



SURFACE PREPARATION PRODUCTS

VpCI®-422



PRODUCT DESCRIPTION

VpCI®-422 effectively removes rust and tarnish from steel, iron, copper, brass, and chrome. 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) will speed the cleaning process.

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

ASTM F-519	Mechanical Hydrogen Embrittlement Evaluation of Plating/ Coating Processes and Service Environments
ASTM D-6866-11	Determination of Biobased Content
OECD Method 301D	Biodegradability

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

TESTING RESULTS

Biobased determination using ASTM D6866-11 Method B

Requirement to consider material biodegradable	Result
>60%	92%

According to 405.1 EPA 600/4-79-020; performed by Maxim Technologies Inc.

Toxicological Testing Results*
 Marine Toxicity

Test Species	Results (LC-50)** ppm. 48 hours
Sheepshead Minnow (Cyprinodon Variegatus)	707
Americamysis bahia	107
Skeletonema castatum	72 (EC-50)**
M. beryllina	528
M. Bahia	109

Bioaccumulation Potential (Log Octanol/water partition coefficient, POW)

Requirement	Result
>3	-6.44

*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: 32°F (0°C)
 Maximum storage temperature: 120°F (49°C)

LIMITED WARRANTY

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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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