MIL-C-38334A(USAF)
24 August 1971

SUPERSEDING
MIL-C-38334(USAF)
29 October 1964

MILITARY SPECIFICATION

CORROSION REMOVING COMPOUND, PREPAINT, FOR AIRCRAFT ALUMINUM SURFACES

1. SCOPE

1.1 Scope. This specification covers phosphoric-acid base nonflammable compounds for removing corrosion from aircraft aluminum surfaces.

1.2 Classification. The phosphoric-acid base nonflammable compounds shall be of the following types and classes, as specified.

Type I - Liquid concentrate-Type I, Class 1
Type II - Dry water soluble compound or compounds in kit form. (See 6.4)

Class 1 - Consist of 1 package of dry form for mixture with water.
Class 2 - Consist of 2 packages of dry form for mixture with water.
Class 3 - Consist of 3 packages of dry form for mixture with water.

2. APPLICABLE DOCUMENTS

2.1 The following document of the issue in effect on date of invitation for bids or request for proposal, form a part of the specification to the extent specified herein.

SPECIFICATIONS

Federal

P-D-680	Dry Cleaning Solvent
QQ-A-250/5	Aluminum Alloy Alclad 2024, Plate and Sheet
PPP-C-1337	Containers, Metal, with Polyethylene Inserts
PPP-D-723	Drum, Fiber

Military

MIL-B-117	Bags, Sleeves and Tubing, - Interior Packaging

FSC 6850

Military (Cont)

MIL-P-7962	Primer Coating, Cellulose-nitrate Modified Alkyd Type, Corrosion-inhibiting, Fast drying (For Spray Application Over Pretreatment Coating)
MIL-L-19537	Lacquer, Acrylic-nitrocellulose Gloss (For Aircraft Use)
MIL-P-23377	Primer Coating, Epoxy Polyamide, Chemical and Solvent Resisting
MIL-P-25690	Plastic, Sheets and Parts, Modified Acrylic Base, Monolithic, Crack Propagation Resistant
MIL-C-83286	Coating Urethane, Aliphatic Isocyanate, For Aerospace Applications

STANDARDS

Federal

Fed. Test Method Std. No. 141	Paint, Varnish, Lacquer, and Related Materials, Methods of Inspection Sampling, and Testing.
FED-STD-595	Color

Military

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	Marking for Shipment and Storage
MIL-STD-147	Palletized and Containerized Unit Loads, etc.

(Copies of specifications, standards, drawings, and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring 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. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

National Motor Freight Traffic Association, Inc.

National Motor Freight Classification

(Application for copies shall be addressed to the American Trucking Association, Inc., 1616 P Street, N.W., Washington, D.C. 20036.)

Uniform Classification Committee

Uniform Freight Classification

(Application for copies shall be addressed to the Uniform Classification Committee, 202 Union Station, Chicago, Illinois 60606.)

3. REQUIREMENTS

3.1 Qualification. The compound furnished under this specification shall be a product which has been tested and qualified for listing on the applicable qualified products list at the time set for opening of bids (see 4.3 and 6.3).

* 3.2 Materials. Materials shall be specified as:

(a) Type I: The ingredient materials used in the manufacture of this product shall be of a nonflammable phosphoric-acid base, free flowing non-layered colloidal suspension, and free of sediment or abrasives.

(b) Type II: The ingredient materials for this type shall be non-flammable, in a free flowing grarular form, and shall be easily soluble in water to form a compound equal in all significant respects to the type I compound.

* 3.2.1 Form. The prepaint corrosion removing compound shall be supplied in either (a) Type I, Class 1 - liquid concentrate or (b) Type II, Class 1, 2, or 3 - dry form in kits of prepackaged and preweighed material, which when mixed with water will provide a liquid concentrate equal to Type I corrosion remover concentrate (see 6.4).

3.2.1.1 Type I, Class I. Prepaint corrosion removing compound shall be supplied in concentrate form and shall be diluted, prior to use, with an equal volume of water.

3.2.1.2 Type II, Class 1. Prepaint corrosion removing compound shall consist of a single package dry ingredient which when mixed with water shall be equal to Type I prepaint corrosion remover.

3.2.1.3 Type II, Class 2. Shall consist of a two package kit of dry ingredients, preweighed and prepackaged in proper proportions to make a concentrated corrosion remover equal to Type I, Class 1 concentrate, when dissolved in water.

