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LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2267 Testing

Evaluation of MP-222 Rust Inhibitor

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Project #:14-006-1825

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Date: January 31, 2014

Background: Customer is a global provider of world class deep drawn metal stampings in steel, aluminum, and other metals. Customer would like Cortec to compare the corrosion preventive properties of their current process fluids to similar Cortec products.

Sample Received: Four steel stampings coated in Rust Veto 4240
MP-222 Rust Inhibitor (~5 ounces)

Method: ASTM D-1735 Water Fog (100F, >95% relative humidity)

Materials: Steel stampings
MP-222 Rust Inhibitor
BioCorr (Batch #10623)
Methanol

Procedure: The following procedure was used:

1) Three of the four steel stampings were cleaned using methanol.
2) One of the cleaned parts was dipped in BioCorr, and another of the cleaned parts was dipped in a 3% solution (4oz/gal) of MP-222 Rust Inhibitor. The other cleaned part will be tested without any rust inhibitor, and the unclean part will be tested 'as received' with the Rust Veto 4240 coated on it.
3) The parts that were coated with BioCorr and MP-222 were allowed to air dry over night.
4) All parts were then placed in ASTM D-1735 water fog cabinet, and inspected for corrosion on a daily basis.
5) After 250 hours, all parts were removed from the water fog cabinet, air dried, then photographed.

Results: The following results were found:

Sample	Time to Corrosion
Cleaned part, no inhibitor (control)	<15 hours
Cleaned part coated with 3% MP-222	<15 hours
Cleaned part coated with BioCorr	250 hours
As received, coated with Rust Veto 4240	40 hours

Interpretations: After 250 hours of ASTM D-1735 water fog testing, BioCorr provided the best corrosion protection.

Photos:

ASTM D-1735 Water Fog Testing

After 250 hours

BioCorr

Rust Veto 4240

3% MP-222

Control