



## VCI METALWORKING PRODUCTS

# VCI-322 Oil Concentrate

### PRODUCT DESCRIPTION

VCI-322 oil-based concentrate adds corrosion protection to lubricating or hydraulic oils. VCI-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, VCI-322 releases vapor phase corrosion inhibitors into the air above the oil. These VCIs attach to metal surfaces for additional corrosion protection.

### FEATURES

- Corrosion protection to ferrous and non-ferrous metals
- Does not contain hazardous barium, chromates, nitrites or phosphate inhibitors
- High flash point
- Low in toxicity and thermally stable, providing long-lasting contact and vapor phase corrosion inhibitors
- Passes through a size 5 micron filter
- 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 APPLICATION

*Lubricating and hydraulic oil systems for intermittent operation:*

Add VCI-322 to oil at a ratio of 1 part VCI-322 to 9 parts oil for 24 months protection.

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

### METALS PROTECTED

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

### TYPICAL PROPERTIES

Appearance	Dark amber viscous liquid
Corrosion Resistance	Up to 24 months
Coverage	1260-1370 ft <sup>2</sup> /gal (31-34 m <sup>2</sup> /l)
Film Thickness	0.5-1 mil (12.5-25 microns)
Film Type	Oily, paraffinic
Flash Point	>212°F (>100°C)
Non-volatile Content	90-99.5%
Removal Method	Petroleum solvents Alkaline cleaners (VCI-410 series)
pH	8.5-10.0 (1% aqueous solution)
Density	7.4-7.6 lb/gal (0.87-0.91 kg/l)

### PACKAGING AND STORAGE

VCI-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 VCI-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 MATERIAL 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@corotecvci.com](mailto:info@corotecvci.com)  
Internet <http://www.corotecvci.com>

Distributed by:



**OTiK Sp. z o.o.**  
ul. Hutnicza 4  
81-061 Gdynia  
tel.: 58 6230498  
fax: 58 6230496  
[otik@use.pl](mailto:otik@use.pl)  
[www.inhibitory.use.pl](http://www.inhibitory.use.pl)

printed on recycled paper 10% post consumer

Revised 9/18/00. Cortec Corporation 2000. All rights reserved. Supersedes: 11/17/99.



Certificate No. 43545