



VpCI®-649 BD/VpCI®-649 BD MF



PRODUCT 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.

APPLICATIONS

Typical 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

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

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, PTSA, or QAC test kit. Contact Cortec® Technical Service for more information on monitoring product concentration.



TYPICAL PROPERTIES

VpCI®-649 BD & VpCI®-649 BD MF

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)

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 organic dispersing agent utilizes a chloride counter ion. An increase to the chloride concentration of 5-16 ppm should be expected at working concentrations.

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.

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

STORAGE AND PACKAGING

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

LIMITED WARRANTY

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Printed on recycled paper  100% post consumer

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