

AxxaWash[™] KMS-220

Technical Data Sheet

ZERUST®/EXCOR® AxxaWash™ KMS-220 is a low foam, low temperature, mildly alkaline water-based cleaner compatible with hard water and offers excellent oil-splitting capabilities and flash-rust inhibition. AxxaWash™ KMS-220 is an ideal cleaner for removing light-duty hydrocarbon soils and particulates on ferrous substrates. AxxaWash™ KMS-220 does not contain alkylphenol ethoxylates, boron salts, phosphates, silicates, or solvents, is non-flammable, and complies with Global Automotive Declarable Substance, TSCA, and RoHS requirements.

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 liquid; slight yellow to orange/amber

Substrates Mainly for ferrous substrates and some yellow metal substrates. Not for use with aluminum (Test prior to use

on non-ferrous substrates).

pH (concentrate) 9-10pH (5% solution) 8.5-9.5

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: 105 165°F (41 74°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 single or multi-stage systems with one or two rinse stages.
- Can be used in spray processes. Do not use in immersion processes.

Product Removal

- AxxaWash™ KMS-220 can be rinsed and removed from the metal surface with the use of purified water (RO, D/I, Distilled) or left on the metal surface as a dry-in-place cleaner and flash-rust inhibitor.
- 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-220 is controlled by titration. To test the concentration:

- Pipette a 50 mL sample of the bath solution into a beaker.
- Add 50 mLs of DI, RO, or distilled water.
- Add 5 7 drops of methyl red indicator solution. The solution should turn pale/light yellow.
- Titrate with 0.1 N hydrochloric or sulfuric acid until the solution turns pink.
- Use the following table to determine concentration.



% AxxaWash™ KMS-220	Titrant Volume (mLs)
1	1.2
2	2.6
3	3.3
4	4.6
5	6.5

Availability

ZERUST®/EXCOR® AxxaWash™ KMS-220 is sold as a liquid concentrate. Contact your ZERUST®/EXCOR® representative for ordering information.

Part Number	Quantity*
350-W-00088PL	5 Gal (19 L) Pail
350-W-00088DR	55 Gal (208 L) Drum
350-W-00088TT	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 $32 130^{\circ}F$ (0 $54^{\circ}C$) 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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