Calla® 301A Lemon Instruction Manual

Safety Steps and Procedures To Follow Prior To Applying Calla® 301A Lemon:

Always refer to the **safety data sheet (SDS)**, **technical data sheet (TDS)**, and **label** prior to applying **Calla® 301A Lemon** if you have any questions about this product.

Always wear gloves, protective clothing, and protective eyewear to prevent **Calla® 301A Lemon** from making contact with the skin and eyes.

Have cloths, rags, and other appropriate wiping devices including spill containment vessels available to address any spills or overruns of the **Calla® 301A Lemon** material that may occur.

Ensure that there is adequate lighting available to see where **Calla® 301A Lemon** is being applied and inspect surfaces prior to applying **Calla® 301A Lemon** for any signs of contamination or rework.

Calla® 301A Lemon Product Information and Benefits:

1.) Calla® 301A Lemon is a a uniquely formulated all-purpose and heavy duty cleaning and degreasing compound that is non-flammable and non-corrosive and contains a biodegradable formulation.

2.) Calla® 301A Lemon efficiently removes grease, oils, carbon, hydraulic fluid, dirt, and many soils that resist other cleaners.

3.) Calla® 301A Lemon is safe on metals, steel, copper, magnesium, aluminum alloys, paint or other paints used on equipment, machines, the wiring on motors or acrylic based plastics, or automobiles when used as directed.

4.) Calla® 301A Lemon rinses easily and leaves no residue or stain even if it completely dries on the surface.

5.) Calla® 301A Lemon contains no irritating vapors, harmful concentrations of phenols, chromates, or chlorinated solvents.

6.) Calla® 301A Lemon has been used to clean many types of aircraft under variable conditions for several years.

Areas Where Calla® 301A Lemon Should Be Applied On:

Calla® 301A Lemon is intended to be used for cleaning aircraft, aircraft components, facilities, equipment, machines, automobiles, motor wiring, and metals.

Procedures For Diluting and Applying Calla® 301A Lemon Exterior Applications):

1.) Exterior Fuselage Tail Sections, Wing Tips, etc*:* Mix **1 part** of **Calla® 301A Lemon** with **3 to 20 parts water**, depending on the amount of soil that exists. Next, apply the mixture by spray or mop and allow it to penetrate for a **few minutes** before mopping or brushing. Thoroughly rinse the mixture with water after these steps are complete. To recover badly oxidized surfaces, use the **1:3 mixture** because it provides high quality results under most conditions. Future washings with highly diluted mixtures will maintain oxide free and shiny surfaces.

2.) Blast Areas, Landing Gear*:* Mix **1 part** of **Calla® 301A Lemon** with **3 parts** of **water**. Next, apply the mixture by spray or mop and allow it to penetrate for a **few minutes** before scrubbing the heavy deposits. If that task is complete, then the mixture can be flood rinsed with water. If a solvent can be used, mix **1 part** of **Calla® 301A Lemon** with **5 parts** of **solvent** and briefly agitate the mixture with air to form the emulsion. Spray or mop the mixture over the entire area and allow it to penetrate for a **few minutes**. Finally, scrub the surfaces well and rinse them with water.

3.) Waterless Cleaning: Dilute **Calla® 301A Lemon**, based on the amount of soil, in an open bucket or barrel, saturate a mop in the **Calla® 301A Lemon** solution, and wring out the excess water. Moreover, the surface must be mopped thoroughly where only small areas of surface can be covered at a time. Lastly, rinse the surface with a clean and damp mop.

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Procedures For Diluting and Applying Calla® 301A Lemon (Interior Applications):

Vinyl Plastics Or Fabrics, Rugs, Toilets: Mix **1 part** of **Calla® 301A Lemon** with **4 to 8 parts** of water for **general use**. Apply the mixture via spray, brush, or cloth and allow time for it to penetrate. Next, agitate the mixture with a brush or a cloth. After the mixture is agitated, wipe it off with a clean and damp cloth. If the mixture has been applied to rugs or carpeting, then the residue must be removed with a vacuum unit.

