

Editorial Contact:  
Cortec® Advertising Agency:

Shannon Garrow  
(651) 429-1100 Ext. 1128

[sgarrow@cortecvci.com](mailto:sgarrow@cortecvci.com)

Company Contact:  
Cortec® Corporation

Markus Beiber  
(651) 429-1100 Ext. 1152

[mbieber@cortecvci.com](mailto:mbieber@cortecvci.com)

Technical Contact:  
Cortec® Corporation

John Wulterkens  
(651) 429-1100 Ext. 1130

[jwulterkens@cortecvci.com](mailto:jwulterkens@cortecvci.com)



**Attention: Editor**

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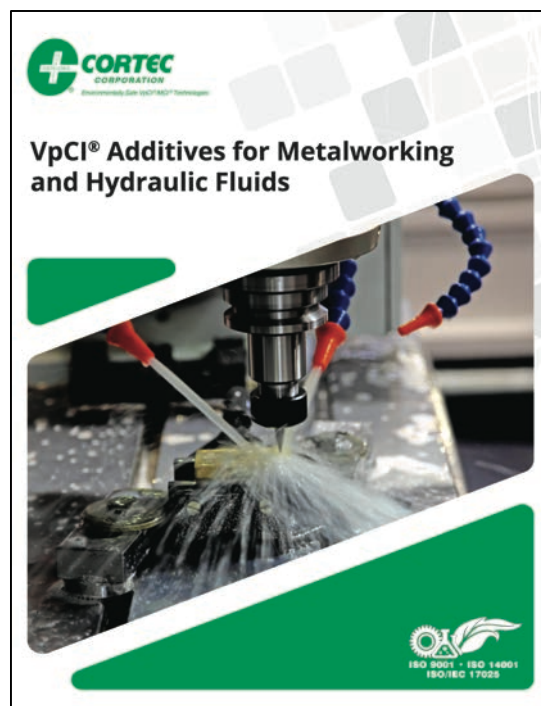
**PRESS RELEASE**



## Cortec® VpCI® Additives Brochure Offers Customized Corrosion Protection for Metalworking and Hydraulic Fluids!

Cortec's "VpCI® Additives for Metalworking and Hydraulic Fluids" brochure offers a variety of additives for use with oil, water-based, and synthetic metalworking and hydraulic fluids. These additives protect metal pieces from flash corrosion during the metalworking process, while also providing protection to the cutting and machining equipment. Other additives can be used for preserving important hydraulic equipment from corrosion during shipping or storage.

A unique advantage of many Cortec® additives is their vapor phase corrosion protection for metals in void spaces above the lubricant. When introduced to a void space, VpCI® molecules in these additives vaporize and diffuse throughout the enclosure and adsorb on metal surfaces. This thin molecular hydrophobic layer protects the metal against corrosive elements such as oxygen, moisture, and chlorides.



Incorporating corrosion inhibitors directly into metalworking and hydraulic fluids enhances corrosion protection and streamlines the process to avoid significant economic losses from corrosion damage. Benefits from Cortec's VpCI® additives for metalworking and hydraulic fluids portfolio include:

- Low dosage of additives for economical treatment
- Protection of cutting and metalworking equipment
- Flash rust and long-term multi-metal protection options
- WIP protection
- Compatibility with most biocides
- Protection available in contact phase, vapor phase, and interphase
- Excellent suitability for subsea hydraulic systems and hydraulic equipment layout

The brochure provides a handy selection guide introducing each additive with a brief description, followed by a chart where users can narrow down their additive choice based on the following attributes:

- Metals protected
- Additive physical state
- Transport mechanism (contact and/or vapor phase protection)
- Solubility
- Degree of protection (flash and long term)
- Typical application
- Typical dosage

**Simple. Clean. Efficient.**

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Incorporating corrosion inhibitors directly into metalworking and hydraulic fluids enhances corrosion protection and streamlines the process to avoid significant economic losses from corrosion damage.



**Features:**

- Low dilution for metalworking fluids
- Protection of cutting and metalworking equipment
- Long lasting, multi-metal protection
- WIP protection
- Compatible with most biocides
- Protection available in contact phase, vapor phase, and interphase
- Excellent for subsea hydraulic systems and hydraulic equipment layout

VpCI® additives form a thin molecular corrosion-inhibiting layer that adsorbs on the surface of the metal, displacing existing water, chlorides, or other corrosive contaminants on the surface. These additives provide multi-metal protection for many different cleaners and cleaning applications such as surface prep, food can sterilization, and manufacturing.



