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**1.0 IDENTIFICATION**

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**Product Name:** TreeAzin<sup>®</sup> Systemic Insecticide**Synonyms:** None**Product Use:** TreeAzin<sup>®</sup> Systemic Insecticide is to be injected into trees to control insect pests using the EcoJect<sup>®</sup> System, a medium pressure tree injection tool.**Manufacturer:** Lallemand Inc./BioForest  
59 Industrial Park Crescent, Unit 1  
Sault Ste. Marie ON  
P6B 5P3 Canada

Phone: 705-942-5824

**In Case of Emergency Call:****703-527-3887 CHEMTREC INTERNATIONAL (Canada)****800-424-9300 CHEMTREC (USA)****(24 Hours/Day, 7 Days/Week)**

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**2.0 HAZARD(S) IDENTIFICATION**

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<b>GHS Classification</b>	<b>Signal Word</b>	<b>Hazard Statement</b>
Flammable Liquid (Category 2)	Danger	H225 Highly flammable liquid and vapour
Serious Eye Damage/Eye Irritation (Category 2A Irritant)	Warning	H319 Causes serious eye irritation
Acute Toxicity	n/a	H303 May be harmful if swallowed (oral) H313 May be harmful in contact with skin (dermal) H333 May be harmful if inhaled (gas, vapour, dust, mist)



**Pictograms:**

**Precautionary Statements:**

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P243 Take precautionary measures against static discharge.  
P264 Wash hands thoroughly after handling  
P280 Wear protective gloves and eye protection.  
P305+P351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P370 + P378 In case of fire: Use carbon dioxide or dry chemical material to extinguish small fires, use alcohol-type or all-purpose-type foams for large fires. Do not use water.  
P312 Call a Poison Centre/doctor if you feel unwell.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of content/containers in accordance with local/regional/national regulations.

**Potential Acute Health Effects:**

- Inhalation: Causes respiratory tract irritation.  
Ingestion: May be harmful if swallowed.  
Skin: No adverse effects with normal skin.  
Eyes: Causes eye irritation.

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**3.0 COMPOSITION/INFORMATION ON INGREDIENTS**

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Active Ingredient: Azadirachtin (5%)

Components	% w/w	CAS #
Azadirachtin A	5	11141-17-6
Azadirachtin B		95507-03-2
Proprietary solvent(s), surfactant and inactive compounds	Remainder	Proprietary surfactant (PMRA List 4B) (cleared for food and nonfood use according to the U.S. code of Federal Regulations, Title 4, Part 180)

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## 4.0 FIRST-AID MEASURES

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- Skin:** Flush contaminated area with water for at least 20 minutes. Remove contaminated clothing under running water. Completely decontaminate clothing before re-use, or discard. If irritation occurs, seek medical attention.
- Eyes:** Immediately flush eyes with water for at least 20 minutes, holding the eyelids open. Seek medical attention immediately.
- Inhalation:** Remove victim to fresh air. Artificial respiration should be given if breathing has stopped and cardiopulmonary resuscitation if heart has stopped. Oxygen may be given if necessary. Seek medical attention immediately.
- Ingestion:** Never give anything by mouth if victim is rapidly losing consciousness or is unconscious or convulsing. **DO NOT INDUCE VOMITING.** Have victim drink about 250 ml (8fl. oz.) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Seek medical attention immediately.

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## 5.0 FIRE-FIGHTING MEASURES

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- Extinguishing Media:** Apply all-purpose-type foams by manufacturers' recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires. Water is generally unsuitable and may help to spread the fire.
- Firefighting Procedures:** Use water spray to cool fire-exposed containers and structures. Use water spray to disperse vapours; reignition is possible. Use self-contained breathing apparatus and protective clothing.
- Specific Hazards:** Vapours from this product may travel or be moved by air currents and ignited by pilot lights, other flames, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from handling point.

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## 6.0 ACCIDENTAL RELEASE MEASURES

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### **Personal Precautions, Protective Equipment and Emergency Procedures:**

See Section 8.0.

