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INFO: HQ USAF WASHINGTON DC//ILMM//
AFRL WRIGHT-PATTERSON AFB OH//MLSS/MLSA//

SUBJ: INTERIM OPERATIONAL SUPPLEMENT T.O. 1-1-8S-2, DATED: 4 MAY 2004.

1. THIS PUBLICATION SUPPLEMENTS T.O. 1-1-8, DATED: 23 APRIL 2001, TITLE: ORGANIZATIONAL/UNIT AND INTERMEDIATE MAINTENANCE APPLICATION AND REMOVAL OF ORGANIC COATINGS, AEROSPACE AND NON-AEROSPACE EQUIPMENT. REFERENCE TO THIS SUPPLEMENT WILL BE MADE ON THE TITLE PAGE OF THE BASIC MANUAL BY PERSONNEL RESPONSIBLE FOR MAINTAINING THE PUBLICATION IN CURRENT STATUS. COMMANDERS ARE RESPONSIBLE FOR BRINGING THIS SUPPLEMENT TO THE ATTENTION OF ALL AFFECTED AF PERSONNEL.

2. DISTRIBUTION STATEMENT: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED. REQUESTS SHALL BE REFERRED TO WR-ALC/LESGL, ROBINS AFB GA 31098-1611.

3. WARNING: N/A

4. HANDLING AND DESTRUCTION NOTICE: HANDLE IN COMPLIANCE WITH DISTRIBUTION STATEMENT AND DESTROY BY ANY METHOD THAT WILL PREVENT DISCLOSURE OF CONTENTS OR RECONSTRUCTION OF THE DOCUMENT.

5. PURPOSE: THIS SUPPLEMENT IS ISSUED TO AMEND THE BASIC PUBLICATION.

6. INSTRUCTION:

1. Page 3-13, Paragraph 3-51, Add "**ALTERNATE SURFACE PREPERATIONS FOR ALUMINUM (PREKOTE SP).**"
2. Page 3-13, Paragraph 3-52, Add "PreKote SP is a non-chromic, non-hazardous and non-toxic alternative to chromate conversion coatings for surface painting preparation operations. The PreKote SP formulation is a non-chromic alkali soap with a saline adhesion promoter and inorganic inhibitor package. The PreKote SP application cleans the surface and deposits a very

thin layer of adhesion-promoting organic molecules on the surface of the substrate.”

3. Page 3-13, Paragraph 3-52, Add the following note:

“NOTE:

- (Bullet) PreKote SP requires specific System Program Office (SPO) approval prior to use.
- (bullet) PreKote SP will only be used with chromated primers.
- (bullet) PreKote SP is not a direct drop-in replacement for current chromated conversion coating processes. Unlike the application process for MIL-C-5541/MIL-PRF-81706, which produces a visible indication that the chromate conversion film has formed, PreKote SP does not provide any type of visible indicators. Therefore, it is absolutely critical that all steps of the PreKote SP application process be precisely followed.”

4. Page 3-13, Paragraph 3-52, Add the following caution:

“CAUTION
PREKOTE SP IS FOR EXTERIOR MOLD LINE
APPLICATIONS ONLY”

5. Page 3-13, Paragraph 3-53, Add “Surface Preparation. Preparation for aircraft cleaning shall be accomplished in accordance with T.O. 1-1-691 and any weapon system specific cleaning instructions. Rinse exterior of aircraft with hot water (100-120 F) to remove any residue left in seams or on surface.”
6. Page 3-13, Paragraph 3-53, Add the following warning:

“WARNING:

Finish system removal using motor driven abrasives may generate airborne particles and toxic dust, which may injure personnel and create a possible dust explosion. All aerospace and motorized ground equipment shall be properly electrically grounded. Personnel shall wear dust particle masks, goggles, gloves and long sleeved shirts when using motor driven abrasives. Consult Bioenvironmental Engineering Services for respiratory and ventilation requirements.”

7. Page 3-13, Paragraph 3-53, Add the following caution:

“CAUTION:
AVOID EXCESSIVE PRESSURE OR REPEATED
PASSING OVER THE SAME AREA WHILE SANDING.
EXCESS SANDING CAN CAUSE DAMAGE TO THE
SURFACE OF THE AIRCRAFT.”

