Ultra-Pure® Oil

Horticultural Insecticide, Miticide and Fungicide

ACTIVE INGREDIENT:	**By Weight**
Mineral Oil†	98.00%
INERT INGREDIENTS:	2.00%
TOTAL:	100.00%
Unsulphonated Residue	99.00% (minimum)
Aromatic Composition by ASTM D2140	0.00%

† Contains petroleum distillates

EPA Reg. No. 69526-5-499 **EPA Est. No.**

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Booklet/Inside for Additional Precautionary Statements and Directions for Use.

Net Contents:

BASF Agricultural Solutions US LLC
2 TW Alexander Drive
Research Triangle Park, NC 27713

BASF
We create chemistry

FIRST AID	
If Swallowed:	• Immediately call a poison control center or doctor. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give any liquid to the person. • **DO NOT** give anything by mouth to an unconscious person.
If on Skin or Clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
If in Eyes:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If Inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. **FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-832-HELP (4357) OR A POISON CONTROL CENTRE 1-800-222-1222.**	
NOTE TO PHYSICIAN: Petroleum distillate poses aspiration pneumonia hazard. Only minor irritation should be expected from any type of exposure other than pulmonary aspiration. Ingestion may result in some gastroenteritis and mild diarrhea. Since systemic toxicity is not expected, the added risks of aspiration from attempts to induce vomiting or lavage are deemed not warranted.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE):
Handlers must wear:
• Long-sleeve shirt, long pants, and
• Shoes plus socks.

User Safety Requirements: Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. **DO NOT** reuse them.

Engineering controls statements:
When handlers use closed systems, or enclosed cabs in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing and/or PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. **DO NOT** contaminate water when disposing of equipment wash water or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Avoid drift or run off into storm drains, drainage ditches, or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to maximize the chances that wind, or rain will not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product through any type of irrigation system. **DO NOT** apply this product in a way that will contact adults, children, or pets, directly or through drift. **DO NOT** apply this

product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Aerial application of this product is prohibited.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, shoes plus socks, and chemical-resistant gloves made of any waterproof material.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. **DO NOT** enter or allow others to enter treated area until sprays have dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. **DO NOT** put concentrate or dilute material into food or drink containers. **DO NOT** contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

(continued)

STORAGE AND DISPOSAL *(continued)*

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:
Rigid, nonrefillable containers equal to or less than 5 gallons:
Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling, if available. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. If recycling is unavailable, puncture and dispose of container in sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Rigid, nonrefillable containers greater than 5 gallons:
Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling, if available. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **For Plastic containers greater than 5 gallons:** If recycling is unavailable, puncture and dispose of container in sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. **For Metal containers greater than 5 gallons:** If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by other procedures approved by state and local authorities.

Refillable Container 110 gallons or greater:
Refillable container. Refill this container with pesticides only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning the container before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents form this container into the mix tank. Triple rinse the interior of the container with water by using a suitable hose and nozzle attachment or pressure rinser. Collect and store the rinsate for proper disposal. Then, offer the container for recycling or reconditioning, If recycling is unavailable, puncture and dispose of container in a sanitary landfill, or by other procedures approved by state and local authorities.

MIXING INSTRUCTIONS

1. Use only in equipment with sufficient agitation to keep spray thoroughly mixed. Be sure tank is clean.
2. With agitator running, start filling tank with water.
3. Add oil when tank is about 1/2 full. Pump this mixture through the overflow and back into tank for about two minutes. If this mixture turns white, it indicates good emulsification.
4. Fill the tank with water, adding other desired materials as tank is filling. If wettable powders are used, add and thoroughly mix them before adding oil.
5. Observe all cautions and limitations on labeling of all products used in mixtures. Keep agitator running at all times. If an injector is used, first add 25 to 50 gals. of water to tank with engine running to provide good pressure.
6. Put injector suction tube into the measured amount of spray oil, opening injector valve to allow the oil to be sucked into the tank, then fill the tank with water.

DO NOT USE THIS MATERIAL IF IT DOES NOT EMULSIFY.

USE RESTRICTIONS AND PRECAUTIONS

Preharvest Interval - This product may be used up to the day of harvest.

