



MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE



MCI®-309

Corrosion Inhibiting MCI Powder for Ferrous Metals

PRODUCT DESCRIPTION

MCI-309 is a Vapor phase Corrosion Inhibitor powder for corrosion protection of ferrous metals in recessed areas, interior cavities, and voids.

MCI-309 provides an extremely efficient dry method to protect metals within an enclosed space. The MCI vaporizes and adsorbs on the metal surfaces, reaching all exposed areas, including recessed sections and interior cavities. It is a mixed inhibitor that provides protection to both the cathodic and anodic sites of metal.

FEATURES

- Does not affect physical properties of concrete or grout (set time, strengths, etc)
- Is safe for high tensile strength steel (will not cause hydrogen embrittlement)
- Does not contain silicates, phosphates, nitrites, or heavy metals
- Provides up to 24 months of continuous protection
- Provides monomolecular inhibiting layer
- Vapor phase inhibiting action protects inaccessible and recessed surfaces
- Protected surfaces do not have to be cleaned prior to concrete or grout placement
- If MCI layer is disturbed by moisture or opening the enclosed space, the layer is replenished by continuous vapor redeposition
- Little or no surface preparation is required
- Prevents further corrosion of pre-coated and painted surfaces
- Easy to apply
- MCI layer does not need to be removed prior to processing or use
- Powder can be removed by air gun or water
- Provides protection to ferrous metals and aluminum
- LD50 ORAL: 2100mg/kg

APPLICATIONS

- Segmental concrete bridges tendons
- Post tensioned Box Girder Bridges
- Tubular structures, pipes, and vessels
- Equipment protection after hydrostatic testing
- Parts, components, and completed assemblies during shipping and storage
- Prestressed tendons

METHOD OF APPLICATION

Apply powder by dusting, fogging, or sprinkling. After application simply cover, close, or seal the interior cavity or void.

Fogging is easily achieved with a low pressure air hose and sandblast cup. Large, conventional sandblasting systems can also be used.

MCI-309 can be removed by using a low pressure air gun or water rinse.

DOSAGE

0.5 oz/ft³ (500 g/m³)

METALS PROTECTED

- Carbon steel
- Stainless steel
- Aluminum

TYPICAL PROPERTIES

MCI-309

Appearance	White to off-white powder
pH	6.5-8.0 (1% aqueous)
Density	38-39 lb/ft ³ (0.61-0.63 kg/L)

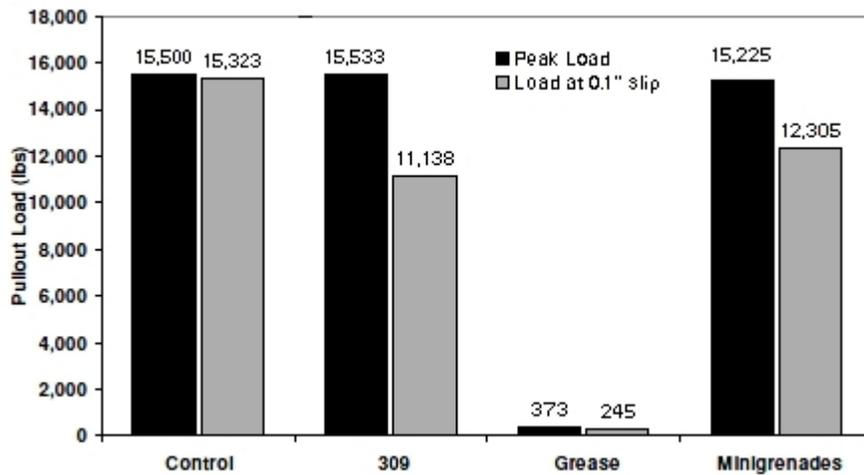
PACKAGING AND STORAGE

MCI-309 is available in 5 pound (2.3 kg), 50 pound (23 kg), and 100 pound (45 kg) lined drums. Store in a sealed container in a dry warehouse avoiding direct exposure to sunlight, with temperature not exceeding 150°F (65°C). Shelf life is up to 24 months.



MIGRATING CORROSION INHIBITORS
FROM GREY TO GREEN

Penn State Bond and Corrosion Testing



According to the Penn State Grouting Laboratory's report MCI-309 reduces corrosion of rebar exposed to salt water by 30%. MCI-309 treated post tension cables that were exposed to environment conditions for 1 year show no significant corrosion.

The graph above shows that MCI-309 does not affect the peak force achieved in the pull-out test. Anti-corrosive grease results in a 98% decrease in both peak force and at 0.1" slip.

FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

KEEP CONTAINER TIGHTLY CLOSED

NOT FOR INTERNAL CONSUMPTION

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

LIMITED WARRANTY

All statements, technical information and recommendations contained herein are based on tests Cortec Corporation believes to be reliable, but the accuracy or completeness thereof is not guaranteed.

Cortec Corporation warrants Cortec® products will be free from defects when shipped to customer. Cortec Corporation's obligation under this warranty shall be limited to replacement of product that proves to be defective. To obtain replacement product under this warranty, the customer must notify Cortec Corporation of the claimed defect within six months after shipment of product to customer. All freight charges for replacement products shall be paid by customer.

Cortec Corporation shall have no liability for any injury, loss or damage arising out of the use of or the inability to use the products.

BEFORE USING, USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH. No representation or recommendation not contained herein shall have any force or effect unless in a written document signed by an officer of Cortec Corporation.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO CASE SHALL CORTEC CORPORATION BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.



Distributed by:

4119 White Bear Parkway, St. Paul, MN 55110 USA
 Phone (651) 429-1100, Fax (651) 429-1122
 Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com
 Internet <http://www.CortecVCI.com>

printed on recycled paper  100% post consumer
 Revised 4/13/12. Cortec Corporation 2006-2012. All rights reserved. Supersedes: 12/27/06. MCI is a registered trademark of Cortec Corporation. © 2012, Cortec Corporation. All Rights Reserved. Copying of these materials in any form without the written authorization of Cortec Corporation is strictly prohibited. ISO accreditation applies to Cortec's only.