

Procedures To Follow Prior To Applying Cor-Ban® 23:

Always refer to the **safety data sheet (SDS)**, **technical data sheet (TDS)**, and **label** prior to applying **Cor-Ban® 23** if you have any questions about this product.

Always wear gloves, protective eyewear, and protective clothing to prevent **Cor-Ban® 23** from making contact with the skin and eye.

Make sure there is proper airflow in the area where **Cor-Ban® 23** will be applied and wear a proper mask to prevent the Inhalation of fumes.

Make sure there are no sparks, open flames, or other combustion sources in the area where **Cor-Ban® 23** will be applied.

Make sure that primers are cured prior to applying **Cor-Ban® 23**.

Make sure that any sealants that are applied in a given area are cured according to the recommendations and instructions of the manufacturer prior to applying c.

Ensure that there is adequate lighting to see where **Cor-Ban® 23** is being applied and to inspect areas for contamination and rework prior to applying **Cor-Ban® 23**.

Vacuum and/or wipe surfaces as necessary to remove moisture and other excessive foreign material from surfaces that will be coated with **Cor-Ban® 23**. Solvents that can be used for cleaning those surfaces include **Sur-Prep 3167**, **Sur-Prep 3160**, and **D-5640NS / ZC-640**



Do not use Isopropyl alcohol and acetone to wipe and clean the surface.

If the sprayed form of **Cor-Ban® 23** shows fisheyes, separations, or anything that prevents it from being homogeneous and free of voids, then the surface is not clean and needs to be vacuumed and/or wiped again.

Cor-Ban® 23 Product Information and Benefits:

Cor-Ban® 23 is a non-decorative high penetrating and water displacing corrosion inhibiting compound (CIC) with a light reddish-pink salmon tint. **Cor-Ban® 23** has a very low dry film weight that does not crack nor flake in temperatures as low as **-65°F (-54°C)**. **Cor-Ban® 23** also has a fast drying and non-tacky film that is detectable and non-sagging. **Cor-Ban® 23** needs **<0.3 Mil (8 microns)** to surpass its specification and can withstand **salt spray** for **>3000 hours**. **Cor-Ban® 23** has a low toxicity level and is free of chromates and heavy metals.

Masking Procedures To Follow Prior To Applying Cor-Ban® 23:

Mask areas that will not to be coated, such as:

- * Electrical Connectors
- * Pins and Joints In Sliding Surface Contact
- * Control Cables
- * Pulley and Quadrant Cable Grooves
- * Bushing and Bearings For All Types, which includes lined Teflon
- * Silicone or Rubber Seals
- * High Temperature Areas
- * Wire Bundles
- * Lubricated Surfaces (i.e Hydraulic Actuator Pistons)
- * Drain Valves
- * Oxygen System Components (i.e. Bottles, Pressure Metering and Indicating Equipment and Connections)



Methods For Applying Cor-Ban® 23:

Use the following equipment for applying **Cor-Ban® 23**.

- * **HVLP Guns**
- * **Air Assisted Spray Gun**
- * **Airless Spray Equipment**
- * **Other Spray Equipment**
- * **Aerosol Cans**
- * **Formit® Extension Wands**-For use with all **Zip-Chem®** aerosols to reach difficult to access areas, such as stinger edges.
- * **Zip-Chem® Aerosol Trigger Sprayer**-For use with any **Zip-Chem®** Aerosol can

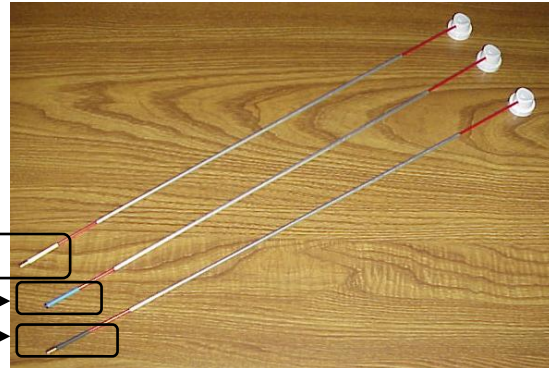
HLVP Gun



Zip-Chem® Aerosol Trigger Sprayer



Formit® Wands



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

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

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

Formit® 360° Spray Application Video



***Formit® Fan Spray Application Video**



***Formit® 180° Spray Application Video**



Methods For Applying Cor-Ban® 23 (Continued From Page 2):

Please reach out to a **Zip-Chem®** application expert for tips on how to properly apply **Cor-Ban® 23**.

