TRANSFILM®
ANTI-TRANSPIRANT

AN EMULSION OF POLYETHYLENES – POLYTERPENES

Principal Ingredients:	
Polymeric terpenes	8.18%
Oxidized polyethylene	9.12%
Inerts	82.70%
TOTAL	100.00%

STOP! READ THE ENTIRE LABEL FIRST.

GENERAL INFORMATION

TRANSFILM® is an improved anti-transpirant that effectively reduces the water loss of plants. Coating the leaves with a thin film of TRANSFILM can provide a water-impermeable barrier that reduces the water loss from transpiration. TRANSFILM will coat the leaf surface with a clear, glossy film that remains durable and stable.

TRANSFILM is a mixture of polyethylenes and polyterpenes and forms an emulsion with water. TRANSFILM combines the features of a uniform film coverage on the leaves with the ease of use. Applications of TRANSFILM can complement sound water management practices and can improve the establishment and survival of plants exposed to extreme or adverse conditions.

Landscape contractors, retail garden centers, wholesalers, and municipalities have applied TRANSFILM to deciduous trees, conifers, container stock, and bedding plants. Anti-transpirants such as TRANSFILM are applied to leaf surfaces to relieve the plant from water stress during storage, shipping, and establishment. For example, bare-root and burlap transplants may suffer transplant shock because the water absorption rate of the roots cannot match the transpiration rate. Foliar applications of TRANSFILM before transplanting help the transplant when the root system cannot compensate for the amount of water loss by transpiration. So, the benefits of TRANSFILM are that transplant shock can be decreased, plant losses can be minimized, and the transplant season can be extended.

TRANSFILM may decrease the blue color of plants with blue-green leaves or needles such as Colorado Blue Spruce and Blue Rug Juniper. Once the blue color has been reduced, it will not return to leaves and needles which were treated. The color of leaves and needles which emerge after treatment will not be affected. Treated plants are not otherwise harmed.

MIXING INSTRUCTIONS AND CLEAN-UP

SPRAY PREPARATION:

Check the spray tank and the equipment for cleanness before preparing the spray solution. TRANSFILM should be mixed with water. Do not combine pesticides with TRANSFILM except when the labeling of the pesticide permits a tank mixture.

Fill the spray tank with ½ to ¾ of the required amount of water and begin agitation. Add the required amount of TRANSFILM, and add the balance of water. Maintain agitation during mixing and spraying to ensure a uniform emulsion. Refer to Table 1 for quick-mix instructions.

Cleaning the spray equipment: Immediately clean the spray equipment with a soap solution according to the following instructions. Prepare a soap solution by mixing one (1) cup of detergent with two (2) gallons of water.

MIXING CHART

Table 1. Quick-mix instructions for preparing 1 to 100 gallons of spray solution at 2.5 to 10% concentrations (v/v) with water for foliar applications.

Spray Solutions, Gallons	Amount of TRANSFILM required for:		
	2.5%	5.0%	10.0%
1	3 fl. oz.	6 fl. oz.	12 fl. oz.
2.5	8 fl. oz.	16 fl. oz.	32 fl. oz.
5	1 pint	2 pints	4 pints
10	1 quart	2 quarts	4 quarts
15	0.38 gallon	0.75 gallon	1.5 gallons
20	0.50 gallon	1.0 gallon	2.0 gallons
50	1.25 gallons	2.5 gallons	5.0 gallons
100	2.5 gallons	5.0 gallons	10.0 gallons
Equal Measures: 1.0 gallon = 4 quarts = 8 pints = 128 fl. oz.			

Equal Concentrations (v/v):
2.5% = one (1) gallon of TRANSFILM mixed with 40 gallons of water.
5.0% = one (1) gallon of TRANSFILM mixed with 20 gallons of water.
10.0% = one (1) gallon of TRANSFILM mixed with 10 gallons of water

For hand operated sprayers (backpack, knapsack, compression, or plunger sprayers): Rinse spray tank with water. Then, add soap solution and flush hoses, spray gun, nozzles, and strainers. Do not allow the spray solution of TRANSFILM to dry in the sprayer.

For engine driven pumps (piston, diaphragm, centrifugal, roller, and gear pumps): Rinse with water. Then add soap solution and flush the tank, hoses, lines, nozzles, strainers, and pumps. Do not allow the spray solution of TRANSFILM to dry in the sprayer.

To clean surfaces that were sprayed accidentally: Mix one (1) cup of detergent with two (2) gallons of water. Scrub the surface until clean and rinse with water.