8. Page 3-13, Paragraph 3-53, Add the following note:

“NOTE:

Some residual amounts of old coating system may be left after stripping (i.e., fastener heads, seams, hinges, surface porosity, etc.). These areas are

acceptable as long as they are feathered into the surrounding surface.”

9. Page 3-13, Paragraph 3-53.1, Add “Lightly sand aircraft and feather sand the rough areas of the aircraft with 240-grit sandpaper”
10. Page 3-13, Paragraph 3-53.2, Add “Remove all tape adhesive residue using solvent, denatured alcohol or isopropyl alcohol.”
11. Page 3-13, Paragraph 3-53.2, Add the following note:

“NOTE:

If rinse facilities are not available, solvent wipe using denatured or isopropyl alcohol on clean lint-free cotton rags is an acceptable substitute process.”

12. Page 3-13, Paragraph 3-54, Add “**APPLICATION OF PREKOTE SP**”
13. Page 3-13, Paragraph 3-54, Add the following warning:

“WARNING:

Personnel shall wear full rain gear, face shield and rubber gloves to remain dry during the application of PreKote SP.

14. Page 3-13, Paragraph 3-54, Add the following caution:

“CAUTION:

PREKOTE SP SHALL ONLY BE APPLIED WHEN TEMPERATURE IS MAINTAINED BETWEEN 65 DEGREES F AND 110 DEGREES F, AND HUMIDITY IS BETWEEN 10% AND 90%. COATING SYSTEM FAILURE MAY RESULT IF THESE CONDITIONS ARE NOT MET.”

15. PAGE 3-13, Paragraph 3-55, Add “Mask aircraft IAW the any weapons system requirements for preparation of surfaces prior to painting. PreKote SP may be applied by pressure sprayer, spray bottle or fluid feed attached to sander. Use 180-grit scrub pads (A-A-58054 Type 1, Class 1, Grade B abrasive mat) attached to pneumatic sander to agitate.”
16. Page 3-13, Paragraph 3-55.1, Add “Apply and agitate first coat of PreKote SP in small sections (approximately 16 square feet per person working an area).”
17. Page 3-13, Paragraph 3-55.1, Add the following note:

“NOTE:
Do not allow PreKote SP to dry prior to rinse.”
18. Page 3-13, Paragraph 3-55.2, Add “ Rinse area with water.”
19. Page 3-13, Paragraph 3-55.3, Add “Repeat steps 3-53.2 and 3-53.3 until entire area to be painted has been covered.”

20. Page 3-13, Paragraph 3-55.4, Add "Apply the second coat of PreKote SP with pressure sprayer or spray bottle. Area of application should not be so large as to allow the PreKote SP to dry prior to scrubbing."
21. Page 3-13, Paragraph 3-55.5, Add "Scrub with 180-grit scrub pads on sanding poles until a rich lather is formed."
22. Page 3-13, Paragraph 3-55.6, Add "Let the second coat of PreKote SP static air dry on the aircraft surface."
23. Page 3-13, Paragraph 3-55.7, Add "Spray the third coat of PreKote SP with a pressure sprayer or spray bottle. Area of application should not be so large as to allow the PreKote SP to dry prior to scrubbing."
24. Page 3-13, Paragraph 3-55.8, Add "Scrub aircraft with sanding poles and 180-grit scrub pads."
25. Page 3-13, Paragraph 3-55.8, Add the following caution:

"CAUTION:
IT IS IMPORTANT THAT THE ENTIRE THIRD COAT BE
COMPLETELY REMOVED. COATING FAILURE MAY
RESULT IF THIS APPLICATION OF PREKOTE SP IS NOT
COMPLETELY REMOVED.

26. Page 3-13, Paragraph 3-55.8, Add the following note:

"NOTE:
Deionized water is preferred at this rinsing but not mandatory.

