Editorial Contact: Cortec® Advertising Agency	Jeni Duddeck (651) 429-1100 Ext. 1114	jduddeck@cortecvci.com
Company Contact: Cortec® Corporation	Julie Holmquist (651) 429-1100 Ext. 1194	jholmquist@cortecvci.com
Technical Contact: Cortec® Corporation	Rick Shannon (651) 429-1100 Ext. 1146	rshannon@cortecvci.com

Attention: Editor
January 31, 2024
PRESS RELEASE

What's Happening Inside Your Container? Make Sure It's Not Corrosion!

Container ships play a major role in the shipping industry, carrying thousands of colorful steel boxes across the ocean. As manufacturers pack metal parts or equipment into shipping containers, it is important for them to think about what will be happening inside as the containers pass through diverse climates and changing weather that could cause corrosion. Cortec's Technical Sales and Product Manager – Asset Preservation and CorroLogic® Products, Eric Uutala, recently shared three things to consider when selecting corrosion protection for container shipments.

1) **"What is inside the container and how will it (equipment/pieces) be packed?"**

   Metal goods are packaged in a variety of ways. Uutala explained, "This could be boxes, crates, equipment bolted to skids, etc. The different packaging methods and sizes will be part of our decision on preservation method."

Fortunately, Vapor phase Corrosion Inhibitors, which protect metals in enclosed spaces, also come in many different shapes and sizes of packaging. Cor-Pak® 1-MUL Pouches or Desicorr® VpCI® Pouches (dual desiccant and corrosion protection action) are great for small individual boxes. VpCI®-126 Gusseted Bags are often used as crate liners for bulk auto parts, with pieces of CorShield® VpCI®-146 Paper (a USDA Certified Biobased Product) inserted as separators. Large equipment is often better suited to shrink-wrapping with VpCI®-126 HP UV Shrink Film, with a BioPad® or other VpCI® Emitter placed inside to permeate the void space with corrosion inhibiting vapors. Many other options also exist.

2) **"Where is the container going to be located during shipment?"**

Depending on the location of the container, the corrosion risk may be more or less severe. As Uutala pointed out, "Containers shipped on/above deck might be subject to more significant fluctuations in temperature and humidity during the journey."

What does this mean for packaging specs? Metal manufacturers should consider adding extra doses of VpCI® (e.g., BioPad®, Cor-Pak® 8-MUL Pouches, EcoPouches) inside their packages. Those using a VpCI® Film may also want to opt for a thicker or heavier duty version to create a better barrier against moisture and corrosives.

3) **"What happens to the container when it arrives? Will it sit in a port for an extended period? Is there a customs inspection that may include opening the package?"**

Extra sources of VpCI® or heavier duty VpCI® Film will also be needed if the goods inside a container will not immediately be used. Inspection adds a much trickier dimension to the protection game. Uutala commented, "We know that systems of vacuum seal bags and desiccants commonly fail at this, because once they are opened, there is no active corrosion protection, causing the contents inside to be completely exposed to the elements." In contrast, as long as it is not damaged, VpCI® packaging has the advantage

of being able to replenish the protective atmosphere once the package is closed again.

Although there is no way to guarantee that inspectors will not compromise the packaging, manufacturers have several strategic ways to discourage damage. Many versions of Cortec® VpCI® Film such as CorShield® VpCI®-220E and VpCI®-126 HP UV Shrink Film are clear or translucent, allowing inspectors to see through them without having to cut open the bag. Better yet, VpCI®-126 Top-Seal Bags with zipper closures or MilCorr® VpCI® Shrink Film and VpCI®-126 HP UV Shrink Film made with custom access doors allow inspectors to look inside without having to cut the packaging open.

Make the Most of Container Protection

Shipping via container is an excellent delivery option. For best results, metal goods manufacturers need to be prepared for extreme environmental conditions that could cause negative corrosion results even inside the container. If you need help thinking through your next container loading strategy, contact Cortec® for help to make the most of your container's corrosion protection.

Keywords: container shipping, corrosion inside shipping containers, how to pack a shipping container, oversea export, corrosion protection, VCI film, anticorrosion packaging, shipping metal goods, how to protect containers from corrosion, Cortec

Need a High-Resolution Photo? Visit: **www.cortecadvertising.com**