Zerust® Vapor Capsules and VCI Diffusers Series

Zerust Global Corrosion Management Solutions
We are committed to making safe and effective products that reduce industry’s impact on the environment. Zerust®/Excor® products are approved by many major companies’ toxicology, engineering and packaging departments and comply with health and safety regulations around the globe including the following:

- REACH Regulation Compliant (EC No 1907/2006)
- European RoHS Directive Compliant
- Do not contain SVHC (Substances of Very High Concern)
- Labelled in accordance with GHS (Globally Harmonized System) and are compliant under UN GHS, EU CLP, US OSHA HazCom and CA WHMIS

Zerust is a business unit of Northern Technologies International Corporation (NASDAQ:NTIC), Headquartered in Minnesota, USA. The management system of Zerust products is ISO 9001:2015 certified.

For over 40 years, beginning with the invention of VCI-infused plastic packaging products, Zerust®/Excor® 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. Zerust users have access to onsite support from Zerust/Excor representatives in more than 70 countries. Our customers have peace of mind when they choose Zerust for corrosion control management.

Zerust VCI Diffuser Series

In addition to traditional VCI film and other packaging products, Zerust offers the ICT® 800 VCI Diffuser Series. Diffusers provide targeted vapor 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.

Our Commitment to Quality, Safety and the Environment

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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.

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.”
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.

Zerust® Activ™ Series

Zerust® Activ™ series products combine a fast-acting volatile Flash Corrosion Inhibitor (FCI™) with a Vapor Corrosion Inhibitor (VCI) 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 series technology is available in different product offerings optimized to protect in a range of applications and void sizes. Do not place in direct contact with copper, brass or zinc and test before use in the same void space.

Coverage Specifications - Multimetal Compatible*

<table>
<thead>
<tr>
<th>Product Name and Port Number</th>
<th>Volume of Protection</th>
<th>Duration of Protection (Up To)</th>
<th>Protection Radius of Contact Surfaces</th>
<th>Adhesive</th>
<th>Permanent Adhesive</th>
<th>Activation Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC1-1(S) 375-M-00006</td>
<td>4 ft³ (0.1 m³)</td>
<td>1 year</td>
<td>0.3 ft (0.09 m)</td>
<td>Yes</td>
<td>No</td>
<td>5 minutes</td>
</tr>
<tr>
<td>VC1-1 375-M-00001</td>
<td>4 ft³ (0.1 m³)</td>
<td>1 year</td>
<td>0.3 ft (0.09 m)</td>
<td>Yes</td>
<td>No</td>
<td>5 minutes</td>
</tr>
<tr>
<td>VC1-2 375-M-00002</td>
<td>35 ft³ (1 m³)</td>
<td>1 year</td>
<td>0.6 ft (0.18 m)</td>
<td>Yes</td>
<td>No</td>
<td>5 minutes</td>
</tr>
<tr>
<td>VC2-1 375-M-00003</td>
<td>35 ft³ (1 m³)</td>
<td>2 years</td>
<td>0.6 ft (0.18 m)</td>
<td>Yes</td>
<td>No</td>
<td>5 minutes</td>
</tr>
<tr>
<td>VC2-2 375-M-00004</td>
<td>900 ft³ (25 m³)</td>
<td>1 year</td>
<td>2 m</td>
<td>No</td>
<td>No</td>
<td>5 minutes</td>
</tr>
<tr>
<td>VC6-1 375-M-00005</td>
<td>900 ft³ (25 m³)</td>
<td>2 years</td>
<td>2 m</td>
<td>No</td>
<td>No</td>
<td>5 minutes</td>
</tr>
</tbody>
</table>

*Obsolete NSN

Military Users

For additional information on CID A-A-59441, NSN and proven military applications, visit www.zerust.com/military or email military@zerust.com.

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

<table>
<thead>
<tr>
<th>Product Name and Part Number</th>
<th>NSN</th>
<th>Diameter of Pipe</th>
<th>Length of Strip</th>
<th>Duration of Protection</th>
<th>Product Specs</th>
</tr>
</thead>
<tbody>
<tr>
<td>.5 x .5 inch 425-M-00003</td>
<td>-</td>
<td>Up to 2 in</td>
<td>2 years</td>
<td>2 x 5 x .25 in (5.08 x 12.7 x .64 cm)</td>
<td></td>
</tr>
<tr>
<td>.75 x .75 inch 425-M-00002</td>
<td>-</td>
<td>Up to 2 in</td>
<td>2 years</td>
<td>2 x 5 x .25 in (5.08 x 12.7 x .64 cm)</td>
<td></td>
</tr>
<tr>
<td>.75 x .75 inch 425-M-00004</td>
<td>-</td>
<td>Up to 2 in</td>
<td>2 years</td>
<td>2 x 5 x .25 in (5.08 x 12.7 x .64 cm)</td>
<td></td>
</tr>
<tr>
<td>1 x 1 inch 425-M-00001</td>
<td>-</td>
<td>Up to 2 in</td>
<td>2 years</td>
<td>2 x 5 x .25 in (5.08 x 12.7 x .64 cm)</td>
<td></td>
</tr>
<tr>
<td>1 x 3 inch 425-M-00005</td>
<td>-</td>
<td>Up to 2 in</td>
<td>2 years</td>
<td>2 x 5 x .25 in (5.08 x 12.7 x .64 cm)</td>
<td></td>
</tr>
<tr>
<td>1 x 3 inch 425-M-00006</td>
<td>-</td>
<td>Up to 2 in</td>
<td>2 years</td>
<td>2 x 5 x .25 in (5.08 x 12.7 x .64 cm)</td>
<td></td>
</tr>
</tbody>
</table>

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

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.

<table>
<thead>
<tr>
<th>Product Name and Part Number</th>
<th>NSN</th>
<th>Diameter of Pipe</th>
<th>Length of Strip</th>
<th>Duration of Protection</th>
<th>Product Specs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT-70-DC VCI Foam Pad</td>
<td>375-F-00007</td>
<td>Up to 1.5 ft (1.904 m²)</td>
<td>1 year</td>
<td>2.0 x 5 x .25 in (5.08 x 12.7 x .64 cm)</td>
<td></td>
</tr>
</tbody>
</table>

Zerust Tube Strip and Pipe Strip

Zerust Tube Strip and Pipe Strip products are designed to protect long 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 molecules that saturates the air, protecting interior surfaces from corrosion.

<table>
<thead>
<tr>
<th>Product Name and Part Number</th>
<th>NSN</th>
<th>Diameter of Pipe</th>
<th>Length of Strip</th>
<th>Duration of Protection</th>
<th>Product Specs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube Strip 475-F-00001</td>
<td>6850-01-590-1673</td>
<td>Up to 2 in</td>
<td>2 years</td>
<td>2.5” diameter, 1000’ length, 12 lb. roll</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Product Name and Part Number</th>
<th>NSN</th>
<th>Diameter of Pipe</th>
<th>Length of Strip</th>
<th>Duration of Protection</th>
<th>Product Specs</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS2-10 525-M-00001</td>
<td>6850-01-349-1092</td>
<td>Up to 12 in</td>
<td>2 years</td>
<td>10 Capsules on 4 ft centers</td>
<td></td>
</tr>
<tr>
<td>PS2-16 525-M-00002</td>
<td>6850-01-349-1092</td>
<td>Up to 24 in</td>
<td>2 years</td>
<td>16 Capsules on 2.5 ft centers</td>
<td></td>
</tr>
</tbody>
</table>

For more information, please refer to the Zerust/Excor VCI Diffuser Series manual.
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