





#### 1. Introduction

TART's effort to provide its customers with the best products and services led in 2003 to the expansion of product portfolio with anti-corrosion packaging. The area of issues of corrosion protection, not only within the packaging industry, has proved to be very promising, so TART established a separate division with this focus.

# Art of packaging...



Efforts to offer the best and comprehensive solution to protect against corrosion led to a collaboration with the US company Cortec Corporation, a world leader in corrosion protection and VCI technology. This collaboration has since 2005 been based on the contract between TART and Cortec for exclusive representation for the Czech and Slovak Republics. TART was also granted a license for the production of anti-corrosion packaging materials under the Cortec brand.

Cortec has in its laboratories been constantly seeking and developing the most effective ways to protect against corrosion that also meet the utmost stringent environmental, health and other requirements. Cortec products thus represent a modern and environmentally friendly corrosion protection for all industries and everyday life.



#### **TABLE OF CONTENTS**

- 1. Introduction
- 2. VpCI® corrosion inhibitors (What are they? How do they work?)
- 3. Areas of application (Where, when, how and why can they be used?)
  - 3.1. Use of corrosion inhibitors during the production process
  - 3.2. Packaging
  - 3.3. Desiccants
  - 3.4. Preservation
  - 3.5. Protection of industrial equipment
  - 3.6. Reinforced-concrete structures
  - 3.7. Metal surface treatment agents
  - 3.8. Anti-corrosion coatings
  - 3.9. Additives containing corrosion inhibitors
  - 3.10. ECO Products
- 4. Services
- 5. Tables product overview
- 6. Products with VpCI®
  - 6.1. Products for electronics
  - 6.2. Process additives
  - 6.3. Generic Chemicals
  - 6.4. VpCI® Metalworking Products
  - 6.5. High Performance Coatings
  - 6.6. Additives for Coatings & Fluids
  - 6.7. Packaging products
  - 6.8. Desiccants
  - 6.9. Water treatment products
  - 6.10. EKO Products
  - **6.11. Surface Preparation Products**
  - 6.12. Concrete/Construction Products
  - 6.13. Enhanced Lubricants
  - 6.14. VpCI® Powders
- 7. Other divisions of TART
- 8. Contacts



#### 2. VpCI® corrosion inhibitors (What are they? How do they work?)

VpCI® corrosion inhibitors (Vapour Phase Corrosion Inhibitors) are microscopic particles which migrate through the environment in the form of ions and are attracted to all metal surfaces. They form a thin monomolecular protective layer, even in places which are difficult to access.

#### Advantages of VpCI® corrosion inhibitors

- they are harmless to health, safe and environmentally friendly
- they do not contain chromates, heavy metals, nitrides or chlorinated hydrocarbons
- they protect all metals
- they provide short-term and long-term protection
- they protect in all kinds of environment
- treated parts are ready for immediate use
- they maintain the characteristics of the treated material
- they protect products of any size
- they can be integrated with most technological processes
- they are easy to use

Molecules of VpCI\*
in gaseous phase

Source of VnCI

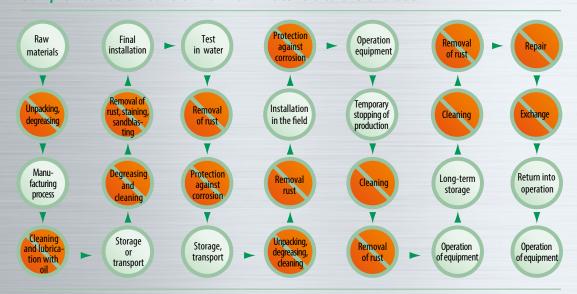
Metal

Cathode

While conventional corrosion inhibiting compositions are mostly liquids,
Cortec VpCI® products are more variable. Carriers of VpCI® inhibitors may be in a solid state (e.g. PE foil, paper, impregnated PU foams, powder preservative), liquid (preservative oils, water-soluble concentrates, wax coatings) and gas (gas in steam lines, gas pipelines, technical gases).

We supply such products containing corrosion inhibitors for all kinds of applications. The simple application of VpCI® inhibitors helps to eliminate many extra processing steps associated with the formation of corrosion such as subsequent cleaning, degreasing, rust removal, sanding and application of additional protection. With proper application of VpCI® products you will reduce costs and save time throughout the entire product life cycle, eg. in the production, storage, during transport and in the course of operations.

#### Complex corrosion control from raw materials to the end user





#### 3. Areas of application

evaporating corrosion inhibitor.

# 3.1. Use of corrosion inhibitors during the production processu

Integrating Cortec products during manufacturing and assembly of products is very easy. In addition to preventing and therefore avoiding the corrosion of ferrous and non-ferrous metals the Cortec products can be used during the manufacturing process to increase production capacity and to achieve longer tool service life. To protect the hard to reach places it is possible to use VpCI® e.g. in powder form with the



Water-based inhibitors can replace oil paints and refrigerants, and thus act as an immediate corrosion protection that can be easily removed if necessary. Water-soluble additives used for example as a solution in water pressure tests protect the metal surface during and after water draining. VpCI® capsules protect electronic and electrical assemblies during the various stages of manufacture, assembly, transportation and operation.

Cortec preparations protect your products from the beginning to the end of their life, whether it's a tank, valve, compressor, circuit board, electrical switchboard, printing press, or any other kind of device.

#### 3.2. Packaging

Cortec corrosion packaging materials are manufactured by TART under license. These materials include eg. paper, PE or composite foils, PU foam, protective bubble wrap and fillers. All packaging materials are used as corrosion protection for all metals; they are non-toxic and recyclable.

#### Papers:

Papers with VpCI® corrosion inhibitors provide corrosion protection in various applications, particularly in piece or group packaging.





#### 3. Areas of application

They are used for direct packaging and corrosion protection of finished products or their parts, or as interlace material to prevent abrasion of individual parts of group packaging during transport and storage. The papers do not contain nitrites, silicones or heavy metals.

#### Foils:

VpCI® foils can provide a variety of applications. The range includes foils for outdoor and indoor storage, conventional polyethylene foils, shrink foils, stretch foils, bubble and reinforced foils. In addition to the corrosion inhibitors, foils may also contain an antistatic additive.

Special VpCI® foils are manufactured as multilayer barrier foils suitable for long term







storage (10 and more years).

#### Barrier foils:

Barrier foils are multilayer foils with aluminum (Al) layer. They are used in combination with desiccants as anti-corrosive packaging in which the air humidity is maintained below a predetermined (desired) threshold relative humidity. The foil cover is impermeable to water vapour. It must be sealed during application to prevent ingress of the surrounding humidity and thus avoid the damage to its protective properties. The barrier foil protects the product against scratches and also light (UV light).

# Inner fillings and supplementary sources of corrosion inhibitors:

Cortec VpCI® fillings protect the products inside the packaging against mechanical and other damage, and the contained corrosion inhibitor penetrates even hard to reach areas of packaged parts, protecting metal surfaces from corrosion.

They are suitable for virtually all packaging systems and are available in the form of air-filled bags, tablets, bubble wrap, PE and PUR foam, cardboard grids and interlace materials.

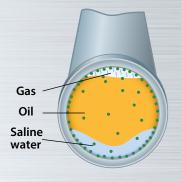
#### 3.3. Desiccants

Desiccants are used especially in combination with barrier foil, which prevents air humidity from accessing the packaged item. Inside the package the desiccants then reduce the rela-



tive air humidity to the required level.

VpCI® desiccants simultaneously release corrosion inhibitors that protect the product against corrosion, even when the desiccant is saturated with moisture and thereby degraded.



Cross section of pipeline, which shows the active protection in a heterogeneous environment

#### 3.4. Preservation

In cases when equipment or entire systems require protection against corrosion during temporary shutdown or long-term storage, Cortec products offer many advantages. They can be applied to pipes, tanks, motors and generators immedia-

tely, rapidly and repeatedly without difficulty or any preparation of surfaces. They provide effective protection of the external and internal working surfaces and mechanical parts. In addition, the protected products are ready for immediate use.

#### 3.5. Protection of industrial equipment

Cortec products can also significantly extend the service life of equipment and technologi-





cal units during their operation. Cortec products based on water or oil form a protective layer and thus protect e.g. machined surfaces without surface treatment, friction surfaces, surfaces exposed to adverse weather conditions etc. Cortec anti-corrosion additives protect the interiors of systems containing operating charges against the effects of corrosive environments and aggressive materials.

Cortec inhibitors greatly extend the life of technological units and, unlike conventional anti-corrosion agents have the ability to emit Cortec products inhibitors into spaces,

i.e. they spontaneously form a protective film over the entire metal surface. For example, application of VpCI® inhibitors into a piping system protects the system to a length of several kilometres immediately and without any further operator intervention.

#### 3.6. Reinforced-concrete structures

Migratory Corrosion Inhibitors (MCI®) can treat concrete structures which are experiencing corrosion of reinforcements. MCI® inhibitors are added to the concrete mixture during the construction of new structures and during renovation of older buildings. Concrete with MCI® admixture is then used as normal.

#### 3. Areas of application

MCI® inhibitors spread through concrete and locate iron elements in the structure, to which they adhere and form a thin protective layer of MCI®. MCI® layer protects against corrosion by preventing chemical reactions between the chlorides and the steel in the structure. MCI® inhibitors are effective in the fight against high concentrations of chlorides from road salt used on highways, roads and bridges, against salt in the air, which is harmful to marine and coastal structures, as well as against the effects of acid rain and saturation.

MCI® technology can also protect structures such as tanks and pipes with thermal insulation.

In addition to mixing with concrete on-site, the Cortec MCI® technology is also suitable for



surface treatment or additional injection into the existing concrete structures.



Remove cracked concrete from the structure



MCI is spreading through concrete without direct application to steel



MCI protects steel from further corrosion

#### 3.7. Metal surface treatment agents

Cortec compositions intended for the treatment of surface of metals are applied by coating, spraying or submerging the part with the relevant product. These include methods for cleaning, degreasing, and removing rust or paint or methods ensuring better adhesion of coating to surfaces with difficult adhesion. Rust removing products by Cortec are based on organic chemicals that remove stains and oxides from iron, copper, brass and alumi-







num. These products replace radical acids. If the user follows the instructions for use, these rust removal agents are not harmful to human skin, nor to most coatings, plastics, wood, textiles, ceramics or rubber. Most Cortec cleaning and degreasing agents are water-based natural substances and are therefore biodegradable, non-toxic and non-flammable. Furthermore, these compositions contain corrosion inhibitors to prevent corrosion of freshly cleaned surfaces.

Cortec's paint removing agent does not contain methyl chloride, chlorinated solvents, methanol, toluene or acetone, but can nonetheless remove paint in from 3 to 30 minutes.



#### 3.8. Anti-corrosion coatings

All temporary and permanent coatings from Cortec provide exceptional protection, even in extreme outdoor industrial, maritime or tropical conditions. In most cases, Cortec permanent coating serves simultaneously as a base and top coat. If Cortec coating is only used as a substrate layer, it can be covered with surface coating without losing effectiveness as a corrosion inhibitor or barrier protection. Paints for indoor and outdoor use are supplied in standard RAL colours.

# 3.9. Additives containing corrosion inhibitors for paint matters, liquids, glues and plastics

Cortec additives offer new opportunities for production and marketing. They allow corrosion inhibitors to be added to paints, water treatment agents, plastics, elastomers, adhesives, and working fluids. Because they improve protection of your products, they significantly increase the value that you can offer your customers.

With Cortec VpCI® additives you can eliminate the need for expensive alloys, metal plating, stainless steel or other metals and corrosion resistant materials.

The possibilities are almost endless. Additives can be used with stretch and polyethylene







#### 3. Areas of application

foils, antistatic bags, plastic containers, plastic parts manufactured by means of injection moulding machines, in coatings, adhesives, packing materials, rubber, sealants, lubricants, fuels, concrete and many more.

Most elastomers are inert to metals, and often accelerate the corrosion of metals in the contact layer. Using revolutionary Cortec

Most elastomers are inert to metals, and often accelerate the corrosion of metals in the contact layer. Using revolutionary Cortec VpCI® technology, conventional elastomers are easily and economically transformed into safe, constant and effective protection for all kinds of metals or alloys.



#### EcoAir®

EcoAir® aerosol products are powered by compressed air and non-traditional technical gases or chemical agents. The active substance is filled into the four-layer Mylar EcoPouch inside the container, which is under pressure. As the valve is depressed the surrounding pressure expels the bag's internal fluids until the product is finished.

#### The main advantages of EcoAir® are:

- inflammability
- application in any position, even upside down
- the product is not contaminated with compressed gas
- safe transportation and storage
- environmentally friendly solution (not harmful to the atmosphere, ozone layer or the environment)
- · they are safe for the user
- · minimal need for waste disposal
- unique water-based product suitable for the most demanding applications



#### EcoLine®

EcoLine® products are based on derivatives of soybeans or soybean methyl esters as renewable resources. This revolutionary technology uses the building blocks of methyl esters, and has little impact on the environment. These products offer superior lubricating properties, cleaning capacity and anti-corrosion protection and are fully biodegradable. EcoLine® products are preferable in terms of environmental protection.





#### 4. Services

TART's goal is to provide comprehensive services in the fight against corrosion, so customers can solve all their corrosion problems, requirements and needs in one place, from one source.

#### LABORATORY TESTS

At the heart of Cortec is a very modern research and development laboratory certified according to ISO 17025. As well as continuous development of new and improvement of existing products it also focuses on daily trials and tests of manufactured products to maintain the long-term high quality of all Cortec products.

