ASULOX® BRAND HERBICIDE

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>ASULOX® BRAND HERBICIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td></td>
</tr>
<tr>
<td>Synonym</td>
<td></td>
</tr>
<tr>
<td>MSDS Number</td>
<td>13</td>
</tr>
<tr>
<td>Chemical Family</td>
<td></td>
</tr>
<tr>
<td>Chemical Formulation</td>
<td></td>
</tr>
<tr>
<td>EPA Registration No.</td>
<td>264-447</td>
</tr>
<tr>
<td>Canadian Registrat. No.</td>
<td></td>
</tr>
</tbody>
</table>

Bayer CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC  27709
USA

For Product Use Information: (866)-992-2937 Monday through Friday(CRLF) 8:00AM-4:30PM(CRLF) For Medical Emergency contact DART: (800) 334-7577  24 Hours/Day(CRLF)
For Transportation Emergency CHEMTREC: (800) 424-9300  24 Hours/Day

Product Use Description  Herbicide for postemergent weed control in a variety of crop and non-crop uses.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS No.</th>
<th>Concentration % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl [(4-aminophenyl)-sulphonyl]carbamate, sodium salt</td>
<td>2302-17-2</td>
<td>Minimum 35.1000  Maximum 37.3000</td>
</tr>
</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview  Caution! Harmful if absorbed through the skin. Avoid contact with skin, eyes and clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Odor  Odorless

Appearance  Brown

Immediate Effects
Eye  Causes redness, irritation, tearing.
Skin
Non-irritating. Harmful if absorbed through skin.

Ingestion
Harmful if ingested.

Inhalation
Harmful if inhaled.

Chronic or Delayed Long-Term
This product does not contain any ingredients designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

SECTION 4. FIRST AID MEASURES

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 poison control center or doctor for treatment advice.

Skin
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.

Ingestion
Call a poison control center or doctor for treatment advice.

Inhalation
Move person to fresh air. Call a poison control center or doctor for treatment advice.

Note to Physician
All treatment should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point
Not applicable

Fire and Explosion Hazards
Under fire conditions, toxic, corrosive fumes are emitted.

Suitable Extinguishing Media
Not combustible., Use extinguishing method suitable for surrounding fire.

Fire Fighting Instructions
Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Dike areas to prevent runoff and contamination of water sources. Dispose of fire control water later.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal
Evacuation Procedures and Safety: Wear appropriate gear for the situation. See Personal Protection information in Section 8.

Cleanup and Disposal of Spill: Pump any free liquid into an appropriate closed
container. Clean up residual material as appropriate. Decontaminate tools and equipment following cleanup.

**Land Spill or Leaks**

Environmental and Regulatory Reporting: Do not flush to drain. If spilled on the ground, the affected area should be scraped clean and placed in an appropriate container for disposal. Prevent material from entering public sewer system or any waterway.

Containment of Spill: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

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**SECTION 7. HANDLING AND STORAGE**

**Handling Procedures**

Do not breathe vapors and mists. Avoid direct or prolonged contact with skin and eyes. Do not ingest. Keep from freezing. Use handling, storage and disposal procedures that will prevent contamination of water, food or feed.

**Storing Procedures**

Do not contaminate water, food, or feed by storage or disposal.

**Work/Hygienic Procedures**

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as practical, wash thoroughly and change into clean clothing.

**Min/Max Storage Temperatures**

Do not transport or store below -6 °C
### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Engineering Controls</th>
<th>Where engineering controls are indicated by use conditions of a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: Local exhaust ventilation at the point of generation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye/Face Protection</td>
<td>Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.</td>
</tr>
<tr>
<td>Hand Protection</td>
<td>Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.</td>
</tr>
<tr>
<td>Body Protection</td>
<td>Long-sleeved shirt and long pants, Shoes plus socks</td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations. Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit. Air-purifying (half-mask/full-face) respirator with cartridge/canister approved for use against dusts, mists and fumes, pesticides. Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.</td>
</tr>
<tr>
<td>General Protection</td>
<td>Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.</td>
</tr>
</tbody>
</table>

**Exposure Limits**

None known.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Brown</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH</td>
<td>7.0 - 8.0</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.18 at 20 °C</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>10.0 lb/gal</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>104 °C at 760 mmHg</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>-6 °C</td>
</tr>
<tr>
<td>Solubility (in water)</td>
<td>Soluble</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>253.24 g/mol</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>This material is stable under normal handling and storage conditions described in Section 7.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Extreme cold</td>
</tr>
<tr>
<td>Incompatibility</td>
<td>Acids</td>
</tr>
</tbody>
</table>
| Hazardous Products of Decomposition | Decomposition Type: thermal  
                                        | Oxides of nitrogen  
                                        | Oxides of sulfur  
                                        | Carbon oxides |

SECTION 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Rat: LD50: &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Acute Dermal Toxicity</td>
<td>Rabbit: LD50: &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Acute Inhalation Toxicity</td>
<td>Rat: LC50: &gt; 5 mg/l 4 h</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>Rabbit: Non-irritating.</td>
</tr>
</tbody>
</table>
ASULOX® BRAND HERBICIDE

Eye Irritation
Rabbit: Slightly irritating.

Chronic Toxicity
No additional test data found for product.

Assessment Carcinogenicity

ACGIH
None

NTP
None

IARC
None

OSHA
None

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions
Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwaters in a manner that will contaminate water resources or arable land. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning equipment or disposal of waste.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance
Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Open dumping is prohibited.

Container Disposal
Triple rinse or equivalent. Puncture container to avoid re-use. Then dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

RCRA Classification
Not Regulated under this Statute
Material Safety Data Sheet

ASULOX® BRAND HERBICIDE

SECTION 14. TRANSPORT INFORMATION

Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT Classification

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors

DOT CLASSIFICATION:
Not regulated for transportation

FREIGHT CLASSIFICATION:
Compounds, Tree or Weedkilling, N.O.I. other than poison, having a density of 20 LBS or greater per cubic foot

SECTION 15. REGULATORY INFORMATION

US Federal Regulations
EPA Registration No. 264-447
TSCA list
None
TSCA 12b export notification
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
None

Canadian Regulations
Canadian Registrat. No.
Canadian Domestic Substance List
None

Environmental
CERCLA
None
Clean Water Section 307 Priority Pollutants

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Material Safety Data Sheet

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None

Safe Drinking Water Act Maximum Contaminant Levels
None

International Regulations
EU Classification
None

European Inventory of Existing Commercial Substances (EINECS)
Methyl [(4-aminophenyl)-sulphonyl]carbamate, 2302-17-2
sodium salt

SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

MSDS REVISION INDICATOR: Update Sections: 4 (First Aid Measures); 7 (Handling and Storage); 8 (Exposure Control/Personal Protection); 12 (Ecological Information); 13 (Disposal Considerations)

Print Date: 09/18/2003
Supersedes MSDS, which is older than: 09/16/2003

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