



MasterLine®

POLYMER TRANSPORT SYSTEM

Non Ionic Wetter
Spreader Surfactant with
Moisture Redistribution

General Directions for Mixing Polymer Transfer System

Polymer Transport System is designed to enhance the efficacy and endurance of pesticides and liquid and foliar fertilizers. MPTS may not be appropriate if a particular chemicals' label precludes its use with polymers. MPTS has been shown to be compatible with most liquid herbicides, insecticides, fungicides, plant growth regulators and fertilizers.

DIRECTIONS FOR TANK MIX: (Please see label for detailed instructions)

- Recommended dilution ratio is 1:500. This is the maximum dilution ratio, depending on the active ingredient and the purpose of the application. Lower or in some cases higher dilution ratios have been successful. Please consult with your local Vesperis representative for customized applications.
- One liter/gallon of MPTS will make approximately 500 liters/500 gallons of usable spray solution.

Tank Size	1 Gal Tanks	2.5 - 4 Gal Backpacks	10 Gal Tank	25 Gal Tank
Ounces Per Tank	0.5	1	4	8

Step 1. Fill tank with $\frac{1}{4}$ to $\frac{1}{2}$ of the finished spray volume with water prior to adding MPTS.

Step 2. Add the required amount of MPTS while maintaining vigorous agitation. It is important that the MPTS be the first product added to the spray solution.

Step 3. Agitate until MPTS is thoroughly in solution. MPTS Concentrate in solution will appear thick and somewhat opaque to nearly clear. *(Note: The appearance of small white particles may indicate the presence of hard water conditions, which may necessitate the use of a water softener.)*

Step 4. Once MPTS is in solution, add the additional components of the tank-mix. Add desired products per their directions, while continuing vigorous agitation.

Step 5. Finish filling the tank.

Step 6. The MPTS solution is now ready for application.

As with any tank mixture, maintaining agitation will improve the performance characteristics of the application materials.



ADDITIONAL NOTES:

- MPTS has strong adhesion properties, and many users report being able to successfully use the lower label rate of pesticides. Due to its affinity for water and the resulting improved absorption, we recommend evaluating lower rates of foliar fertilizers.
- MPTS concentrate will remain in solution for an indefinite period of time. The added active ingredients may eventually settle and require more agitation if the application is interrupted and delayed for hours or overnight.
- Clean up of equipment is accomplished by normal rinsing procedures. Flushing with water is all that is required.
- It is recommended that any application utilizing MPTS concentrate be given time to dry in order to become rain-fast, generally this occurs within 1 hour.

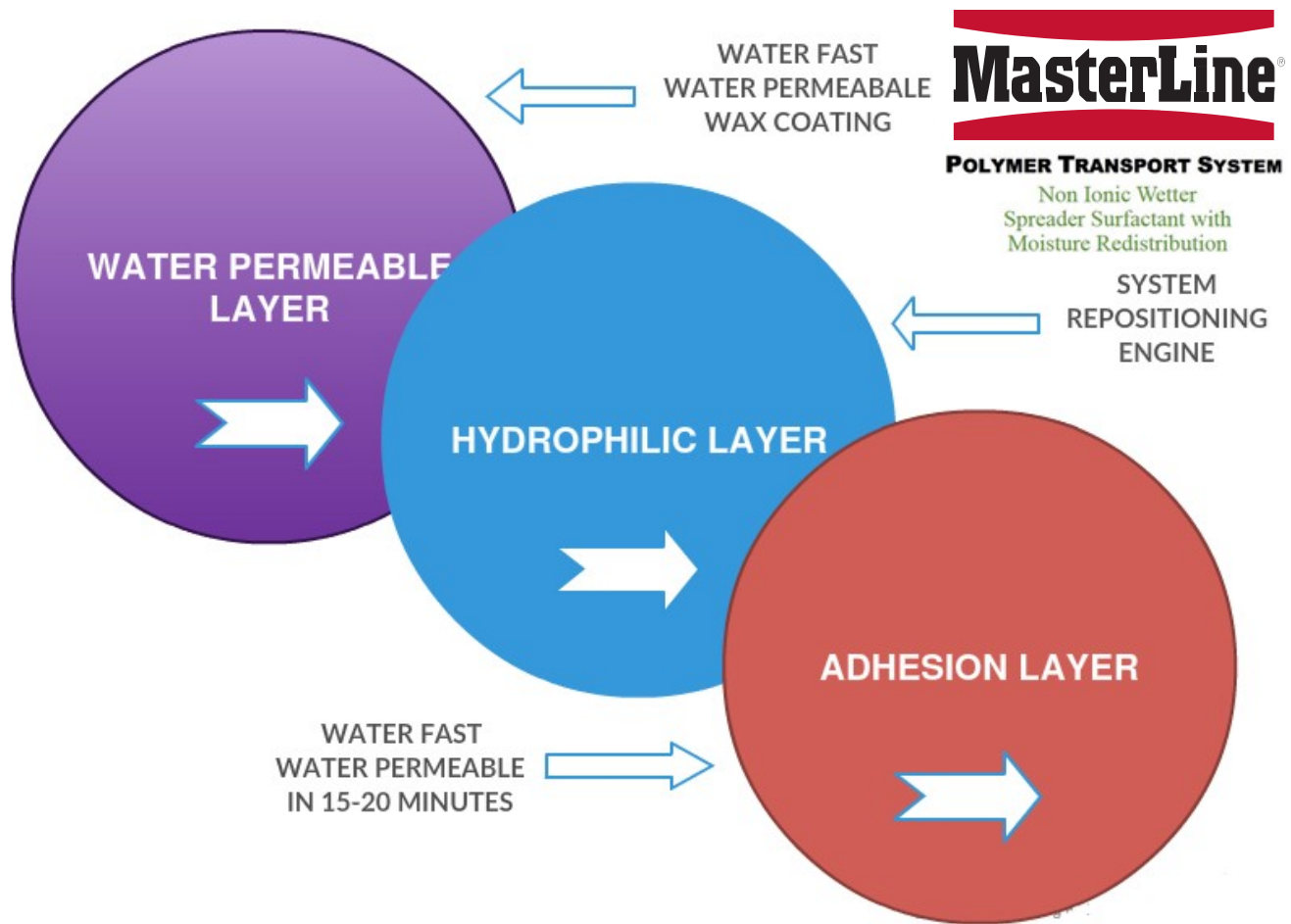
Advantages of Masterline Polymer Transport System vs. Competitive Adjuvants

