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- \* Active Ingredient: 96% di-1-p-Menthene 4% Inert Ingredients
- \* The active ingredient in this product is Pinolene<sup>®</sup>, a terpenic polymer. This product is non-ionic.

### **GENERAL INFORMATION**

VAPOR GARD is a water emulsifiable organic concentrate for use on plants to reduce water transpiration. The soft, flexible film formed after the spray application dries will significantly reduce moisture loss from plant foliage.

All anti-transpirant spray applications must be applied for full coverage or used as a dip. No additional spreader is needed with VAPOR GARD. Apply VAPOR GARD at least 1 hour, during daylight, before an anticipated rain. Sunlight for this time period is needed for the protective film to set.

VAPOR GARD dries on plants to form a clear, glossy film that retards normal moisture loss without interfering with plant growth or normal respiration. VAPOR GARD beautifies plants by polishing leaf surfaces.

### **DIRECTIONS FOR USE**

VAPOR GARD can be used on all growing plants including: Trees (Deciduous & Coniferous); Evergreens, Christmas Trees, Shrubs, Turf, Roses, Flowering Plants, Vegetables, Tobacco, and Fruit & Nut Trees. Apply VAPOR GARD alone.

CAUTION: Do not apply in spray tank combination with any pesticide on any crop.

## **EVERGREENS:** (Winter Protection)

Broadleaf & Needled Evergreens: such as Azalea, American Holly, Pines, Rhododendron, and Yews. Spray at the rate of 1 part VAPOR GARD per 20 parts water to reduce winter damage caused by desiccation. One fall application lasts through the entire winter. The clear, glossy VAPOR GARD film will not crack or peel off of the foliage.

VAPOR GARD does not alter the varietal temperature adaptation of the plant.

VAPOR GARD will not enable a warm season variety of plant to survive the winter in a cold area

CAUTION: Do not use this product on any variety of Arborvitae, Cedar, Cypress, Chamaecyparis, Juniper, Sequoia, Dwarf Conifer, or any other similar plant species.

CAUTION: Do not use for winter protection where temperatures drop below -30 °C. Most winter damage that occurs below -30 °C is not from desiccation, but due to internal ice crystal formation, which causes cell destruction. The use of any antitranspirant (which holds moisture in the plant) may increase the problem of ice crystallization below -30 °C. Extra moisture held within the plant keeps the cell solution too dilute and a dilute cell solution is subject to ice crystal formation under very cold temperatures. Many plant species are affected by this phenomenon. Certain plants may demonstrate a high degree of susceptibility at temperatures above those noted. Before using VAPOR GARD on a large numbers of plants, test it under your conditions on a limited number of plants. Due to varietal and environmental variation, results may differ from year to year.

CAUTION: VAPOR GARD will turn blue evergreen species (such as Blue Spruce) green on application. The blue appearance will return with a new season's growth.

## **EVERGREENS & OTHER PLANTS**

# (Transplanting and other uses):

Flowers, Turf, Vegetables (such as tomatoes, peppers, melons, cucurbits, celery, cabbage, lettuce, etc.), Tobacco, Fruit Transplants, Flowering Plants, Evergreen & Deciduous Trees & Shrubs: Spray or dip plants using VAPOR GARD at the rate of 1 part VAPOR GARD per 40-50 parts water before transplanting to reduce transplant shock. Use on established plants during the growing season to reduce summer scald. Good spray coverage can usually be achieved on low growing plants, such as vegetable transplants, with 470 litres spray solution per hectare. Be certain the bottoms as well as the tops of leaves are covered by the solution.

VAPOR GARD can be applied to cut Christmas Trees to slow the drying process, which also reduces the potential fire hazard.

VAPOR GARD applications can be used to reduce damage from smog, air pollutants, or salt mist from wind blown salt water.

CAUTION: Do not dip plant roots. For dip applications, maintain agitation during the entire dipping period. Do not dip plant roots.

### **POME FRUITS (Such as Apples and Pears):**

To improve size and colour in some varieties, or to reduce preharvest fruit drop, sunburn and Stayman cracking, apply VAPOR GARD at the rate of 9.4 L / ha in enough water for good coverage (1000 L to 4000 L / ha). To reduce Golden Delicous Leaf Blotch (Scorch), use VAPOR GARD at rates noted above in conjunction with applicable fungicide programs, but not in spray tank combinations with any fungicides. VAPOR GARD reduces this problem through moisture conservation, not fungicidal action. Make applications before cracking or sunburning conditions occur. For other uses, make an application about 4-6 weeks before harvest.

Do not apply with any pesticide.

STONE FRUIT (Such as Peaches, Nectarines, Apricots, etc.): To improve colour, size, and flavour, apply VAPOR GARD at the rate of 9.4 L /ha, 2-3 weeks before harvest. The application should be made with enough water for good coverage (approximately 1800 L /ha). The application may hasten maturity by approximately 1-3 days. Do not use in spray tank combination with any pesticide.

