Safety Data Sheet

1 IDENTIFICATION

Product Identifier:

Product Name: Springer™ Systemic Antibiotic

EPA Reg. No.: 69117-10

Synonyms: None

Recommended Use: For suppression of certain diseases on ornamental trees.

Use Restrictions: Do not use on palms that will produce food within the year following treatment; during the year following treatment, do not use any part of the treated palms as food or feed. Use only to treat or prevent infections that are proven or strongly suspected to be caused by bacteria. Do not use this product for medical or veterinary purposes.

Supplier Information:
ArborSystems, Inc. d/b/a ArborSystems
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Omaha, NE 68127 USA
Toll Free: 800.698.4641
Phone: 402.339.4459
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Email: mike@arborsystems.com
Website: www.arborsystems.com

Emergency Phone Number: 1.800.222.1222 (Medical)

2 HAZARDS IDENTIFICATION

Hazards Classification: This mixture is considered hazardous by the 2012 OSHA Communication Standard (29 CFR 1910.1200).

Acute toxicity-Oral	Category 4
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 1B

GHS Label Elements, including precautionary statements:

Signal Word: Danger

Hazards Statements: Harmful if swallowed. Causes serious eye irritation. May damage fertility or the unborn child.

Appearance: Amber **Physical state:** Liquid **Odor:** Alcohol

Precautionary Statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use protective gloves/clothing and eye/face protection. Thoroughly wash face, hands and any exposed skin after handling. Do not eat, drink or smoke when using this product.

Response: If exposed or concerned, get medical advice/attention.

Eyes: 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/attention.

Ingestion: If swallowed, call a poison control center or doctor/physician if you feel unwell. Rinse mouth.

Storage: Store locked up.

Disposal: Dispose of contents/container to an approved waste disposal plant.

Unknown Acute Toxicity: 100% of the mixture consists of ingredient(s) of unknown toxicity. 4.3% of the mixture consists of ingredient(s) of unknown acute oral toxicity. 100% of the mixture consists of ingredient(s) of unknown acute dermal toxicity. 100% of the mixture consists of ingredient(s) of unknown acute inhalation (gas, vapor, dust/mist) toxicity.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS Number	Percent	HMIRA* Registry No.	Date HMIRA filed and date exemption granted (if applicable)
Tetrahydrofurfuryl alcohol	97-99-4	95.7	-	-

*Hazardous Material Information Review Act.

4 FIRST-AID MEASURES

General Advice: Show this SDS to the doctor in attendance.
Inhalation: Remove to fresh air.
Eye Contact: Immediately rinse with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin Contact: Wash skin with soap and water.
Ingestion: Clean mouth with water and drink plenty of water afterwards. Never give anything by mouth to an unconscious person. Do **not** induce vomiting. Call a physician.
Self-protection of the first aider: Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see Section 8).
Most Important Symptoms and Effects: Burning sensation.
Note to Physician: Treat symptomatically.

5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media: CAUTION: Use of water spray when fighting fire may be inefficient.
Specific Hazards Arising from this Mixture: No information available.
Hazardous Combustion Products: Carbon oxides.
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.
Protective Equipment for Firefighters: Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Other Information: Refer to protective measures listed in Sections 7 and 8.
Containment Methods: Prevent further leakage or spillage if safe to do so.
Cleanup Methods: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7 HANDLING AND STORAGE

Precautions for Safe Handling: Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.
Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters - Exposure Limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Appropriate Engineering Controls: Showers, eyewash stations and ventilation systems.
Individual Protection Measures – Personal Protective Equipment:
Eye/Face: If splashes are likely to occur, wear safety glasses with side-shields.
Hand: Wear suitable gloves.
Skin/Body: Wear suitable protective clothing.
Respiratory: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hygiene Considerations: Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9 PHYSICAL AND CHEMICAL PROPERTIES

Auto-ignition temperature:	N/D	Partition coefficient: n-octanol/water:	N/D
Color:	Amber	pH:	3.18 @ 25ºC
Decomposition temperature:	N/D	Physical state:	Liquid
Evaporation rate:	N/D	Relative density:	9.1 lbs/gal
Flammability (solid,gas):	N/A	Solubility(ies):	Complete in water
Flash point:	> 208°F (> 98ºC)	Upper/lower explosive limits:	N/D
Freezing point:	N/D	Upper/lower flammability limits:	N/D
Initial boiling point and range:	N/D	Vapor pressure:	N/D
Melting point:	N/A	Viscosity:	N/D
Odor:	Alcohol	N/A = Not Applicable	N/D = Not Determined

10 STABILITY AND REACTIVITY

Reactivity: No information available.
Chemical Stability: Stable under normal conditions.
Possibility of Hazardous Reactions: None under normal processing.
Hazardous Polymerization: Does not occur.
Conditions to Avoid: None known based on information provided.
Incompatible Materials: None known based on information provided.
Hazardous Decomposition Products: Carbon oxides.

11 TOXICOLOGICAL INFORMATION

Product Information:
Inhalation: Specific test data for the mixture is not available. May cause irritation of respiratory tract.
Eye Contact: Specific test data for the mixture is not available. Causes serious eye irritation, based on components. May cause redness, itching and pain.
Skin Contact: Specific test data for the mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.
Ingestion: Specific test data for the mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed, based on components.

