

# Zerust® Vapor Capsules and VCI Diffusers Series



**Zerust Global Corrosion  
Management Solutions**

# How Zerust® Works for You.

For more than 35 years, Zerust/Excor® has led the market in quality corrosion solution products for the packaging, shipping and storage of valuable metal items. We are committed to providing expert corrosion management services and broadening the range of corrosion solutions for our customers. Zerust users have access to onsite support from Zerust representatives in more than 60 countries. Our customers have peace of mind when they choose Zerust for corrosion control management.



## Worldwide Technical Service

Our scientists and field engineers work closely with customers to design and implement comprehensive corrosion management systems. Then, Zerust representatives worldwide provide on-site technical support to ensure the efficacy of these solutions.

## Zerust Diffuser Series

In addition to traditional VCI film and other packaging products, Zerust offers the ICT® 800 Diffuser Series. Diffusers provide targeted corrosion protection in hard-to-reach enclosed spaces or can be used as added protection to Zerust packaging products. Diffusers emit powerful Zerust Volatile Corrosion Inhibitor (VCI) molecules into an enclosure that settle on metal surfaces and protect them from corrosion.

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## Health, Safety and the Environment



Zerust is committed to making safe and effective products. Our products help to reduce industry's impact on the environment by extending material life and reducing the waste and energy associated with rework or producing new metal items. A number of our products are biodegradable or recyclable.

Zerust is the inventor of VCI poly technology and continues to lead the market in product effectiveness, service and safety. Since 1979, Zerust products have been used by more than 5,000 companies worldwide. Zerust products are approved by many major automotive companies' toxicology departments, the U.S. military, and comply with health and safety regulations around the globe.

# Zerust® VCI Diffuser Guide

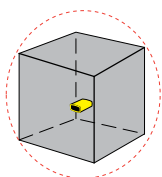
It is essential to restrict airflow to the surrounding container. Airflow may remove the protective vapor from the space faster than it is released from the diffuser. Protection ratings for each product assume a relatively empty enclosure to enable direct diffusion paths. When the enclosure is filled with many dividers or objects that lengthen the VCI diffusion pathways, it is good practice to double the number of diffusers.

## Instructions for Installing Diffusers

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 the diffuser in the enclosure following the principles below.
4. Make sure the diffuser has maximum surface space exposed for ideal diffusion.
5. Tightly seal the enclosure to restrict airflow. Metals in the enclosure will be protected for up to two years depending on the product used.

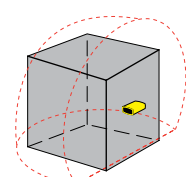


Center Position



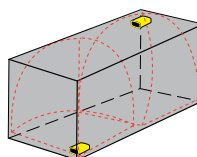
The ideal location is the center of the enclosure.

Side Position



Good for most applications, and provides the optimum protection.

Corner Position



In large enclosures, two capsules may be placed on diagonally opposed corners to fully protect the entire space.



Scan Code for  
"How-To" Video or  
visit, [www.zerust.com/videos](http://www.zerust.com/videos)

## What is VCI?

VCI is an abbreviation for Vapor Corrosion Inhibitor or Volatile Corrosion Inhibitor. VCIs are molecules that inhibit corrosion by forming a thin, protective layer on a metal surface within an enclosed space. This invisible layer prevents moisture and environmental elements from reacting with the metal surface and causing corrosion. The molecules dissipate when the enclosure is opened and do not need to be removed.

**"In effect, the ZERUST® VCI corrosion protection applies and removes itself."**

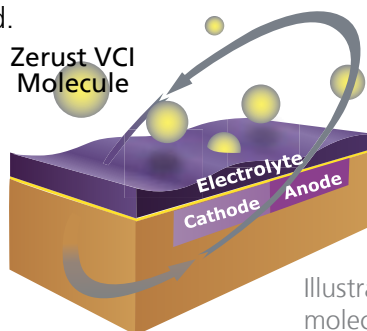


Illustration of VCI molecules in action



# Zerust® Vapor Capsule Diffusers

Zerust Vapor Capsule diffusers are easy-to-use capsules that contain Zerust corrosion inhibiting technology. Vapor Capsules emit powerful corrosion inhibiting molecules that settle on metal surfaces and protect them from corrosion. All are safe for electronics, odorless, residue-free, and are designed to work in restricted spaces.

