

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** **Chlorsulf E Pro 75 WDG Herbicide**  
**EPA Reg. No.:** 79676-72  
**Synonyms:** Chlorsulfuron: 2-chloro-N-[[[4-methoxy-6-methyl-1-3,5-triazin-2-yl)amino] carbonyl]benzenesulfonamide  
**Product Type:** Herbicide  
**Company Name:** Etigra  
501 Cascade Pointe Lane, Suite 103  
Cary, NC 27513  
**Telephone Numbers:** **For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night: 1-800-424-9300**  
**For Medical Emergencies Only, Call 1-877-325-1840**  
**Date of Issue:** May 18, 2009 **Supersedes:** January 10, 2008  
**Sections Revised:** New or updated information all sections

**2. HAZARDS IDENTIFICATION****Emergency Overview:**

**Appearance and Odor:** Tan colored granules.

**Warning Statements:** Caution. Keep out of reach of children. Harmful if swallowed.

**Potential Health Effects:**

**Likely Routes of Exposure:** Inhalation, eye and skin contact.

**Eye Contact:** Slightly irritating based on toxicity studies.

**Skin Contact:** Slightly toxic and mildly irritating based on toxicity studies.

**Ingestion:** Slightly toxic based on toxicity studies.

**Inhalation:** Low inhalation toxicity.

**Medical Conditions Aggravated by Exposure:** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

See Section 11: TOXICOLOGICAL INFORMATION for more information.

**Potential Environmental Effects:**

Chlorsulfuron is practically non-toxic to fish, birds, mammals, bees, slightly toxic to estuarine/marine invertebrates. It is practically non-toxic to very highly toxic to aquatic plants.

See Section 12: ECOLOGICAL INFORMATION for more information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

<b>COMPONENT</b>	<b>CAS NO.</b>	<b>% BY WEIGHT</b>
Chlorsulfuron	64902-72-3	75.0
Other Ingredients		25.0

**4. FIRST AID MEASURES**

**If Swallowed:** 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15 to 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:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**If Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**5. FIRE FIGHTING MEASURES**

**Flash Point:** Not applicable

**Autoignition Temperature:** Not applicable

**Flammability Limits:** Not applicable

**Extinguishing Media:** Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water spray or fog.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Unusual Fire and Explosion Hazards:** If water is used to fight fire or cool containers, dike to prevent runoff contamination of municipal sewers and waterways.

**Hazardous Decomposition Materials (Under Fire Conditions):** May produce oxides of carbon, nitrogen and sulfur.

**National Fire Protection Association (NFPA) Hazard Rating:**

**Rating for this product: Health: 2    Flammability: 1    Reactivity: 0**

Hazards Scale: 0 = Minimal    1 = Slight    2 = Moderate    3 = Serious    4 = Severe

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

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

**Methods for Cleanup and Disposal:** Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

**Other Information:** Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

**7. HANDLING AND STORAGE**

**Handling:**

Harmful if swallowed. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

**Storage:**

Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food, or feed in storage or by disposal.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

**Personal Protective Equipment:**

**Eye/Face Protection:** Not normally required. To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves made of any waterproof material. An emergency shower or water supply should be readily accessible to the work area.

**Respiratory Protection:** Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

**General Hygiene Considerations:** 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: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

**Exposure Guidelines:**

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Chlorsulfuron	NE	NE	NE	NE	

NE = Not Established

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance and Odor:** Tan colored granules.

<b>Boiling Point:</b>	Not applicable	<b>Solubility in Water:</b>	Dispersible
<b>Density:</b>	0.58 – 0.70 g/ml	<b>Specific Gravity:</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable	<b>Vapor Density:</b>	Not applicable
<b>Freezing Point:</b>	Not applicable	<b>Vapor Pressure:</b>	Not applicable
<b>pH:</b>	4.4 – 5.4 (1% solution)	<b>Viscosity:</b>	Not applicable

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

**10. STABILITY AND REACTIVITY**

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Conditions to Avoid:** Excessive heat. Do not store near heat or flame.

**Incompatible Materials:** Strong oxidizing agents, acids.

**Hazardous Decomposition Products:** Under fire conditions may produce oxides of carbon, nitrogen and sulfur.

**Hazardous Reactions:** Hazardous polymerization will not occur.

**11. TOXICOLOGICAL INFORMATION****Toxicological Data:**

Data from laboratory studies on this product are summarized below:

**Oral:** Rat LD<sub>50</sub>: >5,000 mg/kg

**Dermal:** Rat LD<sub>50</sub>: >2,000 mg/kg

**Inhalation:** Rat 4-hr LC<sub>50</sub>: >5.5 mg/L

**Eye Irritation:** Rabbit: Slightly irritating

**Skin Irritation:** Rabbit: Mildly irritating

**Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

**Subchronic (Target Organ) Effects:** Repeated overexposure to chlorsulfuron can cause effects to blood chemistry and decreased body weight gain.

**Carcinogenicity / Chronic Health Effects:** No carcinogenic effects were observed in animal tests with chlorsulfuron.

**Reproductive Toxicity:** Animal tests with chlorsulfuron have not demonstrated reproductive effects.

**Developmental Toxicity:** Animal tests showed effects at levels equal to or above those causing maternal toxicity.

**Genotoxicity:** Neither *in vitro* nor *in vivo* tests on chlorsulfuron demonstrated mutagenic effects.

**Assessment Carcinogenicity:** None listed with ACGIH, IARC, NTP or OSHA.

See Section 2: HAZARDS IDENTIFICATION for more information.

**12. ECOLOGICAL INFORMATION****Ecotoxicity:**

Data on Chlorsulfuron Technical:

96-hour LC <sub>50</sub> Rainbow Trout:	>250 mg/L	Mallard Duck 5-day Dietary LC <sub>50</sub> :	> 5,000 ppm
48-hour EC <sub>50</sub> Daphnia:	>370 mg/L	Honey Bee Contact LD <sub>50</sub> :	25 µg/bee
72-hour EC <sub>50</sub> Green Algae	0.055 ug/L		

**Environmental Fate:**

Chlorsulfuron is moderately mobile in soil at low pH, but very mobile at high pH. Chlorsulfuron can be persistent in the environment. Degradation half-lives vary primary with pH, from a few weeks to over one year in soil at high pH. Due to its solubility in water, chlorsulfuron does not bioaccumulate.

**13. DISPOSAL CONSIDERATIONS****Waste Disposal Method:**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling and Disposal:**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**14. TRANSPORTATION INFORMATION**

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

**DOT**

Non Regulated

**IMDG**

UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (CHLORSULFURON),  
9, III, MARINE POLLUTANT

**IATA**

Non Regulated

**15. REGULATORY INFORMATION****U.S. Federal Regulations:**

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

**SARA Hazard Notification/Reporting:**

**Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):**

Immediate

**Section 313 Toxic Chemical(s):**

Chlorsulfuron (CAS No. 64902-72-3), 75% by weight in product

**Reportable Quantity (RQ) under U.S. CERCLA:**

None

**RCRA Waste Code:**

None

**State Information:**

Other state regulations may apply. Check individual state requirements.

**California Proposition 65:** WARNING. This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

**16. OTHER INFORMATION**

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

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