

EURIKA CHEMICAL COMPANY P.O.# 816200 of 16 AUGUST 2000

DIVISION OF ELECTRONIC MEASUREMENTS AND DEVICES

TEST REPORT

NO. 500880512

DATE 21 AUGUST 2000

VOLUME RESISTIVITY AND ELECTROSTATIC DISCHARGE TEST

NO.	SAMPLE (S)	RESULTS	
		Volume Resistivity, Ohm·cm	Electrostatic Discharge Time, seconds
1	Wire Rope Lubricant (WRL)	$1.60 \cdot 10^{10}$	1.1
2	Non-Aerosol	$3.52 \cdot 10^{10}$	1.3
3	Liquid AR	$2.71 \cdot 10^{10}$	1.2
4	Liquid (A)	$2.56 \cdot 10^{10}$	1.2
5	Gel White (BW)	$1.49 \cdot 10^{11}$	1.7

COMMENTS:

- The test per ASIM D257, -ASTM D4865, MIL-B-81705C, para. 4.8.3 and FED-TEST-METHOD-STD-101, Method 4046.
- Test conditions: T=22°C, RH=14%, P=101.2 kPa.
- The data in the table above are average from six (6) test runs. The experimental error evaluated by the partial derivatives and least squares methods does not exceed 4% for volume resistivity and 6% for electrostatic discharge tests. The data on standard deviation are kept on file at CIEMS.
- INSTRUMENTS AND DEVICES USED**
 - High-Resistance Meter Model 4329A (10 to 1000 VDC, 0.05 pADC to 2 mADC) HP
 - High-Resistance Meter Model 5205 ARI (0 to 5000 VDC, 1nADC to 2 mADC)
 - Picoammeter Model 3503 RU with Metrologic Laser Model ML869S/C MII
 - Triple-Voltage HV Electrostatic Charge Source Model 8181L C1 (0 to 45 kV)
 - Standard Animal Fur Electrostatic Exiting Pad Cat. No. 78640-00 CSC
 - Nanocoulomb Meter Model 1000 ACL, Static-Charge Meter Model 300B ACL
 - Envirothermocryostat Model 510 GRI with Temperature/Humidity Controller Model 100 CII
 - Starrett Dial Indicator Model 25-109 (1270 nm/div).
- The standard reference material used for the test setup calibration - NIST SRM 2541.
- The equipment used in the test meets the applicable NIST, ASTM, ASME, OSHA and State requirements and was calibrated with the standards traceable to the NIST. The calibration was performed per ISO 9001 §4.11, ISO 9002 §4.10, ISO 9003 §4.6, ISO 9004 §13, MIL-STD-45662, MIL-I-45208, NAVAIR-17-35-MTL-1, CSP-1/03-93, and the instruments manufacturers' specifications. Last periodic accuracy date - June 2000. Next - June 2001.
- The sample tested meet the requirements of MIL-B-81705C, para 3.7.

TEST ENGINEER: 29

DIV. MANAGER: *Cynthia Smythe*