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MIL-L-8937D
29 March 1982
SUPERSEDING
MIL-L-8937C
18 March 1976

MILITARY SPECIFICATION

LUBRICANT, SOLID FILM, HEAT CURED, CORROSION INHIBITING, NATO CODE NUMBER S-1738

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

1. SCOPE

1.1 Scope. This specification establishes the requirements for a solid film lubricant (identified by NATO code number S-1738) (see 6.5) intended to reduce wear and prevent galling, corrosion and seizure of metals (see 6.1).

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. Unless otherwise specified, the following specifications, standards, and handbooks 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.

SPECIFICATIONS

FEDERAL

QQ-A-250/5	-	Aluminum Alloy, Alclad 2024, Plate and Sheet.
VV-D-1078	-	Damping Fluid, Silicone Base (Dimethyl Polysiloxane).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Engineering Specifications and Standards Department (Code 93), Naval Air Engineering Center, Lakehurst, NJ 08733, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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MILITARY

MIL-C-372	-	Cleaning Compound Solvent (For Bore of Small Weapons and Automatic Aircraft Weapons).
MIL-L-2104	-	Lubrication Oil, Internal Combustion Engine Heavy Duty
MIL-S-5059	-	Steel, Corrosion-Resistant (18-8), Plate, Sheet and Strip.
MIL-T-5624	-	Turbine Fuel, Aviation, Grades JP-4 and JP-5.
MIL-A-8243	-	Anti-icing and Deicing, Defrosting Fluid.
MIL-A-8625	-	Anodic Coatings, for Aluminum and Aluminum Alloys.
DOD-P-16232	-	Phosphate Coatings, Heavy, Manganese or Zinc Base (For Ferrous Metals).
MIL-L-23699	-	Lubricating Oil, Aircraft Turbine Engines, Synthetic Base.
MIL-T-81533	-	1,1,1 Trichloroethane (Methyl Chloroform) Inhibited, Vapor Degreasing.
MIL-H-83282	-	Hydraulic Fluid, Fire Resistant Synthetic Hydrocarbon Base, Aircraft.

STANDARDS

FEDERAL

FED-STD-791	-	Lubricants, Liquid Fuels, and Related Products, Methods of Testing.

MILITARY

MIL-STD-105	-	Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-290	-	Packaging of Petroleum and Related Products.

(Copies of specifications, standards, handbooks, drawings, and publications required by manufacturers 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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 1193	-	Reagent Water.
ASTM D 1310	-	Flashpoint of Liquids by Tag Open-Cup Apparatus.
ASTM D 2510	-	Adhesion of Solid Film Lubricants.
ASTM D 2511	-	Thermal Shock Sensitivity of Solid Film Lubricants
ASTM D 2625	-	Endurance (Wear) Life and Load-Carrying Capacity of Solid Film Lubricants (Falex Method).
ASTM D 2649	-	Corrosion Characteristics of Solid Film Lubricants.

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(Application for copies should be addressed to the American Society for Testing and Materials, 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 specification shall take precedence.

3. REQUIREMENTS

3.1 Qualification. The lubricant furnished under this specification shall be products which are qualified for listing on the applicable Qualified Products List at the time set for opening of bids (see 4.3 and 6.3). Any change in the formulation of a qualified product will necessitate its requalification.

3.2 Materials. Component materials used in the manufacture of this lubricant shall consist essentially of finely powdered lubricating solids dispersed in a suitable binder. The lubricant shall be suitable for application by brushing, dipping or by spraying. The applied film shall be capable of being cured within 60 minutes at 150 $\pm$ 3°C (302° $\pm$ 5°F) when applied as specified in 4.5.2 and be of such nature that it shall conform to the requirements of this specification. The lubricant shall contain no graphite, powdered metal or flurocarbon solvents (see 4.6.1).

