



Document Number	Electrostatic Spraying SOP, D.34.01
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Related Policies and Procedures	

1. Purpose/Introduction

The purpose of this procedure is to provide a basic outline for the safe operation of an electrostatic spraying device.

2. Definitions

- Electrostatic spraying is the process of dispersing water-based chemicals with a positive static charge to coat all types of surfaces evenly and consistently for a more thorough application.
- Water based chemicals can include disinfectant, sanitizers, and mold preventatives.
- Surfaces can be defined as any objects that carry a negative static charge.
- Dwell time is the EPA recommended waiting period for the specific chemical to achieve its optimal results. The dwell time for each chemical can be found on the Safety Data Sheet.

3. Procedural Steps

- 3.1 Identify and review the Safety Data Sheet for desired chemical. Identify the following items:
 - a. Health Hazards
 - b. Protective Measures and Safety Precautions
 - c. Recommended Use
 - d. First-Aid Measures
 - e. Personal Protection Requirements
- 3.2 Acquire proper personal protective equipment (PPE) as outlined in the above Safety Data Sheet. The chemical in use will provide the necessary information as it relates to the correct personal protective equipment. PPE should always include safety glasses, gloves, and masks regardless of the chemical.
- 3.3 Electrostatic application is only done with water-based chemicals, because oil-based chemicals can clog the inner tube of the sprayer causing damage to the sprayer. For standardization, Buckeye Ecosystem chemical disinfectant 23 is the recommended chemical for disinfection at UNCG.
- 3.4 The electrostatic sprayer may interfere with sensitive medical devices such as pacemakers, defibrillators, or similar devices. DO NOT operate this machine or stand within 10 feet if you use

such medical devices. Contact your physician prior to operation if you are unsure if this machine will interfere with your medical device.

- 3.5 Do not insert anything into the nozzle of the sprayer. Doing so can result in electrical shock.
- 3.6 Do not directly spray electronics including computer monitors, phones, or paperwork on desks. Although product is still a fine mist, it can cause damage if sprayed directly on to these items.
- 3.7 While filling and inserting the reservoir tank, always make sure the safety for the trigger is engaged and the battery is not in the electrostatic sprayer.
- 3.8 Once sprayer is filled, place battery in gun and engage the electrostatic switch to on. Place the micron setting to the desired setting by inserting the nozzle wrench and turn ¼ turn counterclockwise to 40 micron (3.1 oz per min.), 80 micron (3.8 oz per min), or 110 micron (10.5 oz per min.). For normal usage with a ten-minute dwell time, 80 micron (3.8 oz per min.) is recommended.
- 3.9 While spraying, keep sprayer at a minimum of 24” inches away from the desired object. Always keep the sprayer nozzle horizontal to avoid spillage from the tip of the sprayer.
- 3.10 Apply chemical by starting at the farthest point away from the exit and work back toward the exit.
- 3.11 Evenly coat desired areas so that they are wet to the touch. Areas should not puddle or become saturated in nature.
- 3.12 Sprayed areas should be allowed to air dry to fully engage the dwell times. Dry times vary based on micron settings, air flow, and humidity. Typically, dry times can be between 10 to 20 minutes.
- 3.13 Once application is completed, reengage the trigger safety, remove battery and reservoir, and thoroughly rinse reservoir. Also fill reservoir with a small amount of water to help flush the sprayer of remaining chemical.
- 3.14 If spray nozzle becomes clogged or is not operating correctly, take nozzle off gun using the nozzle wrench, rotating clockwise. Spray nozzle can be soaked in hot water and sprayed out using a low pressurized air supply.

4. Forms, Tools, Etc.

- 4.1. Product Manual <https://victorycomplete.com/wp-content/uploads/2018/04/Victory-VP200-Handheld-Safety-Instructions.pdf>
- 4.2 Frequently Asked Questions: <https://victorycomplete.com/faq/>

5. Revision Table

Revision #	Section #	Summary of Changes	Approval Date