

Safety Steps and Procedures To Follow Prior To Applying Sur-Prep® 3167:

Always refer to the **safety data sheet (SDS)**, **technical data sheet (TDS)**, and **label** prior to applying **Sur-Prep® 3167** if you have any questions about this product.

Always wear protective clothing, eyewear, and gloves to prevent **Sur-Prep® 3167** from contacting the skin and eyes.

Make sure there is proper ventilation in the area where **Sur-Prep® 3167** will be applied and wear a proper mask to prevent the inhalation of fumes from **Sur-Prep® 3167**.

Make sure there are no sparks, open flames, or other combustion sources in the area where **Sur-Prep® 3167** will be applied.

Ensure that there is adequate lighting available to see where **Sur-Prep® 3167** is being applied and for inspecting areas prior to applying **Sur-Prep® 3167** for contamination or rework.

Sur-Prep® 3167 Features and Benefits:

Sur-Prep® 3167 is a fast drying petroleum solvent cleaning compound and a hydrocarbon solvent blend that works on oil and oil-bonded contaminants, dries quickly, has a broad solvency range, and prepares critical surface areas prior to painting or bonding..

Sur-Prep® 3167 efficiently solvates a broad range of contaminants from substrate surface and helps coatings and sealants adhere to aircraft substrates.

Spray Applying Sur-Prep® 3167:

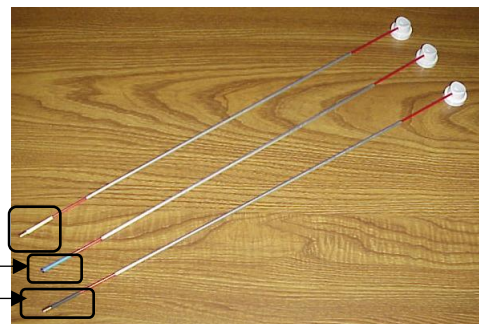
Use the following equipment to apply **Sur-Prep® 3167**.

- *Spray Application Equipment
- *Aerosol
- ***Formit®** Extension Wands-For use with all **Zip-Chem®** aerosols to reach difficult to access areas, such as stringer edges.
- ***Zip-Chem®** Aerosol Trigger Sprayer designed for use with any **Zip-Chem®** aerosol can
- *Please reach out to a **Zip-Chem®** application expert for tips on how to properly apply **Sur-Prep® 3167**.

* **Formit® 360° Spray (White Tube) Wand**

* **Formit® Fan Spray Spray (Blue Tube) Wand**

* **Formit® 180° Spray (Black Tube) Wands**



Formit® 360° Spray Demonstration Video



Formit® Fan Spray Demonstration Video



Formit® 180° Spray Demonstration Video



Zip-Chem® Aerosol Trigger Sprayer



Spray Applying Sur-Prep® 3167 (Continued From Page 1):

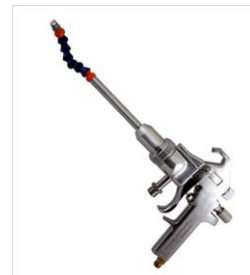
1.) HVLP Spray Gun Setup

HVLP Spray Gun



- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) Set the **air pressure**. This is very important because **Sur-Prep® 3167** is applied **thin** so **too much pressure** will result in a **dry spray** and texture of **Sur-Prep® 3167** while **too little pressure** will result in a **poor atomization** and **orange peeling** of **Sur-Prep® 3167**.
- C.) If you see texture in the spray of **Sur-Prep® 3167**, then increase the **air pressure** of your **HVLP gun**. If you see an **overspray cloud** of **Sur-Prep® 3167**, then decrease the **air pressure** slightly. The proper spray pattern for **Sur-Prep® 3167** should be a **slightly wet pass** with **no flooding or sagging** because **thinly applied products** like **Sur-Prep® 3167** can run very fast.
- D.) One pattern that should be used when using the **HVLP gun** to apply **Sur-Prep® 3167** is the **fan pattern** because it uses a **full wide fan spray** which provides better consistency and leveling when applying **Sur-Prep® 3167** with the **HVLP spray guns**.
- E.) The **air pressure** when the trigger is pulled for the gun should be **20–30 PSI** even though most guns specify **10 PSI** at the **air cap**.
- F.) Always set the pressure with the **trigger fully pulled** because the **pressure drops under flow**.
- G.) Close off the **air** and **fluid adjustment knobs**.
- H.) Slowly open the **air adjustment knob** with the **trigger** pulled.
- I.) Open the **fluid adjustment knob** slowly until you see a **fine mist** from the **air cap**.
- J.) Continue to fine tune the settings until the desired spray pattern is achieved.