3.3 Film appearance and thickness. The bonded solid film lubricant, when examined in accordance with 4.6.2, shall appear uniform in color and shall be smooth, free from any cracks, scratches, pinholes, blisters, bubbles, runs, sags, foreign matter, grit, rough particles, separation of ingredients or other surface imperfections. The thickness of the cured film shall be between 0.005 and 0.013 mm (0.0002 and 0.0005 inch). Film thickness shall be determined in accordance with 4.6.

3.4 Performance characteristics.

3.4.1 Film adhesion. The bonded solid film lubricant, when tested as specified in 4.6, shall not be lifted to expose any bare metal surface. A uniform deposit of powdery material clinging to the tape shall not be objectionable.

3.4.2 Resistance to fluids. The bonded solid film lubricant, after immersion in each of the fluids as specified in 4.6., shall not be lifted by the tape to expose any bare metal surface; nor shall the solid film lubricant soften, lift, blister, crack, or peel. A uniform deposit of powdery material clinging to the tape shall not be objectionable.

3.4.3 Thermal stability. The thermal stability of the bonded solid film lubricant, when tested as specified in 4.6, shall not flake, crack, nor soften and shall conform to the requirements for film adhesion, 3.4.1.

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3.4.4 Endurance life. When tested in accordance with 4.6, the bonded solid film lubricant shall have an average endurance life of 250 minutes at 1,000 pounds load (4,500 pounds gage).

3.4.5 Load-carrying capacity. When tested in accordance with 4.6, the bonded solid film lubricant shall have a load-carrying capacity of at least 2,500 pounds gage load, with no single test result less then 2,250 pounds.

3.4.6 Aluminum corrosion resistance. When subjected to heat and high humidity conditions as specified in 4.6, the bonded solid film lubricant on anodized aluminum panels shall not show or cause discoloration, pitting, formation of white deposits, or other evidence of corrosion.

3.4.7 Sulfurous acid - salt spray. When dry steel specimens coated with solid film lubricant are exposed to sulfurous acid - salt spray in accordance with 4.6, there shall be no resultant pitting, visible corrosion, or staining.

3.4.8 Storage stability. The fluid lubricant after a minimum storage perios as specified in 4.6.3 shall conform to the requirements for endurance life, 3.4.4, and the sulfurous acid - salt spray, 3.4.7, when tested in accordance with 4.6.

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 disaproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specifications where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections specified herein are classified as follows:

a. Qualification inspection (see 4.3).

b. Quality conformance inspection (see 4.4).

4.3 Qualification inspection. The qualification inspection performed by the qualification laboratory shall consist of approval of the manufacturer's submitted report, and subjecting the qualification sample, 4.3.1, to examination and testing for all the requirements of this specification (see table I).

4.3.1 Qualification samples. The qualification sample shall consist of 1-gallon of the lubricant dispersion from one batch provided in 1-quart containers, and two copies of the supplier's report for the product for which qualification is desired. The report shall show the product inspection results for all the requirements of this specification and shall refer specifically to the applicable paragraphs in the specification.

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The samples and reports shall be forwarded to the Aircraft and Crew Systems Directorate, Code 60612, Naval Air Development Center, Warminster, PA 18974. The samples shall be plainly identified by securely attached durable tags or labels marked with the following information:

Sample for qualification inspection
LUBRICANT, SOLID FILM, HEAT CURED, CORROSION INHIBITING,
NATO CODE NUMBER S-1738
Name of manufacturer
Product code number
Date of manufacture
Submitted by (name) (date) for qualification inspection
in accordance with MIL-L-8937D under authorization of
(reference authorizing letter) (see 6.3).

4.3.2 Retention of qualification. In order to retain qualification of a product approved for listing on the Qualified Products List (QPL), the manufacturer shall verify by certification to the qualifying activity, that the manufacturer's product complies with the requirements of this specification. The time of periodic verification by certification shall be in two-year intervals from the date of original qualification. The Government reserves the right to re-examine the qualified product whenever deemed necessary to determine that the product continues to meet any or all of the specification requirements.