USE INSTRUCTIONS

WINTER DESICCATION

TO REDUCE WINTER DESICCATION ON CONIFERS AND BROADLEAF EVERGREENS: Mix one (1) gallon of TRANSFILM with 10 to 20 gallons of water (Table 2). Or prepare a 5.0 to 10.0% (v/v) spray concentration according to the instructions in Table 1. Apply as a thorough cover spray in the late fall or early winter. Spray volumes will vary according to the plant size. Use adequate spray volumes to provide uniform coverage of all needles.

TRANSFILM will maintain the plant vigor throughout the winter.

CHRISTMAS TREES AND GREENERY

TO REDUCE THE DRYING OF CHRISTMAS TREES AND HOLIDAY GREENERY: TRANSFILM can reduce the drying of Christmas trees and holiday greenery and preserve the plant quality. Mix one (1) gallon of TRANSFILM with 40 gallons of water. Or, prepare a 2.5% (v/v) spray concentration according to the instructions in Table 1.

Apply as a thorough cover spray before shipping or during storage at the retailers. Spray volumes will vary according to the plant size. Use adequate spray volumes to provide uniform coverage of all needles and leaves.

TURFGRASS

TO REDUCE THE DESICCATION OF CUT AND ROLLED SOD: TRANSFILM can reduce the water loss of rolled sod during transit and can improve the establishment during adverse conditions. Apply as a broadcast treatment to the sod at least one (1) hour before cutting and rolling sod. Apply 2.5 gallons of TRANSFILM per acre. Spray volumes of 50 gallons per acre are recommended to ensure uniform coverage.

TO REDUCE THE WINTER AND SUMMER DESICCATION OF FINE TURFGRASS (INCLUDING GOLF GREENS): Apply as a broadcast treatment to the dormant turfgrass (inactive growth) in the late fall or early winter when the air temperatures are above 32°F. Apply 2.5 gallons of TRANSFILM per acre with spray volumes of 20 to 80 gallons

per acre. Or, apply 8 fl. oz. of TRANSFILM per 1,000 sq. ft. of turfgrass with spray volumes of 0.5 to 2.0 gallons per 1,000 sq. ft.

REDUCE DEW FORMATION ON TURFGRASS: Dew formation can promote the development of turfgrass diseases. While TRANSFILM is not a fungicide, it has the ability to reduce dew formation and leafblade wetness. Apply 2 gallons of TRANSFILM per acre with spray volumes of 20 to 80 gallons per acre. Or, apply 6.4 fl.oz. of TRANSFILM per 1,000 sq.ft. of turfgrass with spray volumes of 0.5 to 2 gallons per 1,000 sq.ft.

TRANSFILM may be applied in a tank mix with fungicides (snow mold fungicides, for example).

Use TRANSFILM at 0.25% to 0.5% (v/v) in the final spray mixture with fungicides. This concentration is equal to 1 to 2 quarts of TRANSFILM per 100 gallons of spray solution or 0.3 to 0.6 fl.oz. of TRANSFILM per 1 gallon of spray solution. Do not exceed 0.5% (v/v) of the spray solution. Observe all Directions for Use and Precautionary Statements as specified on the container labels of each fungicide.

TRANSPLANT SHOCK

TO REDUCE TRANSPLANT SHOCK TO CONIFERS, BROADLEAF EVERGREENS, DECIDUOUS TREES AND SHRUBS: Mix one (1) gallon of TRANSFILM with 20 to 40 gallons of water (Table 2). Or, prepare a 2.5 to 5.0% (v/v) spray concentration according to the instructions in Table 1. Choose the spray concentration for the length of protection required.

Apply as a thorough cover spray before shipping and transplanting. Use an adequate spray volume to wet the leaves and stems. Spray the undersides of the leaves and apply to the drip point.

Do not spray or dip the roots of rooted cuttings, balled transplants, or bare-rooted transplants.

Table 2. Recommendations for conifers, broadleaf evergreens, deciduous trees, shrubs, Christmas trees and greenery.*

	Spray Concentration of TRANSFILM for:	
	• Survival against transplant shock. • Reduction of water loss during transit.	• Conservation of water. • Reduction of desiccation during winter and storage.
Conifers: (Cedars, Cypresses, Fir, Hemlock, Juniper, Pines, Spruce, and Yew)	2.5 to 5%	5 to 10%
Broadleaf Evergreens: (Abelia, Anise, Azalea, Barberry, Boxwood, Camellia, Cotoneaster, Euonymus, Gardenia, Heather, Holly, Jasmine, Leucothoe, Magnolia, Oleander, Photinia, Pittosporum, Privet, Rhododendron)	2.5 to 5%	5 to 10%
Deciduous Trees & Shrubs: (Ash, Basswood, Birch, Bottlebrush, Nonbearing Cherry, Chestnut, Cottonwood, Crabapple, Dogwood, Eleagnus, Elm, Forsythia, Hawthorn, Hibiscus, Hydrangea, Lilac, Linden, Maple, Myrtle, Oak,Russian Olive, Bradford Pear, Redbud, Rose, Spirea, Sycamore, Viburnum, Weigelas)	2.5 to 5%	—
Christmas Trees & Greenery	—	2.5%

*Not for use on trees/plants grown for food.

