

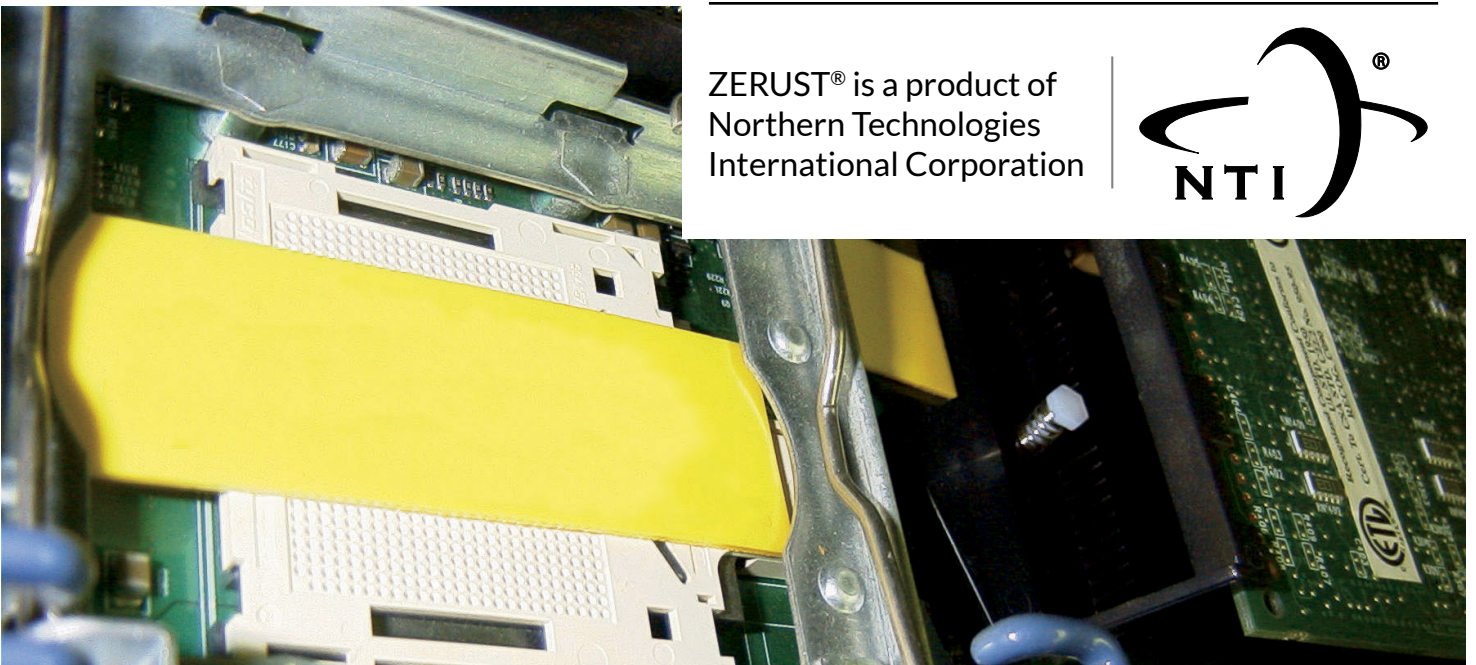


ZERUST®  EXCOR®

CORROSION SOLUTIONS FOR THE ELECTRONICS INDUSTRY



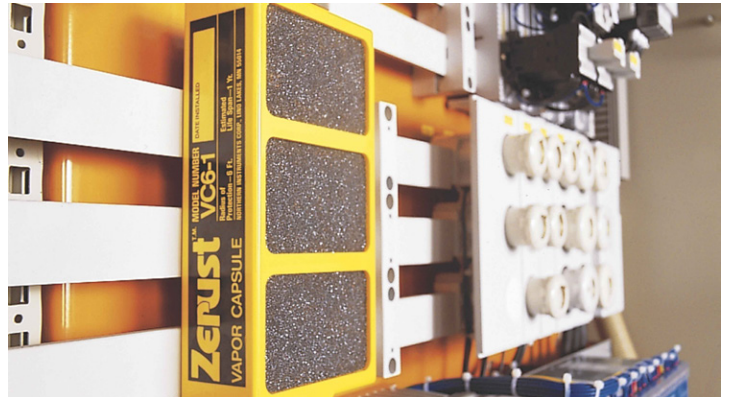
ZERUST® is a product of
Northern Technologies
International Corporation



WHY CHOOSE ZERUST®?