4.4 Quality conformance inspection. The quality conformance inspection shall consist of inspection of samples for tests (see 4.4.2) for all of the tests specified in table I, (except for thermal stability (3.4.3), aluminum corrosion resistance (3.4.6), and storage stability (3.4.8)), and inspection of samples of filled containers (see 4.4.3) for conformance to Section 5 packaging. Samples shall be labeled completely with information identifying the purpose of the sample, name of product, specification number, lot and batch number, date of sampling, and contract number.

4.4.1 Lot and batch. All lubricant manufactured as one batch shall be considered a lot and shall be numbered as such for purposes of inspection. A batch is defined as the end product of all the raw materials mixed or blended in a single operation.

4.4.2 Sample for tests. The sample for test shall consist of 4 separate quarts of lubricant selected at random from each lot of lubricant. The lot shall be unacceptable if a sample fails to meet any of the test requirements specified.

4.4.3 Sample for examination of filled containers. When the lubricant lot is in solid film dispersion, a random sample of filled containers shall be selected from each lot of lubricant in accordance with MIL-STD-105 at inspection level II and acceptable quality level (AQL) of 2.5 percent defective.

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4.5 Inspection conditions.

4.5.1 Atmospheric conditions. Unless otherwise specified, all examinations and tests shall be performed at a temperature of 25° ± 3°C (77° ± 5°F) and at a relative humidity between 45 and 55 percent. Physical values specified in 3.4.4 and 3.4.5 apply to the average of the determinations made on the samples.

4.5.2 Preparation of test panels. Samples of the lubricant in solid film dispersion form shall be used to prepare bonded solid film lubricant specimens on test panels in accordance with this application procedure. The panels shall be made from: aluminum alloy conforming to QQ-A-250/5, anodized to conform to MIL-A-8625, type I, and measuring approximately 0.020 by 3 by 6 inches; and corrosion-resistant steel conforming to MIL-S-5059, composition 321, condition-annealed, finish no. 2 dull and measuring approximately 0.036 by 3 by 6 inches. Prior to the application of the lubricant, the panels shall be precleaned with trichloroethane conforming to MIL-T-81533. Application shall be performed in a well-ventilated area or hood, where no flames or ignition sources are present. Only one side of each panel shall be fully coated, except for two of the anodized aluminum panels which shall have the lubricant applied to a 1-inch wide strip to enable measurement of film thickness. A spray application technique shall be used to coat the panels for the tests specified herein. The solid film lubricant thickness, after cure, shall be 0.005 to 0.013 mm (0.0002 to 0.0005 inch). Three coats shall be the maximum number required to obtain the desired film thickness. An air dry temperature 25° ± 3°C (77° ± 5°F) for 10 minutes between coats shall be allowed. After the final coat has been applied, the coated specimens shall be allowed to air dry for 30 minutes. The coated specimens shall then be placed in an air circulating oven at 150° ± 3°C (302° ± 5°F) for 1 hour. The coated specimens shall be removed from the oven and allowed to cool to room temperature. At least two test panel specimens shall be used in each test method.

4.6 Methods of inspection. Methods of inspection shall be in accordance with table II and 4.6.1 through 4.6.4.

4.6.1 Graphite and powdered metal. The contractor shall submit a notarized certification signed by a responsible official of its management, attesting that no graphite or powdered metal are present in the product furnished under this specification.

4.6.2 Film appearance. The bonded solid film lubricant specimens shall be examined visually and microscopically at a magnification of 12X for uniformity in color, smoothness and evidence of cracks, scratches, pinholes, blisters, bubbles, runs, sags, foreign matter, grit, rough particles, separation of ingredients, and any other surface imperfections.

4.6.3 Storage stability. Set aside a one-quart qualification sample in a storage of 25° ± 3°C (77° ± 5°F) for a minimum period of 1 year ± 7 days. At the end of the storage period, determine the endurance life, of the cured lubricant film, 3.4.4, and the sulfurous acid - salt spray, 3.4.7.

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4.6.4 Examination of filled containers. Each filled container selected in accordance with 4.4.3 shall be examined for defects of the container and the closure, for evidence of leakage, and for unsatisfactory markings. Each sample container shall also be weighed to determine the amount of the contents. If the number of defective containers in any sample exceeds the acceptance number for the appropriate sampling plan of MIL-STD-105, failure of the lot shall be indicated.