For full coverage, dilute applications (greater than 150 gallons of spray solution per acre) are recommended. Concentrate applications (usually from 20 to 150 gallons of spray solution) may reduce the coverage and thus the effectiveness. Application volumes depend on the crop type, crop size and target pest. Adjust the spray volume to obtain complete coverage without runoff. Extreme care should be taken when using concentrate sprays as the potential for enhanced crop phytotoxicity is increased. A concentrate application can provide satisfactory results as long as the spray unit is properly engineered, calibrated and operated.

Note: Use efficient equipment of the proper type. **DO NOT** spray during or immediately prior to temperatures over 95°F or when the temperature approaches freezing, or during hot dry winds, rain or other unsuitable conditions. **DO NOT** overspray or double spray. Plants should be sprayed only when in vigorous condition and when their moisture condition is suitable. Before using, make certain spray tank is free of sulfur residues.

Sulfur: On Grapes: DO NOT apply sulfur within 10 days of an oil application. **On all other Crops: DO NOT** apply micronized sulfur within 10 days of an oil application and **DO NOT** apply oil within 14 days of an application of wettable or dusting sulfur.

Tank Mixes: This product may be mixed with other pesticides to improve the level of pest control. Read and follow all directions and restrictions on the labels of the proposed tank-mix products. The combination of this product with more than one other pesticide is not recommended. Use caution and read all labels thoroughly when using any other insecticide or miticide in combination with this product. Always carry out a test spray for plant sensitivity before making a full scale application.

DO NOT use the following chemicals: Captan, Folpet, during, with or following an oil spray. A period of 14 days must elapse before any of the following chemicals are used before or after an application of this product: anilazine (Dyrene), chlorothalonil (Bravo), dicloran (Botran), dicofol (Kelthane), permethrin (Ambush, Pounce). **DO NOT** use chlorothalonil (Bravo) in a spray program with this product on grapes, ornamentals and strawberries. **DO NOT** use dicofol (Kelthane) in a spray program with this product on ornamentals and strawberries. **DO NOT** use propargite (Omite) with an oil spray or within 30 days before or after an oil spray.

This product has not been tested on all species or varieties. Before treating a large area, treat a small area and observe prior to full scale application.

Protect painted surfaces, carpets, and furnishings from overspray as this product may cause discoloration.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE
An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom
- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Apply as a medium or coarser spray (ASABE standard 572), and the minimum volume mean diameter (VMD) for spinning atomizer nozzles.

For airblast applications, turn off outward-pointing nozzles at row ends and when spraying outer row. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

BOOM HEIGHT - Ground Boom
For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS
Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND
Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

RELEASE HEIGHT
Apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

SPRAY DRIFT - Boom-less Ground Applications:
Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

SPRAY DRIFT - Handheld Technology Applications:
Take precautions to minimize spray drift.

FRUIT AND NUT CROPS

APPLES AND PEARS:

PESTS	APPLICATION RATE & TIMING
APPLES AND PEARS: European Fruit Lecanium Scale Olive Scale San Jose Scale European Red Mite Eggs	**DORMANT OR DELAYED DORMANT** Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. **Concentrate Spray:** Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals. water per acre.
Two-spotted Spider Mite Pacific Red Mite European Red Mite	**FOLIAR SPRAY (Post Bloom)** Use 1 quart-1.5 gallons per 100 gals. of water at 100 to 800 gals. per acre. **DO NOT** exceed more than 1.5 gals per acre per application for *SUMMER* treatments. **Concentrate Spray: DO NOT** exceed more than 1.5 gals. per acre per application. Apply a minimum of 20 to 100 gals. water per acre.
APPLES ONLY: Rosy Apple Aphid Eggs Apple Aphid Eggs	**DORMANT OR DELAYED DORMANT** Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. **Concentrate Spray:** Use 3 to 8 gals per acre in a minimum of 20 to 100 gals. water per acre.
Fruit Tree Leafroller Apple Red Bug Scurfy Scale European Red Mite	**DELAYED DORMANT TO GREEN TIP** Use 1 to 3 gals. per 100 gals. of water at 100 to 800 gals. per acre. **Concentrate Spray:** Use 3 to 12 gals. per acre in a minimum of 20 to 100 gals. water per acre. **COMMENTS:** Delayed dormant preferred.
San Jose Scale Forbes Scale	**DORMANT, DELAYED DORMANT TO GREEN TIP** Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. **Concentrate Spray:** Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals. water per acre.
PEARS ONLY: Pear Psylla	**DORMANT** Use 1 to 2 gals. per 100 gals. of water at 100 to 800 gals. per acre. **Concentrate Spray:** Use 3 to 8 gals. per acre in a minimum of 20 to 100 gals. water per acre. **COMMENTS:** Apply before eggs are laid.
Fruit Tree Leafroller Pear Leaf Blister Mite	**DORMANT** Use 1 to 3 gals. per 100 gals. of water at 100 to 800 gals. per acre. **Concentrate Spray:** Use 3 to 12 gals. per acre in a minimum of 20 to 100 gals. water per acre.

