

# VpCI® Super Penetrant



## PRODUCT DESCRIPTION

Cortec® VpCI® Super Penetrant offers a deep penetrating formulation that loosens frozen parts locked in rust. Its deep penetrating capabilities allow the user to go through as much as 1/2 inch (13 mm) of rust in 30 minutes. VpCI® Super Penetrant can be applied by a variety of convenient methods to meet any application needs including brush, hand pump spray, aerosol, spray application, or dipping.

As VpCI® Super Penetrant breaks through deep rust, it displaces moisture and water. Its superior surface wetting and moisture displacing properties allow it to spread rapidly and get underneath the moisture layer normally present on metal under atmospheric conditions. While loosening the rust, it lubricates metal so frozen parts can move freely. Utilizing patented Cortec® VpCI® technology, the VpCI® Super Penetrant forms an ultra thin film on metal that offers 6 months of protection from corrosion in extreme conditions.

Cortec® VpCI® Super Penetrant can be used for indoor and outdoor applications. Its superior water displacing characteristics make it an ideal choice for applications of equipment and components that are exposed to outside weather. It also conforms to Federal Specifications for VV-P-216 Penetrating Oil for Loosening Frozen Metallic Parts and ASTM D-971 Test for Interfacial Tension of Oil against water.

## FEATURES

- Provides universal corrosion protection for ferrous metals, galvanized steel, aluminum, brass, copper, babbitt, zinc, cadmium, and silver
- Loosens frozen and rusted metal parts making them easy to remove

## TYPICAL APPLICATIONS

- Maintenance
- Lubrication
- Temporary storage - spray a light coating on flat metal before or after metalworking
- Small or complex metal parts - spray on or dip in
- General surface treatment - spray, dip, or brush surfaces to be protected for up to 24 months
- Home repairs of squeaky items

## TYPICAL PROPERTIES

|                      |                                                    |
|----------------------|----------------------------------------------------|
| Appearance           | Clear amber liquid                                 |
| Film Type            | Oily                                               |
| Flash Point          | 170°F (77°C)                                       |
| Removal Methods      | Alkaline cleaners and solvents (VpCI-416/VpCI-419) |
| Density              | 6.8-7.0 lb/gal (0.82-0.84 kg/l)                    |
| Non-volatile Content | 30-40%                                             |

## PROTECTION PROPERTIES

VpCI® Super Penetrant displaces water as effectively as a leading lubricating rust preventive (R.P.) oil while providing much better protection against corrosion.

| Time Before Corrosion        |                                 |          |        |                                     |           |          |        |                                  |
|------------------------------|---------------------------------|----------|--------|-------------------------------------|-----------|----------|--------|----------------------------------|
|                              | Salt Spray (Days)<br>ASTM B-117 |          |        | Humidity Test (Days)<br>ASTM D-1748 |           |          |        | Water Displacing per MIL-C-83933 |
|                              | Carbon Steel                    | Aluminum | Copper | Carbon Steel                        | Cast Iron | Aluminum | Copper |                                  |
| VpCI® Super Penetrant        | 5                               | 15+      | 5      | 30+                                 | 10+       | 50+      | 50+    | Pass                             |
| Leading Lubricating/R.P. Oil | 5                               | 15+      | 3      | 30+                                 | 1         | 50+      | 50+    | Pass                             |

## STANDARD TEST METHODS

|                  |                                                   |
|------------------|---------------------------------------------------|
| ASTM D-971       | Test for Interfacial Tension of Oil against Water |
| ASTM B-117       | Salt Spray                                        |
| ASTM D-1748      | Humidity Test                                     |
| NACE RP0487-2000 | Selection of Rust Preventives                     |

## PACKAGING AND STORAGE

VpCI® Super Penetrant is packaged in 5 gallon (19 liter) pails, 55 gallon (208 liter) metal drums, liquid totes, and bulk. It is also available in aerosol form net weight 5.25oz (148.84g). The product should be stored sealed. Agitate before each use. Shelf life 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**

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