



## PRODUCT DESCRIPTION

VpCI®-609 is a water-soluble Vapor phase Corrosion Inhibiting (VpCI®) powder for wet or dry corrosion protection of ferrous metals and aluminum. VpCI®-609 is available as VpCI®-609S (with silica).

## FEATURES

Conforms to **MIL-I-22110C**:

- Provides liquid, vapor-phase and interface protection (above the liquid level)
- Creates a monomolecular inhibiting layer on metal surface
- Provides up to 24 months of continuous protection
- Does not contain nitrites, phosphates, or heavy metals

## TOXICOLOGICAL TESTING RESULTS (Performed by Nortech A.S. (Norway))\*

- Biodegradability: 100% biodegradable in marine environment, -rapidly degradable substance (OECD\*\* 306, BOD 28 Marine test)
- Toxicity: Very low (LD-50 = 5,000 mg oral-rat)
- Bioaccumulation potential: none (OECD Guideline 117)

*\*Testing performed in accordance with Oslo-Paris commission protocol*

*\*\*Organization for Economic Co-Operation and Development*

## TYPICAL PROPERTIES

Appearance	White crystalline powder
pH solution)	6-7 (1% aqueous)
Solubility in water	15%

## ADVANTAGES

- Vapor-phase inhibiting action protects inaccessible and recessed surfaces
- Protected products can be shipped to customers without removing powder
- If the VpCI® layer is disturbed by moisture or the opening of an enclosed space, the layer is replenished by continuous vapor redeposition
- Little or no surface preparation is required
- Prevents future corrosion of precoated and painted surfaces
- VpCI® layer typically does not need to be removed prior to processing or use
- If required, powder is easily removed by air gun or water flush
- Does not increase alkalinity
- Provides economical protection for very large applications

## TYPICAL USES

- Tubular structures, pipes and vessels
- Internal surfaces of compressors, turbines, engines, tanks, boilers, heat exchangers
- Steam condensate lines, closed circuit heating and cooling systems
- Equipment during and after hydrostatic testing
- Parts, components and completed assemblies during shipping and storage
- Additive to shot-blasting media, wet blasting
- Additive to standing water
- Voids, cavities and tanks

## METALS PROTECTED

- Carbon steel
- Stainless steel
- Aluminum
- Mild steel
- Other ferrous metals

### METHOD OF APPLICATION

Apply VpCl®-609 in dry form by dusting, fogging or sprinkling. Apply VpCl®-609 in aqueous form by spray, brush, flush or immersion. After application, simply cover and close or seal the interior cavity or void. Fogging is easily achieved by using a low pressure air hose and sandblast cup. Large, conventional sandblasting systems can also be used.

*Note: A specially designed fogging unit is available for rent/ purchase from Cortec.*

### DOSAGE

For powder application with average environmental conditions, use 0.3-0.5 ounce (8.5-14 grams) of VpCl®-609 per 1 cubic foot (28 liters) of enclosed space (300–500 g/m<sup>3</sup>). The dosage can be increased for more severe conditions. For aqueous applications with average environmental conditions, use 0.25% VpCl®-609 by weight of water. The dosage can be increased for more severe conditions. To improve the wetting of metal surfaces, Cortec® S-5 Wetting Agent can be used at the rate of 0.5% by weight of VpCl®-609 powder.

### METHOD OF REMOVAL

When required, VpCl®-609/609S in powder form can be easily removed by using a low pressure air gun or by a water rinse. Typically, if applied in aqueous form, the product does not require removal. If necessary, a simple water rinse or flush will suffice.

### PACKAGING AND STORAGE

VpCl®-609/609S powders are available in 5 pound (2.3 kg), 50 pound (23 kg) and 100 pound (45 kg) moisture barrier bags packed in fiber-lined drums. Store in a sealed container in a dry warehouse, and avoid direct exposure to sunlight with temperatures not exceeding 150°F (65°C). Under these conditions, shelf life is up to 24 months.

### LIMITATIONS

Do not use on copper, copper-based alloys, and other soft yellow metals.

***Note:** Regular VpCl®-609 has tendency to clump. For dry fogging application use ®*

-609S (with silica) where acceptable.  
LIMITED WARRANTY

**FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHILDREN KEEP CONTAINER TIGHTLY CLOSED NOT FOR INTERNAL CONSUMPTION CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION**