DE HAVILLAND AIRCRAFT OF CANADA LIMITED

BOMBARDIER
Toronto Site

PPS 31.17 - SOLVENT USAGE

Issue 50 - This standard supersedes PPS 31.17, Issue 49.
- Vertical lines in the left hand margin indicate technical changes over the previous issue.
- Direct PPS related questions to christie.chung@dehavilland.com or (416) 375-7641.
- This PPS is effective as of the distribution date.

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Issue 50 - Summary of Changes (over the previous issue)

The following summaries are not detailed and are intended only to assist in alerting PPS users to changes which may affect them; refer to the applicable sections of this PPS for detailed procedure and requirements.

- Added option of DS108 for the cleaning of test panels before copper sulphate testing (ref. PPS 31.05).
- Added solvent option, IPA, for cleaning of uncured sealant from tools and equipment as specified in PPS 21.03, PPS 21.05 and PPS 21.18.

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Tables

1 SCOPE

1.1 This Production Process Standard (PPS) specifies the procedure and requirements for manual solvent cleaning. This PPS also specifies the type of solvent to be used for a given application specified in related PPS's and engineering drawings. Refer to PPS 31.04 for the procedure and requirements for degreasing of aircraft parts and assemblies by aqueous or by vapour degreasing.

1.1.1 This PPS complements the engineering drawings that specify its use as an authorized instruction. The procedure specified in this PPS must be followed to ensure compliance with all applicable specifications. In general, if this PPS conflicts with the engineering drawing, follow the engineering drawing. The requirements specified in this PPS are necessary to fulfil the engineering design and reliability objectives.

1.1.2 Refer to PPS 13.26 for the subcontractor provisions applicable to this PPS.

1.2 This PPS is co-owned by De Havilland Aircraft of Canada Limited (DHC) and Bombardier Inc. (BA) due to its applicability for both the DHC DASH 8 and BA Lear 45 programs. Frozen revisions of Bombardier documents (e.g., BAPS, BAERD GEN, BAMS, etc.) specified herein apply only to the DASH 8 program.

2 HAZARDOUS MATERIALS

2.1 Before receipt at DHC or BA, all materials must be approved and assigned Material Safety Data Sheet (MSDS) numbers by the DHC/BA Environment, Health and Safety Department. Refer to the manufacturer's MSDS for specific safety data on any of the materials specified in this PPS. If the MSDS is not available, contact DHC/BA Environment, Health and Safety Department.

3 REFERENCES

3.1 EHS-OP-005 - Hazardous Materials Management, *DHC/BA internal operating procedure*.

3.2 PPS 13.13 - Personal Protective Respiratory Equipment.

3.3 PPS 13.26 - General Subcontractor Provisions.

3.4 PPS 31.04 - Degreasing Processes.

4 MATERIALS AND EQUIPMENT

4.1 Materials

4.1.1 Solvents as specified in Table I.

4.2 Equipment

4.2.1 Wiping cloths (e.g., DSC 378-2).

4.2.2 Rubber gloves (e.g., DSC 422-2).

4.2.3 Neoprene gloves (e.g., DSC 422-5).

4.2.4 Nitrile gloves (e.g., DSC 422-8).

TABLE I - SOLVENTS

SOLVENTS	COMMON NAME	SPECIFICATION
2-Propanone	Acetone	ASTM D329
50/50 Mixture of Cellosolve Acetate & Toluol	Cellosolve Acetate / Toluol	—
Diestone DLS	Diestone DLS	—
Diestone HFP	Diestone HFP	—
Dimethyl Carbonate	DMC	—
Dynamold DS 108F	DS108	DHC DHMS S5.01, Class 2
Dynamold DS 804	DS804	—
Eldorado Esol-146	Esol-146	—
Ethyl Acetate	Ethyl Acetate	—
50/50 Mixture of Isopropyl Alcohol & Water	50% IPA	—
Isopropyl Alcohol	IPA	Federal Specification TT-I-735, Grade A or B
Kerosene	Kerosene	ASTM D3699
Methyl Alcohol	Methanol	Federal Specification O-M-232
Methyl Ethyl Ketone	MEK	ASTM D740
Molykote L 13	Molykote L 13	—
Aliphatic Naphtha	Naphtha	Federal Specification TT-N-95, Type II
Stoddard Solvent	Mineral Spirits	DHC DSC 377 or Federal Specification P-D-680
Thinner	Paint Thinner	Federal Specification A-A-857
Toluene	Toluene/Toluol	Federal Specification A-A-59107
Varsol	Varsol	—
Xylene	Xylene/Xylol	—
Zip-Chem D-5640NS	D-5640NS	—
Zip-Chem ZC-640	ZC-640	—

5 PROCEDURE

5.1 General

5.1.1 If an engineering drawing or a PPS specifies solvent cleaning or treatment, use this PPS to select the appropriate solvent, based on the material and its application, as specified in Table II regardless of the solvent specified, if any, in the referencing PPS or drawing.

5.1.2 Unless otherwise noted, apply a minimum amount of solvent when solvent cleaning. If using DS108, in particular, do not:

- soak or saturate the cloth
- pour onto the area to be cleaned
- soak parts or assemblies in solvent

5.1.3 If more than one solvent is listed in Table II and Table III, the solvents are shown in order of preference from an environmental, health and safety standpoint. At DHC and BA Toronto, always use the preferred solvent, if available in-house.

5.2 Manual Solvent Cleaning

5.2.1 Manually solvent clean surfaces as follows:

Step 1. Apply a small amount of solvent to a clean wiping cloth. Refer to Table II for the solvent appropriate for the surface to be cleaned. For solvents which evaporate quickly, apply more solvent than for solvents which evaporate slowly.

Step 2. Wipe the area with the solvent dampened wiping cloth.

Step 3. Wipe dry with another clean wiping cloth **before** the solvent evaporates. It is important to dry the surface immediately after cleaning because if the solvent evaporates before it is wiped up, oil and grease residue will be left on the cleaned surface. Although DS108 solvent has a slow evaporation rate, wipe dry as soon as possible as delay will result in a longer lingering odour.

Step 4. If more cleaning is needed, apply fresh solvent to a clean portion of the cloth and repeat Step 2 and Step 3.

5.3 Re-activation of Primers and Paints

5.3.1 Re-activate primers and paints as follows:

Step 1. Thoroughly wet the area to be re-activated using a clean wiping cloth saturated with solvent selected from Table II.

Step 2. Allow the solvent to remain on the surface for 5 to 10 minutes for polyurethane-based primers/paints or 2 to 3 minutes for epoxy-based primers/paints.

Step 3. Wipe dry with another clean wiping cloth. Do not allow the solvent to dry on the part before wiping dry.