5. PACKAGING

5.1 Packaging, packing, and marking. The lubricant shall be packaged, packed, and marked in accordance with MIL-STD-290. The type and size of containers and the level of packaging and packing shall be as specified by the acquiring activity (see 6.2).

5.2 Precautionary marking. In addition to the marking specified in 5.1, the individual containers and the shipping containers shall be marked to show the date of manufacture, recommended conditions for storage, and flash point by Tag open cup method, ASTM D 1310, and the marking shall include the following information:

a. CAUTION! Use only in a well ventilated area or in a hood where no flames or other ignition sources are present.

b. WARNING! Do not use this lubricant in food processing or food handling equipment on surfaces that may contact foods.

c. NOTE. Use this lubricant within 12 months from date of manufacture.

5.2.1 Additional marking.

The individual containers shall be marked with the following application instruction:

a. Degrease and clean component part thoroughly.

b. Spray wet at 40 psi, 10 to 12 inches from part (Shake mixture constantly), using a Binks #18 spray gun with #66DS nozzle.

c. Allow 10 minutes air dry between coats (to dullness).

d. Do not exceed 0.0005 inches (0.013mm) total thickness.

e. After spraying, air dry for 1/2 hour and cure at 150°C (302°F) for 1 hour.

6. NOTES

6.1 Intended use. The solid film lubricant covered by this specification is intended for use on aluminum, aluminum alloys, copper and copper alloys, steel and stainless steel, titanium, and chromium and nickel bearing surfaces (see Appendix for application instructions).

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It is useful under the following conditions:

a. To touch up worn surfaces originally coated with lubricant conforming to MIL-L-8937.

b. For sliding motion applications such as plain and spherical bearings, flap tracks, hinges, threads, and cam surfaces.

c. Where conventional lubricants are difficult to apply or retain, or where other lubricants may be easily contaminated with dirt and dust.

d. For use within 12 months of the date of manufacture.

6.1.1 Use limitations. This lubricant should not be used under the following conditions:

a. On materials which will be adversely affected by the curing temperature 150°C (302°F) for 1 hour.

b. In operations consisting of rotary motion above 100 rpm under heavy loads where the possibility of conventional fluid lubricant contamination exists. The cured lubricant film is highly resistant to conventional fluid lubricants, but the high fluid pressures developed in heavily loaded sleeve type bearings drastically reduces the wear life provided by the solid lubricant film.

c. On bearings containing rolling elements.

d. Where there is potential contact with liquid oxygen.

6.1.2 Corrosion protection life. This lubricant can be expected to provide corrosion protection for five years in indoor storage and approximately two years protection in outdoor storage when lubricant is applied over phosphated steel to a thickness of 0.0005 in. Where maximum corrosion protection on steel is desired, the lubricant should be applied over phosphated steel to a thickness of 0.001 in. The heavier coating can be expected to provide outdoor corrosion protection for approximately four years.

6.2 Ordering data.

6.2.1 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.

b. Quantity (see 6.2.1.1).

c. Packaging, packing, and marking data with requirements in detail.

6.2.1.1 Age limitation. The lubricant should not be ordered for use beyond 12 months from the date of manufacture.

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6.2.1.2 Packaging options. In the preparation of contracts or orders, it must be noted that various options, choices and alternatives, as indicated in MIL-STD-290, may be exercised in the preparation of this lubricant for delivery.

6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time set for opening of bids, qualified for inclusion in Qualified Products List (QPL-8937) whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or purchase orders for the products covered by this specification. The activity responsible for the Qualified Products List is the Naval Air Systems Command, Attention: Air-5304C, Department of the Navy, Washington, DC 20361; however, information pertaining to qualification of products and letter of authorization for submittal of sample may be obtained from the Director, Aircraft and Crew Systems Technology Directorate, Code 60612, Naval Air Development Center, Warminster, PA 18974.

