



VpCI® METALWORKING PRODUCTS



# VpCI®-322 Oil Concentrate



## FEATURES

- Corrosion protection for ferrous and non-ferrous metals
- Does not contain hazardous barium, chromates, nitrites, or phosphate inhibitors
- Can be used in hydraulic applications
- Provides protection in presence of chlorides
- When added at a concentration level of 5-10% to hydraulic fluids, does not affect pour point and viscosity at low temperatures
- Compatible with most mineral and synthetic oils
- Suitable for both operating and intermittent use conditions

## TYPICAL APPLICATIONS

Lubricating and hydraulic oil systems for intermittent operation: Add VpCI®-322 to oil at a ratio of 1 part VpCI®-322 to 9 parts oil for 24 months protection.

Tanks, gearboxes, differentials - stored or shipped dry: Fog cavity interior with VpCI®-322 concentrate using 1 quart (1 liter) per 35 ft<sup>3</sup> (1.1 m<sup>3</sup>) of enclosed space.

## PRODUCT DESCRIPTION

VpCI®-322 oil-based concentrate adds corrosion protection to lubricating or hydraulic oils. VpCI®-322 provides excellent protection in indoor or open air conditions. First, oil-soluble corrosion inhibitors offer a tenacious film which clings to metal surfaces, giving excellent contact corrosion protection. In addition to this film barrier, VpCI®-322 releases Vapor phase Corrosion Inhibitors (VpCI®) into the air above the oil. These VpCIs attach to metal surfaces for additional corrosion protection.

## METALS PROTECTED

- Carbon Steel
- Copper
- Stainless Steel
- Cadmium
- Galvanized Steel
- Magnesium
- Aluminum
- Silver
- Brass
- Zinc



## TYPICAL PROPERTIES

Oil Characteristics		Typical Values
Appearance		Dark Amber Color
Specific Gravity		0.9
Viscosity (ASTM D92)	40 °C	86 cSt
	100 °C	8.3 cSt
	Index	48
Pour Point (ASTM D6749)		26 °C (-15 °F)
Flash Point (ASTM D92)		186 °C (366 °F)
Fire Point (ASTM D92)		206 °C (402 °F)
Total Acid Number (ASTM D974)	mg KOH/g	26
ISO Particle Count Code		17/15/12
Oil Separability (ASTM D1401) @ 54 °C (129 °F)	Oil, ml	0
	Water, ml	25
	Emulsion, ml	55
	Time, min	60
Foaming Characteristics (ASTM D892)	Seq. I	0/0/0
	Seq. II	60/0/21
	Seq. III	0/0/0

Properties listed above are typical of those obtained through normal production and do not constitute a specification. VpCI®-322 is generally soluble in hydrocarbon based fluids, however compatibility and solubility should be verified prior to use. Please contact Cortec® Technical Service for more information.

## PACKAGING AND STORAGE

VpCI®-322 is packaged in 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk. The product should be sealed before storage. The shelf life of VpCI®-322 is up to 24 months.

### 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.



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](mailto:info@cortecvci.com)  
<http://www.cortecvci.com>

Printed on recycled paper  100% post consumer

Revised: 01/12/17. Supersedes: 03/02/16 ©Cortec Corporation 2002-2017 of Cortec Corporation.  
All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited. 2017, ©Cortec Corp. ISO accreditation applies to Cortec's processes only.

Distributed by: