D-5026NS/ZC-026 Instruction Manual

Safety Steps and Procedures To Follow For Preparing Area Prior To Applying D-5026NS/ZC-026:

Always refer to the **safety data sheet (SDS)**, **technical data sheet (TDS)**, and **label** prior to applying **D-5026NS/ZC-026** if you have any questions about the product.

Always wear gloves and protective eyewear to prevent **D-5026NS/ZC-026** from making contact with the skin and eyes.

Make sure there is proper airflow in the area where **D-5026NS/ZC-026** will be applied and that you wear a proper mask to prevent the inhalation of fumes from **D-5026NS/ZC-026**.

Make sure there are no sparks, open flames, or combustible sources in the area where **D-5026NS/ZC-026** will be applied.

Ensure that any primers, sealants, and other coatings are cured before applying **D-5026NS/ZC-026**.

Use lighting equipment to inspect areas for contamination or rework prior to applying **D-5026NS/ZC-026**.

Vacuum and wipe surfaces so that moisture and other foreign material that is on the surface can be removed.

Type II surfaces should be fairly clean and free of dirt and other contaminants and should be cleaned using **Sur-Prep® 3160**, **Sur-Prep® 3167**, and **D-5640NS/ZC-640**.



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

If the sprayed form of **D-5026NS/ZC-026** 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.

D-5026NS/ZC-026 Instruction Manual

Safety Steps and Procedures To Follow For Preparing Area Prior To Applying D-5026NS/ZC-026 (Continued From Page 1):

It is imperative that **Type III** surfaces are clean and free of dirt and other contaminants. Clean these surfaces with **Sur-Prep® 123**, **Sur-Prep® 5677**, **Sur-Prep® 5680**, and **D-5600NS/ZC-600**.



Mask areas that will not be coated with **D-5026NS/ZC-026**, 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 that are above **200°F (93°C)**, wire bundles, lubricated surfaces (i.e hydraulic actuator pistons), drain valves and oxygen system components (i.e. bottles, pressure metering and indicating equipment and connections, ect)

D-5026NS/ZC-026 Instruction Manual

D-5026NS/ZC-026 Product Information and Benefits:

D-5026NS and **ZC-026** are unique products on the **MIL-PRF-81309** military specification as they are on the **QPL** for **Type II** and **Type III**.

*__Type II__ usage involves the daily corrosion duties of the maintainer for general corrosion prevention to latches, hinges, hardware, etc on all types of aircraft. It can be used for short term tooling and equipment storage to prevent flash corrosion. **D-5026NS** and **ZC-026** are also used as an airframe inner moldline corrosion inhibitor for general aviation aircraft.

*__Type III__ usage is primarily for avionics applications for connectors, circuit cards, motherboards, ect.

D-5026NS/ZC-026 contains no ozone depleting chemicals and prevents corrosion, provides superior protection to avionic connectors and components, and has lubricating properties to prevent fretting corrosion.

D-5026NS/ZC-026 protects electrical connectors from corroding and provides protection for cables, surfaces, and interior and exterior aircraft substrates.

D-5026NS/ZC-026 is free of heavy metals and chromates, has a low toxicity level, and contains a thixotropic property to prevent it from disrupting contact between connectors.

D-5026NS/ZC-026 has a low toxicity level, is free of chromates and heavy metals, and contains a film to prevent substrate oxidation.

D-5026NS/ZC-026 provides protection in the harshest environments and can withstand temperatures up to **105°C (221°F)** for only **500 hours cumulative**.

D-5026NS/ZC-026 withstands temperatures as low as **-55°C (-67°F)** and as high as **85°C (185°F)** continuously and provides corrosion protection in the harshest environments.

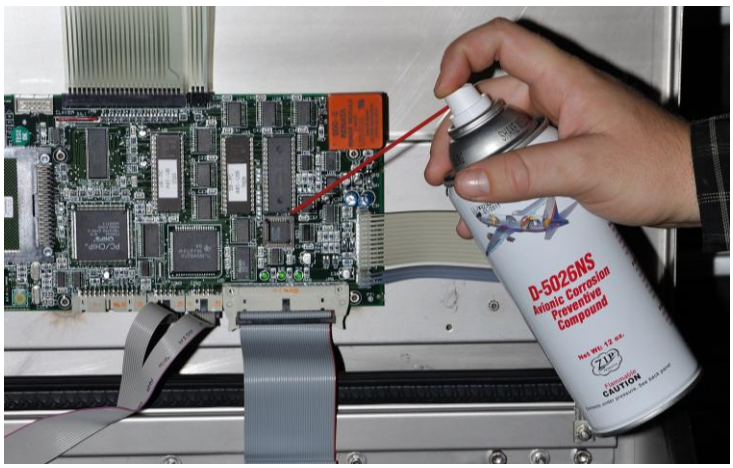
One aerosol can of **D-5026NS** covers approximately **140 ft^2 (13m^2)**.