<u>CHERRIES:</u> To improve colour, size, and to reduce splitting, apply 9.4 L /ha of VAPOR GARD in adequate water for good coverage, 3-4 weeks before harvest. In most cases, 1800 L of water per hectare should be adequate, however on larger trees more water may be necessary. Flavour may be improved on some sweet cherry varieties.

Do not use in spray tank combination with any pesticide.

**GRAPES:** To improve size, colour, flavour, and storage life through moisture conservation, apply 9.4 L / ha of VAPOR GARD in adequate water for good coverage (1000 to 3000 L /ha). Applications should be applied just prior to bunch closure. **CAUTION:** Some adverse colour change has been noted on girdled Thompson Seedless, which could affect fresh market acceptability. Before using wide scale applications, check the application on a few vines under your conditions.

Do not apply with any pesticide.

**ASPARAGAS:** To reduce moisture loss, apply VAPOR GARD at the rate of 9.4 L / ha in adequate water for good coverage.

ROOT CROPS (Such as Potatoes, Beets, & Rutabagas): To improve yield of most varieties, apply VAPOR GARD at a rate of 9.4 L / ha in adequate water for coverage, approximately 1000 L / ha. Timing for this application on potatoes varies somewhat; but, the most optimum timing is approximately full bloom to two weeks post bloom, or just before row closure. Applications made at anytime during the bloom period may be helpful. Application on beets should be made midway through the growing season, usually when 60% or more of the foliage is present. Do not apply with any pesticide.

**VEGETABLE CROPS (Tomatoes, peppers, Melons and other cucurbits, beans and other vegetables):** To help increase fruit size, apply VAPOR GARD at a rate of 9.4 L / ha in a full coverage spray. This application should be made early in the fruiting season. Other benefits may be obtained on certain cultivars, such as improved colour on Tomatoes and improved flavour in Melons. **Do not apply with any pesticide.** 

**ROW CROPS:** To relieve drought stress or to reduce irrigation, apply VAPOR GARD at a rate of 9.4 L / ha in adequate water for full coverage. Apply when 60 % or more of the foliage is present.

WATER SAVINGS TOOL (All Crops): partially relieve drought stress and to reduce irrigation, apply VAPOR GARD at a rate of 9.4 L / ha to 19 L / ha in adequate water for full coverage. At least 60% or more of the season's foliage should be in place if only one application is to be made. Early season applications are beneficial; however, new growth dilutes the effect of the application, causing the need for additional applications spaced at 4 to 8 week intervals. Due to substantial differences in crops, season and growing areas, local application of this management tool is needed. In general water needs of the crop can be reduced by 10 to 30 % with a properly adapted VAPOR GARD program.

COLD DESICCATION (All Crops): Plant damage frequently occurs during the growing season when cold weather is experienced in crop areas. Damage occurs due to cold desiccation and freezing temperatures. VAPOR GARD will reduce the effects of cold desiccation, but will not prevent damage from freezing temperatures. To reduce the effects of cold desiccation, apply VAPOR GARD at a rate of 9.4 L / ha to 19 L / ha in a full coverage spray, at least a few hours before cold weather arrives, while there is still adequate sunlight to set the film.

#### MIXING DIRECTIONS:

Fill the spray tank half full with water. Add desired amount of VAPOR GARD at the half full point while the tank continues to fill. Maintain continuous agitation while the tank is filling. To ensure good emulsification of this product it is advisable to premix VAPOR GARD with water before adding to the spray tank.

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### **CLEANING DIRECTIONS:**

Rinse tank, lines and nozzles with water immediately after spraying. After rinsing there may still be a small amount of sticky residue in the tank. This will help prevent rusting and corrosion. It will not clog nozzles when sprayer is next used. Do not apply to non-target surfaces. If spray happens to land on undesired surfaces, such as windows, cars, application equipment or others, it can be removed with soap and water before the spray deposit is dry or with premium grade or white kerosene after the film has dried or set. To remove dried deposits from painted car surfaces, use a standard tar remover product designed for use on painted car finishes. Spray that lands on porous surfaces such as wooden surfaces, stone, brick, or other surfaces that cannot be practically cleaned as above, may result in an extended or permanent alteration of appearance. Do not spray plant materials located in a manner that makes it difficult to spray the target without also spraying the background surface. Apply VAPOR GARD only to recommended plant materials.

VAPOR GARD will not freeze, foam or clog nozzles when used in accordance with this label. Promptly rinse the spray tank and lines with clean water when application is complete.

Use this product in accordance with good agronomic practices, which include utilizing proven spray equipment for proper coverage. Do not make applications when temperatures are too hot. Applications should be made at temperature levels and /or during environmental conditions that in your experience are compatible with crop tolerance and favourable for desired results.

The use of this material being beyond our control and involving other elements of risk to human beings, animals and vegetation, we do not make any warranty, express or implied, as to the effects of such use, when this product is not used in accordance with the directions stated on this label.