Use Vapor Capsules to provide multimetal corrosion protection in almost any enclosure or as a supplement to other Zerust packaging products for added protection. Use Vapor Capsules to protect electrical components in enclosures, since they do not interfere with the electrical conductivity or resistance of the contact surfaces.



## Coverage Specifications - Multimetal Protection

Product Name and Part Number	NSN National Stock Number	Volume of Protection (Up To)	Radius of Protection (Up To)	Duration of Protection (Up To)	Adhesive Backing
VC1-1 (S) 375-M-00006	6850-01-426-3539	4 ft <sup>3</sup> (0.1 m <sup>3</sup> )	1 ft (0.3 m)	1 year	Yes
VC1-1 375-M-00001	6850-01-338-1393 Prior: 4440-01-481-3150*	4 ft <sup>3</sup> (0.1 m <sup>3</sup> )	1 ft (0.3 m)	1 year	Yes
VC2-1 375-M-00002	6850-01-475-9949 Prior: 6850-01-345-7431* Prior: 4440-01-475-9949*	35 ft <sup>3</sup> (1 m <sup>3</sup> )	2 ft (0.6 m)	1 year	Yes
VC2-2 375-M-00003	6850-01-133-0373	35 ft <sup>3</sup> (1 m <sup>3</sup> )	2 ft (0.6 m)	2 years	Yes
VC6-1 375-M-00004	6850-01-590-1676	900 ft <sup>3</sup> (25 m <sup>3</sup> )	6 ft (2 m)	1 year	No
VC6-2 375-M-00005	6850-01-348-1090 Prior: 6850-01-348-1390*	900 ft <sup>3</sup> (25 m <sup>3</sup> )	6 ft (2 m)	2 years	No

\*Obsolete NSN

## Military Users

For additional information on CID A-A-59441, NSN and proven military applications, visit [www.zerust.com/military](http://www.zerust.com/military) or email [military@zerust.com](mailto:military@zerust.com).

Our domestically sold diffuser products are proudly manufactured in the USA.



Products with or without adhesive may need to be secured with a cable tie. Particularly when vibration, cold or surface contaminants may cause the adhesive to be ineffective over time.

# Zerust® Activ™ Series

Zerust Activ series products offer a new technology of Vapor Corrosion Inhibitor (VCI) combined with Volatile Flash Corrosion Inhibitor (FCI™) to protect ferrous and aluminum metals in enclosed spaces. This combination goes to work in minutes to protect against both flash rust and provide long-term corrosion protection with its progressive VCI chemistry. Use Activ series products to protect equipment and assets in corrosive and contaminated environments.

The Activ (LS) formulated products feature a low odor, nitrite-free formula and have a REACH compliant Safety Data Sheet (SDS) available. The Activ series technology is conveniently offered in many different configurations to protect in various sized voids and applications. Do not place in direct contact with copper, brass or zinc and test before use in the same void space.

## Coverage Specifications - Multimetal Compatible\*

Zerust® Product Name	Normal Environment**		Aggressive Environment**	
	Volume of Protection (Up To)	Duration of Protection (Up To)	Volume of Protection (Up To)	Duration of Protection (Up To)
ActivTab™(LS)-25	0.25 ft³ (0.0071 m³)	6 months	0.025 ft³ (0.0007 m³)	15 days
ActivCapsule™ FAC1-1s	4 ft³ (0.12 m³)	1 year	0.35 ft³ (0.01 m³)	1 month
ActivPak®(LS)-T330	5 ft³ (0.15 m³)	1 year	2 ft³ (0.05 m³)	2 months
ActivPak(LS)-33	16 ft³ (0.45 m³)	1 year	5 ft³ (0.15 m³)	2 months
ActivPak(LS)-T350	26 ft³ (0.75 m³)	1 year	7 ft³ (0.2 m³)	2 months
ActivPak(LS)-35	35 ft³ (1 m³)	1 year	11 ft³ (0.3 m³)	2 months
ActivPak-T330	5 ft³ (0.15 m³)	2 years	2 ft³ (0.05 m³)	4 months
ActivPak-33	16 ft³ (0.45 m³)	2 years	5 ft³ (0.15 m³)	4 months
ActivPak-T350	26 ft³ (0.75 m³)	2 years	7 ft³ (0.2 m³)	4 months
ActivPak-35	35 ft³ (1 m³)	2 years	11 ft³ (0.3 m³)	4 months
ActivPowder™(LS)	1 lb = 280 ft³ (8 m³)	3 years	1 lb = 90 ft³ (3 m³)	1 year
ActivPowder	1 lb = 280 ft³ (8 m³)	3-15 years	1 lb = 90 ft³ (3 m³)	1-5 years

\*Do not place in direct contact with copper, brass, zinc or other red and yellow metals. Test before use of product in the same void space as these metals.