27. Page 3-13, Paragraph 3-55.9, Add "Thoroughly rinse the surface of the aircraft with deionized water. Rinsing shall immediately follow scrubbing. Scrubbed areas shall not be allowed to dry prior to use."
28. Page 3-13, Paragraph 3-55.10, Add "Remove all masking."
29. Page 3-13, Paragraph 3-55.11, Add "Thoroughly rinse aircraft for second time."
30. Page 3-13, Paragraph 3.55.12, Add "Let the surface of the aircraft static air dry."
31. Page 3-13, Paragraph 3-55.12, Add the following caution:

"CAUTION:
MAXIMUM TIME ALLOWED PRIOR TO REPAINT IS 48 HOURS.
EXCESS TIME PRIOR TO PAINT APPLICATION WILL CAUSE
DEGRADATION OF SURFACE CONDITION. TO AVOID DAMAGE TO
THE PREKOTE SP AND SURFACE OF THE AIRCRAFT, ALL
PERSONNEL SHALL WEAR COTTON BOOTIES WHEN ON
AIRCRAFT FROM THIS POINT FORWARD."

32. PAGE 3-13, Paragraph 3-55.12, Add the following note:

"NOTE:
Deionized water is preferred for this final wipe but not mandatory."

33. Page 3-13, Paragraph 3-56, Add **“USE OF PREKOTE SP ON EXTERIOR SURFACES WHERE PAINT AND PRIMER HAVE BEEN REMOVED DURING SCUFF SAND, TOUCHUP OR REPAIR.”**
34. Page 3-13, Paragraph 3-57, Add “PreKote SP may be used on exterior aluminum as an alternative surface preparation for MIL-C-5541 chemical conversion coating, and corrosion removal treatment requirements (MIL-M-3171 ,SAE-AMS-M-3171, MIL-C-38334 and SAE-AMS1640 prior to prime and paint.”
35. Page 3-13, Paragraph 3-57.1, Add “Prepare exterior surfaces per 3-53.”
36. Page 3-13, Paragraph 3-57.1, Add the following warning:
- “WARNING:**
Finish system removal using motor driven abrasives may generate airborne particles and toxic dust, which may injure personnel and create a possible dust explosion. All aerospace and motorized ground equipment shall be properly electrically grounded. Personnel shall wear dust particle masks, goggles, gloves and long sleeved shirts when using motor driven abrasives. Consult Bioenvironmental Engineering Services for respiratory and ventilation requirements.”
37. Page 3-13, Paragraph 3-57.1, Add the following caution:
- “CAUTION:**
AVOID EXCESSIVE PRESSURE OR REPEATED PASSING OVER THE SAME AREA WHILE SANDING. EXCESS SANDING CAN CAUSE DAMAGE TO THE SURFACE OF THE AIRCRAFT.”
38. PAGE 3-13, Paragraph 3-57.1, Add the following note:
- “NOTE:**
Some residual amounts of old coating system may be left after stripping (i.e., fastener heads, seams, hinges, surface porosity, etc.). These areas are acceptable as long as they are feathered into the surrounding surface.
39. Page 3-13, Paragraph 3-57.2, Add “If area to be prepared is adjacent to old paint system, lightly sand entire bare metal area and feather edges where required using 240-grit sandpaper.”
40. Page 3-13, Paragraph 3-57.3, Add “Solvent wipe sanded area with denatured or isopropyl alcohol.”
41. Page 3-13, Paragraph 3-57.4, Add “Mask area where PreKote SP is to be applied so as to avoid contact with surrounding paint. Masking should extend to the outside edges of the feathered area or to the edge of the part being treated.”
42. Page 3-13, Paragraph 3-57.4, Add the following note:
- “NOTE:**
(bullet) PreKote SP may be applied by pressure sprayer, spray bottle or fluid feed attached to sander.

(bullet) The first coat of PreKote SP may be hand or pneumatic scrubbed using 180-grit scrub pads.

(bullet) All coats of PreKote SP may be removed using a clean, lint-free cotton rag moistened with isopropyl or denatured alcohol, instead of rinse with water.”

43. Page 3-13, Paragraph 3-57.5, Add “Follow procedures outlined in APPLICATION OF PREKOTE SP, paragraph 3-54.”

7. POINT OF CONTACT AT WR-ALC/LESGL IS RODNEY A. FORBES, EQUIPMENT SPECIALIST,
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