SAFETY DATA SHEET

HighNoon™

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. IDENTIFICATION

Product name : HighNoon™

Manufacturer or supplier’s details

COMPANY IDENTIFICATION

Manufacturer/importer : CORTEVA AGRISCIENCE LLC
9330 ZIONSVILLE RD
INDIANAPOLIS, IN, 46268-1053
UNITED STATES

Customer Information Number : 800-992-5994
E-mail address : customerinformation@corteva.com

Emergency telephone : INFOTRAC (CONTRACT 84224).
800-992-5994 or 317-337-6009

Recommended use of the chemical and restrictions on use
Recommended use : End use herbicide product

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Not a hazardous substance or mixture.

GHS label elements
Not a hazardous substance or mixture.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminopyralid Potassium</td>
<td>566191-87-5</td>
<td>8.95</td>
</tr>
<tr>
<td>Flopyrauxifen-benzyl</td>
<td>1390661-72-9</td>
<td>0.76</td>
</tr>
</tbody>
</table>

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SECTION 4. FIRST AID MEASURES

If inhaled : Move person to fresh air; if effects occur, consult a physician.
In case of skin contact : Wash off with plenty of water.
If swallowed : No emergency medical treatment necessary.
Most important symptoms and effects, both acute and delayed : None known.
Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician : No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Unsuitable extinguishing media : None known.
Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health. Do not allow run-off from firefighting to enter drains or water courses.
Hazardous combustion products : During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.
Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES
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Personal precautions, protective equipment and emergency procedures:
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions:
If the product contaminates rivers and lakes or drains inform respective authorities. Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained. Prevent from entering into soil, ditches, sewers, underwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up:
Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container. Keep in suitable, closed containers for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). See Section 13, Disposal Considerations, for additional information.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling:
Do not breathe vapors/dust. Handle in accordance with good industrial hygiene and safety practice. Smoking, eating and drinking should be prohibited in the application area. Take care to prevent spills, waste and minimize release to the environment. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Conditions for safe storage:
Store in a closed container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labeled containers. Store in accordance with the particular national regulations.

Materials to avoid:
Strong oxidizing agents
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>US WEEL</td>
</tr>
<tr>
<td>potassium hydroxide</td>
<td>1310-58-3</td>
<td>C</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Engineering measures: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Personal protective equipment

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

Hand protection

Remarks: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

Eye protection: Use safety glasses (with side shields).

Skin and body protection: No precautions other than clean body-covering clothing should be needed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid.

Color: pink

Odor: mild

Odor Threshold: No data available

pH: 7.11 (69.4 °F / 20.8 °C)

Method: pH Electrode

Melting point/range: Not applicable
Freezing point: No data available
Boiling point/boiling range: No data available
Flash point: > 212 °F / > 100 °C
   Method: closed cup
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper explosion limit / Upper flammability limit: No data available
Lower explosion limit / Lower flammability limit: No data available
Vapor pressure: No data available
Relative vapor density: No data available
Density: 1.06 g/cm³ (68 °F / 20 °C)
   Method: Digital density meter
Solubility(ies)
   Water solubility: No data available
Autoignition temperature: No data available
Viscosity
   Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No significant increase (>5°C) in temperature.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.
Chemical stability: No decomposition if stored and applied as directed.
   Stable under normal conditions.
Possibility of hazardous reactions:
   Stable under recommended storage conditions.
   No hazards to be specially mentioned.
   None known.
Conditions to avoid: None known.
Incompatible materials: None.
Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials.
SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg
Acute inhalation toxicity : LC50 (Rat, male and female): > 5.35 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, female): > 5,000 mg/kg

Components:
Aminopyralid Potassium:
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity : Remarks: No adverse effects are anticipated from single exposure to dust.
Based on the available data, respiratory irritation was not observed.

LC50 (Rat): > 5.10 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Florpyrauxifen-benzyl:
Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg
Acute inhalation toxicity : LC50 (Rat, male and female): > 5.23 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Propylene glycol:
Acute oral toxicity : LD50 (Rat): > 20,000 mg/kg
Acute inhalation toxicity : LC50 (Rabbit): 317.042 mg/l
Exposure time: 2 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Mist may cause irritation of upper respiratory tract (nose and throat).

Acute dermal toxicity
LD50 (Rabbit): > 2,000 mg/kg
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute dermal toxicity

potassium hydroxide:
Acute oral toxicity
LD50 (Rat, male): 333 mg/kg

Skin corrosion/irritation

Product:
Result : No skin irritation

Components:
Florpyrauxifen-benzyl:
Species : Rabbit
Result : No skin irritation

Propylene glycol:
Species : Rabbit
Result : No skin irritation

potassium hydroxide:
Result : Causes severe burns.

Serious eye damage/eye irritation

Product:
Result : No eye irritation

Components:
Florpyrauxifen-benzyl:
Species : Rabbit
Result : No eye irritation

Propylene glycol:
Species : Rabbit
Result : No eye irritation
potassium hydroxide:
Result: Corrosive

Respiratory or skin sensitization

Components:

Aminopyralid Potassium:
Remarks: Did not cause allergic skin reactions when tested in guinea pigs.
Remarks: For respiratory sensitization:
No relevant data found.

Florpyrauxifen-benzyl:
Assessment: The product is a skin sensitizer, sub-category 1B.

Propylene glycol:
Species: human
Assessment: Does not cause skin sensitization.

Germ cell mutagenicity

Components:

Aminopyralid Potassium:
Germ cell mutagenicity - Assessment: For similar active ingredient(s), Aminopyralid, In vitro genetic toxicity studies were predominantly negative, Animal genetic toxicity studies were negative.

Florpyrauxifen-benzyl:
Germ cell mutagenicity - Assessment: In vitro genetic toxicity studies were negative, Animal genetic toxicity studies were negative.

Propylene glycol:
Germ cell mutagenicity - Assessment: In vitro genetic toxicity studies were negative, Animal genetic toxicity studies were negative.
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Carcinogenicity

Components:

Aminopyralid Potassium:
Carcinogenicity - Assessment : For similar active ingredient(s), Aminopyralid., Did not cause cancer in laboratory animals.

Florpyrauxifen-benzyl:
Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

Propylene glycol:
Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

Aminopyralid Potassium:
Reproductive toxicity - Assessment : For similar active ingredient(s), Aminopyralid., In animal studies, did not interfere with reproduction. For similar active ingredient(s), Aminopyralid., Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Florpyrauxifen-benzyl:
Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction. Did not cause birth defects or any other fetal effects in laboratory animals.

Propylene glycol:
Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction., In animal studies, did not interfere with fertility. Did not cause birth defects or any other fetal effects in laboratory animals.

STOT-single exposure

Product:
Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.
<table>
<thead>
<tr>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aminopyralid Potassium:</strong></td>
</tr>
<tr>
<td>Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.</td>
</tr>
<tr>
<td><strong>Florpyrauxifen-benzyl:</strong></td>
</tr>
<tr>
<td>Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.</td>
</tr>
<tr>
<td><strong>Propylene glycol:</strong></td>
</tr>
<tr>
<td>Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.</td>
</tr>
<tr>
<td><strong>Potassium hydroxide:</strong></td>
</tr>
<tr>
<td>Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.</td>
</tr>
</tbody>
</table>

**STOT-repeated exposure**

**Product:**

Assessment : Evaluation of available data suggests that this material is not an STOT-RE toxicant.

**Repeated dose toxicity**

**Components:**

| **Aminopyralid Potassium:** |
| Remarks : For similar active ingredient(s). Aminopyralid. In animals, effects have been reported on the following organs: Gastrointestinal tract. |
| **Florpyrauxifen-benzyl:** |
| Remarks : Based on available data, repeated exposures are not anticipated to cause significant adverse effects. |
| **Propylene glycol:** |
| Remarks : In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects. |
| **Potassium hydroxide:** |
| Remarks : Excessive exposure may cause severe irritation to upper respiratory tract (nose and throat) and lungs. |
Aspiration toxicity

**Product:**
Based on physical properties, not likely to be an aspiration hazard.

**Components:**

**Aminopyralid Potassium:**
Based on available information, aspiration hazard could not be determined.

**Florpyrauxifen-benzyl:**
Based on physical properties, not likely to be an aspiration hazard.

**Propylene glycol:**
Based on physical properties, not likely to be an aspiration hazard.

**Potassium hydroxide:**
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

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### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Product:**

