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NOT MEASUREMENT SENSITIVE

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MIL-C-15074E  
30 January 1991  
SUPERSEDING  
MIL-C-15074D  
24 July 1981

## MILITARY SPECIFICATION

## CORROSION PREVENTIVE, FINGERPRINT REMOVER

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

## 1. SCOPE

1.1 This specification covers one type of corrosion preventive intended for use as a fingerprint remover and as a temporary preservative for metallic items.

## 2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

## SPECIFICATIONS

## FEDERAL

O-M-232 - Methanol (Methyl Alcohol)  
P-D-680 - Dry Cleaning Solvent  
QQ-A-250/4 - Aluminum Alloy 2024, Plate and Sheet  
QQ-B-613 - Brass, Leaded and Non-Leaded: Flat Products (Plate, Bar, Sheet, and Strip)  
QQ-L-201 - Lead Sheet  
TT-N-95 - Naptha; Aliphatic

## MILITARY

MIL-A-18001 - Anodes, Corrosion Preventive, Zinc, Slab. Disc and Rod Shaped  
MIL-P-116 - Preservation, Methods of

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Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Director, U.S. Army Laboratory Command, Materials Technology Laboratory, ATTN: SLCMT-MEE, Watertown, MA 02172-0001 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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AMSC N/A

FSC 8030

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## STANDARDS

### FEDERAL

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

### MILITARY

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

MIL-STD-129 - Marking for Shipment and Storage

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

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

\* 2.2 Non-Government publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

#### AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A109 - Steel, Strip, Carbon, Cold-Rolled Strip, Standard Specification  
ASTM D56 - Tester, Closed, Flash Point by Tag  
ASTM D445 - Liquids, Transparent and Opaque (and the Calculation of Dynamic Viscosity), Kinematic Viscosity of  
ASTM D1748 - Rust Protection by Metal Preservatives in the Humidity Cabinet, Test for

(Applications for copies should be addressed to American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

### 3. REQUIREMENTS

3.1 Qualification. Corrosion preventive furnished under this specification shall be products which are authorized by the qualifying activity for listing on the applicable qualified products list at the time of award of contract.

3.1.1 Any change in the formulation of a qualified product will necessitate its requalification. The material supplied under contract shall be identical, within manufacturing tolerances, to the product receiving qualification.

3.2 Material The corrosion preventive shall be made of such materials as shall meet all requirements of this specification. The corrosion preventive shall contain no ingredients which may be injurious to personnel using it under reasonable safety precautions (see 5.1.1). The corrosion preventive shall be free from disagreeable and offensive odors (see 6.4).

3.3 Physical and chemical requirements. The corrosion preventive shall conform to the physical and chemical requirements specified in table I and paragraphs 3.4 through 3.12 (see 4.6.1)

TABLE I. Requirements.

Characteristic	Value
Flash point, min	100°F (37.8°C)
Viscosity, centistokes, max, at 100°F (37.8°C)	30

3.4 Stability The corrosion preventive shall not separate into layers or show any evidence of phase difference when tested as specified in 4.6.2.

3.5 Performance. The corrosion preventive shall remove all traces of fingerprint contamination when tested as specified in 4.6.3.

3.6 Suppression. The corrosion preventive shall prevent corrosion by fingerprint contamination when tested as specified in 4.6.4.

3.7 Protection. The corrosion preventive shall protect steel surfaces for seven days when tested as specified in 4.6.5.

3.8. Removability. The corrosion preventive shall be completely removed from the test panel when tested as specified in 4.6.6.

3.9 Corrosiveness. The corrosion preventive shall not produce corrosive effects as shown by weight loss or gain in excess of that specified in table II when tested as specified in 4.6.7.

TABLE II. Corrosiveness of compound.

Metal	Maximum gain or loss, mg/sq cm
Aluminum	0.2
Brass	2.0
Lead	22.3
Steel	0.2
Zinc	8.5

3.10 Film stability. The corrosion preventive shall prevent corrosion of test panels when tested as specified in 4.6.8.

3.11 Handling. The corrosion preventive shall protect against fingerprint corrosion when tested as specified in 4.6.9.

3.12 Storage stability. The corrosion preventive shall meet the requirements of 3.5, 3.6, and 3.7 after six months storage at  $77 \pm 50^{\circ}\text{F}$  ( $25 \pm 3^{\circ}\text{C}$ ) (see 4.6.10).

