

HORTICULTURAL OIL™

A SUPERIOR SPRAY OIL FOR INSECT, MITE, AND FUNGAL PESTS ON FRUIT TREES AND ORNAMENTALS.



Active Ingredient:	By Wt
Mineral Oil*.....	98.8%
Other Ingredients:	1.2%
Total:	100.0%

NET CONTENTS: 2.5 gallons (9.46 Liters)

*Contains petroleum distillates

*Unulfonated Residue of Petroleum Distillate 92.0% Min
*50% Distillation Point of Petroleum Distillate 414.0 °F
*Flash Point 345.0 °F
Weight per Gallon 7.1 lbs

KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See Side/Back Panel for Additional Precautionary Statements, First Aid and Directions for Use

EPA Reg. No. 74779-9

EPA Est. No. 52467-WI-1

Distributed by:



Rainbow™
ECOSCIENCE

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FIRST AID

IF INHALED	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal), or Chemical Emergency Assistance (Spill, Leak, or Accident).
Call CHEMTREC at **1-800-424-9300**.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear long sleeved shirt, long pants, socks, shoes and gloves. Remove and wash contaminated clothing before reuse. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any water proof material
- Shoes plus socks.

Applicators and other handlers are also recommended to wear protective eyewear.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

Engineering control 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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate. Apply this product only as specified on the label.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

Use Restrictions

- This product may be used on the plants listed on this label when they are growing on utility rights-of-way, residential areas, urban areas, or other non-crop areas as well as on Christmas tree farms.
- Do not apply this product through any type of irrigation system.
- 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.
- Do not apply this product by air.
- Do not apply during periods of drought or when plants exhibit moisture stress.
- Do not spray when there is obvious moisture deficit in leaves, or the plant is under stress.
- Spray only when the temperature is above 40°F and there is no danger of freezing.
- Shake well before use. If product is in a drum, roll the drum before use.

Use Precautions

- All horticultural oils interfere with or slow plant transpiration and respiration during the period of evaporation.
- Phytotoxicity may result if product is sprayed on plants during periods of prolonged high temperature and high relative humidity.
- Keep applications away from open blooms as bleaching and spotting has been observed with open blooms of certain plants.
- Protect painted surfaces, carpet and furnishings from overspray, as discoloration may occur.

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 until sprays have dried.

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 over long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves made of any waterproof material.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (e.g., ground or airblast) can influence pesticide drift. The applicator and grower must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply at wind speeds greater than 15 mph at the application site.

Temperature Inversions: If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions.

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

For **Ground-based Equipment Applications**, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For **Airblast Applications**, turn off outward pointing nozzles at row ends and when spraying outer row. To minimize spray loss over the top in applications to trees, spray must be directed into the canopy.

Mixing Directions

1. Use only in equipment with sufficient agitation to keep spray thoroughly mixed. Be sure tank is clean.
2. Partially fill tank with water and start agitator.
3. Add other desired pesticide. If wettable powder formulation, mix the water and powder thoroughly so that the powder is totally suspended in the water before the oil is added. If other pesticide to be added is an emulsifiable formulation, add after the oil and water have been thoroughly mixed.
4. Add oil under agitation, when the tank is $\frac{3}{4}$ full topping off with water to form milky solution.
5. Maintain agitation until solution is used.
6. In small equipment lacking agitators, stir or shake diluted spray frequently during application.
7. Flush fluid in sprayer hose lines back into tank reservoir if fluid is allowed to stand for more than 20 minutes.

Application Instructions

To obtain adequate pest control, spray to obtain thorough coverage until completely wet but without significant runoff.

Dilute Applications are defined as the number of gallons needed to completely cover the entire tree, but not to the point of runoff. For most tree fruits this can be as much as 300-400 gallons per acre or as low as 100 gallons per acre for smaller trees. For mature citrus trees this can be as much as 800-1500 gallons per acre. Do not exceed 1500 gallons of spray per acre. Dilute applications ensure the best coverage.