**Toxicity to fish**
- LC50 (Oncorhynchus mykiss (rainbow trout)): > 76 mg/l
- Exposure time: 96 h
- Test Type: semi-static test

**Toxicity to daphnia and other aquatic invertebrates**
- EC50 (Daphnia magna (Water flea)): > 100 mg/l
- End point: Immobilization
- Exposure time: 48 h

**Toxicity to algae/aquatic plants**
- ErC50 (Myriophyllum spicatum): > 0.0107 mg/l
- Exposure time: 14 d
  - NOEC (Myriophyllum spicatum): 0.000782 mg/l
  - Exposure time: 14 d

**Toxicity to terrestrial organisms**
- LD50 (Apis mellifera (bees)): > 221 µg/bee
- Exposure time: 48 h
- End point: Acute oral toxicity

- LD50 (Apis mellifera (bees)): > 200 µg/bee
- Exposure time: 48 h
- End point: Acute contact toxicity
## Components:

### Aminopyralid Potassium:

**Toxicity to fish**

<table>
<thead>
<tr>
<th>Remarks: For similar active ingredient(s). Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 (Oncorhynchus mykiss (rainbow trout)): &gt; 100 mg/l</td>
</tr>
<tr>
<td>Exposure time: 96 h</td>
</tr>
<tr>
<td>Test Type: static test</td>
</tr>
<tr>
<td>Method: OECD Test Guideline 203 or Equivalent</td>
</tr>
</tbody>
</table>

**Toxicity to daphnia and other aquatic invertebrates**

<table>
<thead>
<tr>
<th>Remarks: For similar active ingredient(s).</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 (Daphnia magna (Water flea)): &gt; 100 mg/l</td>
</tr>
<tr>
<td>Exposure time: 48 h</td>
</tr>
</tbody>
</table>

**Toxicity to algae/aquatic plants**

<table>
<thead>
<tr>
<th>Remarks: For similar material(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ErC50 (Algae): 100 mg/l</td>
</tr>
<tr>
<td>Exposure time: 72 h</td>
</tr>
<tr>
<td>ErC50 (Myriophyllum spicatum): 0.363 mg/l</td>
</tr>
<tr>
<td>Exposure time: 14 d</td>
</tr>
<tr>
<td>NOEC (Myriophyllum spicatum): 0.0639 mg/l</td>
</tr>
<tr>
<td>Exposure time: 14 d</td>
</tr>
</tbody>
</table>

**Toxicity to terrestrial organisms**

<table>
<thead>
<tr>
<th>Remarks: Material is practically non-toxic to birds on an acute basis (LD50 &gt; 2000 mg/kg). Material is slightly toxic to birds on a dietary basis (LC50 between 1001 and 5000 ppm).</th>
</tr>
</thead>
</table>

### Ecotoxicology Assessment

**Acute aquatic toxicity**

| Very toxic to aquatic life. |

**Chronic aquatic toxicity**

| Very toxic to aquatic life with long lasting effects. |

### Florpyrauxifen-benzyl:

**Toxicity to fish**

<table>
<thead>
<tr>
<th>Remarks: The LC50 value is above the water solubility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 (Oncorhynchus mykiss (rainbow trout)): &gt; 1 mg/l</td>
</tr>
<tr>
<td>Exposure time: 96 h</td>
</tr>
<tr>
<td>LC50 (Cyprinodon variegatus (sheepshead minnow)): &gt; 0.0403 mg/l</td>
</tr>
<tr>
<td>Exposure time: 96 h</td>
</tr>
</tbody>
</table>

**Toxicity to daphnia and other aquatic invertebrates**

<table>
<thead>
<tr>
<th>Remarks: The LC50 value is above the water solubility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 (Daphnia magna (Water flea)): &gt; 0.0623 mg/l</td>
</tr>
<tr>
<td>Exposure time: 48 h</td>
</tr>
</tbody>
</table>