When applied properly, **D-5026NS/ZC-026** provides a medium to heavy duty water displacing, thin film.

Areas Where D-5026NS/ZC-026 Should Be Applied:

D-5026NS/ZC-026 should be applied on:

*Highly Critical Metal Surfaces
*Avionic Components and Connectors
*All Interior and Exterior Aircraft Surfaces
*Cables
*Electrical Connectors
*Most paints, plastic, and insulation
*Other Components



D-5026NS/ZC-026 Instruction Manual

Methods For Applying D-5026NS/ZC-026:

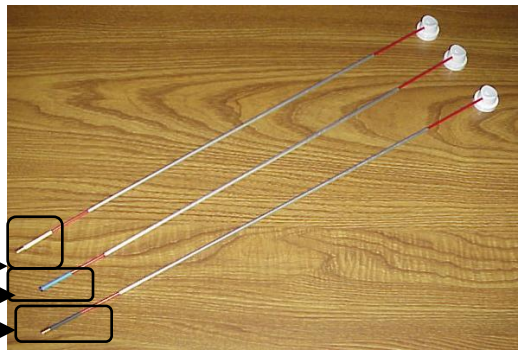
D-5026NS comes in aerosol packaging and can be applied via the following methods:

*Aerosol Can

***Formit® Extension Wands**-For use with all **Zip-Chem®** aerosols to reach difficult to access areas, such as stinger edge

***Zip-Chem® Aerosol Trigger Sprayer** that is designed for use with any **Zip-Chem®** aerosol can

***Formit® 360° Spray (White Tube) Wand**
***Formit® Fan Spray Spray (Blue Tube) Wand**
***Formit® 180° Spray (Black Tube) Wand**



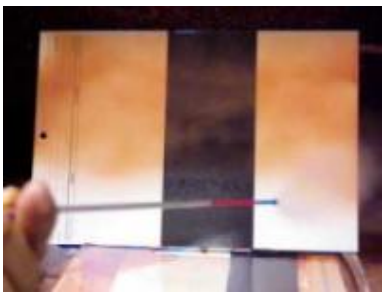
Zip-Chem® Aerosol Trigger Sprayer



***Formit® 360°** Spray Application Video



***Formit® Fan** Spray Application Video



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



ZC-026 comes in bulk containers and can be applied using **airless**, **air assist**, **HVLP**, and any other spray equipment used to apply paint and other coatings.

The application process for **Type II** involves directing **D-5026NS/ZC-026** into the required areas with little to no overapplication of the material involved. If **D-5026NS/ZC-026** is overapplied, then wipe the excess material with a dry rag.

D-5026NS/ZC-026 Instruction Manual

Methods For Applying D-5026NS/ZC-026 (Continued From Page 4):

The application process for **Type III** involves applying **D-5026NS/ZC-026** to avionic connectors. Apply **D-5026NS/ZC-026** to the interior of the connector and allow the excess material to run out of it. Assemble the connector after the excess **D-5026NS/ZC-026** is no longer present there.

ZC-026 is the bulk version of **D-5026NS** and can be applied by spray application equipment that is suitable for use with this product.

Please reach out to a **Zip-Chem®** application expert for tips on how to properly apply **D-5026NS/ZC-026**.

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 **ZC-026** is applied **thin** so **too much pressure** will result in a **dry spray** and texture of **ZC-026** while **too little pressure** will result in a **poor atomization** and **orange peeling** of **ZC-026**.

C.) If you see texture in the spray of **ZC-026**, then increase the **air pressure** of your **HVLP gun**. If you see an **overspray cloud** of **ZC-026**, then decrease the **air pressure** slightly. The proper spray pattern for **ZC-026** should be a **slightly wet pass** with **no flooding or sagging** because **thinly applied products** like **ZC-026** can run very fast.

