This product is undergoing a change in registrant.

For product enquiries, please call BASF AgSolutions® Customer Care at 1-877-371-2273 or visit our website at www.agsolutions.ca.

In case of emergency endangering life or property involving this product, call day or night: 1-800-454-2673.

BASF Canada Inc.
100 Milverton Drive, 5th Floor
Mississauga, Ontario
L5R 4H1
SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: IGNITE® SN HERBICIDE
MSDS Number: 102000021443
Product code (UVP): 79461976
PCP Registration No.: 28532
Product Use: Herbicide

Bayer CropScience Inc
#200, 160 Quarry Park Blvd, SE
Calgary, Alberta T2C 3G3
Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-888-283-6847

SECTION 2. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview
Warning! Harmful if swallowed or absorbed through skin. Causes eye irritation. May cause skin irritation. Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist.

Physical State: liquid
Odor: aromatic
Appearance: blue to blue green
Exposure routes: Skin Absorption, Ingestion, Inhalation, Eye contact

Immediate Effects
Eye: Causes eye irritation. Do not get in eyes.
Skin: Harmful or fatal if absorbed through the skin. May cause skin irritation. Do not get on skin or clothing.
Ingestion: Harmful if swallowed. Do not take internally.
Inhalation: Avoid breathing spray mist.

Chronic or Delayed Long-Term: This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects.
Potential Environmental Effect
Toxic to aquatic organisms. This product may cause adverse effects on non-target plants.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glufosinate ammonium</td>
<td>77182-82-2</td>
<td>13.50</td>
</tr>
<tr>
<td>Alkylethersulfate, sodium salt</td>
<td>68891-38-3</td>
<td>58.50</td>
</tr>
<tr>
<td>1-Methoxy-2-propanol</td>
<td>107-98-2</td>
<td>10.00</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General
When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

Eye
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 physician or poison control center immediately.

Skin
Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

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 physician or poison control center immediately.

Notes to physician

Signs and Symptoms
If large amounts are ingested, the following symptoms may occur:
Hyperthermia
Dyspnœa
Bradycardia
Ataxia
Diarrhoea
Convulsions
Liver and kidney injuries may occur.
Respiratory failure

Hazards
Ingestion may cause liver damage. Dangerous amounts can be absorbed through the skin. More severe effects if alcohol is consumed. Risk of bronchopneumonia in case of prolonged exposure. Poisoning affects the central nervous system.
Treatment

Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>57 °C / 135 °F</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>455 °C / 851 °F</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Suitable extinguishing media</td>
<td>Water spray, Foam, Carbon dioxide (CO2), Dry powder</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>High volume water jet</td>
</tr>
<tr>
<td>Fire Fighting Instructions</td>
<td>Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Do not allow run-off from fire fighting to enter drains or water courses. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</td>
</tr>
</tbody>
</table>

SECTION 6. ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.</td>
</tr>
<tr>
<td>Additional advice</td>
<td>Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact vegetation.</td>
</tr>
</tbody>
</table>

SECTION 7. HANDLING AND STORAGE

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling procedures</td>
<td>Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to</td>
</tr>
</tbody>
</table>
prevent spillage.

Storing Procedures

Keep away from direct sunlight. Protect from freezing.

Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection

Follow all label instructions. Train employees in safe use of the product.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Eye/Face Protection

Safety glasses, in case of increased risk, also a face shield

Hand protection

Chemical resistant nitrile rubber gloves

Body Protection

Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glufosinate ammonium</td>
<td>77182-82-2</td>
<td>0.9 mg/m3</td>
</tr>
<tr>
<td>1-Methoxy-2-propanol</td>
<td>107-98-2</td>
<td>100 ppm</td>
</tr>
<tr>
<td>OES BCS*</td>
<td>TWA</td>
<td></td>
</tr>
<tr>
<td>OEL (QUE)</td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td>OEL (QUE)</td>
<td>STEL</td>
<td>150 ppm</td>
</tr>
<tr>
<td>CAD AB OEL</td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td>CAD AB OEL</td>
<td>STEL</td>
<td>150 ppm</td>
</tr>
<tr>
<td>CAD BC OEL</td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAD BC OEL</td>
<td>STEL</td>
<td>75 ppm</td>
</tr>
<tr>
<td>CAD ON OEL</td>
<td>TWAEV</td>
<td>100 ppm</td>
</tr>
<tr>
<td>CAD ON OEL</td>
<td>STEV</td>
<td>150 ppm</td>
</tr>
<tr>
<td>OEL (QUE)</td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>
## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>blue to blue green</td>
</tr>
<tr>
<td>Physical State</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>aromatic</td>
</tr>
<tr>
<td>pH</td>
<td>5.4 - 7.4 (10 %) at 23 °C</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>no data available</td>
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<tr>
<td>Vapor Density (Air = 1)</td>
<td>no data available</td>
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<tr>
<td>Density</td>
<td>1.11 g/cm³ at 20 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>ca. 99 °C / 210 °F at 1.013 hPa</td>
</tr>
<tr>
<td>Melting / Freezing Point</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>at 20 °C: miscible</td>
</tr>
<tr>
<td>Minimum Ignition Energy</td>
<td>no data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 200 °C</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>no data available</td>
</tr>
</tbody>
</table>

## SECTION 10. STABILITY AND REACTIVITY

- **Conditions to avoid**: Extremes of temperature and direct sunlight.
- **Incompatibility**: Strong oxidizing agents, Acids, Bases
- **Hazardous**: Thermal decomposition
Decomposition Products  Ammonia

Hazardous reactions  No hazardous reactions when stored and handled according to prescribed instructions.

