1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier
Product Description: UltraBlazer Herbicide

Other means of identification
Item#: 12U-106
Synonyms: Not Available
Registration number(s): 70506-60

Recommended use of the chemical and restrictions on use
Recommended use: Herbicide.
Uses advised against: Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet
Supplier Address: United Phosphorus Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number
Company Phone Number: 1-800-438-6071
Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

2. Hazards Identification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Gases)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Vapors)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label elements

EMERGENCY OVERVIEW

hazard statements
Harmful in contact with skin
Toxic if inhaled
CAUSES SKIN IRRITATION
Causes serious eye damage
Precautionary Statements - Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Do not get in eyes, on skin, or on clothing
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

OTHER INFORMATION
• Very toxic to aquatic life with long lasting effects
• Very toxic to aquatic life
• May be harmful in contact with skin

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve</td>
<td>111-76-2</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>Acifluorfen, sodium salt</td>
<td>62476-59-9</td>
<td>20.1</td>
<td></td>
</tr>
</tbody>
</table>

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact
Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact
Wash off immediately with plenty of water for at least 15 minutes. Call poison control center or doctor for treatment advice.

Inhalation
Move person 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
Ingestion
Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Protection of First-aiders
Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed
No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed
Notes to physician
Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
Carbon dioxide (CO2).
Use:. Dry chemical. Water spray. alcohol-resistant foam.

Unsuitable extinguishing media
No information available.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products

Explosion data

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
Avoid contact with the skin and the eyes. Wear protective gloves/clothing and eye/face protection.

Environmental Precautions

Environmental precautions
Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling
Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities

Storage
Keep in a dry, cool and well-ventilated place. Keep out of the reach of children.
incompatible materials

Strong oxidizing agents.

8. Exposure Controls/Personal Protection

Exposure guidelines

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve</td>
<td>TWA: 20 ppm</td>
<td>TWA: 50 ppm TWA: 240 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S¹</td>
</tr>
</tbody>
</table>

Engineering controls

Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

Eye/Face Protection
Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

Skin protection
Wear protective gloves/clothing. Socks and footwear.

Respiratory protection
Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>VALUES</th>
<th>Remarks/ • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>9.2 °C / 49 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>103 °C / 217 °F</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>210 F</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability limit in air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>17 @ 20 C</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.18 g/ml</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
Explosive properties: No information available
Oxidizing properties: No information available

OTHER INFORMATION

Softening point: No information available
Molecular weight: No information available
VOC Content: No information available
Density: No information available
Bulk density: 9.82 lb/gal

10. Stability and Reactivity

Reactivity
no data available

Chemical stability
Stable under normal conditions. Hazardous polymerisation does not occur.

Possibility of hazardous reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerisation does not occur.

Conditions to avoid
Freezing temperatures.

Incompatible materials
Strong oxidizing agents.

Hazardous decomposition products
Carbon oxides.

11. Toxicological Information

Information on Likely Routes of Exposure

Product information
Ultra Blazer:
Acute oral LD50: 2,020 mg/kg (female rats)
Acute dermal LD50: >2,000 mg/kg (rats)
Inhalation: 2.04 mg/L (rat, 4 hr)
Skin Irritation: Moderately irritating to the skin (rabbit)
Sensitization: Not a sensitizer (guinea pig)

Inhalation
Toxic if inhaled.

Eye contact
Causes irreversible eye damage.

Skin contact
May be harmful if absorbed through the skin.

Ingestion
HARMFUL IF SWALLOWED.

Component Information
Butyl cellosolve:
Butyl cellosolve is irritating to the skin and eyes but is not a dermal sensitizer.
Developmental toxicity was noted in rats exposed to 100 ppm by inhalation in the presence of maternal toxicity. However, no developmental toxicity was observed in rats and rabbits by oral ingestion. Chronic exposure may cause liver damage and hemolytic disorders.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve</td>
<td>= 470 mg/kg (Rat)</td>
<td>= 220 mg/kg (Rabbit)</td>
<td>= 450 ppm (Rat) 4 h</td>
</tr>
<tr>
<td>111-76-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acifluorfen, sodium salt</td>
<td>-</td>
<td>-</td>
<td>&gt; 6900 mg/m² (Rat) 4 h</td>
</tr>
<tr>
<td>62476-59-9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information on Toxicological Effects

Symptoms
No information available.
Delayed and immediate effects as well as chronic effects from short and long-term exposure

sensitization
No information available.