PROVEN SAFE, RELIABLE, AND EFFECTIVE CORROSION SOLUTIONS FOR THE ELECTRONICS INDUSTRY

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



THE BENEFITS OF ZERUST® CORROSION INHIBITOR PRODUCTS



- 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) and acid-gas neutralizers

HOW ZERUST® VAPOR CORROSION INHIBITORS (VCIs) WORK

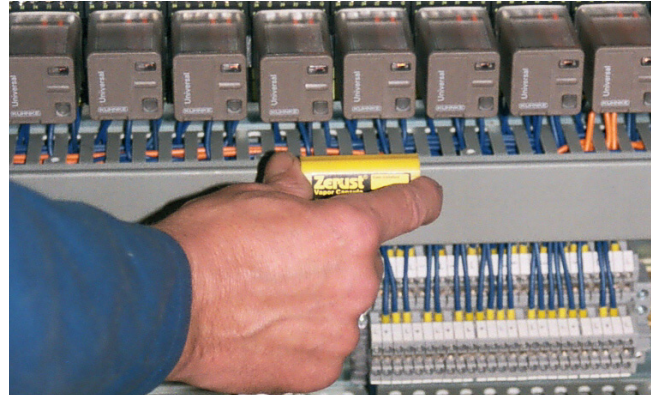
VCI molecules inhibit corrosion by preventing moisture and environmental elements from reacting with the metal surface. Since VCI molecules are transported through the air, they must be trapped around the metal surface using a poly bag or other enclosure. Later, when the enclosure or package is opened,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



ZERUST® IS SAFE FOR ELECTRONICS

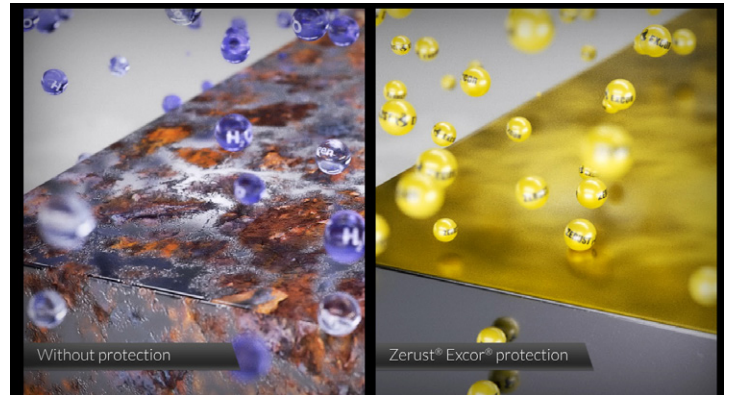
ZERUST® VCI PROTECTION

- Does not affect the functionality of the 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.



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 shipping from contact deterioration and a degraded appearance.



ZERUST® ICT®510-C Multimetal VCI Film protects an oversized piece of electronic equipment.



ZERUST® ICT®520-CB1 Anti-Tarnish Film protects metals from rust and tarnish with acid-gas scavenging technology.

PRODUCT SOLUTION HIGHLIGHTS

ZERUST® VAPOR CAPSULES



ZERUST®/EXCOR® Vapor Capsules safeguard electronics from corrosion with advanced VCI technology, designed for enclosed spaces like control panels and electrical cabinets. Easy to install, these capsules emit an invisible, non-toxic vapor that protects exposed metals against rust and tarnish during operation, storage, and shipment. Ideal for use with other ZERUST® VCI products for enhanced protection, they ensure metals are ready for immediate processing once removed. Offering up to 1 or 2 years[†] of corrosion defense, these capsules provide efficient and targeted protection for the electronics industry.