TO REDUCE THE TRANSPLANT SHOCK TO GROUNDCOVERS, VINES, BEDDING PLANTS, AND FLOWERS: Mix one (1) gallon of TRANSFILM with 20 to 40 gallons of water (Table 3). Or, prepare a 2.5 to 5.0% (v/v) spray concentration according to the instructions in Table 1. Choose the spray concentration for the length of protection required.

Apply as a thorough cover spray or dip the plants before shipping and transplanting. Use an adequate spray volume to wet the leaves and stems. Spray the undersides of the leaves and apply to the drip point. Do not spray or dip the roots of the transplants.

SALT AIR DAMAGE

Thoroughly wet foliage, then apply using 1 gallon of TRANSFILM in 20 to 40 gallons of water or 2.5 to 5% (v/v) spray concentration according to Table 1.

SOIL MOISTURE CONSERVATION

TO CONSERVE THE SOIL MOISTURE FOR GROUNDCOVERS, VINES, BEDDING PLANTS, AND FLOWERS: TRANSFILM can supplement water management practices. Apply as a foliar application to the established plants before the expected period of soil moisture stress. Apply one (1) gallon of TRANSFILM per acre (Table 3). Spray volumes of 50 gallons per acre are recommended to ensure uniform coverage. Repeat applications as required to maintain the coverage of the new plant growth.

Band sprays and directed sprays to the rows or plants are preferred, and these methods provide complete coverage. A broadcast application with a uniform distribution and thorough coverage is acceptable.

Table 3. Recommendations for groundcovers, bedding plants, and flowers.*

	Spray Concentration of TRANSFILM for:	Amount of TRANSFILM for:
	• Survival against transplant shock.	• Conservation of soil water and plant maintenance.
Groundcovers and Vines: (Ajuga, Honeysuckle, Ivy, Periwinkle, Juniper, Sedum, Pachysandra, Euonyumus, Hosta). *Bedding Plants: Flowers* (Annual and Perennial).	2.5 to 5.0%	1.0 Gallon/Acre

*Not for use on trees/plants grown for food.

INDOOR PLANTS

TO EXTEND THE IRRIGATION INTERVAL OF INDOOR PLANTS: Periodic applications of TRANSFILM can reduce the water requirements and extend the irrigation intervals of plants maintained in greenhouses, nurseries and other indoor sites. Mix one (1) gallon of TRANSFILM with 40 gallons of water. Or, prepare a 2.5% (v/v) spray concentration according to the instructions in Table 1. Repeat the application at 90 to 120 day intervals or as needed.

Apply as a thorough cover spray. Use an adequate spray volume to wet the leaves and stems. Spray the undersides of the leaves and apply to the drip point.

STORAGE AND DISPOSAL

STORAGE: Store locked up and keep from freezing.

CONTAINER DISPOSAL: Dispose of contents/container to an approved waste disposal plant.

The following precautionary statements and pictograms are based on The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and are mandated by the Occupational Safety and Health Administration (OSHA).

WARNING

Causes serious eye irritation. Suspected of causing cancer.

Obtain special instructions before use, and do not handle until all safety precautions have been read and understood. Use personal protective equipment as required, and wear eye/face protection. Wash face, hands and any exposed skin thoroughly after handling.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If exposed or concerned: Get medical advice/attention. You may also contact 1-877-800-5556 for emergency medical treatment advice.

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It is impossible to eliminate all risks inherently associated with use of this product. Damage to the treated article, ineffectiveness, or other unintended consequences can result from use of the product under abnormal conditions such as weather, presence of other materials, or the manner or use of application, etc. Such factors and conditions are beyond the control of the manufacturer, and **BY PURCHASING AND USING THIS PRODUCT THE BUYER AND ALL USERS OF THIS PRODUCT AGREE TO ACCEPT ALL SUCH RISKS.** Buyer and all users further agree to assume all risks of loss or damage from the use of the product in any manner that is not explicitly set forth in or that is inconsistent with label instructions, warnings and cautions.

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WARNING: This product can expose you to diethanolamine, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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