Unlike traditional adjuvants for pest control, lawn care, and agricultural insecticides, MPTS has “moisture intelligence”, a viscoelastic and anti-Transpirant qualities allow the following:

- MPTS will migrate and redistribute the active ingredients in the presence of moisture; humidity, dew, fog, and rain
- MPTS rearranges on the leaf to maintain coverage as the leaf grows
- MPTS encapsulates chemicals in micelles to keep it on the leaf
- MPTS allows slow release of insecticides to provide longer term effectiveness
- MPTS has adhesive properties and insures a more thorough target coverage of all host formulations
- MPTS remains on the leaf longer in the presence of moisture (rain-fastness) reducing run off into the environment
- MPTS exhibits both hydrophilic and hydrophobic properties in a controlled ratio
- MPTS allows for the use of low label rates and extended intervals between applications
- MPTS superior adhesion sticks to the plant longer than oil or competitive stickers
- MPTS will inherently provide minimal insulation to help resist burning and freezing
- MPTS enhances the performance of glyphosate by delaying the formation of crystals after drying
- MPTS has enhanced residual persistence of essential plant oil (organic) insecticides.

MPTS is setting a new standard as multi-purpose adjuvant. Instead of using full rates of multiple adjuvants in a single spray mix MPTS can be relied on to add value because it reduces the amount of spreaders, wetting agents, drift retardants and penetrants required.

By utilizing MPTS with all insecticide applications you can obtain a more thorough coverage. Both curative and preventative insecticide applications can be enhanced with MPTS. MPTS is compatible with all chemicals including herbicides, insecticides, fungicides, plant growth regulators and foliar fertilizers.



Layer One

The outer layer, directional “one way in, one way out” water permeable coating, first captures and then delivers water to the “secondary” moisture-absorbing layer. Once allowed to dry on the plant, a process that takes approx. 15 minutes, this layer encapsulates the plant with a protective polymer coating that serves to protect the plant from losing water to the environment. It also protects the chemical from being degraded by the elements & sun

Layer Two

Water filtered to the secondary moisture-absorbing layer, energizes the redistribution of the applied chemical. The ph balancing properties of the hydrophilic “second layer” allows this layer to thicken, permitting more water to draw into itself. When Polymer Taxi is inoculated with a chemical, the constant rehydration of the secondary hydrophilic layer continually moves the chemical around within the protective “first layer” coating, insuring complete coverage of the targeted surface. It is this moisture intelligent, ph balanced feature of MPTS that enables this system to deliver extraordinary reductions in both volume and applied frequency of chemical.

Layer Three

Again, a water-fast, but water permeable coating. The elastic property of this layer enables the applied substance to migrate and stretch slowly with surface expansion, such as plant growth, without interfering with the photosynthesis process. It is this layer that allows Polymer taxi to take the place of stickers, spreaders, drift retardants, wetting agents and penetrant.