#### **CORROSION STATE ANALYSIS**

An increasingly common customer requirement is the analysis of the corrosion state of the production technologies they operate and sometimes even complete production plants. The principle of this analysis is to examine and check the existing situation and the level of corrosion in the operations of a company, and then to propose a method and procedure to establish corrective and preventive measures for its elimination. This can prevent significant financial losses associated with delayed addressing of problems and damage that can be caused by corrosion.

The portfolio of services includes judicial expertise in the field of material corrosion.

#### **CONSULTING**

It is above all their extensive experience that allows Cortec corrosion specialists to provide assistance, help or advice in addressing any problem with corrosion. Equally highly valued are their lecturing activities at professional conferences, seminars or teaching at prestigious universities.

#### **EXPORT PACKAGING**

We offer comprehensive solutions for logistics processes, predominantly to companies involved in foreign exports whose products require non-standard packaging and protection, especially when shipping overseas. Our export packaging service is a process encompassing a wide range of incremental steps, starting with consultations and the design of containers through their production and professional packaging of certain products upon provision of transportation. Warranties and guarantees are provided as a matter of course.







### 5. Tables - product overview

| Metals<br>Protection<br>Guide                                 | Carbon<br>Steel | Stainless<br>Steel | Cast<br>Iron | Aluminum<br>Alloys | Galvanized<br>Steel | Brass<br>(<30%Zn) | Copper     | Solder        | Epoxy<br>Coated Steel |
|---|-----------------|--------------------|--------------|--------------------|---------------------|-------------------|------------|---------------|-----------------------|
| VpCI°-101   | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1          | 1             | N/A                   |
| VpCI <sup>®</sup> -105/111                                    | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1          | 1             | N/A                   |
| VpCI <sup>®</sup> -150 & 170                                  | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1          | 1             | N/A                   |
| Eco Emitter®  | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1          | 1             | N/A                   |
| ElectriCorr® VpCI®-238  | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| ElectriCorr® VpCI®-239  | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| ElectriCorr® VpCI®-248  | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| ElectriCorr® VpCI®-286  | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| Eco Flow <sup>™</sup> System                                  | 5               | 5                  | 5            | 5                  | 5                   | N/A               | N/A        | N/A           | N/A                   |
| VpCI°-629   | 5               | 5                  | 5            | 5                  | 5                   | N/A               | N/A        | N/A           | N/A                   |
| VpCl°-629 Bio   | 5               | 5                  | 5            | 5                  | 5                   | N/A               | N/A        | N/A           | N/A                   |
| VpCI°-629D  | 5               | 5                  | 5            | 5                  | 5                   | N/A               | N/A        | N/A           | N/A                   |
| VpCl°-637/ VpCl-637 GL  | 5               | 5                  | 5            | 5                  | 5                   | N/A               | N/A        | N/A           | N/A                   |
| VpCI*-639   | 5               | 5                  | 5            | 5                  | 5                   | N/A               | N/A        | N/A           | N/A                   |
| VpCI*-658   | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| VpCI®-705/Bio   | 5               | 5                  | 5            | 5                  | 5                   | 5                 | 5          | 5             | N/A                   |
| VpCl°-1238  | <b>2</b><br>✓   | <b>2</b> ✓         | <b>2</b> ✓   | <b>2</b> ✓         | <b>2</b><br>✓       | <b>2</b> ✓        | <b>2</b> ✓ | <b>2</b><br>✓ | N/A                   |
| VpCI®-Coolant/Antifreeze                                      |                 |                    |              |                    |                     |                   |            |               | N/A                   |
| S-41<br>S-49  | N/A<br>N/A      | N/A<br>N/A         | N/A<br>N/A   | N/A<br>N/A         | N/A<br>N/A          | N/A<br>N/A        | N/A<br>N/A | N/A<br>N/A    | N/A<br>N/A            |
| G-6   | N/A             | N/A                | N/A          | N/A                | N/A                 | N/A               | N/A        | N/A           | N/A                   |
| G-29 Corrosion Inhibitor                                      | N/A             | N/A                | N/A          | N/A                | N/A                 | N/A ✓             | IN/A       | N/A           | N/A                   |
| BioCorr Rust Preventative                                     | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-316   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-322   | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| VpCl°-323   | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| VpCl°-325   | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| VpCl°-326   | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| VpCl°-327   | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| VpCl°-329   | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3          | 3             | N/A                   |
| VpCI°-337   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-338   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-344   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-345   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-347   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-347   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl°-378   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCl -378   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
| VpCI® Teflon Lube   | 4               | 4                  | 4            | 4                  | 4                   | N/A               | N/A        | N/A           | N/A                   |
| VpCI® Super Penetrant   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2          | 2             | N/A                   |
|   | 4               | 4                  | 4            | 4                  | 4                   | 4                 | 4          | 4             | N/A                   |
| CorrLube VpCI Lith FP Gregge                                  |                 |                    |              |                    |                     |                   |            |               |                       |
| CorrLube VpCI® Lith. EP Grease  CorrLube Food Grade Penetrant | 2               | 2                  | 2            | 2                  | 2                   | N/A               | N/A        | N/A           | N/A                   |

| Metals<br>Protection<br>Guide | Carbon<br>Steel | Stainless<br>Steel | Cast | Aluminum<br>Alloys | Galvanized<br>Steel | Brass<br>(<30%Zn) | Copper | Solder | Epoxy<br>Coated Steel |
|-------------------------------|-----------------|--------------------|------|--------------------|---------------------|-------------------|--------|--------|-----------------------|
| VpCI°-369                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCI°-371                     | 4               | 4                  | N/A  | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| VpCI°-372                     | 3               | 3                  | 3    | 3                  | 3                   | 3                 | 3      | 3      | N/A                   |
| VpCI°-373                     | 3               | 3                  | 3    | 3                  | 3                   | 3                 | 3      | 3      | N/A                   |
| VpCI°-374                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCI°-375                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCI°-382*                    | N/A             | N/A                | N/A  | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| VpCI°-383                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCI°-384*                    | N/A             | N/A                | N/A  | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| VpCI°-385                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCl°-386                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCI°-386 Aluminum            | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A<br>N/A            |
| VpCI*-387                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCI° -388<br>VpCI° -389      | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCl°-391                     | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| VpCl°-394                     | 4               | 4                  | 4    | 4                  | 4                   | N/A               | N/A    | N/A    | N/A                   |
| VpCl°-395                     | 5               | 5                  | 5    | 5                  | 5                   | N/A               | N/A    | N/A    | N/A                   |
| VpCI°-396 Primer              | 5               | 5                  | 5    | 5                  | 5                   | N/A               | N/A    | N/A    | N/A                   |
| VpCI° -396 Conductive         | 4               | 4                  | 4    | 4                  | 4                   | N/A               | N/A    | N/A    | N/A                   |
| VpCI°-812/819                 | 3               | 3                  | 3    | 3                  | 3                   | 3                 | 3      | 3      | N/A                   |
| CorShield® Transit Coating    | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| CorShield® VpCI® Gold         | 4               | 4                  | 4    | 4                  | 4                   | N/A               | N/A    | N/A    | N/A                   |
| CorShield® VpCI® Strippable   | 3               | 3                  | 3    | 3                  | 3                   | N/A               | N/A    | N/A    | N/A                   |
| CorrVerter®                   | 5               | 5                  | 5    | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| M-95                          | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-118                         | ✓               | ✓                  | ✓    | <b>✓</b>           | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-119/M-119LV                 | ✓               | ✓                  | ✓    | <b>&gt;</b>        | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-121                         | ✓               | ✓                  | ✓    | <b>&gt;</b>        | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-124                         | ✓               | ✓                  | ✓    |                    | ✓                   | ✓                 |        | ✓      | N/A                   |
| M-126                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-138/M-138C                  | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-150                         | ✓               | ✓                  | ✓    | <b>✓</b>           | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-168                         | ✓               | ✓                  | ✓    | <b>✓</b>           | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-235                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-236                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-238                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-240                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-241                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-370                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-381*                        | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-408                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| M-435                         | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |

#### **Consultation Key:** \* After a product name: applied to concrete only Consult Cortec® For Specific Usage Not Recommended or Test Data Not Available **Cortec<sup>®</sup> Corporation Product Key:** VpCI® Electronic Product VpCI® High Performance Coating VpCI® ECO Products VpCI® Powders Process Additives VpCI® Additives for Coatings & Fluids Surface Preparation Product VpCI® Packaging Products MCI® Concrete/Construction Products VpCI® Metalworking Products VpCI® Water Treatment Products VpCI® Enhanced Lubricants

#### Application Key:

- 1 Enclosed. For use in non-ventilated equipment housings, control boxes, or other enclosures. Packaged in cardboard, paper, plastic wrap, or metal containers.
- In addition to the condition described above, for use in uncovered/inside storage.
   Outside Sheltered. In addition to the two conditions described above, for use in sheltered/outside storage.
- 4 Outside. In addition to the three conditions described above, for use in
- uncovered/outside storage.

  5 Immersion. In addition to the four conditions described above, also for immersion service in corrosive liquids such as salt water, crude oil, etc.
- $\checkmark$  –Indicates the product is safe to use on specific metal. Consult Cortec $^*$  for application information.

  \* - CAUTION Do Not Use With Indicated Metals



| Metals                              | _               | s                  |              | £.                 | pa                  | e e               | _        |          | ee                    |
|-------------------------------------|-----------------|--------------------|--------------|--------------------|---------------------|-------------------|----------|----------|-----------------------|
|                                     | Carbon<br>Steel | Stainless<br>Steel | Cast<br>Iron | Aluminum<br>Alloys | Galvanized<br>Steel | Brass<br>(<30%Zn) | Copper   | Solder   | Epoxy<br>Coated Steel |
| Protection<br>Guide                 | 5               | St                 |              | Alt                | Gal                 | - <u>\</u>        | Ů        | S        | Coat                  |
| M-5120                              | ✓               | ✓ -                | ✓            | ✓                  | ✓                   | ✓                 | ✓        | ✓        | N/A                   |
| M-528/528L                          | ✓               | ✓                  | ✓            | ✓                  | ✓                   | ✓                 | ✓        | ✓        | N/A                   |
| M-529                               | ✓               | ✓                  | ✓            | ✓                  | ✓                   | ✓                 | ✓        | ✓        | N/A                   |
| M-529/SC                            | ✓               | √ .                | √ .          | √ .                | ✓                   | ✓                 | <b>√</b> | <b>√</b> | N/A                   |
| M-530                               | ✓               | ✓                  | ✓            | ✓                  | ✓                   | ✓                 | ✓        | ✓        | N/A                   |
| M-5365                              | ✓               | ✓                  | ✓.           | ✓                  | ✓                   | ✓ .               | ✓        | ✓.       | N/A                   |
| M-640/M-640L                        | ✓               | ✓                  | ✓            | ✓                  | ✓                   | ✓                 | ✓        | ✓        | N/A                   |
| M-645                               | ✓               | ✓                  | ✓            | ✓                  | ✓                   | √                 | ✓        | <b>√</b> | N/A                   |
| S-111                               | ✓               | ✓                  | ✓            | ✓                  | ✓                   | ✓                 | ✓        | ✓        | N/A                   |
| VpCI®-125                           | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI®-126 Blue                      | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCl®-130 series                    | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| VpCI®-144                           | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI®-145                           | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI*-146                           | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCl*-148<br>VpCl*-149              | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI -149<br>VpCI°-350/355/357      | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI°/Anti Skid Linerboard          | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Bio-Pad™                            | 2               | 2                  | 2            | 2                  |                     | 2                 |          |          | N/A                   |
| CorrCaps                            | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| CorrLam®                            | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A<br>N/A            |
| CorrNetting                         | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| Cor-Pak® VpCI® Bubbles              | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Corr Seal *                         | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Cor-Pak® VpCI® Corrugated           | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| Cor-Pak® Liner Board                | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Cor-Pak® Fabric LD                  | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| Cor-Pak® EX VpCI® Film              | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Cor-Pak® VpCI® Liner Film           | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Cor-Pak® VpCI® Pipe Strip           | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| Cor-Pak VpCr Pipe Strip             | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| Cor-Pak® VpCI® Reinforced Film      | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Cor-Pak® VpCI® Skin Film            | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Cor-Pak® VpCI® Stretch Film         | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Cor-Pak® VpCI® Polycoated Paper     | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| Cor-Pak <sup>®</sup> VpCI * Tablets | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| CorShield *                         | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Corrosorber® Cup                    | N/A             | N/A                | N/A          | N/A                | N/A                 | N/A               | N/A      | N/A      | N/A                   |
| CorrTainer®                         | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Desicorr® / Desicorr® VpCI®         | 1               | 1                  | 1            | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| EcoShield® Fabric                   | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| EcoShield® Paper/ Linerboard        | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| coorned raper/ Linerpodia           |                 |                    |              |                    |                     |                   |          |          | IV/A                  |

| Metals<br>Protection                       | Carbon<br>Steel | Stainless<br>Steel | Cast | Aluminum<br>Alloys | Galvanized<br>Steel | Brass<br>(<30%Zn) | Copper | Solder | Epoxy<br>Coated Steel |
|--|-----------------|--------------------|------|--------------------|---------------------|-------------------|--------|--------|-----------------------|
| Guide                                      | Ŭ               | Ġ                  |      | A                  | g                   | ×                 |        |        | Ŝ                     |
| EcoWeave <sup>®</sup>                      | 2               | 2                  | 2    | 2                  | 2                   | 2                 | 2      | 2      | N/A                   |
| Milcorr®                                   | 4               | 4                  | 4    | 4                  | 4                   | 4                 | 4      | 4      | N/A                   |
| Corrosorber * Paper VpCI *                 | N/A             | N/A                | N/A  | N/A                | N/A                 | 2                 | 2      | 2      | N/A                   |
| VpCI°-611                                  | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| VpCI°-615                                  | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| VpCI°-617                                  | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| VpCI°-641                                  | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| VpCI°-644                                  | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| VpCI°-645                                  | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| VpCI°-649/BD/P                             | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| Boiler Lizard®                             | 3               | 3                  | 3    | 3                  | 3                   | 3                 | 3      | 3      | N/A                   |
| BioClean 610                               | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| BioClean 612                               | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| Closed Loop Toad <sup>®</sup>              | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| Cooling Loop Gator®                        | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| Cooling Tower Frog <sup>®</sup>            | 3               | 3                  | 3    | 3                  | 3                   | 3                 | 3      | 3      | N/A                   |
| S-5  | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| S-7  | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| S-8  | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| S-10/S-10F                                 | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| S-11/org/P                                 | ✓               | ✓                  | ✓    | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| S-14/F/RO                                  | ✓               | ✓ _                | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| S-14 Bio                                   | 5               | 5                  | 5    | 5                  | 5                   | 5                 | 5      | 5      | N/A                   |
| S-15                                       | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| S-16                                       | N/A             | N/A                | N/A  | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| S-69/S-69P                                 | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| S-607                                      | ✓               | ✓                  | ✓    | ✓                  | ✓                   | ✓                 | ✓      | ✓      | N/A                   |
| EcoAir® VpCI®-337                          | 1               | 1                  | 1    | 1                  | 1                   | 1                 | 1      | 1      | N/A                   |
| EcoAir <sup>®</sup> VpCl <sup>®</sup> -377 | 2               | 2                  | 2    | 2                  | 2                   | 2                 | 2      | 2      | N/A                   |
| EcoAir® VpCI®-414                          | 1               | 1                  | 1    | 1                  | 1                   | 1                 | 1      | 1      | N/A                   |
| EcoSpray VpCI *-416                        | 2               | 2                  | 2    | 2                  | 2                   | 2                 | 2      | 2      | N/A                   |
| EcoAir® VpCI®-422                          | N/A             | N/A                | N/A  | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| EcoClean® VpCI®-423                        | N/A             | N/A                | N/A  | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| EcoClean Silver & Gold Cleaner             | N/A             | N/A                | N/A  | N/A                | N/A                 | N/A               | N/A    | N/A    | N/A                   |
| EcoLine® All Purpose Lub.                  | 2               | 2                  | 2    | 2                  | 2                   | N/A               | N/A    | N/A    | N/A                   |
| EcoLine® Cleaner/Degreaser                 | 2               | 2                  | 2    | 2                  | 2                   | 2                 | 2      | N/A    | N/A                   |
| EcoLine® Cutting Fluid                     | 2               | 2                  | 2    | 2                  | 2                   | 2                 | N/A    | N/A    | N/A                   |
| EcoLine® Food Mach. Lub Grease             | 2               | 2                  | 2    | 2                  | 2                   | N/A               | N/A    | N/A    | N/A                   |
| EcoLine® Rust Preventative                 | 3               | 3                  | 3    | 3                  | 3                   | N/A               | N/A    | N/A    | N/A                   |
| EcoLine® 3220                              | 2               | 2                  | 2    | 2                  | 2                   | 2                 | 2      | 2      | N/A                   |
| EcoLine® 3690                              | 3               | 3                  | 3    | 3                  | 3                   | 3                 | 3      | 3      | N/A                   |
| EcoSpray VpCI <sup>*</sup> -238            | 2               | 2                  | 2    | 2                  | 2                   | 2                 | 2      | 2      | N/A                   |
|  |                 |                    |      | _                  | _                   | _                 | _      | _      |                       |

# Recommended Consult Cortee® For Specific Usage Not Recommended or Test Data Not Available Cortec® Corporation Product Key: VpCI® Electronic Product VpCI® High Performance Coating Process Additives VpCI® Additives for Coatings & Fluids Surface Preparation Product Generic Chemicals VpCI® Packaging Products VpCI® MCI® Concrete/Construction Products VpCI® Metalworking Products VpCI® Mater Treatment Products VpCI® ECO Products VpCI® Powders VpCI® Powders VpCI® Packaging Products VpCI® Eco Products VpCI® Products VpCI® Powders

\* After a product name: applied to concrete only

**Consultation Key:** 

#### Application Key:

- 1 **Enclosed.** For use in non-ventilated equipment housings, control boxes, or other
- enclosures. Packaged in cardboard, paper, plastic wrap, or metal containers.
- 2 Inside. In addition to the condition described above, for use in uncovered/inside storage.
- 3 Outside Sheltered. In addition to the two conditions described above, for use in sheltered/outside storage.
- Outside. In addition to the three conditions described above, for use in uncovered/outside storage.

   Immersion. In addition to the four conditions described above, also for
- immersion. In addition to the four conditions described above, also for immersion service in corrosive liquids such as salt water, crude oil, etc.
- √ -Indicates the product is safe to use on specific metal. Consult Cortec\* for application information.
- \* CAUTION Do Not Use With Indicated Metals



#### 5. Tables - product overview

| Metals<br>Protection<br>Guide      | Carbon<br>Steel | Stainless<br>Steel | Cast     | Aluminum<br>Alloys | Galvanized<br>Steel | Brass<br>(<30%Zn) | Copper   | Solder   | Epoxy<br>Coated Steel |
|------------------------------------|-----------------|--------------------|----------|--------------------|---------------------|-------------------|----------|----------|-----------------------|
| EcoSpray VpCI®-389                 | 4               | 4                  | 4        | 4                  | 4                   | 4                 | 4        | 4        | N/A                   |
| VpCI°-405                          | 2               | 2                  | 2        | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI°-408/SC                       | 1               | 1                  | 1        | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| VpCI°-411/411 Gel                  | 1               | 1                  | 1        | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| VpCI°-414                          | 1               | 1                  | 1        | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| VpCI°-415                          | 2               | 2                  | 2        | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI®-416                          | 2               | 2                  | 2        | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCI®-417                          | 2               | 2                  | 2        | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| VpCl°-418/418L/418LM<br>VpCl°-419  | 2               | 2                  | 2        | 2                  | 2<br>N/A            | 2<br>N/A          | 2<br>N/A | 2<br>N/A | N/A<br>N/A            |
| VpCI°-422/423                      | ✓               | ✓                  | <u>∠</u> | N/A                | N/A                 | N/A               | N/A ✓    | N/A ✓    |                       |
| VpCI°-425                          | · ·             | · ·                | · ·      | N/A                | N/A                 | N/A               | N/A      | N/A      | N/A<br>N/A            |
| VpCI°-426/426 Gel                  | <b>√</b>        | <b>√</b>           | <b>√</b> | <b>√</b>           | IN/A                | IN/A              | IN/A     | IV/A     | N/A                   |
| VpCI°-426 Powder                   | <b>√</b>        | <b>√</b>           | 1        | 1                  | <b>√</b>            | 1                 | <b>√</b> | <b>✓</b> | N/A                   |
| VpCI°-427                          | N/A             | N/A                | N/A      | ✓                  | N/A                 | N/A               | N/A      | N/A      | N/A                   |
| VpCI°-429                          | <b>✓</b>        | ✓                  | ✓        | ✓                  | ✓                   | ✓                 | ✓        | ✓        | N/A                   |
| VpCI°-432/433                      | ✓               | ✓                  | ✓        | <b>√</b>           | ✓                   | N/A               | N/A      | N/A      | N/A                   |
| VpCI°-440                          | 2               | 2                  | 2        | 2                  | 2                   | 2                 | 2        | 2        | N/A                   |
| Corwipe® 500/300                   | 1               | 1                  | 1        | 1                  | 1                   | 1                 | 1        | 1        | N/A                   |
| MCI® Anti-Graffiti Coating         | N/A             | N/A                | N/A      | N/A                | N/A                 | N/A               | N/A      | N/A      | N/A                   |
| MCI® Coating for Rebar             | 4               | 4                  | 4        | 4                  | 4                   | N/A               | N/A      | N/A      | ✓                     |
| MCI® Coating for Rebar NT          | 4               | 4                  | 4        | 4                  | 4                   | N/A               | N/A      | N/A      | ✓                     |
| MCI <sup>®</sup> Construction Film | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI® Creteskin                     | ✓               | ✓                  | ✓        | ✓                  | <b>✓</b>            | N/A               | N/A      | N/A      | ✓                     |
| MCI® Fiber                         | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI® Fiber Grenade                 | ✓               | ✓                  | ✓        | ✓                  | <b>✓</b>            | N/A               | N/A      | N/A      | ✓                     |
| MCI® EcoCure Curing Agent          | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI® Grenade                       | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI® Mini Grenade                  | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI® Peel off Coating              | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI® Wall Defense                  | N/A             | N/A                | N/A      | N/A                | N/A                 | N/A               | N/A      | N/A      | N/A                   |
| MCI°-309                           | 3               | 3                  | 3        | 3                  | 3                   | 3                 | ✓        | 3        | ✓                     |
| MCI°-2000                          | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2001                          | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2005 Gel                      | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2005 AL                       | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2005/MCI°-2005NS              | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2006/MCI°-2006NS              | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2007                          | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2007P                         | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2008                          | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2008L                         | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |
| MCI°-2018                          | ✓               | ✓                  | ✓        | ✓                  | ✓                   | N/A               | N/A      | N/A      | ✓                     |

| Metals<br>Protection<br>Guide      | Carbon<br>Steel | Stainless<br>Steel | Cast<br>Iron | Aluminum<br>Alloys | Galvanized<br>Steel | Brass<br>(<30%Zn) | Copper | Solder      | Epoxy<br>Coated Steel |
|------------------------------------|-----------------|--------------------|--------------|--------------------|---------------------|-------------------|--------|-------------|-----------------------|
| MCI°-2019/AG                       |                 | ✓                  | <b>~</b>     |                    | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2019 W                        | ✓               | ✓                  | ✓            | ✓                  | ✓                   | N/A               | N/A    | N/A         | ✓                     |
| MCI°-2020/P/V/O                    | ✓               | ✓                  | ✓            | ✓                  | ✓                   | N/A               | N/A    | N/A         | ✓                     |
| MCI°-2020 Gel                      | ✓               | ✓                  | ✓            | ✓                  | ✓                   | N/A               | N/A    | N/A         | ✓                     |
| MCI°-2020 M                        | ✓               | ✓                  | <b>&gt;</b>  | <b>✓</b>           | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2020 M SC                     | ✓               | ✓                  | <b>~</b>     | <b>✓</b>           | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2020 M V/O                    | ✓               | ✓                  | <b>✓</b>     | <b>✓</b>           | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2021                          | ✓               | ✓                  | <b>✓</b>     | ✓                  | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2022/V/O                      | ✓               | ✓                  | >            | <b>*</b>           | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2023                          | ✓               | ✓                  | ✓            | ✓                  | ✓                   | N/A               | N/A    | N/A         | ✓                     |
| MCI®-2026 Concrete Primer HS       | N/A             | N/A                | N/A          | N/A                | N/A                 | N/A               | N/A    | N/A         | N/A                   |
| MCI®-2026 Floor Coating            | N/A             | N/A                | N/A          | N/A                | N/A                 | N/A               | N/A    | N/A         | N/A                   |
| MCI°-2026 Colorants                | N/A             | N/A                | N/A          | N/A                | N/A                 | N/A               | N/A    | N/A         | N/A                   |
| MCI°-2039                          | ✓               | ✓                  | ✓            | ✓                  | ✓                   | N/A               | N/A    | N/A         | ✓                     |
| MCI°-2050                          | ✓               | ✓                  | ✓            | ✓                  | ✓                   | ✓                 | N/A    | N/A         | ✓ -                   |
| MCI°-2060                          | 5               | 5                  | 5            | 5                  | 5                   | 5                 | 5      | 5           | N/A                   |
| MCI°-2061                          | 5               | 5                  | 5            | 5                  | 5                   | 5                 | 5      | 5           | N/A                   |
| MCI°-2241/2242                     | ✓               | ✓                  | ✓            | ✓                  | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2246                          | ✓               | ✓                  | ✓            | <b>✓</b>           | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2311                          | ✓               | ✓                  | <b>✓</b>     | <b>✓</b>           | ✓                   | N/A               | N/A    | N/A         | ✓                     |
| MCI°-2701                          | ✓               | ✓                  | <b>✓</b>     | <b>✓</b>           | ✓                   | N/A               | N/A    | N/A         | ✓ -                   |
| MCI°-2702                          | <b>✓</b>        | ✓                  | >            | <b>&gt;</b>        | <b>✓</b>            | N/A               | N/A    | N/A         | ✓                     |
| PTC Emitter                        | ✓               | ✓                  | <b>&gt;</b>  | <b>✓</b>           | ✓                   | ✓                 | >      | <b>&gt;</b> | ✓                     |
| <b>CorrLube</b> Lubricating Grease | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2      | 2           | N/A                   |
| CorrLube Hydraulic Fluid           | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2      | 2           | N/A                   |
| CorrLube Industrial Gear Oil       | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2      | 2           | N/A                   |
| CorrLube VpCI® Motor Oils          | 2               | 2                  | 2            | 2                  | 2                   | 2                 | 2      | 2           | N/A                   |
| VmCI-307°                          | 3               | 3                  | 3            | 3                  | 3                   | 3                 | 3      | 3           | N/A                   |
| VpCI°-308                          | 5               | 5                  | 5            | 5                  | 5                   | 5                 | 5      | 5           | N/A                   |
| VpCI°-309 Pouch                    | 3               | 3                  | 3            | 3                  | 3                   | N/A               | N/A    | N/A         | N/A                   |
| VpCI°-309/309SF                    | 3               | 3                  | 3            | 3                  | 3                   | N/A               | N/A    | N/A         | N/A                   |
| VpCI°-608                          | 3               | 3                  | 3            | 3                  | 3                   | N/A               | N/A    | N/A         | N/A                   |
| VpCI°-609                          | 5               | 5                  | 5            | 5                  | 5                   | х                 | х      | N/A         | N/A                   |
| EcoPouch VpCI°-609 Bio             | 4               | 4                  | 4            | 4                  | 4                   | х                 | х      | N/A         | N/A                   |

#### **Consultation Key:** \* After a product name: applied to concrete only Recommended Consult Cortec® For Specific Usage Not Recommended or Test Data Not Available Cortec® Corporation Product Key: VpCI® Powders VpCI® Electronic Product VpCI® High Performance Coating VpCI® ECO Products VpCI\* Additives for Coatings & Fluids Surface Preparation Product Process Additives Generic Chemicals VpCI® Packaging Products MCI® Concrete/Construction Products VpCI® Water Treatment Products VpCI® Enhanced Lubricants VpCI<sup>®</sup> Metalworking Products

#### Application Key:

- 1 Enclosed. For use in non-ventilated equipment housings, control boxes, or other  $enclosures. \ Packaged \ in \ cardboard, paper, plastic \ wrap, or \ metal \ containers.$
- In addition to the condition described above, for use in uncovered/inside storage.
   Outside Sheltered. In addition to the two conditions described above, for use in sheltered/outside storage.
- 4 Outside. In addition to the three conditions described above, for use in uncovered/outside storage.
- 5 Immersion. In addition to the four conditions described above, also for immersion service in corrosive liquids such as salt water, crude oil, etc.
- √ –Indicates the product is safe to use on specific metal. Consult Cortec\* for application information.

  \* - CAUTION Do Not Use With Indicated Metals



#### 6. Products

#### 6.1. Products for electronics

#### VpCI®-101 Impregnated Foam Device, Patented

Unique dual action: desiccant/VpCI® protection.VpCI® impregnated foam for multimetal protection. Comes with adhesive backing and individually packaged in plastic. Each device is 32 mm (1.25") wide, 76 mm (3") long, and 6 mm (0.25") thick. Use one device per 28 l (1.0 cu. ft.) of enclosed space. Nitrite free, nontoxic.

Package: 50 per carton

#### VpCI®-105/111 Plastic Emitter,

Tyvek® breathable membrane, plastic cartridge filled with nitrite free VpCl®, for multimetal protection. Comes with adhesive backing and is individually packaged in plastic. The VpCl®-105 emitters are compact to fit modern electronic enclosures [58 mm (2.3") in diameter and 19 mm (.75") high]. Use one emitter for 142 l (5 cu. ft.) of enclosed space. VpCl®-111 [58 mm (2.3") in diameter and 32 mm (1.27") high]. Protects 311 l (11 cu. ft.).

MIL I-22110C (Comm. Equiv.)

Package: 20 per carton VpCI®-105, and 10 per carton VpCI®-111

#### VpCI®-150 a 170 Adhesive Backed Foam Tapes

Unique dual action: desiccant/VpCI® protection. Breathable, open-cell foam, nitrite free, for multimetal protection. Comes with adhesive backing and individually packaged in plastic. The emitter is 64 mm (2.5") in diameter, and 51 mm (2") high.

Package: 12 per carton

#### Corrosorber®

Scavenges corrosive gases from the atmosphere, providing passive protection against corrosion, oxidation, and rust.

Package: 10 individually wrapped cups carton

#### Eco Emitter®

Biobased emitting device filled with nitrite free VpCI®, for mulitmetal protection. Constructed from biodegradable and renewable materials. Powered by nano VpCI®. Protects up to 0.25 m³.

Package: 10 emitters per carton.

#### ElectriCorr VpCI®-238/239

Multifunctional formulation providing three-way protection: multimetal corrosion protection, antistatic and cleaning action. Corrosion inhibiting spray provides, ultrathin, protective film. For use in enclosed environments on electronic equipment and components. Will not alter electrical resistance, magnetic or thermal properties. Used by global military personnel.

VpCI®-239 is the outdoor version of VpCI®-238.

Package: 340 g (12 oz.) aerosol or EcoSpray® 238 pump spray, 0,47 liter (16 oz.), 19 liter (5 gallon) pails and 208 liter (55 gallon) drums

#### ElectriCorr® VpCI®-248

Designed for use in a sheltered environment, its continuous vapor action saves money by extending product life and eliminating downtime due to corrosion. It forms a molecular film effective against aggressive environments, including

industrial, marine and tropical climates. This film does not alter the electrical, resistance or magnetic properties. Used by global military personnel.

Package: 340 g (12 oz.) aerosol or EcoSpray® 238 pump spray, 0,47 liter (16 oz.), 19 liter 5 gallon (5 gallon) pails and 208 liter (55 gallon) drums

#### ElectriCorr VpCI®-286

Nonconductive acrylic conformal coating that combines excellent moisture and corrosion resistance with Cortec's patented vapor corrosion inhibitor technology.

Package: 312 g aerosol cans (11 oz.), 19 liters (5 gallon) pails, 208 liters (55 gallon) drums, totes and bulk

#### 6.2. Process additives

#### Eco Flow® System

Eco Flow $^{\mathbf{m}}$  is a two component, single dosing system specifically designed for pipelines carrying water or a mixture of hydrocarbon and water.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-629 Bio

It is the only oilfield inhibitor product on the market which combines high level of corrosion protection, biodegradability and low toxicity. VpCI®-629 Bio is soluble in crude oil and dispersible in fresh water and brine solutions. As a fast-acting and long-term inhibitor, It forms an effective corrosion inhibiting barrier for both ferrous and nonferrous metals in the presence of water, halogens and corrosive gases such as dissolved oxygen, sulfur dioxide, carbon dioxide, and hydrogen sulfide.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-629 Inhibitor for Oil, Gas and Petrochemical

Processing Concentrated inhibitor that forms inhibitive layer to protect internal surfaces of process equipment, pipelines, tanks, vessels, reactors, valves, etc. Used for transportation and storage of hydrocarbon liquids and some gases.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-629D/HF/SC Inhibitor for Oil, Gas and Petrochemical

Processing Inhibitor for low temperature environments with similar properties of VpCI®- 629. HF is a high flash point version, and SC is a super-concentrated version.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-637 Inhibitor for Gas Flow and Transmission Lines

Provides internal corrosion protection for gas flow and gas transmission lines. Effective against water, corrosive gases and chloride contamination.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

# VpCI®-639 High Temperature Inhibitor for Oil, Gas and Petrochemical Processing

Inhibitor for high temperatures in oil and gas wells, refine-



ries, gas processing, petrochemical processes and other hydrocarbon processes.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-658 Undercoating for Insulated Surfaces

A liquid inhibitor for corrosion, protection of metal surfaces covered with thermal insulation. Able to be injected into insulation that is already in place to protect the metal underneath.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-705/VpCI®-705 Bio přísada do pohonných hmot

A fuel additive corrosion preventive additive for gasoline, diesel, gasohol mixtures and alcohol fuels. It also works as fuel stabilizer and water emulsifier. Soluble in both methanol blends as well as neat methanol fuel or neat gasoline. Approved by General Motors Corporation.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

# VpCI®-1238 A liquid additive for vapor degreasing, cleaning & stripping baths

The liquid concentrate additive boosts protection for ferrous and some non-ferrous parts processed in vapor degreasing, cleaning and stripping baths, as well as for conventional solvent cleaning/ degreasing systems.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI® Coolant/Antifreeze

Corrosion inhibiting heat transfer fluid featuring a wide range of use temperatures from -50  $^{\circ}$ C (60  $^{\circ}$ F) to 140  $^{\circ}$ C (280  $^{\circ}$ F).

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### S-41

Corrosion Inhibiting rinse additive for aqueous and nonaqueous systems formulated for use in combination with Cortec's existing water and solvent soluble cleaning systems.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### S-49 Fuel Additive

Blend of solvents, dispersants, surfactants and emulsifiers for treatment of fuel oil grades #2, #4, #5 and #6.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### 6.3. Generic Chemicals

#### G-6 Corrosion Inhibitor for Copper and Brass Alloys

It functions by reacting with surface copper oxides to form a strong, insoluble polymeric complex. This complex creates a protective layer or film on the copper surface.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### G-29 Corrosion Inhibitor for Copper and Brass Alloys

Corrosion inhibitor formulation for the protection of copper, brass, bronze and ferrous metals. Primarily designed for metalworking fluid formulations, and lubricating oils. 50% solution of tolyltriazole in alkanolamine.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### **6.4. VpCI® Metalworking Products**

#### **Biobased & Water Based**

#### VpCI®-316 Liquid Concentrate

Synthetic, water-based inhibitor formulated for the protection of yellow metals. Provides lubrication and cooling properties during operation and dries to a transparent film.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-325 Lubricant/Corrosion Inhibitor

Ready-to-use vegetable oil based liquid for multi-metal corrosion protection. Provides excellent protection to finely machined surfaces such as gun barrels, honed or mirror-like finishes. MIL C-81309 (Comm. Equiv.)

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-337 Liquid

Water-based VpCI® liquid that is excellent for fogging of internal spaces of pipes, tanks, and containers. Also provides excellent protection when used as an edge spray for shipping and storage applications. Contains vapor phase corrosion inhibitors for multi-metal protection.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk. It is also available in EcoAir®, 369 g (13 oz.) fogger can

#### VpCI®-338 Liquid Corrosion Inhibitor

Water-borne corrosion inhibitor that is excellent for edge-treating of coils and sheet metal stacks and for fogging of internal enclosures. Particularly effective on ferrous metals, aluminum, and tin-plate. FDA approved for indirect contact with food. It is also available as a super concentrate VpCI®-338SC.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-344 Water-Borne Coolant/Lubricant

Water-borne corrosion preventative coolant for use in wet tempering of galvanized or cold-rolled steel. Also can be used in light machining operations where some lubrication is required.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-345 Coolant/Lubricant

Semi-synthetic coolant/lubricant for heavy duty machining operations such as cutting, grinding, and stamping. Provides excellent multi-metal corrosion to both equipment and machined parts.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-347 Heavy Duty Lubricant

Soluble-oil based lubricant for use in heavy duty machining operations. Excellent for use in drawing, broaching, turning, cutting and stamping operations. Effective in dilutions as low as 1:40 in water.

NATO 6850-66-132-6101, NATO 6850-66-132-6102, NATO 6850-01-470-2740



Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-377 Water-Based Rust Preventative

Water-soluble, biodegradable, rust preventative concentrate designed as a direct replacement for oil-based rust preventatives. Leaves a transparent, dry film and can be used at low concentrations. Can apply over with most coatings, no need to remove.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk. It is also available as EcoAir® VpCI®-377 369 q (13 oz.) cans.

#### VpCI®-378 Water-Reducible Rust Preventative

Water-emulsifiable replacement for oil-based rust preventatives. Forms a stable emulsion in water and can provide long-term protection for indoor and sheltered outdoor applications. VpCI®-378 also works very well as a quenching fluid

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-379 Water-Based Rust Preventative

Water-based corrosion preventative concentrate designed to be used as a replacement for oil-based chemistries. Provides multi-metal protection for long-term indoor storage/shipping applications.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### BioCorr® Rust Preventive

BioCorr® RP is a ready-to-use, zero-VOC, water-based rust preventative that provides multi-metal protection while remaining environmentally preferable and biodegradable. BioCorr® is ideally suited for aggressive indoor environments and mild outdoor environments offering long-term (up to 2 years +) indoor protection.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes, bulk, and 455 ml (16 oz.) cans

#### Oil/Solvent Based

#### VpCI®-322 Oil-Based Concentrate

Oil-based concentrate for use as an additive to various lubricating systems that is suitable for both operating and lay-up applications. May also be fogged into internal cavities for corrosion protection.

MIL PRF-46002C (Comm. Equiv.),

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk.

#### VpCI®-323 Oil-Based Concentrate

Oil-based concentrate for use as an additive in engine systems, and is suitable for both operating and lay-up applications. Provides corrosion protection both in contact and in the vapor phase. Also available in a higher flashpoint version (VpCI®-323M).

MIL PRF-46002C (Comm. Equiv.), MIL I-85062 (Comm. Equiv.)
Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-326 Oil-Based Concentrate

Oil-based concentrate for use as an additive to hydraulic systems. Contains corrosion inhibitors for protection of both ferrous and non-ferrous metals. Suitable for both operating and lay-up applications and will pass through a 1-micron filter.

NATO 6850-66-132-6100, MIL PRF-46002C (Comm. Equiv.), MIL I-85062 (Comm. Equiv.),

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-327 Solvent-based Concentrate

Ready-to-use, solvent-based rust preventative for indoor corrosion protection. Formulated for the removal of finger prints and other stains from metal surfaces.

MIL C-15074E (Comm. Equiv.), MIL C-81309 (Comm. Equiv.)
Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums,
liquid totes and bulk

#### VpCI®-329 Oil-Based Concentrate

Oil-based concentrate for use in gearboxes, crankcases and other lubrication systems. Provides excellent corrosion protection in both the liquid, and vapor phases. It is also available in super concentrate (VpCI°-329SC), ready-to-use (VpCI°-329D), and FDA approved (VpCI°-329F) versions.

NATO 6850-66-132-6100, MIL PRF-46002(1) (Comm. Equiv.), MIL I-85062 (Comm. Equiv.)

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk.

#### VpCI® Teflon Lube

This newly developed, high tech, premium grade lubricant provides an extremely effective lubricating and anti-corrosion protective coating for mechanical devices and parts.

Package: 10 per carton, 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes, bulk, and 455 ml (16 oz.) cans

#### CorrLube Food Grade Penetrant

CorrLube Food Grade Penetrating oil contains only USDA H-1 approved ingredients and because of that can be used on equipment in sanitary areas where there is no exposure to edible products.

Package: 453.6 g (16 oz.) tubs, 19 liter (5 gallon) pails, 55 gallon (208 liter) drums

#### CorrLube VpCI® Lithium EP Grease

VpCI® CorrLube is a lithium complex grease formulated with premium quality, severely hydrotreated base stock. It provides excellent resistance to oxidation and has high temperature stability.

Package: 396 g (14 oz.) cartridges, 5 gallon(19 liter) pails, 55 gallon (208 liter) drums

#### Cortec VpCI® Super Penetrant

Cortec VpCI® Super Penetrant offers a deep penetrating formulation that loosens frozen parts locked in rust.

Package: 453,6 g (16 oz.) tubs, 5 gallon(19 liter) pails, 55 gallon (208 liter) drum



#### 6.5. High Performance Coatings

#### Removable

#### VpCI®-368 Liquid for Outdoor Protection/•QPL Listed

Solvent-based, temporary coating that provides extended outdoor, multimetal protection. Leaves a translucent, waxy finish that is scratch resistant and self-healing. Can be removed with common solvents.

Package: 19 liter (5 gallon) pails, and 208 liter (55 gallon) drums

#### VpCI®-369 Liquid Concentrate/•QPL Listed

Oil-based barrier coating that provides extended, outdoor, multimetal protection. Leaves a translucent, oily film that is scratch resistant and self-healing. Product can be diluted with oil. Apply by spraying, dipping, brushing or rolling. Can be easily removed with common solvents.

MIL PRF-16173E (Comm. Equiv.)

Package: 19 liter (5 gallon) pails, and 208 liter (55 gallon) drum

#### VpCI®-372 Strippable Coating

Water-based liquid applied coating that dries to a tack free, rubbery surface. Provides protection from both atmospheric corrosion and surface damage during storage and shipping. To remove, simply peel from the surface.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums and liquid totes

#### VpCI®-388 Water-Based Temporary Coating

Water-based, temporary coating for both indoor, and out-door corrosion protection. Leaves a film that is clear and dry. Can be easily removed, and is low in VOC's. Custom colors available.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums and liquid totes

#### VpCI®-389 Water-Reducible Temporary Coating

Water-borne temporary coating for outdoor storage protection. Leaves a translucent, waxy coating that is easily removable. Low in VOC's and dilutable with water. Stom colors are available for the customer.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums and liquid totes

#### VpCI®-391 Non-tacky Temporary Coating

Water-born temporary coating that is intended for medium to long-term indoor and outdoor protection. Can be easily removed with hot water or alkaline cleaner. Available in different colors.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, totes and bulk

#### VpCI®-812

A wax paste that is long lasting, has high shine, and a rust blocker containing new, high performance VCIs. Protects against UV rays and fiberglass oxidation.

Package: 0,47 liter (16 oz.) bottle, 4,7 liter (5 quart), 19 liter (5 gallon) pails

#### VpCI®-819

A wax/rinse emulsion with corrosion inhibitors. Available as a concentrate or diluted. Protects against UV rays, oxidation and corrosion.

Package: 0,47 liter (16 oz.) pump spray bottle, 4,7 liter (5 quart) and 19 liter (5 gallon) pails

#### CorShield® VpCI® Transit Coating

CorShield® VpCI® Transit Coating is a water-reducible concentrate designed as a complete replacement for oil-based corrosion preventives.

Package: 19 liter (5 gallon) pails and 208 liter (55 gallon) drums and liquid totes

#### CorShield® VpCI® Strippable Coating

Water-based, non-flammable temporary coating that can be easily removed without the use of paint strippers or cleaners. Available in different colors.

Package: 19 liter (5 gallon) plastic pails, 208 liter (55 gallon) drums

#### Permanent

#### VpCI®-371 Aluminum Silicone Coating

VpCI®-371 is a high temperature aluminum solvent borne silicone coating that provides excellent corrosion-resistance on metal substrates.

Package: 19 liter (5 gallon) pails, and 208 liter (55 gallon) drums

#### VpCI®-373 Wash Primer

Water-based, fast drying surface treatment product designed as a replacement for phosphate, and chromate treatments. Conforms to MIL P-15328D when used as a bonding primer.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums and liquid totes

#### VpCI®-374 Water-Based Acrylic Primer

Water-based, acrylic primer that provides extremely good corrosion protection in nearly all environments. Based on a hydrophobic latex that has extremely good salt resistance. Can be topcoated with many water-based and solvent-based finish coats.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums and liquid totes

#### VpCI®-375 One Coat

Water-based acrylic one coat system (primer & topcoat) that successfully provides protection in harsh, outdoor, unsheltered applications. Keep product from freezing

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) metal drums, liquid totes and bulk.

#### VpCI®-382 2K Water-Based Polyurethane Topcoat

VpCI®-382 is a two-part waterborne polyurethane topcoat designed to be used over various primers. VpCI®-382 has high gloss, extremely low VOC, excellent chemical resistance, and excellent exterior durability when used over a primer.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) metal drums, liquid totes and bulk



#### VpCI®-383 Thin Film Coating

Water-based, acrylic clear coat that provides multi-metal corrosion protection. Can be used as a direct-to-metal primer or as a finish coat. Provides a medium-high gloss finish that is UV stable.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums and liquid totes

#### VpCI®-384 2K Polyurethane Topcoat

VpCI°-384 is a two-part polyurethane top coat designed to be used over a moisture cure urethane primers. In addition, VpCI°-384 has a high gloss, excellent hardness, extremely good flexibility, excellent solvent resistance, and does not contain aromatic solvents.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums and liquid totes

#### VpCI®-385 Non-Skid Coating

Non-skid, water-based coating for application to a variety of critical surfaces. Environmentally friendly, long lasting coating that is UV stable and can be used on metal, plastic and concrete.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-386 Aluminium

Water-based primer/topcoat, that provides protection from UV and abrasion for metals in harsh outdoor, unsheltered applications. Exceptional resistance based on a combination of organic-based inhibitors and an aluminum pigment.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) kit, liquid totes and bulk

#### VpCI®-386

A unique, water-based acrylic primer/topcoat that successfully provides protection in harsh, outdoor, unsheltered applications. The complex mixture of non-toxic, organic inhibitors offers protection that can compete with most paints and zincrich primers.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) kit, liquid totes and bulk

#### VpCI®-387 High-Build Coating

A high-build, water-based coating that provides extended outdoor protection for any metal surface. Provides excellent resistance to high heat, humidity and salt air. Available in standard and custom colors.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-394 Moisture Cure Urethane Topcoat

VpCl°-394 is a high solids, aliphatic moisture cure urethane for use on marginally prepared structural steel.

VpCI-394 should be applied onto VpCI-396, Cortec's aromatic moisture cure urethane primer.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, totes and bulk

#### VpCI®-395 Moisture-Cure Urethane Primer

Aluminum filled, moisture-cure urethane primer meant for application to structural steel. Provides a hard, flexible primer that can be topcoated with most conventional urethane coatings.

Package: 3,8 liter (1 gallon), 19 liter (5 gallon) pails

VpCI®-396 uretanový podkladový nátěr odolný proti vlhkosti

Uretanový podkladový nátěr s příměsí hliníku určený pro konstrukční ocel. Vytváří tvrdou a pružnou podkladovou vrstvu, na kterou je možno nanést většinu běžných uretanových nátěrů.

Balení: nádoby 3,8 litru a 19 litrů

#### CorShield® VpCI® Gold

Brilliant true gold colored water-based coating. Excellent salt spray and humidity resistance. Prevents corrosion in the most harsh environment.

Package: 19 liter (5 gallon) pails and 208 liter (55 gallon) drums and liquid totes

#### CorrVerter® VpCI® Rust Converter and Primer

Water-based corrosion converting primer that is meant for application to rusted surfaces. Contains a chemical chelating agent that converts the rust to a paintable surface.

Package: 0,45 liter (16 oz.) jars, 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### 6.6. Additives for Coatings & Fluids

#### M-95

It provides corrosion protection for steel, copper, brass, magnesium, aluminum, bronze, galvanized steel, and other ferrous and non-ferrous metals and their alloys.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-110 Liquid Additive

Solvent based organic corrosion inhibitor that recommended for use in solvent based and some waterborne coatings. The usage level recommended is 1 to 3% by weight.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### M-118 Liquid Additive

Water-based additive to improve corrosion resistance in aqueous coating systems.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### M-119/M-119LV Liquid Additive

Water-based corrosion inhibiting additive for manufacture of water borne coatings. Provides contact and vapor phase corrosion inhibition for ferrous and non-ferrous metals.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### M-121 Plastic Additive

Masterbatch for extrusion of polypropylene film. PP extrusion grade resin base multimetal + desiccant formulation.

Package: Gaylord, 364 kg (800 lbs.)

#### M-124 Plastic Additive

VpCI® Masterbatch for injection-molded plastics.

Package: Gaylord, 364 kg (800 lbs.)

#### M-126

Masterbatch for extruded films including LDPE, LLDPE, and



HDPE, patented.

Package: Gaylord, 364 kg (800 lbs.)

#### M-138 Rubber Additive/M-138C

Powder form additive for synthetic elastomers and natural rubber. 138C version with increased protection of cast iron and aluminum.

Package: 22,7 and 45,4 kg fiber drum (50 lb. and 100 lb.)

#### M-150 Ink Additive

VpCI® additive for inks. Solvent and water-based. Multimetal protection.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### M-168 Coatings Additive

VpCI® additive for oil/solvent based liquid coating systems. Protection for ferrous and non-ferrous metals.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### M-235 Additive

Corrosion inhibitor powder additive for copper, copper-based alloys and other yellow metals.

Package: 2.,3 kg (5 pound), 23 kg (50 pound), 45 kg (100 pound) fiber drums and bulk

#### M-236 Additive

Liquid corrosion inhibitor especially for oils and solvent-based products. It provides corrosion inhibition for ferrous and non-ferrous metals, but is very effective for yellow metals.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-238 Additive

Solvent-based blend of contact and vapor phase inhibitors developed to provide multimetal protection during operating and idle conditions. M-238 is a very effective inhibitor when it is added to aromatic, paraffinic, naphthalenic, fluorocarbon and hydrocarbonbased compounds.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-240 Additive

Flash-rust corrosion inhibitor additive for water-based paints, additives, sealers, fluids, etc.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-241 Additive

An inhibitor for protection of aluminum and it is alloys from "in can" corrosion and also water-based coolants, process and metal working fluids.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-370 Water-Based Additive

Multimetal corrosion preventive additive for water-based metalworking fluids, lubricants, cleaners and coatings during product manufacturing. Available in metal specific versions

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-381

Water-based corrosion inhibitor that is used most effectively with carbonated acrylic or styrene-acylic latices. Combines the power of M-380, M-119LV, and a flash rust inhibitor. Doesn't contain any nitrates or ammonia.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-408 Additive

A corrosion inhibitor for brake fluid. It is compatible with DOT 3, 4, and 5 brake fluids, but is especially effective in silicon based brake fluids, such as DOT 5.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-435 Coatings Additive

Water-based VpCI® additive for aqueous coatings or compounds. Protects ferrous and non-ferrous metals. Prevents flash corrosion.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

# M-5120 Coatings Additive for Skin Film and Blister Packaging, Patented

Water-based additive for heat seal coatings. Protects ferrous and non-ferrous metals.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### M-528/528L

Additive for hydraulic fluids used in subsea production control systems.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-529/529 SC Additive for oils and lubricants

Oil based corrosion inhibitor for lubricating oils for gasoline and diesel engines, hydraulic lubrication and other process system oils.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-530 Additive for Hydraulic and gear oils

Oil based corrosion inhibitor, containing demulsifier for the use in hydraulic and gear oils.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-5365 Coating Additive

Solvent-based additive for non-aqueous coatings or compounds. Protects ferrous and non-ferrous metals.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### M-640/640L Additive for Engine Coolants

Corrosion inhibiting additive for water and ethylene glycolbased engine heat exchange fluids. Protects ferrous and non-ferrous metals. Passes GM automotive glassware test ASTMD-1384.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### M-645 Water/Oil Additive

Corrosion inhibiting additive for saltwater applications. Especially effective in ballast tanks and offshore platforms



containing seawater, and for hydrotesting.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

S-111

Powder additive for aqueous alkaline cleaners that provides excellent flash corrosion protection at low concentrations for parts in-process.

Package: 23 kg (50 pound), 223 kg (100 pound) and bulk

#### 6.7. Packaging Products

#### Films/Plastics/Wovens/Non-wovens

#### VpCI®-125 Static Dissipative Film, Patented

Unique multifunctional films: VpCI® and ESD protection. Transparent, multimetal protection, heat sealable. Protect against triboelectric charge generation and corrosion. Recyclable. Meets to MIL-PRF-81705D for ESD properties.

Package: Standard and custom sizes

# VpCI®-126 Blue Multimetal Heat Sealable Film, Patented/•QPL Listed

Transparent plastic films with VpCI® for multimetal protection. Heat sealable. Also available in Zip-Lock® bags, and Shrink film varieties. Conforms to MIL-PRF-22019D and MIL-B-22020D. The product is recyclable.

Package: Standard and custom size bags, tubing and sheeting

#### Bio-Pad®

A unique flexible corrosion inhibiting device constructed from 100% biobased non-woven material. It provides an ecofriendly and sustainable packaging option for corrosion inhibition.

Package: Custom sizes

#### Corrcaps VpCI® Protective Covers

Elastic sewn on to VpCI®-126 or EcoWeave to create a "cap" that protects exposed brake assemblies on vehicles. Excellent protection and easy application. Can be sewn from 2,5 cm (1") diameter to over 60 cm (24") diameter.

Package: Custom sizes

#### Corrlam® VpCI® Barrier Laminate

Heavy Duty Barrier-Foil/VpCI® polyethylene laminated structure. Exceptional protection of moister-sensitive and oxygen sensitive metal parts. Ideal for vacuum packaging.

MIL PRF-131J(Comm. Equiv.)

Package: Available in custom sizes as pouches, covers, blankets, etc

#### CorrNetting

CorrNetting is extruded from the highest quality PE resin and Cortec® multimetal VpCls. Offers very effective packaging, which combines physical protection, cushioning and multimetal corrosion protection for sensitive mechanical parts and other sensitive materials.

Package: Available in a variety of different mesh and diameters, in tubular form or in flat sheeting

#### Cor-Pak® VpCI® Bubbles, Patented

This has VpCI® protection. Designed for cushioning, dunn-

age, void fill and interleaving. VpCI® contained in bubble film provides multimetal protection. Recyclable.

Package: Standard and custom size sheeting, pouches and bundles

#### Cor-Pak® VpCI® Cold Seal Film

Cohesive system with VpCI® protection. Sticks firmly and only to itself.

Package: Custom size roll stock

#### Cor-Pak® VpCI® Corrugated PE Sheeting

100% recyclable packaging material. Easily fabricated into boxes, containers and custom totes.

Package: Available in custom size sheeting

#### Cor-Pak® Fabric LD

A strong wet laid nonwoven fabric composed of a combination of synthetic and cellulosic fibers.

Package: Available in rolls to precisely fit a particular application

#### Cor-Pak® EX VpCI® Film

High density polyethylene film extruded with VpCl®. Protects ferrous and non-ferrous metal. Excellent barrier. 32 micron (1.25 mil).

Package: Standard and custom size roll stock and sheeting

#### Cor-Pak® VpCI® Liner Film

Exceptionally light (25 microns/1 mil) and strong HDPE film for foam-in-place as well as for other wrapping and interleaving applications. Multimetal, recyclable, excellent barrier, tear and moisture resistance.

Package: Available in single sheeting in 91 and 122 cm (36 and 48 inch) widths

#### Cor-Pak® VpCI® Skin Film

Transparent skin film with VpCI® for multimetal protection. Offers high clarity, industrial, and retail packaging.

Package: Custom sizes

#### Cor-Pak® VpCI® Stretch Film

Holds protected parts securely in place, transparent. Does not leave residue on parts. Multimetal protection. Available in machine and hand wrap grades.

Package: Standard and custom roll stock

#### EcoWeave® VpCI® Woven Polyethylene

VpCI® film designed for use in applications where additional strength and tear resistance are required.

Package: Custom sizes

#### Eco-Corr Film®

BPI Certified 100% biodegradable and compostable film utilizing Cortec's patented VpCI® technology. It provides better tensile strength, tear strength and ultimate elongation than low density polyethylene films. It is also heat and water stable and does not disintegrate or break apart while in use.

Package: Standard and custom roll stock and bags

#### Eco-Corr Film® ESD

A polymer extruded film that offers the same ESD and corrosion inhibiting properties as VpCI®-125 and is 100%



biodegradable.

Package: Custom roll stock and bags

#### EcoShield® Fabric

A multiple layered protective fabric with a non-woven, soft inside layer. EcoShield® Fabric protects valuable items from corrosion and mechanical damage (i.e. scratching) during storage and shipment. It is reusable and recyclable.

Package: Can be sewn to custom sizes

#### MilCorr® VpCI® Shrink Film

Composite film, containing the ultimate additives package: Cortec® multi-metal Vapor phase Corrosion Inhibitors (VpCI®), with UV stabilizers. Film thickness 250 microns (10 mils).

Package: Available in sheeting and tube form

#### **Papers & Paper Coatings**

#### Anti-Skid Linerboard/VpCI®

Cortec® VpCl® Anti-Skid Linerboard is designed to prevent corrosion as well as slippage of cases, cartons and bags up to a twenty degree slide angle.

Package: Standard and custom sizes

#### VpCI®-144 Paper

Multimetal VpCI® barrier coated paper. Excellent moisture barrier. Replaces polyethylene coated papers, recyclable, repulpable, and non-toxic.

Package: Standard and custom size roll stock and sheeting

#### VpCI®-145 Paper

A static dissipative corrosion inhibiting paper combines corrosion inhibiting and static dissipative properties to provide a complete packaging paper for your valuable items.

Package: Custom size roll stock and sheeting

#### VpCI®-146 Multimetal Inhibitor Paper

VpCI® kraft paper protects ferrous and non-ferrous metals. Nitrite and chromate free. Fully recyclable.

Package: Standard and custom size roll stock and sheeting

#### VpCI®-148 Paper, Grease Resistant, Corrosion inhibiting Paper

In addition to its excellent corrosion inhibiting properties, VpCl®-148 also provides resistance to greases, oils, and solvents.

Package: Standard and custom size roll stock and sheeting

#### VpCI®-149 Paper

A corrosion inhibiting paper for the protection of a wide variety of metals. Formulated specifically to provide superior protection for sensitive metals such as copper, aluminum, and cast iron.

Package: Standard and custom size roll stock and sheeting

#### VpCI®-350 AHS

Coating for the paper, linerboard, and corrugated box industry. Multi-metal VpCI® produces a thin, non-penetrating coating.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-350/357 Coating Solution

Multimetal VpCI® coating for flexible packaging substrates such as kraft papers and corrugated boxes. Available in a solvent-based or water-based formulation.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-355 EcoCoat

Water resistant moisture barrier coating that is recyclable and repulpable. Replaces wax and polyethylene coatings for paper and corrugated packaging.

Package: 19 liter (5 gallons) and 208 liter (55 gallons)

#### EcoShield® Paper & Linerboard

Coated with a moisture barrier coating. One of its key features is that it is fully repulpable while displaying barrier properties similar or better than those of wax or polyethylene coated paper or linerboard.

Package: 49 g/m² (30#/3msf), 73 g/m² (45#/3msf) paper, and a 205 g/m² (42#/msf) linerboard basis weights

#### Cor-Pak® Linerboard

The premium corrosion inhibiting linerboard in the industry. Provides multi-metal protection. Fully recyclable/repulpable.

Package: Custom sizes and constructions available upon request, in a 205 g/m² (42 lb/1000 sq ft) linerboard.

Other basis weights are available

#### Cor-Pak® VpCI® Reinforced Paper

Made from the highest quality, reinforced neutral natural kraft paper. This product offers excellent tear resistance, as well as providing corrosion inhibition to ferrous and nonferrous metals.

Package: Custom sizes and construction available

#### Cor-Pak® VpCI® Polycoated Paper

Made from the highest quality, neutral natural kraft paper. This product will provide excellent corrosion inhibition to both ferrous and nonferrous metals, at the same time, provides grease and moisture resistance.

Package: Custom sizes and construction available

#### Corrosorber® VpCI® Paper

This paper is specifically designed for protection of precious metals such as silver, gold, brass, tin and copper.

Package: Available in standard and custom size roll stock and sheeting

#### Devices, Emitters, & Foam

#### VpCI®-130 Series Impregnated Foam

Multifunctional action: VpCl®/static dissipative. VpCl®-131, 132, 133, 134, and 137 are impregnated foams for ferrous and non-ferrous protection. Available in a variety of sizes. Nitrite free, non-toxic.

Meets MIL-PRF-81705D for ESD properties.

Package: Standard and custom sizes available

#### Bio-Pad™

BioPad is a unique flexible corrosion inhibiting device constructed from 100% biobased non-woven material.

Package: Custom sizes



#### Cor-Pak® 1 MUL Breathable Pouches,

Tyvek® breathable membrane filled with multimetal VpCl® (1-MUL). For applications where powder contamination is not acceptable. GSA 8030-01-208-1769

Package: 300 per carton

#### 6.8. Desiccants

#### Cor-Pak® VpCI® Tablets

All purpose VpCl® for multimetal applications. Insert into packages. Nitrite free, for non-ferrous and ferrous metals.

Conforms to MIL I-22110C

Package: 1000 per bottle, 4 bottles per carton

#### Desicorr®/Desicorr VpCI®

Desicorr® is a pouch containing desicant. Desicorr VpCl® is a two-in-one pouch which contains unique combination of desiccant and VpCl® (Vapor phase Corrosion Inhibitor).

Package: Come in cartons of 300 units. Store at room temperature. Close cartons between uses. The shelf life of unopened cartons of pouches is up to 24 months or until color change is observed.

#### Dehydrosil

The bentonite siccative exploiting the high sorptive ability of selected bentonite sorts. It is recommendable especially for packaging technologies, for protection of products against rust. It is applied for elimination of air humidity inside the packaging, among others in sea-freight or at long time storage of the goods requiring dry environment.

Package: Custom sizes

#### Silikagel

High quality desiccant, what can adsorb about 40 percent of its weight in moisture and can take the relative humidity in a closed container down to about 40 percent.

Package: Custom sizes

#### **6.9. Water Treatment Products**

#### VpCI®-611

Additive for hydro testing, wet blasting and flash rust prevention for ferrous metals.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-615 Corrosion Inhibitor for Boilers

Phosphonate-based long-term corrosion inhibitor which protects low to medium pressure boilers.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-617 Boiler Water Treatment

Water soluble, provides long-term protection against corrosion and scale formation. Suitable for low to medium pressure boilers.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-641 Corrosion Inhibitor for Fresh Water

Water-based rust preventative for the protection of ferrous or non-ferrous metals in industrial waters. Especially suited for closed loop systems and hydrotesting.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-644 Corrosion Inhibitor for Brines

Corrosion inhibiting additive for ferrous and non-ferrous metals for water containing inorganic salts, including chlorides.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes or bulk

#### VpCI®-645 Marine Usage Corrosion Inhibitor

A non-toxic, biodegradable concentrate designed to provide long-term effectiveness in fresh water, salt water, brine and other highly corrosive solutions containing dissolved sulfide and halogens.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### VpCI®-649 Liquid/Powder for Multimetals

Water soluble inhibitor for multimetals. Recommended for closed loop cooling systems. Effective at low dosages. Also available in powder form. Corrosion inhibitor for cooling systems.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### Boiler Lizard®

Vapor Corrosion Inhibitor (VpCI®) powder in a polyvinyl alcohol (PVA) water-soluble bag designed for dry lay-up of boilers.

Package: Carton tubes (1 bag per tube)

#### BioClean 610

Coconut oil phospholipids-based product designed for the dispersion and preservation of microbiological growth in water-treatment applications.

Package: 19 liter (5 gallon)

#### BioClean 612

A powerful aliphatic amide based organic penetrating agent and organic deposit dispersant for use in industrial applications.

Package: 19 liter (5 gallon)

#### Cooling Loop Gator®

A Vapor phase Corrosion Inhibitor (VpCI®) powder packaged in polyvinyl-alcohol (PVA) water-soluble bags developed for seasonal lay-up.

Package: 4 x 1 kg (4 x 2.2 lb) bags per box

#### Cooling Tower Frog®

A Vapor phase Corrosion Inhibitor (VpCI®) powder packaged in polyvinyl-alcohol (PVA) water-soluble bags for dry lay-up. Package: 2 x 1,8kg (2 x 4 lb) bags per box

#### Closed Loop Toad®

A unique combination of Vapor phase Corrosion Inhibiting (VpCI®) powders in polyvinyl- alcohol (PVA) water-soluble bags. Developed to provide corrosion protection in recirculating and operating cooling systems

Package: 4 x 1,0 kg (2.2 lb) bags per box

#### S-7 Oxygen Scavenger

Oxygen scavenger designed to protect boiler systems against oxygen corrosion (hydrazine-free).

Package: 2,27 kg (5 lbs.), 22,7 kg (50 lbs.), 45,4 kg (100 lbs.)



#### **S-8**

S-8 is a unique product formulated only from FDA approved ingredients. This product is especially useful for the corrosion protection of metallic cans with different food items during their washing or sterilization of the packed food.

Package: 19 liter (5 gallon) pails or 208 liter (55 gallon) drums

#### S-10 Condensate Corrosion Inhibitor//10F

Corrosion inhibitor for quench, process and condensate lines in boilers, and process systems. (F version is FDA approved).

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### S-11 Organic Additive

Additives for acid systems such as industrial cleaning solutions and hot pickling baths. Inhibits acid attack and metal loss. Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### S-14 Antiscalant/ S-14 F / S-14 RO

General purpose water treatment antiscalant. Non-flammable and non-toxic.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### S-14 Ric

A unique green building block designed for cooling towers and other open-loop, recirculating cooling systems. It is a rare combination of a powerful scale inhibitor and excellent multi-metal corrosion protection

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### S-15 Boiler Treatment Additive

This product is a combination of oxygen scavenger and volatile neutralizing amines. The formulation is specifically designed for medium and high pressure boilers.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### S-16 Defoamer

Defoamer for aqueous and non-aqueous systems. Specially selected for use in combination with Cortec® water-based and oil-based inhibiting systems. Stable under both acidic and basic conditions. Silicone-free.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### S-69 Water Treatment Additive

An all organic building block for water treatment formulations which contains a unique combination of contact and vapor phase inhibitors. Available in liquid or powder form.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums or 5, 50, 100 lbs drums.

#### S-607 Bioremediation Additive

A safe, effective, and environmentally sound alternative for the elimination of petroleum and crude oil contaminates in soil and water.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### 6.10. EKO Products

#### EcoAir® VpCI-337

Water-based fogger with a delayed release actuator. Can be enclosed in a container and left to dispense. Non-flammable.

