



# AEROSPACE MATERIAL SPECIFICATION

**AMS3020™****REV. B**

Issued 1978-01  
Reaffirmed 2013-09  
Revised 2020-01

Superseding AMS3020A

Oil, Reference, for "L" Stock Rubber Testing

## RATIONALE

Five-Year Review and update to incorporate AMS3XXX series template.

### 1. SCOPE

#### 1.1 Form

This specification covers a petroleum-based reference oil.

#### 1.2 Application

This fluid has been typically used as a reference oil to evaluate the ability of elastomeric compounds to conform to specified requirements after immersion at a specified time and temperature as required by the material.

#### 1.3 Order of Precedence

This specification is in addition to and in no way limiting, superseding, or abrogating any contractual obligation as required by the applicable procurement document. In the event of conflict in requirements, the order of precedence shall be:

1. Procurement Document or Contractual Agreement and all statutory and regulatory requirements (excluding this document)
2. Applicable purchaser's drawing and/or design data
3. Specifications referenced on the drawing
4. This document
5. All specifications referenced in this document

#### 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 the necessary precautionary measures to ensure the health and safety of all personnel involved.

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## 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 supplied 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.

### 2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), [www.sae.org](http://www.sae.org).

AMS2350 Standards and Test Methods

### 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](http://www.astm.org).

ASTM D92 Flash Point by Cleveland Open Cup

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

ASTM D611 Aniline Point and Mixed Aniline Point of Petroleum Products and Hydrocarbon Solvents

ASTM D4057 Manual Sampling of Petroleum and Petroleum Products

### 2.3 U.S. Government Publications

Copies of these documents are available online at <https://quicksearch.dla.mil>.

MIL-STD-2073 DoD Material, Procedures for Development and Application of Packaging Requirements

### 2.4 ISO Publications

Copies of these documents are available online at <http://webstore.ansi.org/>.

ANSI Z400.1 Hazardous Workplace Chemicals-Hazard Evaluation and Safety Data Sheet and Precautionary labeling Preparation

## 3. TECHNICAL REQUIREMENTS

### 3.1 Material

Shall consist of a highly refined, hydrotreated, straight-run distillate from crude petroleum containing 0.20% ± 0.01% of the antioxidant di-t-butyl-p-cresol.

### 3.2 Properties

The product shall conform to the requirements shown in Table 1