



• 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@corotecvci.com
corotecvci.com • corteclaboratories.com

Evaluating Liquid Samples from Customer

From: Cortec Corporation Laboratories
4119 White Bear Parkway
St. Paul, MN 55110

cc: Boris Miksic
Anna Vignetti
Cliff Cracauer
Mike Gabor

Project #: 11-190-1825(bis)

Test conducted by:

Eric Uutala
Technical Service Engineer

Approved by:

Margarita Kharshan
Laboratory Director

Date: November 8, 2011



Background: Customer sent in four samples of fluids used in their facility. They would like these samples tested for biological growth. Also, the corrosion inhibiting properties of their rust preventive will be evaluated and compared to VpCI-377.

Sample Received: -Sample "A" RP-206 SP (Ultra Clean 206SP)
-Sample "B" Rinse Water
-Sample "C" 6-R Line
-Sample "D" Rawsonville Wash

Method: Bacteria and Fungi Growth Monitoring
ASTM D-1748 Humidity (Modified)

Materials: Duo Bio Dipslides
Customer's liquid samples (listed above)
VpCI-377
Deionized water
1010 cold rolled carbon steel panels
Laboratory grade methanol

Procedure: The following procedure was used:

- 1) Fluids samples were tested with Duo Bio Dipslides.
 - a. Dipslides were immersed in fluid for ~10 seconds, then returned to tube and allowed to sit at ambient conditions for 96 hours.
 - b. After 96 hours, dipslides were visually inspected.
- 2) Three carbon steel panels were cleaned with methanol prior to ASTM D-1748 humidity testing.
- 3) After cleaning, panels were treated as follows:
 - a. No treatment (control)
 - b. Dipped in Ultra Clean 206SP (neat)
 - c. Dipped in VpCI-377, 4% concentration in deionized water
- 4) After dipping, panels were hung for 2 hours to air dry.
- 5) Panels were then hung in ASTM D-1748 humidity cabinet.
- 6) After 96 hours, panels were removed from ASTM D-1748 humidity cabinet.
- 7) Panels were visually inspected.

Results: The following results were found:

Panel Treatment	Time to Corrosion (Hours)
None (Control)	<8
Ultra Clean 206SP	<24
VpCI-377	No corrosion after 96 hours

Interpretations: Duo Bio Dipslide testing showed slight to moderate bacterial growth in the Ultra Clean 206SP sample and the rinse water sample. No bacterial growth was seen in the other two samples.

Humidity cabinet testing showed superior corrosion protection was given by VpCI-377 than the Ultra Clean product.