**Toxicity to algae/aquatic plants**

<table>
<thead>
<tr>
<th>Remarks: Growth rate inhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ErC50 (Pseudokirchneriella subcapitata (green algae)): &gt; 1 mg/l</td>
</tr>
<tr>
<td>End point: Growth rate inhibition</td>
</tr>
<tr>
<td>Exposure time: 72 h</td>
</tr>
<tr>
<td>End point</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Oral LD50 (Apis mellifera (bees)): &gt; 105.4 µg/bee</td>
</tr>
<tr>
<td>Contact LD50 (Apis mellifera (bees)): &gt; 100 µg/bee</td>
</tr>
<tr>
<td>Ecotoxicology Assessment</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
</tr>
<tr>
<td>Propylene glycol:</td>
</tr>
<tr>
<td>Toxicity to fish</td>
</tr>
<tr>
<td>Exposure time: 96 h</td>
</tr>
<tr>
<td>Method: OECD Test Guideline 203</td>
</tr>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</td>
</tr>
<tr>
<td>Exposure time: 21 d</td>
</tr>
<tr>
<td>M-Factor (Chronic aquatic toxicity)</td>
</tr>
<tr>
<td>Toxicity to microorganisms</td>
</tr>
<tr>
<td>Exposure time: 3 h</td>
</tr>
<tr>
<td>Toxicity to soil dwelling organisms</td>
</tr>
<tr>
<td>Exposure time: 14 d</td>
</tr>
<tr>
<td>Toxicity to terrestrial organisms</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>M-Factor (Acute aquatic toxicity)</td>
</tr>
<tr>
<td>Toxicity to fish (Chronic toxicity)</td>
</tr>
<tr>
<td>Exposure time: 33 d</td>
</tr>
<tr>
<td>Exposure time: 14 d</td>
</tr>
</tbody>
</table>

**Ecotoxicology Assessment**

**Acute aquatic toxicity**: Very toxic to aquatic life.

**Chronic aquatic toxicity**: Very toxic to aquatic life with long lasting effects.

**Propylene glycol**:

**Toxicity to fish**

LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

**Toxicity to daphnia and other aquatic invertebrates**

LC50 (Ceriodaphnia dubia (water flea)): 18,340 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
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<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
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<tbody>
<tr>
<td>1.1</td>
<td>04/08/2022</td>
<td>800080005767</td>
<td>01/12/2022</td>
<td>01/12/2022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicity to algae/aquatic plants</th>
<th>ErC50 (Pseudokirchneriella subcapitata (green algae)): 19,000 mg/l</th>
<th>End point: Growth rate inhibition</th>
<th>Exposure time: 96 h</th>
<th>Method: OECD Test Guideline 201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</td>
<td>NOEC (Ceriodyphnia dubia (water flea)): 13,020 mg/l</td>
<td>End point: number of offspring</td>
<td>Exposure time: 7 d</td>
<td>Test Type: semi-static test</td>
</tr>
<tr>
<td>Toxicity to microorganisms</td>
<td>NOEC (Pseudomonas putida): &gt; 20,000 mg/l</td>
<td>Exposure time: 18 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>potassium hydroxide:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toxicity to fish</td>
<td>Remarks: May increase pH of aquatic systems to &gt; pH 10 which may be toxic to aquatic organisms.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and degradability**

**Components:**

**Aminopyralid Potassium:**

Biodegradability: Remarks: For similar active ingredient(s).

Aminopyralid. Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 301F or Equivalent

Remarks: 10-day Window: Fail

**Florpyrauxifen-benzyl:**

Biodegradability: Result: Not readily biodegradable.

Biodegradation: 14.6 %

Exposure time: 29 d

Method: OECD Test Guideline 301B

Remarks: 10-day Window: Fail

Stability in water: Test Type: Hydrolysis

Degradation half life (DT50): 913 d (25 °C) pH: 4

Test Type: Hydrolysis

Degradation half life (DT50): 111 d (25 °C) pH: 7

Test Type: Hydrolysis

Degradation half life (DT50): 1.3 d (25 °C) pH: 9
Propylene glycol:
Biodegradability: aerobic
Result: Readily biodegradable.
Biodegradation: 81 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent
Remarks: 10-day Window: Pass

Biodegradation: 96 %
Exposure time: 64 d
Method: OECD Test Guideline 306 or Equivalent
Remarks: 10-day Window: Not applicable

Biochemical Oxygen Demand (BOD):
: 69.000 %
Incubation time: 5 d
70.000 %
Incubation time: 10 d
86.000 %
Incubation time: 20 d

Chemical Oxygen Demand (COD)
ThOD:
: 1.53 kg/kg
: 1.68 kg/kg

Photodegradation:
: Rate constant: 1.28E-11 cm3/s
Method: Estimated.