ALMONDS, APRICOTS, CHERRIES, NECTARINES, PEACHES, PISTACHIO, PLUMS AND PRUNES: (Directions for use on Plums and Prunes in California's Sacramento Valley can be found in the table following this one)

PEST	APPLICATION RATE & TIMING
Black Scale European Fruit Lecanium Scale San Jose Scale Olive Scale Frosted Scale Aphid Eggs European Red Mite Eggs Brown Mite Eggs Fruit Tree Leafroller Eggs	**DORMANT, DELAYED DORMANT AND GREEN TIP** Use 1 to 3 gals. per 100 gals. of water at 300 to 600 gals. per acre. **Concentrate Spray:** Use 6 to 8 gals. per acre in a minimum of 20 gals. of water per acre. **COMMENTS:** Preferred times of application for European Fruit Lecanium Scale and European Red Mite Eggs are Delayed Dormant to Green Tip, and for San Jose Scale are Dormant, Delayed Dormant to Green Tip.
Terrapin Scale	**DELAYED DORMANT** Use 2 to 3 gals. per 100 gals. of water at 300 to 600 gals. per acre. **Concentrate Spray:** Use 8 to 12 gals. per acre in a minimum of 20 gals. of water per acre.
Cottony Peach Scale	**DORMANT** Use 2 to 3 gals. per 100 gals. of water at 300 to 600 gallons per acre. **Concentrate Spray:** Use 8 to 12 gals. per acre in a minimum of 20 gals. of water per acre.
Two-spotted Spider Mite Pacific Mite European Red Mite Brown Mite	**FOLIAR SPRAY** Use 0.5 to 1.5 gals. per 100 gals. of water at 300 to 600 gals. per acre. **Concentrate Spray: DO NOT** use more than 4 gals. per acre in a minimum of 20 gals. water per acre. **COMMENTS:** Certain varieties of plums and prunes may be injured by oil sprays, check for tolerance prior to treatment. **DO NOT** apply to trees lacking moisture.
White Peach Scale on Peaches (Only for use in Georgia, Florida, South Carolina, North Carolina, and Alabama)	**DORMANT** Use 1.5 to 2 gals. per 100 gals. of water at 300 to 600 gals. per acre. **Concentrate Spray:** Use 6 to 8 gals. per acre in a minimum of 20 gals. of water per acre. **COMMENTS:** Apply before buds begin to swell in the spring. Make 2 applications 7 to 14 days apart, according to local recommendations, during the dormant period.

PLUMS AND PRUNES: (Sacramento Valley of California Only)

PEST	APPLICATION RATE & TIMING
Black Scale European Fruit Lecanium Scale San Jose Scale Olive Scale Frosted Scale Mealy Plum Aphid Eggs Leaf Curl Plum Aphid Eggs Brown Mite Eggs European Red Mite Eggs	**PRE-BLOOM WHEN FRUIT BUDS SHOW GREEN TIPS:** Use 1.5 to 2 gals. per 100 gals. of water at 300 to 600 gals. per acre. **Concentrate Spray:** Use 6 to 8 gals. per acre in a minimum of 20 gals. water per acre. **COMMENTS:** Application at this time is preferred.
Two-spotted Spider Mite Pacific Mite European Red Mite Brown Mite	**FOLIAR SPRAY:** Use 0.5 to 1 gal. per 100 gals. water at 300 to 600 gals. per acre. **Concentrate Spray:** Use 4 to 6 gals. per acre in a minimum of 20 gals. water per acre. **COMMENTS:** Oil sprays may injure certain varieties of plums and prunes, check for tolerance prior to treatment.