Procedures For Diluting and Applying Calla® 301A Lemon (Food Service Equipment and Galley Area):

On ovens, apply **Calla® 301A Lemon undiluted** or **diluted 1:1** with **water**. Next, spray or sponge the area that needs to be cleaned and allow it to penetrate for **10 minutes**. Remove the baked-on grease with a scouring pad, rinse with warm water, and wipe thoroughly.

Procedures For Diluting and Applying Calla® 301A Lemon (Ramps and Hangar Housekeeping):

Use **Calla® 301A Lemon** in **1 to 5 parts** of **water** in scrubbers.

Procedures For Diluting and Applying Calla® 301A Lemon (Ground Power Equipment):

Mix **1 part** of **Calla® 301A Lemon** with **3 to 5 parts** of **water**. After that step is complete, apply the mixture by spray or brush and allow it to penetrate for 3 to 5 minutes.

Procedures For Diluting and Applying Calla® 301A Lemon (Aircraft Wheels, Brakes, and Components):

Heated Dip Tank: Dilute the **Calla® 301A Lemon** with **1 to 4 parts** of **water**, depending on the operating temperature of the tank. For wheels, soak the mixture for **30+ minutes**, scrub heavy deposits with wheel brush, and rinse with hot water.

Procedures For Diluting and Applying Calla® 301A Lemon (Cold Dip Tank):

Dilute **Calla® 301A Lemon 1:1** with **water** or **1:4** with **solvent**, agitate the solution, and proceed to the next steps as indicated in the heated dip tank method.

Procedures For Diluting and Applying Calla® 301A Lemon (Oil or Hydraulic Filter Screens):

Use **Calla® 301A Lemon undilluted** and allow **30 minutes** for it to penetrate. Agitate with air if possible and rinse with water.
In an **ultrasonic tank**, use **1 part** of **Calla® 301A Lemon** with **3 parts** of water for best results.

Procedures For Diluting and Applying Calla® 301A Lemon (Steam Cleaning):

Dilute **1 part Calla® 301A Lemon** with **20 parts** of **water** in solution tank. Increase concentration if required by extreme soil condition. **Calla® 301A Lemon** will reduce scale on machine coils. Provide spray wetting and penetrating action so the mixture can rinse freely.

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Spray Applying Calla® 301A Lemon:

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 **Calla® 301A Lemon** is applied thin so too much pressure will result in a dry spray and texture of **Calla® 301A Lemon** while too little pressure will result in a poor atomization and orange peeling of **Calla® 301A Lemon**.

C.) If you see texture in the spray of **Calla® 301A Lemon**, then increase the air pressure of your **HVLP gun**. If you see an **overspray cloud** of **Calla® 301A Lemon**, then decrease the air pressure slightly. The proper spray pattern for **Calla® 301A Lemon** should be a **slightly wet pass** with **no flooding or sagging** because thinly applied products like **Calla® 301A Lemon** can run very fast.

D.) One pattern that should be used when using the **HVLP gun** to apply **Calla® 301A Lemon** is the **fan pattern** because it uses a **full wide fan spray** which provides better consistency and leveling when applying **Calla® 301A Lemon** 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.

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 **Calla® 301A Lemon** 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 **Calla® 301A Lemon** 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 **Calla® 301A Lemon**, then the pressure of the **air assisted spray gun** is too high. None of these observations should occur because thin materials like **Calla® 301A Lemon** 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 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 **Calla® 301A Lemon** at a distance closer than **12"**, then there will be a heavy buildup of **Calla® 301A Lemon**, tiger stripping of material from the surface where the **Calla® 301A Lemon** was applied, and a variation in the appearance of **Calla® 301A Lemon**.