3.2.1.4 Type II, Class 3. Shall consist of a three package kit of dry ingredients, preweighed and prepackaged in proper proportions to make a concentrated corrosion remover equal to Type I, Class 1, when dissolved in water.

* 3.2.2 Solubility. The ingredients of all classes of Type II compound shall be completely soluble in water to make a uniform nonlayered solution without the use of special equipment. The formation of difficult to dissolve gelatinous lumps is objectionable. There shall be no violent or dangerous reaction when the dry ingredients are dissolved in water or mixed in the dry state.

3.3 Toxic products and formulations. The material shall have no adverse effect on the health of personnel when used according to instructions and for its intended purpose. Questions pertinent to this effect shall be referred by the procuring activity to the appropriate department medical service who will act as an advisor to the procuring agency.

* 3.3.1 Shelf life.

3.3.1.1 Type I. The compound when stored in its original container at room conditions for periods up to 1 year shall meet the requirements of this specification. (See 4.6.12.1)

3.3.1.2 Type II. The compound in the dry condition, when stored in the original containers shall have an indefinite shelf life, and meet the requirements of this specification. Solutions of type II material shall have a shelf life of not less than 60 days when stored in a polyethylene container, shall conform to the same viscosity requirements as the type I compound, and shall conform to the functional requirements of a freshly mixed solution (See 4.6.12.2)

3.4 Emulsibility. An emulsion shall be formed which shall maintain a minimum volume of 25 milliliters (ml) for at least 1 minute when tested as specified in 4.6.2.

3.5 Viscosity.

* 3.5.1 Type I: After 60 days storage the viscosity of a portion of the undiluted compound, when tested as specified in 4.6.3, shall have a reading of not less than 550 centipoises (cps) at 68° ± 3.6°F (20° ± 2°C). The viscosity of a portion of the 1:1 dilution of the compound with distilled water, when tested as specified in 4.6.3, shall have a reading of not less than 55 cps at 68° ± 3.6°F (20° ± 2°C). The compound shall be a free flowing liquid in the undiluted state at standard test conditions. (See 4.5)

* 3.5.2 Type II: When type II compound is dissolved in water to prepare the concentrated solution, normally with half the volume of water used in preparing the compound for use in corrosion removal, the viscosity shall be the same as for type I, when similarly tested (see 3.5.1). The type II compound concentrate, when reduced 1:1 with distilled water shall have the same viscosity as a 1:1 dilution of type I when similarly tested.

* 3.6 Effect on painted surfaces. The compound shall not cause discoloration, or softening of painted coatings when tested as specified in 4.6.4.

* 3.7 Nonflammability.

3.7.1 The solutions of type I and II compound shall not continue to burn upon removal of an externally applied flame when tested as specified in 4.6.5.

3.7.2 The dry ingredients of type II compound shall not burn violently or give off noxious fumes when exposed to a bunsen flame and shall not continue to burn after removal of the flame.

3.8 Immersion corrosion. Panels of alclad aluminum alloy 2024-T3 shall be tested as specified in 4.6.6. When tested in type I corrosion removing compound from 1 to 60 days from the date of manufacture or when tested in type II from 1 to 60 days from the date of preparation of the solution, the weight loss of the panels shall be not less than 12 milligrams (mg) nor more than 15 mg.

3.9 Residual corrosion. When tested as specified in 4.6.7, the average weight loss of the aluminum dishes, after allowance for the average weight loss of the blanks, shall be not more than, (a) 5.0 mg for 10 percent of stock solution, (b) 14.5 mg for 50 percent of stock solution, and (c) 25.0 mg for 100 percent of stock solution.

3.10 Stress crazing of acrylic base plastics. The compound shall not cause crazing, cracking or other attack of acrylic-base plastics under stress, when tested as specified in 4.6.8.

* 3.11 Practical cleaning. The cleaning compound in solution shall show no rapid run-off nor streaking, spotting or discoloration of the treated area when subjected to the practical cleaning test as specified in 4.6.9. The compound shall rinse freely and provide a clean surface for prepaint chemical coating.

3.12 Workmanship. The component ingredients shall be processed as required in accordance with the best practice for a high quality material. The compound shall be suitable for its intended use and free of defects which may affect its performance.

