



ROHS  
COMPLIANT

VpCI® METALWORKING PRODUCTS

# VpCI®-377/ 377 Winterized



## PRODUCT DESCRIPTION

VpCI-377 is a water-based concentrate designed as a complete replacement for oil-based preventives for indoor protection of equipment and components. VpCI-377 is a corrosion preventive liquid that meets tough anti-pollution requirements. The wide dilution range with water (0.5-20%)\* allows flexibility to customize the length of protection required and the applied cost per square foot (or m<sup>2</sup>).

VpCI-377 forms a solution in water and is applied to metal surfaces by spraying or dipping. VpCI-377 does not need to be removed, but if necessary, can be removed with conventional alkaline cleaners, such as Cortec's VpCI-410 series.

VpCI-377 is also available in a cold weather version. VpCI-377 Winterized has a lower freezing point for the convenience of application and storage in cold temperatures.

\*Contact Cortec Representative for dilution recommendations.

## FEATURES

- Protects ferrous and non-ferrous metals
- Water-soluble, environmentally friendly and safe to apply
- Prevents flash corrosion on cold-rolled steel
- Very stable in hard water
- Extends shelf-life of finished product
- Will not clog filtration systems
- Forms a clear, dry, hydrophobic film which renders an attractive appearance to protected parts
- Vapor phase action protects uncoated surfaces and difficult to reach areas
- Easy to remove if necessary
- Nitrite- and phosphate ester-free
- Non-flammable
- Dry film is stable up to 350°F (176°C)
- Passes ASTM D-4627-86 (Test Method for Iron Chip Corrosion for Water-soluble Metalworking Fluids) at 2% by weight
- Excellent wetting properties
- Free of hazardous amines
- No hazardous decomposition by-products
- Can be coated over with conventional paint systems

## TYPICAL APPLICATIONS

Thin film coating for dry storage of:

- Castings, tubular parts, finished parts, gears
- Pumps and housings
- Textile and printing equipment
- Structural steel, sintered metals
- Bars and roll stock
- Additive to parts washers and rinse water systems
- Hydroblasting and hydrotesting

Spraying or dipping on metal surfaces will provide sheltered or indoor protection.



## METALS PROTECTED

- Carbon steel
- Aluminum
- Stainless steel
- Copper
- Galvanized steel

## APPLICATION

### Product Preparation:

Add VpCI-377 to water and mix thoroughly. Spray, dip, or use in parts washers and rinse tanks. Solution concentration can be monitored by a refractometer, pH and titration methods.

The pH of VpCI-377 needs to be above 8 in order to be effective.

## TYPICAL PROPERTIES

### VpCI-377

Appearance	Clear dark brown or black liquid
Film Type	Dry, clear
Non-volatile Content	40-45%
pH	8.0-9.5 (Neat)
Density	8.7-9.2 lb/gal (1.04-1.10 kg/l)
BOD/COD (2.5% solution in water, 28 days)	0.48
Corrosion Resistance	Up to 24 months indoors

## 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**

## VpCI-377 Winterized

Appearance	Clear dark brown liquid
Film Type	Dry, clear
Non-volatile Content	39-45%
pH	8.1-8.5 (Neat)
Density	8.8-9.2 lb/gal (1.05-1.10 kg/l)
Carrier	Water + Ethylene glycol
Freeze point	-18.4°F (-28°C)
Corrosion Resistance	Up to 24 months indoors

## STORAGE AND PACKAGING

VpCI-377 is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk. The product should be stored sealed in a heated warehouse to avoid freezing.

VpCI-377 Black in 5 gallon (19 liter) pails is available upon request.

VpCI-377 Winterized is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

VpCI-377 is also available in EcoAir® compressed air cans (12 oz. / 340 g) bottles.

Shelf life is 24 months.

## 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.

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