



CORROSION INHIBITING VpCI™ POWDERS

VpCI™ -309

VpCI™ -309 SF

Corrosion Inhibiting VpCI™ Powder for Ferrous Metals



PRODUCT DESCRIPTION

VpCI-309 is a Vapor phase Corrosion Inhibitor powder for corrosion protection of ferrous metals in recessed areas, interior cavities and voids.

VpCI-309 provides an extremely efficient dry method to protect metals within an enclosed space. The VpCI vaporizes and adsorbs on all metal surfaces reaching all exposed areas including recessed sections and interior cavities.

VpCI-309 SF, a silica-free version, is available upon request.

FEATURES

- Does not contain silicates, phosphates, nitrites, or heavy metals
- Provides up to 24 months of continuous protection
- Provides monomolecular inhibiting layer
- 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 opening the enclosed space, the layer is replenished by continuous vapor redeposition
- Little or no surface preparation is required
- Prevents further corrosion of pre-coated and painted surfaces

- Easy to apply
- When required powder can be removed by air gun or water rinse
- Provides protection to ferrous metals only
- Conforms to MIL I-22110C
- LD50 ORAL: 2100mg/kg of body weight

APPLICATIONS

- Tubular structures, pipes, vessels, and turbines
- Internal surfaces of compressors, turbines, engines, tanks, boilers, and heat exchangers
- Dry lay-up of closed circuit cooling systems
- Equipment protection after hydrostatic testing
- Parts, components, and completed assemblies during shipping and storage
- Segmental concrete bridge tendons/cables

METHOD OF APPLICATION

Apply powder by dusting, fogging, or sprinkling. After application simply cover, close or seal the interior cavity or void.

Fogging is easily achieved with a low pressure air hose and sandblast cup or by inverting a wet/dry vacuum. Large conventional sandblasting systems can also be used.

DOSAGE

0.3-0.5 oz/ft³ (300-500 g/m³)

METHOD OF REMOVAL

When required, VpCI-309/309 SF in powder form can be 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.



PACKAGING AND STORAGE

VpCI-309 is available in 5 pound (2.3 kg), 50 pound (23 kg), and 100 pound (45 kg) lined drums. Store in a sealed container in a dry warehouse avoiding direct exposure to sunlight, with temperature not exceeding 150°F (65°C). Shelf life is up to 24 months.

METALS PROTECTED

- Carbon steel
- Stainless steel
- Aluminum

TYPICAL PROPERTIES

VpCI-309

Appearance	White to off-white powder
pH	6.5-8 (1% aqueous)
Density	38-39 lb/ft ³ (0.61-0.63 kg/L)

VpCI-309 SF

Appearance	White to off-white powder
pH	6.4-7.6 (1% aqueous)

PRECAUTIONS

- Caking of powder may occur when it is exposed to moisture and then dried. The likelihood of this is increased when powder is exposed to high heat and multiple wet/dry cycles. When powder gets caked, baked, and hardened it requires removal by mechanical means or by aggressive acid clean. To avoid caking of powder do not over apply or unevenly disperse the dry powder.
- Powder is not soluble in hydrocarbon fluids. Rinse powder from vessels before adding hydrocarbon fluids.
- Powder should be removed from area; 5-10 inches each side of weld, before welding, or other high temperature processing.

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

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