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Comparing Salt Spray Protection of LPS 3 to VpCI-368 and VpCI-369 for Caterpillar

Background: For over 80 years, Caterpillar has been the world's leading manufacturer of construction

and mining equipment, diesel and natural gas engines, and industrial gas turbines. Caterpillar's revenues were up 28% from 2005 to 2006, reaching over \$41 billion last year. Caterpillar currently uses LPS 3 as a rust inhibitor, and they have asked Cortec to

compare the corrosion protection to that of VpCI-368 and VpCI-369.

Purpose: Evaluate, in salt spray, the corrosion protection of LPS 3, and compare to VpCI-368 and

VpCI-369.

Method: ASTM B 117 Salt Fog Cabinet

Materials: LPS 3 Inhibitor liquid

VpCI-368 VpCI-369

1010 Carbon Steel Panels

Procedure: The following procedure was used:

1) Three carbon steel panels were dipped in the following products:

a. A1 – LPS 3

 $b. \quad B1-VpCI\text{-}368$

c. C1 – VpCI-369

2) After coating, panels were hung to dry over the weekend.

3) Three panels, along with a control panel, were then placed in ASTM B 117 Salt Fog cabinet.

4) Panels were visually inspected periodically.

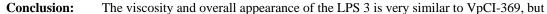
5) After 500 hours, all panels were removed.

6) Panels were visually inspected and photographed.

Results: The following results were found:

Panel	Time to Corrosion (Hours)
A1	<24
B1	DNF
C1	DNF

DNF – Did not fail during testing.



the protection of the LPS 3 was not good compared to the Cortec products. Panel A1 (dipped in LPS 3) began to corrode in less than 24 hours. VpCI-368 and VpCI-369

did not corrode after 500 hours of testing.





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