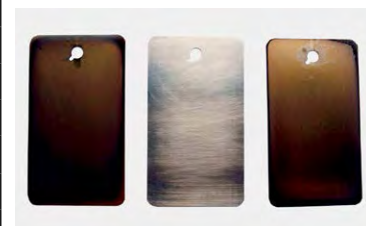
\*\*Normal environment defined as warehouses, light industrial areas, and shipping and storage in sealed packaging or enclosures. Aggressive environment defined as areas located in the vicinity of salts and acid gases such as oceans, petrochemical sites, wastewater treatment and pulp-paper plants or in enclosures that are not well sealed.

### Zerust ActivPak®



Zerust ActivPak® offers advanced corrosion protection in a convenient and secure packet format.

### Acid Gas Test Results



Left to right; competitor 1 VCI, Zerust Activ protection, and competitor 2 VCI.

### Zerust ActivTab(LS)



Zerust ActivTab(LS) offers advanced corrosion protection in a tablet size for small areas.

### Zerust ActivCapsule



Zerust ActivCapsule provides Activ(LS) technology in small and hard to reach spaces.

### Zerust ActivPowder



Zerust ActivPowder protects large void spaces in challenging environments.

Select the Activ Series Product Right for Your Application.

# Zerust® VCI Diffuser Series

## Zerust ICT Open Cell VCI Foam Pad



Zerust ICT Open Cell VCI Foam Pads provide superior corrosion protection to ferrous metals and are compatible with non-ferrous metals. They contain a high saturation of proprietary Zerust VCI technology and are nitrite and chromate free. The foam pads effectively reduce corrosion even on lightly contaminated metals. Open cell foam pads provide VCI protection in plain packaging or can be used as additional targeted protection in VCI packaging.

Product Name	Part Numbers	Protection Type	Volume of Protection	Duration of Protection	Product Specs
ICT870-OC VCI Foam Pad	375-F-00007 375-F-00008	Ferrous	1.5 ft <sup>3</sup> (42 cm <sup>3</sup> )	1 year	2 x 5 x .25 in (5.08 x 12.7 x .64 cm)

## Zerust Tube Strip and Pipe Strip

Zerust Tube Strip and Pipe Strip products are designed to protect long narrow enclosures. Tube Strip is a flexible quarter-inch plastic tubing designed to protect tubes up to 2 inches in diameter such as gun and rifle barrels. Pipe-Strip consists of Vapor Capsules assembled on a 40 foot plastic strip and is designed to protect pipes up to 24 inches in diameter.

The products are easy to use and can be trimmed to accommodate many length tubes or pipes. To use, insert product into the length of the enclosure and cap the ends. They emit VCI vapor that saturates the air, protecting all interior surfaces from corrosion.

### Coverage Specifications - Ferrous Metal Protection

Product Name and Part Number	NSN National Stock Number	Diameter of Pipe	Volume of Protection	Duration of Protection	Product Specs
Tube Strip 475-F-00001	6850-01-590-1673	Up to 2 in (5 cm)	0.3 ft <sup>3</sup> per ft (0.008 m <sup>3</sup> per m)	2 years	.25" diameter, 1000' length, 12 lb. roll

### Coverage Specifications - Multimetal Protection

Product Name and Part Number	Diameter of Pipe	Length of Strip	Volume of Protection	Duration of Protection	Product Specs
PS2-10 525-M-00001	Up to 12 in (30 cm)	40 ft (12 m)	0.3 ft <sup>3</sup> per ft (0.3 m <sup>3</sup> per m)	2 years	10 Capsules on 4 ft centers
PS2-16 525-M-00002	Up to 24 in (60 cm)	40 ft (12 m)	13 ft <sup>3</sup> per ft (1 m <sup>3</sup> per m)	2 years	16 Capsules on 2.5 ft centers



Tube Strip being inserted into a barrel.



A section of Pipe Strip.

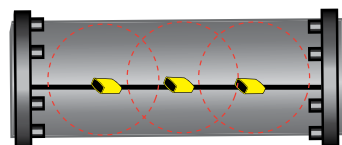


Illustration of a Pipe Strip protecting a large pipe.