AVOCADOS:

PESTS	APPLICATION RATE & TIMING
Avocado Brown Mite Thrip Persea Mite	Use 0.5 to 1 gal. per 100 gals. of water with thorough coverage in 400 to 3000 gals. per acre. **Concentrate Spray:** Use 4 to 15 gals. per acre in a minimum of 50 to 100 gals. per acre. **COMMENTS:** Apply through late fall. **Consult with your local University of California Cooperative Extension Service for proper timing and application parameters.**

BANANAS, PLANTAINS:

PESTS	APPLICATION RATE & TIMING
Black Leaf Streak *(Mycosphaerella fijiensis)* Black Sigatoka *(Mycosphaerella fijiensis var. difformis)* Yellow Sigatoka *(Mycosphaerella musicola)*	Use 0.5 to 1.5 gals. in 20 to 100 gals. of water per acre. **Mist Blower:** Use 1.5 gals. in 6 gals. of water per acre. **COMMENTS:** Begin application when disease first appears and continue every 10 to 15 days during rainy periods or as is needed. **DO NOT** apply when daytime temperatures exceed 80°F as injury may occur. Phytotoxicity may be affected by the quantity of oil used, vigor of trees and temperature at the time of application. Bag fruits, or use a directed spray on unbagged fruits. Bagged fruit improves crop safety whereas unbagged fruit may show phytotoxicity. This application is also effective in loosening Sooty Mold Fungus and in preventing its formation by the control of Aphids, Mealybugs, Scales and Whitefly.

BLUEBERRIES*, BUSHBERRIES*, CANEBERRIES:

PESTS	APPLICATION RATE & TIMING
Mites Powdery Mildew Rust	Use 0.75-1.5 gals. of oil per 100 gals. of water at 100-250 gals. of water per acre. **Concentrate Spray:** Use 1.5 - 3 gals. of oil per acre in a minimum of 50 gals. of water per acre. **COMMENTS:** Using ground equipment, spray for optimum coverage of leaf surfaces. For fungal diseases use at least 200 psi spray pressure.

CITRUS:
California Only - Lemons, Grapefruit, and Oranges (Navel and Valencia), Limes, Tangerines and Tangelos and other citrus hybrids

PESTS	APPLICATION RATE & TIMING
Mites - Citrus Bud - Citrus Flat - Citrus Red - Citrus Rust Scales - Black - Brown Soft - California Red - Citricola - Purple - Yellow - Red	**Central and Southern California:** Apply 0.5 to 1.5 gals. of oil per 100 gals. of water as thorough coverage spray (TC). Alternately, use a Low-Volume spray (LV) to apply 1 to 10 gals. of oil per acre. Apply up to 10 gals. of oil per acre on bearing trees up to 10 feet in height. Add 1 gal. of oil per acre for each foot of tree height over 10 feet. Apply as a Low-Volume spray (LV) 1 to 10 gals. of oil per acre. **COMMENTS:** For Lemons and Limes, make applications in all months except December through February; for Grapefruit make applications July through October; for Oranges make applications on Navels July through September and on Valencias, Tangelos and Tangerines and other citrus hybrids July through October. **Central California:** Apply July through September. **Southern California:** For Coastal Lemons and Limes, apply May and June and/or September through December. For Interior Lemons and Limes, apply in April and May and/or September through November. **Oxnard Plains Area:** Apply 0.5 to 1.5 gals. of oil per 100 gals. of water as a Thorough Coverage spray (TC). Alternately, use a Low Volume spray (LV) to apply 1 to 10 gals. of oil per acre. Apply up to 10 gals. of oil per acre on bearing trees up to 10 feet in height. Add 1 gal. of oil per acre for each foot of tree height over 10 feet. Apply as a low volume spray (LV) 1 to 10 gals. of oil per acre. **COMMENTS:** Make applications as needed throughout the year.