\* 3.13 Toxicity. The corrosion preventive shall have no adverse effect on the health of personnel when used for its intended purpose. Questions pertinent to this effect shall be referred by the contracting activity to the appropriate departmental medical service who will act as an adviser to the contracting agency. A material safety data sheet will be submitted in accordance with procedures outlined in FED-STD-313.

#### 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 (examinations and tests) 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 this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

\* 4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

#### 4.2 Lot.

4.2.1 Bulk lot. An indefinite quantity of a homogeneous mixture of material offered for acceptance in a single isolated container; or manufactured by a single plant run (not exceeding 24 hours) through the same processing equipment, with no change in ingredient material.

4.2.2 Packaged lot. An indefinite number of 55-gallon drums or smaller unit package of identical size and type, offered for acceptance, and filled with a homogeneous mixture of material from one isolated container; or filled with a homogeneous mixture of material manufactured by a single plant run (not exceeding 24 hours) through the same processing equipment, with no change in ingredient material.

#### 4.3 Sampling.

4.3.1 For inspection of material. Unless otherwise specified in the contract or order, a composite sample consisting of not less than two one-gallon (3.8 liter) containers of the corrosion preventive shall be taken from each bulk or packaged lot.

4.3.2 For examination of the preparation for delivery. A random sample of filled containers shall be selected from each packaged lot in accordance with MIL-STD-105, and shall be subjected to the examination of 4.4.2.

#### 4.4 Inspection.

4.4.1 Inspection of material. Each composite sample taken in accordance with 4.3.1 shall be examined for material (3.2), and tested for qualification requirements in accordance with 4.5.1, or for acceptance requirements in accordance with 4.5.2, as appropriate. The lot shall be rejected if the sample representing the lot fails to meet any of the test requirements specified.

4.4.2 Examination of the preparation for delivery. Each container selected in accordance with 4.3.2 shall be examined in accordance with MIL-STD-290 for fill, closure, sealing, leakage, packaging, packing, and marking of the shipping container. Each filled container in the sample shall also be weighed to determine the amount of contents. Any container in the sample having one or more defects or under the required fill shall be rejected and if the number of containers exceeds the acceptance number for the appropriate sampling plan of MIL-STD-105, the lot represented by the sample shall be rejected.

#### 4.5 Classification of tests.

4.5.1 Qualification tests. Qualification tests shall consist of all the tests of this specification.

4.5.2 Acceptance tests. Acceptance tests shall consist of all the tests of this specification, except the handling test (see 4.6.9) and the storage stability test (see 4.6.10)

#### 4.6 Tests.

4.6.1 Physical and Chemical tests Physical and chemical tests shall be conducted in accordance with the following ASTM methods. A separate specimen shall be taken for each test from the composite sample.

- |                                 |           |
|---------------------------------|-----------|
| (a) Flash point                 | ASTM D56  |
| (b) Viscosity at 100°F (37.8°C) | ASTM D445 |

4.6.2 Stability. One loosely stoppered pour point tube filled to the mark with the corrosion preventive being tested shall be held at a temperature of  $-40 \pm 4^{\circ}\text{F}$  ( $-40 \pm 2^{\circ}\text{C}$ ) for 16 hours, and then at  $130 \pm 4^{\circ}\text{F}$  ( $54 \pm 2^{\circ}\text{C}$ ) for eight hours. This temperature cycle shall be repeated a total of three times. A second pour point tube, unstoppered and filled to the mark with the corrosion preventive shall be held at a temperature of  $130 \pm 4^{\circ}\text{F}$

( $54 \pm 2^{\circ}\text{C}$ ) for three days. Upon completion of the above respective procedures, both tubes shall be stoppered and slowly inverted, and returned to their original position six times. After this treatment, there shall be no evidence of separation or phase difference in the samples after the stoppered pour point tubes are permitted to stand at room temperature for one hour.

#### 4.6.3 Performance.

4.6.3.1 Test panels. The test panels shall be made of low carbon, cold-rolled steel conforming to ASTM A109. Panel dimensions shall be approximately 2 by 4 by 0.125 in (50 by 100 by 3mm). Badly rusted stock shall not be used for making test panels. The edges of the panels shall be rounded and suspension holes reamed in accordance with ASTM D1748 prior to cleaning.

4.6.3.2 Cleaning test panels. The test surfaces of the panels shall be cleaned with solvent conforming to P-D-680, type I, and methanol conforming to O-M-232, grade A, as follows:

(a) While cleaning the test panels, they shall be handled with hooks or forceps at all times. All precautions shall be taken to guard against impurities on the test panels by avoiding contact with any type of contaminated surfaces. The utensils and solvents used must be clean and free from contamination.

(b) The solvents shall be maintained at a temperature high enough to keep the temperature of the panels above the dew point during handling operations when they are not submerged in solvent or stored in a desiccator.

(c) Wipe the surfaces clean with solvent soaked rags and scrub with surgical gauze swabs in a beaker of hot P-D-680 solvent.

(d) Rinse in a beaker of hot methanol. Air dry the panels and store in a desiccator until further processing.

4.6.3.3. Polishing test panels. Test panels shall be polished to 15 ( $\pm 5$ )  $\mu\text{in}$  ( $0.38 \pm 0.13 \mu\text{m}$ ), rms, ending with 240 grit aluminum oxide or silicon carbide abrasive, having cloth or paper backing. (The use of wet or dry, water-proof paper-backed abrasives or iron oxide abrasives are prohibited.) Wipe off superficial dust and rub the abraded surface with 3-inch surgical gauze held in a blotter holder until there is no dark stain on a clean section of cloth. Remaining residue and contamination shall be removed by holding the panels in a rack at 25 degrees from the vertical and spraying downward with P-D-680 solvent. Flush the test surface progressively downward, spraying first the test surface, then the back of the panel and the test surface again. The panels shall then be rinsed in hot P-D-680 solvent and hot methanol. After the panels are dry they shall be stored in a desiccator and used the same day as prepared.

The following procedure shall be used in spot checking and controlling the desired standard of panel cleanliness:

Place the panel directly under a burette on a table free of vibrations or drafts. A drop of distilled water 0.05 mL in volume is allowed to drop vertically and perpendicular to the panel from a distance of 30 cm above the



panel. If the surface is absolutely clean, successive droplets on various parts of the surface will spread out completely in spots of closely reproducible dimensions. A clean panel should give a spread of 21 to 23 mm for each 0.05 mL of distilled water.

4.6.3.4 Application of synthetic fingerprints to panels Five finished and cleaned panels shall be printed using a synthetic solution and rubber stopper for its application. The synthetic solution shall be made up with the following ACS grade reagents dissolved in equal parts of anhydrous methanol and distilled water to make 1 liter:

Sodium chloride	7 grams
Urea	1 gram
Lactic acid (85%)	4 grams

The above solution in the amount of 1.5 milliliters shall be dropped in the center of a 1.5 inch square (38 millimeter square) pad made of clean surgical gauze U.S.P. type VII exactly 32-ply in thickness held on a clean glass plate approximately 6 inch square (150 millimeter square). The printing of the test panels shall be accomplished by use of a No. 6 rubber stopper weighted with a one kilogram weight and the small end of the stopper roughened with 240 grit aluminum oxide or silicon carbide abrasive paper, scrubbed with soap and water, and rinsed in distilled water. The roughened end of the stopper shall be first brought to rest on the gauze pad containing the fingerprint solution; transferred and momentarily brought to rest on the center of the test panel; and then placed back on the gauze pad. Immediately after being printed, the test panel is placed with printed surface facing air stream in a forced draft oven at 250°F (121°C). The entire operation including the time of application of stopper moistened with fingerprinting solution to the test panel and the placing of the test panel in the oven shall not require more than five seconds. Not over five panels shall be printed using one gauze pad, and the rubber stopper shall be thoroughly cleaned after printing five panels. The printed test samples shall be removed after 5 minutes in the forced draft oven and allowed to cool to  $77 \pm 5^\circ\text{F}$  ( $25 \pm 3^\circ\text{C}$ ).

