

4. FIRST AID MEASURES

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 or Clothing: 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 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 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 gases such as oxides of carbon, hydrogen and nitrogen.

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 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:

Avoid contact with eyes or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Storage:

Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place. Do not contaminate water, food or feed by storage or 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: 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	
Chlorimuron Ethyl	NE	NE	NE	NE	
Tribenuron methyl	NE	NE	NE	NE	
Kaolin Clay	15 (T) 5 (R)	NE	2.0 (R)	NE	mg/m ³

T = Total Dust

NE = Not Established

R = Respirable Fraction

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Beige colored granules with a mild odor.

Boiling Point: Not applicable
Density: 45 pounds/cubic foot
Evaporation Rate: Not applicable
Freezing Point: Not applicable
pH: 6 – 7 (1% solution)

Solubility in Water: Dispersible
Specific Gravity: Not applicable
Vapor Density: Not applicable
Vapor Pressure: Not applicable
Viscosity: 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: None known.

Hazardous Decomposition Products: Under fire conditions may produce gases such as oxides of carbon, hydrogen and nitrogen.

Hazardous Reactions: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Data from laboratory studies on this product are summarized below:

Oral: Rat LD₅₀: >5,000 mg/kg

Dermal: Rat LD₅₀: >5,000 mg/kg

Inhalation: Rat 4-hr LC₅₀: >2.03 mg/L

Eye Irritation: Rabbit: Mildly irritating

Skin Irritation: Rabbit: Slightly irritating

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

Subchronic (Target Organ) Effects: Repeated overexposure to chlorimuron ethyl may cause effects to liver and blood. Repeated ingestion exposure to tribenuron methyl may cause body weight loss and effect liver and thyroid.

Carcinogenicity / Chronic Health Effects: Prolonged overexposure to chlorimuron ethyl may affect liver and blood chemistry. Chlorimuron ethyl did not cause cancer in laboratory animal studies. Repeated overexposure to tribenuron methyl may cause effects to body weight loss, alteration in clinical chemical parameters and testicular atrophy (considered to be biologically insignificant). Tribenuron methyl produced an increased incidence of mammary tumors in female rats at dose levels also producing other significant effects. Inhalation of excessive amounts of kaolin dust may produce coughing, sneezing and nasal irritation.

Reproductive Toxicity: Reproductive data for chlorimuron ethyl in rats show nutritional and organ effects in offspring only at levels which produce other toxic effects in the adult animal. There were no effects on fertility or lactation indices in rats. For tribenuron methyl no reproductive effects were observed in rats.

Developmental Toxicity: For chlorimuron ethyl, exposure of pregnant rabbits caused developmental delays in the fetus at maternally toxic doses. However, studies in rats produced no evidence of developmental toxicity. Development effects with tribenuron methyl occurred in the rat, but only at a dose level also toxic to the mother.

Genotoxicity: Tests have shown that chlorimuron ethyl does not cause genetic damage in bacterial or mammalian cell cultures, or in animals. Tribenuron methyl did not produce genetic damage in bacterial or mammalian cell cultures or in animals.

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

See Section 2: HAZARDS IDENTIFICATION for more information.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on Chlorimuron Ethyl Technical:

96-hour LC ₅₀ Bluegill:	100 mg/l	Bobwhite Quail 8-day Dietary LC ₅₀ :	>5,620 ppm
96-hour LC ₅₀ Rainbow Trout:	>1,000 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>5,620 ppm
48-hour EC ₅₀ Daphnia:	>10 mg/l	Mallard Duck Oral LD ₅₀ :	>2,510 mg/kg

Data on Tribenuron Methyl Technical:

96-hour LC ₅₀ Bluegill:	>1,000 mg/l	Bobwhite Quail 8-day Dietary LC ₅₀ :	>5,620 ppm
96-hour EC ₅₀ Rainbow Trout:	>1,000 mg/l	Bobwhite Quail Oral LD ₅₀ :	>2,250 mg/kg
48-hour EC ₅₀ Daphnia:	720 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>5,620 ppm
72-hour EC ₅₀ Green Algae	0.011 mg/l	Honey Bee Contact LD ₅₀ :	>100 µg/bee

Environmental Fate:

Microbial degradation of chlorimuron ethyl is fairly slow in all soil pH values with an average half-life of 7 to 8 weeks. Chlorimuron ethyl persists longer in high pH soils. Mobility and movement in soils is determined by the amount of herbicide adsorbed to the soil and is dependent on the soil pH and organic matter content. Chlorimuron ethyl is more highly adsorbed to organic matter at lower pHs. Photodegradation is not an important degradation mechanism. Data suggests that tribenuron methyl is weakly adsorbed in soil and that the adsorption is pH dependent, increasing in acidic soils. The average soil half-life for tribenuron methyl is 10 days. Hydrolysis of tribenuron-methyl is also strongly pH dependent. The solubility and stability of tribenuron methyl increases with increasing pH. Photodegradation in water and on soil is not an important degradation mechanism.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

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

Container Handling and Disposal:

For Plastic Containers: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. 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 flow begins to drip. Repeat this procedure two more times.

For Fiber Sacks: Nonrefillable container. Do not reuse or refill this container. Completely empty sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of sack in a sanitary landfill or by or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

For Fiber Drums with Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of liner in a sanitary landfill or by or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

For Paper and Plastic Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORTATION INFORMATION

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

DOT**< 882 pounds per complete package**

Non Regulated – See 49 CFR 173.132(b)(3) & 171.4(c)

≥ 882 pounds per complete package

UN 3077, Environmentally hazardous substance, solid, n.o.s., (Tribenuron-methyl), 9, III, MARINE POLLUTANT

IMDG

UN 3077, Environmentally hazardous substance, solid, n.o.s., (Tribenuron-methyl), 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):

Chlorimuron ethyl (CAS No. 90982-32-4) 22.7% by weight in product
Tribenuron methyl (CAS NO. 101200-48-0) 6.8% 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: Not Listed

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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