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Spray Applying Calla® 301A Lemon (Continued From Page 3):

Air Assisted Spray Gun Setup (Continued From Page 3)

G.) Consider the passing speed of **Calla® 301A Lemon** because the output of **Calla® 301A Lemon** 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 **Calla® 301A Lemon** 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 **Calla® 301A Lemon** 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 **Calla® 301A Lemon** 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 **Calla® 301A Lemon**, then the pressure of the **airless spray gun** is too high. None of these observations should occur because thin materials like **Calla® 301A Lemon** 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 **Calla® 301A Lemon** at a distance closer than **12"**, then there will be a heavy buildup of **Calla® 301A Lemon**, tiger stripping of material from the surface where the **Calla® 301A Lemon** was applied, and a variation in the gloss of the **Calla® 301A Lemon**.

G.) Consider the passing speed of **Calla® 301A Lemon** because the output of **Calla® 301A Lemon** 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 **Calla® 301A Lemon** should be spray applied as a **smooth continual pass** with a **50% overlap**.

4.) Calla® 301A Lemon 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 **Calla® 301A Lemon** can be spray applied as a **clean fan** with the width of the spray being shaped like **a fan**.

C.) Slowly increase the pressure of the gun until the **fan spray** pattern of **Calla® 301A Lemon** 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 **Calla® 301A Lemon**, then the pressure of the gun is too high. None of these observations should occur because thin materials like **Calla® 301A Lemon** atomize very easily.

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Spray Applying Calla® 301A Lemon (Continued From Page 4):

Calla® 301A Lemon 5 Gallon (18.9 Liter) Cart Sprayer Setup (Continued From Page 4)

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 Sprayers** and other spray methods can vary. A good distance to follow for airless spray guns is about **12" or more**. If you spray apply **Calla® 301A Lemon** at a distance closer than **12"**, then there will be a heavy buildup of **Calla® 301A Lemon**, tiger stripping of material from the surface where the **Calla® 301A Lemon** was applied, and a variation in the gloss of the **Calla® 301A Lemon**.

G.) Consider the passing speed of **Calla® 301A Lemon** because the output of **Calla® 301A Lemon** 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 **Calla® 301A Lemon** should be spray applied as a **smooth continual pass** with a **50% overlap**.

5.) Electro-Static Spray Gun Setup

Electro-Static Spray Gun

A.) Minimize the flow of **Calla® 301A Lemon** for the required coating speed and film thickness.

B.) Minimizing the target distance of spraying **Calla® 301A Lemon**.

C.) Ensure that the **Calla® 301A Lemon** 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 **Calla® 301A Lemon**.

E.) Gradually increase in-line air pressure so that the spray provides proper **Calla® 301A Lemon** 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 **Calla® 301A Lemon**.

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Calla® 301A Lemon Product Pictures and Zip-Chem® Product Packaging Part Numbers:

Calla® 301A Lemon
Ready-To-Use Diluted (4:1 Ratio)
*32 fl oz (946 mL) Ready-For-Use (4:1 Ratio) Spray Bottle-**001991**
Concentrate
***Case of 4 each Gallon (4 each of 6.8 Liter) Bottles-**009443**
*5 Gallon (18.9 Liter) Pail-**001992**
*55 Gallon (208 Liter) Drum-**001993**
*330 Gallon (1249 Liter) Tote-**001994**

Gloves
Protective Eyewear
Solvents
Spraying Equipment
Mops
Brushing Equipment
Rinsing Equipment
Scrubbing Equipment) Aerosol

Tanks
Barrel
Bucket
Lighting Equipment
Spill Containment Vessels
Scouring Pad
Scrubbing Equipment
Penetrating Equipment

Diluting Equipment	Agitation Equipment	Sponge, Cloth, Rags, and Other Approved Wiping and Scrubbing Devices

← 1 Gallon (3.8 Liter) Bottle

For application questions regarding **Calla® 301A Lemon**, contact **Zip-Chem® Aviation Products** at **(1) 408 782 2335** or **zipchem@addevmaterials.com**.

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