

RoHS
COMPLIANT



SURFACE PREPARATION PRODUCTS

VpCI®-422



Nonfood Compounds
(Category Code: A3)
(Registration #147181)



Before



After

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 milder to people than traditional rust remover.

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 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 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 easy and safe to use. In contrast to harsh industrial chemicals, VpCI-422 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; check with local authorities for disposal guidelines.
- Loosens rust-frozen parts.
- 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.
- 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, farm parts, 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-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	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)

FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

NOT FOR INTERNAL CONSUMPTION

CONSULT SAFETY DATA SHEET FOR MORE INFORMATION

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.

TESTING RESULTS

Biodegradability, 28 days¹

Requirement to consider material biodegradable	Result
>60%	66.67%

¹According to 405.1 EPA 600/4-79-020; performed by Maxim Technologies 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
Sceletonema castatum	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)



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