SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sortan™ IS Herbicide
Tradename/Synonym : B13168070

SDS Number : 130000144187

Product Use : Herbicide
Manufacturer : Production Agriscience Canada Company
P.O. Box 730, 7398 Queen's Line
Chatham, Ontario
N7M 5L1
Canada

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

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects
Information presented in Section 2 conforms to the requirements of the Hazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 for applicable information conforming to the requirements of the Pest Management Regulatory Agency (PMRA).

Skin
Isoxadifen-ethyl : Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause allergic skin reaction with itching, rash, or swelling.

Titanium dioxide : May cause skin irritation. May cause; Discomfort, itching, redness, or swelling..

Eyes
Rimsulfuron : Based on Animal Evidence May cause eye irritation., Discomfort, tearing, Blurred vision.

Ingestion
Rimsulfuron : Abnormal liver function
Ioxidifen-ethyl: Harmful if swallowed.

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>Rimsulfuron</td>
<td>122931-48-0</td>
<td>20 %</td>
</tr>
<tr>
<td>Ioxidifen-ethyl</td>
<td>163520-33-0</td>
<td>10 %</td>
</tr>
<tr>
<td>Other Ingredients</td>
<td></td>
<td>70 %</td>
</tr>
</tbody>
</table>

Present as an impurity in the components of this product:
Titanium dioxide     | 13463-67-7   | 0.1 - 0.5 %   |

SECTION 4. FIRST AID MEASURES

Skin contact: Take off all contaminated clothing immediately. 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. Information presented in Section 4 conforms to the requirements of the Hazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 for applicable information conforming to the requirements of the Pest Management Regulatory Agency (PMRA).

Notes to physician: Treat symptomatically.

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: Wear full protective clothing and self-contained breathing apparatus. (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 to safe areas. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Wear suitable protective equipment.

Spill Cleanup: Sweep up and shovel into suitable containers for disposal.

Accidental Release Measures: Prevent material from entering sewers, waterways, or low areas.
Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Keep out of reach of children. Avoid breathing dust or spray mist. Avoid contact with skin, eyes and clothing. 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. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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

Storage : Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home. Keep container closed when not in use. Keep out of the reach of children. Store in a cool, dry place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Ensure adequate ventilation, especially in confined areas. Information presented in Section 8 conforms to the requirements of the Hazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 for applicable information conforming to the requirements of the Pest Management Regulatory Agency (PMRA).

Personal protective equipment

Hand protection : Material: Protective gloves
Skin and body protection: Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks

PPE required for early entry to treated areas that is permitted in accordance with Provincial and Territorial management programs, and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical resistant gloves made of any waterproof material
- 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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Use this product in accordance with its label.

Exposure Guidelines

Exposure Limit Values

<table>
<thead>
<tr>
<th></th>
<th>AEL *</th>
<th>(DuPont)</th>
<th>5 mg/m3</th>
<th>8 &amp; 12 hr. TWA</th>
<th>Total dust.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rimsulfuron</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEL *</td>
<td>(DuPont)</td>
<td>2.5 mg/m3</td>
<td>8 &amp; 12 hr. TWA</td>
<td>Respirable dust.</td>
<td></td>
</tr>
</tbody>
</table>
Titanium dioxide

<table>
<thead>
<tr>
<th>TLV</th>
<th>(ACGIH)</th>
<th>10 mg/m³</th>
<th>8-hour, time-weighted average Titanium dioxide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower Respiratory Tract irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not classifiable as a human carcinogen</td>
</tr>
<tr>
<td>AEL *</td>
<td>(DuPont)</td>
<td>10 mg/m³</td>
<td>8 &amp; 12 hr. TWA Respirable dust.</td>
</tr>
<tr>
<td>AEL *</td>
<td>(DuPont)</td>
<td>5 mg/m³</td>
<td>8 &amp; 12 hr. TWA Total dust.</td>
</tr>
</tbody>
</table>

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Form: granules
Oxidizing Substance: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY
Stability: Stable at normal temperatures and storage conditions.
Conditions to avoid: None reasonably foreseeable.
Incompatibility: None reasonably foreseeable.
Hazardous reactions: Polymerization will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION
Sortan™ IS Herbicide
Inhalation 4 h Acute toxicity estimate: > 5 mg/l, Rat
Dermal Acute toxicity estimate: > 5,000 mg/kg, Rat
Oral Acute toxicity estimate: > 5,000 mg/kg, Rat
### Skin irritation
- No skin irritation, Rabbit
- Minimal effects that do not meet the threshold for classification.

### Eye irritation
- No eye irritation, Rabbit
- Minimal effects that do not meet the threshold for classification.

### Sensitisation
- Did not cause sensitisation on laboratory animals, Mouse

### Further information
- Information given is based on data on the components. Information presented in section 11 conforms to the requirements of the Hazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 for applicable information conforming to the requirements of the Pest Management Regulatory Agency (PMRA).