Package: 369 g (13 oz.) cans, 12 per case

#### EcoAir® VpCI-377

Water-based rust preventative for temporary corrosion prevention. Non-flammable.

Package: 340 g (12 oz.) cans, 12 per case

#### EcoAir® VpCI-414

Water-based, biodegradable cleaner. Clings to ceilings and vertical surfaces in hard-to-reach areas.

Non-flammable.

Package: 369 g (13 oz.) cans, 12 per case

#### EcoClean® VpCI-416

A non-toxic biodegradable liquid to remove heavy hydrocarbons, grease, and machinery oils.

Package: Dozen 0,47 liter (16 oz.) bottles per carton, also available in kits

#### EcoAir® VpCI-422

Water-based, non-toxic rust remover. Offers multimetal protection while removing rust. Non-flammable.

Package: 397 g (14 oz.) cans, 12 per case

#### EcoClean® VpCI-423

Thixotropic liquid uses natural organics to remove rust, scale, and oxides.

Package: Dozen 0,47 liter (16 oz.) bottles per carton, also available in kits

#### EcoClean® Silver and Gold Cleaner

VpCI® enhanced silver and gold polish for electrical contacts, jewelry and silverware.

Package: 453 gram (16 oz.) jars, 6 per carton

#### Eco-Corr/Eco-Corr ESD

A biodegradable polymer extruded film containing VpCI®. ESD version including antistat properties also available.

Package: Standard and custom roll stock and bags

#### EcoLine® All Purpose Lubricant

VpCI® lubricant based on soybean methyl esters and designed for industrial, shop and home use. It contains a friction modifier and extreme pressure additive. Provides excellent corrosion protection.

Package: 0,47 liter (16 oz.) bottles, 19 liter (5 gallon) pails, 55 gallon (208 liter) drums, liquid totes and bulk

#### EcoLine® Cleaner/Degreaser

Heavy-duty, water-dilutable cleaner/degreaser for tough cleaning jobs in industrial and commercial applications based on soybean methyl esters. Provides temporary corrosion protection.

Package: 0,47 liter (16 oz.) bottles, 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### EcoLine® Cutting Fluid

Multifunctional biodegradable concentrate based on soybean methyl esters for metal cutting operations. Provides excellent corrosion protection.

Package: 0,47 liter (16 oz.) bottles, 19 liter (5 gallon) pails, 55 gallon (208 liter) drums, liquid totes and bulk

#### **EcoLine® Food Machinery Lubricating Grease**

High quality, corrosion inhibiting lubricant, formulated with



American grown natural seed oil.

Package: 3,7 liter (1 gallon), 19 liter (5 gallon) plastic pails, 208 liter (55 gallon) drums, 472 ml (16 oz.) spray bottles

#### **EcoLine® Rust Preventative**

Biodegradable temporary coating based on soybean methyl esters, and designed for use in severe marine and high humidity outdoor and indoor environments. Provides excellent corrosion protection.

Package: 0,47 liter (16 oz.) bottles, 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### EcoLine® 3220

A 100% biobased ready-touse temporary coating. This canola oil-based product offers a tenacious film which clings to metal surfaces, providing excellent contact corrosion protection in storage and shipment. In addition, it provides long lasting vapor corrosion inhibition.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### EcoLine® 3690

A biodegradable, biobased, ready-to-use temporary coating designed for severe marine and high humidity conditions.

Package: 19 liter (5 gallon) plastic pails, 208 liter (55 gallon) metal drums

#### EcoSpray VpCI®-238

Protects electrical and electronic contacts and components. Multifunctional formulation providing three-way protection: multimetal corrosion protection, antistatic and cleaning action. Corrosion inhibiting spray provides dry, ultrathin, protective film. For use in enclosed environments on electronic equipment and components. Will not alter electrical resistance, magnetic or thermal properties.

Package: Dozen 0,47 liter (16 oz.) bottles per carton, also available in kits

#### EcoSpray VpCI®-325

Replaces oil with natural, biodegradable lubricants and corrosion inhibitors.

Package: Dozen 0,47 liter (16 oz.) bottles per carton, also available in kits

#### EcoSpray VpCI®-389

Water-based coating to rust-proof iron, steel and aluminum.

Package: Dozen 0,47 liter (16 oz.) bottles per carton, also available in kits

#### **6.11. Surface Preparation Products**

#### VpCI®-405 Cleaner/Degreaser Foaming

Heavy duty cleaner and degreaser designed for cleaning in industrial applications. Excellent for removing carbon build-up, greases, dirt and other contaminants. Provides temporary multi-metal corrosion protection.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-408/SC Cleaner/Degreaser/Parts Washer Cleaner

Foam-free, neutral pH cleaner-degreaser for removing light-medium oil deposits. Meant for use in high pressure parts washers and provides short-term corrosion protection after cleaning.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-411/411 Cleaner/Degreaser Foaming

Heavy-duty, water-reducible, D-limonene cleaner/degreaser designed for extra tough cleaning jobs in industrial and commercial applications. Available in a gel form for hard-to-reach surfaces. Both provide flash corrosion protection.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk. Also available as CorrClean 312 g (11 oz) aerosol cans

#### VpCI®-414 Cleaner/Degreaser Foaming

Viscous liquid concentrate designed to remove temporary coatings from bare metal and painted surfaces. Can also be used to remove waxes, dirt, oil, greases and difficult to remove contaminants. Provides short-term, multi-metal protection after application.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes, bulk and EcoAir® VpCI®-414 369 g (13 oz.) cans

#### VpCI®-415 Cleaner/Degreaser Foaming

Heavy-duty, biodegradable alkaline cleaner/degreaser for use in aircraft applications. Excellent for removing oils, greases, dirt and carbon build-up. Provides multi-metal short term corrosion protection after cleaning.

Conforms to MIL PRF-87937D Pending QPL#.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk. Also available as CorrClean 510 g (18 oz) aerosol cans

#### VpCI®-416 Cleaner/Degreaser Foaming

Heavy-duty, alkaline cleaner and degreaser that can be used in industrial applications. Effective in neutralizing metal surfaces after acid cleaning or pickling operations. Also can provide corrosion protection for up to 6 months during indoor storage.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk. Also available in EcoSpray 454 g (16 oz) spray bottles

#### VpCI®-417 Cleaner and Degreaser (Powder)/Ultrasonic

Heavy-duty cleaner and degreaser developed for cleaning industrial equipment. Works very well in both power washers and ultrasonic equipment. Low foaming formulation. Provides short-term, multi-metal corrosion protection after cleaning.

Package: 23 kg (50 lb) boxes and 45,4 kg (100 lb) drums. It is also available in Safe-T-Charges 2,3 kg (5 lb) water soluble bags.

# VpCI®-418/418L/418LM Cleaner Degreaser/Part Washer Cleaner

Heavy-duty alkaline cleaner and degreaser for use in industrial cleaning equipment. Non-foaming cleaner that provides short term multi-metal corrosion protection after



#### the cleaning process.

Package: (VpCl®-418): 23 kg (50 lb) boxes, and 45,4 kg (100 lb) drums. (VpCl®-418L): 19 liter (5 gallon) pails, 55 gallon (208 liter) drums, liquid totes and bulk. It is also available as Safe-T-Charges 2,3 kg (5 lb) water soluble bags and in 418LM (sodium free version).

#### VpCI®-419 Cleaner/Degreaser Foaming

Heavy-duty cleaner and degreaser concentrate developed for cleaning industrial, oil field, refinery and marine equipment. Provides temporary corrosion protection to ferrous metals.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-422/423 Organic Rust Remover/Oxide Removers

Environmentally friendly, biodegradable rust and tarnish remover for ferrous and nonferrous metals. Incorporates VpCI® technology so that it is not aggressive to the metal substrate. Will not harm human skin, most paints, plastics, rubber, or other materials. VpCI®-423 is a gel excellent for application to vertical surfaces and hard to reach areas.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk. It is also available in EcoClean®-423, 455 g (16 oz.) pump spray bottle and EcoAir® VpCl®-423 455 g (16 oz.) cans

#### VpCI®-425 Neutral Rust Remover (Powder)/Oxide Removers

Environmentally friendly, biodegradable organic rust remover powder. Effective in low dosages for removal of rust, oxidation, and scale.

Package: 2,3 kg (5 lb) boxes, 23 kg (50 lb) boxes and 45,4 kg (100 lb) drums

# VpCI®-426/426 gel/426 Powder Rust Remover/Oxide Removers

Heavy-duty, liquid concentrate to remove rust, scale, and oxidation from virtually any metal surface. Especially effective in removing oxidation from aluminum, carbon steel, stainless steel, and copper. Incorporates VpCI® technology. Available in gel and powder form.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk. 23 kg (50 lb) boxes and 45,4 kg (100 lb) drums. Safe-T-Charges 2,3 kg (5 lb) water soluble bags

#### VpCI®-427 Aluminum Cleaner/Oxide Removers

Water-based, liquid concentrate that dissolves oxides/scale from aluminum.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-429 Multi-Metal Cleaner/Oxide Removers

A very effective, pH neautral, rust remover and cleaner for different metals. It not only completely cleans rusted surfaces, but also prevents further rusting during the cleaning process.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### VpCI®-432/433 Paint Remover/Paint and Graffiti Removers

Heavy-duty liquid or gel paint stripping formulation designed to remove paints and coatings. Particularly effective for remo alkyds, acrylics and urethane. Can be used on me-

tal, concrete, and wood surfaces. VpCI®-433 is a gel version of VpCI®-432.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes, and bulk. It is also available in EcoClean® 455 g (16 oz.) spray bottles.

#### VpCI®-440

A water-based surface pretreatment for steel, iron, aluminum, brass, copper, and other metals. VpCI®-440 can replace phosphatizing and chromating systems.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes, and bulk.

#### Corwipe® 300/500 Wipes

Multi-purpose wipe cleans while leaving behind an antistatic film. Removes oil, grease and light rust. Wipe size  $5" \times 5"$  (127 x 127 mm).

Package: 25 wipes per package, 12 packages per carton

#### **6.12. Concrete/Construction Products**

#### MCI® Anti-Graffiti Coating

Two-component, solvent based aliphatic urethane for concrete to provide easy removal of graffiti.

Package: 19 liter (5 gallon) pails, 9,5 liter (2,5 gal) pails

#### MCI® Architectural Coating

Water-based primer/topcoat containing corrosion inhibitor designed to provide protection in harsh, outdoor applications.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI® Coating for Rebar

MCI Coating for rebar is a water-based coating that provides excellent corrosion protection to rebar during storage and after embedment in concrete.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI® Coating for Rebar NT

Non-tacky version of MCI Coating for Rebar.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI® Construction Film

Black PE film designed for use in the construction industry as a vapor barrier. Provides multimetal corrosion and UV protection, and is 100% recyclable.

Package: 6.10 m x 30.48 m (20' x 100') sheeting

#### MCI® Creteskin™

An industrial strength release agent containing Cortec's Migratory Corrosion Inhibitors (MCI®). It is designed for protecting equipment, vehicles and forms in the construction industry.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums.

MCI<sup>®</sup> Creteskin™ has a shelf life of up to two years in a sealed container

#### MCI® EcoCure Curing Agent

A surface applied soya-based curing agent/sealer, containing Migrating Corrosion Inhibitors (MCI®).

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk



#### MCI® Fibers

MCI® Fibers are mono-filiment polypropylene-based fibers containing Migratory Corrosion Inhibitors (MCI®).

Package: 2,3 kg (5 lb) and 23kg (50 lbs) bags, and 45 kg (100 lb) drums

#### MCI® Fiber Grenade

The bag dissolves easily when in contact with water in the concrete mix. After approximately two minutes of mixing, the bag will completely dissolve and the MCI° compounds will disperse in the mix to protect reinforcing steel, galvanized steel, and other metals embedded in concrete.

Package: 20 - 1 lb bags per box. Regular bag is approximately 25,4cm x 35,6 cm (10" x 14"). Metric bag is approximately 30,5 cm x 35,6 cm (12" x 14"). Please specify if you need metric bags.

#### MCI® Grenade

Migratory Corrosion Inhibitor powder packaged in water-soluble PVA bags. One grenade provides corrosion protection to one cubic yard (0,76 m³) of concrete.

Package: 20 - 500 g (1 lb) bags per box

#### MCI® Mini Grenade

Migratory Corrosion Inhibitor powder packaged in water-soluble PVA bags. One mini grenade provides corrosion protection to 0.5 cubic feet (0,015 m³) of concrete.

Package: 100 - 10 g (0,02 lb) bags per box

#### MCI® Peel off Coatng

A corrosion inhibiting, modified water-based acrylic peelable coating. This product provides mechanical protection against nicks, abrasion, scratches, and over-spray to the surface that is covers.

Package: 19 liter (5 gallon) plastic pails, 208 liter (55 gallon) metal drums, totes and bulk.

#### **PTC Emitter**

PTC Emitters contain Migrating Corrosion Inhibitor (MCI®) powder for corrosion protection of post tensioning cables, ferrous, and non-ferrous metals in recessed areas, interior cavities and voids.

Package: cartons of 50 units

#### MCI® Wall Defense

A clear, silicone elastomer based anti-graffiti coating that can be applied to exterior concrete, masonry, or metal surfaces.

Package: 19 liter (5 gallon) pails, 9,5 liter (2,5 gal) pails

#### MCI®-309

Powder for corrosion protection of ferrous metals in recessed areas, interior cavities and voids.