Airverter HVLP Spray Gun



2.) Air Assisted Spray Gun Setup

- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) For **pressure settings**, use the **lowest pressure** possible so that **Sur-Prep® 3167** can be spray applied as a **clean fan** with the width of the spray being shaped like a **fan**.
- C.) Slowly increase the **pressure** to the gun until the **fan spray pattern** of **Sur-Prep® 3167** is fully developed and even and there are no **fingers** or **tails** on the edges of the spray equipment. If you hear a **harsh hissing noise** or see **fogging** in the spraying of the **Sur-Prep® 3167**, then the **pressure** of the **air assisted spray gun** is **too high**. None of these observations should occur because **thin materials** like **Sur-Prep® 3167** atomize very easily.
- D.) Set the **pump ratio** of the equipment to a range of **20:1 to 30:1**.
- E.) Setup the following parts for the **airless spray equipment** below.
 - *Displacement Pump With A Positive Piston Type
 - *Stainless Steel Filter With A High Pressure With 200-300 mesh element



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Spray Applying Sur-Prep® 3167 (Continued From Page 2):

Air Assisted Spray Gun Setup (Continued From Page 2)

- F.) Maintain your distance of the gun from the surface as the distances between **air assisted spray guns** and other spray methods can vary. A good distance to follow for **air assisted spray guns** is about **12" or more**. If you spray apply **Sur-Prep® 3167** at a distance closer than **12"**, then there will be a heavy buildup of **Sur-Prep® 3167**, tiger stripping of material from the surface where the **Sur-Prep® 3167** was applied, and a variation in the gloss of the **Sur-Prep® 3167**.
- G.) Consider the passing speed of **Sur-Prep® 3167** because the output of **Sur-Prep® 3167** from **air assisted spray guns** can vary between other spray methods. Therefore, you may need to move faster or slower than other spray methods, such as **HVLP guns**.
- H.) The **Sur-Prep® 3167** should be spray applied as a **smooth continual pass** with a **50% overlap**.

3.) Airless Spray Setup

- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) For **pressure settings**, use the **lowest pressure** possible so that **Sur-Prep® 3167** can be spray applied as a **clean fan** with the width of the spray being shaped like a **fan**. The setup of **airless spray equipment** varies based on the size and type of gun that is being used but a good starting point for the **pressure** of the **airless spray gun** should be around **900-1200 PSI**.
- C.) Slowly increase the **pressure** to the gun until the **fan spray** pattern of **Sur-Prep® 3167** is fully developed and even and there are no **fingers** or **tails** on the edges of the spray equipment. If you hear a **harsh hissing noise** or see **fogging** in the spraying of the **Sur-Prep® 3167**, then the **pressure** of the **airless spray gun** is **too high**. None of these observations should occur because thin materials like **Sur-Prep® 3167** atomize very easily.
- D.) Set the **pump ratio** of the equipment to a range of **20:1 to 30:1**.
- E.) Setup the following parts for the **airless spray equipment** below.
*Displacement Pump With A Positive Piston Type
*Stainless Steel Filter With A High Pressure With 200-300 mesh element
- F.) Maintain your distance of the gun from the surface as the distances between **airless spray guns** and other spray methods can vary. A good distance to follow for **airless spray guns** is about **12" or more**. If you spray apply **Sur-Prep® 3167** at a distance closer than **12"**, then there will be a heavy buildup of **Sur-Prep® 3167**, tiger stripping of material from the surface where the **Sur-Prep® 3167** was applied, and a variation in the gloss of the **Sur-Prep® 3167**.
- G.) Consider the passing speed of **Sur-Prep® 3167** because the output of **Sur-Prep® 3167** from **airless spray guns** can vary between other spray methods. Therefore, you may need to move faster or slower than other spray methods, such as **HVLP guns**.
- H.) The **Sur-Prep® 3167** should be spray applied as a **smooth continual pass** with a **50% overlap**.

