



SAFETY DATA SHEET

SDS ID: 74530-60

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	ZONE HERBICIDE
Product use / type:	Herbicide
EPA Registration No.:	74530-60
Chemical name / Synonyms / Active ingredient(s):	N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]-methanesulfonamide (Sulfentrazone) <i>and</i> Ethyl-2-[[[(4-chloro-6-methoxyprimidin-2-yl)amino]carbonyl]-amino]sulfonyl]benzoate (Chlorimuron ethyl)
Manufacturer / Registrant:	Helm Agro US, Inc. 401 E. Jackson St., Suite 1400 Tampa, FL 33602
Manufacturer's Telephone:	813-621-8846
Email:	info@helmagro.com
Chemical emergencies:	1-800-424-9300 (Chemtrec)

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Classification

Acute Oral Toxicity	Category 4
Serious Eye Damage / Eye Irritation	Category 2B

EMERGENCY OVERVIEW

Signal Word: WARNING

Pictogram:



Appearance: Light brown

Physical state: Solid granule

Odor: Sweet, brown sugar-like

Hazard Statements:

- Harmful if swallowed
- Causes eye irritation

Precautionary Statements:

- Wear eye protection.
- Wash hands and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.

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- IF SWALLOWED: Call a poison control center or if you feel unwell. Rinse mouth.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention / advice.
- Dispose of contents and container in accordance with federal, state and local regulations.

Other Information / Potential Hazards:

Toxic to aquatic organisms.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight % **
N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]-methanesulfonamide	122836-35-5	62.2
Ethyl-2-[[[(4-chloro-6-methoxyprimidin-2-yl)amino]carbonyl]-amino]sulfonyl]benzoate	90982-32-4	7.8
Other ingredients	-	30.0

** Values are not product specifications.

4. FIRST AID MEASURES

If in Eyes:	<ul style="list-style-type: none">• Hold eye open and rinse 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.
If on skin or clothing:	<ul style="list-style-type: none">• Remove contaminated clothing and shoes.• Rinse skin with plenty of water for 15-20 minutes. If irritation develops, call a poison control center or doctor for treatment advice.
If inhaled:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or get medical help, then give artificial respiration, preferably with the aid of a pocket mask equipped with a one-way valve.• Call a poison control center or doctor for further treatment advice.
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
First Aid Note:	<ul style="list-style-type: none">• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE-FIGHTING MEASURES

Flammable properties: Not flammable. Dust may form explosive air-dust mixture. May support combustion at elevated

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temperatures.

- Extinguishing media:** Water fog or spray, dry chemical, foam or CO₂
- Unsuitable extinguishing media:** High pressure water streams.
- Firefighting measures:** Use extinguishing media appropriate for surrounding fire. Prevent contaminated firefighting waters and spillage from entering sewers, drains and waterways.
- Protective equipment and precautions for firefighters:** Wear full protective firefighting gear including self-contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent).
- Hazardous decomposition products:** Oxides of carbon and nitrogen. May release irritating and toxic vapors due to thermal decomposition.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Isolate and post spill area. Keep unnecessary personnel, pets and livestock from spill area. Wear protective gloves / clothing and eye protection. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation.
- Environmental precautions:** Prevent further spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Under certain conditions this chemical can leach through soil and contaminate ground water.
- Methods for containment:** Contain spill with inert material (e.g. sand, silica gel, binder). Prevent formation of dust with water mist or moist sweeping compound.
- Methods for cleanup:** Pick up by shovel and transfer to properly labeled containers for disposal.

7. HANDLING AND STORAGE

- Precautions for safe handling:** Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Prevent formation of dust.
- Precautions for safe storage:** Store and handle in accordance with good industrial hygiene practices. Keep container tightly closed. Store in a cool, dry and well-ventilated place. Store in original container. Keep out of reach of children and animals.
- Incompatible storage situations:** Separate pesticides during storage to prevent cross-

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contamination of other pesticides, fertilizers, food, and feed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Guidelines:

