

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:  
CHEMTREC 1-800-424-9300

Section 1—Chemical Product and Company Identification		
Product Name:	Avalanche™ Ultra	EPA Reg. No.:70506-60-1381
Common Name:	Acifluorfen herbicide	
Chemical Description:	Diphenolic ether herbicide	
Manufacturer's Name: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	Medical Emergency Telephone Number: 1-877-424-7452 MSDS Creation Date: 1/15/2013	

Section 2—Hazards Identification
<p><b>Emergency Overview:</b> DANGER! Light to dark amber liquid with an unusual odor. Causes irreversible eye damage. Contains Butyl Cellosolve. Inhalation of Butyl Cellosolve causes lung, liver, kidney and blood changes in laboratory animals. See health effects below.</p> <p><b>CAUTION:</b> Keep out of reach of children.</p> <p><b>Route(s) of Entry:</b> Eyes, Inhalation, Skin, and Ingestion.</p>
<p><b>Health Hazards (Acute and Chronic):</b></p> <p><b>Inhalation:</b> Harmful if inhaled. Inhalation of mist may cause irritation of the upper respiratory tract.</p> <p><b>Eyes:</b> Risk of serious eye damage. Causes irreversible eye damage.</p> <p><b>Skin:</b> Severely irritating to skin.</p> <p><b>Ingestion:</b> Harmful if swallowed.</p>
<p><b>Medical Conditions Generally Aggravated by Exposure:</b></p> <p>Preexisting respiratory conditions may be aggravated by exposure to mists. Existing medical conditions aggravated by exposure to Butyl Cellosolve. Individuals with existing hemolytic disorders.</p>

Section 3—Composition Information on Ingredients		
Ingredient	% (wt)	CAS reg. #
Butyl cellosolve	8.5%	111-76-2
Acifluorfen, sodium salt	20.1%	62476-59-9

\*Ingredients not specifically listed are non-hazardous and considered to be confidential business information.

NFPA HAZARD RATING:			
0	Least		
1	Slight	2	Health
2	Moderate	1	Flammability
3	High	0	Reactivity
4	Severe		

Section 4—First Aid Measures	
<b>Inhalation:</b>	Remove person to fresh air and assist breathing as needed. Seek medical attention. Call a poison control center or doctor immediately.
<b>Ingestion:</b>	Seek medical attention or call a poison control center immediately. Have person sip a glass of water if able to swallow. Never give anything by mouth to an unconscious person. Do not induce vomiting unless told to do so by a doctor or poison control center.
<b>Eyes:</b>	Flush with clean water for at least 15-20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after first 5 minutes then resume rinsing. Call a poison control center or doctor for treatment advice.
<b>Skin:</b>	Remove contaminated clothing and wash before re-using. Flush skin with water for 15-20 minutes. Seek medical attention if skin irritation persists.

After first aid, get appropriate in-plant, paramedic, or community medical support.

### Section 5—Fire and Explosion Hazard Data

**Extinguishing Media:** Water spray, carbon dioxide (CO<sub>2</sub>) or dry chemical.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and full bunker gear. Smoke and fumes from fire may contain hazardous components.

**Hazardous Combustion Products:** Toxic materials, (hydrogen chloride, hydrogen fluoride, nitrogen oxide) may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.

**Unusual Fire and Explosion Hazards:** Elevated temperatures can cause decomposition to potentially toxic gases. Contain run-off by diking to prevent contamination of water supplies.

### Section 6—Accidental Release Measures

**Small Spills:** Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mist. Spills should be cleaned up immediately to prevent spreading.

**Large Spills:** Clean-up personnel should protect against mist inhalation and skin contact. Avoid generating mist. Spills should be cleaned up immediately to prevent spreading.

**Containment:** Do not release into sewers or waterways. Dike spills to prevent contamination to water supplies. Contain spills and absorb liquids by covering with clay or other absorbent material. Vacuum, scoop, or sweep up waste and place in a container for disposal.

### Section 7—Precautions for Safe Handling and Use

**Precautions to Be Taken in Handling and Storage:** Store in cool, dry areas above 40°F and away from children, feed and food products and sources of heat. Immediately clean up spills that occur during handling or storage. Protect from freezing. Keep containers closed when not in use.

**Other Precautions:** Consult Federal, state and local regulations pertaining to storage and disposal.

### Section 8—Control Measures/Personal Protection

**Exposure Guidelines:** Butyl cellosolve (CAS # 111-76-2) 120 mg/m<sup>3</sup> or 25 ppm OSHA PEL, 20 ppm ACGIH TLV

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if airborne exposure is likely, wear a properly FIT TESTED MSHA/NIOSH-approved respirator.

**Ventilation:** **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.

**NOTE TO END USERS:** Follow instructions for Personal Protective Equipment (PPE) as found on the pesticide container label.

**Protective Gloves:** Wear chemically protective gloves.

**Eye Protection:** Wear chemical safety goggles or goggles and face shield depending upon exposure level. Contact lenses are not eye protective devices.

**Other Protective Clothing or Equipment:** Wear long sleeve shirt, long pants and shoes plus socks.

**Work/Hygienic Practices:** Never eat, drink, nor smoke in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### Section 9—Physical/Chemical Characteristics

<b>Physical State:</b>	Liquid	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	1.18 g/ml
<b>Vapor Pressure (mm Hg):</b>	17 @ 20°C	<b>Freezing Point:</b>	Not determined
<b>Vapor Density (Air=1):</b>	Not determined	<b>Boiling Point:</b>	217°F
<b>Solubility in Water (wt %):</b>	Soluble	<b>pH:</b>	8.2
<b>Appearance and odor:</b>	Light to dark amber with an unusual odor.	<b>Flash Point:</b>	210°F

### Section 10—Reactivity Data

**Stability:** Product stable under normal storage and handling conditions.

**Chemical Incompatibilities:** Oxidizers.

**Conditions to Avoid:** Freezing temperatures

**Hazardous Decomposition Products:** Hydrogen chloride, hydrogen fluoride, oxides of carbon and nitrogen.

**Hazardous Polymerization:** Does not occur.

### Section 11—Toxicological Information

<b>Eye Effects:</b>	Causes irreversible eye damage.
<b>Skin Effects:</b>	Moderately irritating to the skin (rabbit); Not a sensitizer (guinea pig)
<b>Acute Dermal Effects</b>	LD50 >2,000 mg/kg (rats)
<b>Acute Inhalation Effects:</b>	LC50 = 2.04 mg/L (rat, 4 hr)
<b>Acute Oral Effects:</b>	LD50 = 2,020 mg/kg (female rats)
<b>Chronic Effects:</b>	Butyl cellosolve: Chronic exposure may cause liver damage and hemolytic disorders. 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. Sodium acifluorfen has been designated as a probable human carcinogen by the U.S. EPA. Butyl cellosolve has been designated as a possible human carcinogen by the U.S. EPA.
<b>Mutagenicity:</b>	Not determined
<b>Teratogenicity:</b>	Only at level of maternal toxicity
<b>Carcinogenicity:</b>	NTP: Not listed                      IARC: Not Listed                      OSHA: Not listed

### Section 12—Ecological Information

**Sodium acifluorfen-**  
Aquatic:  
Rainbow trout, 96 hr LC50 = 54 mg ai/L  
Bluegill sunfish, 96 hr LC 50 = 31 mg ai/L (static)  
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 = >1,000 mg/L  
Freshwater clam, 96 hr LC50 = 64 mg ai/L  
Eastern oyster, 48 hr C50 = 31.3 mg ai/L  
Avian:  
Bobwhite quail, LC50 >10,000 mg/kg  
Mallard duck, LC50 >10,000 mg/kg.

### Section 13—Disposal Considerations

**Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.  
**Container:** Do not re-use container. Rinse container over application equipment or mix tank and dispose of according to federal, state and local laws and regulations.  
**RCRA characteristics:** It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

### Section 14—Transport Information

Not regulated by the U.S. DOT as a hazardous material for ground shipment.

### Section 15—Regulatory Information

**TSCA Inventory:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SARA Title III, Section 302:** Not listed

<b>SARA Title III, Section 311/312:</b>	Immediate: <b>Yes</b>	Delayed: <b>Yes</b>
Sudden Release of Pressure: <b>No</b>	Fire: <b>No</b>	Reactive: <b>No</b>

**SARA Title III, Section 313:** Acifluorfen, sodium salt (CAS # 62476-59-9) 20.1%

**CERCLA:** Not listed

**PROPOSITION 65: WARNING:** This product may contain chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

#### Section 16—Other

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