

Axxatec™ HST-20L

Technical Data Sheet

ZERUST®/EXCOR® Axxatec™ HST-20L is a highly effective water treatment concentrate designed to deactivate ionic contaminants found in water sources that cause rust and hard water deposits on metals during hydrostatic testing. Axxatec™ HST-20L is a highly effective way to protect the interior surfaces of pressure vessels 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 pressure vessels such as pipes, heat exchangers, storage tanks, and ship voids. Designed for use on ferrous metals only, it is not compatible with zinc, galvanized surfaces, aluminum, or yellow metals. For applications involving copper, brass, or other metal alloys containing red/yellow alloys, it may be used in conjunction with ZERUST®/EXCOR® Axxatec™ HST-M100 additive.

Used Axxatec™ HST-20L product can be analyzed for quality and, in some cases, reused. Spent Axxatec™ HST-20L working fluid may be discharged into the soil or marine environments (subject to normal legislative restrictions). Axxatec™ HST-20L does not contain solvent, is non-flammable, compliant 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	Liquid concentrate
Surface finish	Dry to touch. May leave white residue when pooled in high concentration.
Substrates	Ferrous. Warning: Not compatible with zinc, galvanized, aluminum, or yellow metals. However, it may be used in conjunction with ZERUST®/EXCOR® Axxatec™ HST-M100 additive, added at 0.5 – 2% in 3.3% Axxatec™ HST-20L working solution for applications containing copper, brass, or other metal alloys containing red/yellow alloys. For applications containing aluminum, zinc, or galvanized, Axxatec™ HST-M100 is the desired product.
VOC content EPA Method 24 (concentrate)	No VOC according to CARB.
Freeze point	14°F (-10°C)
pH (concentrate)	9.5 – 9.9
pH (3.3 – 13.4% solution)	9.8 – 10.2

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.

Condition of Water*	Add Rate per liter (1000 g) of water	For 5 gal (41.65 lb.) of water	For 55 gal (458.15 lb.) of water
60 ppm Cl-300 ppm CaCO ₃	33.5 ml (1.13 fl. oz)	634 ml (0.17 gal)	7.0 L (1.84 gal)
90 ppm Cl-450 ppm CaCO ₃	44.67 ml (1.51 fl. oz)	845.4 ml (0.22 gal)	9.3 L (2.5 gal)
120 ppm Cl-600 ppm CaCO ₃	67 ml (2.27 fl. oz)	1.27 L (0.34 gal)	13.95 L (3.7 gal)
240 ppm Cl-1200 ppm CaCO ₃	134 ml (4.53 fl. oz)	2.54 L (0.67 gal)	27.90 L (7.4 gal)

* 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.

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product information and photos

Product Removal

- Axxatec™ HST-20L can be left on the metal surface to continue counteracting ionic contaminants. However, to remove Axxatec™ HST-20L 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-20L 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-20L is sold as a liquid concentrate. Contact your ZERUST®/EXCOR® representative for ordering information.

Part Number	Quantity*
350-F-00053PL	5 Gal (19 L) Pail
350-F-00053DR	55 Gal (208 L) Drum
350-F-00053TT	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.
- Do not let the product freeze. If the product freezes, bring it to room temperature and mix well.
- Reseal or close the pail or drum 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 134 g/L water in 1 kg of soil showed No Observable Effect Concentration (NOEC).

Precautions

- Do not let the product freeze.
- Do not splash product on zinc, galvanized, aluminum, or yellow metal surfaces.
- The product is nitrite-free. However, it's manufactured on shared equipment that processes nitrites and may contain trace amounts.
- 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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