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Attn: Jutta Eisler-Zimmerman
Adexano
Spezialprodukte für Gesundheit
Pflege und Prävention GmbH
Bildstockerstraße 14
66538 Neunkirchen Germany

Date: 21-Jan-2011

SMI REF: 1011-979

Product: **BACOBAN** (received 23-Dec-2010)

Dilution: As received

Page 1 of 4

AMS 1451B
Disinfectant, Aircraft
For Use in Cargo Compartments

3.2	Properties	
3.2.1	Flash Point	<u>Conforms</u>
3.2.2	Residue	<u>Conforms</u>
3.2.3	Corrosion of Metal Surfaces	
3.2.3.1	Sandwich Corrosion	<u>Conforms</u>
3.2.3.2	Total Immersion Corrosion	<u>Conforms</u>
3.2.4	Temperature Stability	<u>Does not conform</u>
3.2.5	Effect on Painted Surfaces	<u>Conforms</u>
3.2.6	Effect on Transparent Plastics	<u>Conforms</u>
3.2.7	Storage Stability	
3.2.7.1	Short-Time Test	<u>Does not conform</u>
3.2.7.2	Long-Time Storage	<u>Not performed</u>
3.3	Quality	<u>Conforms</u>

Respectfully submitted,



Patricia D. Viani, SMI Inc.

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Date: 21-Jan-2011
SMI REF: 1011-979

AMS 1451B

Page 2 of 4

3.2 Properties: Disinfectants shall conform to the following requirements; tests shall be performed in accordance with specified test methods on the disinfectant supplied in concentrated form:

3.2.1 Flash Point: Disinfectant shall not exhibit a flash point lower than 65°C (149°F) determined in accordance with ASTM D 56.

CONCENTRATE: No Flash Point to 65°C (149°F)

Result Conforms

3.2.2 Residue: Two 2" x 6" (51 x 152 mm) panels of AMS 4049 aluminum alloy shall be degreased with a suitable solvent and immersed in a sufficient quantity of the disinfectant to cover approximately one-half of the panel. After the disinfectant has been applied, the panels shall be placed at 45 degrees from the horizontal in an oven maintained at 38°C ±1 (100°F ±2) for 30 minutes ± 1, removed from the oven, rinsed with room temperature methyl ethyl ketone, or other suitable solvent and allowed to dry. The treated and untreated areas of the panel shall be visually examined and compared; there shall be no residue or stains on the treated or untreated surfaces.

As received: No residue or stains

Result Conforms

3.2.3 Corrosion of Metal Surfaces:

3.2.3.1 Sandwich Corrosion: Specimens of AMS 4049 aluminum alloy, after test, shall show a rating not worse than 1 or not worse than control panels using ASTM D 1193, Type IV water determined in accordance with ASTM F 1110.

	RATING: AMS 4049 ALCLAD ALUMINUM
As received	1
CONTROL	1

Result Conforms

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Dilution: As received

Date: 21-Jan-2011
SMI REF: 1011-979

AMS 1451B

Page 3 of 4

3.2.3.2 Total Immersion Corrosion: Disinfectant shall neither cause pitting of the panels nor a weight change greater than 0.3 mg/cm^2 per 24 hours for any panel of AMS 4049 aluminum alloy, determined in accordance with ASTM F483.

As received: + 0.03 mg/cm²/24hrs

Result Conforms

3.2.4 Temperature Stability: Disinfectant shall show no physical or chemical deterioration, including evidence of discoloration, layering, or other change denoting loss of stability after exposure for 120 hours ± 1 at $2^{\circ} \text{C} \pm 3$ ($36^{\circ} \text{F} \pm 5$).

As received: Loss of stability at room temperature & cold temperature. Significant precipitate layer at bottom.

Result Does not conform

3.2.5 Effect on Painted Surfaces: Disinfectant shall neither decrease the paint film hardness by more than two pencil hardness levels nor shall it produce any streaking, discoloration, or blistering of the paint film, determined in accordance with ASTM F 502.

As received: No decrease in film hardness. No evidence of streaking, discoloration or blistering.

Result Conforms

3.2.6 Effect on Transparent Plastics: Disinfectant shall not craze, stain, or discolor Type C acrylic plastic, determined in accordance with ASTM F 484. Disinfectant shall not craze, stain or discolor AMS-P-83310 polycarbonate plastic or polysulfone plastic, determined in accordance with test procedures specified in ASTM F 484 on specimens stressed for 10 minutes ± 1 to an outer fiber stress of 2000 psi (13.8 MPa).

	As received
Type C Acrylic (MIL-P-25690) [4500 psi / 8 hours]	No craze, stain nor discoloration
Polycarbonate (AMS-P-83310) [2000 psi / 10 minutes]	No craze, stain nor discoloration
Polysulfone plastic [2000 psi / 10 minutes]	No craze, stain nor discoloration

Result Conforms

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AMS 1451B

Page 4 of 4

3.2.7 Storage Stability:

3.2.7.1 Short-Time Test: Disinfectant shall remain homogeneous and free of lumps and skin formation and shall show no evidence of layering, separation, settling or crystallization, determined on samples subjected to five freeze-thaw cycles as in 3.2.7.1.1.

***As received: Product did not remain homogeneous; evidence of layering*
(precipitate forms at bottom)***

Result *Does not conform

3.2.7.2 Long-Time Storage: Disinfectant shall be stable and shall not deliquesce or otherwise deteriorate to the extent that the disinfectant will not meet the other properties of 3.2 when stored in shipping container or use package for not less than 12 months from date of receipt by purchaser, determined in accordance with ASTM F 1104.

Result Not performed