4. QUALITY ASSURANCE PROVISIONS

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

4.2 Classification of tests. The inspection and testing of the corrosion removing compound shall be classified as follows:

(a) Qualification tests (see 4.3)
(b) Quality conformance tests (see 4.4)

4.3 Qualification tests. The qualification tests shall consist of all test methods specified herein (see 4.6)

* 4.3.1 Qualification samples. The test samples shall consist of and be furnished in containers, as specified:

(a) Type I corrosion remover shall consist of two, 1 gallon containers of the concentrate, packaged in polyethylene containers.

(b) Type II corrosion remover shall consist of a two kits, each to make 1 gallon of concentrate equal to type I concentrate.

* 4.3.1.1 Samples shall be identified with securely attached durable tags marked with the following information and forwarded to the activity responsible for testing, as designated in the letter of authorization from the activity responsible for qualification (see 6.3).

(a) Samples for qualification tests
(b) CORROSION REMOVING COMPOUND, PREPAINT, FOR AIRCRAFT ALUMINUM SURFACES.
(c) Type _____ Class _____
(d) Concentrate liquid or dry.
(e) Manufacturer's Code No.
(f) Name of manufacturer
(g) Submitted by (name)(date) for qualification tests in accordance with the requirements of MIL-C-38334A(USAF) under authorization (reference authorizing letter)

* 4.3.1.2 In addition to 4.3.1.1, each component of Type II, Class 2 and Type II, Class 3 shall be further identified by letter or number to differentiate the components and to indicate proper mixing sequence. Both Types I and II compounds shall be marked with explicit mixing instructions.

* 4.3.2 Test report. Prior to shipment of test samples , the manufacturer shall furnish a certified statement specifically identifying each ingredient in the corrosion removing compound by a recognizable chemical or proprietary name, source and percentage by weight. The manufacturer shall furnish two copies of test report showing the results of all the qualification tests specified herein except for the practical cleaning test.

4.4 Quality conformance tests. The quality conformance tests shall consist of all the tests specified in 4.6, except for the following:

a. Practical cleaning test (4.6.9)
b. Shelf life (4.12)

4.4.1 Sampling for lot acceptance.

4.4.1.1 Lot. A lot shall consist of all corrosion removing compound manufactured at one time from one batch, forming part of one contract or order for delivery. (See 6.4.2)

4.4.1.2 Samples. Quality conformance test samples shall be selected from each lot in accordance with method 1021 of Federal Test Method Standard No. 141.

4.4.1.2.1 Filled containers. A random sample of filled containers shall be selected from each lot in accordance with MIL-STD-105 at inspection level I and acceptance quality level (AQL) of 2.5 percent defective.

4.4.2 Inspection of empty containers. Prior to filling, each empty unit container shall be visually inspected for cleanliness and suitability.

4.4.3 Inspection of filled containers and preparation for delivery requirements. Each container selected in accordance with 4.4.1.2 shall be visually examined for defects of construction of the container and the closure, for evidence of leakage, for markings and all other preparation for delivery requirements to determine compliance with section 5. Any container in the sample having one or more defects, or under the required fill, shall be rejected, and if the number of defective containers in any sample exceeds the acceptance number for the specified sampling plan of MIL-STD-105, the lot represented by the sample shall be rejected.

4.5 Test conditions. Standard laboratory testing conditions shall be 77° ± 2° F (25° ± 1° C and 50 ± 5 percent relative humidity. Except as otherwise specified herein, all test specimens shall be prepared and tested under these standard conditions. Unless otherwise specified, in the individual test procedure, all the tests of type I shall be accomplished using material that has been diluted with an equal volume of water (1:1 dilution ratio).

* 4.5.1 Test of type II shall be conducted with compound dissolved in the proper amount of water to yield a concentrate comparable to type I concentrate.

4.5.2 Test panels. Except as otherwise specified herein, all panels for test purposes shall be aluminum alclad 2024-T3 alloy conforming to QQ-A-250/5.

4.6 Test methods.

4.6.1 Examination of product.

* 4.6.1.1 Each sample of type I compound, selected in accordance with 4.4.1.2, shall be visually examined for layering of ingredients, sedimentation or unsuspended matter, or other defects not conforming to the requirements of this specification with respect to appearance and workmanship.

* 4.6.1.2 Each kit of type II compound shall be dissolved in water to make a quantity of concentrated corrosion removing compound, after which, it shall be tested the same as type I compound.