# Zerust® Plastabs®

Zerust Plastabs are thin, light, and rigid polyethylene squares. Their small shape makes Plastabs perfect for protecting critical surfaces within narrow or hard-to-reach areas in enclosures. Some Plastabs include peel-adhesive backing and can be affixed to most surfaces, or Plastabs can simply be dispersed throughout packages of metal parts.

Use Plastabs as a supplement to other Zerust packaging products, or use them alone for protection in tightly restricted spaces. They are ideal for protecting electrical components in small sections of enclosed cabinets or control boxes.



## Coverage Specifications - Multimetal Protection

Product Name and Part Number	NSN National Stock Number	Volume of Protection	Radius of Protection	Duration of Protection	Adhesive Backing	Qty Per Pack
.5 x .5 inch 425-M-00003	-	0.1 ft <sup>3</sup> (.003 m <sup>3</sup> )	0.3 ft (.09 m)	2 years	No	1000
.75 x .75 inch 425-M-00002	-	0.2 ft <sup>3</sup> (.006 m <sup>3</sup> )	0.4 ft (0.1 m)	2 years	No	1000
.75 x .75 inch 425-M-00004	6850-99-551-9054	0.2 ft <sup>3</sup> (.006 m <sup>3</sup> )	0.4 ft (0.1 m)	2 years	Yes	1000
1 x 1 inch 425-M-00001	6850-01-362-9256	0.4 ft <sup>3</sup> (.01 m <sup>3</sup> )	0.5 ft (0.15 m)	2 years	No	1000
1 x 3 inch 425-M-00005	-	1 ft <sup>3</sup> (.03 m <sup>3</sup> )	0.6 ft (0.2 m)	2 years	No	10
1 x 3 inch 425-M-00006	6850-01-590-1667	1 ft <sup>3</sup> (.03 m <sup>3</sup> )	0.6 ft (0.2 m)	2 years	No	1000



1" x 3" Plastab in an electronics enclosure

Note: 1 x 3 inch Plastabs have printing. See photo on right.

# Zerust Cor-Tab® Tablets

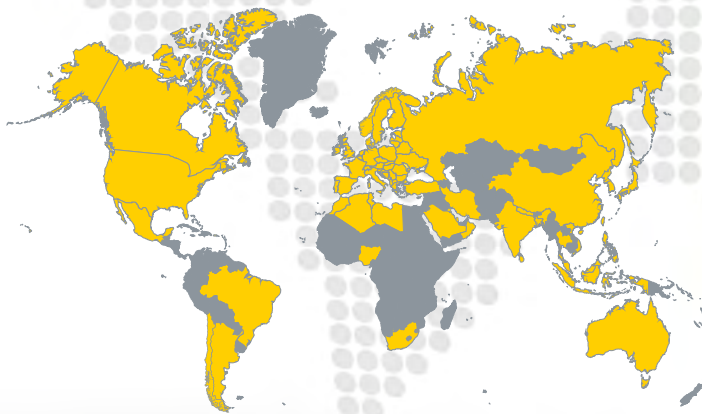
Zerust Cor-Tab tablets provide basic corrosion protection for metal items in small and hard-to-reach enclosed areas. Simply place or sprinkle Cor-Tabs in the area you would like to protect and ensure airflow is restricted to the enclosure. Use Cor-Tabs to protect metal items such as electronic instruments, computer parts, small metal parts, and tools for up to six months in an enclosure or package.



## Coverage Specifications - Multimetal Protection

Product Name and Part Number	NSN National Stock Number	Volume of Protection	Radius of Protection	Duration of Protection
CT-25 450-M-00001	6850-01-348-1092	0.25 ft <sup>3</sup> (.007m <sup>3</sup> )	0.40 ft (0.12 m)	6 months
CT-50 450-M-00002	6850-01-349-7073	0.50 ft <sup>3</sup> (.015 m <sup>3</sup> )	0.50 ft (0.15 m)	6 months
CT-10 450-M-00003	-	1 ft <sup>3</sup> (.03 m <sup>3</sup> )	0.60 ft (0.2 m)	6 months





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## Global Support

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Bhutan	Kazakhstan	Romania	MENA
Brazil	Korea	Russia	(Middle East &
Canada	Latvia	Singapore	North Africa)
Chile	Libya	Slovak Republic	United Kingdom
China	Lithuania	Slovenia	United States
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