

Corrosion Solutions for the Electronics Industry



Why Choose ZERUST®?

Proven Safe, Reliable, and Effective Corrosion Solutions for Electronics

ZERUST® corrosion inhibiting products are a cost-effective way to protect electrical components and equipment from the destructive effects of corrosion. For almost 50 years, ZERUST's proprietary vapor corrosion inhibitor (VCI) technology has been proven safe and effective for protecting sensitive metals. An analysis of compatibility using recognized test procedures can be arranged with a local ZERUST® representative.

The Benefits of ZERUST® Corrosion Inhibitor Products



A VC6-1 Vapor Capsule protects a large industrial electronics cabinet.

- Longer equipment life and sustained reliability
- Lower operating and maintenance costs
- Reduced downtime and fewer repairs
- Protection from corrosion for multiple metal types
- Optional protection such as electrostatic discharge (ESD), acid-gas neutralizers

How ZERUST® Vapor Corrosion Inhibitors (VCIs) Work

VCI molecules inhibit corrosion by preventing moisture and environmental elements from reacting with the metal surface. Since VCI molecules are transported through the air, they must be trapped around the metal surface using a poly bag or other enclosure. Later, when the enclosure or package is opened, the ZERUST® corrosion inhibiting layer dissipates, leaving clean, dry, and residue-free metals.



ZERUST® corrosion inhibitor diffusers go to work in minutes to saturate enclosures with protective VCI molecules.

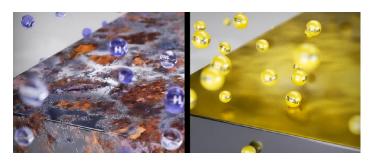
ZERUST® is Safe For Electronics:

ZERUST® Protection

- Does not affect the functionality of circuitry
- Does not harm printed circuit boards and sensitive ICs
- Does not leave galvanic effects, conductive residues, or surface changes
- Is clean, dry, and invisible corrosion inhibiting technology
- Is safe and easy to use for personnel

Safe for Electronics, Tough on Humidity and Contaminants

Reduce electronic equipment failures that lead to downtime due to corrosion with ZERUST® corrosion protection. Electronic enclosures are often in corrosive atmospheres with high humidity, condensation, or traces of aggressive pollutants such as sulfides, chlorides, and ammonia found in industrial and marine environments. ZERUST® corrosion inhibitor technologies work to combat these causes of corrosion, even acid gases, and moisture.



The effects of atmospheric contaminants on a metal surface pictured unprotected on the left and with ZERUST® protection on the right.

ZERUST® Protection for the Exteriors of Electronics

Protect exterior surfaces of parts and equipment with ZERUST® vapor corrosion inhibitor packaging materials. Wrap and enclose objects of any size to protect them from humidity, dirt, and contaminants. ZERUST® VCI Film packaging materials ensure that parts are protected in storage and in shipping from contact deterioration and a degraded appearance.



ZERUST® Multimetal Film protects an oversized piece of electronic equipment for up to five years[‡].



ZERUST® Anti-Tarnish Film protects metals from rust and tarnish with acid-gas scavenging technology.

Product Solution Highlights

ZERUST® Activ™ Series Diffusers

ActivDri[™] PWA, ActivPak®(LS), ActivCapsule[™], and ActivTab[™] products are easy-to-use diffusers that provide fast-acting and powerful corrosion protection. Drop-in the product to protect sensitive metals even in the most challenging environments.

Product Name	Volume of Protection (up to)‡	Duration of Protection (up to) [‡]
ActivDri™ PWA5*	3.5 ft³ (0.1 m³)‡	1 year‡
ActivTab™(LS)-25	0.25 ft ³ (0.007 m ³) [‡]	6 months [‡]
ActivCapsule [™] FAC1-1s	4 ft³ (0.12 m³)‡	1 year‡
ActivPak®(LS)-35+*	35 ft³ (1 m³)‡	1 year‡

^{*}Additional sizes available

ZERUST® Vapor Capsule Diffusers

Vapor Capsules provide targeted corrosion protection to metals and come in many different sizes. They are odorless, non-toxic, residue-free, and designed to work in restricted spaces.