Airless Spray Equipment



Spray Applying Sur-Prep® 3167 (Continued From Page 3):

4.) Sur-Prep® 3167 5 Gallon (18.9 Liter) Cart Sprayer Setup

- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) For **pressure settings**, use the **lowest pressure** possible so that **Sur-Prep® 3167** can be spray applied as a **clean fan** with the width of the spray being shaped like a **fan**.
- C.) Slowly increase the **pressure** to the gun until the **fan spray** pattern of **Sur-Prep® 3167** is fully developed and even and there are no **fingers** or **tails** on the edges of the spray equipment. If you hear a **harsh hissing noise** or see **fogging** in the spraying of the **Sur-Prep® 3167**, then the **pressure** of the **5 Gallon (18.9 Liter) Cart Sprayer** is **too high**. None of these observations should occur because thin materials like **Sur-Prep® 3167** atomize very easily.
- D.) Set the **pump ratio** of the equipment to a range of **20:1 to 30:1**.
- E.) Setup the following parts for the **5 Gallon (18.9 Liter) Cart Sprayer** below.
*Displacement Pump With A Positive Piston Type
*Stainless Steel Filter With A High Pressure With 200-300 mesh element
- F.) Maintain your distance of the gun from the surface as the distances between **5 Gallon (18.9 Liter) Cart Sprayer** and other spray methods can vary. A good distance to follow for **5 Gallon (18.9 Liter) Cart Sprayers** is about **12" or more**. If you spray apply **Sur-Prep® 3167** at a distance closer than **12"**, then there will be a heavy buildup of **Sur-Prep® 3167**, tiger stripping of material from the surface where the **Sur-Prep® 3167** was applied, and a variation in the output of **Sur-Prep® 3167**.
- G.) Consider the passing speed of **Sur-Prep® 3167** because the output of **Sur-Prep® 3167** from **5 Gallon (18.9 Liter) Cart Sprayers** can vary between other spray methods. Therefore, you may need to move faster or slower than other spray methods, such as **HVLP guns**.
- H.) The **Sur-Prep® 3167** should be spray applied as a **smooth continual pass** with a **50% overlap**.



5.) Electro-Static Spray Gun Setup

- A.) Minimize the flow of **Sur-Prep® 3167** for the required **coating speed** and **film thickness**.
- B.) Minimizing the target distance of spraying **Sur-Prep® 3167**.
- C.) Ensure that the **Sur-Prep® 3167** to be sprayed has a very high **resistivity** of at least **>1 mega-ohm**.
- D.) Attach charging unit to the gun and object to be sprayed with **Sur-Prep® 3167**.
- E.) Gradually increase in-line **air pressure** so that the spray provides proper **Sur-Prep® 3167** build at the required **coating speed** and ensure that the pressure does not exceed **100 psi**.
- F.) **Fluid pressure** is typically **400-800 psi** so make sure it is set to that **psi range**.
- G.) Turn on **charging unit** and begin spraying **Sur-Prep® 3167**.

Electro-Static Spray Gun



Wipe Application of Sur-Prep® 3167:

- 1.) Wet or saturate a rag with **Sur-Prep® 3167**.
- 2.) Wipe the area to be cleaned. This contamination removal from the surface can be done with either the wet cloth as illustrate in **Step 1** or with a dry one.
- 3.) Use either a dry wipe to accelerate the drying of the area or allow time for the **Sur-Prep® 3167** to evaporate.

Sur-Prep® 3167 Application Procedures For Removing PVDF Adhesive Foam Tapes:

Sur-Prep® 3167 can be used for removing the following PVDF adhesive foam tape.

*BMS8-371 Ty1A 743-3WF from E&H Laminating

The procedures for removing the BMS8-371 Ty1A 743-3WF from E&H Laminating PVDF adhesive foam tape with **Sur-Prep® 3167** are as follows.

Towel or Rag Application

- 2.) Apply **Sur-Prep® 3167** to a towel or rag and place on the tape residue.
- 3.) Allow **Sur-Prep® 3167** to dwell on top of the tape residue for 10 minutes.
- 4.) After 10 minutes of dwelling, use the towel or rag that is saturated with **Sur-Prep® 3167** to wipe up the softened adhesive and easily remove it from the surface.
- 5.) Continue wiping until all of the adhesive residue is removed.
- 6.) If the area has become dry, spray additional **Sur-Prep® 3167** to simplify the removal process.
- 7.) The surface will evaporate dry but can be wiped with a dry rag to accelerate the drying.