4.6.2 Emulsibility. Place 1 part (20 ml) dry cleaning solvent conforming to P-D-680, type II, and 1 part (20 ml) of a 1:1 water mix of the compound in a 50-ml glass stoppered graduated cylinder. Both parts shall be at a temperature of 77° ± 3.6° F (25° ± 2° C) prior to placing in the cylinder. Shake the cylinder vigorously, 50 to 60 complete cycles, in an arc of 18 inches for 30 seconds. Allow the cylinder to remain undisturbed for 10 seconds, then reshake for an additional 30 seconds as described herein. The resulting emulsion shall maintain a minimum volume of 25 ml for a minimum of 1 minute.

4.6.3 Viscosity. Measurement of viscosity shall be determined with a Brookfield Viscosimeter or Fisher ElectroViscometer, or equal, by immersing a No. 2 or other suitable spindle into a 600cc low form Griffin beaker. The spindle should be centered in the beaker and immersed to the groove found on the spindle shaft. The instrument shall be operated at 30 rpm, or other suitable speed, and a minimum of 3 readings taken from the rpm 100 scale after 30 ± 1 minute of operation. This reading shall be multiplied by 10, or other required factor dependent upon the type of viscosimeter used, to give the viscosity of the compound being tested in centipoises. Another portion of the compound shall then be diluted 1:1 (V/V) with distilled water and the viscosity measurements determined. Viscosity measurements shall be made on solutions that are relatively free of entrapped bubbles. After mixing a period of not less than 1 hour nor more than 24 hours shall be allowed for stabilization and dissipation of bubbles.

4.6.4 Effect on painted surfaces. Two panels, 3 by 6 inches, shall be prepared from aluminum alloy conforming to QQ-A-250/5. Corners and edges shall be smoothed. The panels shall then be cleaned with a solution containing 40 ml of n-butyl alcohol, 30 ml of isopropyl alcohol, 20 ml of distilled water, and 10 ml of 85 percent orthophosphoric acid. After cleaning, the panels shall be rinsed with distilled water, air dried, and finished as specified in table I. The panels shall be coated with the compound and allowed to rest in a horizontal position for 15 minutes, rinsed with distilled water and examined.

TABLE I. Test Panel Finishes.

PRIMING COAT		TOP COATS		
Material	Drying time before next coat.	Material	Drying time between coats.	Drying time.
MIL-P-7962	1/2 hour	MIL-L-19537 Color 16473 Aircraft Gray. FED-STD-595	45 minutes	72 hours
MIL-P-23377	1 hour	MIL-C-83286 Color 16473 Aircraft Gray. FED-STD-595	One double coat.	7 days (168 hrs)

4.6.5 Nonflammability.

4.6.5.1 A 1- by 6-inch test panel, having a hole drilled near one end, shall be dipped in a beaker of concentrated solution of compound and immediately upon removal suspended on a ring stand. A small flame from a micro-burner shall be passed back and forth along the lower edge of the panel. The flame shall be removed and the panel carefully observed as to whether the compound continues to burn.

4.6.5.2 Approximately one gram of the type II Class 1 compound or one gram of each component of type II Classes 2 or 3 shall be placed on the end of a concave spatula (such as a Scoopula, Fisher Cat. No. 14-357) and exposed to direct contact with a bunsen flame. The compound or its components should not support combustion.

4.6.6 Immersion corrosion. Three 1 by 2 by 1/32 inch aluminum alclad 2024-T3 strips conforming to QQ-A-250/5 shall be cleaned with acetone, allowed to dry, and weighed. The weighed specimens shall be immersed in 100 ml of the compound for 30 minutes at a temperature of 77° ± 2°F. The specimens shall then be rinsed with distilled water, with acetone, and then allowed to air dry. The samples shall be weighed and the average weight loss of the 3 samples recorded.