**Selection Guide for Metalworking and Hydraulic Fluid Additives**

**M-95:** Versatile water soluble additive for various multi-metal systems requiring vapor phase and contact protection. Causes little to no foam. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

**M-235:** Prevents corrosion of yellow metals. Can be added to functional fluids such as hydraulic fluids, specialty lubricants, automotive, coolants, and metalworking fluids. Package: 5 pound (2.3 kg) pails, 50 pound (23 kg) and 100 pound (45 kg) fiber drums.

**M-236:** Liquid corrosion inhibitor especially designed for oils and solvent-based products in contact with yellow metals. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

**M-241:** Corrosion inhibitor for aluminum. Add to metalworking fluids and water-based coolants. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

**M-250:** Anti corrosion additive with emulsification properties for soluble oils. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

**M-251:** Adds multi-metal contact and vapor phase corrosion protection to synthetic cutting fluids and water-based hydraulic fluids. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

**M-320:** Provides vapor and contact protection to all systems, such as gearboxes. Recommended during setup. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

**M-370:** Multi-metal corrosion preventive additive for water-based metalworking fluids. Prevents flash corrosion on metal surfaces and forms a hydrophobic film that is virtually undetectable when dry. Also available in A (aluminum), NS (non-sulfurated), NS (high surface), and C (additional protection for cast parts and rough surfaced versions). Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

**M-528:** Additive to hydraulic fluids for corrosion protection in subsea systems. Also for synthetic coolants and cutting fluids. M-528 L includes lubricants. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

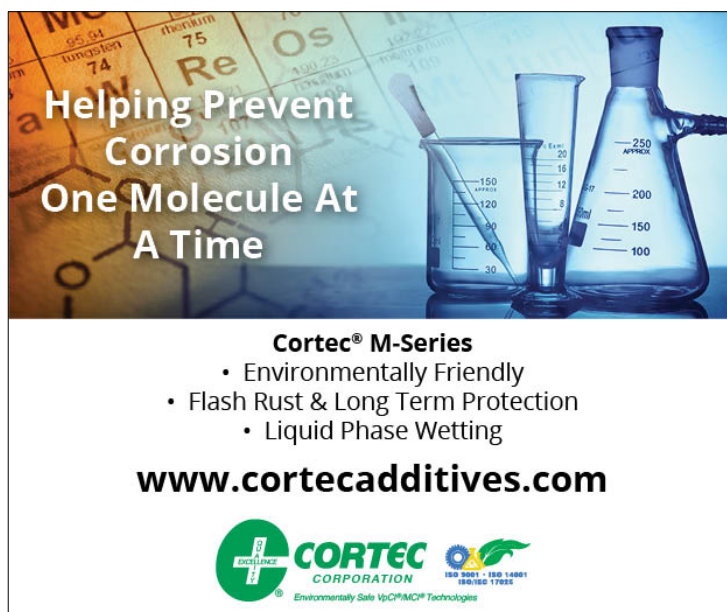
**M-415:** Strong vapor phase corrosion inhibitor additive for oils and fluids. Contains FDA and USDA approved ingredients. Package: 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

Additive	METALS/ENVIRONMENTS										APPLICATIONS				
	Aluminum	Steel	Stainless Steel	Copper	Brass	Lead	Zinc	Nickel	Titanium	Other	Water-based	Oil-based	Synthetic	Hydraulic	Other
M-95	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-235	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-236	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-241	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-250	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-251	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-320	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-370	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-415	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M-528	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**CORTEC CORPORATION**  
Environmentally Safe VpCI®/MCP® Technologies

Many of the additives are compatible with yellow metals. VpCI® additives for a full range of water, glycol, oil, solvent, and synthetic fluids are also available. Some special application options include

subsea hydraulic systems, automotive coolants, and gearboxes. In each of these potentially corrosive environments, the choice of a VpCI® additive helps formulators streamline the protection process by incorporating VpCI® corrosion inhibitors directly into the metalworking and hydraulic fluids. The “VpCI® Additives for Metalworking and Hydraulic Fluids” brochure is a helpful guide to start making that customized choice.





**Helping Prevent Corrosion One Molecule At A Time**

**Cortec® M-Series**

- Environmentally Friendly
- Flash Rust & Long Term Protection
- Liquid Phase Wetting

**[www.cortecadditives.com](http://www.cortecadditives.com)**

 **CORTEC**  
CORPORATION  
Environmentally Safe VpCI®/MCI® Technologies



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