

VpCI®-649 BD/VpCI®-649 BD MF

DESCRIPTION

VpCI®-649 BD is a unique concentrated liquid formulation designed to provide long-term protection for ferrous and non-ferrous metals in water and glycol closed-loop systems. VpCI®-649 BD is effective at corrosion protection during hydrostatic testing.

VpCI®-649 BD combines contact and volatile corrosion inhibitors, along with anti-scalant and an organic dispersing agent. The product does not contain nitrite, phosphate, or chromate.

VpCI®-649 BD is available in a molybdate-free version: VpCI®-649 BD MF.

PACKAGING & STORAGE

VpCI®-649 BD is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 40-100 °F (4-38 °C).

Shelf life: 2 years

VpCI® ADDITIVES FOR WATER TREATMENT



FEATURES

- Effective for a broad range of applications to stop aggressive corrosion in systems containing fresh water or glycol coolants
- Low concentration effectiveness provides economical treatment
- Vapor phase action provides protection to areas that contact inhibitor cannot reach
- Protects steel, copper, galvanized steel, and aluminum
- Contains an acrylic polymer to prevent scale formation
- VpCI®-649 BD contains molybdate tracer
- VpCI®-649 BD MF contains a PTSA tracer
- Contains organic dispersing agent

TYPICAL PROPERTIES

Appearance	Yellow to Amber Liquid
Density	9.3-9.8 lb/gal (1.12-1.18 kg/L)
Type	Water-Based
pH	9.1-9.6 (Neat)
Freeze Point	1 to 10 °F (-17 to -12 °C)

APPLICATIONS

- Closed loop cooling systems
- Hydrostatic testing of pressurized vessels and pipelines
- Cooling system lay-up
- Packer fluid additive
- Prevents water-bottom corrosion in oil storage tanks
- Fire extinguishing system dry layup

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DOSAGE

Protection Length	Volume VpCI®-649 BD per 100 gal	Volume VpCI®-649 BD per 100 L	Dosage (%)	ppm
During Testing & Operational Protection	0.3 gallons (38 ounces)	300 mL	0.3	3000
Up to 6 months	0.5 gallons (64 ounces)	500 mL	0.5	5000
6-12 months	1 gallon	1 L	1	10,000
12-24 months	1.5 gallons	1.5 L	1.5	15,000

**These are general dosing guidelines and may not be suitable for every application. Please contact Cortec® Technical Service for specific dosage information.*

Detection: Concentration of VpCI®-649 BD can be monitored via molybdate tracer, pH, or refractometer. Concentration of VpCI®-649 BD MF can be monitored via pH, refractometry, or PTSA. Contact Cortec® Technical Service for more information on monitoring product concentration.

STANDARD TEST METHODS

Method	Description	Results
ASTM G 31	Immersion Corrosion Testing	No corrosion on carbon steel, copper galvanized, aluminum (0.3% wt in tap water)

CONSIDERATIONS

The PTSA tracer used in VpCI®-649 BD MF degrades with exposure to light. Solutions of VpCI®-649 BD MF must be sheltered from light to retain PTSA tracer. If PTSA degrades, the concentration can still be monitored via a titration. Contact Cortec® Technical Service for more information.

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