



AEROSPACE MATERIAL SPECIFICATION

AMS1380™

REV. B

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Superseding AMS1380A

Scale Conditioner, Alkaline
Aircraft Turbine Engine Components

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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Documents

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1. SCOPE

1.1 Form

This specification covers a strongly alkaline scale conditioner in the form of a liquid or a water-soluble powder.

1.2 Application

This product has been used typically in conditioning heat scale formed on aircraft turbine engine high-temperature alloy parts by immersion in a solution of the compound at elevated temperature, but usage is not limited to such applications. These compounds are unsuitable for cleaning aluminum parts.

1.3 Classification

Compounds conforming to this specification are classified as follows:

Type 1 - Water-soluble powder

Type 2 - Liquid concentrate

1.3.1 Type 1 shall be supplied unless Type 2 is ordered.

1.4 Precautions

Scale conditioner 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 scale conditioner. Tanks shall be prepared and operated under conditions of adequate fume extraction and with due regard to the safety recommendations of the manufacturer of the compound together with local workshop safety regulations.

1.5 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 the purchase order.

2.1 SAE Publications:

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

AMS 2825 Material Safety Data Sheets

ARP1755 Effect of Cleaning Agents on Aircraft Engine Materials, Stock Loss Test Method

2.2 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

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 Standardization Documents Order 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 Composition:

The composition of the conditioner shall be optional with the manufacturer except that, when prepared for use, the solution shall form a strongly alkaline liquid product. When prepared in accordance with manufacturer's instructions, the solution shall contain no solid sediment at room temperature and shall meet the requirements of 3.2. The solution make up and control shall be in accordance with manufacturer's instructions and purchaser's requirements.