1.) HVLP 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.) Set the **air pressure**. This is very important because **Cor-Ban® 23** is applied **thin** so **too much pressure** will result in a **dry spray** and texture of **Cor-Ban® 23** while **too little pressure** will result in a **poor atomization** and **orange peeling** of **Cor-Ban® 23**.
- C.) If you see texture in the spray of **Cor-Ban® 23**, then increase the **air pressure** of your **HVLP gun**. If you see an **overspray cloud** of **Cor-Ban® 23**, then decrease the **air pressure** slightly. The proper spray pattern for **Cor-Ban® 23** should be a **slightly wet pass** with **no flooding or sagging** because **thinly applied products** like **Cor-Ban® 23** can run very fast.
- D.) One pattern that should be used when using the **HVLP gun** to apply **Cor-Ban® 23** is the **fan pattern** because it uses a **full wide fan spray** which provides better consistency and leveling when applying **Cor-Ban® 23** 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.

HVLP Spray Gun



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 **Cor-Ban® 23** 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 **Cor-Ban® 23** 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 **Cor-Ban® 23**, then the **pressure** of the **air assisted spray gun** is **too high**. None of these observations should occur because **thin materials** like **Cor-Ban® 23** 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



Methods For Applying Cor-Ban® 23 (Continued From Page 3):

Air Assisted Spray Gun Setup (Continued From Page 3)

- 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 **Cor-Ban® 23** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 23**, tiger stripping of material from the surface where the **Cor-Ban® 23** was applied, and a variation in the gloss of the **Cor-Ban® 23**.
- G.) Consider the passing speed of **Cor-Ban® 23** because the output of **Cor-Ban® 23** 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 **Cor-Ban® 23** should be spray applied as a **smooth continual pass** with a **50% overlap**.
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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 **Cor-Ban® 23** 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 **Cor-Ban® 23** 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 **Cor-Ban® 23**, then the **pressure** of the **airless spray gun** is **too high**. None of these observations should occur because thin materials like **Cor-Ban® 23** 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 **Cor-Ban® 23** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 23**, tiger stripping of material from the surface where the **Cor-Ban® 23** was applied, and a variation in the gloss of the **Cor-Ban® 23**.
- G.) Consider the passing speed of **Cor-Ban® 23** because the output of **Cor-Ban® 23** 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 **Cor-Ban® 23** should be spray applied as a **smooth continual pass** with a **50% overlap**.

Airless Spray Equipment



Methods For Applying Cor-Ban® 23 (Continued From Page 4):

4.) Cor-Ban® 23 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 **Cor-Ban® 23** 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 **Cor-Ban® 23** 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 **Cor-Ban® 23**, 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 **Cor-Ban® 23** 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 **Cor-Ban® 23** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 23**, tiger stripping of material from the surface where the **Cor-Ban® 23** was applied, and a variation in the output of **Cor-Ban® 23**.
- G.) Consider the passing speed of **Cor-Ban® 23** because the output of **Cor-Ban® 23** 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 **Cor-Ban® 23** should be spray applied as a **smooth continual pass** with a **50% overlap**.



5.) Electro-Static Spray Gun Setup

- A.) Minimize the flow of **Cor-Ban® 23** for the required **coating speed** and **film thickness**.
- B.) Minimizing the target distance of spraying **Cor-Ban® 23**.
- C.) Ensure that the **Cor-Ban® 23** 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 **Cor-Ban® 23**.
- E.) Gradually increase in-line **air pressure** so that the spray provides proper **Cor-Ban® 23** 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 **Cor-Ban® 23**.