### Rimsulfuron
- **Repeated dose toxicity**: The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.
  - Oral multiple species
  - altered blood chemistry, Liver effects, Organ weight changes

- **Carcinogenicity**: Did not show carcinogenic effects in animal experiments.

- **Reproductive toxicity**: Animal testing did not show any effects on fertility.

- **Teratogenicity**: Evidence suggests the substance is not a developmental toxin in animals.

### Isoxadifen-ethyl
- **Repeated dose toxicity**:
  - Ingestion Mouse 90 d
  - No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification.

- **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.
Material Safety Data Sheet

**Sortan™ IS Herbicide**

Version 3.0

Issue Date : 04/05/2019  Ref. 130000144187
Revision Date : 04/01/2019

Teratogenicity : Evidence suggests the substance is not a developmental toxin in animals.

Titanium dioxide

Repeated dose toxicity : Oral Rat

No toxicologically significant effects were found.

Carcinogenicity : Not classifiable as a human carcinogen. Overall weight of evidence indicates that the substance is not carcinogenic.

Reproductive toxicity : Animal testing showed no reproductive toxicity.

Teratogenicity : Animal testing showed no developmental toxicity.

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**SECTION 12. ECOLOGICAL INFORMATION**

**Aquatic Toxicity**

**Rimsulfuron**

96 h LC50 : Oncorhynchus mykiss (rainbow trout) > 390 mg/l
96 h LC50 : Lepomis macrochirus (Bluegill sunfish) > 390 mg/l
120 h EbC50 : Selenastrum capricornutum (green algae) 1.6 mg/l
48 h EC50 : Daphnia magna (Water flea) > 360 mg/l
90 d : NOEC Oncorhynchus mykiss (rainbow trout) 110 mg/l
21 d : NOEC Daphnia magna (Water flea) 0.82 mg/l

**Isoxadifen-ethyl**

96 h LC50 : Lepomis macrochirus (Bluegill sunfish) 0.22 mg/l
96 h EC50 : Pseudokirchneriella subcapitata (green algae) > 1.26 mg/l
96 h NOEC : Pseudokirchneriella subcapitata (green algae) 1.26 mg/l
Material Safety Data Sheet

Sortan™ IS Herbicide

Version 3.0

Issue Date : 04/05/2019  Ref. 130000144187
Revision Date : 04/01/2019

Titanium dioxide

96 h LC50 : Pimephales promelas (fathead minnow) > 1,000 mg/l

72 h ErC50 : Pseudokirchneriella subcapitata (green algae) > 100 mg/l  see user defined free text

72 h NOEC : Algae 5,600 mg/l  see user defined free text

48 h EC50 : Daphnia magna (Water flea) > 100 mg/l  OECD Test Guideline 202

Environmental Fate

Rimsulfuron

Biodegradability : According to the results of tests of biodegradability this product is not readily biodegradable.

Bioaccumulation : Does not bioaccumulate.

Additional ecological information : The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination. Toxic to aquatic organisms. This product is toxic to non-target plants. 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. Comply with applicable Federal, State/Provincial and Local Regulations.

Container disposal: : Container Refilling and Disposal:
DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.
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.
Dispose of contents/container to a hazardous-waste collection site.

SECTION 14. TRANSPORT INFORMATION
Material Safety Data Sheet

Sortan™ IS Herbicide

Version 3.0

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

Ref. 130000144187

IATA_C

UN number : 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s. (Isoxadifen-ethyl, Rimsulfuron)
Class : 9
Packing group : III
Labelling No. : 9

IMDG

UN number : 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Isoxadifen-ethyl, Rimsulfuron)
Class : 9
Packing group : III
Labelling No. : 9

Marine pollutant : yes (Isoxadifen-ethyl, Rimsulfuron)

Not regulated as a hazardous material by TDG.

SECTION 15. REGULATORY INFORMATION

Other regulations : This Safety Data Sheet is for a pesticide product registered by the Pest Management Regulatory Agency (PMRA), and is therefore also subject to certain requirements under Canadian pesticide laws, including the Pest Control Products Act (PCPA). These requirements differ from the classification criteria and hazard information required by the Hazardous Product Regulations (HPR) and WHMIS 2015 for safety data sheets, and for workplace labels of non-pesticide chemicals. The following information is determined by PMRA.

Avoid breathing spray mist. Avoid contact with skin, eyes and clothing.

PCP Registration # : 32627
Remarks : No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION
Material Safety Data Sheet

Sortan™ IS Herbicide

Version 3.0

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

MSDS preparation date : 04/01/2019

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

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