Tape untouched on the right, tape with upper layer removed in the center, and aged tape residue left behind from the previous removal process.



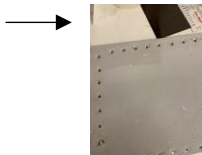
Panel wiped clean and is free of tape residues



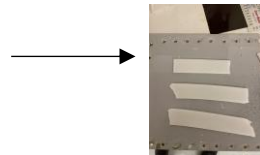
Spray Application With a Non-Metallic Scraper

- 1.) Spray **Sur-Prep® 3167** directly on to the foam adhesive and allow it to soak into the foam for 10 minutes.
- 2.) Take a non-metallic scraper and scrape the foam tape to remove the foam and most of the adhesive.
- 3.) Use **Sur-Prep® 3167** to scrape off and wipe up any remaining residue.
- 4.) The wipe up process for the residual adhesive left on the surface can be sped up using a rag soaked with **Sur-Prep® 3167**. The surface will evaporate dry but can be wiped with a dry rag to accelerate the drying

Dry panel completely free of residues and ready for application of more foam



New tape installed with excellent adhesion and no further cleaning or drying steps required



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Sur-Prep® 3167 Application Procedures For Removing Loctite 5910 and Corrosion Inhibiting Compounds (CIC's)

Allow **Sur-Prep® 3167** to dwell for approximately 5 minutes and then wipe it off. Do not allow **Sur-Prep® 3167** to dry on the surface. If drying commences, apply a light film of additional **Sur-Prep® 3167** and wipe off.



Below is an example of a CIC being removed with **Sur-Prep® 3167**.



Sur-Prep® 3167 can be also be used to remove **Loctite 5910**. Below are pictures of **Loctite 5910** being peeled back on a surface and being removed with **Sur-Prep® 3167**.

Step 1: Peel Loctite 5910 Back



Step 2: Use Sur-Prep® 3167 To Remove Loctite 5910



Sur-Prep® 3167 Product Packaging Part Numbers, and Other Materials To Purchase:

Sur-Prep® 3167

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**103765**
- *Case of 7 each Gallon (4 each of 3.8 Liter) Cans-**103762**
- *5 Gallon (18.9 Liter) Pails-**103763**
- *55 Gallon (208 Liter) Drums-**103764**
- *Special Packaging Available Upon Request

Zip-Chem® Aerosol Trigger Sprayer

***010040**

Gloves Protective Clothing Lighting Equipment Proper Mask

Other Aliphatic Naphtha Based Wipe Solvents Spray Equipment

Non-Metallic Scraper Ventilation Equipment

Formit® Wands (12 Assemblies Per Package)

- *Formit®-18-Fan-006224
- *Formit®-18-180-006226
- *Formit®-18-360-006227
- *Formit®-18-STD-FOG-008352
- *Formit®-18-90-FOG-008353
- *Formit®-29-360-101321
- *Formit®-36-360-009131
- *Formit®-48-360 with metal sleeve-009132
- *Formit®-48-360 without metal sleeve-10042
- *Formit® Sample Pack (3 each of Formit®-18-Fan, Formit®-18-180, Formit®-18-360, Formit®-18-STD-FOG-100107)

Protective Eyewear Proper Wiping Devices (Rags, Towels, Cloths, ect)

Spill Containment Vessels and other proper devices for collecting material

Formit® NSN's: 4730-01-612-9914, NSN: 4730-01-661-8773 (Formit®-18-Fan); 6850-01-492-2942 (Formit®-18-360); 4730-01-632-0156 (Formit®-18-STD-FOG); 1560-01-658-8943 (with metal sleeve), 4730-01-659-5461 (without metal sleeve) (Formit®-48-360); 4730-01-632-0157 (Formit®-48-Fan)



Sur-Prep® 3167
1 Gallon (3.8 Liter) Can



Sur-Prep® 3167 16 fl oz (473 mL)
Aerosol Can

For application questions regarding Sur-Prep® 3167, contact Zip-Chem® Aviation Products at (1) 408 782 2335 or zipchem@addevmaterials.com



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