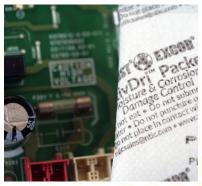
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Product Name	Volume of Protection (up to)‡	Radius of Protection (up to)‡	Duration of Protection (up to)‡	National Stock Number (NSN)
VC1-1 (S)	4 ft³ (0.1 m³)‡	1 ft (0.3 m) [‡]	1 year‡	6850-01-426-3539
VC1-1	4 ft³ (0.1 m³)‡	1 ft (0.3 m) [‡]	1 year‡	6850-01-338-1393
VC2-1	35 ft³ (1 m³)‡	2 ft (0.6 m) [‡]	1 year‡	6850-01-475-9949
VC2-2	35 ft³ (1 m³)‡	2 ft (0.6 m) [‡]	2 years‡	6850-01-133-0373
VC6-1	900 ft ³ (25 m ³) [‡]	6 ft (2 m)‡	1 year‡	6850-01-590-1676
VC6-2	900 ft³ (25 m³)‡	6 ft (2 m)‡	2 years‡	6850-01-348-1090

ZERUST® Plastabs®

Plastabs® are made of light, rigid plastic and diffuse corrosion inhibitors. Their small and thin shape makes Plastabs® perfect for protecting critical surfaces within narrow or hard-to-reach areas of enclosures. Use them to prevent corrosion in small spaces or as added protection to enclosures or packaged items.

ZERUST® Axxanol™ 718-ESS

Axxanol[™] 718-ESS is a multimetal electrical corrosion inhibitor spray designed for challenging environments where acid gas vapors and humidity are present. 718-ESS leaves a thin, water-displacing, non-staining, non-hardening, soft film and is suited for in-service use for indoor and short-term outdoor protection and lubrication. Axxanol[™] 718-ESS contains no CFCs or 1,1,1-Trichloroethane and conforms to key aspects of MIL-PRF-81309H.



ActivDri™ PWA moisture and corrosion control packets are used to protect highly sensitive metal electrical components.



VC2-1 Vapor Capsule protects multiple metal types.



Plastabs® fit and protect small spaces.



718-ESS does not modify the conductivity of electronic components.

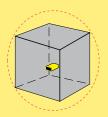
^{*}ActivPak(LS) is good for electrical applications when used according to the dosage guidelines. Contact ZERUST for application instructions for your application.



ZERUST® Corrosion Inhibitor Diffuser Installation Guide

ZERUST® Vapor Diffusers are easily installed in seconds without tools or specialized labor.

- 1. To activate, simply take the diffuser out of its packaging.
- 2. Note the installation date. Vapor Capsule products include a space to mark the date.
- 3. Place in the enclosure as close to the center as possible.
- 4. Make sure the diffuser has maximum surface space exposed for ideal diffusion.
- 5. Tightly seal the enclosure to restrict airflow.



The ideal location to obtain maximum coverage of protection from the diffuser is the center. This position may not be possible if the center is occupied.



Securely close the cabinet or enclosure to restrict airflow, which traps protective vapors inside. Airflow removes the protective vapor from the space faster than the diffuser can release it. Visit www. zerust.com to view videos on how to use and install vapor diffusers.

ZERUST® Comprehensive Corrosion Solutions

ZERUST® delivers safe and effective corrosion solutions across the globe. ZERUST® has onsite representation in over 70 countries to provide seamless support wherever you need it. Have a challenging corrosion prevention need, such as overseas shipping or contending with corrosive environments? Contact ZERUST® for a comprehensive corrosion management solution to meet your needs.



ZERUST® Axxanol™ Spray-G rust preventative coating protects electronic control panels outdoors.



ZERUST® Outdoor Shrink VCI Film protects large equipment for operational readiness.



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Visit www.zerust.com for more information!

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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