4.6.3.5 Test procedure. One of each set of five printed panels, designated as 100 percent removal control panel, shall be slushed in boiling synthetic methanol for two minutes. The methanol shall be heated to boiling on a hot plate immediately prior to the slushing operation. This panel is then combined with a second panel designated as zero percent removal control panel and both are slushed in two successive portions of solvent conforming to P-D-680 for one minute each. The three remaining panels shall be slushed in the compound under test for two minutes after which they are slushed in the two successive portions of solvent conforming to P-D-680. The slushing of the 100 percent removal control panel in methanol, the slushing of the three panels in the test compound, and the final slushing of all panels in the two successive portions of P-D-680 solvent, shall be accomplished mechanically by use of a reciprocal stroking machine such as shown in Figure 1. The panels shall be mounted in the test holder in a vertical position, with one on each side of the holder, so that the printed side of the panel is in a plane perpendicular to the path of the slushing motion. The length of the stroke shall be  $2 \pm 0.25$  inch ( $51 \pm 6$  millimeter) and the slushing shall be conducted at  $30 \pm 1$  cycles per minute. The control panels should be slushed

first, followed by two of the test panels and ending with the third test panel being slushed by itself. Approximately 800 milliliters of solution shall be used in the slushing of panels with the alcohol, each P-D-680 solvent rinse, and test solution using a rectangular tank measuring approximately 3.5 by 4.5 by 5.25 inches in depth (90 by 115 by 135 millimeter). The solution shall cover the panels to a depth of at least one-fourth inch. After slushing, the five panels shall be air-dried in a dust free atmosphere then placed in a 100 percent static humidity chamber (that is a desiccator body partially filled with water) for  $24 \pm 1$  hours at  $77 \pm 5^\circ\text{F}$  ( $25 \pm 3^\circ\text{C}$ ). After exposure of the panels in the static humidity chamber for 24 hours, the entire surface of the panels shall be examined visually for the presence of rust. The examination shall be made by holding the panel at all angles, approximately three inches (75 millimeter) from a 15-watt fluorescent balance illuminator. The test panels treated in the corrosion preventive and the 100 percent removal control panel shall exhibit no rust after the 24-hour exposure period. If any rust appears on the 100 percent removal control panel after the 24-hour exposure period, the test shall be repeated. The zero percent removal control panel should show a complete coverage of corrosion over the printed area.

#### 4.6.4 Suppression.

4.6.4.1 Test panels. Three test panels for the suppression test shall be of the same size and material as specified in 4.6.3.1, and cleaned and polished as specified in 4.6.3.2 and 4.6.3.3.

4.6.4.2 Test procedure. The test panels shall be printed in the same manner as specified in 4.6.3.4 using a solution of one part by volume of the synthetic fingerprint fluid and two parts methanol. When cool, the panels shall be placed on a level surface and 0.05 mL of the compound under test shall be dropped from a pipette held directly above the printed area. If the material does not spread by itself, the panel shall be carefully tilted by hand to insure that the print is completely covered. Allow the panels to dry for 16 hours at  $77 \pm 5^\circ\text{F}$  ( $25 \pm 3^\circ\text{C}$ ) and then expose in a 100 percent static humidity environment at  $77 \pm 5^\circ\text{F}$  ( $25 \pm 3^\circ\text{C}$ ) for  $24 \pm 1$  hours. The panels shall then be removed from test, decoated with naphtha conforming to TT-N-95 and inspected for rust in the printed area only.

#### 4.6.5 Protection.

4.6.5.1 Test panels. Three test panels for the protection test shall be of the same size and material as specified in 4.6.3.1, and cleaned and polished as specified in 4.6.3.2 and 4.6.3.3.

4.6.5.2 Test procedure. The test panels shall be dipped in the corrosion preventive, maintained at  $77 \pm 5^\circ\text{F}$  ( $25 \pm 3^\circ\text{C}$ ), for one minute with agitation, and allowed to drain at the same temperature for 16 hours. The panels shall be suspended by stainless steel or monel hooks and subjected to 7 days of the humidity cabinet test specified in ASTM D1748. At the end of the 7-day test the panels shall be removed, decoated with naphtha, and examined in the significant area of the panels as defined in ASTM D1748. A combined total of not more than three corrosion dots, none of which exceed one millimeter in diameter, shall be evident on these test panels. Corrosion in excess of this amount shall be cause for rejection.



#### 4.6.6 Removability

4.6.6.1 Test panels. Three test panels for the removability test shall be of the same size and material as specified in 4.6.3.1, and cleaned and polished as specified in 4.6.3.2 and 4.6.3.3.

4.6.6.2 Test procedure. Two of the panels shall be immersed in the fingerprint remover for one minute with agitation and allowed to hang for 24 hours at  $77 \pm 5^{\circ}\text{F}$  ( $25 \pm 3^{\circ}\text{C}$ ). The third panel, designated as a control panel, shall be suspended in a desiccator immediately after preparation and cleaning and allowed to remain for 24 hours. At the end of the 24-hour period, the three panels shall be slushed on the slushing apparatus containing approximately 800 milliliters of P-D-680 solvent as specified in 4.6.3.5 for two minutes. Failure of the corrosion preventive to meet this test is indicated by a visible film remaining on the test panels over that shown by the control panel after the solvent has evaporated or has been blown off by an air jet.

#### 4.6.7. Corrosiveness.

4.6.7.1 Test specimens The corrosiveness test shall be conducted with 1 by 2 by 0.25 in (25 by 50 by 6mm) specimens of metal conforming to the following:

- (a) Aluminum alloy, Temper T-4, QQ-A-250/4
- (b) Brass, Composition 11, QQ-B-613.
- (c) Lead, Grade B, QQ-L-201.
- (d) Steel, ASTM A109
- (e) Zinc, MIL-A-18001.

4.6.7.2 Preparation of test specimens. The specimens shall be cleaned as specified in 4.6.3.2 and polished to remove pits from all faces and edges, finishing with a 240 grit polishing medium. The specimens shall then be cleaned by swabbing in hot naphtha and a final rinse in hot methanol. Avoid touching specimens with the hands

4.6.7.3 Test procedure. Weigh each specimen and place in a wide-mouth jar approximately 3 inches in diameter (75 millimeters) and fitted with a screw cap employing aluminum foil as a gasket. A suitable means should be used to ensure that the specimens do not touch each other. Cover the specimens with 300 milliliter of the test compound. The sealed jar shall then be placed in an oven maintained at  $130^{\circ}\text{F}$  ( $54^{\circ}\text{C}$ ) for seven days. Upon completion of the test, remove the corrosion preventive from the specimens by swabbing with naphtha, followed by methanol, employing surgical gauze pads. Follow each swabbing operation by a rinse in clean solvent. Reweigh the specimens and calculate the change in weight in milligrams per square centimeter.

#### 4.6.8 Film stability.

4.6.8.1 Test panels. Four test panels. for the film stability test shall be of the same size and material as specified in 4.6.3.1, and cleaned and polished as specified in 4.6.3.2 and 4.6.3.3.

4.6.8.2 Test procedure. Three of the clean panels shall be dipped in the fingerprint remover for one minute with agitation and then allowed to hang for 48 hours at  $77 \pm 5^{\circ}\text{F}$  ( $25 \pm 3^{\circ}\text{C}$ ). The fourth panel, designated as a control panel, shall be suspended in a desiccator immediately after preparation and cleaning and allowed to remain for 48 hours. The panel may be placed in either vertical or horizontal position. At the end of the 48-hour period, the four panels shall be washed in approximately 800 milliliter of P-D-680 solvent for two minutes using the slushing machine shown in Figure 1. The panels shall then be exposed for 24 hours in 100 percent static humidity at  $77 \pm 5^{\circ}\text{F}$  ( $25 \pm 3^{\circ}\text{C}$ ). At the completion of this exposure, the panels shall be carefully examined against a black background under a 15-watt fluorescent balance illuminator. The test panels shall not show visible corrosion to an extent greater than that on the control panel.

#### 4.6.9 Handling.

4.6.9.1 Test panels. Two test panels for the handling test shall be of the same size and material as specified in 4.6.3.1, and cleaned and polished as specified in 4.6.3.2 and 4.6.3.3.

4.6.9.2 Test procedure. The test panels shall be dipped in the corrosion preventive, maintained at  $77 \pm 5^{\circ}\text{F}$  ( $25 \pm 3^{\circ}\text{C}$ ), for one minute with agitation. Allow each panel to drain by suspension from hooks through the holes in the panel. After one panel has drained for 30 minutes it shall be printed and placed on a horizontal surface. The printing of the test panel shall be accomplished by the use of a No. 6 rubber stopper weighted with a one-kilogram weight. The small end of the stopper shall be roughened with 240 grit aluminum oxide or silicon carbide abrasive paper, scrubbed with soap and water and finally rinsed with distilled water. The roughened end of the stopper shall be first brought to rest on a 32-ply clean gauze pad, 1.5 inch square (38 millimeter square) moistened with 1.5 milliliter of a solution consisting of one part by volume of the fingerprint solution described in 4.6.3.4 and two parts of anhydrous methanol, transferred, and momentarily brought to rest on the center of the test panel. The other panel will be printed in an identical manner after hanging at a temperature of  $77 \pm 5^{\circ}\text{F}$  ( $25 \pm 3^{\circ}\text{C}$ ) for 16 hours. After the second panel has been printed, the two panels shall be exposed in a static humidity chamber of 100 percent relative humidity (that is, a desiccator body partially filled with water) at  $77 \pm 5^{\circ}\text{C}$ ) for 24 hours. There shall be no evidence of corrosion in the printed area of the panel at the end of the storage period.

4.6.10 Storage stability One gallon (3.8 liter) of the corrosion preventive in a metal container shall be stored for six months at  $77 \pm 5^{\circ}\text{F}$  ( $25 \pm 3^{\circ}\text{C}$ ). At the end of the storage period the corrosion preventive shall satisfactorily pass the performance test (see 4.6.3.), the suppression test (see 4.6.4), and the protection test (see 4.6.5).

4.7. Rejection and retest. Compounds which have been rejected may be reworked or replaced to correct the defects and resubmitted for acceptance. Before resubmitting, full particulars concerning previous rejection and action

taken to correct the defects found in the original shall be furnished the inspector. Units rejected after retest shall not be resubmitted without approval of the procuring activity.

\* 4.8 Inspection of packaging. Except when commercial packaging is specified, the sampling and inspection of the preservation and interior packaging marking shall be in accordance with groups A and B quality conformance inspection requirements of MIL-P-116. The sampling and inspection of the packing for shipment and storage shall be in accordance with the quality assurance provisions of the applicable container specification shown in Section 5. The inspection of marking for shipment and storage shall be in accordance with MIL-STD-129. The inspection of commercial packaging shall be as specified in the contract (see 6.2).

\* 4.9 Toxicity. The contractor shall have the toxicological product formulations and associated information available for review by the contracting activity to evaluate the safety of the material for the proposed use (see 6.6).

## 5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-STD-290. Unless otherwise specified, the compound shall be furnished in one-gallon cans, 5-gallon steel pails, or 55-gallon steel drums. Unless otherwise specified in the contract or order, level C packaging and packing shall be applicable.

5.1.1 Precautionary marking. All individual containers shall be marked with the following precautionary marking:

- \* "WARNING: This material may produce harmful effects. It should be used only in well-ventilated areas and contact with the skin should be avoided. Personnel handling this material should wear protective gloves to prevent dermal exposure and hands should be washed after handling this material. The product should be used in well-ventilated areas."

## 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The compound covered by this specification is intended for use in removal of fresh fingerprint residues, suppression of corrosion that has developed as a result of fingerprint residues, and to provide an easily removable temporary corrosion preventive.

6.2 Requisition requirements. Procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) Level of protection required (see 5.1).
- (c) Quality of material.
- (d) Size of container (see 5.1)
- (e) Special marking (see 5.1.1)

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\* 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 the applicable Qualified Products List 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 Director, U.S. Army Laboratory Command, Materials Technology Laboratory, Watertown, MA 02172-0001. The Commanding Officer, U.S. Army Armament Research, Development and Engineering Center, ATTN: SMCAR-BAC-S, Picatinny Arsenal, NJ 07806-5000, has been designated as agent for the maintenance of this QPL.

6.4 The procuring activity will determine that the item when used for its intended purpose is not likely to result in adverse effects on the health of personnel. Any questions raised regarding toxicity should be referred by the procuring activity to the appropriate departmental medical authority who will act as advisor to the procuring activity (see 3.2).

#### 6.5 Key words.

Corrosion preventive      Finger paint remover  
Preservative

\* 6.6 Toxicity. Questions pertinent to the effect of the material on the health of personnel will be referred by the procuring activity to the appropriate department medical service who will act as an advisor to the procuring activity.