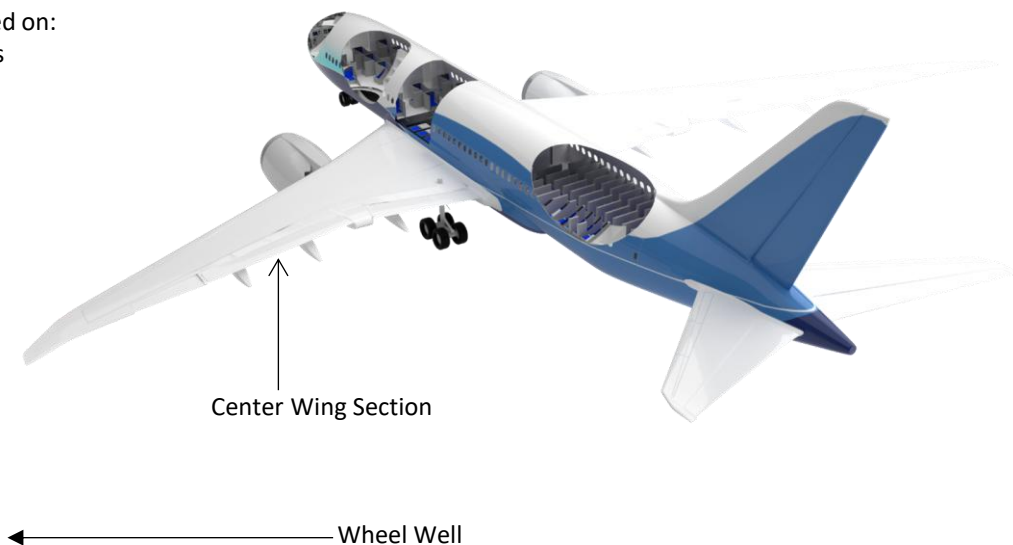
Electro-Static Spray Gun



Areas Where Cor-Ban® 23 Should Be Applied:

Cor-Ban® 23 should be applied on:

- * Upper Edge Floor Beams
- * Wheel Wells
- * Pressure Deck
- * Center Wing Sections
- * Interior Structure



Tips For Applying Cor-Ban® 23:

- 1.) Focus the application process of **Cor-Ban® 23** on all faying surfaces to ensure joint penetration.
- 2.) Once **Cor-Ban® 23** has been focused on faying surfaces, then coat the entire area before moving on to the next section.
- 3.) Inspect the surface for proper coating under stringers, formers, and other structures that are not in the line of sight.



The applied **Cor-Ban® 23** coating should be continuous and free of voids. Runs drips, sags, etc, are allowed provided that the drain holes and cross drains for where **Cor-Ban® 23** should drain out of are not blocked. If the drain holes or cross drains become blocked, then wipe up the excess **Cor-Ban® 23** using clean, dry gauze or rags.

The **Cor-Ban® 23** material will exhibit slight sags or wavy material lines on inclined surfaces in some situations. Immediate attention with a paint brush, however, will eliminate thick runs and sags. Extremely thick areas or puddles need to be wiped up quickly using solvents that are listed below in the removal instructions.

Tips For Drying Cor-Ban® 23:

