1. PRODUCT IDENTIFICATION

Product identifier on label: AXIAL® TBC HERBICIDE
Product No.: A15351A
Use: Herbicide
Manufacturer: Syngenta Crop Protection, LLC
Post Office Box 18300
Greensboro NC 27419
Manufacturer Phone: 1-800-334-9481
Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications:
- Reproductive Toxicity: Category 2
- Specific Target Organ Toxicity: Repeated Category 2
- Specific Target Organ Toxicity: Drowsiness Category 3
- Specific Target Organ Toxicity: Respiratory Irritation Category 3
- Aspiration Hazard: Category 1
- Flammable Liquid: Category 4
- Eye Damage/Irritation: Category 2B

Signal Word (OSHA): Danger

Hazard Statements:
- Combustible liquid
- May be fatal if swallowed and enters airways
- Causes eye irritation
- May cause respiratory irritation
- May cause drowsiness or dizziness
- Suspected of damaging fertility or the unborn child
- May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:

Precautionary Statements:
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wash hands and face thoroughly after handling.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If exposed or concerned: Get medical advice/attention.
- If eye irritation persists: Get medical advice.
Keep away from heat, sparks, open flames, hot surfaces. No smoking.
Do not breathe mist, vapors, spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection.
If swallowed: Immediately call a poison center, doctor or Syngenta.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center, doctor or Syngenta if you feel unwell.
Do NOT induce vomiting.
In case of fire: Use dry chemical, foam or CO2 for extinction.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>97-99-4</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Petroleum Solvent</td>
<td>Petroleum Solvent</td>
<td>Trade Secret</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Cloquintocet-Mexyl</td>
<td>Cloquintocet-Mexyl</td>
<td>99607-70-2</td>
<td>2.25%</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Other ingredients</td>
<td>Trade Secret</td>
<td>88.0%</td>
</tr>
<tr>
<td>Propanoic acid, 2,2-dimethyl-8-(2,6-diethyl-4-methylphenyl)-1,2,4,5-tetrahydro-7-oxo-7H-pyrazolo[1,2-d][1,4,5]oxadiazepin-9-yl ester</td>
<td>Pinoxaden</td>
<td>243973-20-8</td>
<td>9.00%</td>
</tr>
<tr>
<td>2',6',8-trifluoro-5-methoxy[1,2,4]triazolo[1,5-c]pyrimidine-2-sulfonanilide</td>
<td>Florasulam</td>
<td>145701-23-1</td>
<td>0.75%</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), 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 after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: 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 Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.
Most important symptoms/effects:

- Eye irritation
- Drowsiness or dizziness
- Respiratory irritation

Indication of immediate medical attention and special treatment needed:

- There is no specific antidote if this product is ingested.
- Treat symptomatically.
- Contains petroleum distillate - vomiting may cause aspiration pneumonia.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorvent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.5 ppm TWA</td>
<td>AIHA</td>
</tr>
<tr>
<td>Petroleum Solvent</td>
<td>Not Established</td>
<td>Not Established</td>
<td>50 mg/m³ (8 ppm) TWA</td>
<td>Manufacturer</td>
</tr>
<tr>
<td>Cloquintocet-Mexyl</td>
<td>Not Established</td>
<td>Not Established</td>
<td>5 mg/m³ TWA</td>
<td>Syngenta</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Pinoxaden</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.1 mg/m³ (ceiling)</td>
<td>Syngenta</td>
</tr>
<tr>
<td>Florasulam</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Appropriate engineering controls:
Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:
Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:
Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact:
Where contact is likely, wear chemical-resistant gloves (such as barrier laminate or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:
A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light golden liquid
Odor: Aromatic
Odor Threshold: Not Available
pH: 4.6 (1% solution in deionized H2O @ 77°F [25°C])
Melting point/freezing point: Not Applicable
Initial boiling point and boiling range: Not Available
Safety Data Sheet

AXIAL® TBC HERBICIDE

Date: 6/29/2015
Replaces: 2/27/2015

Flash Point (Test Method): 172°F (Pensky-Martens CC)
Flammable Limits (% in Air): Not Available
Flammability: Combustible liquid

Vapor Pressure:
- Florasulam: 7.5 x 10(-8) mmHg
- Pinoxaden: 3.5 x 10(-9) mmHg @ 77°F (25°C)

Vapor Density: Not Available
Relative Density: 1.03 g/ml

Solubility (ies):
- Florasulam: 6.36 g/l (68°F) (pH 7.0)
- Pinoxaden: 200 mg/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 563°F
Decomposition Temperature: Not Available
Viscosity: Not Available
Other: None

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.
Chemical stability: Stable under normal use and storage conditions.
Possibility of hazardous reactions: Will not occur.
Conditions to Avoid: None known.

