

# SOL OIL PLUS

INSECTICIDE-MITICIDE/SPRAY ADJUVANT

FOR SIG Label + CSF  
Approved

**ACTIVE INGREDIENT:**

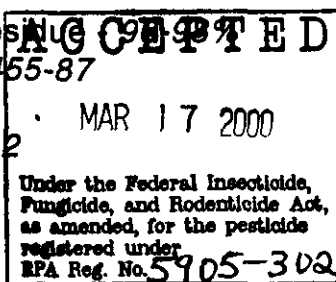
Petroleum oil ..... 90.00%

**INERT INGREDIENTS:** ..... 10.00%

**TOTAL** ..... 100.00%

Petroleum Oil Min. Unsulfonated Residue  
Petroleum Oil Classification - FC 455-87

Protected by U.S. Patent # 5,462,912



**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See Other Cautions on Side Panel

EPA REG. NO. 5905-302  
EPA EST NO.

NET CONTENTS:

**MANUFACTURED BY  
HELENA CHEMICAL COMPANY  
MEMPHIS, TN. 38119**

**PRECAUTIONARY STATEMENTS  
HAZARD TO HUMANS & DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed or absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

**FIRST AID**

**If Swallowed:** Call a doctor or get medical attention. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

**If on Skin:** Wash with plenty of soap and water. Get medical attention if symptoms persist.

**If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth, and get medical attention.

**If on Eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

**NOTE TO PHYSICIAN:** Petroleum distillate may pose an aspiration pneumonia hazard.

**PERSONAL PROTECTIVE EQUIPMENT**

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

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber or viton.
- Shoes plus socks
- Chemical-resistant headgear for overhead exposure

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.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the 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**

Wash hands before eating drinking, chewing gum, using tobacco or using the toilet.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. For terrestrial uses, 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 by cleaning of equipment or disposal of washwaters.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use, pour spill or store near heat or open flame.

## CHEMIGATION PROHIBITION

Do not apply this product through any type of irrigation system.

## 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 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.

### 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

Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber or viton.

Shoes plus socks

Chemical-resistant headgear for overhead exposure

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries, or greenhouses. Do not enter treated areas without protective clothing until sprays have dried.

## STORAGE AND DISPOSAL

**STORAGE:** Keep container well sealed. Protect from excessive heat.

**PESTICIDE DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, by other procedures approved by state and local authorities.

**SOL OIL PLUS** is a special blend of refined phyto-bland oils that function as a contact insecticide and *miticide*. In addition, the surfactant/emulsifier system utilized in **SOL OIL PLUS** improves spray application by modifying the wetting and deposition characteristics of the spray droplets.

The surfactant components in **SOL OIL PLUS** adjust the pH of alkaline water and minimize pesticide loss due to hydrolysis. The addition of other pH reducing materials is not required.

For foliage application, the spray tank must be free of any sulfur residue before using **SOL OIL PLUS**. Do not combine sulfur sprays with **SOL OIL PLUS** on foliage and do not follow a previous application of sulfur or apply sulfur following **SOL OIL PLUS** until sufficient time has elapsed for safety (at least 30 days). If in doubt, spray a portion of one tree previously treated with sulfur, using 1 quart to 25 gallons water. If sufficient time has not elapsed, burn will shown in several days. Do not use **SOL OIL PLUS** when temperatures are above 90° Fahrenheit. When temperatures drop below 32° F (usually nighttime lows), do not spray tree and vine crops until daytime temperatures have warmed to a point above 35° F and are free from moisture due to melting frost or heavy dews. *SOL OIL PLUS can be used with recommended rates of other pesticides.* Do not use in combination with or immediately before or after spraying with ~~dinitro compounds~~, fungicides such as Captan, Folpet, Dyrene, ~~Karathene~~, Moreston or any other product containing sulfur.

Application to trees weakened by disease, drought, driving winds or high nitrogen applications may result in oil injury.

**MIXING INSTRUCTIONS**

- 1) Add enough water to the mixing tank for proper agitation.
- 2) Add nutrients and other pesticides. If dry pesticide products are used, mix the materials with water thoroughly so that they are completely dispersed in the mixing tank. **DO NOT add SOL OIL PLUS before a uniform mixture is obtained.**
- 3) Maintain agitation of the mix until the spray is applied. Flush any spray mix remaining in hoses back into the tank if the solution stands for more than 20 minutes.
- 4) Ensure that spray equipment is thoroughly clean so that residues from other applications do not remain.

*For all applications to be effective, complete coverage is essential, necessitating a thorough inside and outside tree application.*

AMOUNTS GIVEN ARE FOR 100 GALLONS OF DILUTED SPRAY.

