



AEROSPACE MATERIAL SPECIFICATION

AMS1547™**REV. A**

Issued 1987-04
Revised 2008-03
Reaffirmed 2018-08

Superseding AMS1547

Cleaner, Anodic, Electrolytic, Alkaline
For Steel, Tank Type

RATIONALE

Updated technical content to be compatible with aerospace industry alkaline cleaning specifications and changed test method to replace 1,1,1-trichloroethane cleaning solvent with a more environmentally friendly solvent.

1. SCOPE

1.1 Form

This specification covers an electrolytic alkaline cleaner in the form of a water soluble powder.

1.2 Application

Primarily for removing grease, oil, and loose surface contamination from steel components by immersion in a solution of the cleaner at elevated temperature and with anodically applied current. This cleaner should not be used on titanium and other non-ferrous components.

1.3 Precautions

Cleaner may contain chemicals which, if improperly used, could be hazardous to the health and safety of operators. Protective clothing, including eye shields, suitable gloves, and apron, should be worn when preparing and using the cleaner. Solutions shall be prepared and operated under conditions of adequate fume extraction and with due regard to the safety recommendations of the manufacturer of the cleaner together with local workshop safety regulations.

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.

2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

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Documents
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2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AMS2350	Standards and Test Methods
AMS2825	Material Safety Data Sheets
AMS5044	Steel, Sheet and Strip, 0.15 Carbon, Maximum, Half Hard Temper

2.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM D 1193	Reagent Water
ASTM D 1568	Sampling and Chemical Analysis of Alkylbenzene Sulfonates
ASTM D 2667	Biodegradability of Alkylbenzene Sulfonates

2.3 U.S. Government Publications

Available from the Document Automation and Production Service (DAPS), Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Tel: 215-697-6257, <http://assist.daps.dla.mil/quicksearch/>.

MIL-STD-2073-1	Parts and Equipment, Procedures for Packaging and Packing of
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3. TECHNICAL REQUIREMENTS

3.1 Composition

Cleaner shall contain not less than 30% by weight sodium hydroxide but otherwise composition shall be optional with the manufacturer. When prepared in accordance with manufacturer's instructions, powder shall form a single phase liquid with no solid sediment at room temperature and shall meet the requirements of 3.2. Solution makeup and control shall be in accordance with manufacturer's instructions and purchaser's requirements.

3.2 Properties

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

3.2.1 Immersion Corrosion

A test panel of AMS5044 steel shall not exhibit a loss or gain in weight in excess of allowable limits. The maximum allowable weight change for steel shall be $\pm 0.02 \text{ mg/cm}^2$, determined in accordance with 4.5.1.

3.2.2 Biodegradability

Vendor shall supply evidence that surfactants used in the cleaner shall be at least 90% biodegradable, determined either in accordance with ASTM D 2667 or by alternate methods agreed upon by purchaser and vendor.

3.2.2.1 Evidence of surfactant biodegradability does not guarantee that the cleaner may be discharged in either concentrated or diluted form into public waterways or sewage systems. Disposal shall conform to international, federal, state, or local regulations as applicable.