERUST®/EXCOR® AxxaWash™ KMS-310AL is sold as a liquid concentrate. Contact your ZERUST®/EXCOR® representative for ordering information.

Part Number	Quantity*
350-W-00090PL	5 Gal (19 L) Pail
350-W-00090DR	55 Gal (208 L) Drum
350-W-00090TT	275 Gal (1041 L) Tote

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

Storage

- Store in a cool, dry place and away from sunlight in the original packaging.
- Optimal storage temperature is 25 – 130°F (-4 – 54°C) for up to 2 years from the date of shipment.
- If the product freezes, bring it to room temperature and mix well.
- Reseal or close the container cap after each use.

Disposal

- Collect waste when removing.
- Dispose of in accordance with local, national, and international regulations.

Precautions

- Always mix well before use.
- Deionized or reverse osmosis water is recommended for bath makeup and rinsing to improve bath life and reduce corrosion potential.
- Avoid placing metal surfaces in direct contact with wood or cardboard (sources of moisture and acid).
- Avoid strong oxidizers, strong acids, and red/yellow metals.
- Avoid contact with eyes and skin.
- Provide adequate ventilation and minimize exposure to vapors.
- Do not breathe mist, spray, or vapors.
- 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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