VpCI-422/VpCI-422 G

Before

After

PRODUCT DESCRIPTION

VpCI-422 is a rust remover that is harmless to people while effectively removing rust and tarnish from steel, iron, copper, brass, chrome and aluminum. VpCI-422 removes corrosion from metal without creating waste disposal difficulties. VpCI-422 G is a modification of VpCI-422, which is recommended for galvanized steel.

It will not harm human skin or 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/VpCI-422G is completely organic, 100% biodegradable, 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 a sufficient quantity of pollutants are introduced into the chemical solution.

Unlike conventional rust removers, which can be extremely dangerous to use, handle, and store, VpCI-422/VpCI-422 G is so mild that minimal protective covering is needed. In addition, the non-toxic, non-flammable formulation has no pungent acid or caustic fumes. Being nearly odorless and extremely mild makes VpCI-422/VpCI-422 G easy and safe to use. In contrast to harsh industrial chemicals, VpCI-422/VpCI-422G can be used in labor-intensive areas such as continuous assembly and packaging lines with no adverse effect on production efficiency.

FEATURES

- Removes rust and corrosion from ferrous and non-ferrous metals.
- Prevents flash rusting.
- Completely organic and biodegradable.
- Non-polluting and environmentally acceptable for easy disposal.
- Loosens rust-frozen parts.
- Cleans rust stains from painted, wooden and other surfaces.
- Safe-to-handle, use and store.
- No adverse effects on most paints, plastics, wood, textiles, ceramics, and rubbers.
- Safe, non-toxic, non-flammable formulation and mild odor makes it ideal for in-plant use.
- Passes ASTM F-519-05 "Mechanical Hydrogen Embrittlement Evaluation of Plating/Coating Pro cesses 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, farm parts and equipment.
- Fences, railings and walls.
- Tools, locks, and rust-frozen parts.

CORTEC CORPORATION
Environmentally Safe VpCI™/MCI® Technologies

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-410 series). Typically, little or no rubbing is required. Reapply if necessary.

Medium and heavy rust will take somewhat longer.

For dip application, remove heavy deposits, loose rust or tarnish. 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-410 series). Increasing temperature up to 150°F (65°C) will speed the cleaning process.

PHYSICAL PROPERTIES

VpCI-422

Appearance	Dark amber to brown liquid
Non-volatile Content	28-33%
Odor	Light
pH	1.7–2.5
Weight per Gallon	9.3–9.6 lb/gal. (1.12–1.15 kg/l)

VpCI-422 G

Appearance	Dark amber to brown liquid
Non-volatile Content	33-38%
Odor	Light
pH	5.5-7.0
Weight per Gallon	9.5-9.7 lb/gal. (1.14–1.16 kg/l)

FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

NOT FOR INTERNAL CONSUMPTION

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

TESTING RESULTS

Biodegradability, 28 days[1]

Requirement to consider material biodegradable	Result
>60%	66.67%

gies Inc.

Toxicological Testing Results*
(Performed by certified ABS Laboratories Inc.)
Marine Toxicity

Test Species	Results (LC-50** ppm 48 hours
Sheepshead Minnow (Cyprinodon Variegatus)	707
Americamysis bahia	107
Scelotonema costatum	72 (EC-50)**

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

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.

Distributed by:

CORTEC CORPORATION
Environmentally Safe VpCI®/MCI® Technologies

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
Internet http://www.cortecvci.com

printed on recycled paper 100% post consumer
Revised 8/14/07. Cortec Corporation 1998-2007. All rights reserved. Supersedes: 5/31/06.
Cortec® is a trademark of Cortec Corporation.
© 1998-2007, Cortec Corporation. All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited.