NOT MEASUREMENT SENSITIVE

MIL-DTL-85054D(AS)
21 September 2010
SUPERSEDING
MIL-DTL-85054C(AS)
20 May 2002

DETAIL SPECIFICATION

CORROSION PREVENTIVE COMPOUND, WATER-DISPLACING, TRANSPARENT (Formerly AMLGUARD)

This specification is approved for use by the Naval Air Systems Command, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers a transparent, water-displacing, corrosion preventive compound, available in high and low volatile organic compound (VOC) types, which may be applied by brushing or spraying (see 6.1).

1.2 Classification. The compound is furnished in the following types and classes (see 6.2b).

1.2.1 Types. The types of compounds are as follows:

Type I - Self-pressurized spray container (High VOC - Exceeds 250 grams/liter)
Type IA - Self-pressurized spray container (Low VOC - No more than 250 grams/liter)

Type II - Bulk form (High VOC - Exceeds 250 grams/liter)
Type IIA - Bulk form (Low VOC - No more than 250 grams/liter)

Comments, suggestions, or questions on this document should be addressed to: Commander, Naval Air Warfare Center Aircraft Division, Code 4L8000B120-3, Highway 547, Lakehurst, NJ 08733-5100 or emailed to michael.sikora@navy.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at https://assist.daps.dla.mil.

AMSC N/A FSC 8030

1.2.2 Class. The class of compounds is as follows:

Class CO_2 - Carbon dioxide (CO_2) propellant

1.3 Part or Identifying Number (PIN). The PIN used for cataloging purposes for this specification may be coded as follows:

M85054	-	X	-	XXX
specification identifier		type designator (see 1.2.1)		class designator (see 1.2.2 and 1/)

1/ Class designation is applicable only to types I and IA.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications and standards. The following specifications and standards, form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

FEDERAL SPECIFICATIONS

CCC-C-46 - Cloth, Cleaning, Nonwoven Fabric
TT-I-735 - Isopropyl Alcohol

COMMERCIAL ITEM DESCRIPTION

A-A-51126 - Anodes, Cadmium

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-A-18001 - Anodes, Sacrificial Zinc Alloy
MIL-PRF-680 - Degreasing Solvent
MIL-PRF-85285 - Coating: Polyurethane, Aircraft and Support Equipment
MIL-PRF-85582 - Primer Coatings: Epoxy, Waterborne

MIL-W-81381/11 - Wire, Electric, Fluorocarbon/Polyimide Insulated, Medium Weight, Silver Coated Copper Conductor, 600 Volts, 200 DEG C, NOMINAL 8.4 OR 15.4 Mil Wall

DEPARTMENT OF DEFENSE STANDARDS

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

(Copies of these documents are available online at https://assist.daps.dla.mil/quicksearch/ or https://assist.daps.dla.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents and publications. The following other Government documents and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation or contract.

CODE OF FEDERAL REGULATIONS (CFR)

ENVIRONMENTAL PROTECTION AGENCY (EPA)

40 CFR 60 - Standards of Performance for New Stationary Sources

(Copies of these documents are available from http://www.gpoaccess.gov/cfr or Superintendent of Documents, US Government Printing Office, Washington, DC 20402.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

SAE INTERNATIONAL

SAE AMS4375 - Sheet and Plate, Magnesium Alloy 3.0Al-1.0Zn-0.20Mn (AZ31B-0) Annealed and Recrystalized. (DoD adopted)
SAE AMS5046 - Carbon Steel, Sheet, Strip, and Plate, (SAE 1020 and 1025) Annealed. (DoD adopted)
SAE AMS-QQ-A-250/4 - Aluminum Alloy 2024, Plate and Sheet. (DoD adopted)
SAE AS22805 - Spray Kit, Self Pressurized. (DoD adopted)

(Copies of these documents are available from http://www.sae.org or SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001.)

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z129.1	-	Hazardous Industrial Chemicals - Precautionary Labeling (DoD adopted)

(Copies of this document are available from http://www.ansi.org or the American National Standards Institute, Inc., 25 West 43rd Street, 4th Floor, New York, NY 10036.)

AMERICAN SOCIETY FOR QUALITY (ASQ)

ASQ Z1.4	-	Sampling Procedures and Tables for Inspection by Attributes

(Copies of this document are available from http://www.asq.org or the American Society for Quality, 600 Plankinton Avenue, Milwaukee, WI 53203.)

ASTM INTERNATIONAL

ASTM B36/B36M	-	Standard Specification for Brass Plate, Sheet, Strip, And Rolled Bar. (DoD adopted)
ASTM B117	-	Standard Practice for Operating Salt Spray (Fog) Apparatus (DoD adopted)
ASTM B152/B152M	-	Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar. (DoD adopted)
ASTM D1719	-	Standard Specification for Isobutyl Alcohol. (DoD adopted)

(Copies of these documents are available from http://www.astm.org or ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

2.4 Order of precedence. Unless otherwise noted herein or in the contract, 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 First article. When specified (see 6.2 and 6.3), a sample shall be subjected to first article inspection in accordance with 4.2.

3.2 Materials.

3.2.1 Formulations.

3.2.1.1 High VOC formulations (types I and II). The compound shall be homogeneous, free of grit, abrasives, water, chlorides, and other impurities.

3.2.1.2 Low VOC formulations (types IA and IIA). Type IA and type IIA compounds shall have a VOC content of not more than 250 grams/liter (see table III). The compound shall be homogeneous, free of grit, abrasives, water, chlorides, and other impurities.

3.2.2 Propellant class.

3.2.2.1 Class CO_2 propellant. The propellant for class CO_2 shall consist of carbon dioxide. The propellant shall contain no chlorinated solvents, hydrochlorofluorocarbons, or fully halogenated chlorofluorocarbons.

3.2.3 Unit of issue.

3.2.3.1 Self-pressurized containers. The unit of issue for types I and IA shall be one self-pressurized container.

3.2.3.2 Bulk form. The unit of issue for types II and IIA shall be one quart, one gallon, five gallon, or 55 gallon.

3.3 Appearance. The applied compound shall form a uniform transparent film. High VOC products (types I and II) shall be discernable when applied on a white surface.

3.4 Properties. The compound shall meet the requirements specified in table I.

TABLE I. Properties.

PROPERTY	REQUIREMENT	TEST PARAGRAPH
Dryness	0.0100 gram (max)	4.6.1
Neutral salt spray corrosion resistance (in accordance with ASTM B117)	No visible corrosion on 2024-T3 aluminum after 28 days	4.6.2
Synthetic sea water displacement	No visible corrosion	4.6.3
Sprayability	Uniform spray pattern	4.6.4
Storage stability	Shall meet all requirements herein (except storage stability) after one year storage at room temperature	4.6.5
Coating Discernability	Demarcation line between coated and uncoated part of panel shall be clearly discernible under visible light.	4.6.7
Coating Transparency	Detection by the unaided eye of underlying simulated corrosion spots.	4.6. 7
Removability	Completely removable with MIL-PRF-680	4.6.8
Drying Time	Coated panel shall become completely dry to touch after 24 hours drying, but dry for handling in 3 hours.	4.6.9
Low–temperature adhesion	Flaking less than 0.05 inch when conducted at –30 ± 5 °F	4.6.10
High temperature adhesion	Max. of 0.05 inch flow at 200 °F with no discoloration or loss of flexibility	4.6.11
Compatibility with Polyimide Wiring Insulation	No cracking or degradation of insulation following prolonged exposure; No dielectric leakage	4.6.12

3.5 Self-pressurized containers. Filled self-pressurized containers (see 3.2.3.1) shall meet the requirements of 3.5.1 through 3.5.3.

3.5.1 Leakage. The self-pressurized containers shall not leak or become distorted when tested as specified in 4.6.6.1.

3.5.2 Fill. Each self-pressurized container shall contain a minimum of 11 ounces by weight of the compound, when tested as specified in 4.6.6.2.

3.5.3 Performance of self-pressurized containers. Compounds packaged in self-pressurized containers shall spray uniformly, adhere to the panel, and shall not foam excessively or sag, when tested as specified in 4.6.6.3.

3.6 Identification of compound container. Individual containers shall be identified in accordance with MIL-STD-290 and ANSI Z129.1. The identification shall be legible and unless otherwise specified in the contract (see 6.2) shall be accomplished by lithographing or silkscreen process. Paper coated identification labels on self-pressurized containers are not acceptable; any special marking specified in the contract or order shall also be included (see 6.2). There shall be front and rear face identification located opposite each other on the container.

3.6.1 Front face identification. The front face identification shall be as follows:

(NSN)
CORROSION PREVENTIVE COMPOUND,
WATER-DISPLACING, TRANSPARENT (Formerly AMLGUARD)
MIL-DTL-85054D(AS) Type _____CLASS _____
Lot _____ Date manufactured _____
VOC content _____
(Contract no.)
(Manufacturer's name)
(Manufacturer's address)
(Manufacturer's product no.)
(Net wt) Includes _____ % by weight of propellant (for aerosol only)

Important: For best results follow instructions on reverse side of container.

3.6.2 Rear face identification. The rear face identification shall be as follows:

USES

This material will displace salt water and moisture leaving a clear, corrosion preventive film. It is intended for use on unpainted areas of metals, where the paint has cracked or been damaged such as around fasteners, seams, and access panels. It is not intended for use on moving parts that require a lubricated surface.

Instructions - For best results:

1. Wipe off dirt and excess moisture from surface to be protected prior to applying the corrosion preventive compound.

2. Apply a thin uniform coat of corrosion preventive compound directly on area to be protected.

3. Allow to dry for one half hour.

4. Apply a second uniform coat of corrosion preventive compound.

NOTES: Application by wiping is not recommended. Reapplication of compound is necessary after solvent cleaning or where coating has been damaged by abrasion. Types I and II (high VOC compounds) may be removed by spraying with fresh compound and immediately wiping off. Types IA and IIA (low VOC compounds) may be removed by wiping with isopropyl alcohol per TT-I-735.

WARNING - CONTENTS FLAMMABLE

CAUTION (for spray cans)

Contents pressurized. Do not puncture, incinerate or store above 120 °F (48 °C). Do not place can near open flame or other heat source. Use with adequate ventilation and avoid breathing spray. Harmful if swallowed. Shake before using.

3.7 Workmanship. The workmanship shall be in accordance with the best commercial practice covering this type of material. The coating shall be homogeneous and when sprayed, shall yield a smooth uniform film. The ingredients shall be uniformly processed to produce the quality of compound established by this specification. The finished product shall be clean and uniform and free of any defects that might impair its use, such as sediment, metal or other foreign particles in the self-pressurized containers, eduction tubes, and valve assemblies. The exterior orifice of the self-pressurized containers shall be symmetrical and free of ragged edges and if drilled, shall be symmetrical and in direct alignment with angle of discharge.

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.2).

b. Conformance inspection (see 4.3).

4.2 First article inspection. First article inspection shall consist of subjecting the first article sample to examination and testing to determine conformance to all the requirements specified in section 3. The first article test sample shall consist of at least five self-pressurized containers of the type I and IA compound and five one-quart containers of the type II and IIA compound. For high VOC compounds, three ounces of each ingredient used in the formulation shall be provided when requested by the testing laboratory (see 6.3.2b).

4.3 Conformance inspection.

4.3.1 Inspection of product. Conformance inspection shall consist of the tests and examinations specified in table II and the inspection specified in 4.3.2. Samples shall be selected in accordance with ASQ-Z1.4, inspection level as specified in table II. The sample unit shall be one self-pressurized container and one quart of the compound from which these samples were filled (exclusive of the propellant). There shall be no defects (see 6.4.3).

4.3.2 Visual inspection of filled containers. Samples shall be selected at random from each lot in accordance with ASQ-Z1.4, inspection level S-2. The lot size for this inspection shall be the number of containers of product fully prepared for delivery. The selected samples shall be examined for container fill and proper location and completion of compound identification (see 3.6). There shall be no defects (see 6.4.3).

TABLE II. Conformance inspections and inspection level.

Requirement Paragraph	Inspection	Test Paragraph	Sample Size (Inspection Level) 1/ ASQ-Z1.4
3.3	Appearance	Visual	I
3.4	Dryness	4.6.1	S-2
3.4	Synthetic sea water displacement	4.6.3	S-2
3.4	Sprayability	4.6.4	S-2
3.5.2	Fill	4.6.6.2	S-2

1/ Based on inspection lot size (see 6.4.1).

4.4 Test specimen preparation.

4.4.1 Test disks and panels required. Panels measuring 2 by 4 by 0.125 inch (5 by 10 by 0.32 mm) and disks measuring 2.125 inches (5.4 mm) in diameter by 0.063 inch (0.16 mm) thick shall be prepared from carbon steel conforming to SAE AMS5046 (SAE1020). The panels and disks shall have all sharp edges and burrs removed and shall have all holes chamfered to prevent injury in handling. The panels and disks shall be surface ground and hand polished with a 240 grit silicon carbide, aluminum oxide cloth or paper to produce a surface finish of 10 to 20 microinches root mean square (rms). Iron oxide media or wet and dry papers and cloths shall not be used. The number of disks and panels required for individual tests shall be as follows:

Test Paragraph	Disks	Panels
4.6.1	3	0
4.6.2	3	0
4.6.3	0	3
4.6.6.3	0	3
4.6.7	0	2
4.6.9	3	0
4.6.10	0	1

4.4.2 Cleaning of test panels and disks. The utensils and cloths used to clean test panels and disks shall be clean and free of contamination. Solvents shall be fresh and renewed frequently. In all stages of treatment, the handling of panels and disks with the bare hands shall be avoided. The panels and disks shall not be permitted to contact contaminated surfaces during the cleaning procedure and shall be handled by tongs and hooks during and after dipping. After polishing, they shall be cleaned with a surgical gauze swab in a beaker of hot mineral spirits conforming to MIL-PRF-680, type II. Cleaning and scrubbing shall be followed by (1) dipping in a second container of hot mineral spirits, (2) boiling in 95 percent methanol, and (3) boiling in absolute methanol. The panels and disks shall be allowed to dry and shall then be stored in a desiccator until ready for use. If storage exceeds 24 hours, the surface preparation shall be repeated starting with hand polishing.

4.4.3 Coating of the test disks. Application of the compound to the test disks shall be performed under the atmospheric conditions specified in 4.5. The disks shall be held at an angle of 30 degrees from the horizontal. A coating of the compound shall be sprayed on the disks from a self-pressurized container or a container conforming to SAE-AS22805 held 12 inches (30.2 mm) away. After ten minutes a second coating shall be applied. The combined thickness of the two coats after drying shall be not greater than 1.5 mils. After application, the disks shall be conditioned for 24 hours under the atmospheric conditions of 4.5.

4.5 Test conditions. Physical tests contained in this specification shall be made under controlled atmospheric conditions having a relative humidity of 50 $\pm$10 percent and a temperature range of 68 to 78 °F (20 to 25 °C).

4.6. Test methods. The tests of this specification shall be conducted in accordance with table III.

TABLE III. Test methods.

Test	Requirement Paragraph	Test Method or Test Paragraph
VOC content	3.2.1.1 and 3.2.1.2	40 CFR 60 Appendix A, Method 24
Appearance	3.3	Visual
Dryness	3.4	4.6.1
Neutral salt spray	3.4	4.6.2
Synthetic sea water displacement	3.4	4.6.3
Sprayability	3.4	4.6.4
Storage stability	3.4	4.6.5
Self-pressurized container tests:		
Leakage	3.5.1	4.6.6.1
Fill	3.5.2	4.6.6.2
Performance	3.5.3	4.6.6.3
Coating Transparency and Discernability	3.4	4.6.7
Coating Removability	3.4	4.6.8
Drying Time	3.4	4.6.9
Low Temperature Adhesion	3.4	4.6.10
High Temperature Adhesion	3.4	4.6.11
Compatibility with polyimide and PTFE wiring insulation	3.4	4.6.12

4.6.1 Dryness. Three test disks prepared as specified in 4.4.1 and 4.4.2 shall be coated as specified in 4.4.3 using compound conditioned as specified in 4.6.2.1 and allowed to hang in a vertical position for three hours. The disks shall then be weighed and completely immersed vertically in talcum powder and withdrawn immediately. The disks shall then be reweighed to the nearest 0.0001 gram. The average change in weight shall be recorded. This procedure shall be repeated with uncoated test panels. The uncoated test panels shall be used as controls. The average weight increase of the coated panels as compared with the weight increase of the uncoated panels shall be the measure of dryness.

4.6.2 Neutral salt spray test. Test panels prepared and coated as specified in 4.5 shall be subjected to ASTM B117 salt spray exposure. Incline three specimens at 6 degrees in a rack. After 28 days, clean test panels in solvent conforming to MIL-PRF-680, and examine for any visible corrosion.

4.6.2.1 Conditioning of compound sample. A container of the compound shall be exposed to the following cycle four times without physical disturbance of the compound:

Eight hours at 130 ±2 °F (55 ±1°C)
Sixteen hours at -40 ±2 °F (-40 ±1°C)

At the end of this cyclic exposure the contents of the sealed container shall be allowed to remain at 75 ±5 °F (24 ±2 °C) for 24 hours.

4.6.3 Synthetic sea water displacement. Panels prepared as in 4.4.1 and 4.4.2 shall be placed so that one 2-inch end is raised one inch above a horizontal surface. The panels shall then be sprayed with synthetic sea water. Within one minute after spraying, one milliliter of the test compound shall be poured along the upper two-inch edge of the panels and allowed to run slowly down the specimen to completely cover the test panel. After another minute, a second milliliter of the test compound shall be poured and allowed to run down the panels in the same manner. After waiting an additional minute, the panels shall be picked up and held in a vertical position for one minute and shall then be placed flat (test side up) above distilled water at 72 °F (22 °C) in a closed desiccator. After 4 hours, they shall be removed and cleaned with mineral spirits, and then evaluated for visible corrosion.

4.6.4 Sprayability.

4.6.4.1 Self-pressurized container (types I and IA). A filled self-pressurized container shall be cooled to 0 °F (32 °C) and held at that temperature for 3 hours then stored at 40 °F (4 °C) for 20 hours. Immediately after conditioning, the container shall be vigorously shaken for 15 seconds and the material shall be sprayed for 30 seconds. The material shall pass the test if it can be sprayed for 30 seconds.

4.6.4.2 Bulk form container (types II and IIA). A container conforming to SAE-AS22805 shall be filled with the compound, then tested in accordance with 4.6.4.1.

4.6.5 Storage stability. A container of compound for each type shall be stored at room temperature for one year, after which the compound shall be tested for all requirements of this specification with the exception of storage stability.

4.6.6 Specialized tests for self-pressurized containers.

4.6.6.1 Leakage. The self-pressurized container shall be completely submerged for five minutes in water maintained at not less than 130 ±2 °F (55 ±1 °C) during which it shall be observed for the emission of bubbles. Distortion of the container or the emission of bubbles from any part of the container shall denote leakage.

4.6.6.2 Fill. A sample container shall be weighed and then shall be sprayed at three-minute periods with one-minute intervals until the container is emptied. The container shall be

reweighed and the net difference determined. The net weight of the compound shall be computed by multiplying the net difference by the fraction of the contents which has been identified in 6.3.2 as compound.

4.6.6.3 Performance of self-pressurized containers. Panels as specified in 4.4.1 shall be used. A panel shall be supported such that the longer dimension forms a 45 degree angle with the horizontal. A self-pressurized container shall be sprayed on the panel from a distance of 12 inches (30.5 mm). The panel shall be examined for uniformity, volume and pattern of spray, foaming, and adherence to the substrate. After a 10-second pause, the same panel shall be resprayed and examined for adhesion and sag. After a five-second pause, the same panel shall be resprayed and re-examined.