5.4 Removal of Hydraulic Fluid (Skydrol) Residue

5.4.1 Remove hydraulic fluid (Skydrol) residue by manual solvent cleaning using Varsol according to section 5.2.

TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
1.03	All parts	Preparation for hot joggling	DS108, Diestone DLS, Diestone HFP, Acetone or MEK
1.08	Steel tube	Preparation for magnetic particle inspection	DS108, Diestone DLS, Diestone HFP or MEK
1.13	Titanium	Preparation and post cleaning for laser cutting	DS108, IPA, Acetone or MEK
	Stainless steel	Preparation and post cleaning for laser cutting	DS108, IPA, Diestone DLS, Diestone HFP or MEK
	Aluminum alloy		
1.20	APS Model 705 rivet fingers	Daily cleaning (particularly to remove sealant transfer from wet installation of rivets).	DS108, IPA, Diestone DLS, Diestone HFP or MEK
1.43	All parts	Removal of all excess stencil ink overspray from workpiece after drilling and riveting operations	DS108, Diestone DLS, Diestone HFP or MEK
2.03	Hi-Shear rivet head	Removal of sealant after swaging the collar	DS108, Diestone DLS or Diestone HFP
2.16	All parts and lockbolt	Preparation for slipping the collar over the locking grooves of the pin	DS108, Diestone DLS, Diestone HFP or MEK
		Removal of excess sealant from the lockbolt and surrounding area after swaging the collar	DS108, Diestone DLS, Diestone HFP or MEK
2.23	Fasteners and panels	Preparation for installation	DS108 or MEK
	Tools and parts	Removal of excess uncured adhesive	
2.33	All contact surfaces	Removal of excess potting compound	MEK
2.35	Locking and pulling grooves	Preparation for installation	DS108 or MEK
		Removal of excess sealant	DS108, Diestone DLS, Diestone HFP or MEK
2.41	Aluminum	Cleaning after tapping operation	DS108, Diestone DLS, Diestone HFP or MEK

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Note 2. At DHC detail paint shop, it is acceptable to use either DS108 or DMC.

TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
2.60	Bolt head and barrel nut hole	Removal of excess F13 Type 2 compound after installation of bolts and before potting	DS108, Diestone DLS, or Diestone HFP
	Barrel nut hole	Preparation for sealant potting	
2.64	Drills and hole saws	Removal of all lubricant residual during sandwich panels preparation	DS108
	All inserts	Preparation for installation	DS108, IPA or Methanol
	Inserts and panels	Removal of excess uncured potting compound	DS108
2.67	Hi-Lok/Hi-Tigue fasteners	Removal of excess uncured zinc chromate primer after installation	DS108, Diestone DLS or Diestone HFP
	Hi-Lok/Hi-Tigue fastener threads	Removal of uncured sealant or Boelube	DS108, Diestone DLS, Diestone HFP or MEK
2.68	Hi-Lite fasteners	Removal of excess uncured F1 zinc chromate primer after installation	DS108, Diestone DLS or Diestone HFP
		Removal of excess F16 jointing compound	DS108, Diestone DLS, Diestone HFP or MEK
2.70	All bonding surfaces	Preparation for installation of Click Bond fasteners	DS108, Diestone DLS or Diestone HFP
2.71	All surfaces	Removal of excess F1 zinc chromate primer after installation of pull-type Hi-Lites	DS108, Diestone DLS, Diestone HFP or MEK
3.02	Cable ends	Preparation for inserting cable ends into terminal bore	IPA
3.03	Equipment and brushes	Removal of uncured Chem Seal CS7707 coating	DS 108 or MEK
3.04	Cable ends	Preparation for inserting cable through terminals	IPA
3.08	Cable ends	Before soldering	IPA
3.10	Cable ends and terminals	Preparation for brazing	IPA or Acetone
4.19	Fuel tanks	Cleaning in preparation for inspection	According to Table III
4.20	Fuel tanks	Preparation for inspection	Stoddard solvent
5.07	Fuel cell	Preparation of fuel cell	Stoddard solvent
6.01	Bending tools	Cleaning of tools	Diestone DLS, Diestone HFP or MEK
6.03	Fittings	Cleaning before applying a torque stripe mark	According to Table III
	Ferrule	Cleaning of ferrule contaminated with lubricant	
6.04	Fluid line surfaces	Cleaning for tape application	According to Table III
6.05	Closures	Removal of contaminates before use	Stoddard solvent or Varsol

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
6.10	Titanium tubes	Preparation for welding	MEK
	Assemblies with non-metallic details or painted surfaces	Preparation for fabrication	Varsol
	Hydraulic lines	Cleaning after pressure testing	Stoddard solvent
6.12	Hydraulic line assemblies	Cleaning after pressure testing	Stoddard Solvent
6.13	All tubing	Removal of dust from tube surfaces during tube preparation or cutting operation	According to Table III
6.14	All tubing	Removal of dust after polishing	According to Table III
	Wiggins connectors	Preparation for installation	DS108, Diestone DLS, Diestone HFP or MEK
6.19	Tubes	Preparation for swaging	Stoddard solvent
	Expander rollers and cage	Cleaning before swaging	IPA
6.20	Tubing	Cleaning after deburring tube ends or after polishing tubing surfaces	According to Table III
	Rynglok fittings	Preparation for Rynglok fitting installation	Diestone DLS, Diestone HFP or MEK
6.21	Tube end	Tube preparation	According to Table III
		Repair of defects in line sections	
6.23	All tubing	Removal of dust and chips from tube surfaces during tube preparation or cutting operation	According to Table III
	Tube end	Removal of dirt, grease, etc. from tube ends	
6.24	Hydraulic lines	Cleaning after autofrettage	Stoddard Solvent
6.25	All tubing	Removal of dirt, oil, grease, etc. from tubes	According to Table III
9.04	Bus bars	Preparation for installation	According to Table III
	Contact area for Rayrim application	Preparation for Rayrim application	According to Table III
		Removal of excess DHMS A6.11 Type I Class 2 adhesive after Rayrim installation	DS108, Diestone DLS, Diestone HFP or MEK
	Connectors	Preparation for HTAT heat shrinkable tubing installation	DS108, Diestone DLS, Diestone HFP or MEK
9.05	Electrical wires	Preparation for potting	IPA
	Tools	Removal of uncured potting compound	

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
9.06	Contact area for electrical bonding	Cleaning of surfaces not covered with a high resistance film	IPA
	Treated or finished surfaces, graphite	Preparation for electrical installation	
	Immediate area surrounding AMP grounding blocks	Preparation for sealant application	
9.07	Terminals and wire leads	Preparation for tinning and soldering	IPA
	Soldered joints	Cleaning after the solder has cooled	
9.08	Ferrules and coupling nuts	Preparation for installation	IPA
9.12	Soldering area	Preparation for forming component lead	IPA
9.17	Bonding surfaces	Preparation for encapsulation	IPA
9.21	Beryllium copper terminal lugs	Preparation for soldering	Methanol
9.27	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Equipment or part surfaces	Removal of excess thermal compound	DS108 or MEK
9.32	Lead wire/wire grip joint	Preparation for flux application to the lead wire/wire grip joint	IPA
		Removal of residual flux	
9.47	Non-Teflon wire insulation	Preparation of insulation wire for repair	IPA
9.48	S9-006-S01 Installation	Cleaning of structural edge	IPA
	Rayrim RK-6182 installation	Cleaning of application area	
		Removal of excess adhesive after installation	
10.01	Glass windshields	Final clean after washing the windshields with soap and water	50% IPA
	Acrylic and polycarbonate plastics	Final clean after washing the transparent parts with soap and water	Naphtha
		Preparation of surface for sealant application	
		Removal of stubborn adhesive left on the part surface after the removal of protective film, protective adhesive paper or protective coating	

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
10.04	Laminated surfaces	Removal of adhering parting agent and loose particles	IPA or MEK
	Tools	Removal of residual resin	
10.10	Metal surfaces	Preparation for application of polyurethane foam	Naphtha
10.12	All contact surfaces	Preparation for potting	According to Table III
	All contact surfaces	Removal of excess potting compound	Toluol
	Tools and work areas	Removal of excess potting compound during clean-up	
10.15	Tools	Removal of hardened resin	50/50 mixture of Acetone and Methanol
	Laminated surfaces	Cleaning after trimming	IPA or MEK
10.16	Surface area for tubing installation	Preparation for assembling and installing heat shrinking tubing	According to Table III
10.22	Composite moulds	Mould preparation	Naphtha or MEK
	Metallic moulds		DS108, Naphtha or MEK
	Wooden moulds		Naphtha or MEK
	DSC 234-8 release fabric coated moulds		Naphtha or MEK
10.24	Honeycomb cores	Cleaning after splicing, machining, forming, sanding, etc.	MEK
10.28	Thermocouple ends	Preparation for spot welding during assembling of thermocouple	IPA
10.30	Inner and mating surfaces of moulds	Mould preparation for parting agent application	MEK
	Tools and equipment	Removal of uncured resin during clean-up	MEK
10.32	Surfaces for application of Devcon	Cleaning operation during surface preparation	MEK
	Area with acrylic plastic		Naphtha
	Parts and tools	Removal of excess uncured Devcon	MEK
	Acrylic plastic parts		Naphtha

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
10.35	Metal parts and doublers	Preparation for lay-up of sandwich panels during material preparation	According to Table III
	Doublers	Preparation for adhesive application to doubler surfaces during lay-up of sandwich panels	MEK
	All surfaces	Cleaning after trimming during finishing operation	According to Table III
10.38	Glue line	Softening of glue when removing damaged decorative film	MEK
	Panel and decorative film	Removal of adhesive residual before trimming edge panel	
	Bond surface of panel	Preparation for adhesive application during panel edge trimming operation	MEK
	Bond surface of decorative film		Methanol
	Decorative film	Removal of excess adhesive	Methanol or Naphtha
	Tools and work area		Toluol or MEK
	EC 1022 adhesive	Thinning EC 1022 for spray application	25% MEK (by volume)
10.39	Cutting tools	Removal of resin build-up	MEK
10.40	Pre-impregnated laminates & sandwich panels	Preparation for repair work	Acetone or MEK
		Repair of structural defects	
	All surfaces	Cleaning after trimming during edge sealing operation	According to Table III
10.43	Metal parts or doublers	Material preparation for lay-up	According to Table III
	Doublers	Preparation for adhesive application to doubler surfaces during lay-up of sandwich panels	MEK
	All surfaces	Cleaning after trimming operation	According to Table III
10.44	Teflon or equivalent faced tools	Preparation of tools	Naphtha
	Assembly without release ply	Part preparation for adhesive application	MEK
	Liquid shim tool assembly	Removal of extruded excess adhesive	
	Cured adhesive shim surfaces	Preparation for repair work	
10.46	Flat panel components	Preparation for decorative film application	MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
10.48	Metal parts or doublers	Materials preparation for lay-up	According to Table III
	Doublers	Preparation of doublers for adhesive application during lay-up of sandwich panels	MEK
	All surfaces	Cleaning after trimming operation	According to Table III
12.01	Bushings	Removal of lubricant or contaminants	DS108
12.02	Open bearings	Cleaning of bearings	Stoddard solvent or Varsol
	Closed bearings		DS108, Diestone DLS, Diestone HFP or MEK
12.04	Bushings	Preparation before soaking parts into liquid nitrogen	DS108 or MEK
	Bearings	Part preparation for installation	DS108, Diestone DLS, Diestone HFP or MEK
	Bores	Preparation before soaking parts into liquid nitrogen	
12.05	Bushings and surrounding structure	Removal of excess corrosion preventive compound	DS108, Diestone DLS, Diestone HFP or MEK
12.06	Bearings and bores	Preparation for parts installation	DS108, Diestone DLS, Diestone HFP or MEK
12.09	Bearings and bores	Preparation for parts installation	DS108, Diestone DLS, Diestone HFP or MEK
13.08	Parts and tools	Removal of excess uncured sealant	DS108, Diestone DLS, Diestone HFP or MEK
13.09	Bead and O-ring areas	Preparation of parts for mounting of tires	Methanol
13.11	Around equipment	Removal of all traces of oil or grease ground equipment used with oxygen cylinders and systems	Stoddard solvent or Varsol
13.18	Window recesses	Preparation for windshields and side window installation	50% IPA
	Window retainers		
13.21	Surfaces for shim application	Part preparation for sealant application	Diestone DLS or Diestone HFP
	Primed shim surfaces	Preparation for chemical conversion coating touch-up application	DS108, Diestone DLS, Diestone HFP or MEK
	Mating and non-bonded shim surface	Preparation for fay sealant application	

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
13.37	Anodized	Removal of FOD	Acetone or MEK
	C1 or C10 chemical conversion coating		DS108 or MEK
	De-Icer Boot		Toluol
	C7 & C8 air dried film lubricant		DS108 or IPA
	C3 oven cured film lubricant		DS108
	F13 corrosion preventive compound		ZC-640, D-5640NS, DS108, Diestone DLS, Diestone HFP or MEK
	Bare metal		According to Table III
	Plated		DS108 or MEK
	Unprimed plastic		According to Table III
	Unprimed fibreglass or phenolic		According to Table III
	Primed or painted metal		According to Table III
	Full cured sealant bead		DS108
15.01	Surfaces to be ink stamped	Preparation for ink stamping	According to Table III
15.04	Painted surfaces	Removal of “China” marker used to mark defect indications on painted surfaces.	DS108, Diestone DLS or Diestone HFP
15.06	Surfaces to be marked	Preparation for electrochemical etch marking	Methanol, Diestone DLS, Diestone HFP or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
16.01	Large parts and assemblies	Preparation for preventive compound application	According to Table III
	F13 Grade 2 corrosion preventive compound	Thinning of F13 Grade 2 for fill and drain application	Varsol
	Exterior surfaces of sealed tubes	Removal of excess preventive compound	ZC-640, D-5640NS, DS108, Diestone DLS, Diestone HFP or MEK
	Treated parts	Removal of hard or soft film for repair work	ZC-640, D-5640NS, DS108, Diestone DLS, Diestone HFP or MEK
	Tools, equipment and untreated surfaces	Removal of excess uncured corrosion preventive compound	ZC-640, D-5640NS, DS108, Diestone DLS, Diestone HFP or MEK
	Plastic parts		Naphtha
16.05	F2 painted wood	Preparation of parts for the application of non-skid coatings using polyurethane base varnish	Naphtha
	If clear F24 or F37 paint is to be applied directly to untreated aluminum alloys	Preparation of parts before the application of non-skid coatings	Diestone DLS, Diestone HFP or MEK
	Equipment	Clean-up	
16.06	Tools and equipment	Removal of excess uncured adhesive	DS108, Diestone DLS, Diestone HFP or MEK
16.07	Tools and equipment	Removal of excess uncured adhesive	DS108, Diestone DLS, Diestone HFP or MEK
16.08	Fully cured F19 primed surfaces	Preparation for painting	DS108, Diestone DLS or Diestone HFP
	Partially cured F19 primed surfaces		DS108, Diestone DLS, Diestone HFP or MEK
	Surfaces painted with F2, F4, F26 or F27		Naphtha
	Tools, equipment and surrounding areas	Removal of excess uncured F20 enamel	DS108, Diestone DLS, Diestone HFP or MEK
16.09	Communication, electronic and electrical equipment	Removal of grease spots prior to fungi resistant treatment	Diestone DLS, Diestone HFP or MEK
		Removal of solder flux deposits from joints prior to fungi resistant treatment	IPA or Methanol
	Schenectady ST-7 varnish	Thinning of ST-7 varnish	Xylene

