

Axxatec™ HST-M100
Technical Data Sheet

ZERUST®/EXCOR® Axxatec™ HST-M100 is a low to no-foam, water-soluble liquid additive designed for hydrostatic testing when a combination of yellow metals, aluminum, and/or ferrous metals are exposed to the test fluid. Axxatec™ HST-M100 treats water by counteracting ionic contaminants that cause rust and tarnish on metals during hydrostatic testing. It effectively protects the interior surfaces of objects from corrosion that can rapidly form during and after hydrostatic testing. Add the product to water to make it suitable for hydrostatic test processes conducted on objects such as pipes, heat exchangers, storage tanks, and ship voids. Axxatec™ HST-M100 is recommended when aluminum, copper, brass, or other metal alloys containing red/yellow alloys above 3% are processed. For hydrostatic testing involving only ferrous systems, AxxaVis™ HST-10 is the desired product.

Used Axxatec™ HST-M100 product can be analyzed for quality and, in some cases, reused. Spent Axxatec™ HST-M100 working fluid may be discharged into the soil or marine environments (subject to normal legislative restrictions). Axxatec™ HST-M100 does not contain solvent, is non-flammable, complies with Global Automotive Declarable Substance, TSCA, ECHA SVHC, RoHS, and REACH requirements, and is environmentally friendly.

For over 50 years, beginning with the invention of Intelligent Counter-Corrosion Technologies (ICT®) and 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 to light amber, clear liquid |
| Surface finish | Dry to touch |
| Substrates | Aluminum, red/yellow metal alloys (copper and brass), and ferrous. Test before use on galvanized steel. |
| VOC content EPA Method 24 (concentrate) | No VOC according to CARB. |
| Freeze point | 9°F (-13°C) |
| pH (concentrate) | 9 – 10 |
| pH (1 – 5% solution) | 8.9 – 9.1 |

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

- Typical operating temperature: 72 – 122°F (22 – 50°C) in most operations.
- Contact your ZERUST®/EXCOR® account representative for specific dilution recommendations on your particular operation and conditions.
- Refer to the chart below for the appropriate dilution ratios based on the water quality and the type of metal substrates.

| Condition of Water* | Substrates | Add Rate per liter (1000 g) of water | Dilution % in water |
|---------------------|------------------------|--------------------------------------|---------------------|
| < 250 ppm Cl | Aluminum/Yellow Metals | 10 – 30 g | 1 – 3% |
| < 60 ppm Cl | Ferrous | 10 – 20 g | 1 – 2% |
| | Cast Iron | 30 g | 3% |
| 60 ppm Cl | Ferrous | 20 g | 2% |
| 100 ppm Cl | Ferrous | 20 – 30 g | 2 – 3% |
| 250 ppm Cl | Ferrous | 50 g | 5% |

* For ionic contaminant levels above these amounts or when using salt water for dilution, contact your ZERUST®/EXCOR® account representative for specific dilution recommendations to ensure optimal performance and corrosion protection in high ionic environments.

Application Technologies

- Can be used as a hydrostatic test additive when aluminum, copper, brass, or other metal alloys containing red/yellow alloys above 3% are present.

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product information
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Product Removal

- Axxatec™ HST-M100 can be left on the metal surface to continue counteracting ionic contaminants. However, to remove Axxatec™ HST-M100 from the closed system following the hydrostatic testing, flush with clean non-corrosive water. Contact your ZERUST®/EXCOR® account representative for more specific removal recommendations on your particular operation and conditions.

Product Control

- In certain high-volume applications, used hydrostatically tested water treated with Axxatec™ HST-M100 may be tested for quality and reuse. Otherwise, dispose of used treated water after each application. Check with your ZERUST®/EXCOR® account representative on guidelines for reuse.

Availability

ZERUST®/EXCOR® Axxatec™ HST-M100 is sold as a liquid concentration. Contact your ZERUST®/EXCOR® representative for ordering information.

| Part Number | Quantity* |
|---------------|-----------------------|
| 350-M-00105PL | 5 Gal (19 L) Pail |
| 350-M-00105DR | 55 Gal (208 L) Drum |
| 350-M-00105TT | 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 < 85°F (29°C) and 50% RH 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

- Check with local, state, and national regulatory agencies on permit requirements before disposal.
- Spent fluid may be discharged in soil (subject to normal legislative restrictions). Soil spike test (EPA Method 1644) conducted at 20 g/L water in 1 kg of soil showed No Observable Effect Concentration (NOEC).
- Spent fluid at recommended dosages do not have a significant adverse effect on tested marine organisms and would be considered “non-toxic” and biodegradable in marine environment. Axxatec™ HST-M100 concentrate exhibited potential for ultimate biodegradation in the marine environment and did not show any significant adverse effect on tested marine organisms. The results above were certified at third party (SGS labs) according to EN ISO 11348-3, OECD 306, FD ISO 14669, EN ISO 10253.

Precautions

- Always mix well before use.
- Avoid contact of the concentrate with eyes and skin.
- Ensure adequate ventilation when handling the concentrate and minimize exposure to vapors.
- Do not inhale mist, spray, or vapors from the concentrated product.
- 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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