**Product Description**

VpCI®-422 effectively removes rust and tarnish from steel, iron, copper, and brass. VpCI®-422 removes corrosion from metal without creating waste disposal difficulties and is more operator friendly than traditional rust removers.

VpCI®-422 G is a modification of VpCI®-422, which is recommended for galvanized steel.

It will not adversely affect most paints, plastics, wood, textiles, ceramics, or rubber when used as recommended. Removing corrosion from metal is easy; just apply VpCI®-422 and rinse with water.

VpCI®-422 is completely organic and does not require special disposal for typical use. It is especially helpful for outdoor and marine applications where chemical waste disposal can be a problem. In rare situations, waste treatment may be required if large quantities of pollutants are accumulated during cleaning.

Unlike conventional rust removers, which can be extremely dangerous to use, handle, and store; VpCI®-422 is non-flammable and biodegradable. It can be used in labor-intensive areas such as continuous assembly and packaging lines minimizing effects on production efficiency.

**Features**

- Removes rust and corrosion from ferrous and non-ferrous metals.
- Prevents flash rusting
- Completely organic and readily biodegradable
- Non-polluting and environmentally acceptable (Check with local authorities for specific disposal guidelines)
- Loosens rust-frozen parts
- No adverse effects on most paints, plastics, wood, textiles, ceramics, and rubbers
- Non-flammable formulation and mild odor, ideal for in-plant use
- NSF (A3) Registered. Acceptable for use as an acid cleaner in and around food processing areas for indirect food contact
- Passes ASTM F-519-05 “Mechanical Hydrogen Embrittlement Evaluation of Plating/Coating Processes and Service Environments”

**Typical Applications**

- In-process rust removal for parts and metal stock
- Interior and exterior surfaces of tanks and vessels
- Outdoor machinery and equipment
- Trucks, cars, and other vehicles
- Automotive, marine, and equipment
- Fences, railings, and walls
- Tools, locks, and rust-frozen parts

**Application**

VpCI®-422 can be applied using spray equipment including air and airless spray as well as by brush or dip.

For spray, brush, or roll-on application; remove loose rust or tarnish. Then apply VpCI®-422 concentrate to surface, let chemical stand for 10 to 15 minutes, and rinse with an alkaline solution (Cortec® VpCI®-41x Series). Typically, little or no rubbing is required. Reapply if necessary.

Let VpCI®-422 stand for longer time for medium and heavy rust. Soak part(s) in a tank as long as required to remove corrosion. Remove part(s) from tank and rinse with an alkaline solution (Cortec® VpCI®-41x Series). Increasing temperature up to 150°F (65°C), and/or agitation will speed the cleaning process.

Please contact Cortec® Technical Services with product questions.
**TYPICAL PROPERTIES**

**VpCI®-422**
- **Appearance**: Dark amber to brown liquid
- **Non-volatile Content**: 27-33%
- **Odor**: Light
- **pH**: 1.7–2.5 (neat)
- **Weight per Gallon**: 9.3–9.6 lb/gal (1.11–1.15 kg/l)

**VpCI®-422 G**
- **Appearance**: Dark brown liquid
- **Non-volatile Content**: 27-35%
- **Odor**: Light
- **pH**: 6-8 (neat)
- **Weight per Gallon**: 9.4-9.7 lb/gal (1.13–1.16 kg/l)

**STANDARD TEST METHODS**

<table>
<thead>
<tr>
<th>Test Methods</th>
<th>Results</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM F-519</td>
<td>No embrittlement</td>
<td>Mechanical Hydrogen Embrittlement Evaluation of Plating/Coating Processes and Service Environments</td>
</tr>
<tr>
<td>ASTM D-6866-11</td>
<td>92%</td>
<td>Determination of Biobased Content</td>
</tr>
<tr>
<td>OECD Method 301D</td>
<td>BOD/COD = 0.67</td>
<td>Biodegradability</td>
</tr>
</tbody>
</table>

**TESTING RESULTS**

Toxicological Testing Results*
Marine Toxicity

<table>
<thead>
<tr>
<th>Test Species</th>
<th>Results (LC-50)** ppm. 48 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheepshead Minnow (Cyprinodon Variegatus)</td>
<td>707</td>
</tr>
<tr>
<td>Americamysis bahia</td>
<td>107</td>
</tr>
<tr>
<td>Skeletonema costatum</td>
<td>72 (EC-50)**</td>
</tr>
<tr>
<td>M. beryllina</td>
<td>528</td>
</tr>
<tr>
<td>M. Bahia</td>
<td>109</td>
</tr>
</tbody>
</table>

*Testing performed in compliance with OECD (Organization for Economic Cooperation and Development) Principles of Good Laboratory practices.
**LC-50/EC-50 --- 50% of Lethal Concentration/50% of Effective Concentration respectively.

**PACKAGING AND STORAGE**

VpCI®-422 and VpCI®-422G are available in 5 gallon (19 liter), 55 gallon (208 liter) drums, totes, and bulk. Store product in a heated warehouse to avoid freezing.

Minimum storage temperature: 40°F (4°C)
Maximum storage temperature: 120°F (49°C)

**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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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

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