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PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
16.10	Treated and untreated aluminum alloys	Preparation for application of F39 coating	DS108 or MEK
	Treated carbon and low alloy steel		
16.11	Areas to be F35 coated	Preparation for application of F35 coating	Diestone DLS, Diestone HFP or MEK
	Tools and equipment	Removal of uncured F35 coating	
16.12	F38 intumescent paint	Thinning of F38 intumescent paint	Xylene
	Tools, equipment and work surfaces	Removal of uncured F38 coating	
16.13	De-icer boot	Parts preparation for coating application	IPA
	Tools and equipment	Removal of uncured primer and protective coating	MEK
16.18	Label/Markings and adjacent structure	Preparation for protective coating application	50% IPA
	Equipment and brushes	Removal of uncured coating material	DS108 or MEK
16.20	All parts	Removal of lubricant oil before any fabrication operations	DS108, Diestone DLS or Diestone HFP
16.24	All parts	Preparation of surfaces for DSC 216-1 coating	According to Table III
	Spray guns and fluid lines	Removal of excess uncured coating	DS108 or MEK
16.26	Areas to be covered with protective tape	Preparation for protective tape application	According to Table III
16.27	Polycarbonate lens	Preparation for PPT film application	IPA or Naphtha
	Exterior radome surfaces	Preparation for protective radome boots application	DS108 or MEK
	Painted exterior surfaces	Preparation for PPT film application. Wipe surface with IPA before abrading and MEK after abrading.	IPA followed by MEK
16.28	F23 primed surface	Preparation of F23 primed surface for tape application	DS108 or Esol-164
	F19 or F23 primed surface	Removal of residual tape adhesive	DS108 or Esol-164
	DSC 472 tape	Preparation for sealant application	50% IPA
	DSC 472 tape	Removal of excess uncured sealant	DS108
	F24 painted surface	Preparation for tape application	DS108
17.02	All parts	Preparation for abrasive blast cleaning	According to Table III

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
17.03	All parts	Preparation for shot peening	DS108, Diestone DLS, Diestone HFP, Varsol, or MEK
17.04	All parts	Preparation for shot peening	DS108, Diestone DLS, Diestone HFP, Varsol, or MEK
19.02	Bores, bearings, shafts, bushings and fastener threads	Preparation for sealant application	DS108, Diestone DLS or Diestone HFP
	Assemblies	Removal of uncured sealant	
20.01	Parts for inspection	Before magnetic particle inspection	According to Table III
		After magnetic particle inspection	
20.05	High strength, low alloy steels	Preparation for macro etch inspection	Methanol
	Parts for inspection	Preparation for etch inspection	According to Table III
	Exposed areas	Inspection using ammonium persulfate	DS108, Diestone DLS or Diestone HFP
20.06	Parts for inspection	Preparation for inspection	According to Table III
20.09	All parts	Preparation for performing eddy current crack detection	According to Table III
21.02	F19 primed	Surface preparation before application of Celastic sheet	DS108
	Epoxy or urethane painted		
	Celastic Sheet	Application of the celastic sheet	MEK

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Note 2. At DHC detail paint shop, it is acceptable to use either DS108 or DMC.

TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
21.03	Detail parts	Preparation for priming or manual application of alodine	DS108, Diestone DLS, Diestone HFP, DMC or MEK (Note 2)
	Tools and equipment	Removal of uncured F21 primer	DS108, Diestone DLS, Diestone HFP, IPA, DMC or MEK
	Damaged F21 Type I primer	Preparation of surfaces for touch-up	DS108, Diestone DLS, Diestone HFP or MEK
	F21 primed rivet heads	Preparation for repair work using sealant application	
	Tools and equipment	Removal of uncured sealant	DS108, Diestone DLS, Diestone HFP, IPA or MEK
	Access cover seams	Cleaning during leak repair work	DS108, Diestone DLS, Diestone HFP, Toluene or MEK
21.05	Surface for sealant application	Preparation for sealant application	According to Table III
	Tools and equipment	Removal of uncured sealant	DS108, IPA or MEK
21.06	Forward facing paint edges	Preparation for sealant application	DS108, Diestone DLS or MEK
21.15	Metering cylinder shafts	Preparation for starting up sealant mixing machine	DS108, Diestone DLS, Diestone HFP or MEK
	Tools and mixing machine	Removal of base material, cured and uncured mixed sealant	
21.18	Tools and equipment	Removal of uncured sealant	DS108, Diestone DLS, Diestone HFP, IPA or MEK
21.19	Parts, structures, tools and equipment	Removal of excess uncured sealant	DS108 or MEK
	Acrylic plastics		Naphtha
21.20	DHMS S3.06 Class C-80	Thinning of sealant	Toluol
	Equipment	Removal of sealant	DS108, Diestone DLS, Diestone HFP or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
21.21	Surfaces for sealing	Preparation for sealant application	DS108, Diestone DLS, Diestone HFP or MEK
	Integral fuel tank		Diestone DLS, Diestone HFP or MEK
	Acrylic plastic		Naphtha
	Parts and surfaces	Removal of excess uncured sealant	DS108, Diestone DLS, Diestone HFP or MEK
	Spraying equipment		
21.22	Surface for sealing, Atite seals and plastic grommets	Preparation for sealant application	DS108 or MEK
	Equipment	Removal of excess uncured sealant	
21.23	L45 wing fuel tank	Preparation for sealant application	Diestone DLS, Diestone HFP or MEK
	Parts and structures	Removal of uncured DHMS S3.07 sealant	DS108, Diestone DLS, Diestone HFP or MEK
	Tools and equipment		
22.02	Surfaces to which labels are to be applied	Preparation for label application	According to Table III
	Label glue line	Softening of the glue line of film labels to facilitate removal	Toluol
	Surfaces from which labels have been removed	Removal of remaining adhesive after film labels other than Scotchcal 7755 SE film labels have been removed	
		Removal of remaining adhesive after Scotchcal 7755 SE film labels have been removed	DS108, Diestone DLS, Diestone HFP or MEK
	Weathered film labels	Softening of weathered film labels to facilitate removal	MEK
	Film labels	Removal of oil, grease or similar from applied film labels other than Scotchcal 7755 SE film labels. Do not solvent clean Scotchcal 7755 SE film labels.	Methanol

