



VpCI® ADDITIVES FOR WATER TREATMENT



VpCI®-649 BD



PRODUCT DESCRIPTION

VpCI®-649 BD is a unique concentrate liquid formulation designed to provide long-term protection for ferrous and non-ferrous metals in fresh water, steam, 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 odor-control dispersing agent. The product does not contain nitrite, phosphate, chromate, or heavy metals.

FEATURES

- Effective for a broad range of applications to stop aggressive corrosion in systems containing coolants of fresh water or glycols
- Low concentration effectiveness provides economical treatment
- Vapor phase action provides protection to areas that contact inhibitor cannot reach
- Readily water-soluble liquid for easy application
- Protects steel, copper, galvanized steel, and aluminum
- Contains an acrylic polymer to prevent scale formation
- Contains molybdate tracer
- Contains organic odor-control dispersing agent

APPLICATIONS

Typical Applications:

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

DOSAGE

- For operational systems such as closed loop, start at 2,500-3,000 ppm (0.25-0.3%). Additional bio dispersant may need to be added depending on the system.
- For seasonal lay-up application, (up to 6 months) use VpCI®-649 BD at a concentration of 0.5% of inhibitor by volume (wet lay-up method)
- Hydrotesting concentration varies from 0.5-2% by weight depending on application

Detection: Concentration of VpCI®-649 BD can be monitored via molybdate tracer, pH, or refractometer. Please contact Cortec® for more details.

TYPICAL PROPERTIES

VpCI®-649 BD

Appearance	Yellow to amber liquid
Density	9.3-9.8 lb/gal (1.12-1.18 kg/l)
Type	Water-based
Non-volatile Content	45-52%
pH	9.1-9.6 (Neat)
Freeze point	1-10°F (-17-12°C)

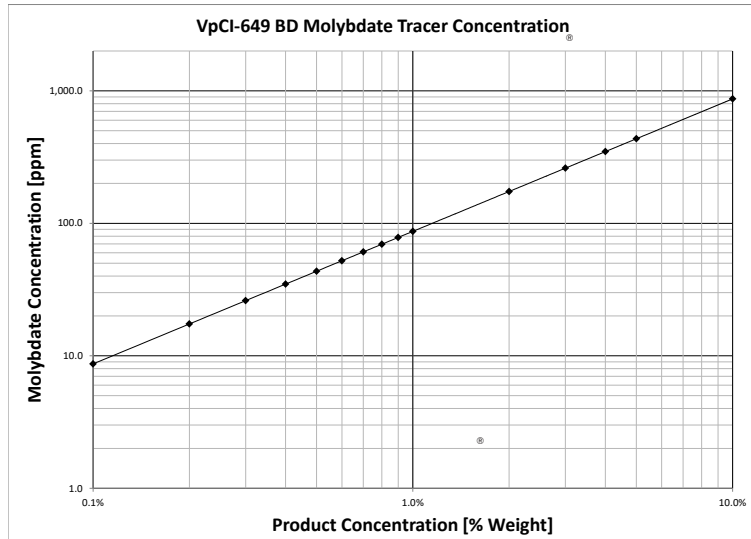


STORAGE AND PACKAGING

VpCI®-649 BD is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk. The products should be stored in tightly closed containers. Shelf life is 2 years.

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)



**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**

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec® Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec® Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec® Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec® Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec® Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.
BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE,

AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec® Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC® CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.



Distributed by:

4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone (651) 429-1100, Fax (651) 429-1122
Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com
<http://www.cortecvci.com>

Printed on recycled paper  100% post consumer

Revised: 01/17/18 . Supersedes: 09/28/17 ©Cortec Corporation 2002-2018 of Cortec Corporation.
All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited. 2018, ©Cortec Corp. ISO accreditation applies to Cortec's processes only.