This SDS adheres to the standards and regulatory requirements of Canada and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Lumiderm™ Insecticide Seed Treatment
Tradename/Synonym: B12922526
SDS Number: 130000052722
Product Use: Insecticide
Manufacturer: Production Agriscience Canada Company
P.O. Box 730, 7398 Queen's Line
Chatham, Ontario
N7M 5L1
Canada
Product Information: 1-800-667-3852
Medical Emergency: 1-800-441-3637 (24 hours)

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects
Carcinogenicity
None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyantraniliprole</td>
<td>736994-63-1</td>
<td>50 %</td>
</tr>
<tr>
<td>Other Ingredients</td>
<td></td>
<td>50 %</td>
</tr>
</tbody>
</table>
SECTION 4. FIRST AID MEASURES

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: 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.

Inhalation: Move 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.

Ingestion: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious person.

General advice: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies involving this product, call toll free 1-800-441-3637. See Label for Additional Precautions and Directions for Use.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water spray, Foam, Dry chemical, Carbon dioxide (CO2)

Unsuitable extinguishing media: High volume water jet, (contamination risk)

Firefighting Instructions: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.
Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.

Spill Cleanup : Soak up with sawdust, sand, oil dry or other absorbent material. Dispose of in an approved container. If liquid has been spilled in large quantities clean up promptly by scoop or vacuum.

Accidental Release Measures : Prevent material from entering sewers, waterways, or low areas.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing.

Handling (Physical Aspects) : Keep away from heat and sources of ignition.

Storage : Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home. Keep out of the reach of children.

Storage temperature : > 0 °C (> 32 °F)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Skin and body protection : Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material
- Personal protective equipment required for early entry:
Long sleeved shirt and long pants
Shoes plus socks
Chemical resistant gloves made of any waterproof material

Protective measures: 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.

Exposure Guidelines

Exposure Limit Values

<table>
<thead>
<tr>
<th>Cyantraniliprole</th>
<th>AEL *</th>
<th>(DuPont)</th>
<th>3 mg/m3</th>
<th>8 hr. TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AEL *</td>
<td>(DuPont)</td>
<td>2 mg/m3</td>
<td>12 hr. TWA</td>
</tr>
</tbody>
</table>

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- **Form**: liquid
- **Color**: off-white
- **Odor**: characteristic
- **pH**: 5 - 7
- **Bulk density**: 1.0 - 1.5 g/cm3
- **Water solubility**: dispersible

**SECTION 10. STABILITY AND REACTIVITY**
Stability : Stable at normal temperatures and storage conditions.

Conditions to avoid : Protect from frost.

Incompatibility : None reasonably foreseeable.

SECTION 11. TOXICOLOGICAL INFORMATION

Lumiderm™ Insecticide Seed Treatment

Inhalation 4 h LC50 : > 2.2 mg/l, Rat

Dermal LD50 : > 5,000 mg/kg, Rat

Oral LD50 : > 5,000 mg/kg, Rat

Skin irritation : No skin irritation, Rabbit

Eye irritation : No eye irritation, Rabbit

Sensitisation : Animal test did not cause sensitization by skin contact., multiple species

Cyantraniliprole

Repeated dose toxicity :

The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

Oral
Rat
28 - 90 d
Thyroid effects, Organ weight changes, No effect to neurotoxicity.

Dermal
Rat
28 d
No toxicologically significant effects were found.

Oral
Mouse
90 d
No toxicologically significant effects were found.

Oral
**Lumiderm™ Insecticide Seed Treatment**

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**Issue Date**: 04/05/2019  
**Revision Date**: 04/01/2019

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Dog  
90 d  
altered blood chemistry, Liver effects, Vascular arteritis

Oral  
multiple species  
28 d  
Immune System, No toxicologically significant effects were found.

Oral  
Rat  
14 d  
No toxicologically significant effects were found.

Oral  
Dog  
365 d  
Liver effects, Gallbladder effects, altered blood chemistry, Vascular arteritis

Inhalation  
Rat  
28 d  
No toxicologically significant effects were found.

**Carcinogenicity**: Not classifiable as a human carcinogen. Animal testing did not show any carcinogenic effects.

**Reproductive toxicity**: No toxicity to reproduction  
Animal testing showed no reproductive toxicity.

**Teratogenicity**: Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

---

**SECTION 12. ECOLOGICAL INFORMATION**

**Aquatic Toxicity**  
Cyantraniliprole  
96 h LC50  
Oncorhynchus mykiss (rainbow trout) > 12.6 mg/l

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**Material Safety Data Sheet**

**Lumiderm™ Insecticide Seed Treatment**

**Version 3.0**

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**Ref.**: 130000052722

<table>
<thead>
<tr>
<th>Time</th>
<th>Test</th>
<th>Species</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 h</td>
<td>LC50</td>
<td>Lepomis macrochirus (Bluegill sunfish)</td>
<td>&gt; 13 mg/l</td>
</tr>
<tr>
<td>72 h</td>
<td>ErC50</td>
<td>Pseudokirchneriella subcapitata (green algae)</td>
<td>&gt; 13 mg/l</td>
</tr>
<tr>
<td>7 d</td>
<td>ErC50</td>
<td>Lemna gibba (duckweed)</td>
<td>&gt; 12.1 mg/l</td>
</tr>
<tr>
<td>48 h</td>
<td>EC50</td>
<td>Daphnia magna (Water flea)</td>
<td>0.0204 mg/l</td>
</tr>
<tr>
<td>21 d</td>
<td>NOEC</td>
<td>Daphnia magna (Water flea)</td>
<td>0.00969 mg/l</td>
</tr>
</tbody>
</table>

**Additional ecological information**: Environmental Hazards: Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. See product label for additional application instructions relating to environmental precautions.

**SECTION 13. DISPOSAL CONSIDERATIONS**

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

**Container disposal**: Container Refilling and Disposal: Refer to the product label for instructions. Do not transport if this container is damaged or leaking. In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

**SECTION 14. TRANSPORT INFORMATION**

<table>
<thead>
<tr>
<th>IATA_C</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Class</th>
<th>Packing group</th>
<th>Labelling No.</th>
<th>UN number</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Environmentally hazardous substance, liquid, n.o.s. (Cyantraniliprole)</td>
<td>9</td>
<td>III</td>
<td>9</td>
<td>3082</td>
</tr>
</tbody>
</table>

**IMDG**

<table>
<thead>
<tr>
<th>Proper shipping name</th>
<th>Class</th>
<th>Packing group</th>
<th>Labelling No.</th>
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</thead>
<tbody>
<tr>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyantraniliprole)</td>
<td>9</td>
<td>III</td>
<td>9</td>
</tr>
</tbody>
</table>
Marine pollutant : yes (Cyantraniliprole)

Not regulated as a hazardous material by TDG.

SECTION 15. REGULATORY INFORMATION

Other regulations : This product is toxic to: Aquatic organisms Bees

PCP Registration # : 30894
Remarks : No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

MSDS preparation date : 04/01/2019

(TM) Trademark of E.I. du Pont de Nemours and Company.

Contact person : Production Agriscience Canada Company, Chatham, Ontario, N7M 5L1

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.