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
22.06	Pressure sensitive film	Preparation for screen printing	Methanol
	All plastic surfaces which have not been painted or primed		
	All metal surfaces		DS108 or MEK
	Primed or painted plastic surfaces		
	Screen stencil and squeegee	After screen printing	Diestone DLS, Diestone HFP or MEK
22.07	Polyester film	Preparation of surface for screen printing	Methanol
	Polycarbonate (Lexan) film	Preparation of surface for screen printing	Methanol or Naphtha
22.09	Surfaces for self-adhesive labels	Preparation for label application	MEK
	Gloves and tools	Removal of silicone adhesive after completion of sealing	
24.02	All metal surfaces	Preparation for cold galvanize touch-up	DS108 or MEK
24.04	All parts	Preparation for thermal spray deposition	DS108, Diestone DLS, Diestone HFP, Acetone or MEK
		Removal of masking adhesive residues	
25.08	Bonding surfaces	Preparation for adhesive application	According to Table III
	DHMS A6.10 Type II adhesive	Re-activation of dry adhesive on less porous material	MEK
	Tools and equipment	Removal of uncured adhesive during bonding	Diestone DLS, Diestone HFP or MEK
25.12	Bostik 1142 adhesive	Re-activation of dry adhesive during bonding	MEK
	All bonding surfaces	Preparation of parts for bonding	According to Table III
	Non-porous bonding surfaces, except plastic	Removal of moisture in area of high humidity	Acetone
	Surrounding area and tools	Removal of excess adhesive during bonding	Diestone DLS, Diestone HFP or MEK
25.14	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
25.16	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.23	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	DHMS A6.11 Type I, Class 1 adhesive	Re-activation of dry adhesive during bonding	Toluol
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.25	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.30	Bonding surfaces except treated (etched) Teflon	Preparation for adhesive bonding	According to Table III
	Treated (etched) Teflon	Preparation for adhesive bonding	DS108, Diestone DLS, Diestone HFP, IPA or MEK
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.31	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Bostik/Boscodur adhesive	Thinning of adhesive system for spray, brush or roller applications	MEK
	Bostik 7132	Cleaning spilled Bostik 7132	
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.33	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Panels with bonded fabric	Removal of fabric from panel during repair operation	MEK
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
25.50	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.52	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	Tools and equipment	Removal of uncured adhesive	DS108, Diestone DLS, Diestone HFP or MEK
25.53	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	EC-2262 adhesive	Re-activation of dry adhesive during bonding	Toluol
	Tools and equipment	Removal of uncured adhesive	Toluol, Diestone DLS, Diestone HFP or MEK
25.54	Acrylic plastics	Preparation for cement application	Naphtha or Kerosene
	Tools and equipment	Removal of uncured sealant	Diestone DLS, Diestone HFP or MEK
25.55	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	DHMS A6.11 Type II, Class 1 adhesive	Re-activation of dry adhesive during bonding	Toluol
	Tools and equipment	Removal of uncured adhesive	Toluol, Diestone DLS, Diestone HFP or MEK
25.56	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
25.57	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	DHMS A6.10 Type I adhesive	Re-activation of dry adhesive during bonding	MEK
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.62	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.63	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	DHMS A6.11 Type I, Class 2 adhesive	Re-activation of dry adhesive during bonding	Toluol
	Tools and equipment	Removal of uncured adhesive	Toluol, Diestone DLS, Diestone HFP or MEK
25.64	Bonding surfaces	Preparation for adhesive bonding	According to Table III
25.65	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	DSC 479-1 adhesive	Thinning of adhesive	MEK
	Tools and equipment	Removal of uncured adhesive	
25.69	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
25.70	Bonding surfaces	Preparation for adhesive bonding	According to Table III
	Flexible polyurethane foam		Naphtha
	Tools and equipment	Removal of uncured adhesive	Diestone DLS, Diestone HFP or MEK
27.01	Aluminum alloy	Preparation for detecting cladding penetration	DS108, Diestone DLS, Diestone HFP or MEK
		Removal of masking tape and residue	

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
27.06	All parts	Preparation of parts for decorative surface finishing	According to Table III
27.07	All parts	Preparation for vibratory tumble deburring	According to Table III
27.09	Aluminum alloy	Preparation for re-anodizing after repairs	DS108, Diestone DLS, Diestone HFP or MEK
28.06	All parts	Preparation for lubrication	According to Table III
		Parts onto which lubricant has spilled	
30.05	Carbon and low alloy steels	Preparation of parts for hardening and tempering	DS108, Diestone DLS, Diestone HFP or MEK
		Preparation of parts for nitriding	
30.06	Precipitation hardenable (PH) stainless steels	Cleaning of parts between solution heat treatment and precipitation hardening, if necessary.	DS108, Diestone DLS, Diestone HFP or MEK
	n/a	Dilution of Turco Pretreat heat treatment protective coating.	Toluene
30.14	Titanium and titanium alloys	Preparation of parts for heat treatment before application of scale inhibiting protective coating if parts were stored for more than 4 hours since cleaning according to PPS 31.09.	DS108, Diestone DLS, Diestone HFP or MEK
	n/a	Dilution of Turco Pretreat heat treatment protective coating.	Toluene
31.01	Aluminum alloy	Preparation for welding	DS108, Diestone DLS, Diestone HFP or MEK
31.02	Aluminum alloy	Alternative cleaning process to degreasing according to PPS 31.04	DS108, Diestone DLS, Diestone HFP, Acetone or MEK
		In-situ cleaning prior to fluorescent penetrant inspection (FPI) when no material removal is required or when material removal is required	
31.03	Carbon and low alloy steels	Alternative cleaning process to degreasing according to PPS 31.04	DS108, Diestone DLS, Diestone HFP or MEK
		Cleaning after mechanical cleaning	
31.04	All parts	General cleaning as an alternative to degreasing	According to Table III
31.05	CRES	General cleaning	DS108, Diestone DLS, Diestone HFP or MEK
		In-situ cleaning	
	Test panel	Cleaning before copper sulphate testing	
31.06	Unplated copper and copper alloy parts	In-situ cleaning	DS108, Diestone DLS, Diestone HFP or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
31.07	Metals	Cleaning of manually stripped painted surfaces	Diestone DLS, Diestone HFP or MEK
	Painted metal surfaces	Removal of stubborn areas	Naphtha
31.09	Titanium alloy	General cleaning	MEK
		In-situ cleaning	
31.12	Nickel and nickel alloy	General cleaning	DS108, Diestone DLS, Diestone HFP or MEK
		In-situ cleaning	
31.15	Nickel and nickel alloy	Cleaning operations	DS108, Diestone DLS, Diestone HFP or MEK
	Fusion welded parts	Final cleaning	Methanol, Diestone DLS, Diestone HFP or MEK
32.02	All parts	Preparation for manual application of C1 chemical conversion coating	According to Table III
32.07	Magnesium alloys	Degreasing before dichromate treatment (protective treatment code C4) or chrome pickle treatment	DS108, Diestone DLS, Diestone HFP, Acetone or MEK
32.08	All parts	Preparation for phosphating	According to Table III
32.09	All parts	Preparation for application of fluid resistant dry film lubricant	According to Table III
	Damaged oven cured coatings	Preparation for fluid resistant dry film touch-up	Diestone DLS, Diestone HFP or MEK
		Removal of Molykote 106 or Kal-Gard KG 200 coatings before re-coating surfaces	Diestone DLS, Diestone HFP or MEK
	Damaged dry film lubricant coatings	Stripping of Molykote D-321R, Perma-Slik GLF and MIL-L-23398 coatings before surface re-coating or touch-up	Diestone DLS, Diestone HFP or MEK
	Molykote D-321R	Thinning of dry film lubricant	Naphtha
	Molykote 106		Molykote L 13 or 50/50 mix of Cellosolve Acetate and Toluol
	Oven cured coating	Preparation for cure test. Wipe with MEK followed by kerosene	MEK followed by Kerosene
32.35	All parts	Preparation for manual application of C10 chemical conversion coating	According to Table III

