



AEROSPACE MATERIAL SPECIFICATION

AMS1371™**REV. A**

Issued	1996-03
Reaffirmed	2007-02
Stabilized	2024-06

Superseding AMS1371

Compound, Rust Remover, Solid/Powder
Aircraft and Aerospace Components, Immersion Tank Method

RATIONALE

This document contains mature technology and is not likely to change in the foreseeable future.

STABILIZED NOTICE

AMS1371A has been declared "STABILIZED" by SAE AMS Committee J Aircraft Maintenance Chemicals and Materials and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

SAENORM.COM : Click to view the full PDF of AMS1371A

SAE Executive Standards Committee Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2024 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, or used for text and data mining, AI training, or similar technologies, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: <http://www.sae.org>

For more information on this standard, visit
<https://www.sae.org/standards/content/AMS1371A/>

1. SCOPE:

1.1 Form:

This specification covers a rust removing compound in the form of a solid, generally powdered, to be dissolved in water, and heated.

1.2 Application:

This compound has been used typically for the removal of oxides from ferrous components during manufacture or at overhaul, but usage is not limited to such applications. This compound product may be acidic, but is usually highly alkaline and is not suitable for processing aluminum components. Avoid mixed metals during processing.

1.2.1 This compound is not for use on aircraft turbine engine components. For such applications, refer to AMS 1379.

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 SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of tendering for a contract, and if changed by date of purchase, the later issue when agreed between purchaser and vendor.

2.1 SAE Publications:

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

AMS 1379	Compound, Alkaline Rust Remover, Aircraft Turbine Engine Components
AMS 2825	Material Safety Data Sheets
AMS 5045	Steel, Sheet and Strip, 0.25 Carbon, Maximum, Hard Temper

2.2 ASTM Publications:

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

ASTM D 56	Flash Point by Tag Closed Tester
ASTM D 1193	Reagent Water
ASTM F 483	Total Immersion Corrosion Test for Aircraft Maintenance Chemicals

2.3 U.S. Government Publications:

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

MIL-STD-2073-1	DOD Materiel, Procedures for Development and Application of Packaging Requirements
----------------	--

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall consist of a solid/powder blended with additives as necessary to meet the requirements of 3.1.1 and 3.2.

- 3.1.1 The product shall be readily soluble in water with moderate agitation to produce a homogeneous solution, determined by adding 25 grams product to 90 mL water, conforming to ASTM D 1193, Type IV, in a 100 mL stoppered graduated cylinder, and cycling the stoppered cylinder through 15 inversions. The resultant mixture shall show no evidence of undissolved solids. Caution, heat may be generated.

3.2 Properties:

The product shall conform to the following requirements; tests shall be performed in accordance with specified test methods on the product in maximum concentration and at maximum operating temperature recommended by the manufacturer.

- 3.2.1 Flash Point: Shall be not lower than 100 °C (212 °F), determined in accordance with ASTM D 56.

- 3.2.2 Total Immersion Corrosion: Panels, tested in accordance with ASTM F 483, shall not produce a weight change greater than that indicated in Table 1.

TABLE 1 - Permissible Weight Change

Test Specimen	Type of Compound	Maximum Weight Change mg/cm per 24 hours
AMS 5045	Alkaline product	0.8
	Acidic product	Report loss

- 3.2.3 Storage Stability: When stored in unopened delivery containers, the product shall, on opening after 12 months, be free flowing and meet the requirement of 3.1.1.
- 3.2.4 Performance: Product, when used in accordance with manufacturers recommendations, shall, to the satisfaction of the purchaser, remove oxides from ferrous components such that the surface of the components can be inspected.
- 3.2.5 Quality: The product, as received by purchaser, shall be free flowing and free from lumps caused by packing in an inadequate container or by poor blending.

4. QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection:

The vendor of the product shall supply all samples for vendor's tests and shall be responsible for the performance of all required tests. Purchaser reserves the right to sample and to perform any confirmatory testing deemed necessary to ensure that the product conforms to the specified requirements.

4.2 Classification of Tests:

- 4.2.1 Acceptance Tests: Solubility (3.1.1) and flash point (3.2.1) are acceptance tests and shall be performed on each lot.
- 4.2.2 Preproduction Tests: All technical requirements are preproduction tests and shall be performed prior to, or on, the initial shipment of the product to a purchaser, when a change in ingredients and/or processing requires reapproval as in 4.4.2, and when purchaser deems confirmatory test to be required.
- 4.2.3 For direct U.S. Military procurement, substantiating test data and, when requested, preproduction test material shall be submitted to the cognizant agency as directed by the procuring activity, contracting officer, or request for procurement.