Product Name	Part Number	Volume of Protection (Up to) [†]	Metal Protection	Protection Duration (Up to) [†]	Quantity
VC1-1(s)	375-M-00006	4 ft ³ [‡]	Multimetal	1 year [†]	50/Case
VC1-1	375-M-00001	4 ft ³ [‡]		1 year [†]	50/Case
VC2-1	375-M-00002	35 ft ³ [‡]		1 year [†]	25/Case
VC2-2	375-M-00003	35 ft ³ [‡]		2 years [†]	10/Case
VC6-1	375-M-00004	900 ft ³ [‡]		1 year [†]	4/Case
VC6-2	375-M-00005	900 ft ³ [‡]		2 years [†]	4/Case

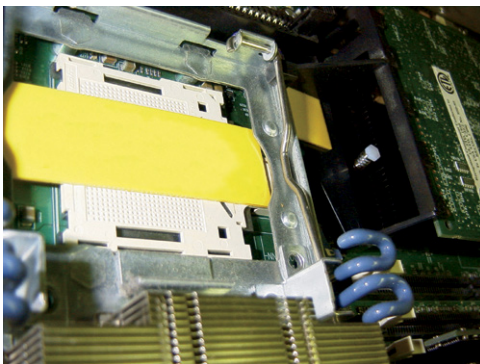
ZERUST® ZAK-M22 VAPOR CAPSULE



The ZERUST®/EXCOR® ZAK-M22 Vapor Capsule harnesses advanced VCI technology for protecting metals in enclosed areas like control panels, complementing other ZERUST® products for optimal corrosion control. Easy to install with an adhesive backing, it includes a unique QR code to facilitate scheduling its replacement schedule. This capsule emits non-toxic VCI molecules that shield against rust and tarnish, during operation, storage, and shipment. Effective for up to 2 years[†], ZAK-M22 delivers unparalleled metal preservation in a compact, innovative design.

Product Name	Part Number	Volume of Protection (Up to) [†]	Metal Protection	Protection Duration (Up to) [†]	Quantity
ZAK-M22	375-M-00202	35 ft ³ [‡]	Multimetal	1 year [†]	10/Case

ZERUST® ICT® PLASTABS®

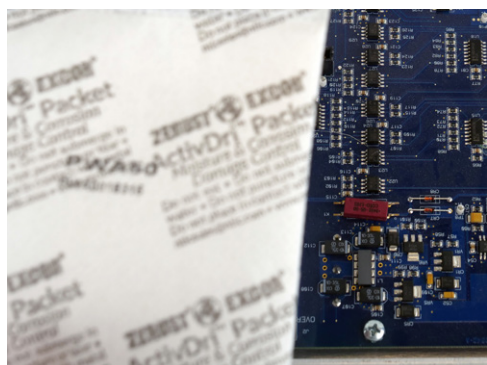


ZERUST®/EXCOR® ICT® Plastabs® utilize advanced VCI technology in compact, polyethylene tabs, perfect for protecting metal parts in tight spaces of electronics. Easy to distribute or affix with an optional adhesive backing, they seal in protective vapors, safeguarding surfaces from corrosion. Emitting a non-toxic, invisible barrier, Plastabs® ensures metals are ready for processing after use, offering up to 2 years[†] of protection for ferrous metals and limited protection for select non-ferrous metals without direct contact. A practical, efficient solution for corrosion challenges.

