



INDUSTRIAL LUBRICANT STANDARD

MS1006™

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Lubricants, Industrial Oils, and Related Products Type F Lubricant for
Spindle Bearings, and Associated Clutches - Specification

RATIONALE

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

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FOREWORD

The SAE International Industrial Lubricants Committee has developed a number of industrial, non-production lubricant performance specifications.

The purpose of these voluntary SAE specifications is to:

- a. Define minimum performance requirements for industrial lubricants.
- b. Provide lubricant suppliers with performance targets for a minimum number of key industrial lubricants.
- c. Improve the availability of these lubricants to member companies.
- d. Provide a plant oriented, user friendly, classification system using common test standards and properties.

ISO Standard 6743 - Lubricants, industrial oils and related products (class L) - Classification is the foundation for these documents.

- a. Performance characteristics and test procedures are specified.
- b. For information, equivalent ISO, DIN, CEN, BSI, ASTM, AFNOR, CETOP, and IP test methods are referenced.¹

¹International Standards Organization (ISO)
Deutsches Institut für Normung e. V. (DIN)
European Committee for Standardization (CEN)
American Society for Testing and Materials (ASTM)
Association of Française de Normalisation (AFNOR)
The Institute of Petroleum (IP) NOTE: Now combined with BSI
British Standards Institution (BSI), BS 2000: XXX where XXX is the corresponding IP number
European Committee on Hydraulic Oil and Pneumatics (CETOP)

Industrial lubricant classifications targeted:

- a. Lubricants, Industrial Oils and Related Products - Classification (SAE MS1000)
- b. General purpose and total loss lubricants (SAE MS1001)
- c. Gear oils (SAE MS1002)
- d. Compressor oils (SAE MS1003)
- e. Hydraulic fluids (SAE MS1004)
- f. Fire resistant hydraulic fluids (SAE MS1005)
- g. Lubricants for spindle bearings and associated clutches (SAE MS1006)
- h. Slideway lubricants (SAE MS1007)
- i. Metal removal fluids (SAE MS1008)
- j. Lubricants for pneumatic tools (SAE MS1009)
- k. Turbine oils (SAE MS1010)
- l. Lubricating greases (SAE MS1011)

See SAE MS1000 - Index of lubricants and symbols.

NOTE: Environmental, Technical Reports, and/or health and safety regulations may present additional specifications to the supplier.

1. SCOPE

See Table 1.

TABLE 1 - SCOPE AND FIELD OF APPLICATIONS

Code letter	General Applications	More specific applications	Composition and properties	Symbol	Typical Applications
F	Spindle bearings, bearings, and associated clutches.	Spindle bearings, bearings, and associated clutches.	Refined mineral oils with improved anti-corrosion and anti-oxidation properties	FC	Typically pressure, bath and oil-mist (aerosol) lubrication of plain or rolling bearings and associated clutches in machine tools. Note that where clutches are involved, anti-wear or EP additives should be avoided because of the risk of corrosion
		Spindle bearings, bearings.	Refined mineral oils with improved anti-corrosion, anti-oxidation and anti-wear properties	FD	Typically pressure, bath and oil-mist (aerosol) lubrication of plain or rolling bearings in machine tools

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 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.

SAE MS1000 Lubricants, Industrial Oils and Related Products—Classification

SAE MS1001 Lubricants, Industrial Oils, and Related Products Type A Lubricant for General Purpose and Total Loss Systems - Specification

SAE MS1002 Lubricants, Industrial Oils, and Related Products Type C (Gears) Specification

SAE MS1003 Lubricants, Industrial Oils, and Related Products Type D Compressor Oils—Specification

SAE MS1004 Lubricants, Industrial Oils, and Related Products Type H (Hydraulic Fluids) - Specification

SAE MS1005 Lubricants, Industrial Oils, and Related Products Type HF Fire-Resistant Hydraulic Fluids—Specification

SAE MS1006 Lubricants, Industrial Oils, and Related Products Type F Lubricant for Spindle Bearings, and Associated Clutches—Specification

SAE MS1007 Lubricants, Industrial Oils, and Related Products Type G Slideway Lubricants—Specification