



AEROSPACE MATERIAL SPECIFICATION

AMS-M-7866™

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Superseding AMS-M-7866A

Molybdenum Disulfide, Technical,
Lubrication Grade

RATIONALE

AMS-M-7866B stabilizes this document because this document contains mature technology that is not expected to change, and thus no further revisions are anticipated.

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This document has been taken directly from U.S. Military Specification MIL-M-7866C, Amendment 1, and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards. The initial release of this document is intended to replace MIL-M-7866C, Amendment 1. Any part numbers established by the original specification remain unchanged.

The original Military Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, and (b) the use of the existing government specification or standard format.

Under Department of Defense policies and procedures, any qualification requirements and associated qualified products lists are mandatory for DOD contracts. Any requirement relating to qualified products lists (QPL's) has not been adopted by SAE and is not part of this technical report.

1. SCOPE:

1.1 Scope:

This specification covers the requirements for procurement of one grade of powdered molybdenum disulfide to be used in lubricants and greases for surfaces where boundary conditions exist.

2. APPLICABLE DOCUMENTS:

The following publications, of the issues in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

2.1 U.S. Government Publications:

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

MIL-R-3043 Resin Coating, Unpigmented, For Engine Components And Metal Parts
MIL-S-7952 Steel, Sheet and Strip, Uncoated, CARBON (1020 and 1025) (Aircraft Quality) (Asg)
QQ-C-576 Copper Flat Products With Slit, Slit And Edge-Rolled, Sheared, Sawed or Machined Edges (Plate, Bar, Sheet and Strip)
TT-T-291 Thinner, Paint, Volatile Spirits (Petroleum-Spirits)

MIL-STD-105 Sampling Procedures For Inspection By Attributes
MIL-STD-290 Packaging, Packing and Marking of Petroleum And Related Products
FED-STD-313 Material Safety Data Sheets, Preparation And Submission Of
FED-STD-791 Lubricants, Liquid Fuels and Related Products; Methods of Testing

3. REQUIREMENTS:

3.1 First article inspection:

The molybdenum disulfide furnished under this specification shall be a product which has been inspected and has passed the first article inspection specified herein. (See 4.2.1).

3.2 Materials:

The molybdenum disulfide shall be a powder of a purity and grade suitable for general lubricating use.

3.3 Chemical and physical characteristics:

The chemical and physical characteristics of the molybdenum disulfide shall be as specified in Table I.