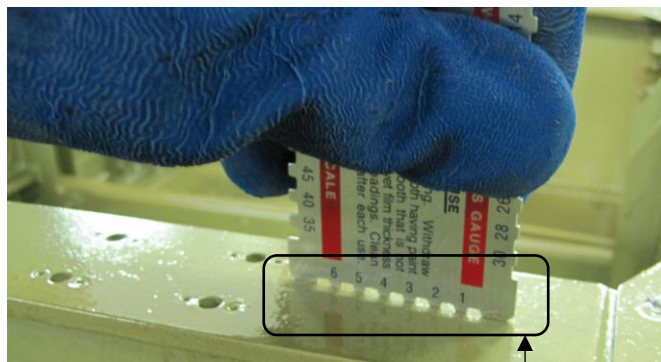
Cor-Ban® 23 typically will dry to a hard, tack free film in **45 minutes to 2 hours**. These dry times should be accurate provided that adequate ventilation was utilized and that the **Cor-Ban® 23** material was applied within the thickness range that was called out in the paragraph for the thickness that the dry material of **Cor-Ban® 23** should be applied at under **Tips For Measuring The Thickness of Cor-Ban® 23** section on the next page. The speed at which **Cor-Ban® 23** dries and cures at is also influenced by:

- * Temperature
- * Humidity
- * Ventilation

In some areas of application, the **Cor-Ban® 23** coating should be cured sufficiently to prevent it from being transferred if it comes into contact with products and surfaces, such as insulation blankets.

Thickness For Cor-Ban® 23 Including Tips For Measuring That Thickness:

The application thickness of **Cor-Ban® 23** should be approximately **0.75 to 1.0 mils (19-25 microns) wet** and **0.50 mils (13 microns) dry**. For measuring the **wet film thickness** of **Cor-Ban® 23**, use protection for your hand so that you can **push Zip-Chem®'s Wet Film Thickness Gauge** as shown below into the **Cor-Ban® 23** material via hand after the **Cor-Ban® 23** has been allowed to flow for a **few minutes**.



The **thickness** of the **Cor-Ban® 23** can be determined by the **visible tracks** in the **wet film** that are left by the **gauge fingers** of the **Wet Film Thickness Gauge**. The **dry film thickness** of **Cor-Ban® 23** may be verified using **paint thickness instruments**.

Removing Cor-Ban® 23:

Cor-Ban® 23 can be removed with an aliphatic naphtha based wipe solvent or its equivalents. **Cor-Ban® 23** can also be removed with corrosion preventive compound/corrosion inhibiting compound removers, such as **Sur-Prep® 3160**, **Sur-Prep® 3167**, **D-5640NS/ZC-640**, and **Zip-Strip™ 125M**.

Cured **Cor-Ban® 23** can be removed with **Sur-Prep® 3160**, **Sur-Prep® 3167**, and **Zip-Strip™ 125M**.



See next pages for a demonstration of cured **Cor-Ban® 23** being removed with one of these CIC removers above.

Removing Cured Cor-Ban® 23:

Steps for removing cured Cor-Ban® 23 using Sur-Prep® 3160, Sur-Prep® 3167, or D-5640NS/ZC-640

- 1.) Identify the area that needs the Cor-Ban® 23 to be removed from.
- 2.) Spray the solvent, such as the Sur-Prep® 3160, Sur-Prep® 3167, or D-5640NS/ZC-640 .



- 3.) Soak a rag with the solvent mentioned above.



- 4.) Wipe the area that was treated with the solvent with the rag that was soaked with the solvent.

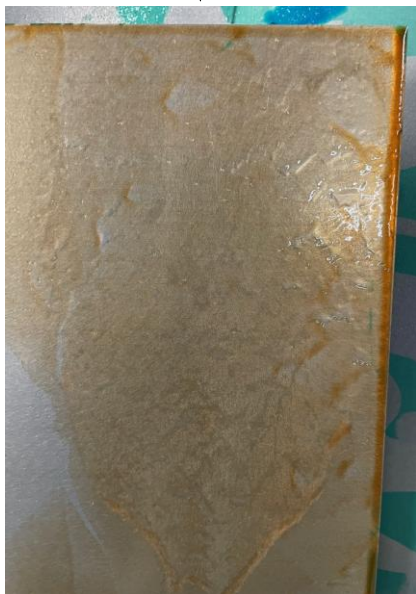


- 5.) Continue wiping until the area is clean

Removing Cured Cor-Ban® 23 (Continued From Page 9):

Removing Cor-Ban® 23 using Zip-Strip™ 125M

1.) Identify the area that needs the Cor-Ban® 23 to be removed from.