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
33.11	All parts	Preparation of parts for cadmium-titanium plating	DS108, Diestone DLS, Diestone HFP or MEK
		Preparation of parts for post plate treatment	
		Preparation of parts for stripping of plating	
33.12	All parts	Preparation of parts for plating	DS108, Diestone DLS, Diestone HFP or MEK
34.01	F19 primed surfaces	Re-activation of primer which has been heat cured or cured for more than 48 hours	Esol-146
		Preparation of surfaces which are not heat cured and have been cured for less than 48 hours before lacquer application	DS108
	F14 primed surfaces	Preparation for lacquer application	DS108
	Defective coatings	Removal of dried overspray	Ethyl Acetate or MEK
	Equipment	Cleaning after paint application	
34.02	Primer to TT-P-1757	Thinning of primer	Toluol
	Countersinks	Cleaning before primer application	DS108, Diestone DLS, Diestone HFP or MEK
	Area around fastener hole	Cleaning after installation of fasteners	
34.03	F19 primed surfaces	Re-activation of primer which have been heat cured or room temperature cured for more than 48 hours.	Esol-146
		Preparation of surfaces which have not been heat cured and have been room temperature cured for 12 to 48 hours before enamel application.	Esol-146 or MEK
	Tools	Removal and cleaning of uncured polyurethane enamel from tools and other areas	
	Defective coatings	Removal of dried overspray	
34.05	Joint area of parts	Preparation for corrosion inhibiting compound application	DS108, Diestone DLS, Diestone HFP or MEK
	Joined surfaces	Removal of excess corrosion inhibiting compound after installation of fasteners	
	Equipment and surrounding surfaces	Removal of corrosion inhibiting compound	DS108 or MEK
34.06	Non-appearance areas	Preparation for touch-up during repair work	DS108 or MEK
	Equipment	Cleaning after primer application	DS804 or MEK
34.07	Polycarbonate	Preparation for application of F14 primer	Naphtha
	Equipment	Cleaning before coating dries on equipment	DS804 or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
	Parts and surfaces	Removal of residual uncured sealant	DS108, Diestone DLS, Diestone HFP or MEK
	Countersinks	Preparation for application of F19 or F45 primer	DS108, Diestone DLS, Diestone HFP or MEK
	Area around fastener hole	Cleaning after installation of fasteners	
	Broken pin ends of pull type lockbolts	Preparation for F19 or F45 primer brush touch-up	DS108 or MEK
	Exposed bare metal of the pulling stem fracture on blind rivets		
	Exposed bare metal of aluminum Hi-Lok and Hi-Lite collars		
	Previously primed aluminum interior surfaces	Preparation for application of F19 or F45 primer	Esol-146
	Bonded aluminum assemblies	Preparation for application of F19 or F45 primer	DS108 or MEK
	Tungsten		
34.08	Aluminum alloy detail parts	Parts to be primed more than 24 hours after surface preparation, more than 24 hours after chemical treatment, or removal of fingerprint contamination	DS108, DMC or MEK (Note 2)
	Magnesium alloy parts	Parts to be primed more than 24 hours after surface preparation or removal of fingerprint contamination	DS108 or MEK
	Titanium, steel, brass, bronze and CRES parts		
	Tungsten		
	Un-coated fibre re-inforced composite parts	Preparation for application of F19 or F45 primer	Diestone DLS, DMC or MEK
	F41 coated fibre re-inforced composite parts	Preparation for application of F19 or F45 primer	Naphtha
	Kydex	Preparation for application of F19 or F45 primer	Naphtha
	Equipment	Cleaning before primer dries on equipment	IPA, DS804 or MEK
	All surfaces	Rework of damaged or defective coatings	DS108
	Contaminated aircraft weather/pressure sealant	Removal of contaminated aircraft weather/pressure sealant	DS108 or MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
34.11	New aircraft	Initial cleaning of new aircraft before surface treatment	DS108, Esol-146 or MEK
	All surfaces	Cleaning after surface preparation during final treatment before priming	DS108 or Esol-146
	Unpainted and unprimed metal surfaces	Cleaning after chemical conversion coating during final treatment before priming	DMC, Esol-146 or MEK
	F23 primed surfaces	Cleaning before re-priming surfaces which have cured more than 24 hours	DS108 or Esol-146
	Aircraft for re-painting	Cleaning after removal of primer or paint from fibre re-inforced parts	Napthol
	Exterior labels and surrounding scuffed areas	Preparation for F24 enamel application	50% IPA
34.13	F19 primed surfaces	Re-activation of primer which has been heat cured or cured for more than 48 hours	Esol-146
	F22 painted surfaces	Re-activation of paint which has been heat cured or cured for more than 48 hours	Esol-146
	F24 painted surfaces	Re-activation of paint which has been heat cured or cured for more than 48 hours	DS108 or Esol-146
	F19 primed surfaces, F22 painted surfaces, or F24 painted surfaces	Preparation of surfaces which are not heat cured and have been cured for less than 48 hours before F29 application	DS108 or MEK
	Defective coatings	Removal of dried overspray	DS108 or MEK
	Equipment	Cleaning after paint application	
34.15	F19 primed surfaces	Re-activation of primer which has been heat cured or cured for more than 48 hours	Esol-146
		Preparation of surfaces which are not heat cured and have been cured for less than 48 hours before applying F23	Esol-146 or MEK
	Unprimed rubber surfaces	Preparation for application of polyurethane enamel	Thinner
	Equipment	Cleaning after application of polyurethane enamel coatings	DS108 or MEK
	Defective coatings	Removal of dried overspray	
	Coatings which fail electrical resistance test	If reworking within 7 days of applying the initial coating	DS108 or Esol-146
		If more than 7 days have elapsed before rework	

