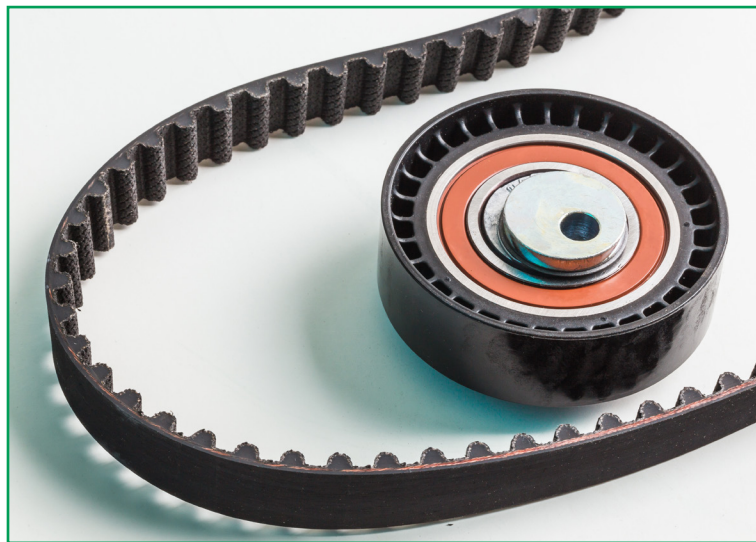




## CORROSION INHIBITING ADDITIVES

# M-138



## PRODUCT DESCRIPTION

Cortec® M-138 is a VpCI® corrosion inhibitor additive for rubber and sealants. It can be used to protect metal parts in contact with or in close proximity to rubber rollers, gaskets, or manufactured parts. M-138 replaces the use of environmentally unfriendly coatings or expensive alloys in addressing the tendency of elastomers to corrode metal parts.

Cortec® M-138 is a powdered compound that can be added in low concentrations to elastomeric formulations to solve these basic corrosion problems and protect ferrous and most non-ferrous metals. The finished rubber part will contain a contact corrosion inhibitor and also emit corrosion inhibiting vapors to protect nearby metals not directly touching the rubber or sealant. M-138 opens up new design and cost savings solutions for manufacturing processes, industrial use, and any situation where there is a corrosion problem from metallic components in proximity to elastomers.

## FEATURES

- Provides multi-metal corrosion protection to finished products
- Provides true VpCI® emitter properties to finished rubber products
- Non-toxic and non-flammable additive

## BENEFITS

- Allows addition of VpCI® compounds at the compounding stage
- Gives greater design freedom in choice of materials
- Reduces the cost of corrosion protection for metal components
- Simplifies mix design for compounding of elastomer

## APPLICATION

In most cases, a trial run of a particular rubber compound incorporating M-138 is suggested. The powder should be added to the elastomeric material at the compounding stage along with the other additives. The addition of M-138 to the rubber formulation will not typically change the physical properties of the molded rubber.

### Potential applications:

- Rubberized coatings
- Elastomeric gaskets and sealants
- Steel belted radial tires
- Reinforced rubber hoses and belts
- Elastomeric parts and components
- Elastomeric membranes for automobile roofs

## METALS PROTECTED

- Aluminum
- Galvanized Steel
- Carbon Steel
- Stainless Steel
- Copper
- Brass
- Bronze



## TYPICAL PROPERTIES

The General Motors Research Procedure (GMRP) is a test procedure designed to measure the degree of corrosion protection in direct contact between elastomeric gaskets and steel blocks. The table below shows results of adding M-138 to three different elastomeric compounds.

Elastomer Type	GM Corrosion Rating
Nitrile (control)	1.5
M-138 (5%)	0
Natural Rubber (control)	1
M-138 (1%)	0
M-138 (3%)	0
M-138 (6%)	0
EPDM (control)	1.5-2
M-138 (1%)	0
M-138 (2%)	0
M-138 (5%)	0

Appearance White to off-white powder  
Non-Volatile Content 95-100%

## STORAGE AND PACKAGING

Cortec® M-138 is available in 100 pound (45.5 kg) polyethylene lined drums. Store in a sealed container in a dry warehouse with temperature not exceeding 100 °F (38 °C). Under these conditions the shelf life is up to 2 years.

**FOR INDUSTRIAL USE ONLY**  
**KEEP OUT OF REACH OF CHILDREN**  
**KEEP CONTAINER TIGHTLY CLOSED**  
**NOT FOR INTERNAL CONSUMPTION**  
**CONSULT SAFETY DATA SHEET FOR**  
**MORE INFORMATION**

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