Incompatible materials: None known.
Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information
Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure:
- Dermal: Eye irritation, Drowsiness or dizziness, Respiratory irritation
- Inhalation: Eye irritation, Drowsiness or dizziness, Respiratory irritation

Delayed, immediate and chronic effects of exposure:

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

<table>
<thead>
<tr>
<th>Route</th>
<th>Endpoint/Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Oral (LD50 Female Rat)</td>
<td>3129 mg/kg body weight</td>
</tr>
<tr>
<td>Dermal</td>
<td>Dermal (LD50 Rabbit)</td>
<td>&gt; 5050 mg/kg body weight</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Inhalation (LC50 Rat)</td>
<td>&gt; 2.61 mg/l air - 4 hours</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Moderately Irritating (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Slightly Irritating (Rabbit)</td>
<td></td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>Not a Sensitizer (Guinea Pig)</td>
<td></td>
</tr>
</tbody>
</table>
Reproductive/Developmental Effects
Florasulam: Teratology (Birth Defects): Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects to the mother.
Reproductive Effects: Did not interfere with reproduction in laboratory animal studies.
Mutagenicity: In-vitro and animal genetic toxicity studies were negative.
Pinoxaden: Teratogenicity: Not teratogenic in rats or rabbits.
Reproduction: No reproductive effects observed.

Chronic/Subchronic Toxicity Studies
Florasulam: In animals, effects have been reported on the following organ: Kidney.
Pinoxaden: Subchronic: Predominantly kidney and liver effects at high doses.
Chronic: Predominantly kidney and liver effects at high doses.
Neurotoxicity: No neurotoxic effects (acute or subchronic).

Carcinogenicity
Florasulam: Did not cause cancer in laboratory animals.
Pinoxaden: No compound-related tumors in rats or mice.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofurfuryl Alcohol</td>
<td>No</td>
</tr>
<tr>
<td>Petroleum Solvent</td>
<td>No</td>
</tr>
<tr>
<td>Cloquintocet-Mexyl</td>
<td>No</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>No</td>
</tr>
<tr>
<td>Propanoic acid, 2,2-dimethyl-8-(2,6-diethyl-4-methylphenyl)-1,2,4,5-tetrahydro-7-oxo-7H-pyrazolo[1,2-d][1,4,5]oxazepin-9-yl ester</td>
<td>No</td>
</tr>
<tr>
<td>2′,6′,8-trifluoro-5-methoxy[1,2,4]triazolo[1,5-c]pyrimidine-2-sulfonanilide</td>
<td>No</td>
</tr>
</tbody>
</table>

Other Toxicity Information
None

Toxicity of Other Components
Cloquintocet-Mexyl
Causes mild eye and skin irritation. Toxic if inhaled or swallowed. May cause sensitization by skin contact.
Other ingredients
Not Applicable
Petroleum Solvent
Repeated exposure may cause skin dryness or cracking. If swallowed, may be aspirated and cause lung damage. May be irritating to the eyes, nose, throat and lungs. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination.
Tetrahydrofurfuryl Alcohol
Acute exposure causes slight irritation of the skin. Prolonged exposure may cause mild nervous system effects, liver and kidney damage.

Target Organs
Active Ingredients
Florasulam: Kidney, liver
Pinoxaden: Kidney
12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Pinoxaden:
- Fish (Rainbow Trout) 96-hour LC50 10.3 mg/l (Dynamic conditions)
- Green Algae 72-hour ErC50 41 mg/l
- Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 52 mg/l

Florasulam:
- Fish (Rainbow Trout) 96-hour LC50 > 100 mg/l
- Invertebrate (Daphnia Magna) 48-hour EC50 > 292 mg/l

Environmental Fate

Florasulam:
- The information presented here is for the active ingredient, florasulam.
- Movement & Partitioning: Bioconcentration potential is low (BCF is less than 100 or log Pow less than 3).
- Degradation & Persistence: Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

Pinoxaden:
- The information presented here is for the active ingredient, pinoxaden.
- Compound degrades rapidly in the environment with a DT50 of less than 5 days in field and laboratory studies.

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable
Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
- Packages <=119 gal.: Not regulated
- Packages > 119 gal.: Proper Shipping Name: Compounds, Weed Killing, Liquid, (Tetrahydrofurfuryl Alcohol)
- Hazard Class: Combustible liquid
- Identification Number: NA 1993
- Packing Group: PG III

Comments

Water Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Florasulam), Marine Pollutant
AXIAL® TBC HERBICIDE

Hazard Class: Class 9
Identification Number: UN 3082
Packing Group: PG III

Air Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Florasulam)
Hazard Class: Class 9
Identification Number: UN 3082
Packing Group: PG III

Note: This product is currently not regulated for airfreight within the NAFTA region. However, effective 01/01/2011 the above classification must be used.

15. REGULATORY INFORMATION

Pesticide Registration:
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. Do not get in eyes, on skin, or on clothing. Harmful if swallowed or inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

EPA Registration Number(s):
100-1314

EPCRA SARA Title III Classification:
Section 311/312 Hazard Classes:
- Acute Health Hazard
- Fire Hazard

Section 313 Toxic Chemicals:
None

CERCLA/SARA 304 Reportable Quantity (RQ):
None

RCRA Hazardous Waste Classification (40 CFR 261):
Not Applicable

TSCA Status:
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>Health:</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Flammability:</td>
</tr>
<tr>
<td>Instability:</td>
<td>Reactivity:</td>
</tr>
</tbody>
</table>

Syngenta Hazard Category: D

For non-emergency questions about this product call:
The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.