SAFETY DATA SHEET
CSI ABAMECTIN 1.9 CS
(Alternate Name: ABBA® CS and QUALI-PRO ABBA® CS)

1. IDENTIFICATION

Product name: CSI Abamectin 1.9 CS
Alternate name: ABBA® CS and Quali-Pro ABBA® CS
Product type: Miticide/insecticide
EPA Registration No.: 53883-294
Chemical name of active ingredient(s): Abamectin: Mixture of avermectins comprising mainly Avermectin B1a
Manufacturer/Registrant: Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507
For fire, spill, and/or leak emergencies, contact Chemtrec:
Phone: 1-800-424-9300
For medical emergencies and health and safety inquiries, contact SafetyCall®:
Phone: 1-866-897-8050
Poison Control Center Phone: 1-800-222-1222

2. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Toxicity:

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Acute oral</th>
<th>Acute dermal</th>
<th>Acute inhalation</th>
<th>Eye irritation</th>
<th>Skin irritation</th>
<th>Skin Sensitization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>4</td>
<td>NC</td>
<td>NC</td>
<td>2B</td>
<td>NC</td>
<td>NC</td>
</tr>
</tbody>
</table>

NC: Not classified

SIGNAL WORD: WARNING

HAZARD STATEMENTS:
- Harmful if swallowed
- Causes eye irritation
- May be fatal if swallowed and enters airways (Aspiration Category 1)

PICTOGRAMS:

![Picture of Pictograms]

PRECAUTIONARY STATEMENTS:
- Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If swallowed: Immediately call a poison center. Do not induce vomiting. Rinse mouth.
- If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice.
- Avoid breathing mist, vapors or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. If on skin: wash with plenty of water. If skin irritation or rash occurs: get medical advice. Wash contaminated clothing before reuse.

Contact Safety Call® International for emergency medical treatment at (866) 897-8050.
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STORAGE AND DISPOSAL: See Section 7 and 13.
OTHER HAZARDS: See Section 11 and 12.

3. HAZARDS IDENTIFICATIONS

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>CAS NO.</th>
<th>%</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>OTHER</th>
<th>NTP/IARC/OSHA (Carcinogen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abamectin</td>
<td>65195-56-4</td>
<td>1.9</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NA</td>
</tr>
<tr>
<td>BHT (Butylated hydroxytoluene)</td>
<td>128-37-0</td>
<td>2</td>
<td>10 mg/m³</td>
<td>2 mg/m³</td>
<td>NE</td>
<td>IARC Group 3*</td>
</tr>
<tr>
<td>Aromatic hydrocarbon solvent</td>
<td>64742-94-5</td>
<td></td>
<td>NE</td>
<td>NE</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>containing:</td>
<td>91-20-3</td>
<td>&lt; 0.1</td>
<td>10 ppm, 50 mg/m³</td>
<td>10 ppm, 52 mg/m³</td>
<td>15 ppm, 75 mg/m³ (STEL)</td>
<td>NTP – 2** IARC –2B***</td>
</tr>
</tbody>
</table>

*IARC Group 3 - The agent (mixture or exposure circumstance) is unclassifiable as to carcinogenicity to humans.
NE: Not established; NA: Not applicable.
** Substances, which may reasonably be anticipated to be carcinogens.
*** IARC Group 2B: Substance is possibly carcinogenic to humans.

4. FIRST AID MEASURES

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 a 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 for treatment advice if irritation persists.

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 irritation persists.

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 further 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® for emergency medical treatment information.

Note to physician: Contains petroleum distillates. Vomiting may cause aspiration pneumonia. Early signs of intoxication include mydriasis (dilate 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 parental 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.
5. FIRE FIGHTING MEASURES

FLASH POINT: >212° F (100°C)
FLAMMABLE LIMITS: LFL/UFL: Not applicable
EXTINGUISHING MEDIA: Foam, CO₂, dry chemical.
HAZARDOUS DECOMPOSITION PRODUCTS: None known.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Thermal decomposition products may include, but are not limited to, carbon monoxide and carbon dioxide. This product is a NFPA class IIIB Liquid.
FIRE-FIGHTING PROCEDURES: Use positive-pressure, self-contained breathing apparatus and full protective clothing. Evacuate non-essential personnel from area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Clean up small spills immediately, use proper personal protection. Absorb spill with absorbent material such as pet litter. After removal, flush contaminated area thoroughly with water containing a strong detergent. Sweep up and place in a chemical container. Seal the container and handle in an approved manner. Keep spills out of streams and domestic water supplies. Dike to prevent contamination of local water sources. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. Dispose of all waste and rinsate in the appropriate manner.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Keep container closed when not in use. Handle and open container in a manner as to prevent spillage. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Do not reuse empty container.
PRECAUTIONS TO BE TAKEN IN STORAGE: Store in a tightly closed container in a cool, dry place. Do not contaminate water, food or feed by storage or disposal.
STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.
FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

