# SMI, Inc.

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Attn:

John Roudebush

Date:

17-Oct-2005

Ecolink, Inc. PO Box 9

SMI/REF:

05SEP973

Tucker GA 30085

Product:

**ECOLINK 3005** Batch #: 05256D3005

(received 05-Oct-2005, additional cans received 10-Oct-2005)

Dilution:

Ready to use

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### BOEING D6-17487 REVISION P Solvent Cleaners; General Cleaning

Sandwich Corrosion Test

Paint Softening Test

Hydrogen Embrittlement Test

Stress Corrosion Cracking

Conforms

Conforms

Conforms

Respectfully submitted,

Patricia D. Viani, SMI, Inc.

Client:

Ecolink, Inc.

Product:

**ECOLINK 3005** 

Dilution:

Ready to use

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LINK 3005 SMI REF:

Boeing D6-17487, Revision P Solvent Cleaners/General Page 2 of 4

<u>Sandwich Corrosion Test</u>: Specimen preparation, testing, and interpretation shall be in accordance with ASTM F1110 using the following materials and with the following exceptions:

1. Reagents and materials exception:

(1). Clad 7075-T6 aluminum alloy in accordance with QQ-A-250/13 (AMS 4049 or AMS-QQ-A-250/13 optional) (2024-T3 Alclad specimens are neither required nor optional.)

Date:

17-Oct-2005

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- (2) Bare 7075-T6 aluminum alloy in accordance with QQ-A-250/12 (AMS 4045 or AMS-Q-A-250/12 optional) anodized in accordance with BAC 5019 or MIL-A-8625, Type I. Anodize shall be sealed. (2024-T3 nonclad specimens are neither required nor optional).
- (3) Distilled or deionized water may be used in place of ASTM F1193, Type IV reagent grade water for control specimens.
- (4) The filter paper may be Whatman No. 5 or equivalent in place of Whatman GFA glass fiber paper.
- 2. Procedure exceptions:
  - (1) The filter paper strips shall be 1 by 3 inches and shall be placed in the center of the sandwiched specimens.
  - (2) Each sandwich specimen shall be held together with waterproof tape, with no more than 1 piece of tape (maximum width 0.75 inch) on each of two opposite edges.
- 3. Interpretation of result exceptions:
  - (1) Leaching or lightening of the chromate sealed anodize coating shall not be cause for rejection.
  - (2) Deposits or residues from the material being tested that are not products of corrosion of the test panel surface shall not be cause for rejection.
  - (3) Special procedure for evaluation of fire extinguishing foams and liquids.
  - (4) Panels shall have a rating of 1 (no more than 5 percent of the surface area shall be corroded) or better in accordance with ASTM F 1110. The preferred method of determining the corroded area is by using image analysis. Other means approved by the purchaser may be substituted.
  - (5) Any corrosion in excess of that shown by the control group shall be cause for rejection.

	Bare 7075-T6 (AMS 4045) Anodized per BAC 5019 (Type 3 chromate seal)	Clad 7075-T6 Aluminum (AMS 4049)
PRODUCT	1	1
Control	1	1

Result	t Conforms	S

Client:

Ecolink, Inc.

ECOMIK, MC.

Date:

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SMI REF:

#### Paint Softening Test Procedure:

a. Testing shall be in accordance with ASTM F502 using the following coating systems.

(1) BMS 10-79, Type II primer applied in accordance with BAC 5882 plus BMS 10-60, Type II enamel in accordance with BAC 5845.

- (2) BMS 10-79, Type III primer applied in accordance with BAC 5882, plus BMS 10-100 coating in accordance with BAC 5795.
- b. Three specimens conforming to Section 13a.(1) and three specimens conforming to Section 13a(2) shall be used for each test condition.
- c. The material being tested shall not produce a decrease in film hardness greater than two pencils, or any discoloration or staining. NOTE: Slight darkening of the BMS 10-100 surface is acceptable.

As received: Paint system 1:

o pencil hardness change after 24 hour post-exposure

dry time.

Paint system 2:

0 pencil hardness change after 24 hour post-exposure

dry time.

Result	Conforms

## Hydrogen Embrittlement Test:

Hydrogen Embrittlement testing shall be in accordance with ASTM F 519-93, using cadmium plated Type 1a, 1c, or 2a specimens. All requirements of ASTM F519-93 for specimens, preparation, testing, and reporting shall apply. Type 1a specimens shall meet the requirements of D6-4307.

Specimens: Type 1c, cadmium plated per Treatment B of ASTM F519. (45% load, 150 hours, notched immersed for the duration, room temp.)

As received:

#1: No failure within 150 hours.

#2: No failure within 150 hours.

#3: No failure within 150 hours.

Result	Conforms

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Product:

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Dilution:

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Boeing D6-17487, Revision P Solvent Cleaners/General

SMI REF:

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Date:

### Stress Corrosion Cracking:

Procedures for specimen preparation, testing and reporting shall be in accordance with ASTM F 945 with the following exceptions:

#### Reagent Materials a.

- This test applies to all Titanium and Titanium alloys used in production. (1)
- (2) Controls shall be run using methyl ethyl ketone (MEK) in accordance with ASTM D 740, Type I.
- Distilled or deionized water may be used instead of ASTM D 1193, Type (3) IV.

#### Procedures: b.

- (1) A minimum of three (3) specimens shall be tested for each material condition and solution to be considered.
- (2) Method A is preferred but Method B is optional. In both cases care shall be taken to avoid surface contamination before and during testing.

Control (Methy ethyl ketone)	Salt control
AMS 4911 - #1: No cracking evident. #2: No cracking evident.	AMS 4911 - #1: Cracking evident. #2: Cracking evident.
#3: No cracking evident.	#3: Cracking evident.
AMS 4916 - #1: No cracking evident.	AMS 4916 - #1: Cracking evident.
#2: No cracking evident. #3: No cracking evident.	#2: Cracking evident. #3: Cracking evident.

Product

#1: No cracking evident. AMS 4911:

> #2: No cracking evident. #3: No cracking evident.

No cracking evident. AMS 4916: #1:

> No cracking evident. #2: #3: No cracking evident.

Result	Conforms

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Dielectric Breakdown per ASTM D 877 Oil testing hypot model 4521

Dielectric breakdown occurred at 20,500 (@500 vps)

volts.

Respectfully submitted,

Patricia D. Viani, SMI Inc.