4.6.7 Coating transparency and discernability. Prime and paint two 2 inch by 6 inch aluminum panels using coatings in accordance with MIL-PRF-85582 and MIL-PRF-85285 (gloss white color). Mark both panels by applying two dots approximately 0.2 inch diameter, 0.5 inch apart, at the approximate center of each panel, using gray gloss enamel. Immerse one of each type of panel specimen in the material to be tested so that the lower two thirds of each panel is submerged. Remove and allow to dry in accordance with 4.6.1. After 24 hours inspect each panel with the unaided eye and determine whether the markings (simulated corrosion spots) are visible through the coating. Determine if the demarcation line between the coated and uncoated portion of the panels is clearly visible.

4.6.8 Coating removability. Using the coated test panel from 4.6.7, attempt to remove the compound by wiping the coated surface using light hand pressure with a CCC-C-46 Class 7 wiping cloth dampened with 10 milliliters of solvent in accordance with MIL-PRF-680, type II. In daylight, from 6 feet away, there shall be no visual evidence of residue.

4.6.9 Drying time. Three test disks prepared as specified in 4.4.1 and 4.4.2 shall be coated as specified in 4.4.3 using compound conditioned as in 4.6.2.1 and allowed to hang in a vertical position for three hours. The compound shall be dry for handling in two hours and completely dry to the touch after 24 hours.

4.6.10 Low temperature adhesion. Coat one test panel and allow to dry. The specimen shall then be cooled to the requisite test temperature (–30 ± 5 °F) and maintained at this temperature for 1 hour minimum. While the specimens are at this temperature, four parallel scratches approximately 0.125 inch apart and 1 inch long shall be made on the film. Four similar scratches shall then be made perpendicular to the first four. Unsatisfactory adhesion is characterized by flaking of the film within the areas bounded by the scratches. Chipping of the film (coating) extending more than 0.05 inch from either side of the scratch marks shall be considered flaking.

4.6.11 High temperature adhesion. Three test panels 4 by 6 by 0.040 inch shall be cleaned. Mask a one inch strip along one of the long edges of the panel on one side only. Coat the panels and allow to dry for 72 hours. Draw or scratch a straight line parallel to the film edge and 1/8 inch away from it. Suspend vertically with the bare surface down, for not less than 2 hours in a

gravity convection oven maintained at 200 ± 5 °F. Remove panels after 2 hours and cool to room temperature. There shall be no flow of the coating toward the scribed line more than 0.05 inch.

4.6.12 Compatibility with polyimide wiring insulation. Twenty four inches (61 cm) of wire conforming to MIL-W-81381/11 and MIL-W-81822/6 shall be formed into two separate coils. Place each coil in a 4-ounce (118 ml) wide mouth jar. Add enough corrosion preventive compound to the jar to completely cover the coil of wire. Cap the jar and store it at room temperature for 14 days. Repeat this procedure using distilled water as the test medium. At the end of the storage period, remove the coil and rinse thoroughly with tap water at room temperature. Suspend the coil and allow it to drain until completely dry. Each wire shall be wrapped tightly around a 0.125-inch (3 cm) mandrel and unwrapped slowly, noting the appearance and number of any cracks in the insulation. The wire shall be immersed in a 5 percent by weight sodium chloride solution and subjected to a one-minute dielectric test of 2,500 volts (rms). The wire shall meet the requirements specified in table I.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

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 corrosion preventive compound covered by this specification can be used on any metal surfaces. It is primarily intended for in-service treatment. It should not be used around liquid oxygen fittings. The ability of this compound to prevent corrosion, to displace water, and its ease of application from self-pressurized spray containers make it particularly suited for service use. This compound is intended for use on non-moving parts not requiring a lubricated surface, such as fasteners, seams, access panels, points, unpainted metal and where paint is cracked or damaged.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of the specification, including any amendments.
b. Type and class (see 1.2).
c. Labeling or other special marking required (see 3.6).

d. Quantity (specify number of cans).
e. Packaging requirements (see 5.1).
f. Certification (see 6.4.2)
g. Test condition waiver if required (see 6.6)
h. Addresses for submission of MSDSs.

