Material Safety Data Sheet

**Polaris™ MAX Herbicide**

Version 3.0

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

Ref. 130000147304

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

<table>
<thead>
<tr>
<th>Product name</th>
<th>Polaris™ MAX Herbicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS Number</td>
<td>130000147304</td>
</tr>
<tr>
<td>Product Use</td>
<td>Herbicide</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Production Agriscience Canada Company</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 730, 7398 Queen's Line</td>
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<tr>
<td></td>
<td>Chatham, Ontario</td>
</tr>
<tr>
<td></td>
<td>N7M 5L1</td>
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<td></td>
<td>Canada</td>
</tr>
</tbody>
</table>

| Product Information | 1-800-667-3852 |
| Medical Emergency   | 1-800-441-3637 (24 hours) |

### SECTION 2. HAZARDS IDENTIFICATION

**Emergency Overview**

**WARNING!**

Irritating to eyes and skin. HARMFUL IF SWALLOWED. HARMFUL IF INHALED.

Potential Health Effects

- **Skin**
  - Causes skin irritation.

- **Eyes**
  - Severe eye irritation

- **Inhalation**
  - Harmful if inhaled.

- **Ingestion**
  - Harmful if swallowed.

Primary Routes of Entry

- Skin contact, Eye contact, Inhalation

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>Glyphosate, potassium salt</td>
<td>70901-12-1</td>
<td>48.7 %</td>
</tr>
<tr>
<td>Other Ingredients</td>
<td></td>
<td>51.3 %</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.

Notes to physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

SECTION 5. FIREFIGHTING MEASURES

Flammable Properties: Flash point: does not flash
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**Hazardous combustion products**: Carbon monoxide, phosphorous oxides, Nitrogen oxides (NOx).

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

**Firefighting Instructions**: Wear self-contained breathing apparatus (SCBA). Thoroughly decontaminate all equipment used in fire fighting efforts before returning to service. Minimize use of water to prevent environmental contamination.

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### 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.

**Spill Cleanup**: Clean-up methods - small spillage Flush with plenty of water. Clean-up methods - large spillage Prevent further leakage or spillage. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Large spills should be collected mechanically (remove by pumping) for disposal. Collect leaking liquid in sealable (metal/plastic) containers. Collect and contain contaminated absorbent and dike material for disposal. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur.

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

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### SECTION 7. HANDLING AND STORAGE

**Handling (Personnel)**: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Do not breathe spray mist. When using do not eat, drink or smoke. Wash thoroughly after handling. Wash contaminated clothing before re-use.

**Storage**: Store in original container. Keep in properly labelled containers. Keep tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.
Minimum storage temperature:

Storage temperature: -15 °C (5 °F)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Skin and body protection: Wear as appropriate:

Chemical-resistant gloves

Face shield

Wear chemical resistant clothing to prevent incidental contact with this material such as safety glasses/goggles and gloves, aprons, boots or whole body suite made of neoprene or nitrile.

Goggles

This equipment must be cleaned thoroughly after each use.

Applicators and other handlers must wear:

Long sleeved shirt and long pants

Shoes plus socks

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
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None established.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Form** : liquid
- **Color** : pale, amber, brown
- **Odor** : odourless
- **pH** : 4.3 - 4.8
- **Vapour Pressure** : aqueous phase
- **Density** : 1.3565 g/cm\(^3\) at 20 °C (68 °F)
- **Water solubility** : completely miscible
- **Partition coefficient: n-octanol/water** : log Pow: -3.2 at 25 °C (77 °F)

### SECTION 10. STABILITY AND REACTIVITY

- **Incompatibility** : steel
- **Hazardous decomposition products** : Carbon monoxide, phosphorous oxides, Nitrogen oxides (NOx)

### SECTION 11. TOXICOLOGICAL INFORMATION

**Polaris™ MAX Herbicide**

- **Dermal LD50** : > 5,000 mg/kg, Rat
- **Oral LD50** : > 5,000 mg/kg, Rat
- **Skin irritation** : slight irritation, Rabbit
- **Eye irritation** : Moderate eye irritation, Rabbit
- **Sensitisation** : Guinea pig
- **Further information** : Information given is based on data obtained from similar product.

**Glyphosate, potassium salt**

- **Inhalation 4 h LC50** : > 2.07 mg/l, Rat
- **Repeated dose toxicity** : 

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animals (unspecified species)
Reduced body weight gain, Liver effects

Carcinogenicity: Animal testing did not show any carcinogenic effects.

Reproductive toxicity: Weight of evidence does not support classification for reproductive toxicity
Information given is based on data obtained from similar substances.

Teratogenicity: Evidence suggests the substance is not a developmental toxin in animals.
Information given is based on data obtained from similar substances.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity
Polaris™ MAX Herbicide
96 h static test LC50: Lepomis macrochirus (Bluegill sunfish) 5.2 mg/l
96 h static test LC50: Cyprinus carpio (Carp) 4.0 mg/l
72 h static test EC50: Selenastrum capricornutum (green algae) 0.46 mg/l
48 h static test EC50: Daphnia magna (Water flea) 8.0 mg/l

Toxicity to other organisms
Polaris™ MAX Herbicide
48 d LD50: Apis mellifera (bees) > 281 mg/kg
48 d LD50: Apis mellifera (bees) > 273 mg/kg
LD50: Colinus virginianus (Bobwhite quail) > 3,851 mg/kg

Glyphosate, potassium salt
8 d LC50: Colinus virginianus (Bobwhite quail) > 4,500 ppm
Dietary
8 d LC50: Anas platyrhynchos (Mallard duck) > 4,500 ppm
Dietary
Environmental Fate

Polaris™ MAX Herbicide

Bioaccumulation: Lepomis macrochirus (Bluegill sunfish)

Additional ecological information: Information given is based on data on the components and the ecotoxicology of similar products.

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.

Environmental Hazards: Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

TDG: Not regulated.

SECTION 15. REGULATORY INFORMATION

PCP Registration #: 32504
Remarks: No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION
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MSDS preparation date : 04/01/2019

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

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