Chemical Stability  Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the technical-grade active ingredient, glufosinate ammonium.

**Acute oral toxicity**
- male rat: LD50: 2,270 mg/kg
- female rat: LD50: 1,730 mg/kg
- male/female combined rat: LD50: 2,000 mg/kg

**Acute dermal toxicity**
- male rat: LD50: 537 mg/kg
- female rat: LD50: 642 mg/kg
- male/female combined rat: LD50: 593 mg/kg

**Acute inhalation toxicity**
- male rat: LC50: 2.97 mg/l
  Exposure time: 4 h
  Determined in the form of liquid aerosol.
- female rat: LC50: 3.91 mg/l
  Exposure time: 4 h
  Determined in the form of liquid aerosol.
- male rat: LC50: 11.9 mg/l
  Exposure time: 1 h
  Determined in the form of liquid aerosol.
  Extrapolated from the 4 hr LC50.
- female rat: LC50: 15.6 mg/l
  Exposure time: 1 h
  Determined in the form of liquid aerosol.
  Extrapolated from the 4 hr LC50.

**Skin irritation**  rabbit: Mild skin irritation.

**Eye irritation**  rabbit: Corrosive - causes irreversible eye damage.

**Sensitisation**  guinea pig: Non-sensitizing.

**Chronic toxicity**  Glufosinate-ammonium caused neurobehavioral effects and/or
neuropathological changes in animal studies. Glufosinate-ammonium was well tolerated in rats and mice but less well tolerated in the dog in subchronic studies.

Assessment Carcinogenicity
Glufosinate-ammonium was not carcinogenic in lifetime feeding studies in rats and mice.

- ACGIH: None.
- NTP: None.
- IARC: None.
- OSHA: None.

Reproductive toxicity
Implantation loss occurred in a rat multigeneration study with Glufosinate-ammonium. There were no effects on male fertility.

Developmental Toxicity
Glufosinate-ammonium caused developmental toxicity only at doses toxic to the dams. Glufosinate-ammonium caused an increased incidence of post implantation losses.

Mutagenicity
Glufosinate-ammonium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental precautions
Do not allow to get into surface water, drains and ground water. Do not apply when weather conditions favor runoff or drift. Drift or runoff from treated areas may adversely affect non-target plants. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance
It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Dispose of contents/container in accordance with local regulation.

Container Disposal
Do not re-use empty containers. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION

TDG
UN-Number 2902
**Material Safety Data Sheet**

**IGNITE® SN HERBICIDE**

<table>
<thead>
<tr>
<th>Labels</th>
<th>6.1</th>
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<tbody>
<tr>
<td>Packaging group</td>
<td>III</td>
</tr>
<tr>
<td>Description of the goods</td>
<td>PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM)</td>
</tr>
</tbody>
</table>

**49CFR**

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<tr>
<th>UN-Number</th>
<th>2902</th>
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<td>Class</td>
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<tr>
<td>Packaging group</td>
<td>III</td>
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<tr>
<td>Description of the goods</td>
<td>PESTICIDES, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM)</td>
</tr>
</tbody>
</table>

**IMDG**

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<th>2902</th>
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<tbody>
<tr>
<td>Class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packaging group</td>
<td>III</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>NO</td>
</tr>
<tr>
<td>Description of the goods</td>
<td>PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM SOLUTION)</td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>2902</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packaging group</td>
<td>III</td>
</tr>
<tr>
<td>Environm. Hazardous Mark</td>
<td>NO</td>
</tr>
<tr>
<td>Description of the goods</td>
<td>PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM SOLUTION)</td>
</tr>
</tbody>
</table>

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

**SECTION 15. REGULATORY INFORMATION**

**PCP Registration No.** 28532

**US Federal Regulations**

**TSCA list**

- Alkylethersulfate, sodium salt 68891-38-3
- 1-Methoxy-2-propanol 107-98-2

**US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)**

- None.

**SARA Title III - Section 302 - Notification and Information**

- None.

**SARA Title III - Section 313 - Toxic Chemical Release Reporting**

- None.

**US States Regulatory Reporting**

**CA Prop65**

This product does not contain any substances known to the State of California to cause cancer.
This product does not contain any substances known to the State of California to cause reproductive harm.

**US State Right-To-Know Ingredients**
- 1-Methoxy-2-propanol 107-98-2 CA, IL, MN, RI

**Canadian Regulations**
- **Canadian Domestic Substance List**
  - Alkylethersulfate, sodium salt 68891-38-3
  - 1-Methoxy-2-propanol 107-98-2

**Environmental**
- **CERCLA**
  - None.
- **Clean Water Section 307 Priority Pollutants**
  - None.
- **Safe Drinking Water Act Maximum Contaminant Levels**
  - None.

**International Regulations**
- **European Inventory of Existing Commercial Substances (EINECS)**
  - Glufosinate ammonium 77182-82-2
  - 1-Methoxy-2-propanol 107-98-2

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### SECTION 16. OTHER INFORMATION

**NFPA 704 (National Fire Protection Association):**
- Health - 2
- Flammability - 2
- Instability - 1
- Others - none

- Health - 2
- Flammability - 2
- Physical Hazard - 1
- PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Reviewed and updated for general editorial purposes.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 01/17/2012

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