GOOD PRACTICE GUIDE

ULTRA-LOW VOLUME (ULV) COLD FOGGER MISTING

Electric misters (or sometimes referred to as Ultra Low Volume (ULV) cold fogging) are a piece of machinery that is generally used within the Urban Pest Industry to disperse insecticide (indoors), as a means of treatment for the management of insects, via using high volumes of air at low pressure to produce aerosol droplets of a fairly precise size to treat a space or a surface area.

Most ULV devices work on electricity, so there must be an electric outlet near the treatment area, or an extension cord with a residual current device (RCD) must be used to operate the mister unit.

A lot of various models of device on the market have been of a hand held variety, used by an operator with electric extension cords so they can move around a larger area (such as through a house) to carry out a treatment. In more recent times there has been new technology introduced, where the devices are battery powdered, and can be operated from carrying a device on an operators back, making the use of electric cords obsolete and unnecessary.

Regardless, if the device being used is either electrically assisted, or battery powdered, the device sees the energy source used to power an electric motor, which in turn allows the device to pressurise and disperse the insecticide formulation (held in the devices chemical reservoir) being changed into small droplet sizes which are dispersed through the nozzle aperture. This allows the operator using the variable control capability to select the desired flow rate and droplet size for different conditions that suit the situation of treatment.

1. COMMUNICATION WITH CLIENT

• Inform your client of the pre-treatment site preparation required by them, before the misting treatment can commence (usually done ahead of treatment day)
  Note: If the Customer has not done the correct pre-treatment preparations, then these requirements must be completed before you commence any treatment.

• Explain the treatment that you will be undertaking with the client, along with any pre/post treatment requirements they may have to carry out.

• Ensure clients are informed of the designated re-entry period, and any other post treatment requirements or recommendations.
2. PRE-SURVEY AND INSPECTION OF THE SITE/AREA BEFORE TREATMENT.

- Plan your treatment path that you will take during treatment, and ensure it is clear of obstructions and hazards that could cause you injury or slip/ trip hazards.

- Ensure that you undertake a full risk assessment of potential hazards, and ensure that you adequately manage all identified hazards.

- Erect non-entry signs with re-entry time on all possible entry points into the treatment area.

- Ensure no people or animals are present in the treatment location (do not forget fish tanks).

- All Pet food and water bowls are empty and stored away.

- Kitchen Items such as food utensils, pans, dishes, tea towels, etc. are put away.

- All food preparation surfaces are covered prior to treatment with appropriate drop sheets.

- Bathroom personal items such as toothbrushes, flannels, soaps towels, shampoos, Make up etc. are stored away, or covered adequately.

- Bedroom items such as pillows, dressing tables, side tables, and other (as appropriate) are covered or stored away.

- Children’s Toys and books are stored away ,or adequately covered.

- All electrical devices are removed or covered - These include (but not limited to) TVs, remotes, computers and monitors, and other as applicable.

- Lounges, chairs and any other seating is adequately covered.

- Note any sources of naked flames, sparks or heat (particularly important when using flammable solvent based solutions) should be turned off – this includes gas pilot lights.

- Note operating ventilation ducts that cannot be switched off – and assess the risk and management of same prior to treatment including assessing if there is any air movement in treatment area.

- Note areas where the applied product could inadvertently enter into non-treatment areas – through risk assessment and management of same.

- Issue customer instruction on any required ventilation requirements that they may have to perform after the retreatment, e.g. 20-30 minutes maybe required to vent through opening doors and windows. (Note: depending on droplet size, droplets could remain suspended in the air for 6-8 hours if there is no airflow or ventilation post treatment).
WORK INSTRUCTION – OPERATING A ULV MISTER

3. PRE-TREATMENT SAFETY CHECK
(By inspecting the following for signs of damage or excessive wear)

I. Your Personal Protective equipment
   - Always ensure you wear the appropriate and correct Recommended Personal Protective Equipment (PPE)
   - Ensure that PPE is suitable and rated for pesticide use.
   - Always consult the product Label and safety data sheet when selecting appropriate PPE.

II. Equipment (check your equipment is in good and safe working order)
   - ULV nozzle tip is in good order and not damaged
   - Solution tank cap and seal is in good order and not damaged
   - Electrical Cord and plug is appropriate, and in good order and not damaged
   - If required repair any and all defects with correct parts (If unable to be repaired, label equipment as defective and do not use until fully repaired).
   - Check that the spray nozzle is clean before commencing preparation of the spray solution.

III. Complete the following steps to fill the container with treatment solution.
   - Ensure that the correct PPE is selected, and worn in accordance with insecticide label directions
   - Calculate the amount of insecticide solution needed to complete the treatment, by following all label instructions
   - Follow label directions in mixing insecticide product for application.
   - Mix and pour insecticide solution/product to the tank in a safe location.
   - Calibrate the equipment to ensure product label application rates are achieved.
4. **UNDERTAKING TREATMENT**

I. **Directions mister operation:**

- Replace solution tank cap and tighten until sealed
- Agitate by rotating the unit horizontally (do not invert)
- Connect to an electrical supply but ensure that the unit is only used with an approved RCD device (if using electricity as an energy source).
- Uncoil all electrical leads during use (Beware of trip hazard during treatment).

II. **Start the ULV unit by following the steps below.**

- Ensure flow control knob is turned off
- Start the unit when in the correct position not facing into yourself or wall etc.
- Ensure air intake is clear throughout the operation so that no debris can be sucked into the equipment (e.g. insulation, wood shavings, etc.)
- Adjust the flow control knob to desired volume
- Ensure excessive ULV mist is not being drawn into air intake during operation

III. **Apply the treatment using the steps below.**

- Follow the pre-planned pathway throughout the treatment
- Work methodically around the treatment areas ensuring all target surfaces are treated i.e. Ceiling and walls around windows and doors
- Avoid treatment any near electrical units when using water based solutions, even when they are covered.
- Do not use misting devices near operating ventilation ducts or where applied product can enter no treatment Areas – be aware of any air movement when undertaking your risk assessment.
5. CLOSE DOWN PROCEDURE

- When the treatment you have applied meets label direction, close off the Flow Control Knob.

- Switch the unit off at the appliance and at the wall outlet.

- Sluice the solution tank with clean water and as good practice with an approved tank cleaning solution. Run the mister until solution comes through the hose to ensure that you are cleaning all parts of the Mister, before securely storing the device in vehicle.

IMPORTANT: Issue customer instruction on any required re-entry and ventilation requirements that they may have to perform after the retreatment, e.g. 20-30 minutes maybe required to vent through opening doors and windows. (Note: depending on droplet size, droplets could remain suspended in the air for 6-8 hours if there is no airflow or ventilation post treatment).