4.6.7 Residual corrosion. Aluminum foil dishes, Chemical Rubber Company Catalog 400 No. 12-1570 or equal, shall be cleaned by boiling for 15 minutes in a solution composed of 21 grams chromic acid and 36 grams of 85 percent phosphoric acid per liter of solution, rinsed free of acid with distilled water, dipped in hot methyl alcohol, allowed to flash dry, and then weighed. Introduce a 1 ml sample of the compound, in concentrations of 10 percent, 50 percent, and 100 percent by volume, into separate dishes. Allow to air dry for 24 hours under controlled conditions of 77° ± 2°F (25° ± 1°C) and 50 percent relative humidity (RH). At the end of this period, place the dishes in a humidity cabinet at 100°F (37.8°C) and 95 percent RH for a period of 7 days. After the exposure period, rinse in distilled water, clean in the boiling chromic-phosphoric acid bath described above, rinse in distilled water, then hot methyl alcohol, flash dry and reweigh. Record weight losses. All tests shall be conducted in duplicate together with a blank, using 1 ml of distilled water in place of the compound being tested. The average weight loss of the blanks will be substracted from the test dishes to obtain the actual weight loss.

* 4.6.8 Stress crazing of base plastics. A specimen of sheet stretched acrylic plastic shall conform to MIL-P-25690. The specimen shall be set up as a cantilever beam under load as shown in figure 1. After the beam has been loaded to 4000 pounds per square inch fiber stress for 30 minutes and while still under load, the compound shall be applied to the top (tension) side of the plastic specimen. The compound shall be applied directly above the support and shall extend 1 inch on either side of the support and the full width of the specimen. The plastic shall be allowed to remain under stress for a total of 1 hour, after which period the plastic shall be rinsed with tap water. The surface shall be examined for crazing, crackling, or other attack while plastic is still under stress. The load necessary to produce the fiber stress required may be determined by using the following formula:

$$P = \frac{Sbd^2}{6L}; \text{ wherein}$$

S = 4000 = stress in psi

P = load (to the nearest 0.01 lb)

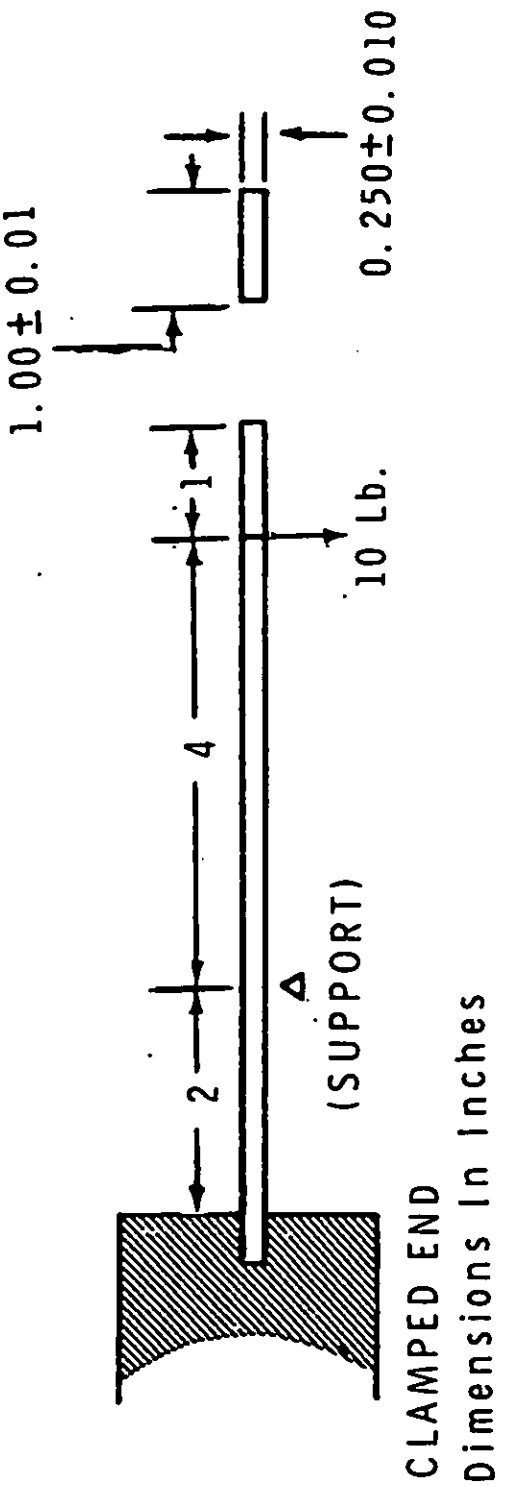

Figure 1. STRESS CRAZING TEST

L=distance between the point of support (Fulcrum) and the point where the load is applied (within ±0.01 inch)

b=width of plastic sheet (within ±0.001 inch)

d=thickness of plastic sheet (measured by micrometer to ±0.001 inch)

* 4.6.9 Practical cleaning test. An unpainted aluminum portion of an aircraft, soiled in routine operational use, shall be cleaned in accordance with current Air Force practice and then treated with a solution of the corrosion remover in the "ready for use condition" (1 gal. of concentrate to 1 gal. of tap water). This solution shall be applied by spray, sponge, brush or clean mop, agitated for five minutes with a fiber bristle brush, allowed to stand for an additional 7 minutes and then rinsed off in tap water. The cleaned surface shall be examined for compliance with 3.11.