**ALFALFA (Seed Crop Only):** Use 1 quart per acre in a minimum of 20 to 30 gallons of water per acre by ground application or a minimum of 10 to 15 gallons by air when used in combination and at the recommended label rates with ~~either Cythion\*~~ for control of the pests listed on the product labels *insecticides or miticides that recommend the use of oil.* To increase the effectiveness of desiccants, apply 2 gallons per acre in a minimum of 10 gallons of spray by air. Use is limited to those herbicides/desiccants labeled for Alfalfa Seed desiccation. **Spider Mites:** Use 1 quart per acre at the dilutions noted above with ~~Kelthane\*\*~~ at the recommended label rates.

**ALMONDS, APRICOTS, CHERRIES, NECTARINES, PEACHES, PLUMS, PRUNES - Dormant or Delayed Dormant:** Dilute spray: **Brown Apricot Scale, Black Scale, San Jose Scale, Olive Scale (Parlatoria Scale), Oleander Scale, Frosted Scale, Italian Pear Scale, European Fruit Lecanium, Putnam Scale, Parlatoria, Soft Brown Scale, ~~Certain~~ other Scale Insects, Eggs of Aphids, Red Spider Mites, Brown Mites** - 1½ to 2 gallons in 300 to 600 gallons per acre. Concen-

trate spray: 4 to 6 gallons per acre in a minimum of 20 gallons of spray. **Almond and Apricots:** for the **European Red Mite, Brown Mite, San Jose Scale** - 4 to 8 gallons per acre in a minimum of 20 gallons of spray. Spring or Summer Dilute. Spray: **Twospotted, Pacific, European Red and Brown Mites:** 1 to 2 gallons in 300 to 600 gallons of water per acre. Spring or Summer Concentrate: 4 to 6 gallons per acre in a minimum of 20 gallons of spray. Application by air: Use no more than 4-6 gallons of product in a minimum of 20 gallons of spray. **Plums and Prunes: for Peach Twig Borer** - 1½ - 2 gallons per 100 gallons of water. Concentrate spray: 6 - 8 gallons per 20 - 125 gallons of water. Application by air: 6 - 8 gallons in a minimum of 20 gallons of spray. ~~Summer Use: Red Spider Mites - 3 to 4 quarts. Summer Stages of Brown Apricot Scale, San Jose Scale - 1 gallon.~~

**APPLES: Rust Mite:** Delayed Dormant - 1½ to 2 gallons. Summer use - 1 to 1½ gallons.

**APPLES, PEARS** - Dormant or Delayed Dormant - Dilute Spray: **San Jose Scale, Pear Scale, Eggs of Aphids, Red Spider Mites (Rust Mites, Apples only - delayed dormant)** - 1½ to 2 gallons. **Pears only:** Delayed dormant. **Pear Psylla** - 2 gallons. Concentrate spray - use 4 to 6 gallons in a minimum of 20 gallons of spray per acre. Summer dilute spray: **Twospotted Spider, Pacific and European Red Mites** - 1 to 1½ gallons dilute in 400 to 800 gallons of water. Concentrate spray: use no more than 4 gallons per acre in a minimum of 20 gallons of spray. Application by air: use no more than 4 - 6 gallons of product in a minimum of 20 gallons of spray per acre. (Concentrated Sprayers - **Pears (California Only)** - 4 to 6 gallons in 90 to 120 gallons of water per acre).

*Dormant: (Washington and Oregon only): Apples - Dilute spray for mites and San Jose scale - use 1 to 1½ gallons of oil plus sulfur or lime sulfur at the label recommended rate. Concentrate spray - use 4 to 6 gallons of oil per acre plus the label recommended rate of sulfur or lime sulfur in 20 to 100 gallons of spray per acre. Pears - Dilute Spray - Pear Psylla - use 1 to 1½ of oil plus sulfur or lime sulfur at the label recommended rate. Concentrate spray - use no more than five gallons of oil plus the label recommended rate of sulfur or lime sulfur in 20 to 100 gallons of spray per acre.*

**NOTE:** Oil plus sulfur or lime sulfur can cause severe foliage and fruit bud injury if applied after the dormant period.

**ASPARAGUS, BEANS, BEETS, CORN, CUCURBITS, PEPPERS, SQUASH, & TOMATOES:** Aphids, Mites, Beetle Larvae, Leafminers, and Certain Caterpillars - Use 1 - 2 gallons/100 gallons of water.

**AVOCADOS (HAAS VARIETY ONLY):** Avocado Brown Mite - 1 - 1 1/2 gallons per 100 gallons with thorough coverage through late fall.

