



AEROSPACE MATERIAL SPECIFICATION

AMS1376™

REV. B

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Superseding AMS1376A

Remover, Epoxy Paint
Acid-Type, Thickened

FOREWORD

Changes in this reaffirm are format/editorial only.

1. SCOPE:

1.1 Form:

This specification covers a paint remover in the form of a liquid.

1.2 Application:

This product has been used typically for removing amine-cured, epoxy coating systems from aluminum alloys, but usage is not limited to such applications. This product is not intended for use on aircraft engine components or other high strength steel parts with hardness of 48 HRC or higher.

1.3 Precautions:

Paint remover covered by this specification is toxic and contains ingredients harmful to skin and eyes. Information on necessary precautions to be followed when using this paint remover is provided in 5.1.4. This paint remover contains acidic material which may cause hydrogen embrittlement. This paint remover should not be used on magnesium.

1.4 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.

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2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2470	Anodic Treatment of Aluminum Alloys, Chromic Acid Process
AMS 2473	Chemical Treatment of Aluminum Alloys, General Purpose Coating
AMS 2825	Material Safety Data Sheets
AMS 4037	Aluminum Alloy Sheet and Plate, 4.4Cu - 1.5Mg - 0.60Mn (2024; -T3 Flat Sheet, -T351 Plate), Solution Heat Treated
AMS 4041	Aluminum Alloy Sheet and Plate, Alclad, 4.4Cu - 1.5Mg - 0.60Mn (Alclad 2024 and 1-1/2% Alclad 2024-T3 Flat Sheet; 1-1/2% Alclad 2024-T351 Plate)
AMS 4045	Aluminum Alloy Sheet and Plate, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075; -T6 Sheet, T651 Plate), Solution and Precipitation Heat Treated
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 4911	Titanium Alloy Sheet, Strip, and Plate, 6Al - 4V, Annealed
MAM 4911	Titanium Alloy Sheet, Strip, and Plate, 6Al - 4V, Annealed (Metric)

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM D 1193 Reagent Water
ASTM F 483 Total Immersion Corrosion Test for Aircraft Maintenance Chemicals
ASTM F 1110 Sandwich Corrosion Test

2.3 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

VV-W-95	Wax, Paraffin, Technical
PPP-C-1337	Container, Composite (Steel Drum with Polyethylene Inserts)
PPP-P-1892	Paint, Varnish, Lacquer, and Related Materials; Packaging, Packing, and Marking of
PPP-STD-141	Paint, Varnish, Lacquer, and Related Materials, Methods of Inspection, Sampling and Testing
MIL-D-6998	Dichloromethane, Technical
MIL-T-23397	Tape, Pressure-Sensitive Adhesive, for Masking During Paint Stripping Operations

2.3 (Continued):

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MS-24694	Screw, Machine, Flat Countersunk Head, 100 Deg, Structural, Cross Recessed, UNC-3A and UNF-3A
AN315	Nut, Plain, Airframe
AN960	Washer, Flat

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be a thixotropic paint remover consisting of organic solvents, evaporation retarders, wetting agent, and other ingredients to provide a product meeting the requirements of 3.2. The acid active ingredient shall be an organic acid or acids.

- 3.1.1 Toxicity: The product shall be free from chemicals and solvents which may prove dangerously corrosive or may produce vapors in such concentration as to become a medical hazard to personnel when used in accordance with manufacturer's recommendation for its intended purpose. Contains dichloromethane and organic acids. May be fatal if swallowed; may cause skin burns. Do not use in confined spaces.

3.2 Properties:

The paint remover shall conform to the following requirements; tests shall be performed in accordance with specified test methods on the product supplied:

- 3.2.1 Consistency: The paint remover shall flow to a point between 160 and 230 mm in two minutes, determined in accordance with 4.5.1. The remover shall be of such consistency that a smooth, even coating can be applied by brushing, flowing, or spraying onto, and will adhere to, the vertical surface of test panels and painted surfaces of aircraft for sufficient time for the remover to be effective.
- 3.2.2 Flammability: The paint remover shall not continue to burn longer than three seconds after removal of the flame, determined in accordance with 4.5.2.
- 3.2.3 Effect on Metallic Surfaces:
- 3.2.3.1 Sandwich Corrosion: Specimens shall pass the sandwich corrosion test, determined in accordance with ASTM F 1110.

3.2.3.2 Total Immersion Corrosion: The product shall neither produce evidence of pitting of the panels nor cause a weight change of any panel greater than 0.4 mg/cm^2 per 24 hours, determined in accordance with ASTM F 483 on the following test panels.

AMS 4037 Aluminum Alloy, anodized as in AMS 2470
AMS 4041 Aluminum Alloy
AMS 4045 Aluminum Alloy, anodized as in AMS 2470
AMS 4049 Aluminum Alloy
AMS 4911 or MAM 4911 Titanium Alloy

3.2.3.3 Dissimilar Metal Corrosion: There shall be no significant discoloration or evidence of corrosion, determined in accordance with 4.5.3.

3.2.4 Storage Stability:

3.2.4.1 Short-Term: The paint remover shall not cake, clot, gel, or separate after being stored, undisturbed, at $25 \text{ }^\circ\text{C} \pm 5$ ($77 \text{ }^\circ\text{F} \pm 9$) for six days in a darkened area. The remover shall not polymerize or show significant changes in physical appearance.

3.2.4.2 Extended: Paint remover, stored as in 4.5.4, shall show no visible evidence of deterioration. It shall, after storage, meet all other technical requirements. After being examined as in 4.5.4 for short-term stability, the paint remover shall completely lift the finish from test panels prepared and tested in accordance with 4.5.5.

3.2.5 Paint Stripping Efficiency: The paint remover, tested in accordance with 4.5.5, shall remove at least 90% of the paint from the exposed surface within 60 minutes at $24 \text{ }^\circ\text{C} \pm 3$ ($75 \text{ }^\circ\text{F} \pm 5$).

3.2.5.1 Relative Stripping Efficiency: Shall be equal to, or better than, that of the control formula of 4.5.5, measured as the time to produce equal percentages of stripping or as the percentage of panel area stripped in equal lengths of time.

3.2.6 Rinsability: The loosened paint and spent remover shall be easily removed by water rinsing, determined in accordance with 4.5.6. If residues or noticeable water breaks occur, they shall not adversely affect the drying or adhesion of an applied paint system.

3.2.7 Refinishing Properties of Stripped Surfaces: Following stripping and wiping clean, using cloths saturated with methyl ethyl ketone or other suitable solvent, the paint remover shall leave a surface suitable for refinishing, determined in accordance with 4.5.7.

3.2.8 Volatility: Shall be equal to, or less than, the volatility of distilled water, determined in accordance with 4.5.8.