



AEROSPACE MATERIAL SPECIFICATION

AMS1500™

REV. C

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Superseding AMS1500B

SOAP, LIQUID HAND
Coconut-Oil Base

1. SCOPE:

- 1.1 Form: This specification covers a coconut-oil-base hand soap in the form of a liquid.
- 1.2 Application: Primarily for use in aircraft lavatories but suitable for general use where dermatological factors are of prime consideration and freedom from objectionable odors is necessary.
- 1.3 Safety - Hazardous Materials: While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications and Aerospace Recommended Practices shall apply. The applicable issue of other documents shall be as specified in AMS 2350 except that the latest issue of Federal Food and Drug Administration publications in effect on date of invitation to bid or request for proposal shall apply.

- 2.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

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2.1.1 Aerospace Material Specifications:

AMS 2350 - Standards and Test Methods

AMS 2825 - Material Safety Data Sheets

AMS 4049 - Aluminum Alloy Sheet and Plate, Alclad, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr, (Alclad 7075; -T6 Sheet, -T651 Plate), Solution and Precipitation Heat Treated

AMS 5515 - Steel Sheet, Strip, and Plate, Corrosion Resistant, 18Cr - 8.5Ni (SAE 30302), Solution Heat Treated, High Ductility

2.1.2 Aerospace Recommended Practices:

ARP 1512 - Corrosion of Aluminum Alloys by Aircraft Maintenance Chemicals, Sandwich Test

2.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM D56 - Flash Point by Tag Closed Tester

ASTM D445 - Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)

ASTM D460 - Sampling and Chemical Analysis of Soaps and Soap Products

ASTM D891 - Specific Gravity of Liquid Industrial Chemicals

ASTM E70 - pH of Aqueous Solutions with the Glass Electrode

ASTM F483 - Total Immersion Corrosion Test for Aircraft Maintenance Chemicals

ASTM F502 - Effects of Cleaning and Chemical Maintenance Materials on Painted Aircraft Surfaces

ASTM F503 - Preparing Aircraft Cleaning Compounds, Liquid Type, for Storage Stability Testing

2.3 U.S. Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120 except as specified in 2.3.3.

2.3.1 Military Specifications:

MIL-C-83286 - Coating, Urethane, Aliphatic Isocyanate, for Aerospace Applications

2.3.2 Military Standards:

MIL-STD-794 - Parts and Equipment, Procedures for Packaging and Packing of

2.3.3 Federal Food and Drug Administration Publications: Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Federal Food, Drug, and Cosmetic Act, and Regulations Promulgated Thereunder

3. TECHNICAL REQUIREMENTS:

- 3.1 Composition: The ingredients used in the manufacture of the product shall conform to the standards set forth in the Federal Food, Drug, and Cosmetics Act. The product shall be a uniform aqueous solution, with 100% coconut-oil base, conforming to the following requirements, determined in accordance with ASTM D460:

Moisture (Method B, Distillation Method), maximum	83.0%
Total Anhydrous Soap (Coconut-oil base only), minimum	15.0%
Glycerine, USP Grade	1.0 - 1.5%
Total Unsaponified and Unsaponifiable Matter, maximum	0.6%
Total Hatter Insoluble in Alcohol, maximum	0.5%
Chlorides, maximum	0.1%
Combined Sodium and Potassium Oxides, maximum	0.25%
Total Alkalinity of Matter Insoluble in Alcohol, Alkaline Salts, maximum	0.2%
Matter Insoluble in Water, maximum	0.1%
Free Acid, maximum	0.1%
Sulfates, maximum	0.1%
Free Alkali, maximum	0.05%
Corrosion Inhibitors (Shall be identified on AMS 2825 data sheet as in 4.5.1), maximum	0.5%
Rosin Acids	None
Sugar	None

- 3.2 Properties: The product shall conform to the following requirements; tests shall be performed in accordance with specified test methods on the product supplied in concentrated form and, when applicable, at use dilution recommended by the manufacturer:

- 3.2.1 Color: Natural, with no added color.
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- 3.2.2 Flash Point: The product shall exhibit no flash point, determined in accordance with ASTM D56.

- 3.2.3 Viscosity: Shall be determined at 25°C ± 1 (77°F ± 2) in accordance with ASTM D445 and the results reported.

- 3.2.4 Specific Gravity: Shall be determined in accordance with ASTM D891 and the results reported.

- 3.2.5 pH Value: Shall be 7.0 - 8.6, determined in accordance with ASTM E70.

- 3.2.6 Corrosion of Metallic Surfaces: Shall be as follows, determined on the product both as a concentrate and at use dilution:

- 3.2.6.1 Sandwich Corrosion: Specimens, after test, shall show a rating not worse than 1, determined in accordance with ARP 1512.