QUALI-PRO™

STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO. 8218.52

ABBA® CS

Controlled Release Insecticide

CapVantage™ technology

For Agricultural/Commercial Use to Control Leafminers and Mites, and to Suppress Aphids, Whiteflies, and Thrips on Ornamental Plants.

Active Ingredient:	**% BY WT.**
Abamectin (CAS No. 65195-56-4 and 65195-55-3):	1.9%
OTHER INGREDIENTS:	98.1%
TOTAL:	100.0%

Contains petroleum distillates
1 gallon contains 0.15 lb abamectin
Non-refillable container

KEEP OUT OF REACH OF CHILDREN

WARNING / AVISO

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 inside booklet for complete First Aid, Precautionary Statements, Directions for Use, and Conditions of Sale and Warranty.

Manufactured for: Control Solutions, Inc.
5903 Genoa-Red Bluff, Pasadena, TX 77507

EPA Reg. No. 53883-294
EPA Est. No. 84575-AUT-1

Net Contents: 1 Gallon

0 72693 20018 0

EPA 092612/REV A

FIRST AID	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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 immediately for treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of soap and water for 15 – 20 minutes. • 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 mouth-to-mouth, if possible. • 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. You may also contact SafetyCall® International (866) 897-8050 for emergency medical treatment information.	
Note to physician: Contains petroleum distillates. Vomiting may cause aspiration pneumonia. Early signs of intoxication include mydriasis (dilated pupils), ataxia (unsteadiness), and muscle tremors. Toxicity follows accidental ingestion of the ABBA CS and can be minimized by promptly administering activated charcoal. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and respiratory functionality) as indicated by clinical signs, symptoms, and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: May be fatal if swallowed. Causes moderate eye injury. Harmful if absorbed thru skin. Do not get in eyes. Avoid contact with skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. For more options, follow the instructions for Category B on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes and socks
- Chemical-resistant gloves, such as barrier laminate or butyl rubber ≥ 14 mils
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Do not apply directly to water, 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 water or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply in your area.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several weeks to months after application. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water such as ponds, streams and springs will reduce the potential loading of abamectin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

DIRECTIONS FOR USE

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

Do not apply 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.

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 12 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 short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber ≥ 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

NON-AGRICULTRAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard (WPS) 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 reenter treated areas until sprays have dried.

For Use on Greenhouse-, Shadehouse-, and Field-Grown Ornamentals, Foliage Plants, Christmas Trees, and other Woody Ornamentals.

ABBA CS will control mites and leafminers, and suppress thrips, aphids, and whiteflies on the following ornamental plants: Greenhouse-, shadehouse- and field-grown ornamentals; foliage plants; Christmas trees and other woody ornamentals.

To control mites, apply ABBA CS when mites initially appear, then repeat as needed to maintain control. To control leafminers, apply ABBA CS and repeat every 7 days or as needed to maintain control.

To suppress whiteflies, thrips, and aphids, apply ABBA CS when the young/immature stages of these pests are first seen, then repeat once per week for 2–3 weeks. Then rotate to other registered insecticides having a different mode of action for a minimum of 2–3 weeks before reverting to ABBA CS. Please see the **Resistance Management** section of this label for additional information regarding rotating products.

Note: For ABBA CS to kill aphids, whiteflies, and thrips, it must come in direct contact with the pests.

Application Instructions

To obtain uniform coverage, mix ABBA CS with sufficient water and apply as a foliar spray. Residual control of pests can be improved on field-grown woody ornamentals, Christmas trees, and landscape plants by adding a Horticultural Spray Oil (not dormant oil) at 2–4 qts per 100 gals finished spray (equivalent to 0.5–1.0% of spray volume). To maintain control, repeat application of ABBA CS as necessary, but not sooner than 7 days after previous application. Some plants are sensitive to oils. Therefore, unless prior experience has shown plant safety, the user should apply ABBA CS plus Horticultural Spray Oil mixture on a small number of plants and observe them for two weeks. If no plant damage is observed, then spray the remaining plants. Excessively warm or cold temperatures following treatment in combination with oils could increase the chances of plant damage. Read and follow label directions for both ABBA CS and any horticultural spray oil product to be used, and do not exceed the maximum rates detailed on either label.

