

SMI, Inc.

12219 SW 131 Avenue
Miami, Florida 33186-6401 USA

Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Jutta Zimmerman
Ropimex R. Opel GmbH
Bildstocker Strasse 12
66538 Neunkirchen
Germany

Date: 25-Nov-2020

SMI/REF: 2008-012

Product: **BACOBAN DL** (received 23-Sep-2020)

Dilution: As received

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AMS 1451C Disinfectant, Aircraft For Use in Cargo Compartments



3.2 Properties

3.2.1 Flash Point

Conforms

3.2.2 Residue

Conforms

3.2.3 Corrosion of Metal Surfaces

3.2.3.1 Sandwich Corrosion

Conforms

3.2.3.2 Total Immersion Corrosion

Conforms

3.2.4 Temperature Stability

Conforms

3.2.5 Effect on Painted Surfaces

Conforms

3.2.6 Effect on Transparent Plastics

Conforms

3.2.7 Storage Stability

3.2.7.1 Short-Time Test

Does not conform

3.2.7.1.2 Long-Time Storage

Not performed

3.3 Quality

Conforms

Respectfully submitted,

Patricia D. Viani, SMI Inc.

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3.2 Properties: Disinfectant 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.

AS RECEIVED: No Flash Point to *(IBP) 100 °C (212°F)
***Initial Boiling Point**

Result Conforms

3.2.2 Residue: Two 2" x 6" (51 x 152 mm) panels of AMS4049 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°C (100°F ± 2°F) for 30 minutes ± 1 minute, 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 AMS4049 aluminum alloy, after test, shall show a rating not worse than one or not worse than control panels using ASTM D 1193, Type IV water determined in accordance with ASTM F1110.

	RATING: AMS 4049 ALCLAD ALUMINUM
AS RECEIVED	1
CONTROL	1

Result Conforms

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3.2.3.2 Total Immersion Corrosion: Disinfectant shall neither cause pitting of the panels nor a weight change greater than 0.3 mg/cm² per 24 hours for any panel of AMS 4049 aluminum alloy, determined in accordance with ASTM F483.

AS RECEIVED: + 0.01 mg/cm²/24hrs

"+" indicates weight gain

Result Conforms

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

AS RECEIVED: No physical or chemical deterioration

Result Conforms

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 F502.

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 F484. Disinfectant shall not craze, stain or discolor AMS-P-83310 polycarbonate plastic, determined in accordance with test procedures specified in ASTM F484 on specimens stressed for 10 minutes \pm 1 minute 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

Result Conforms

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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.

CONCENTRATE: *Product did not remain homogeneous; evidence of layering*
(color separation: clear upper layer, pinkish lower layer)*

Result *Does not conform

3.2.7.1.2 Long-Time Storage: Disinfectant shall be stable or shall be restorable to its original appearance by moderate shaking and shall meet all of 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 or within manufacturer's shelf life of the product, determined in accordance with ASTM F1104.

Result Not performed

3.3 Quality: Disinfectant, as received by purchaser, shall be a uniform mixture, shall show no separation or layering, and shall be free from foreign materials detrimental to usage of the disinfectant.

Result Conforms

