



AEROSPACE MATERIAL SPECIFICATION

AMS3055™**REV. C**

Issued	1983-07
Revised	2003-12
Reaffirmed	2019-11
Stabilized	2025-02

Superseding AMS3055B

Petroleum Base Instrument Bearing Lubricant
Viscosity 15

RATIONALE

AMS3055C has been declared "STABILIZED" by AMS Committee B. This document will no longer be updated and may no longer represent standard industry practice. This document was stabilized because it contains mature technology that is not expected to change and thus no further revisions are anticipated.

NOTE: Previously this document was reaffirmed. The last technical update of this document occurred in December 2003. Users of this document should refer to the cognizant engineering organization for disposition of any issues with reports/certifications to this specification; including exceptions listed on the certification. In many cases, the purchaser may represent a sub tier supplier and not the cognizant engineering organization.

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1. SCOPE:

1.1 Form:

This specification covers the requirements for a refined paraffinic petroleum-base lubricant.

1.2 Application:

This lubricant has been used typically in spin axis bearings of gyroscopes, accelerometers, and similar bearing applications, but usage is not limited to such applications.

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.

- 1.3.1 Precaution: The lubricant contains tricresyl phosphate which will cause paralysis if ingested. Do not use this lubricant in or on equipment which may contact food or other product which is taken internally.

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.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001 or www.sae.org.

AMS 4500	Copper Sheet, Strip, and Plate, Soft Annealed
AMS 5040	Steel Sheet and Strip, 0.15 maximum Carbon, Deep Forming Grade

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 or www.astm.org.

ASTM D 92	Flash and Fire Points by Cleveland Open Cup
ASTM D 97	Pour Point of Petroleum Oils
ASTM D 445	Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)
ASTM D 664	Acid Number of Petroleum Products by Potentiometric Titration
ASTM D 1298	Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method
ASTM D 1500	ASTM Color of Petroleum Products (ASTM Color Scale)
ASTM D 1552	Sulfur in Petroleum Products (High Temperature Method)
ASTM D 2266	Wear Preventive Characteristics of Lubricating Grease (Four-Ball Method)
ASTM D 2270	Calculating Viscosity Index from Kinematic Viscosity at 40 and 100 °C
ASTM D 2273	Trace Sediment in Lubricating Oils

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be the natural paraffinic base stock derived from Pennsylvania crude oil processed by molecular short path distillation and finished to color by filtration through a bauxite-type absorbent. Additives shall be limited to an oxidation inhibitor of the hindered bisphenol type (0.45 to 0.55% by weight) and an anti-wear agent, tricresyl phosphate (0.90 to 1.10% by weight). Only virgin material shall be used in producing this lubricant.

3.2 Properties:

The lubricant shall conform to the following requirements, determined in accordance with specified test methods, insofar as practicable:

- 3.2.1 Flash Point: Shall be not lower than 260 °C (500 °F), determined in accordance with ASTM D 92.
- 3.2.2 Pour Point: Shall be not higher than -4.0 °C (25 °F), determined in accordance with ASTM D 97.