2.) Spray the area with Zip-Strip™ 125M



3.) Allow Zip-Strip™ 125M to dwell on the area for **15 minutes or longer** depending on the tenacity of the CIC film.



4.) Rinse the area with water or take a water soaked rag and wipe up the area until it is clean.



Cor-Ban® 23 Product Packaging Part Numbers, and Other Materials To Purchase:

Cor-Ban® 23

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**008017**
- *Case of 12 each Quart (946 mL)-**010097**
- *Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**009401**
- *5 Gallon (18.9 Liter) Pail-**008015**
- *55 Gallon (208 Liter) Drum-**008016**
- *Specialized forms of packaging available upon request

Zip-Strip™ 125M

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**102614**
- *Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**102608**
- *5 Gallon (18.9 Liter) Pails-**102609**
- *55 Gallon (208 Liter) Drum-**102610**
- *Specialized forms of packaging available upon request

D-5640NS/ZC-640

- *Case of 12 of 16 fl oz (473 mL) Aerosols (**D-5640NS**)-**002070**
- *Case of 4 each Gallon (4 each of 3.8 Liter) Cans (**ZC-640**)-**009430**
- *5 Gallon (18.9 Liter) Pails (**ZC-640**)-**002155**
- *55 Gallon (208 Liter) Drum (**ZC-640**)-**008181**
- *Special forms of packaging available upon request (**ZC-640**)

Sur-Prep® 3160

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**010938**
- *Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**008578**
- *5 Gallon (18.9 Liter) Pails-**008579**
- *55 Gallon (208 Liter) Drum-**008580**
- *Case of 6 Canisters of Towelettes-**100026**
- *Case of 120 Individual Towelettes-**011844**
- *Specialized forms of packaging available upon request

Sur-Prep® 3167

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**103765**
- *Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**103762**
- *5 Gallon (18.9 Liter) Pails-**103763**
- *55 Gallon (208 Liter) Drum-**103764**
- *Specialized forms of packaging available upon request

Wet Film Thickness Gauge

- ***100266**

Zip-Chem® Aerosol Trigger Sprayer

- ***010040**

Formit® Wands (12 Assemblies Per Package)

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

Bulk Application Equipment	Gloves	Protective Clothing	Proper Mask	Spray Equipment	Protective Eyewear
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Ventilation Equipment	Curing Devices	Masking Tape	Vacuum	Paint Thickness Instruments	Wiping Devices
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Aliphatic naphtha based wipe solvents or equivalents	Towels, Rags, Cloths, and Other Proper Wiping Devices
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Spill Containment Vessels and other proper devices for collecting material spills and overruns	Lighting Equipment
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Cor-Ban® 23 Product Pictures, Zip-Chem® Product Packaging Part Numbers, and Other Materials To Purchase (Continued From Page 11):



← ***Cor-Ban® 23**
1 Gallon (3.8 Liter) Can



← ***Cor-Ban® 23**
Quart (946mL) Unit



← ***Cor-Ban 23 16 fl oz (473 mL) Aerosol Can**
***NSN 8030-01-531-7361**

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) (**Formit®-48-360**); 4730-01-659-5461 (without metal sleeve) (**Formit®-48-360**); 4730-01-632-0157 (**Formit®-48-Fan**)

Sur-Prep® 3160 NSN: 6850-01-633-9843 (16 fl oz (473 mL) Aerosol)

D-5640NS NSN: 8030-01-597-6958 (16 fl oz (473 mL) Aerosol)

Zip-Strip™ 125M NSN's: 6850-01-695-8514 (5 Gallon (18.9 Liter) Pail), 6850-01-707-8887 (16 fl. oz (473 mL) Aerosol)

For application questions regarding **Cor-Ban® 23**, contact **Zip-Chem® Aviation Products** at **(1) 408-782-2335** or **zipchem@addevmaterials.com**.