SKIN PROTECTION: Coveralls over long- or short-sleeved shirt and long or shot pants, chemical-resistant footwear plus socks and head covering (for overhead exposure). Chemical-resistant apron when cleaning equipment, mixing or loading.
HAND PROTECTION: Chemical-resistant gloves, such as barrier laminate or butyl rubber ≥14 mils.
EYE PROTECTION: Protective eyewear (e.g., goggles or full-face shield).
RESPIRATOR REQUIREMENTS: In areas with inadequate ventilation a NIOSH-approved chemical cartridge respirator with organic vapor cartridges and pesticide pre-cartridges or a self-contained breathing apparatus may be required when working with this product.
ADDITIONAL PROTECTIVE MEASURES: Discarded 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 and 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 after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.
ENGINEERING CONTROLS: Refer to product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Brown liquid
ODOR: Sweetish
FLASH POINT: >212°F (100°C)
pH: 6.7
SOLUBILITY IN H2O: Miscible
SPECIFIC GRAVITY: 1.049 g/cm³
VISCOSITY: 588 mm²/s

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.
MATERIALS TO AVOID: None known.
HAZARDOUS POLYMERIZATION: Will not occur.
INSTABILITY CONDITIONS: None known.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include, but are not limited to, carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:
- Acute Oral LD₅₀ (Rat): 980 mg/kg
- Acute Dermal LD₅₀ (Rat): > 2,000 mg/kg
- Acute Inhalation LC₅₀ (Rat): > 5.6 mg/L
- Eye Irritation (Rabbit): Slightly irritating.
- Dermal Irritation (Rabbit): Non-irritating.
- Dermal Sensitization (Guinea Pig): Not a skin sensitizer

REPRODUCTIVE/DEVELOPMENTAL EFFECTS:
Abamectin: Reproductive toxin in animal studies only at doses actually toxic to the maternal animal.

CHRONIC/SUBCHRONIC TOXICITY STUDIES:
Abamectin: Central nervous system effects in animals.

CARCINOGENICITY:
Abamectin: Not observed.

TOXICITY OF OTHER COMPONENTS:
Butylated Hydroxytoluene (BHT): Listed as an IARC (Group 3) carcinogen not classifiable as human (no data available) with limited animal evidence. Exposure may result in irritation to eyes, skin and respiratory tract. Ingestion may cause diarrhea, respiratory depression, tremors, and chronic pulmonary edema or congestion and hemorrhage.

TARGET ORGANS:
Abamectin: Skin, eye, CNS
Butylated Hydroxytoluene (BHT): Eye, skin, respiratory tract
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12. ECOLOGICAL INFORMATION

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 apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment wash washer 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. 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.

ECOLOGICAL EFFECTS: (Abamectin)

Rainbow Trout 96-hour LC50: 4.3 µg/L
Bluegill LC50: 9.6 µg/L
Daphnia magna 48-hour LC50: 0.47 µg/L
Bobwhite Quail LC50/EC50 8-day dietary: 3,102 ppm
Mallard Duck EC50/EC50 8-day dietary: 383 ppm

ENVIRONMENTAL FATE: (Abamectin)
The information presented here is for the active ingredient, abamectin. Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility in soil. Mixes in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT 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 DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

Ground Domestic (DOT)
Not Regulated.

Vessel (IMDG): UN3082, Environmentally hazardous substance, liquid, n.o.s. (abamectin), 9, PG III, Marine pollutant
Air (IATA): UN3082, Environmentally hazardous substance, liquid, n.o.s. (abamectin), 9, PG III

15. REGULATORY INFORMATION

FIFRA INFORMATION:
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

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CAUTION Harmful if swallowed. Causes moderate eye injury. Harmful if absorbed through skin. Do not get in eyes. Avoid contact with skin or clothing. Prolonged or frequently repeat 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.

SARA TITLE III CLASSIFICATION:  
Section 302: Not applicable.  
Section 311/312: Acute health hazard (immediate)  
Delayed health hazard (chronic)  
Section 313: Abamectin (1.9%) CAS#: 71751-41-2  
Naphthalene (<0.1%) CAS #: 91-20-3

CERCLA RQ: Naphthalene: 100 lbs.

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

CA PROPOSITION 65: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. (Abamectin CAS# 71751-41-2)

STATE RTK: NJ – Abamectin

16. OTHER INFORMATION

HAZARD RATINGS

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>NFPA</th>
<th>HMIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

| FLAMMABILITY | 1      | 1      | 1     | SLIGHT |
| REACTIVITY   | 0      | 0      | 2     | MODERATE |
|              | 3      | HIGH   |
|              | 4      | SEVERE  |


The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.