Thorough Coverage Spray (TC):
Applications achieving a uniform film wetting of all portions of the tree at 250 to 2000 gallons of spray solution per acre. The total volume needed is dependent on the size of the trees. Maximum application rate for citrus is 212 pounds active ingredient per acre (maximum 2000 gallons of spray mix per acre) when treating citrus in California (based on thorough coverage spray, with 1.5 gals. of product mixed per 100 gals. of water).

Low-Volume Spray (LV):
Applications with droplet depositions achieved on all interior and exterior parts of the tree using 10 to 100 gals. of spray solution per acre.

DO NOT apply prior to or during a period of excessively high temperatures.

DO NOT apply oil spray when trees show stress.

Consult with your local University of California Cooperative Extension Specialist for proper timing and spray program.

CITRUS:

Florida and Texas - Grapefruit, Lemons, Limes, Oranges, Tangelos and Tangerines and other citrus hybrids

PESTS	APPLICATION RATE & TIMING
Citrus Rust Mite, Spider Mite	5 to 10 gals. of oil per acre. Apply as a dilute spray.
Scale Insects - Black Soft - Brown Soft - Chaff - Glover - Purple - Red - Yellow	5 to 10 gals. of oil per acre. Apply as a dilute spray. **COMMENTS:** Does not control citrus Snow Scale.
Whitefly	5 gals. of oil per acre. Apply as a dilute spray.
Greasy Spot (Grapefruit)	5 gals. of oil per acre. Apply as a dilute spray. **COMMENTS:** Tank-mix with sufficient copper fungicide to provide 4 lbs. per acre of metallic copper.
Greasy Spot (all other varieties)	5 to 10 gals. of oil per acre. Apply as a dilute spray. **COMMENTS:** If disease pressure is severe, tank-mix 4 lbs. (metallic) copper per acre. **DO NOT** exceed 5 gals. oil if copper used.
Loosening sooty mold	5 to 10 gals. of oil per acre. Apply as a dilute spray. **COMMENTS:** Use 10 gals. of oil per acre when disease pressure is heavy.

Dilute spray:
Apply the spray oil application rate in up to 1500 gals. of water per acre, or 10 to 12 gals. per tree, to over 15 gals. per tree for large trees. Best results can be obtained when the oil is added to a partially filled spray tank under proper agitation and all foliage is thoroughly covered. The maximum application rate for citrus is 159 pounds active ingredient per acre (maximum 1500 gallons of spray mix per acre) when treating citrus in Florida and Texas (based on dilute spray, with 1.5 gals. of product mixed per 100 gals. of water).

Precautions in the use of oil include:
DO NOT apply oil spray when trees are wilting. **DO NOT** apply oil and sulfur within 3 weeks of each other in Florida or Texas. Oil spray applied after October 1 may increase susceptibility of trees to cold damage and may reduce the fruit crop the following year. Oil sprays applied in the fall may inhibit solids formation in the juice and retard coloring of fruit and should not be applied within 60 days of anticipated harvest. Sensitive foliage may be injured.

Florida growers consult the Florida Citrus Spray and Dust Schedule, or your Agricultural Experiment Station or State Extension Service Specialist for complete details on the spraying program best suited to your locale. Texas growers consult with your Agricultural Experiment Station or State Extension Specialist for complete details on the spraying program suited to your locale.

COFFEE:

PESTS	APPLICATION RATE & TIMING
Green Scale	Use 3 to 6 gals. in 100 gals. of water per acre. Use only water as a diluent. **COMMENTS:** Apply when insects appear and treat as necessary at 30- to 60-day intervals. **DO NOT** exceed 18 gals. of oil per acre in a growing season. **DO NOT** apply within 30 days of harvest when berries are handpicked. Oil residues make picking difficult.

DO NOT apply the product through any type of irrigation system. Phytotoxicity may be affected by the quantity of oil used, vigor of trees and temperature at the time of application.