D.) One pattern that should be used when using the **HVLP gun** to apply **ZC-026** is the **fan pattern** because it uses a **full wide fan spray** which provides better consistency and leveling when applying **ZC-026** 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**.

Airverter HVLP Spray Gun



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.

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 **ZC-026** can be spray applied as a **clean fan** with the width of the spray being shaped like **a fan**.

D-5026NS/ZC-026 Instruction Manual

Methods For Applying D-5026NS/ZC-026 (Continued From Page 5):

2.) Air Assisted Spray Gun Setup (Continued From Page 5)

C.) Slowly increase the **pressure** to the gun until the **fan spray pattern** of **ZC-026** 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 **ZC-026**, then the **pressure** of the **air assisted spray gun** is **too high**. None of these observations should occur because **thin materials** like **ZC-026 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 **ZC-026** at a distance closer than **12"**, then there will be a heavy buildup of **ZC-026**, tiger stripping of material from the surface where the **ZC-026** was applied, and a variation in the gloss of the **ZC-026**.

G.) Consider the passing speed of **ZC-026** because the output of **ZC-026** 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 **ZC-026** should be spray applied as a **smooth continual pass** with a **50% overlap**.

3.) Airless Spray Setup

Airless Spray Equipment



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 **ZC-026** 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 **ZC-026** 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 **ZC-026**, then the **pressure** of the **airless spray gun** is **too high**. None of these observations should occur because thin materials like **ZC-026** atomize very easily.

D.) Set the **pump ratio** of the equipment to a range of 6**0:1 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 **ZC-026** at a distance closer than **12"**, then there will be a heavy buildup of **ZC-026**, tiger stripping of material from the surface where the **ZC-026** was applied, and a variation in the gloss of the **ZC-026**.

D-5026NS/ZC-026 Instruction Manual

Methods For Applying D-5026NS/ZC-026 (Continued From Page 6):

3.) Airless Spray Setup (Continued From Page 6)

G.) Consider the passing speed of **ZC-026** because the output of **ZC-026** 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 **ZC-026** should be spray applied as a **smooth continual pass** with a **50% overlap**.

4.) ZC-026 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 **ZC-026** 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 **ZC-026** 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 **ZC-026**, 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 **ZC-026** 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 **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 **ZC-026** at a distance closer than **12"**, then there will be a heavy buildup of **ZC-026**, tiger stripping of material from the surface where the **ZC-026** was applied, and a variation in the output of **ZC-026**.

G.) Consider the passing speed of **ZC-026** because the output of **ZC-026** 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 **ZC-026** should be spray applied as a **smooth continual pass** with a **50% overlap**.

D-5026NS/ZC-026Instruction Manual

Methods For Applying D-5026NS/ZC-026 (Continued From Page 7):

5.) Electro-Static Spray Gun Setup

Electro-Static Spray Gun



A.) Minimize the flow of **ZC-026** for the required **coating speed** and **film thickness**.

B.) Minimizing the target distance of spraying **ZC-026**.

C.) Ensure that the **ZC-026** 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 **ZC-026**.

E.) Gradually increase in-line **air pressure** so that the spray provides proper **ZC-026** 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 **ZC-026**.

Areas Where D-5026NS/ZC-026 Should Be Applied:

D-5026NS/ZC-026 should be applied on:

*Highly Critical Metal Surfaces
*Avionic Components and Connectors
*All Interior and Exterior Aircraft Surfaces
*Cables
*Electrical Connectors
*Most paints, plastic, and insulation
*Other Components

Removing D-5026NS/ZC-026:

1.) Type II and **III D-5026NS/ZC-026** can be removed with **Sur-Prep® 3160**, **Sur-Prep® 3167**, and **D-5640NS/ZC-640**.

2.) Type III D-5026NS/ZC-026 can be removed with a solvent that is approved to an avionics specification such as **MIL-PRF-29608** or various **OEM** and **AMS specifications**.

