

## Safety Steps and Procedures To Follow Prior To Applying Sur-Prep® 2046:

Always refer to the safety data sheet (SDS) and technical data sheet (TDS) prior to applying **Sur-Prep® 2046** if you have any questions about the product.

Always wear gloves, protective clothing, and protective eyewear to prevent **Sur-Prep® 2046** from contacting the skin and eyes.

Make sure there is proper airflow and ventilation in the area where the **Sur-Prep® 2046** will be applied and wear respirating devices if the area where **Sur-Prep® 2046** will be applied in has insufficient ventilation.

## Sur-Prep® 2046 Features and Benefits:

**Sur-Prep® 2046** is a non-conductive and non-abrasive metal degreaser and solvent cleaner that contains several advantages over flammable solvents, such as acetone, toluene, etc.

**Sur-Prep® 2046** is effective at dissolving silicone, grease, oils, waxes, inks, and tars and does not contain methylene chloride or ozone depleting solvents, is non ozone depleting, and is non-flammable.

**Sur-Prep® 2046** evaporates quickly, cleans without wiping, and leaves no residue behind.

## Areas Where Sur-Prep® 2046 Can and Cannot Be Applied In:

**Sur-Prep® 2046** can be applied on metal parts, tooling, valves, gauges, motors, engines, gears, bearing locations, and on greasy surfaces.

Do not apply **Sur-Prep® 2046** directly to plastic parts.

## Procedures For Applying Sur-Prep® 2046:

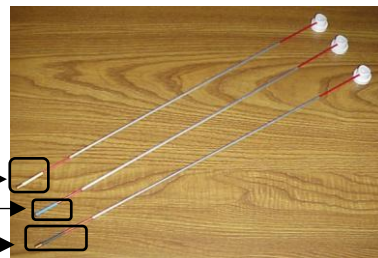
1.) Use the following equipment to apply **Sur-Prep® 2046** .

- \* Spray and Bulk 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

\* **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



## Procedures For Applying Sur-Prep® 2046 (Continued From Page 1):

Zip-Chem® Aerosol Trigger Sprayer →



## Applying Sur-Prep® 2046 Via HVLP Spray Gun, Air Assisted Spray Gun, Airless Spray Equipment, and Electrostatic Spray Gun:

### 1.) HVLP Spray Gun Setup

A.) Set the air pressure. This is very important because if there is too much pressure, then the texture and spray of **Sur-Prep® 2046** will be dry. Too little pressure however, results in a poor atomization and orange peeling of **Sur-Prep® 2046**.

B.) If you see texture in the spray of **Sur-Prep® 2046**, then increase the air pressure of your HVLP gun. If you see an overspray cloud of **Sur-Prep® 2046**, then decrease the air pressure slightly. The proper spray pattern for **Sur-Prep® 2046** should be a **slightly wet pass with no flooding or sagging** because thinly applied products like **Sur-Prep® 2046** can run very fast.

C.) One pattern that should be used when using the HVLP gun to apply **Sur-Prep® 2046** is the **fan pattern** because it uses a full wide fan spray which provides better consistency and leveling when applying **Sur-Prep® 2046** with the HVLP spray guns.

D.) 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.

E.) Always set the pressure with the trigger fully pulled because the pressure drops under flow.

F.) Close off the air and fluid adjustment knobs.

G.) Slowly open the air adjustment knob with the trigger pulled.

H.) Open the fluid adjustment knob slowly until you see a fine mist from the air cap.

I.) Continue to fine tune the settings until the desired spray pattern is achieved.

### 2.) Air Assisted Spray Gun Setup

A.) Determine the tip size for the gun. This is very important especially for a thin material, such as **Sur-Prep® 2046**.

**Note:** Do not increase the gun tip size especially to **.015 “ or more** when applying **Sur-Prep® 2046** because the applied material will exhibit the following characteristics below.