6.3 First article. When first article inspection is required, the contracting officer should provide specific guidance to offerors whether the item(s) should be a preproduction sample, a first article sample, a first production item, a sample selected from the first production items, a standard production item from the contractor's current inventory, and the number of items to be tested as specified in 4.2. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results, and disposition of first articles (see 6.3.1). Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract (see 6.3.3). Bidders should not submit alternate bids unless specifically requested to do so in the solicitation.

6.3.1 First article test samples. First article samples are selected at random from materials which have been manufactured or which have been used for filling the contract. (Self-pressurized containers are not required when only quarts are purchased.) Samples will be forwarded at no charge to the Government, and tested at a laboratory approved by the Naval Air Warfare Center Aircraft Division for conducting first article inspection tests for this specification. Information on approved test laboratories may be obtained from the Commander, Naval Air Warfare Center Aircraft Division, AIR 4.3.4.1, 48066 Shaw Rd., Bldg 2188, Patuxent River, MD 20670-1908. First article samples must be plainly identified by securely attached durable tags marked with the following information:

CORROSION PREVENTIVE COMPOUND, WATER-DISPLACING, TRANSPARENT
(Formerly AMLGUARD)
Samples of material subjected to first article
Name of manufacturer (plant in which material is manufactured)
Manufacturer's designation
Date of manufacture
Submitted by (name) (date) for contract no.

6.3.2 Inspection report and other data. The first article test facility will request the manufacturer to simultaneously submit the following with the samples:

a. A copy of test results showing conformance with all the requirements of this specification and the applicable requirements of the Department of Transportation (containing numerical test data where applicable).

b. Test samples (see 4.2).
c. A certified statement specifically identifying each ingredient in the compound by chemical name, source, and percentage by weight.
d. Information on the percent by weight of the propellant used and the composition of the propellant furnished in type I and IA containers.
e. Instructions for the application of the compound.
f. A Material Safety Data Sheet for the samples being submitted for test (see 6.5).

6.3.3 First article sample and inspection for a subsequent contract. If a contractor has previously furnished the compound in accordance with the requirements of this specification and that product has been found to be satisfactory, the requirement for a first article sample and its submittal for any subsequent contract or order may be waived. Waiver is at the discretion of the Commander, Naval Air Warfare Center Aircraft Division, AIR 4.3.4.1, 48066 Shaw Rd., Bldg 2188, Patuxent River, MD 20670-1908.

6.4 Conformance inspection information.

6.4.1 Inspection lot. An inspection lot is all the compound produced during a single batch operation and offered for acceptance at one time.

6.4.2 Certification. The manufacturer at the time of conformance inspection will certify that there has been no formulation or process change from that which resulted in the production of the first article inspection sample. Each ingredient material must be identified with the name of its manufacturer and that manufacturer's trade name and formula number.

6.4.3 Conformance rejection and retest. Failure of any conformance inspection will result in the rejection of the batch from which it was obtained. Rejected material cannot be resubmitted for acceptance without written approval from the responsible activity (see 6.3.1). The application for resubmission will contain all details concerning previous rejections and measures taken to correct these deficiencies.

6.5 Material Safety Data Sheets. A Material Safety Data Sheet (MSDS) must be prepared and submitted in accordance with FED-STD-313. Questions pertinent to the effect of this compound on the health of personnel when used for its intended purpose must be referred by the procuring activity to the appropriate medical service who will act as adviser to the procuring activity.

6.6 Test condition waiver. A waiver of the test condition requirement is permitted when proper conditioning facilities are not available for control testing (see 6.2). However, for referee purposes, the specified tests must be performed under the specified atmospheric conditions.

6.7 Subject term (key word) listing.

Carbon dioxide propellant
Coating
Hydrofluorocarbon
Methyl ethyl ketone
Penetrant
Rust proofing
Sealer
Waterproofing

6.8 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Preparing activity:
Navy - AS
(Project 8030-2008-004)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.daps.dla.mil.