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Attention: Editor July 14, 2020 PRODUCT RELEASE



# Economical and Environmentally Responsible:

# **Multimetal Corrosion Protection from Harshest Conditions!**



VpCI®-645 is a USDA certified biobased product that protects ferrous and non-ferrous metals from corrosive solutions containing chlorides. Cortec's unique product is designed to provide corrosion protection in fresh and salt water, brine, and other highly corrosive solutions containing dissolved halogens. As concentrated а formulation, this rust preventative offers low dosage effectiveness, which

makes it a very economical solution and suitable treatment for a wide variety of marine and process applications requiring economical corrosion inhibition in highly corrosive environments.



VpCI®-645 is a highly surface active concentrate, which will displace water containing chlorides from the metal surface. The inhibitors adsorb onto the metal surface, leaving an undetectable molecular film on the metal. Due to its biobased nature, VpCI®-645 has a lower environmental impact than traditional hydrotest additives. It has a favorable CO<sub>2</sub> footprint and is readily water-soluble, which makes application easy. One of the biggest advantages of using VpCI®-645 as an additive to seawater is that the main active inhibitor is readily biodegradable. VpCI®-645 is extremely economical in its application in comparison with traditionally utilized inhibitors. It is effective as a replacement for nitrite- and chromate-based formulations and hydrazine-based oxygen scavengers. The formulation is recommended for a broad range of applications to stop aggressive corrosion.



### Application

Cortec's customer required corrosion protection of ship tanks, metal clamps, and nuts during hydrostatic testing using salt water from the sea. After filling up 1/3 of the volume of the boat tanks, 100 ml/m<sup>3</sup> of VpCI<sup>®</sup>- 645 was added. The tanks were then filled to the top with sea water. After draining the tank, it was rinsed with fresh water. Metal clamps were protected with a layer of VpCI<sup>®</sup>-369, which provides excellent protection in an aggressive environment.



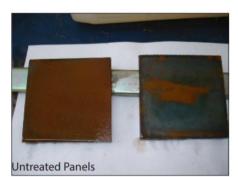
Application of VpCI<sup>®</sup>-645 for hydrostatic testing of 12 ship storage tanks using sea water. It is very important to use products with a lower environmental impact in applications where testing water will be drained into the sea.

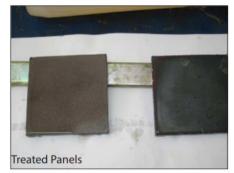
VpCl<sup>®</sup>-645 does not contain any nitrites or amines, and it was determined safe to discharge the treated salt water back into the sea after hydrostatic testing.\*

### **TYPICAL APPLICATIONS**

- Closed circuit cooling and heating systems containing brines or water.
- Desalination plants.
- Inhibitor for packer fluid applications.
- Prevents water-bottom corrosion in oil storage tanks and ballast tanks of ship and offshore platforms.
- Wet lay-up of boilers, pipelines, vessels, etc.
- Pulp and paper process equipment.







A large producer of boilers and hot wells had numerous corrosion problems during testing, shipping, and storage. Corrosion was slowing down production and they were receiving complaints from customers. VpCI®-645 was used during pressure testing of the equipment. They designed a closed system using water treated with VpCI®-645. After the equipment dried, VpCI®-309 was fogged inside. With this protection the boilers and hot wells were ready for shipping and storage.

Cortec<sup>®</sup> products were chosen as their corrosion protection solution because no other competitor could offer such an environmentally responsible, effective, and easy to use application. The manufacturer achieved great results in corrosion elimination, increased production, and preserved customer retention.

#### \* It is always important to ensure that use and disposal of all materials is in accordance with local guidelines.

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Cortec<sup>®</sup> Corporation is the global leader in innovative, environmentally responsible VpCI<sup>®</sup> and MCI<sup>®</sup> corrosion control technologies for Packaging, Metalworking, Construction, Electronics, Water Treatment, Oil & Gas, and other industries. Our relentless dedication to sustainability, quality, service, and support is unmatched in the industry. Headquartered in St. Paul, Minnesota, Cortec<sup>®</sup> manufactures over 400 products distributed worldwide. ISO 9001, ISO 14001:2004, & ISO 1702 Certified. Cortec Website: http://www.cortecvci.com Phone: 1-800-426-7832 FAX: (651) 429-1122