\*Too much **Sur-Prep® 2046** being applied

\***Sur-Prep® 2046** runs

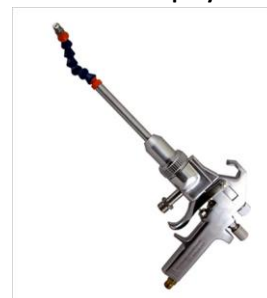
\*Orange peel in the **Sur-Prep® 2046**

\*An overspray cloud in the applied **Sur-Prep® 2046**

HVLP Spray Gun



Airverter Spray Gun



## Applying Sur-Prep® 2046 Via HVLP Spray Gun, Air Assisted Spray Gun, Airless Spray Equipment, and Electrostatic Spray Gun (Continued From Page 2):

### Air Assisted Spray Gun Setup (Continued From Page 2)

- B.) For pressure settings, use the lowest pressure possible so that **Sur-Prep® 2046** 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 of the gun until the fan spray pattern of **Sur-Prep® 2046** 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® 2046**, then the pressure of the air assisted spray gun is too high. None of these observations should occur because thin materials like **Sur-Prep® 2046** atomize very easily.
- D.) Set the pump ratio of the equipment to a range of **60:1 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 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® 2046** at a distance closer than **12"**, then there will be a heavy buildup of **Sur-Prep® 2046**, tiger stripping of material from the surface where the **Sur-Prep® 2046** was applied, applied, and a variation in the gloss of the **Sur-Prep® 2046**.
- G.) Consider the passing speed of **Sur-Prep® 2046** because the output of **Sur-Prep® 2046** 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® 2046** should be spray applied as a **smooth continual pass** with a **50% overlap**.
- I.) The table below lists some differences between the HVLP spray method and the air assisted spray gun methods.

HVLP	Air Assisted Spray Gun
Soft spray of <b>Sur-Prep® 2046</b>	More aggressive fan spray of <b>Sur-Prep® 2046</b>
Slow <b>Sur-Prep® 2046</b> output	Fast output of <b>Sur-Prep® 2046</b>
Very forgiving when applying <b>Sur-Prep® 2046</b>	<b>Sur-Prep® 2046</b> can run quickly
Less overspray bounce of <b>Sur-Prep® 2046</b>	More fogging potential for <b>Sur-Prep® 2046</b> than with HVLP spray method

### 3.) Airless Spray Setup

- A.) Determine the tip size for the gun. This is very important especially for a thin material, such as **Sur-Prep® 2046**.

**Note:** Do not increase the gun tip size especially to **.015 " or more** when applying **Sur-Prep® 2046** because the applied material will exhibit the following characteristics below.

- \*Too much **Sur-Prep® 2046** being applied
- \***Sur-Prep® 2046** runs
- \*Orange peel in the **Sur-Prep® 2046**
- \*An overspray cloud in the applied **Sur-Prep® 2046**

Airless Spray Equipment



## Applying Sur-Prep® 2046 Via HVLP Spray Gun, Air Assisted Spray Gun, Airless Spray Equipment, and Electrostatic Spray Gun (Continued From Page 3):

### Airless Spray Setup (Continued From Page 3)

- B.) For pressure settings, use the lowest pressure possible so that **Sur-Prep® 2046** 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**.
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- D.) Set the pump ratio of the equipment to a range of **60:1 to 30:1**.
- E.) Setup the following parts for the airless spray equipment below.
  - \*Displacement Pump With A Positive Piston Type
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- 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® 2046** at a distance closer than **12"**, then there will be a heavy buildup of **Sur-Prep® 2046**, tiger stripping of material from the surface where the **Sur-Prep® 2046** was applied, and a variation in the gloss of the **Sur-Prep® 2046**.
- G.) Consider the passing speed of **Sur-Prep® 2046** because the output of **Sur-Prep® 2046** 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® 2046** should be spray applied as a **smooth continual pass** with a **50% overlap**.
- I.) The table below lists some differences between the HVLP spray method and the airless spray gun methods.