D-5026NS/ZC-026 Product Pictures and Zip-Chem® Product Packaging Part Numbers:

D-5026NS/ZC-026

*Case of 12 of 16 fl oz (473 mL) Aerosols **(D-5026NS)-007669**
*Case of 10 each Gallon (4 each of 3.8 Liter) Cans **(ZC-026)-009415**
*5 Gallon (18.9 Liter) Pails **(ZC-026)-002095**
*55 Gallon (208 Liter) Drum **(ZC-026)-002096**
*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 10 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)-108181**
*Specialized forms of packaging available upon request

Zip-Chem® Aerosol Trigger Sprayer

***010040**

Sur-Prep® 3160

*Case of 12 of 16 fl oz (473 mL) Aerosols-**010938**
*Case of 10 each Gallon (4 each of 3.8L) Cans-**008578**
*5 Gallon (18.9 Liter) Pails-**008579**
*55 Gallon (208 Liter) Drum-**008580**
*Case of 6 Canisters of Towelettes-**100026**
*Case of 100 Individual Towelettes-**011844**
*Specialized packaging forms for customers

Sur-Prep® 3167

*Case of 12 of 16 fl oz (473 mL) Aerosols-**103765**
*Case of 10 each Gallon (4 each of 3.8L) Cans-**103762**
*5 Gallon (18.9 Liter) Pails-**103763**
*55 Gallon (208 Liter) Drum-**103764**
*Specialized forms of packaging available upon request

D-5026NS/ZC-026Instruction Manual

D-5026NS/ZC-026 Product Pictures and Zip-Chem® Product Packaging Part Numbers (Continued From Page 8):

D-5600NS/ZC-600
*16 fl oz (473 mL) Aerosol **(D-5600NS)-002063**
*Case of 10 each Gallon (4 each of 3.8 Liter) Cans **(ZC-600)-009428**
*5 Gallon (18.9 Liter) Pail **(ZC-600)-009357**
*55 Gallon (208 Liter) Drum **(ZC-600)-008565**
*Special packaging upon request

ZC-026
*16 fl oz (473 mL) Aerosol-**100474**
*Case of 10 each Gallon (4 each of 3.8 Liter) Cans-**100478**
*5 Gallon (18.9 Liter) Pail-**100481**
*55 Gallon (208 Liter) Drum-**100482**
*Special packaging upon request

Sur-Prep® 5677
*Case of 12 of 16 fl oz (473 mL) Aerosols-**100474**
*Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**100478**
*5 Gallon (18.9 Liter) Pail-**100481**
*55 Gallon (208 Liter) Drum-**100482**
*Special packaging upon request

Sur-Prep® 123
*Case of 12 Aerosols-**102815**
*10 Pound (4536 gram) Cylinder-**102933**
*50 Pound (22680 gram) Cylinder-**102934**
*Special packaging upon request

Sur-Prep® 5680
*Case of 12 of 16 fl oz (473 mL) Aerosols-**106592**
*Case of 10 each Gallon (4 each of 3.8 Liter) Cans-**106593**
*5 Gallon (18.9 Liter) Pail-**106594**
*55 Gallon (208 Liter) Drum-**106595**
*Special packaging upon request

Masking Tape	Cleaning Solvents	Proper Mask	Tin Foil
Protective Eyewear	Spray Equipment	Protective Clothing	
Rag, Cloths, Towels, and Other Proper Wiping Devices			Gloves
Curing Equipment	Ventilation Equipment	Vacuum	

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-100424
*Formit®-48-Fan-008460
*Formit® Sample Pack (3 each of Formit®-18-Fan, Formit®-18-180, Formit®-18-360, Formit®-18-STD-FOG-100107

Lighting Equipment	Spill Containment Vessels and Other Proper Devices For Collecting Spilled Materials and Material Overruns

D-5026NS/ZC-026Instruction Manual

D-5026NS/ZC-026 Product Pictures and Zip-Chem® Product Packaging Part Numbers (Continued From Page 9):



*16 Fluid Ounce (473 mL) Aerosol



*1 Gallon (3.8 Liter) Cans

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

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**)

D-5600NS NSN: 6850-01-628-2147 (16 fl oz (473 mL) Aerosol)

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

Sur-Prep® 123 NSN's: 6830-01-678-3176 (10 lb (4536 gram) Bulk Cylinder)
6850-01-671-8497 (Aerosol)

Sur-Prep® 5677 NSN: 6850-01-684-6911 (16 fl oz (473 mL) Aerosol)

For application questions regarding **D-5026NS/ZC-026**, contact **Zip-Chem® Aviation Products** at **(1) 408 782 2335** or **zipchem@addevmaterials.com**.

ZIP® CHEM Part of & ADDEV MATERIALS