### **Environmental Precautions:**

Contain spilled material. Prevent spillage from entering drains.

### **Methods and Material for Containment and Cleaning Up:**

Spill should be collected in suitable containers or absorbed on a suitable absorbent material for subsequent disposal. Provide adequate ventilation and protective equipment. Remove sources of heat, sparks or flames. Waste material should be disposed of in an approved incinerator or in a designated landfill site, in compliance with all federal, provincial, state and local government regulations.

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## 7.0 HANDLING AND STORAGE

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### **Precautions for Safe Handling:**

Keep away from heat, sparks and flames. Keep container closed when not in use. Use with adequate ventilation. Avoid breathing vapours. Avoid contact with eyes and skin. Wash exposed skin thoroughly after handling. Take precautions to prevent static electricity build-up when transferring contents.

### **Conditions for Safe Storage Including any Incompatibilities:**

Keep in original container until use. Check any plastics for compatibility. Store in a cool, dry place, away from direct sunlight. To prevent contamination, store this product away from food or feed. Keep container tightly sealed when not in use. Do not store below 5 degrees Celsius or above 25 degrees Celsius. Shake well before using. Keep away from heat, sparks and flames. Keep container closed when not in use. Good personal hygiene practices are suggested, such as abstaining from eating, drinking and smoking in the workplace.

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## 8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control Parameters:

Component	Exposure Limit	Basis	Entity
Proprietary Solvent(s)	1000 ppm 1900 mg/m <sup>3</sup>	REL	NIOSH
	1000 ppm 1900 mg/m <sup>3</sup>	PEL	OSHA
	1000 ppm 1880 mg/m <sup>3</sup>	STEL	ACGIH
	3300 ppm	IDLH	OSHA

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

IDLH: Immediately Dangerous to Life Health

### Appropriate Engineering Controls:

Ventilation: The ventilation system should be non-sparking, grounded and separate from other exhaust ventilation systems. Local ventilation is recommended when handling.

### Personal Protective Equipment:

Respiratory Protection: Up to 1000 ppm, an approved organic vapour cartridge respirator can be used. For concentrations above 1000 ppm, an air-supplying respirator is recommended. The user should consult a respirator guide, such as the Canadian Standards Association's guide Z94.4-M1982.

Protective Gloves: Neoprene, butyl or natural rubber.

Eye Protection: Chemical resistant monogoggles when handling

**Other Recommendations:** Eye bath, safety shower and other protective equipment as required.

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## 9.0 PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	Dark yellow liquid
Odour	Strong, unpleasant
Odour Threshold	Odour threshold for solvent(s) is approximately 0.05-5100 ppm.
pH	4.3 @ 25°C
Freezing Point, °C	Not available
Boiling Point, °C at 760 mm Hg	75 - 80
Flash Point	13 - 16 °C
Flammability (Solid, Gas)	Flammable
Upper/lower Flammability or Explosive Limits (% U/V)	2.0 - 20.1
Vapour Pressure	Not available
Vapour Density (Air = 1)	1.5
Density, kg/L @ 20 °C	0.83 – 0.85 @ 20°C
Solubility(ies)	Slightly soluble in water
Coefficient of water/oil distribution	Separates from oil
Auto-ignition Temperature (°C)	422
Decomposition Temperature	Not available
Viscosity	Not available
% Volatiles by volume	85

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## 10.0 STABILITY AND REACTIVITY

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<b>Reactivity:</b>	Flammable
<b>Chemical Stability:</b>	Stable
<b>Possibility of Hazardous Reactions:</b>	None
<b>Conditions to Avoid:</b>	Static Discharge, Sources of Ignition
<b>Incompatible Materials:</b>	Oxidizing materials No evidence of chemical incompatibility was reported between TreeAzin <sup>®</sup> and the following reagents: water, fire extinguisher agents (monoammonium phosphate, carbon dioxide), oxidizing agents, (hydrogen peroxide, phosphoric acid, nitric acid, chlorine bleach) and reducing agents (zinc dust).