Size	Part Number	Volume of Protection (Up to) [†]	Metal Protection	Protection Duration (Up to) [†]	Quantity
1" x 1"	425-M-00001	0.4 ft ³ [‡]	Ferrous protection. Limited aluminum and yellow metal protection when used as instructed. Do not place in direct contact with aluminum, copper, brass, or zinc, and test before use.	2 years [†]	1000/Package
0.75" x 0.75"	425-M-00002	0.2 ft ³ [‡]		2 years [†]	1000/Package
0.50" x 0.50"	425-M-00003	0.1 ft ³ [‡]		2 years [†]	1000/Package
0.75" x 0.75" (w/adhesive)	425-M-00004	0.2 ft ³ [‡]		2 years [†]	1000/Package
1" x 3" (debossed)	425-M-00010	1.0 ft ³ [‡]		2 years [†]	1000/Package

PRODUCT SOLUTION HIGHLIGHTS

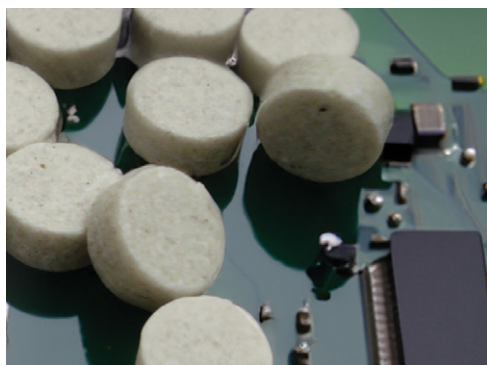
ZERUST® ACTIVDRI™ PWA PACKETS



ZERUST®/EXCOR® ActivDri™ PWA Packets offer an efficient dual-action solution for protecting electronics against corrosion and moisture. Combining moisture absorption with invisible, non-toxic Vapor Corrosion Inhibitor (VCI) technology, these packets safeguard sensitive electrical components during operation, shipping, and storage. Suitable for ferrous metals and aluminum, they provide up to 12 months[†] of protection in sealed environments and are compatible with yellow metals and silver.

Product Name	Part Number	Volume of Protection (Up to) [†]	Metal Protection	Protection Duration (Up to) [†]	Quantity
PWA5	375-M-00212	3.5 ft ³ [†]	Multimetal	1 year [†]	1,000/Case
PWA10	375-M-00213	7 ft ³ [†]		1 year [†]	500/Case
PWA25	375-M-00214	17.5 ft ³ [†]		1 year [†]	200/Case
PWA50	375-M-00215	35 ft ³ [†]		1 year [†]	100/Case
PWA100	375-M-00210	53 ft ³ [†]		1 year [†]	50/Case

ZERUST® ACTIVTAB™(LS) TABLETS



ZERUST®/EXCOR® ICT® ActivTab™(LS) tablets deliver immediate flash corrosion protection for metals in confined spaces, like electronic cabinets, with a simple placement and enclosure sealing process. These invisible, non-toxic VCI vapors safeguard ferrous metals, aluminum, and yellow metals like copper and brass (without direct contact) for up to 6 months[†] in sealed environments. ActivTab™(LS) provides an efficient corrosion prevention solution for hard-to-reach areas.

Product Name / Tablet Size	Part Number	Volume of Protection (Up to) [†]	Metal Protection	Protection Duration (Up to) [†]	Quantity
ActivTab™(LS)-25 / 0.25 g	450-M-00100	0.25 ft ³ [†]	Ferrous and aluminum protection. Limited yellow metal protection when used as instructed. Do not place in direct contact with copper, brass, or zinc, and test before use.	6 months [†]	600 Tablets/Bottle and 8 Bottles/Case

ZERUST® ACTIVCAPSULE™ FAC1-1(S)



ZERUST®/EXCOR® ActivCapsule™ FAC1-1(S) is a simple, effective drop-in flash-corrosion prevention capsule using VCI technology for protecting metals in hard-to-reach areas or alongside other ZERUST® products. Easily installed with an adhesive back, it releases non-toxic, invisible vapors that safeguard metal surfaces, allowing for immediate processing post-removal. It offers up to 1 year[†] of corrosion protection for aluminum and ferrous metals in sealed environments and is compatible with copper and brass, ensuring comprehensive metal safety.