Package: 2.3 kg (5 lb), 23 kg (50 lb) and 45 kg (100 lb) lined drums

# MCI®-2000 Migrating Corrosion Inhibiting Admixture for Concrete

Used to prevent corrosion of rebar in concrete. Amino alcohol based inhibitor added to concrete mix. Conforms to ASTM G-109.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2001 Admixtures

MCI®-2001 is a powdered form of MCI®-2000, which contains amino alcohol based Migratory Corrosion Inhibitors and are concrete admixtures.

Package: 2001 - 22,7 kg (50 lb) pails and 45.4 kg (100 lb) drums; 2002 - 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

# MCI®-2005 Gel, Migratory Inhibiting Gel for Concrete Structures

An injection treatment for existing concrete to prevent corrosion of embedded steel, especially in areas subject to cracks and spalling.

Package: 0,38 liter (13 oz.) cartridges, 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

# MCI®-2005/MCI®-2005 NS Migrating Corrosion Inhibiting Admixture for Concrete, Patented

Amine carboxylate, water-based admixture used to prevent corrosion of rebar in concrete. MCI®-2005 can retard setting time of concrete by 3 to 4 hours at 70° F (21° C). Also available in a normal set (NS) version. Certified by Underwriter's Laboratories to meet NSF Standard 61 guidelines.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

# MCI®-2006/MCI®-2006 NS Powdered, Migrating Corrosion Inhibiting Admixture for Concrete

Amine carboxylate, powdered admixture used to prevent corrosion of rebar in concrete. MCI®-2006 can retard setting time of concrete by 3 to 4 hours at 70° F (21° C). Also available in a normal set (NS) version.

Package: 2.3 kg (5 lb) boxes, 22,7 kg (50 lb) and 45,4 kg (100 lb) drums

#### MCI®-2007 Super Corr®

Melamine based, water-reducing concrete admixture containing MCI®-2005 technology. MCI®-2007 increases the flowability of concrete, in addition to providing corrosion protection. Meets ASTM C-494 Type G high range water reducing/ retarding admixture requirements.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### MCI®-2007 P

Polycarboxylate based, water-reducing concrete admixture containing MCI®-2006 technology. MCI®-2007P increases the flowability of concrete, in addition to providing corrosion protection.

Package: 22,7 kg (50 lb) and 45,4 kg (100 lb) drums

#### MCI®-2008 Via Corr/MCI®-2008 L Via Corr

Polycarboxylate based, water-reducing concrete admixture containing MCI®-2006 technology. MCI®-2008 is designed for use in self-compacting and self-leveling concrete mix designs. MCI®-2008 increases the flowability of concrete, in addition to providing corrosion protection. Available in liquid and powder formulations.

Package: MCI®-2008: 19 liter (5 gallon), 208 liter (55 gallon) drums and 22,7 kg (50 lb) drums and 45,4 kg (100 lb) drums. MCI®-2008L: 19 liter (5 gallon) and 208 liter (55 gallon) drums. The shelf life of the product is 12 months in a sealed drum.



#### MCI®-2018 Sealer

A silane based concrete sealer containing time-proven Migrating Corrosion Inhibitors (MCI®). MCI®-2018 is a small molecule product that allows deep penetration into concrete and provides water repellency by chemically reacting with the cementitious substrate under proper application. Treated substrates are hydrophobic and retain their original appearance. It seals surface pores, which prevents intrusion of chloride and carbonation and protects from the ingress of wind-driven rain. Treated concrete surfaces are fully breathable and their natural moisture-vapor transmission is not affected.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2019/MCI®-2019 AG Concrete Sealer,

40% solids, silane-based, low VOC concrete sealer with Migrating Corrosion Inhibitors for protection of concrete and embedded rebar. AG verison includes green fugative dye.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2019 W

Water Based, 40% silane sealer containing MCI® Spray, brush or roller applied.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

# MCI®-2020/MCI®-2020 V/O/MCI®-2020 P Migratory Corrosion Inhibitor for Existing Concrete Structures

Amine carboxylate based surface treatment for existing concrete to prevent corrosion of embedded steel. Certified by Underwriter's Laboratories to meet NSF Standard 61 guidelines. MCI®-2020 V/O is a more viscous version for vertical and overhead applications. Also available as a powder (MCI®-2020 P).

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums.

Powder package: 45 kg (100 lb) drum (which reconstitutes to one 55 gallon (208 liter) drum)

#### MCI®-2020 gel

An injectable form of corrosion inhibitor, which uses chemistry similar to Cortec's MCI®-2020 surface treatment.

Package: 10.3 oz. (304 mL) caulking tubes, 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### MCI®-2020 M/MCI®-2020 M V/O

Migrating corrosion inhibitor surface treatment for existing concrete to prevent corrosion of embedded steel A high viscosity version of MCI-2020 M is available as MCI®- 2020 M V/O, which is specifically designed for vertical and overhead application.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2020 M SC

Concentrated version of MCI®-2020 M that provides even better corrosion protection. Diluted 1:1 with water to make ready to use product.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2021 Concrete Sealer

Silicate-based concrete sealer with Migrating Corrosion Inhibitors for protection of concrete and embedded rebar.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2022 Sealer

Water based, Silane-siloxane blend sealer. Penetrating, vapor-permeable, water-repelling sealer containing MCI®- molecules for protection of concrete, brick, masonry units, etc. and embedded reinforcement. MCI®-2022 V/O is a more viscous version available for vertical and overhead applications.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2023 Passivating Grout

Two-component, polymer modified, cementitious based coating for corrosion protection of exposed rebar and other steel structures. Contains MCI® molecules.

Package: Powder: 12 kg (26, lb) buckets. Resin: 5 kg (11 lb) pails

#### MCI®-2026 Concrete Primer HS

Chemically resistant, Water-based, two component epoxy coating, which meets all of the USDA guidelines for use in poultry and meat plants. Clear coating can be tinted using any of the MCI®-2026 Colorants.

Package: 2,86 liter yield (0,75 gallon), 22,7 liter (6 gallon) 11,4 liter (3 gallon) mixes, 56,8 liter (15 gallon) 19 liter (5 gallon) pails, 624,5 liter (165 gallon)

#### MCI®-2026 Floor Coating

Chemically resistant, two component, 100% solids Novolac epoxy coating which meets all of the USDA guidelines for use in meat and poultry plants. Clear coating can be tinted using any of the MCI®-2026 Colorants.

Package: 2,27 liter yield (0,6 gallon), 19 liter yield (5 gallon) 9,5 liter (2,5 gallon) mixes, 47,3 liter (12,5 gallon) 19 liter (5 gallon) pails, 522,3 liters (138 gallon)

#### MCI®-2026 Colorants

Color additives for use in field for pigmentation of MCI°-2026 primer and floor coatings. See MCI° Colorant price sheet for colors and specific addition ratios.

Package: 4 - 0,94 liter (1 quart) cans per case

#### MCI®-2039 SC Concrete Repair Mortar

Single component, fiber reinforced repair mortar. Excellent adhesion properties, vapor transmission properties. Can be used for any type of concrete repair. It contains MCI® additive.

Package: 25 kg (55 lb) bags, 5 kg (11 lb) pails

#### MCI®-2050 Release Agent

Water based release agent that prevents "build-up" of concrete ,asphalt, dirt and other debris on concrete forms or other construction equipment while preventing corrosion of metal surfaces.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2060 Concrete Cleaner/Degreaser

Cleaner/degreaser combined with Migratory Corrosion Inhibitors to protect, clean and degrease concrete structures.

Package: 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### MCI®-2061 Surface Cleaner

A powerful cleaner that safely and effectively cleans oil stains on concrete. This hard surface cleaner is unique because it combines powerful cleaning chemistry with microorganisms capable of biodegrading hydrocarbons,



such as those found in oil, diesel and other materials that stain concrete.

Package: 19 liter (5 gallon) pails. The shelf life is 2 years with a maximum loss of 1.0 log at recommended storage conditions

#### MCI®-2241/MCI®-2242 Watertight Coat

MCI® -2241/2242 are flexible and breathable waterproofing membranes based on a unique combination of acrylic emulsion, Portland cement and fine fibers. Use them to waterproof all types of above- or below-grade concrete and masonry including foundations, block walls, balconies, parapets, planter boxes, water ranks, and fountains.

MCI®-2241 is a gray color, MCI®-2242 is white.

Package: MCI® -2241/2242 Component A is available in 8,9 liter (2,3 gallon)) packaged in 19 liter (5 gallon) pail. Component B is available in 11 kg (25 lb) bags. Each kit yields 15 liter (4 gallon). Shelf life is 12 months in original, properly stored, in unopened container.

#### MCI®-2246 Bonding and Anticorrosion Agent

MCI®-2246 is a unique combination of Portland cement, microsilica, epoxy, and acrylic resin. Use it for bonding new concrete or mortar to old and for protecting reinforcing steel against rust and corrosion. When used as a bonding agent, it provides up to a 24-hour open time.

Package: Store in a dry area, between 10 °C (50 °F) and 29 °C (85 °F). Protect from direct sunlight and extreme heat. MCI®-2246 Part A is available in a 2 part kit including 3,8 liter jug (1 gal) and Part B 13 kg (28 lb) bags. Shelf life of the product is 12 months in original, properly stored container.

#### MCI®-2311 Concrete Repair Mortar

Single component, full depth repair mortar containing MCI®- 2006 NS technology.

Package: 23 kg (50 lb) bags

#### MCI®-2701 Concrete Repair Mortar

Single component, trowel grade repair mortar containing MCI®-2006 NS technology.

Package: 23 kg (50 lb) bags

#### MCI®-2702 Concrete Repair Mortar

Single component, overhead repair mortar containing

MCI®- 2006 NS technology. Package: 23 kg (50 lb) bags

#### 6.13. Enhanced Lubricants

#### CorrLube VpCI® Enhanced Lubricating Grease

Thixotropic grease with extreme pressure (EP) properties formulated for corrosion protection of metals exposed to severe environments.

Package: 0,43 liter (14.5 oz.) cartridges, 19 liter (5 gallon), 208 liter (55 gallon) drums

#### CorrLube Hydraulic fluid

Synthetic lubricating oil for automotive brakes, machine tools, pumps, bearings, etc. Provides excellent corrosion

#### protection.

Package: 0,47 liter (16 oz.) bottles, 19 liter (5 gallon) pails, 208 liter (55 gallon) drums

#### CorrLube Industrial Gear Oil

Synthetic lubricating oil, used for a wide range of opened and closed gear sets. Provides excellent corrosion protection.

Package: 0,47 liter (16 oz.) bottles, 19 liter (5 gallon) pails, 55 gallon (208 liter) pails

#### CorrLube VpCI® Motor Oils

Automotive engine oils with VpCI® protection. Grade SAE 10W-30 and 15W-40.

Package: 0,94 liter (1 quart), 19 liter (5 gallon) pails, 208 liter (55 gallon) drums, liquid totes and bulk

#### 6.14. VpCI® Powders

#### VpCI®-307 Powder

Vapor corrosion inhibiting powders for ferrous and many non-ferrous metals. Apply by dust, sprinkle or fog. Nitrite and chromate free.

VmCI-307® meets MIL I-22110C.

Package: 2,27 kg (5 lb), 22,7 kg (50 lb), 45,4 kg (100 lb.)

#### VpCI®-308 Powder

Vapor phase Corrosion Inhibiting powder for multi-metal applications. Apply by dust, sprinkle or fog. Nitrite, phosphate and chromate free.

Package: 2,27 kg (5 lb), 22,7 kg (50 lb), 45,4 kg (100 lb.)

#### VpCI®-309/309SF Powder

Vapor phase Corrosion Inhibiting powder for ferrous metals. Apply by dust, sprinkle or fog. Nitrite and chromate free.

Package: 2,27 kg (5 lb), 22,7 kg (50 lb), 45,4 kg (100 lb.)

#### VpCI®-309 Pouch

VpCl®-309 Pouch contains a Vapor phase Corrosion Inhibitor (VpCl®) powder for corrosion protection of ferrous metals in recessed areas, interior cavities and voids. The pouches are constructed from breathable Tyvek.

Package: String of 50 pouches per carton

#### VpCI®-608 Powder

A Vapor phase Corrosion Inhibitor powder for corrosion protection of ferrous metals in recessed areas, interior cavities and voids, such as double bottom in storage tanks.

Package: 45 kg (100 lb) lined drum

#### VpCI®-609/609S Powder

Powder for wet or dry lay-up of ferrous metals or aluminum.

Package: 2,3 kg (5 lb), 23 kg (50 lb) and 45 kg (100 lb) moisture barrier bags packed in fiber-lined drums

#### EcoPouch VpCI®-609 Bio

EcoPouch contains VpCI®-609 powder for corrosion protection of ferrous metals and aluminum. The pouches are constructed from breathable Tyvek®.

Package: String of 50 pouches per carton



#### 7. Other Divisions of TART



The Division of Packaging Materials produces and supplies a wide range of packaging from different materials and for different purposes. We permanently have more than a thousand items in stock.



The objective of the Division of Packaging Machinery is to solve customer specific requirements, which are satisfied by offering customers a complete assortment of wrapping, strapping, carton sealing and shrink wrapping machines, heat sealers and complete packaging lines.



The most complex packaging solutions are implemented within the framework of the complex packaging division. Our staff successfully fulfil the demanding requirements of consumer, group and transport packaging of products using returnable and non-returnable packaging. The priority fields for complex packaging include the automotive industry, mechanical engineering, electronics and logistics centres.



TART offers a complete solution of the logistic process mainly to organizations and companies that realize foreign business and whose products require non-standard packaging and protection.



Envira® Biodegradable packaging helps protect the environment. They are made of raw materials (corn, soya) and they are fully compostable at the end of their life.



SUNFLEX® Thermoreflective foils are an excellent supplement to common insulation systems for building structures. They distinctively contribute to the reduction of heat losses during the winter season and they increase comfort during summer months.















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