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
34.16	F23 primed surfaces	Cleaning before re-priming surfaces which have cured more than 48 hours	DS108 or Esol-146
	Equipment	Cleaning after primer application	DS804 or MEK
34.18	F19 primed surfaces	Re-activation of primer which has been heat cured or cured for more than 48 hours	Esol-146
		Preparation of surfaces which are not heat cured and have been cured for less than 48 hours before polyurethane application	DS108 or MEK
	Non-metallic parts	Preparation for polyurethane application	Esol-146
	Defective coatings	Removal of dried overspray	DS804 or MEK
	Tools, equipment and surrounding areas	Clean-up after polyurethane application	
34.19	Unprimed composite surfaces	Preparation for application of anti-static coating	Naphtha or MEK
	F19 primed composite surfaces	Re-activation of primer which has been heat cured or cured for more than 48 hours	Esol-146
		Preparation of surfaces which are not heat cured and have been cured for less than 48 hours before F41 application	DS108
	Coatings which fail electrical resistance test	Cleaning scuffed surface before re-coating	DS108
	Equipment	Cleaning after painting	DS804 or MEK
34.20	F19 primed surfaces	Preparation for application of urethane enamel	DS108 or Esol-146
	Ultem and Declar	Preparation for F42 application	Naphtha
	Equipment	Cleaning after enamel application	DS804 or MEK
34.23	Titanium parts and surfaces	Preparation for application of DSC 595 adhesion promoter	Esol-146 or MEK
	Tools and equipment	Clean-up after DSC 595 adhesion promoter	Water or Methanol
34.25	F47 primed surfaces	Preparation for F47 base coat application	Esol-146
		Re-activation of primer which have exceeded the primer dry time	
	F47 base coated surfaces	Preparation for F47 clear coat application	
		Re-activation of base coat which have exceeded the base coat dry time	
	Damaged F47 coating	Preparation for re-application of F47 coating	

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
34.34	Composite laminates and sandwich panel assemblies	Preparation for application of surface finishing compounds	Naphtha or MEK
	Tools and equipment	Clean-up after finishing compound application	
34.35	Aluminum alloys	Preparation for coating application	DS108 or MEK
	Carbon and low alloy steels		DS108 or MEK
34.39	F5, Type I primer	Thinning F5, Type I primer to spraying viscosity	Toluene
	Treated aluminum	Preparation for paint application	DS108 or MEK
	Cadmium plated steel, brass and bronze		
	Corrosion resistant steel		
	Magnesium		
	Equipment	Clean-up	DS804 or MEK
34.41	F19 primed surfaces	Re-activation of primer which has been heat cured or cured for more than 48 hours	Esol-146
		Preparation of surfaces which are not heat cured and have been cured for less than 48 hours before enamel application	DS804 or MEK
	F21 primed surfaces	Re-activation of primer which has been heat cured or cured for more than 48 hours	DS108 or Esol-146
		Preparation of surfaces which are not heat cured and have been cured for less than 48 hours before enamel application	
	Unprimed fibre re-inforced composite surfaces	Preparation for epoxy-polyamide enamel (F22) application	Diestone DLS, DMC or MEK
	Defective coatings	Removal of dried overspray	DS804 or MEK
	Equipment	Cleaning after enamel application	IPA, DS804 or MEK
35.07	Area of castings to be repaired by welding	Preparation for repair by welding	MEK
36.02	Aluminum alloy	Preparation for adhesive application	DS108 or MEK
	Tools and equipment	Removal of uncured adhesive from tools and assemblies	MEK

Note 1. If more than one solvent is listed in this table, the solvents are shown in order of preference from an environmental, health and safety standpoint. At DHC and BA Toronto, always use the preferred solvent, if available.
Note 2. At DHC detail paint shop, it is acceptable to use either DS108 or DMC.

TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
36.05	Aluminum and magnesium alloy	Preparation for adhesive application	Diestone DLS, Diestone HFP or MEK
	Tools and surrounding areas	Removal of excess adhesive	
36.07	Primed details	Preparation for bonding	MEK
	Bonding surfaces	Removal of adhesive residue before and after scuffing during re-bonding due to excessive voids or poor fit for metal to metal bonding	
	Machined parts and doublers	Preparation for primer application	
36.09	Aluminum pads and wing struts	Preparation for adhesive application	DS108 or MEK
	Pad/strut assemblies	Removal of excess adhesive after final torquing during final bonding operation	
	Tools and equipment	Removal of uncured adhesive	MEK
36.10	All surfaces	Removal of residual aluminum tape adhesive	DS108, Diestone DLS, Diestone HFP, Naphtha, Acetone or MEK
	Aluminum honeycomb core	Before lay-up	
	Bondline area	Removal of sanding residue	
37.03	Aluminum assemblies	Preparation for fusion welding	Methanol
37.04	Ferrous and nickel alloys	Preparation for fusion welding	Methanol
37.05	Welded joints of titanium	Preparation for fusion welding	MEK or Acetone
	Filler rod	Cleaning before use	DS108 or Acetone
37.09	Weld areas	Preparation for welding	Methanol
37.13	All parts	Preparation for brazing	According to Table III
	n/a	Thinning of flux for induction brazing	IPA
37.16	Titanium tubing	Preparation for orbital welding	MEK
	Machined fittings		
38.03	Tape and seams	Preparation for sealant application	DS108
	Glass cloth cover	Preparation for repair of tears and abrasions	
	Tools and equipment	Removal of uncured sealant	MEK
38.06	Bleed air ducts	Preparation for pre-preg glass cloth application	MEK

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
39.06	Non-bonding surface of boot	Cleaning of shop dust and debris	IPA
	DHMS A6.11 Type I, Class 2 adhesive	Re-activation of adhesive	Toluol
	Bonding surfaces of de-icer boot and leading edge	Preparation for adhesive film application	
	Boot edges	Removal of excess adhesive after bonding	
	Glue line between boot and structure	Removal of de-icer boots from structure	
	De-icer boot and leading edge	Removal of adhesive after boots have been peeled off the leading edge	
39.07	Non-bonding surface of boot	Cleaning of shop dust and debris	IPA
	Bonding surfaces of air intake structure and de-icer boot	Preparation for adhesive application or re-installation	Toluol
	Boot edge and air intake structure	Cleaning operation before sealing de-icer boot	Toluol followed by Methanol
	DHMS A6.11 Type I, Class 2 adhesive	Re-activation of adhesive	Toluol
	Air intake structure and de-icer boot	Removal of adhesive	
	Adhesive bond	To release the adhesive bond between the structure and boot	
	Air intake structure and de-icer boot	Removal of de-icer boot	
	Installed de-icer boot surfaces	Cleaning after de-icer boot installation	
	Tools and equipment	Clean-up after application of sealants, etc.	Toluol or MEK

Note 1. If more than one solvent is listed in this table, the solvents are shown in order of preference from an environmental, health and safety standpoint. At DHC and BA Toronto, always use the preferred solvent, if available.