FIGS:

PESTS	APPLICATION RATE & TIMING
Fig Scale	1-3 gals. of oil per 100 gals. of water at 100-300 gals. of water per acre. **COMMENTS:** Dormant or Delayed Dormant
Mites Mealybug Scale	1-2 gals. of oil per 100 gals. of water at 100-500 gals. of water per acre. **COMMENTS:** Foliar Spray

GRAPES:

PESTS	APPLICATION RATE & TIMING
Mealybug Mites Leafhopper* Whiteflies* Powdery Mildew	**DORMANT** Use 1 to 3 gals. of oil per acre. Apply in sufficient water volume to ensure good coverage. **FOLIAR** Use 0.5 - 2 gals. per acre depending on pest pressure. Apply in sufficient water volume to ensure good coverage. Using ground equipment, spray for optimum coverage of leaf surfaces. Repeat sprays every 10-14 days. **COMMENTS:** Oil will remove the bloom on grapes. Table grapes should not be sprayed within 60 days of harvest. On grapes, **DO NOT** tank-mix oil and copper more than once/season. **DO NOT** use copper and oil together with fruit present. **For Powdery Mildew:** Make first application pre-bloom and continue every ten days to three weeks depending on level of disease pressure. Use 2 gals. of oil per acre and a 10-day interval when disease conditions are severe.

OLIVES:

PESTS	APPLICATION RATE & TIMING
Olive (Parlatoria) Scale Oleander Scale Black Scale Mites	**POSTBLOOM THROUGH AUGUST AND POST-HARVEST** Use 1 to 1.5 gals. per 100 gals. of water at 400 to 600 gals. per acre. **COMMENTS:** Prebloom to Postbloom Buckshot

PECANS:

PESTS	APPLICATION RATE & TIMING
Scales Aphids (eggs) Mites (eggs)	Use 2 to 3 gals. in 100 gals. of water at 200-500 gals of water per acre. Use 2 gals. of oil per 100 gals. of water rate when trees are in a weakened condition. **Concentrate Spray:** Use 6 to 8 gals. per acre in a minimum of 20 to 125 gals. of water. **COMMENTS:** Apply from late February until buds first break.

STRAWBERRIES:

PESTS	APPLICATION RATE & TIMING
Leafminers* Mites Powdery Mildew	0.75 gals. of oil per 100 gals. of water at 100 gals of water per acre. **COMMENTS:** Spray at no less than 400 psi using ceramic spray nozzles (ALBUZ® ATR, lilac color or their equivalent).

TROPICAL FRUIT: Kiwi, Mango, Papaya and Pineapple.

PESTS	APPLICATION RATE & TIMING
KIWI Latania Scale Greedy Scale Oleander Scale San Jose Scale	Use 4 to 6 gals. of oil in a minimum of 100 gals. of water per acre. Use 6 gals. of oil per acre when scale populations are high. **COMMENTS: DO NOT** apply after budbreak. **DO NOT** use on weak or stressed vines, or where soil moisture is inadequate.
MANGO Mites Powdery Mildew	Use 1 to 1.5 gals. of oil in 100 gals. of water per acre. **COMMENTS:** Apply every 2 to 3 weeks as necessary depending on level of pest pressure.
PAPAYA Mites Powdery Mildew Papaya Ringspot Virus	Use 0.75 to 1.5 gals. in 100 gals. of water per acre. **COMMENTS:** For Powdery Mildew/Mites: Spray every 10 to 14 days depending on the level of pest pressure. For Virus: Initiate spray when seeds are germinated. Spray weekly using 400 psi spray pressure and ceramic hollow cone nozzles.
PINEAPPLE Mealybugs Bud Moth Chinese Rose Beetle	**SPRAY:** Use 1 to 2 gals. of oil in 100 gals. of water per acre. **DIP:** Use 1 to 2 gals. of oil in 100 gals. of water, dip for 30 seconds. **COMMENTS for Dip Applications:** Allow fruit to dry for 1 hour before being stored.

WALNUTS:

PEST	APPLICATION RATE & TIMING
Black Scale Calico Scale European Fruit Lecanium Scale Frosted Scale Olive Scale San Jose Scale European Red Mite Eggs Walnut Aphid Eggs	**DELAYED DORMANT:** Use 4 to 6 gals. per acre in 200 to 500 gals. of water per acre. **COMMENTS:** Use only on trees that have not suffered from lack of moisture at any time during the growing season. **DO NOT** apply to orchards where soil moisture is low. Trees must be fully dormant. **DO NOT** apply after husk split.
Spider Mites Soft Scales	**SUMMER FOLIAR (when leaves fully expanded):** Use 4 to 6 gals. per acre in 200 to 500 gals. water per acre.