**CITRUS (Citrus spp., Fortunella spp.) Florida Red Scale, Purple Scale Soft Brown Scale, Black Scale, White Flies, Red Spider Mites, Rust Mites** - Concentrate spray: 2 gallons per acre if total spray volume is less than or equal to 125 gallons per acre. If total spray volume is greater than 125 gallons per acre, use a 2% volume for volume. Control of severe insect infestation may require a higher rate not to exceed 3 gallons per acre.

**NOTE:** Do not exceed 500 gallons per acre total spray volume. Do not use within 8 weeks of harvest on Lemons. Do not use on Navel Oranges after September 1.

**ALL CITRUS VARIETIES:** use as an sticker adjuvant: This product may be used as a sticker<sup>6</sup> adjuvant with a suitable insecticide or miticide. Do not exceed 0.4% v/v concentration. Do not use oil when freezing temperatures are expected within 24 hours of the application. Care should be taken in combining oil sprays with certain miticides and insecticides, due to possible increased phytotoxicity when applied over foliage. See an Agriculture Extension Service agent for recommendations on special combinations.

**FIGS: Fig Scale - Dormant or Delayed Dormant:** Dilute Spray - use 2 to 3 gallons per 100 gallons in 300 to 600 gallons per acre water. Use 3 gallons for severe infestations. Concentrate spray - use 4 to 6 gallons in a minimum of 50 gallons of spray.

**GRAPES: Dormant :** Dilute Spray: **Mealybug** - Use 1 to 2 gallons plus the appropriate labeled rate of an insecticide registered for use on grapes for mealybug control in 200 to 300 gallons water per acre. Concentrate spray - use 1 to 2 gallons plus the appropriate labeled rate of an insecticide registered for use on grapes for mealybug control per acre in enough water for thorough coverage. **Suppression of Grape and Variegated leafhopper nymphs suppression** - 1 to 1½ gallons or 1 - 3 gallons per acre concentrate. **Mite suppression** - 1 - 2 gallons per acre concentrate. Narrow range oils such as **SOL OIL PLUS** can temporarily affect surface bloom appearance but will not cause subsurface injury. When applied for leafhopper or mite suppression near harvest (within 2 days) **SOL OIL PLUS** should not be applied to grapes for fresh market.

**OLIVES: Dilute spray: Parlatoria, Oleander, Olive and Black Scales, Spider Mites** - use 1½ in 400 to 500 gallons per acre water. May be used post bloom. (Late May through June when crawlers are present) **Summer (July 15 through August) and Post-Harvest (October through November).**

**PEARS: Pear Psylla - Delayed Dormant** - 2 gallons per acre. **Summer Use** - 1 to 1-1/2 gallons. **Blister Mite - Delayed Dormant and Fall Spray** - 2 gallons per acre.

**PECANS: Obscure Scale - Dormant: Dilute Spray** - use 3 gallons in 100 gallons water per acre. **Concentrate spray** - use 6 to 8 gallons per 20 - 125 gallons water per acre.

**STRAWBERRIES: Twospotted Spider Mites** - Use 1.0% to 2.0% volume to volume in 60 gallons of water/acre with air assisted low volume ground applicators or 300 gallons of water/acre with standard ground spray equipment. Application may be made during the winter months when plants are semi-dormant. Do not use oil from peak bloom through peak fruiting period. Application should be made when mites are at no more than a moderate infestation level. Higher levels of mite infestations will require treatment with more effective miticides. Make applications at no less than 14 days between applications. Consult your local Extension Office for more specific local mite threshold density recommendations for this type of treatment. When using refined petroleum oils on strawberries there will be a danger of phytotoxicity. To minimize the problem, do not apply this product when warm temperatures, 75 degrees F and higher, are expected for several days after application. In California, do not apply this product from:

January 16 to May 30 in Orange and San Diego counties and the Oxnard Plains  
February 1 to June 15 in the Santa Maria Valley  
March 1 to June 30 in Monterey and Santa Cruz counties.

**SHADE TREES, SHRUBS, ORNAMENTALS, FLOWER AND FOLIAGE PLANTS, CHRISTMAS TREES**

**Shade Trees\* and Shrubs including Conifers** (See Note), **Deciduous Broadleaf Evergreens & Woody Ornamentals:** Aphids, Adelgids, Bugs (immature), Certain Caterpillar, Eriophyid Mites, Gall Mites, Lace Bug, Leaf Beetle, Larvae, Leafminer, Mealybug, Psyllids (immature), Sawfly (larvae), Scales (immature), Spider Mites, Whiteflies (immature): Winter Dormant Period as needed - 2 to 4 gallons oil per 100 gallons water. Summer (Foliar or Cover) as needed - 1 to 3 gallons oil per 100 gallons water. Note: May cause discoloration of Blue Spruce. Do not use on Conifers or Ferns not tolerant to oil sprays.