Component Information

Chemical Name / CAS Number	Oral LD50	Dermal LD50	Inhalation LD50
Tetrahydrofurfuryl alcohol / 97-99-4	= 1600 mg/kg (rat)	-	-

Information on Toxicological Effects:
Symptoms: May cause redness and tearing of the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:
Skin corrosion/irritation: May cause skin irritation.
Serious eye damage/irritation: Classification based on data available for ingredients. Irritating to eyes.
Respiratory or skin sensitization: No information available.
Germ cell mutagenicity: No information available.
Carcinogenicity: No information available.
Reproductive toxicity: Classification based on data available for ingredients. Contains a known or suspected reproductive toxin.
STOT-single exposure: No information available.
STOT-repeated exposure: No information available.
Aspiration hazard: No information available.

Numerical Measures of Toxicity – Acute Toxicity:
The following value is calculated based on Chapter 3.1 of the GHS document: ATEmix (oral): 1,672.00 mg/kg
Unknown acute toxicity: 100% of the mixture consists of ingredient(s) of unknown toxicity. 4.3% of the mixture consists of ingredient(s) of unknown acute oral toxicity. 100% of the mixture consists of ingredient(s) of unknown acute dermal toxicity. 100% of the mixture consists of ingredient(s) of unknown acute inhalation (gas, vapor, dust/mist) toxicity.

12 ECOLOGICAL INFORMATION (NON-MANDATORY)

Exotoxicity

Chemical Name / CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	*Daphnia magna* (water flea)
Tetrahydrofurfuryl alcohol / 97-99-4	-	48h LC_{50}=3400 mg/L (*Chaetodonoides*)	-	-

Persistence and Degradability: No information available.
Bioaccumulation: There is no data for this product.
Mobility: No information available.
Other Adverse Effects: No information available.

13 DISPOSAL CONSIDERATIONS (NON-MANDATORY)

Waste Treatment Disposal Methods – Waste from residues/unused product: Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated Packaging: Do not reuse empty containers.

14 TRANSPORT INFORMATION (NON-MANDATORY)

DOT, TGD, MEX, ICAO, IATA, IMDG/IMO, RID, ADR and ADN: Not regulated.

15 REGULATORY INFORMATION (NON-MANDATORY)

International Regulations:
Ozone-depleting substances: Not applicable.
Persistent Organic Pollutants: Not applicable.
Export Notification Requirements: Not applicable.

International Inventories:
TSCA, DSL/NDSL, EINECS/ELINCS, ENCS, KECL, PICCS and AICS: Contact supplier for inventory compliance status.
TSCA: *United States Toxic Substances Control Act Section 8(b) Inventory*; **DSL/NDSL:** *Canadian Domestic Substances List/Non-Domestic Substances List;* ***EINECS/ELINCS:*** *European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances;* ***ENCS:*** *Japan Existing and New Chemical Substances;* ***KECL:*** *Korean Existing and Evaluated Chemical Substances;* ***PICCS:*** *Philippines Inventory of Chemicals and Chemical Substances; and* ***AICS:*** *Australian Inventory of Chemical Substances.*

U.S. Federal Regulations:
SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 ("SARA"). This product does not contain any chemicals that are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
SARA 313.312 Hazard Categories:
Acute Health Hazard: Yes
Chronic Health Hazard: Yes
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

CWA (Clean Water Act): This product does not contain any substances regulated as pollutants pursuant to the CWA (40 CFR §§ 122.21 and 122.42).

CERCLA (Comprehensive Environmental Response Compensation and Liability Act): This material, as supplied, does not contain any substances regulated as hazardous substances under CERCLA (40 CFR Part 302) or the Superfund Amendments and Reauthorization Act (SARA-40 CFR Part 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this material.

FIFRA (Federal Insecticide, Fungicide and Rodenticide Act, as Amended): This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets ("SDSs") and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including Directions for Use.
Precautionary Statements
Hazards to Humans & Domestic Animals

CAUTION: Harmful if swallowed. Avoid contact with skin or clothing. Causes moderate eye irritation. Thoroughly wash with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC), Viton, Selection Category C). Avoid contact with eyes or clothing. Wear protective eyewear such as goggles or shielded safety glasses. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment

Some materials that are chemical-resistant to this product are listed below. Applicators and other handlers must wear: Long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves, such as polyethylene, butyl rubber, neoprene rubber or Viton and protective eyewear such as goggles, face shield or safety glasses.

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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.
- Immediately remove clothing/PPE if pesticide gets inside; then thoroughly wash and put on clean clothing.
- Immediately remove PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, thoroughly wash and change into clean clothing.

Environmental Hazards

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 washwaters or rinsate.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

U.S. State Regulations:

California Proposition 65: This product contains the following Proposition 65 chemical: Oxytetracycline hydrochloride, CAS Number 2058-46-0, Developmental.

U.S. State Right-to-Know Regulations

Chemical Name / CAS Number	Illinois	Massachusetts	New Jersey	Pennsylvania	Rhode Island
Tetrahydrofurfuryl alcohol / 97-99-4		X		X	

16 OTHER INFORMATION

NFPA:
Health Hazards: 2
Flammability: 1
Instability: 0
Physical and Chemical Hazards-Personal Protection: X

HMIS:
Health Hazards: 2*
Flammability: 1
Physical Hazard: 0
Physical and Chemical Hazards-Personal Protection: X
*Chronic Health Hazard

SDS Information:
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DISCLAIMER

This Safety Data Sheet ("SDS") serves different purposes than, and DOES NOT REPLACE OR MODIFY, THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of FIFRA (Federal Insecticide, Fungicide and Rodenticide Act, as Amended) through the product labeling. All necessary and appropriate precautionary, use, storage and disposal information is set forth on that labeling. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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