6.7 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

#### Custodians:

Army - MR  
Navy - SH  
Air Force - 99

#### Preparing activity:

Army - MR  
Project 8030-0631

#### Review activities:

Army - GL, MD, AR, SM  
Navy - OS, AS  
Air Force - 84

#### User activities:

Army - ME, CI, MI  
Navy - MC, SA, SH

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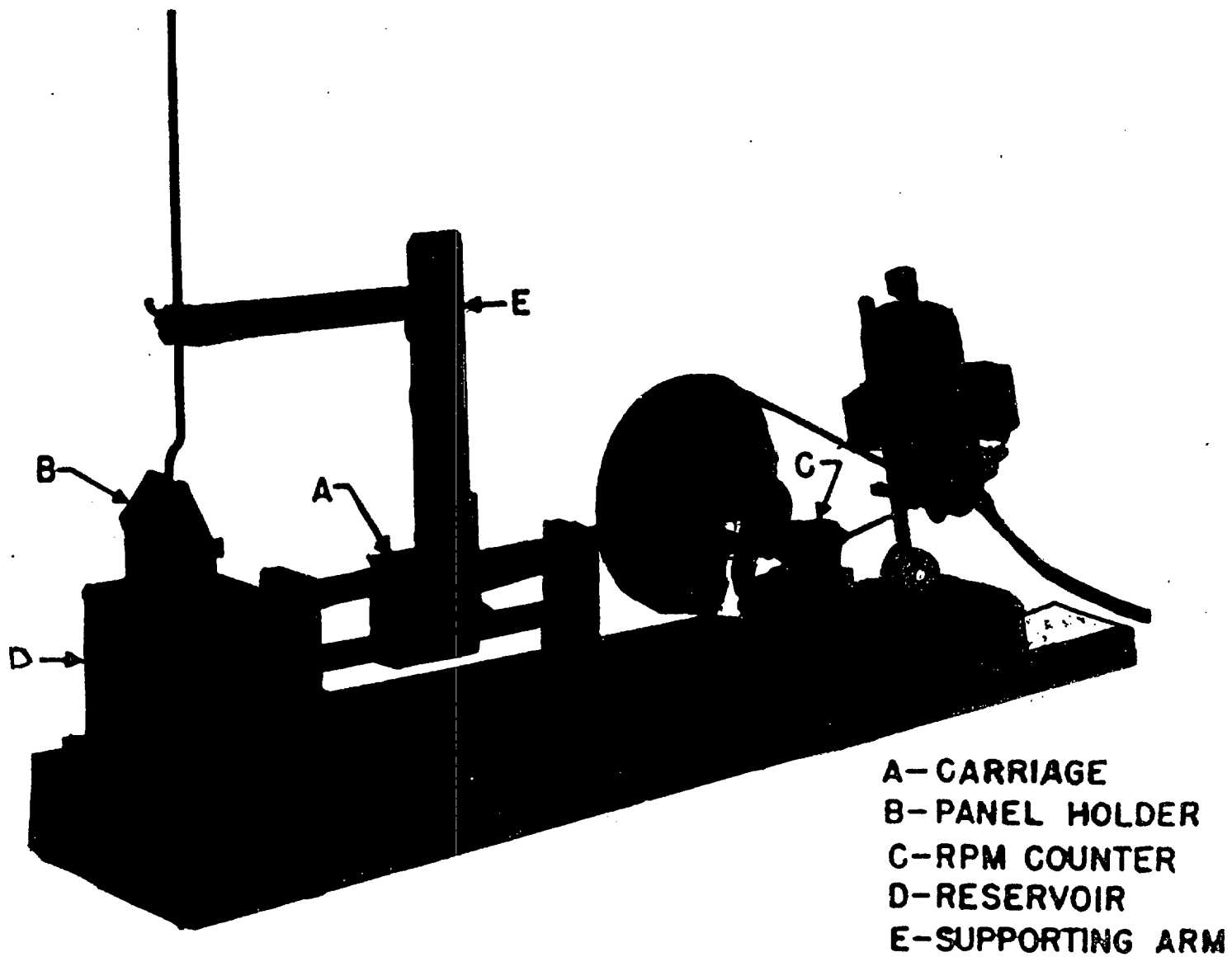


FIGURE 1