Do not apply ABBA CS in quantities less than 8 fl oz per acre or more than 16 fl oz per acre per application. Use a sufficient quantity of water to obtain thorough coverage on foliage. Review the **Resistance Managemen**t and **Restrictions** sections below for additional guidance.

Greenhouse-, Shadehouse-, and Field-Grown Ornamentals, Foliage Plants, Christmas Trees, and other Woody Ornamentals.

Use Rates

Pests	Amount of ABBA CS fl oz per 100 gals water	Notes
Mites: European Red Mite Two-spotted Spider Mite Carmine Spider Mite Southern Red Mite Spruce Spider Mite Tarsonemid Mites: Cyclamen & Broad Mites Eriophyid Mites: Rust and Bud Mites	4[a]	For tarsonemid mites, multiple applications to newly developing tissue may be needed to maintain effective control.
Boxwood Leafminer	8	To control mining larvae, apply when adults begin to lay eggs onto new foliage.
Liriomyza Leafminers	8[b]	Repeat at intervals of 7 days or as needed to maintain effective control.
Aphids, Thrips, & Whiteflies	8	Spray must contact young immatures.

[a] For example, apply in 200–400 gals of water per acre. If water volume is less than 200 gals, use a minimum of 8 fl oz per acre. If water volume of 400 gals or more per acre is required for sufficient plant coverage apply at the maximum rate of 16 fl oz per acre. Another example: if a volume of 650 gals of water is necessary, use 2.5 fl oz per 100 gals.

[b] For example, apply in 100–200 gals of water per acre. If water volume is less than 100 gals, use at least 8 fl oz per acre. If water volume of 200 gals or more per acre is required for sufficient plant coverage, apply the maximum rate of 16 fl oz per acre. Another example: if 400 gals of water is necessary, apply 4 fl oz per 100 gals.

Use Restrictions

- Do not apply by air.
- Do not use ABBA CS for suppressing thrips, whiteflies and aphids on gerbera, chrysanthemums, and roses, which are primary hosts of *Liriomyza* leafminers and mites controlled by ABBA CS Additional applications ABBA CS on these plants will increase the selection pressure on mites and *Liriomyza* leafminers, which could produce greater pest tolerance (resistance) to ABBA CS.
- Do not use ABBA CS in citrus nurseries.
- Do not use ABBA CS on ferns or Shasta Daisy, since phytotoxicity may occur on certain species of ferns (e.g., *Adiantum* spp.) and Shasta Daisy (*L. eucanthemum* spp.).
- Do not apply through any type of irrigation system.

ABBA CS is non-phytotoxic on a wide range of ornamental plants. However, since all combinations or sequences of pesticide sprays including surfactants and adjuvants have not been tested, it is recommended that a small area be sprayed first to make certain that no phytotoxicity occurs.

Resistance Management

To minimize potential development of pest resistance to abamectin, use of resistance management strategies is imperative, especially when applying ABBA CS to ornamental plants that are hosts of pests on this label that have multiple generations per crop or per year. Examples of resistance management may include but are not limited to the following: use of various cultural practices; nonchemical alternatives (such as beneficial arthropods); rotating susceptible and nonsusceptible plants; rotating pesticides with different modes of action; avoiding use of the same product on successive pest generations; and using labeled rates at specified spray intervals. Consult your State Cooperative Extension Service to obtain additional information regarding the implementation of these or other resistance management strategies.

For managing susceptibility in *Liriomyza* leafminers, apply ABBA CS no more than three times, then apply a registered alternative product with a different mode of action for no more than three times before rotating back ABBA CS or another alternative product. Product rotation intervals should be based on the generation time of *Liriomyza* leafminers to avoid applying ABBA CS to successive generations.

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: Store in a tightly closed container in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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 HANDLING: Nonrefillable Container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. Triple rinse as follows:

Nonrefillable Container (five gallons or less): 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.

Control Solutions, Inc.® Warranty
LIMITATION OF WARRANTY AND LIABILITY

Read the entire direction for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES,** and **LIMITATIONS OF LIABILITY.**

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risk 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 Control Solutions, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, Control Solutions, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Control Solutions, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Control Solutions, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Control Solutions, Inc election, the replacement of product.

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