

# Technical Bulletin

## Mosquito Misting Systems

Control Solutions, Inc. Best Management Practices for Mosquito Misting System Chemicals

### Insecticide Formulations

Most of the insecticides approved for use in mosquito misting systems fall into 2 classes. Emulsifiable Concentrates (EC) and Micro-Emulsions (ME):

- EC's are concentrated oil solutions of the technical grade material with enough emulsifier added to make the concentrate mix readily with water. When an EC is added to water, the liquid disperses immediately and uniformly throughout the water. Little agitation is needed to keep EC's evenly dispersed in solution. Stryker 6-60, VectorBan, VectorBan Plus, Mosquito Mist Ultra, Pystol, EcoVia EC, Bug Armor are examples of Emulsifiable Concentrates.
- ME's are fully solvent free, and utilize a blend of surfactants to facilitate the active ingredient being uniformly dispersed into a water based formulation. The surfactant systems adopted in these formulations are balanced to match exactly the physical-chemical properties of the individual active ingredient or blend of active ingredients. These formulations are typically lower in odor, but require some agitation and have a higher price point. Stryker 5-25, Riptide, and Sector are examples of Micro-Emulsions. If there is any diluted product left in the drum, regardless of formulation, you may notice some curdling. This will emulsify in a short period of time, approximately 5 minutes. Then you are good to start the operation.

### Drum Misting Systems

Always try and start with a clean drum for the spring start up; thoroughly rinsing the tank and flushing the lines with clean water helps prevent clogged nozzles and pressure drop. When filling the tank, always fill the drum  $\frac{1}{2}$  full with water, then add the appropriate amount of chemical, and top off with water.

Emulsifiable Concentrates require less agitation at time of mixing; Micro-Emulsions require more mixing at time of filling; Both formulations should stay mixed for extended periods in the drum. Always have a copy of the label present on the drum or in the lid.

### Tankless Misting Systems

Always flush the lines thoroughly in spring start up. When changing insecticides, compatibility can be an issue in the concentrate form. Completely flush mixing lines and reservoirs, and anywhere there is insecticide in the concentrate form. EC's and Micro-emulsions are not compatible in the concentrate form. Never follow up a formulation with a different / new formulation without flushing the system with clean water. Always stick a copy of the label in the tankless misting system.

Contact your distributor representative or Control Solutions Inc./ Adama territory manager with any further questions.

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