Exposure Guidelines:	This product does not contain hazardous substances with occupational exposure limits established by the region specific regulatory bodies.
Engineering controls:	Have a clean water supply near the work and mixing area in case of eye or skin exposure. Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye / face protection:	Wear chemical-tight goggles. If splashing is likely to occur, wear a full face shield.
Body / skin protection:	Long sleeved shirt, long pants, shoes plus socks. Wash work clothing before reuse separately from regular household laundry.
Hand protection:	Wear gloves / hand protection.
Respiratory protection:	If handling without sufficient ventilation, wear a dust / mist filtering respirator with organic cartridge(s) or pesticide rated filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid granules
Appearance:	Light brown
Odor:	Sweet, brown sugar-like
pH:	5.0 (1% solution in water)
Melting point:	No information available
Flash point:	Not flammable
Relative density:	0.62 g/ml
Water solubility:	Miscible

10. STABILITY AND REACTIVITY

Reactivity / chemical stability:	Stable under normal temperature and conditions.
Conditions / Materials to avoid:	Extreme heat, sparks and creation of dust. Avoid mixing or contact with oxidizing agents.
Hazardous decomposition products:	Oxides of carbon, nitrogen and sulfur; hydrogen chloride and hydrogen fluoride.
Hazardous reactions:	Not expected under normal conditions of handling and use.

11. TOXICOLOGICAL INFORMATION

Product toxicology:

Acute oral LD50:	Rat LD ₅₀ : 1750 mg/kg
Acute dermal LD50:	Rat LD ₅₀ : >5000 mg/kg
Acute inhalation LC50:	Rat LC ₅₀ : >5.17 mg/L
Eye irritation:	Moderately irritating.
Skin irritation:	Non-irritating.
Sensitization:	Not a sensitizer.

Component toxicology:

Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is listed with NTP, IARC or OSHA.
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12. ECOLOGICAL INFORMATION

Environmental Hazards:	Toxic to aquatic organisms. Keep out of any body of water.
Component Ecotoxicity:	96-hour LC ₅₀ : 120 mg/L <i>Onchorhynchus mykiss</i>
Sulfentrazone (122836-35-5)	96-hour LC ₅₀ : 93.8 mg/L <i>Lepomis macrochirus</i>
	48-hour EC ₅₀ : 60.4 mg/L <i>Daphnia magna</i>
Persistence and degradability:	Material is subject to photolysis (half-life < 12 hours).
Bioaccumulation:	Low potential for bioaccumulation.
Component Ecotoxicity:	96-hour LC ₅₀ : 8.4 mg/L <i>Onchorhynchus mykiss</i>
Chlorimuron ethyl (90982-32-4)	96-hour LC ₅₀ : 2.0 mg/L <i>Lepomis macrochirus</i>
	48-hour EC ₅₀ : >10.0 mg/L <i>Daphnia magna</i>
Persistence and degradability:	No information available.
Bioaccumulation:	Low potential for bioaccumulation.

13. DISPOSAL CONSIDERATIONS

Product disposal:	Wastes resulting from the use of this product that cannot be used must be disposed in accordance with applicable Federal, State or local regulations at an approved waste disposal facility.
Container disposal:	Emptied container retains product residue. Observe all labeled safeguards until container is destroyed or offered for recycling. Clean container promptly after emptying.

14. TRANSPORT INFORMATION

U.S. DOT:	Not regulated.
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15. REGULATORY INFORMATION

U.S. Federal Regulations:

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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: Caution

EPA Registration No.: 74530-60

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed. Causes moderate eye irritation. Do not get into eyes, on skin, or on clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

TSCA: All components of this product are listed on or are exempt from listing on the TSCA chemical inventory.
SARA 311/312: Acute health
SARA 313: None listed
CERCLA: None listed.

U.S. State Regulations:

State Right-to-Know Regulations: This product does not contain substances subject to state right-to-know regulations.

California Proposition 65: This product does not contain substances known to the state of California to cause cancer and/or reproductive/developmental effects.

16. OTHER INFORMATION

NFPA Ratings:	Health	Fire	Instability
	2	0	0

Revision No.: 1.0
Revision Date: 05 February 2015
Revision Note: Address change

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; CST - Centistokes; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; GHS - Global Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Association; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act;

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SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other information / Disclaimer

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

End of Safety Data Sheet