PLANTS	PEST	Gallons of Oil per 100 gallons of water	APPLICATION TIMING	COMMENTS
Shade trees and ornamental plants including conifers, deciduous broadleaf evergreens & woody ornamentals in landscapes, along city streets, rights-of-ways, and other non-crop areas. Flowers and foliage plants including roses and other flowering shrubs, foliage ornamentals and bedding plants	Aphids Adelgids Bugs (immature) Cankerworms Certain caterpillars Eriophyid mites Gall mites Lace bug Leaf beetle larvae Leafhoppers Leaf miner Leafrollers Leaftiers Mealybug Plantbugs Psyllids Sawfly Scale Insects Mites Webworms Whiteflies Thrips	2 – 3	Winter dormant period as needed	Do not spray more than 1 time per week. Do not spray when there is an obvious moisture deficit in leaves, or the plant is under stress. Follow the spray schedule outlined in the Directions for Use or specified by your State Agricultural Extension Service Spray Guide for seasonal applications of Horticultural Spray Oils.
	Will kill other immature forms of insects if spray covers the insect.	0.25 – 2	Summer (foliar or cover) as needed	
Residential fruit trees: apples, pears, pecan, peaches, plums, and prune	Apple red bug Fruit tree leaf roller European red mite San Jose scale Pear leaf blister mite Pear psylla Spider mites Plant bugs	1 – 3	Winter dormant period as needed	
		0.25 – 2	Summer (foliar or cover) as needed	
Residential Citrus	Scale Greasy spot Spot and sooty mold Spider mites Rust mites Whitefly	0.25 – 3	Apply post bloom	Oils applied after October may increase cold damage to citrus trees; applied in August and September may affect solid contents, may retard color.
	California red scale	1.3 – 1.6		

PLANTS	PEST	Fl. oz. of Oil per gallon of water	APPLICATION TIMING	COMMENTS
Christmas Trees	Adelgids Aphids Scale Spider mites	2 – 3	Winter dormant period as needed	
		0.75 – 2	Summer (foliar or cover) as needed	

Note: This product removes the glaucous (blue) bloom from such evergreens as Colorado Blue Spruce and Koster Spruce. Use with Caution and reduced dosage for summer application on Japanese Red Maple, Amur Maple and Black Walnut. Use with Caution and reduced dosage for dormant application on Sugar Maple, Redbud, Japanese Holly, Cryptomeria, Chamaecyparis, Red Cedar and Smoketree.

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.

1 gallon of oil per 100 gallons of water is approximately equal to 1.3 fl oz of oil per gallon of water

Tank Mixes

This product may be tank mixed with other pesticides to improve the level of pest control. Use ¼ to 1% RTSA Horticultural Oil (0.25 – 1 gallon RTSA Horticultural Oil per 100 gallons of finished solution) in combination with other products or follow label directions for the product that the oil is to be mixed with. Test all combinations prior to use to ensure compatibility. The combination of RTSA Horticultural Oil with more than one pesticide is not recommended. Use caution and read and follow all directions and restrictions on the labels of the proposed tank mix products.

Do not tank mix with any insecticide, herbicide, fungicide, or miticide whose label indicates that it should not be used with oil. Do not use in combination with or immediately before or after spraying with Anilazine, Captan, captofol, cyprex, chlorothalonil, dimethoate, dinocap, dithianon, fentin hydroxide, fentinacetate, folpet, methiocarb, oxythioquinox, PMA, propargite, lime sulfur, wettable sulfur, or any other product containing sulfur. If possible, either keep the spray equipment used for these compounds separate from the equipment used for oil, or make sure that the sprayer is thoroughly cleaned so that no residues from these compounds remain. Do not use with Sevin brand 50W carbaryl on deciduous fruit trees.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

Pesticide Storage: Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Container Disposal:

Non-refillable container: Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(non-refillable <5 gallons) 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 ¼ 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.

(non-refillable >5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container ¼ 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

CONDITIONS OF SALE AND A LIMITATION OF WARRANTY AND LIABILITY

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Tree injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or tree conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of RAINBOW ECOSCIENCE or seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold RAINBOW ECOSCIENCE and seller harmless for any claims relating to such factors.

RAINBOW ECOSCIENCE warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions. This warranty does not extend to the use of the product contrary to label instructions, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, RAINBOW ECOSCIENCE MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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