Mutagenic effects
No information available.

Carcinogenicity
The information below indicates whether any agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve</td>
<td>A3</td>
<td>Group 3</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

Reproductive effects
Not Available.

STOT - Single Exposure
No information available.

STOT - repeated exposure
No information available.

Chronic toxicity
Avoid repeated exposure.

Target organ effects
liver, kidney, Respiratory System, EYES, skin, Central Nervous System (CNS), blood, hematopoietic system.

Aspiration hazard
No information available.

Numerical Measures of Toxicity - Product Information

<table>
<thead>
<tr>
<th>LD50 Oral</th>
<th>2020 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Dermal</td>
<td>&gt; 2000 mg/kg (rat)</td>
</tr>
<tr>
<td>LC50 Inhalation</td>
<td>LC50/inhalation/4h/rat = 2.04 mg/l (4-hr)</td>
</tr>
</tbody>
</table>

ecotoxicity

Sodium acifluorfen:
Aquatic
Rainbow trout 96 hr LC50 = 54 mg ai/L
Bluegill sunfish 96 hr LC50 = 31 mg ai/L
Daphnia magna 48 hr EC50 = 28 mg ai/L
Channel catfish 96 hr LC50 = 80 mg/L
Grass shrimp 96 hr LC50 = 189 mg/L
Fiddler crab 96 hr LC50 = >1000 mg/L
Freshwater clam 96 hr LC50 = 64 mg ai/L
Eastern oyster 48 hr LC50 = 31.3 mg ai/L
Avian
Bobwhite quail >10000 mg/kg
Mallard duck LC50 = >10000 mg/kg

Persistence/Degradability
No information available.

Bioaccumulation/ Accumulation
No information available.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Other Adverse Effects
No information available.

13. Disposal Considerations

Waste Treatment Methods
Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label
instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

DOT NOT REGULATED
TDG NOT REGULATED
IATA NOT REGULATED
IMDG/IMO NOT REGULATED

15. Regulatory Information

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. Following is the hazard information as required on the pesticide label:

signal word DANGER!

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Corrosive. Causes irreversible eye damage. Harmful if swallowed or absorbed through the skin. Harmful if inhaled.

International Inventories
USINV Not determined
DSL/NDSL Not determined
EINECS/ELINCS Complies
ENCS Does not comply
China Complies
KECL Does not comply
PICCS Does not comply
AICS Complies
TSCA Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical
or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acifluorfen, sodium salt - 62476-59-9</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous**

**Categorization**
- Acute health hazard: yes
- Chronic health hazard: yes
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive Hazard: yes

**CERCLA**

SARA Product RQ: 0

**RCRA**

**Pesticide Information**

<table>
<thead>
<tr>
<th>Component</th>
<th>FIFRA - Restricted Use</th>
<th>FIFRA - Pesticide Product Other Ingredients</th>
<th>FIFRA - Listing of Pesticide Chemicals</th>
<th>California Pesticides - Restricted Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve 111-76-2 (8.5)</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**State Regulations**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>CATEGORY</th>
<th>California Prop. 65</th>
<th>Non-additive, corrosive chemical type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acifluorfen, sodium salt 62476-59-9 (20.1)</td>
<td>62476-59-9</td>
<td>Carcinogen</td>
<td>Carcinogen</td>
<td></td>
</tr>
</tbody>
</table>

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl cellosolve</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Acifluorfen, sodium salt</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**International regulations**

**U.S. EPA Label information**

EPA Pesticide registration number: 70506-60

### 16. Other Information

<table>
<thead>
<tr>
<th>NFPA HEALTH</th>
<th>flammability</th>
<th>Instability</th>
<th>Physical hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Preparation Date: 10-May-2015
Revision date: 10-May-2015
Revision Summary: Update section 11

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End of MSDS