6.4 Falex lubricant tester. Information pertaining to the Falex lubricant tester (see 3.4.4) can be obtained from the Faville-LeValley Corp., 2055 Comprehensive Dr., Aurora, IL 60505. The attention of the operator is called to the fact that repeatable and reproducible test results can only be obtained if the test instrument is in proper calibration.

6.5 International standardization agreements. Certain provisions of this specification (see 1.1) are the subject of international standardization agreement (ASCC Air Standard 15/1, NATO STANAG NAT-STD-1135. When amendment, revision, or cancellation of this specification is proposed, which will effect or violate the international agreement concerned, the preparing activity should take appropriate reconciliation action through international standardization channels including departmental standardization offices, if required.

6.6 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:
Army - ME
Navy - AS
Air Force - 11

Preparing Activity:
Navy - AS

(Project No. 9150-0601)

Review Interest:
Army - AR, AV, MI
DLA - PS

User Interest:
Army - AT, SM

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TABLE I. Qualification inspection tests.

Characteristic	Paragraph	
	Requirement	Test
Presence of graphite or powdered metal	3.2	4.6.1
Film appearance	3.3	4.6.2
Film thickness	3.3	Table II
Film adhesion	3.4.1	Table II
Resistance to fluids	3.4.2	Table II
Thermal stability	3.4.3	Table II
Endurance life	3.4.4	Table II
Load-carrying capacity	3.4.5	Table II
Aluminum corrosion resistance	3.4.6	Table II
Sulfurous acid - salt spray	3.4.7	Table II
Storage stability	3.4.8	4.6.3
Examination of filled containers	Section 5	4.6.4

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TABLE II. Methods of tests.

Test	Method	
	FED-STD-791	ASTM
Film thickness 1/	3816	-
Film adhesion	-	D 2510, procedure A
Resistance to fluids 2/	-	D 2510, procedure C
Thermal stability 3/	-	D 2511
Endurance life 4/	-	D 2625, procedure A
Load carrying capacity 4/	-	D 2625, procedure B
Aluminum corrosion resistance 5/	-	D 2649
Sulfurous acid - salt spray 6/	5331	-

1/ The film thickness shall be determined after the panels have air dried and baked for 60 ± 5 minutes at 150° ± 3°C (302° ± 5°F).

2/ Test fluids shall be in accordance with Table III.

3/ Any condensation shall be removed with clean, dry compressed air. The dried panel shall then be subjected to the film adhesion test.

4/ The surface of the specimens shall be pretreated with phosphate in accordance with MIL-P-16232 or grit blasted (120 steel grit, 50-60 RMS) (see 6.4).

5/ The panels shall be exposed for at least 500 hours.

6/ The panels shall be subjected to 4 cycles.

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TABLE III. Test fluids.

Fluid	Specification
Hydraulic fluid, synthetic hydrocarbon base	MIL-H-83282
Lubricating oil, internal combustion engine, heavy duty	MIL-L-2104 grade 10
Turbine fuel	MIL-T-5624, grade JP-4
Lubricating oil, aircraft turbine engine, synthetic base	MIL-L-23699
Damping fluid, silicone base (dimethyl polysiloxane)	VV-D-1078
Trichloroethane	MIL-T-81533
Anti-icing fluid	MIL-A-8243
Cleaning compound, solvent for bore of small arms and automatic weapons	MIL-C-372
Reagent water	ASTM D 1193, type III

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APPENDIX
INSTRUCTIONS FOR APPLYING LUBRICANT, SOLID-FILM, HEAT-CURED, CORROSION INHIBITING

10. SCOPE

10.1 Scope. This appendix is not a mandatory part of the specification. The information contained herein is intended for guidance for surface pretreatment, temperature, and baking time required to cure the solid film lubricant when it is applied over the bearing surfaces of various metals.

20. APPLICABLE DOCUMENTS

20.1 Government documents.

20.1.1 Specifications, standards, and handbooks. Unless otherwise specified, the following specifications, standards, and handbooks 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.