VEGETABLE CROPS OUTDOOR AND GREENHOUSE

ASPARAGUS, BEANS, BEETS, CABBAGE, CAULIFLOWER and other Cole crops, CELERY, CUCURBITS, EGGPLANT, LETTUCE, MELON, PEPPER, POTATO, PUMPKIN, RADISH, SQUASH, SWEET POTATO, TOMATO, HERBS AND SPICES (Curly Leaf Basil, Lemon Balm, Mexican Oregano, Mint), ORIENTAL VEGETABLES (Acerola, Atemoy, Balsam pear (Bitter melon), Carambola, Chinese broccoli (Gai Lon), Chinese cabbage (Gai Choy), Chinese spinach, Chinese waxgourd, Cilantro, Citron melon, Dasheen, Ginger, Ginseng, Japanese artichoke, Japanese radish (Daikon), Rambutan):

PESTS	APPLICATION RATE & TIMING
Aphids Mites Beetle Larvae Leafminers Thrips Leafhopper Whitefly Powdery Mildew	0.25-1 gal. of oil in 100 gals. of water per acre. **COMMENTS:** For virus control on cucurbits use 0.75 gals. per 100 gals. of water. Spray once or twice weekly depending on the rapid growth of the crop and/or vector pressure. When using to control insect-transmitted disease, use higher-pressure 400 psi and ceramic hollow cone nozzles.

ORNAMENTALS

FOLIAGE ORNAMENTALS & BEDDING PLANTS:

PESTS	DILUTION RATE & TIMING
Aphids Adelgids	1-2.5 oz. per gal. of water **COMMENTS: Summer (Foliar or Cover): DO NOT** spray plants during flowering.

SHADE TREES** AND SHRUBS INCLUDING CONIFERS, DECIDUOUS BROADLEAF EVERGREENS & WOODY ORNAMENTALS, ORNAMENTAL TREES**, SHRUBS ALONG CITY STREETS, OTHER RIGHTS-OF-WAY INCLUDING CONIFERS, DECIDUOUS AND BROADLEAF EVERGREENS:

PESTS	DILUTION RATE & TIMING
Aphids Adelgids Eriophyid Mites Gall Mites Honey Locust Plant Bug Lace Bug Leaf Beetle Larvae Leafminers Leafrollers Mealybugs Psyllids (immature) Red Mites Sawfly (larvae) Scales (immature) Spider Mites Webworms Whiteflies	**Winter Dormant Period:** 2.5-4 oz. per gal. of water **Summer (Foliar or Cover):** 1-2.5 oz. per gal. of water **COMMENTS: DO NOT** spray more than 1 time per week. **DO NOT** spray when there is obvious moisture deficit in leaves, or the plant is under stress. For fall dormant applications, reduce rate to 2 gals. oil per 100 gals. water and limit use only to American Red Oak, Japanese Black Pine, Dogwood, Weeping Cherry, Cornelian Cherry, Crabapple, Norway Maple, Purple Plum. **NOTE:** May cause discoloration of Blue Spruce. **DO NOT** use on conifers or ferns not tolerant to oil sprays. Use enough spray solution to completely penetrate the leaf canopy and cover both top and bottom of all of the leaves and stems until wet but without significant runoff.

FLOWERING AND FOLIAGE PLANTS INCLUDING ROSES AND OTHER FLOWERING SHRUBS: DURING WINTER AND DORMANT PERIODS

PESTS	DILUTION RATE & TIMING
Aphids Adelgids Eriophyid Mites Gall Mites Honey Locust Plant Bug Lace Bug Leaf Beetle Larvae Leafminers Leafrollers Mealybugs Psyllids (immature) Red Mites Sawfly (larvae) Scales (immature) Spider Mites Webworms Whiteflies	**Winter Dormant Period:** 2-5.4 oz. per gal. of water

CHRISTMAS TREES**:

PESTS	DILUTION RATE & TIMING
Scale (soft & hard) (immature) Spider Mites Adelgids Aphids	2-3 oz. per gal. of water **COMMENTS: Winter**
	0.75-2 oz. per gal. of water **COMMENTS: Summer**

Use a lower concentration for more sensitive plants.