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TABLE II - SOLVENT SELECTION FOR SPECIFIC PPS

PPS	SURFACE TO BE CLEANED	SITUATION	SOLVENT (NOTE 1)
39.08	Non-bonding surface of boot	Cleaning of shop dust and debris	IPA
	Glue line between the stall bar and de-icer boot	Removal of stall bar from de-icer boot	Toluol
	Glue line between the de-icer boot and leading edge	Removal of de-icer boot from the leading edge	
	Leading edge surface	Removal of residual adhesive after removing de-icer boot from the leading edge	
	Area around the manifold tube	Preparation for surface finishing compound application	
	Bonding surfaces of de-icer boot and leading edge	Preparation for adhesive application	
	Tools and equipment	Clean-up after application of sealants, etc.	Toluol or MEK
	Leading edge surface and de-icer boot	Removal of excessive adhesive after trimming boot	Toluol
	DHMS A6.11 Type I, Class 2 adhesive	Re-activation of adhesive	
	Leading edge surface and de-icer boot	Removal or re-positioning of bonded de-icer boots	
	Installed de-icer boot surfaces	Cleaning after de-icer boot installation	
39.09	De-icer boot	Removal of any dried on tape or other residue which cannot be removed with soap	Toluol
42.01	Cured maskant on aluminum alloy with non-adhering areas	Preparation for patching maskant application	Toluol
	Chem-milled aluminum parts	Removal of sanding residue after raised areas have been removed during rework of defects	DS108, Diestone DLS or Diestone HFP
42.06	Cured maskant on titanium alloy with non-adhering areas	Preparation for patching maskant application	Toluol
	Chem-milled titanium parts	Removal of sanding residue after raised areas have been removed during rework of defects	DS108, Diestone DLS or Diestone HFP

Note 1. If more than one solvent is listed in this table, the solvents are shown in order of preference from an environmental, health and safety standpoint. At DHC and BA Toronto, always use the preferred solvent, if available.

Note 2. At DHC detail paint shop, it is acceptable to use either DS108 or DMC.

TABLE III - SOLVENT SELECTION FOR GENERAL MATERIALS

MATERIAL TO BE CLEANED	SOLVENT (NOTE 1)
Electrical connections	IPA
Bare metal	DS108, Diestone DLS, Diestone HFP or MEK
Primed or painted metal parts	DS108, Diestone DLS, Diestone HFP or MEK (Note 1)
Unprimed plastic parts (Note 2)	Naphtha
Unprimed fibreglass or phenolic (Note 3)	DS108 or MEK
Thermoplastic (Note 4)	Methanol or Naphtha
Thermoset plastic (Note 5)	MEK
Rulon A	DS108
Rubber (Note 6) except silicone	IPA
Silicone rubber	IPA
Porous materials (Note 7)	Do not clean porous materials in any way. If the surfaces are contaminated, do not use the materials for bonding.
Leather (natural and synthetic)	IPA

Notes:
1. Use DS108 for cleaning aircraft exterior before painting.
2. Plastic parts include Formica, Arborite, etc. Plastic parts do not include Kevlar and fibreglass.
3. Fibreglass includes Kevlar laminates and composites. Phenolic laminates do not include Formica, Arborite, etc.
4. Thermoplastic: acrylic (plexiglass), acrylic/PVC (Kydex), nylon (Zytel), polycarbonate (Lexan), PTFE (Teflon), PVC/PVF (Tedlar).
5. Thermoset plastics: fibre re-inforced epoxy, polyester or phenolic composites.
6. Rubber: neoprene, Buna-N (nitrile, NBR).
7. Porous materials: Velcro, fabrics, balsa, cork, etc.

6 REQUIREMENTS

6.1 Solvent cleaned surfaces must be free of oil and grease. If all oil and grease has not been removed re-solvent clean as specified herein.

7 DHC/BA SAFETY PRECAUTIONS

7.1 The safety precautions specified herein are specific to DHC/BA to meet Canadian Federal and Provincial government environmental, health and safety regulations. It is strongly recommended that other facilities consider these safety precautions; however, suppliers, subcontractors and partners are responsible for ensuring that their own environmental, health and safety precautions satisfy the appropriate local government regulations.

7.2 Observe standard plant safety precautions when performing the procedure specified herein.

7.3 Keep solvent away from fire and other sources of ignition.

7.4 Do not smoke, eat or drink in areas where solvent are being handled. If ingestion of solvent occurs, immediately contact the Environment, Health and Safety Centre.

7.5 Wear protective respiratory equipment according to PPS 13.13 when manual solvent cleaning or handling solvents.

7.6 Ensure sufficient ventilation is provided when solvent cleaning or handling solvents.

7.7 Wear protective gloves according to Table IV when solvent cleaning or handling solvents. If skin contact occurs, wash the contacted area thoroughly with soap and water.

7.8 Wear safety eye glasses when handling solvent. If eye contact occurs, immediately flush eyes in a directed stream of water for at least 15 minutes while forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Contact the Health Centre and a physician.

7.9 Store solvent dampened cloths in a sealed polyethylene bag (e.g., Ziploc bag) when not in use.

7.10 Dispose of used wipers in oily waste cans (red containers with a self-closing lid).

7.11 Dispense solvents from polyethylene squeeze bottles or plunger-type containers which have been properly labelled with the solvent name.

TABLE IV - GLOVE SELECTION

SOLVENT	GLOVE SELECTION
Acetone	Nitrile or neoprene
DS108	Nitrile or neoprene
Diestone DLS	Nitrile
Diestone HFP	Nitrile
Dimethyl Carbonate (DMC)	Nitrile or neoprene
Eldorado Esol-146	Nitrile
Isopropyl Alcohol (IPA)	Nitrile, neoprene or rubber
Kerosene	Nitrile or neoprene
Methyl Ethyl Ketone (MEK)	Neoprene or rubber
Methyl Alcohol (Methanol)	Nitrile, neoprene or rubber
Molykote L 13	Nitrile
50/50 mixture of Cellosolve Acetate and Toluol	Nitrile
Naphtha	Nitrile or neoprene
Stoddard solvent	Nitrile or neoprene
Toluene or Toluol	Nitrile
Xylene	Nitrile

8 PERSONNEL REQUIREMENTS

8.1 Personnel responsible for manual solvent cleaning or handling must have a good working knowledge of the applicable procedure and requirements as specified herein and must have exhibited their competency to their supervisor.

9 DISPOSAL OF CHEMICAL WASTES

9.1 Dispose of all chemical wastes according to national legislation and local regulations. At DHC/BA, dispose of chemical wastes according to EHS-OP-005.

9.2 At DHC/BA, dispose of chemical contaminated work clothes, rags, etc., into Red Containers labelled “Waste Rags”.

10 STORAGE

10.1 Always use the oldest stock first (i.e., first in/first out (FIFO) basis).

10.2 Store solvents in their original containers or in approved 1 gallon safety cans which are to be kept in flammable material storage cabinets (yellow).

11 SPECIAL POINTS TO NOTE

11.1 Take care to ensure that hydraulic fluid lines and hydraulic system components used with MIL-H-5606 hydraulic fluid do not come into contact with solvent blends containing isopropyl alcohol (IPA), also known as isopropanol and 2-propanol. Hydraulic fluid lines and hydraulic system components used with MIL-H-5606 hydraulic fluid which have been contaminated with solvents containing IPA must be cleaned according to PPS 6.10.