Product Name	Part Number	Volume of Protection (Up to) [†]	Metal Protection	Protection Duration (Up to) [†]	Quantity
FAC1-1(S)	375-M-00106	4 ft ³ [†]	Ferrous and aluminum protection. Protects yellow metals when used as instructed. Do not place in direct contact with copper or brass, and test before use.	1 year [†]	50/Case

PRODUCT SOLUTION HIGHLIGHTS

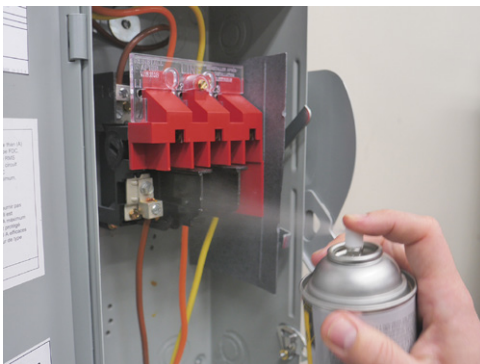
ZERUST® COR TAB® VCI TABLETS



ZERUST®/EXCOR® Cor Tab® VCI Tablets offer an efficient solution for corrosion protection, designed for metal surfaces in tight spaces like electronic components. Easy to deploy, just place the tablets in the target area and seal the enclosure to lock in the protective vapors. These non-toxic, invisible vapors form a protective layer on metal surfaces, which disappears after removal, making metals ready for immediate use. Cor Tab® tablets safeguard ferrous and non-ferrous metals from corrosion for up to 6 months[†] in sealed environments, providing a simple yet effective corrosion prevention method.

Product Name / Tablet Size	Part Number	Volume of Protection (Up to) [†]	Metal Protection	Protection Duration (Up to) [†]	Quantity
CT-25 / 0.25 g	450-M-00001	0.25 ft ^{3†}	Multimetal	6 months [†]	600 tablets/bottle and 8 bottles/case
CT-50 / 0.50 g	450-M-00002	0.5 ft ^{3†}		6 months [†]	300 tablets/bottle and 8 bottles/case
CT-10 / 1.00 g	450-M-00003	1.0 ft ^{3†}		6 months [†]	150 tablets/bottle and 8 bottles/case

ZERUST® AXANOL™ 718-ESS ELECTRICAL CORROSION INHIBITOR SPRAY



ZERUST®/EXCOR® Axxanol™ 718-ESS is a versatile corrosion inhibitor spray tailored for the electronics industry, offering robust protection in environments with acid gas vapors and humidity. Ideal for safeguarding electronic components, electric cabinets, and junction boxes, it also serves as a lubricant for metal surfaces like hinges and machinery. This easy-to-apply spray creates a thin, water-displacing film that's non-staining and non-hardening, ensuring electronic parts remain unaffected in terms of conductivity. Suitable for both indoor use and short-term outdoor applications.

Product Name / Model	Part Number	Metal Protection	Quantity
Axxanol™ 718-ESS / Aerosol cans	350-M-00092AC	Multimetal	12 oz aerosol cans (12/case)
Axxanol™ 718-ESS / Spray bottles	350-M-00092PT		16 oz spray bottles (w/ spray nozzles) (12/case)

ZERUST® ICT®510-C MULTIMETAL VCI FILM



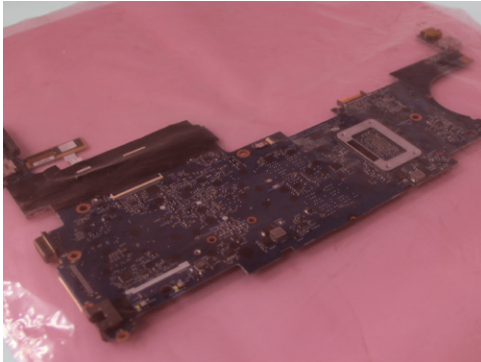
ZERUST®/EXCOR® ICT®510-C Multimetal VCI Film delivers targeted corrosion prevention for the electronics industry, suitable for ferrous and non-ferrous metals in transit or storage. Emitting safe, invisible VCI vapors, it protects electronic components and equipment against rust, with the flexibility of various packaging formats, including rolls, sheets, and bags. Once removed, the VCI evaporates, making metals ready for immediate use. Customizable with options like anti-static additive, ICT®510-C offers a comprehensive solution for electronic components' corrosion challenges.