4.6.10 Toxicological data and formulations. The supplier shall furnish the toxicological data and formulations required to evaluate the safety of the material for the proposed use.

4.6.11 Rejection and retest. Rejected compound shall not be resubmitted for inspection without furnishing full particulars concerning previous rejection and measures taken to correct defect.

4.6.12 Shelf life.

4.6.12.1 Retest of type I material. One of the 1-gallon containers of corrosion removing compound in its original unopened condition shall be stored at room conditions for 1 year from the date of manufacture. At the end of the year the compound shall be within the specified tolerances, when tested for layering of ingredients in examination of product test (4.6.1), emulsibility (4.6.2), viscosity (4.6.3), immersion corrosion (4.6.6) and residual corrosion (4.6.7).

4.6.12.2 Retest of type II material. One of the kits as received from the manufacturer shall be stored at room conditions for 1 year from the date of manufacture. At the end of the year the compound shall be examined for lumping and discoloration. Lumping or discoloration may be a cause for rejection at the discretion of the procuring agency. The compound shall be dissolved in accordance with 4.6.1.2 and subjected to tests for layering of ingredients in the examination of product test (4.6.1.2), emulsibility (4.6.2), viscosity (4.6.3), immersion corrosion (4.6.6) and residual corrosion (4.6.7).

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A or C, as specified (see 6.2).

5.1.1.1 Unless otherwise specified, type I material shall be packaged in 5 gallon single trip metal containers, with polyethylene inserts, conforming to the requirements of PPP-C-1337, type II, class 1.

5.1.1.2 Type II, class 1 compound shall be packaged in water vapor-proof bags in accordance with type I, class E, style 2 of MIL-B-117 and heat sealed.

5.1.1.3 Type II, class 2 compound shall be packaged in kit form. Class 2 shall consist of two components. Each component shall be packaged separately in water proof bags in accordance with type 1, class B, style 2 of MIL-B-117 and each bag heat sealed. One bag of each component, total of two, shall be packaged in a bag to make a kit. The bag shall be made in accordance with MIL-B-117, type 1, class E, style 2 and heat sealed.

5.1.1.4 Type II, class 3 compound shall be packaged in kit form. Class 3 shall consist of three components. Each component shall be packaged separately in water proof bags in accordance with type 1, class B, style 2 of MIL-B-117 and each bag heat sealed. One bag of each component, total of three, shall be packaged in a bag to make a kit. The bag shall be made in accordance with MIL-B-117, type 1, class E, style 2 and heat sealed. Each component bag shall have a pre-weighed quantity of compound to make a predetermined amount of corrosion remover.

5.1.2 Level C. The compound types I and II shall be packaged in accordance with the manufacturer's standard commercial practice.

5.2 Packing. Packing shall be level A or C, as specified(see 6.).

* 5.2.1 Level A. Compound packaged in accordance with 5.1.1 shall require no overpack.

5.2.1.1 Type I compound shall be packed in type II, class 1 drums as specified in PPP-C-1337.

5.2.1.2 Type II, classes 1, 2, and 3 kits of the compound shall be packed in fiber drums conforming to type III, grade A, class 1 of PPP-D-723. The number of kits in each drum shall be as specified by the procuring activity.

5.2.1.3 When specified by the procuring activity (see 6.2) drums shall be palletized in conformance with MIL-STD-147.

* 5.2.2 Level C. Compound packaged in accordance with 5.1.2 shall be packed to afford protection against damage during direct shipment from the supply source to the first receiving activity for immediate use. Containers shall comply with uniform freight classification rules or other common carrier regulations applicable to the mode of transportation.

5.3 Marking. Unless otherwise specified by the contract or order, marking shall be in accordance with MIL-STD-129. The shipment marking nomenclature shall be as follows: Specification Number, Manufacturer's Code Number, and Date of Manufacture.