**Ornamental Trees\*, Shrubs along city streets, other rights-of-way including Conifers, Deciduous and Broadleaf Evergreens:** Aphids, Adelgids, Bugs (immature), Certain Caterpillar, Eriophyid Mites, Gall Mites, Lace Bug, Leaf Beetle Larvae, Leafminer, Mealybug, Psyllids (immature), Sawfly (larvae), Scales (immature), Spider Mites, Whiteflies (immature): Winter Dormant Period as needed - 2 to 4 gallons oil per 100 gallons water. Summer (Foliar or Cover) as needed - 1 to 3 gallons oil per 100 gallons water.

**Flowering and Foliage plants including Roses and other Flowering Shrubs:** Aphids, Adelgids, Bugs (immature), Certain Caterpillar, Eriophyid Mites, Gall Mites, Lace Bug, Leaf Beetle Larvae, Leafminer, Mealybug, Psyllids (immature), Sawfly (larvae), Scales (immature), Spider Mites, Whiteflies (immature): Winter Dormant Period as needed - 2 to 3 gallons oil per 100 gallons water. Summer (Foliar or Cover) as needed - 1 to 2 gallons oil per 100 gallons water.

**Foliage Ornamentals & Bedding Plants:** Aphids, Adelgids, Bugs (immature), Certain Caterpillar, Eriophyid Mites, Gall Mites, Lace Bug, Leaf Beetle Larvae, Leafminer, Mealybug, Psyllids (immature), Sawfly (larvae), Scales (immature), Spider Mites, Whiteflies (immature) Winter Dormant Period as needed - 2 to 3 gallons oil per 100 gallons water. Summer (Foliar or Cover) as needed - 1 to 2 gallons oil per 100 gallons water.

**Christmas Trees:** Aphids, Adelgids, Scale (soft & hard) (immature), Spider Mites: 2 to 4 gallons oil per 100 gallons water. Summer 1 to 3 gallons oil per 100 gallons water.

\*Oil 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, Chamaecyparis, Juniper, Japanese Holly and Spruce. Tendency toward sensitivity: Red Cedar and Douglas Fir. Do not spray Walnut foliage. Do not use on Conifers or Firs not tolerant to oil sprays.

Note: Spray no more than 4 times during the growing season; use a 2 week minimum application interval. Do not spray when buds have fully opened and shoot elongation is occurring. 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 gallons oil per 100 gallons water and limit use only to: American Red Oak, Japanese Black Pine, Dogwood, Weeping Cherry, Cornelian Cherry, Crabapple, Norway Maple, Purple Leaf Plum. Keep away from open blooms - bleaching and spotting has been observed with the open blooms of certain plants.

**WALNUTS - Late Spring to Mid-Summer Only:** Summer Stages of **Frosted Scale, European Fruit Scale, San Jose and other Soft-Shelled Scale, Red Spider Mites** - 2 to 4 quarts. The addition of one of the following phosphate insecticides aids in scale control, Trithion or Ethion. See label for recommended

dosages. *Delayed dormant: Black, San Jose, Olive, Frosted, Calico, European Fruit Leucanium Scales, Red Spider Mite Eggs and Walnut Aphid Eggs - Dilute Spray - use 3 gallons in 300 to 500 gallons. Foliar (Fully expanded leaves): Spider Mites - use 4 gallons per acre in 200 to 400 gallons of water. Concentrate Spray: for delayed dormant and foliar sprays, apply in a minimum of 40 gallons of water per acre. Use oil only on trees that have not suffered from lack of moisture or other stressing factors during the growing season. Do not apply when soil moisture is low. Do not apply after husk split. As an adjuvant for neutral copper compounds for control of Walnut Blight in pre and post-bloom sprays - use 1 quart per 100 gallons of water as a dilute spray. Follow dosages and timings on the copper product label.*

~~**MIXING DIRECTIONS:** With agitator running start filling spray tank with water. When combining with Wettable Powder insecticide or fungicide products, add these first when tank is one third filled. Add SOL OIL PLUS when tank is about one half full and while there is sufficient agitation of the spray to insure complete emulsification.~~

### **CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES**

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man, or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damage and in no event shall damages or any other recovery of any kind against the Company exceed the price of the product which causes the alleged loss, damage, injury, or other claim. The Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income.

The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability, and remedies.

**\*\*Kelthane® is a Reg. Trademark of Rhom and Haas Company**