

METRIC

DOD-G-24650

18 January 1985

MILITARY SPECIFICATION

GREASE, FOOD GRADE, FOOD PROCESSING EQUIPMENT (METRIC)

This specification is approved for use by all Departments and Agencies of the Department of the Defense.

1. SCOPE

1.1 Scope. This specification covers greases for use in food processing equipment in applications where there may be incidental contact with food.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Standards. Unless otherwise specified, the following standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this specification to the extent specified herein.

STANDARDS

FEDERAL

FED-STD-313 - Material Safety Data Sheets, Preparation and Submission of.

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.

MIL-STD-290 - Packaging of Petroleum and Related Products.

2.1.2 Other Government documents. The following other Government document forms a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Sea Systems Command, SEA 5523, Department of the Navy, Washington, DC 20362 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

DOD-G-24650

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)

Miscellaneous Publication No. 1419 - List of Proprietary
Substances and Nonfood Compounds Authorized for Use Under
USDA Inspection and Grading Programs.

(Application for copies should be addressed to Superintendent of Documents,
U.S. Government Printing Office, ATTN: Mail Stop SSOM, Washington, DC 20402.)

(Copies of standards and publications required by contractors in connection
with specific acquisition functions should be obtained from the contracting
activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this
specification to the extent specified herein. The issues of the documents which
are indicated as DoD adopted shall be the issue listed in the current DoDISS and
the supplement thereto, if applicable.

ASTM

- D 97 - Standard Test Method for Pour Point of Petroleum
Oils. (DoD adopted)
- D 217 - Standard Test Methods for Cone Penetration of
Lubricating Grease. (DoD adopted)
- D 566 - Standard Test Method for Dropping Point of
Lubricating Grease. (DoD adopted)
- D 1743 - Standard Test Method for Corrosion Preventive
Properties of Lubricating Grease. (DoD adopted)

(Application for copies should be addressed to ASTM, 1916 Race Street,
Philadelphia, PA 19103.)

(Industry association specifications and standards are generally available
for reference from libraries. They are also distributed among technical groups
and using Federal agencies.)

2.3 Order of precedence. In the event of a conflict between the text of
this specification and the references cited herein, the text of this specifi-
cation shall take precedence.

3. REQUIREMENTS

3.1 Material. The grease shall be a stable homogeneous blend of virgin
petroleum oil and thickening agent plus additives, if necessary, to meet the
requirements of this specification. The grease shall be listed in USDA Miscel-
laneous Publication No. 1419 with a rating of USDA H1, lubricants approved for
incidental contact with food.

3.2 Worked penetration. The worked penetration of the grease, when
determined as specified in 4.3.1, shall be not less than 310 nor more than 340.

3.3 Base oil pour point. The pour point of the base oil shall not exceed
minus 12 degrees Celsius (°C) when tested as specified in 4.3.1.

DOD-G-24650

3.4 Dropping point. The dropping point shall be not less than 149°C when tested as specified in 4.3.1.

3.5 Corrosion. The grease shall pass the corrosion test as specified in 4.3.1.

3.6 Material safety data sheet. The contracting activity shall be provided a material safety data sheet (MSDS) at the time of contract award. The MSDS is form OSHA-20 and found as part of FED-STD-313. The MSDS shall be included with each shipment of the material covered by this specification.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Quality conformance inspection. Grease shall be inspected and tested to verify compliance with requirements as specified herein.

4.2.1 Lot. For purposes of sampling, a lot shall consist of grease manufactured as one batch.

4.2.2 Examination of filled containers. A sample of filled containers selected from each lot in accordance with MIL-STD-105, inspection level I and acceptable quality level 2.5 percent defective shall be examined to verify compliance with the requirements of this specification not involving tests and for fill, closure and marking. Containers shall be examined for compliance with 5.1. The container closure shall be examined for evidence of leakage. Each sample filled shall be weighed to determine the amount of contents. Any container in the sample having one or more defects, or under required fill shall be rejected. If the number of defective containers in a sample exceeds the acceptance number for the appropriate sampling plan of MIL-STD-105, the lot represented by the sample shall be rejected.

4.2.3 Acceptance tests. From each lot, containers shall be selected, sealed, marked and forwarded to a testing laboratory satisfactory to the Command or agency concerned. The selected containers shall meet the following requirements:

- (a) Enough containers to form two separate specimens of 5 pounds each shall be furnished.
- (b) The sample specimens shall be subjected separately to the tests specified in 4.3.1.
- (c) If either specimen fails one or more of the tests specified in 4.3.1, the lot shall be rejected.

DOD-G-24650

4.3 Test procedures.

4.3.1 Test methods. Test methods for requirements specified herein shall be in accordance with table I.

TABLE I. Test methods.

Test	Test reference	Requirement paragraph
Worked penetration	ASTM D 217	3.2
Base oil pour point	ASTM D 97	3.3
Dropping point	ASTM D 566	3.4
Corrosion protection	ASTM D 1743	3.5
USDA rating	See 4.3.2	3.1

4.3.2 USDA rating. Grease shall be listed in USDA Miscellaneous Publication No. 1419, and rated USDA H1, lubricants approved for incidental contact with food.

4.4 Inspection of packaging. Sample packages and packs, and the inspection of the preservation-packaging, packing and marking for shipment and storage shall be in accordance with the requirements of section 5 and the documents specified therein.

5. PACKAGING

(The preparation for delivery requirements specified herein apply only for direct Government acquisition.)

5.1 Packaging, packing and marking. Unless otherwise specified (see 6.2), packaging, packing and marking shall be in accordance with MIL-STD-290. The grease shall be packaged in 250 gram (1/2 pound), or 500 gram (1 pound) containers, as specified (see 6.2).

6. NOTES

6.1 Intended use. Grease covered by this specification is intended for use as a lubricant in food processing equipment.

6.2 Ordering data. Acquisition documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Packaging, packing and marking, if other than specified (see 5.1).
- (c) Specify container size (see 5.1).

Custodians:

Navy - SH
Army - ME
Air Force - 68

Preparing activity:

Navy - SH
(Project 9150-0734)

Review activity:

DLA - GS

INSTRUCTIONS. In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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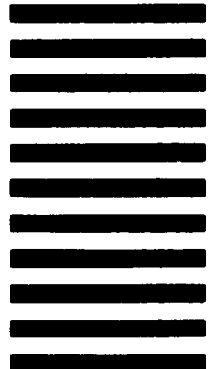
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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1 DOCUMENT NUMBER DOD-G-24650		2 DOCUMENT TITLE	
3a. NAME OF SUBMITTING ORGANIZATION		4 TYPE OF ORGANIZATION (Mark one)	
b ADDRESS (Street, City, State, ZIP Code)		<input type="checkbox"/> VENDOR	
		<input type="checkbox"/> USER	
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		<input type="checkbox"/> OTHER (Specify) _____	
5 PROBLEM AREAS			
a. Paragraph Number and Wording			
b. Recommended Wording			
c. Reason/Rationale for Recommendation			
6 REMARKS			
7a NAME OF SUBMITTER (Last, First, MI) - Optional		b WORK TELEPHONE NUMBER (Include Area Code) - Optional	
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