5.3.1 Additional markings. On each container shall appear the class in addition to the following:

Type I: Liquid concentrate compound must be diluted with an equal volume of water before using.

Type II: Each kit shall be marked with mixing instructions for preparation for use. (Preparation of liquid concentrate from dry from compound is required only for laboratory evaluation in accordance with 4.5 and 4.6.1.2).

HANDLING: Rubber or synthetic rubber gloves and goggle-type eye glasses should be worn when handling the compound. In case the compound is splashed onto the skin, immediately wash off the area with water. Avoid transferring any of the liquid to eyes or face by contaminated hands or gloves. If compound or mist gets into the eye, wash with copious quantities of cold water for 10 minutes and report to the nearest medical facility.
Respiratory protection consisting of a full face mask and approved dust respirator must be utilized when mixing the dry powder formulation to form the solution.

MIXING: Use only wood, plastic or plastic lined containers.

APPLICATION: Apply by spraying, with a mop, sponge or brush. Begin application on the lower surfaces and work upwards. Apply with circular motion, brushing enough to loosen the surface film. Allow the compound to remain on the surface a maximum of 12 minutes, then rinse with a stream of water.

USE: Material shall be used by (day, month and year). (See 6.2)

5.3.2 Precautionary markings. The following precautionary marking shall be conspicuously printed on each exterior container:

CAUTION: Do not use on or rinse over MAGNESIUM surfaces.

5.3.2.1 Labeling. Labeling shall be required in accordance with the requirements of the appropriate Federal Statutes and Regulations, e.g., Federal Hazardous Substance Labeling Act, etc., or as prescribed by the processing agency upon advice and recommendations of the departmental medical services.

6. NOTES

6.1 Intended use. The compounds covered by this specification are intended for use as corrosion removers prior to painting aluminum aircraft surfaces.

6.2 Ordering data. Procurement documents shall specify the following:

(a) Title, number and date of this specification.
(b) Type and Class.
(c) Quantity desired.
(d) Size and type of container (see 5.1.1 and 5.1.2)
(e) Plain or weather resistant fiber drum exterior finish.
(f) Selection of applicable levels of packaging and packing.

6.2.1 Unit of purchase. The Type I compound should be purchased by volume; the unit being a U. S. gallon of 60°F (15.6°C).

6.2.1.1 The Type I compound conforming to this specification tends to decrease in viscosity, because of acid hydrolysis of the thickening agent. Therefore, it should be used within 1 year from the date of manufacture.

6.2.1.2 The Type II compound should be purchased by kit. The kit size and number shall be specified. The compound being the equivalent of Type I after solution should be used within 60 days from the date that the compound was dissolved.

6.3 With respect to products requiring qualification, awards will be made only for such products as have, prior to the time set for opening of bids, been tested and approved for inclusion in the applicable Qualified Products List, whether or not such products have actually been so listed by that date. The attention of suppliers is called to this requirement, 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 orders for the products covered by this specification. The activity responsible for the Qualified Products List is the Air Force Materials Laboratory, ATTN: LAA, Wright-Patterson Air Force Base, Ohio 45433, and information pertaining to qualification of products may be obtained from that activity.

6.3.1 If the product is modified in any way subsequent to initial qualification, the modified form shall be subjected to and shall pass the same qualification inspections.

6.4 Definitions.

6.4.1 Kit size. Kits of dry ingredient corrosion remover shall be of three sizes to provide for 1 gallon, 5 gallon, or 25 gallons of concentrated corrosion remover when dissolved in their entirety.

6.4.2 Batch. A batch is defined as the end product of all raw materials mixed or blended in a single operation.

6.5 Marginal indicia. Asterisks are used in this revision to identify changes (additions, deletions) with respect to the previous issue.

Custodian:
Air Force - 11

Review activities:
Air Force - 68, 70, 80, 84

Preparing activity:
Air Force - 11

Project No.: 6850-F431

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
- ☐ MANUFACTURER
- ☐ OTHER *(Specify)*: _____

b. ADDRESS *(Street, City, State, ZIP Code)*

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional

b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional

c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional

8. DATE OF SUBMISSION *(YYMMDD)*

DD FORM 82 MAR 1426

PREVIOUS EDITION IS OBSOLETE.