SPECIFICATIONS

FEDERAL

QQ-P-35	-	Passivation Treatments for Corrosion-Resisting Steel.
TT-N-95	-	Naphtha, Aliphatic.

MILITARY

MIL-F-495	-	Finish, Chemical, Black, for Copper Alloys.
DOD-P-16232	-	Phosphate Coatings, Heavy Manganese or Zinc Base (For Ferrous Metals).
MIL-M-45202	-	Magnesium Alloy, Anodic Treatment of.
MIL-T-81533	-	1,1,1 Trichloroethane (Methyl Chloroform) Inhibited, Vapor Degreasing.

MILITARY

MIL-STD-171	-	Finishing of Metal and Wood Surfaces.

30. REQUIREMENTS

30.1 General application instructions for all metals. Do not touch the pre-treated surfaces with the fingers. Apply the lubricant by brushing, dipping, or spraying to a film thickness of 0.005 to 0.013 mm (0.0002 to 0.0005 in.) and permit the coated parts to air dry for at least 30 minutes to assure complete removal of solvent. Bake at 150°C (302°F) for one hour. The coated surface of the piece must remain at the cure temperature for the specified time. This may require that the coated piece remain in the oven for a period longer than that specified to assure compliance with this requirement.

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APPENDIX

The use of a thermocouple attached to the coated surface to indicate the temperature of the coating has been found to be satisfactory for determining the beginning of the timed baking period.

30.2 Application on aluminum and aluminum alloys. Vapor degrease the surfaces to be coated with trichloroethane meeting the requirements of MIL-T-81533. Anodize and seal the surface in accordance with MIL-A-8625, types I, II, or III, class 1.

30.3 Application on copper and copper alloys. Vapor degrease the surface with trichloroethane meeting the requirements of MIL-T-81533. Sandblast the surfaces with 130 mesh clean, dry sand. Form a black oxide finish on the surfaces in accordance with MIL-F-495.

30.4 Application on magnesium and magnesium alloys. Vapor degrease the surfaces to be coated with trichloroethane meeting the requirements of MIL-T-81533. Anodize the surface in accordance with MIL-M-45202, type I, class A, B or C.

30.5 Application on steel. Vapor degrease the surfaces to be coated with trichloroethane meeting the requirements of MIL-T-81533. Sandblast the surfaces with 120 mesh clean, dry sand, steel or aluminum oxide grit. Phosphate in accordance with MIL-P-16232, type M, class 3 or type Z, class 3.

30.6 Application on stainless steels. Vapor degrease the surfaces to be coated with trichloroethane meeting the requirements of MIL-T-81533. Sandblast the surfaces with 120 mesh clean, dry sand, or aluminum oxide grit. Passivate the surfaces with QQ-P-35, types I, II or III as applicable.

30.7 Application on titanium and titanium alloys. Degrease the surfaces to be coated with aliphatic naphtha meeting the requirements of TT-N-95. Sandblast the surface with 120 mesh clean, dry sand, steel or aluminum oxide grit and alkaline anodize.

30.8 Engineering tolerances. The operating thickness of this lubricant ranges for 0.005 to 0.013 mm (0.0002 to 0.0005 in.) per lubricated surface. This thickness seldom requires alteration of established clearances between moving parts. There is one exception. The lubricant coating thickness must be considered in the case of small parts which normally operate with very little clearance. The cured lubricant film is relatively soft and any interference produced by the thickness of the lubricant will cause rapid wear of the lubricant film to the point where interference is eliminated.

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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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c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional	b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional	8. DATE OF SUBMISSION *(YYMMDD)*

DD FORM 82 MAR 1426 PREVIOUS EDITION IS OBSOLETE.

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE
3a. NAME OF SUBMITTING ORGANIZATION	4. TYPE OF ORGANIZATION *(Mark one)* ☐ VENDOR ☐ USER
b. ADDRESS *(Street, City, State, ZIP Code)*	☐ MANUFACTURER ☐ OTHER *(Specify)*:

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording: