

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

## Section 1—Chemical Product and Company Identification

Product Name:	AgriSolutions™ Section® 2EC	EPA Reg. No. 42750-72-1381
Common Name:	Clethodim (cyclohexanedione oxime herbicide)	
Chemical Description:	(E,E)-2-[1-[[[3-Chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one	
Manufacturer's Name: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	Medical Emergency Telephone Number: 1-877-424-7452 MSDS Preparation Date: 04/16/2010	

## Section 2—Hazards Identification

<p><b>Emergency Overview:</b> Dark amber liquid with mild aromatic odor. Combustible, may release toxic fumes if burned. 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> No known effects.</p> <p><b>Eyes:</b> Moderate eye irritant</p> <p><b>Skin:</b> Contact may cause irritation.</p> <p><b>Ingestion:</b> Harmful if swallowed.</p> <p><b>Medical Conditions Generally Aggravated by Exposure:</b> None known. Preexisting respiratory conditions may be aggravated by exposure to mists.</p>
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## Section 3—Composition Information on Ingredients

Ingredient	% (wt)	CAS reg. #
Clethodim	25 – 27%	99129-21-2
Petroleum distillates (contains)*	65 – 70%	64742-94-5
*Trimethylbenzene	2 – 3%	-
*Naphthalene	5 – 7%	91-20-3

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

## Section 4—First Aid Measures

<b>Inhalation:</b>	Remove person to fresh air and assist breathing as needed. Seek medical attention if irritation persists.
<b>Ingestion:</b>	Seek medical attention or call a poison control center immediately. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor.
<b>Eyes:</b>	Flush with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention if eye irritation persists.
<b>Skin:</b>	Remove contaminated clothing and wash before re-using. Flush skin with water, and then wash with soap and water. Seek medical attention if skin becomes irritated.
<b>NOTE TO PHYSICIAN:</b> Contains a petroleum distillate solvent, vomiting may cause aspiration pneumonia and may contraindicate the use of gastric lavage.	

After first aid, get appropriate in-plant, paramedic, or community medical support.  
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

### Section 5—Fire and Explosion Hazard Data

**Extinguishing Media:** Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.  
**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus and full bunker gear. Evacuate nonessential persons from area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage from excessive water runoff.  
**Hazardous Combustion Products:** Oxides of nitrogen and sulfur. May produce toxic compounds of chlorine.  
**Unusual Fire and Explosion Hazards:** Combustible liquid. Can form explosive mixtures at temperatures at or above the flashpoint. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

### Section 6—Accidental Release Measures

**Small Spills:** Clean-up personnel should observe precautions laid out in Section 8 of this document. Avoid generating mists. Spills should be cleaned up immediately to prevent spreading. Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.  
**Large Spills:** Clean-up personnel should observe precautions laid out in Section 8 of this document. Avoid generating mists. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.  
**Containment:** Do not release into sewers or waterways. Dike large spills using absorbent or impervious material such as clay or sand to prevent contamination to water supplies. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

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

**Precautions to Be Taken in Handling and Storage:** Store in cool, dry areas away from children, feed and food products and sources of ignition. Immediately clean up spills that occur during handling or storage. Store and use only in a well ventilated area. Do not reuse this container.  
**Other Precautions:** Consult Local, State, and Federal regulations pertaining to storage and disposal.

### Section 8—Control Measures/Personal Protection

**Exposure Limits:** Petroleum distillates (CAS # 99129-21-2), 100 ppm (ACIGH TLV). Trimethylbenzene, 25 ppm TWA (ACIGH TLV). Naphthalene (CAS # 91-20-3), 10 ppm TWA (OSHA PEL & ACIGH TLV)  
**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a properly FIT TESTED MSHA/NIOSH-approved respirator for pesticides.  
**Ventilation:** **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.  
**Protective Gloves:** Wear chemical-resistant gloves such as barrier laminate or viton.  
**Eye Protection:** Wear protective eyeglasses or chemical safety goggles. Contact lenses are not eye protective devices.  
**Other Protective Clothing or Equipment:** Wear long-sleeved shirt and long pants. Wear 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.  
**\*\*Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining Personal Protective Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.**

### Section 9—Physical/Chemical Characteristics

<b>Physical State:</b>	Liquid	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	0.93 – 0.98 g/mL @ 20°C (7.80 – 8.20 lbs/gal)
<b>Vapor Pressure (mm Hg):</b>	Not determined	<b>Freezing Point:</b>	Not determined
<b>Vapor Density (Air=1):</b>	Not determined	<b>Boiling Point:</b>	Not determined
<b>Solubility in Water (wt %):</b>	Emulsifies in water	<b>pH:</b>	4.3
<b>Appearance and odor:</b>	Dark amber liquid with mild aromatic odor	<b>Flash Point:</b>	65°C /149°F (closed cup)

### Section 10—Reactivity Data

**Stability:** Unstable when exposed to extremes of pH, elevated temperatures, oxygen or U.V. light  
**Chemical Incompatibilities:** Oxidizing materials

**Conditions to Avoid:** Avoid temperatures above 90°F (35°C), exposure to air and direct sunlight. Keep containers sealed to avoid exposure to air.

**Hazardous Decomposition Products:** Oxides of hydrogen, nitrogen and sulfur.

**Hazardous Polymerization:** Product will not undergo polymerization.

### Section 11—Toxicological Information

\*\*All values listed below are for technical clethodim and not the formulated product.

**Eye Effects:** Moderate irritation

**Skin Effects:** Moderate irritation; Non-sensitizer in guinea pig

**Acute Inhalation Effects:** LC50 – > 2.0 mg/L (4 hour) (rat)

**Acute Oral Effects:** LD50 – 5,000 mg/Kg (female rat)

**Chronic Effects:** Not determined

**Mutagenicity:** No evidence of mutagenic effects during *in vivo* or *in vitro* studies

**Teratogenicity:** Some teratogenic effects were noted in rats tested at elevated doses of 700 mg/Kg/day.

**Carcinogenicity:** NTP: Not listed                      IARC: Not listed                      OSHA: Not listed

### Section 12—Ecological Information

**Environmental Summary:** Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

\*\*All values listed below are for technical clethodim and not the formulated product.

**Fish Toxicity:** 96 hour LC50, Rainbow trout – 65 mg/L; 96 hour LC50, Bluegill – 120 mg/L

**Avian Toxicity:** Dietary LC50, Bobwhite quail - >6,000 ppm; Dietary LC50, Mallard duck - >6,000 ppm

**Bee Toxicity:** Contact LD50 - >100 µg/bee

### Section 13—Disposal Considerations

**Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.

**Container:** Triple rinse (or equivalent) the empty containers. Then offer for recycling or reconditioning.

### Section 14—Transport Information

This product is not regulated by the DOT as a hazardous material in containers of less than 119 gallons.

For containers greater than 119 gallons:

NA1993, Combustible liquid, N.O.S. (contains petroleum distillates, naphthalene), PG III, RQ (naphthalene)

Emergency Response Guide #: 128

### Section 15—Regulatory Information

**TSCA Inventory:** This product is exempt from listing requirements.

**SARA Title III, Section 302:** None listed

**SARA Title III, Section 311/312:** Immediate: Yes                      Delayed: Yes

Sudden Release of Pressure: No                      Fire: Yes                      Reactive: No

**SARA Title III, Section 313:** Naphthalene (CAS # 91-20-3) at 5-7%

**CERCLA:** Naphthalene has an RQ of 100 lbs (reached with 180 gallons of product)

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

**RCRA characteristics:** U165 (naphthalene)

### Section 16—Other

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