Custom size ranges (width):

- Bags & Tubing:
- 2" – 125" (flat)
- 2" – 150" (gusset)
- Sheeting:
- 2" – 26'

PRODUCT SOLUTION HIGHLIGHTS

ZERUST® ICT®510-ATS ANTI-STATIC VCI FILM

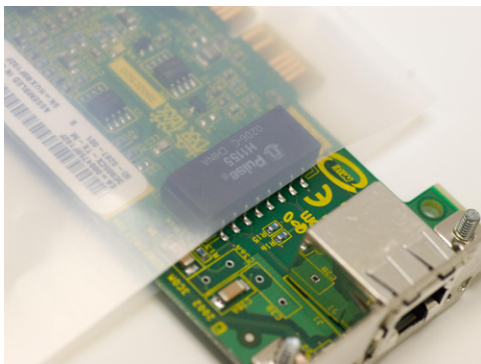


ZERUST®/EXCOR® ICT®510-ATS VCI Film offers a dual-protection solution for the electronics industry, safeguarding electrical components against electrostatic discharge and corrosion during shipping, storage, or processing. ICT®510-ATS combines anti-static additives with VCI technology to protect a variety of metals, including ferrous, aluminum, and copper, without leaving residue. Ideal for electronics and electrical assemblies, the film ensures metal surfaces are protected by invisible, non-toxic VCIs, allowing for immediate use post-unpackaging. Available in multiple formats like rolls and bags, ICT®510-ATS provides versatile and reliable protection for electronic components in any situation.

Custom size ranges (width):

Bags & Tubing:
2" – 125" (flat)
2" – 150" (gusset)
Sheeting:
2" – 26'

ZERUST® ICT®520-CB1 ANTI-TARNISH FILM



ZERUST®/EXCOR® ICT®520-CB1 Anti-Tarnish Film is designed for the electronics industry, preventing corrosion by blocking acid gases during shipping, storage, or assembly. This film, impregnated with acid-gas scavengers, protects sensitive metals like silver, copper, and brass used in electronic components and wiring, ensuring they remain oxidation-free without residue. Compatible with other ZERUST® VCI products for comprehensive protection, ICT®520-CB1 is cost-effective and clear for easy inspection. Available in rolls, sheets, and bags, with customization options such as an anti-static additive, it safeguards electronic metals.

Custom size ranges (width):

Bags & Tubing:
2" – 125" (flat)
2" – 150" (gusset)
Sheeting:
2" – 26'

Global Support

Algeria	Denmark	Mexico	Sri Lanka
Angola	Ecuador	Monaco	Sweden
Argentina	Estonia	Morocco	Switzerland
Australia	Finland	Nepal	Taiwan
Austria	France	Netherlands	Thailand
Bangladesh	Gabon	Nigeria	Tunisia
Belarus	Germany	Norway	Turkey
Belgium	Hungary	Peru	Ukraine
Bhutan	India	Philippines	United Arab
Bolivia	Indonesia	Poland	Emirates and
Brazil	Ireland	Portugal	MENA
Canada	Italy	Republic of	(Middle East &
Chile	Japan	Congo	North Africa)
China	Kazakhstan	Romania	United Kingdom
Colombia	Korea	Singapore	United States
Czech Republic	Latvia	Slovak Republic	Uruguay
Democratic	Lithuania	Slovenia	Vietnam
Republic of the	Luxembourg	South Africa	
Congo	Malaysia	Spain	

Visit www.zerust.com for more information!

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† 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