HVLP	Airless Spray Gun
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Very forgiving when applying <b>Sur-Prep® 2046</b>	<b>Sur-Prep® 2046</b> can run quickly
Less overspray bounce of <b>Sur-Prep® 2046</b>	More fogging potential for <b>Sur-Prep® 2046</b> than with HVLP spray method

## Applying Sur-Prep® 2046 Via HVLP Spray Gun, Air Assisted Spray Gun, Airless Spray Equipment, and Electrostatic Spray Gun (Continued From Page 4):

### 4.) Electro-Static Spray Gun Setup

- A.) Minimize the flow of **Sur-Prep® 2046** for the required application of the material.
- B.) Minimizing the target distance of spraying **Sur-Prep® 2046**.
- C.) Ensure that the **Sur-Prep® 2046** 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® 2046**.
- E.) Gradually increase in-line air pressure so that the spray provides proper **Sur-Prep® 2046** 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® 2046**.

Electro-Static Spray Gun



It is important to ensure that the HVLP, air assisted, airless, or electrostatic paint gun for applying **Sur-Prep® 2046** are properly setup for the following reasons below.

- \*Decrease odor, fogging, and mist from the application of **Sur-Prep® 2046**
- \*Increase the transfer efficiency of the **Sur-Prep® 2046** from the equipment to the area it needs to be applied to
- \*Ensure that **Sur-Prep® 2046** will be applied according to how it was designed to be applied with respect to **optimum weight to performance balance**

## Sur-Prep® 2046 Packaging Pictures and Other Materials To Purchase:

### Sur-Prep® 2046

- \*Case of 12 of 16 fl oz (473 mL) Aerosols-**100283**
- \*9 gram Towelette-**101880**
- \*Case of 12 each Quart (946 mL)-**103266**
- \*Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**103262**
- \*5 Gallon (18.9 Liter) Pails-**103259**
- \*Special packaging upon request

### Formit®

- \*Formit®-18-Fan-006224
- \*Formit®-18-180-006226
- \*Formit®-18-360-006227
- \*Formit®-18-STD-FOG-008352
- \*Formit®-18-90-FOG-008353
- \*Formit®-48-Fan-008460
- \*Formit®-36-360-009131
- \*Formit®-48-360 with metal sleeve-009132
- \*Formit®-48-360 without metal sleeve-100424
- \*Formit®-29-360-101321
- \*Formit® Sample Pack (3 each of Formit®-18-Fan, Formit®-18-180, Formit®-18-360, Formit®-18-STD-FOG-100107

### Zip-Chem® Aerosol Trigger Sprayer

\*010040

Gloves | Protective Eyewear | Spraying Equipment

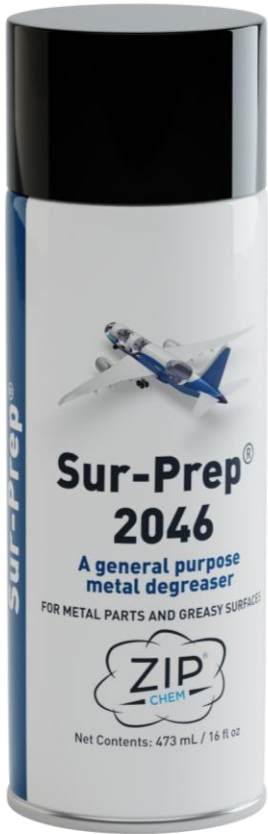
Respirating Equipment | Ventilation Equipment

Protective Clothing | Bulk Application Equipment

Formit® NSN's: 4730-01-612-9914, 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® 2046 Packaging Pictures and Other Materials To Purchase (Continued From Page 5):



← Sur-Prep® 2046 16 fl oz (473 mL) Aerosol

For application questions regarding Sur-Prep® 2046, contact Zip-Chem® Aviation Products at (1) 408 782 2335 or [zipchem@addevmaterials.com](mailto:zipchem@addevmaterials.com).