Potassium hydroxide:
Biodegradability: Remarks: Biodegradation is not applicable.

Bioaccumulative potential
Components:
Aminopyralid Potassium:
Partition coefficient: n-octanol/water:
Remarks: For similar active ingredient(s).
Aminopyralid.
Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Florpyrauxifen-benzyl:
Bioaccumulation:
Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 356
Exposure time: 30 d

Partition coefficient: n-octanol/water:
log Pow: 5.5 (68 °F / 20 °C)
pH: 7
Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
Propylene glycol:
Bioaccumulation: Bioconcentration factor (BCF): 0.09
Method: Estimated.
Partition coefficient: n-octanol/water: log Pow: -1.07
Method: Measured
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

potassium hydroxide:
Partition coefficient: n-octanol/water: Remarks: Partitioning from water to n-octanol is not applicable.

Balance:
Partition coefficient: n-octanol/water: Remarks: No relevant data found.

Mobility in soil

Components:
Aminopyralid Potassium:
Distribution among environmental compartments: Remarks: For similar active ingredient(s).
Aminopyralid.
Potential for mobility in soil is very high (Koc between 0 and 50).

Florpyrauxifen-benzyl:
Distribution among environmental compartments: Koc: 34200
Remarks: Expected to be relatively immobile in soil (Koc > 5000).

Propylene glycol:
Distribution among environmental compartments: Koc: < 1
Method: Estimated.
Remarks: Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Potential for mobility in soil is very high (Koc between 0 and 50).

potassium hydroxide:
Distribution among environmental compartments: Remarks: No data available for assessment due to technical difficulties with testing.

Balance:
Distribution among environmental compartments: Remarks: No relevant data found.
Other adverse effects

Components:

Aminopyralid Potassium:
Results of PBT and vPvB assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential: Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Florpyrauxifen-benzyl:
Results of PBT and vPvB assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential: Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Propylene glycol:
Results of PBT and vPvB assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential: Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Potassium hydroxide:
Results of PBT and vPvB assessment: This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ozone-Depletion Potential: Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Balance:
Results of PBT and vPvB assessment: This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ozone-Depletion Potential: Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or other-
wise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14. TRANSPORT INFORMATION

International Regulations

**UNRTDG**

- **UN number**: UN 3082
- **Proper shipping name**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Florpyrauxifen-benzyl, Aminopyralid)
- **Class**: 9
- **Packing group**: III
- **Labels**: 9

**IATA-DGR**

- **UN/ID No.**: UN 3082
- **Proper shipping name**: Environmentally hazardous substance, liquid, n.o.s. (Florpyrauxifen-benzyl, Aminopyralid)
- **Class**: 9
- **Packing group**: III
- **Labels**: Miscellaneous
- **Packing instruction (cargo aircraft)**: 964
- **Packing instruction (passenger aircraft)**: 964

**IMDG-Code**

- **UN number**: UN 3082
- **Proper shipping name**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Florpyrauxifen-benzyl, Aminopyralid)
- **Class**: 9
- **Packing group**: III
- **Labels**: 9
- **EmS Code**: F-A, S-F
- **Marine pollutant**: yes
- **Remarks**: Stowage category A

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

** Domestic regulation**

**49 CFR**

Not regulated as a dangerous good
Further information
Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know
Propylene glycol 57-55-6

California Prop. 65
WARNING: This product can expose you to chemicals including Quartz, sulphuric acid, which is/are known to the State of California to cause cancer, and toluene, n-hexane, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The ingredients of this product are reported in the following inventories:
TSCA : Product contains substance(s) not listed on TSCA inventory.

TSCA list
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

Federal Insecticide, Fungicide and Rodenticide Act
EPA Registration Number : 62719-755

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.
SECTION 16. OTHER INFORMATION

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)
OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / C : Ceiling limit
OSHA P0 / C : Ceiling limit
US WEEL / TWA : 8-hr TWA

All abbreviations:
AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TEGI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative
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.

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