**Hazardous Decomposition Products:** Burning can produce carbon monoxide and/or carbon dioxide and/or formaldehyde.  
Hazardous polymerization will not occur.

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## 11.0 TOXICOLOGICAL INFORMATION

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**Ingestion:** May cause dizziness, faintness, drowsiness, decreased awareness and responsiveness, euphoria, abdominal discomfort, nausea, vomiting, staggering gait, lack of coordination and coma.

**Skin Absorption:** No adverse effects with normal skin. However, potentially harmful amounts of material may be absorbed across markedly abraded skin when contact is sustained, particularly in children.

**Inhalation:** Inhalation of high concentrations can produce dizziness, faintness, drowsiness, nausea and vomiting. Symptoms depend on the level and duration of exposure.

**Skin Contact:** Mild irritant. Repeated or prolonged exposure may lead to dermatitis, erythema and scaling.

**Eye Contact:** Severe eye irritant. Vapours can irritate eyes. Eye damage from contact with liquid is reversible and proper treatment will result in healing within a few days. Damage is usually mild to moderate conjunctivitis, seen mainly as redness of the conjunctiva.

**Effect of Repeated Overexposure:** Long term repeated oral exposure may result in the development of progressive liver injury with fibrosis.

**Medical Conditions Aggravated by Overexposure:** Repeated exposure may exacerbate liver injury produced from other causes.

**Synergistic Materials:** Carbon tetrachloride, chloroform, bromotrichloromethane, dimethylnitrosamine, thioacetamide.

Skin Sensitization	Not a dermal sensitizer of male Guinea pigs following repeated exposures.
Acute Oral Toxicity	Single oral dose LD <sub>50</sub> in male and female rats > 2000 mg/kg
Acute Nose Inhalation	4-hour acute inhalation in male and female rats LC <sub>50</sub> > 2.070 mg/L
Acute Dermal Irritation	No dermal irritation following a single application in rabbits
Acute Dermal Toxicity	LD <sub>50</sub> in male and female rabbits > 2000 mg/kg

Carcinogen: No  
 Neurotoxicity: No  
 Mutagenicity: No

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## 12.0 ECOLOGICAL INFORMATION

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**Ecotoxicity (aquatic and terrestrial):** Aquatic Vertebrate:  
 LC<sub>50</sub> (96 hours): 13, 000 mg/L  
*Oncorhynchus mykiss* (Rainbow Trout)  
 Terrestrial:  
 Not available

**Persistence and Degradability:** Not available

**Bioaccumulative Potential:** Will not accumulate

**Mobility in Soil:** Not available

**Other Adverse Effects:** Not available

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## 13.0 DISPOSAL CONSIDERATIONS

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DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Dispose of the rinsings in accordance with municipal, provincial/state, or Federal requirements.
2. Make the empty, rinsed container unsuitable for further use.



If there is no container collection site in your area, dispose of the container in accordance with municipal, provincial, state or federal requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the appropriate regulatory agency. Contact the manufacturer and the appropriate regulatory agency in case of a spill, and for clean-up of spills.

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## 14.0 TRANSPORT INFORMATION

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UN#:	3021
UN Proper Shipping Name:	Pesticide, Liquid, Flammable, Toxic, n.o.s.
Transport Hazard Class:	3, Flammable Liquid
Packing Group:	2
Subsidiary Class:	6.1

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## 15.0 REGULATORY INFORMATION

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### 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 required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

### WARNING

Causes substantial but temporary eye injury

Safety, health and environmental regulations specific for the product in question.

**WHMIS Classification:** Flammable Liquid  
Eye Irritant

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## 16.0 OTHER INFORMATION

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This SDS version (4.2) was prepared by Lallemand Inc/BioForest May 6, 2019. The original SDS was prepared by Lallemand Inc/BioForest Technologies Inc. March 12, 2008.

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