** This product removes the glaucous (blue) bloom from such evergreens as Colorado Blue Spruce and Koster Spruce. Always use lower dosage or test spray oil sensitive plants such as Cryptomeria, Smoke Tree, Chamaecypris, Juniper, Japanese Holly and Spruce. Tendency toward sensitivity: Red Cedar and Douglas Fir.

GREENHOUSES, CONTAINERS, AND INTERIORSCAPES

Frequency of Application: For the pests listed, use once a week initially, then as the pest is controlled, decrease the frequency to every 2-3 weeks as needed.

Application safety during bloom period should be determined for each individual species of plant to be treated by conducting a small test.

Protect painted surfaces, carpet and furnishings from overspray. May cause discoloration.

AGERATUM, CROWN OF THORNS, DIEFFENBACHIA, FERNS, FICUS, LISIANTHUS, ORCHID, PALMS, PETUNIA, POINSETTIA, SCHEFFLERA, SUNFLOWER:

PESTS	DILUTION RATE
Aphids Fungus Gnats Leafminers Mealybugs Scales (soft & hard) Spider Mites Thrips Whitefly	0.5-1 gals. of oil per 100 gals. of water **COMMENTS:** Due to varietal differences in response to a treatment of this product at the specified rate, we recommend conducting a small test on 1 or 2 plants of the specific variety to be treated.

LEAF POLISH FOR HARDY PLANTS:

PESTS	DILUTION RATE
	1 oz. of oil per gal. of water

AGLAONEMA, ASTER, AZALEAS, BEGONIAS, BROWALLIA, CAMELLIAS, CARNATION, CELOSIA, CHRYSANTHEMUM, COLEUS, COSMOS, DUSTY MILLER, EASTER LILIES, GARDENIAS, GERBERA, HELLICHRYSUM, HIBISCUS FOLIAGE, HYDRANGEA, JADE PLANT, MARIGOLD, NEW GUINEA IMPATIENS, NICOTONIA, PHILODENDRON, PORTULACA, REIGER BEGONIAS, SNAPDRAGON, ZINNIAS:

PESTS	DILUTION RATE
Aphids Fungus Gnats Leafminers Mealybugs Scales (soft & hard) Spider Mites Thrips Whitefly	1-2 gals. of oil per 100 gals. of water **COMMENTS:** Due to varietal differences in response to a treatment of this product at the specified rate, we recommend conducting a small test on 1 or 2 plants of the specific variety to be treated.

Some plants are more sensitive to oil treatments if any of the following conditions are present when application is made: High humidity (74%), an overcast or cloudy day, inadequate air flow, a small greenhouse where the sunlight is magnified causing a fast build-up of temperature and light intensity.

*** Asterisk denotes crop, pest not approved in California.**

This product has not been tested on all species or varieties. Before treating a large area, treat a small area and observe prior to full scale application.

CONDITIONS OF SALE AND WARRANTY

IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS INHERENTLY ASSOCIATED WITH THE USE OF THIS PRODUCT. CROP INJURY, INEFFECTIVENESS, OR OTHER UNINTENDED CONSEQUENCES MAY RESULT BECAUSE OF SUCH FACTORS AS WEATHER CONDITIONS, PRESENCE OF OTHER MATERIALS, OR THE MANNER OF USE OR APPLICATION, ALL OF WHICH ARE BEYOND THE CONTROL OF BASF Agricultural Solutions US LLC (hereafter "BASF"), THE MANUFACTURER OR SELLER. TO THE EXTENT CONSISTENT WITH APPLICABLE LAWS, ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW NEITHER BASF, THE MANUFACTURER OR SELLER SHALL BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. EXCEPT AS WARRANTED BY THIS LABEL, BASF, THE MANUFACTURER OR SELLER MAKES NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. EXCEPT AS PROVIDED BY APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND BASF'S, THE MANUFACTURER'S OR SELLER'S TOTAL LIABILITY, SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

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BASF Agricultural Solutions US LLC
2 TW Alexander Drive
Research Triangle Park, NC 27713

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