Electrostatic Discharge (ESD)

What is ESD and how does it occur?

When we apply a positive electrostatic charge to a chemical solution, the opposite negative charges will typically be conducted to ground through the operator via the grounding strip in the handle. If the environment being disinfected is not conducive to natural electrostatic charge dissipation — for example, if there is an ample amount of insulative material in the area or on the user, such as rubber, or there is very little humidity in the air — ESD events may occur.

What is an ESD event?

ESD events may feel like a mild static shocking sensation for the operator. If you do experience ESD, do not be alarmed. It is a low-risk shock, similar in magnitude and nature to when you touch a doorknob after dragging your feet across carpet.

How do I keep ESD events from happening?

1. Ensure sprayer is fully dry on the outside by wiping off any moisture that may have spilled during filling of the unit
2. Ensure operator's hands are fully dry while spraying and sprayer-operating hand maintains constant contact with grounding strip
3. Avoid walking into spray
4. Dissipate the electrostatic charge by making contact with a static-dissipative object that is not being sprayed — see "how to dissipate electrostatic charge" below
5. If you are still experiencing ESD, utilize an ESD heel grounding strap — ensure conductive ribbon is tucked into operator's shoe to create a grounding path for charge to travel from operator to ground

How do I dissipate electrostatic charge?

To dissipate negative charge buildup, the user should make contact with a static-dissipative object (e.g., doorknobs and most metal objects) that is not being sprayed. Dissipation should be done using the operator's gloved hand.

When contact is made, the negative charge will dissipate from the operator and into the object. This will not damage the object, and protects the user from experiencing ESD by providing a grounding point.

How often should I dissipate electrostatic charge?

Dissipation frequency will depend largely on the environment in which the operator is working. If the environment is humid and relatively free of insulative materials, dissipation will rarely need to be done. If the environment is quite dry and filled with insulative materials, like rubber mats, the operator should dissipate charge every few minutes.