1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **BIG HORN Herbicide**
EPA Reg. No.: **83222-25**
Synonyms: Tribenuron methyl: Methyl 2-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) methylamino] carbonyl] amino] sulfonyl] benzoate

Product Type: Herbicide

Company Name: J. Oliver Products, LLC
3187 Robertson Gin Rd.
Hernando, MS 38632

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: January 21, 2010

2. HAZARDS IDENTIFICATION

Emergency Overview:
Appearance and Odor: White colored granules with a faint odor.
Warning Statements: Caution. Keep out of reach of children. Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin, or clothing. Prolonged or repeated use of the product may cause allergic reactions in some individuals.

Potential Health Effects:

Likely Routes of Exposure: Inhalation, eye and skin contact.
Eye Contact: Mildly irritating based on toxicity studies. May cause irritation, redness and tearing.
Skin Contact: Slightly toxic and mildly irritating based on toxicity studies. Prolonged or repeated use of the product may cause allergic reactions in some individuals.
Ingestion: Slightly toxic based on toxicity studies.
Inhalation: Low inhalation toxicity. Overexposure may cause upper respiratory tract irritation.
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:
Thifensulfuron-methyl is practically non-toxic to fish, aquatic invertebrates and terrestrial organisms, and toxic to aquatic and terrestrial plants.

See Section 12: ECOLOGICAL INFORMATION for more information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Tribenuron-methyl	101200-48-0	75.0
Other Ingredients Including:		25.0
Kaolin Clay and related minerals	1332-58-7	

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 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 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, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.
Hazardous Decomposition Materials (Under Fire Conditions): May produce oxides of carbon 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: 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 skin, eyes or clothing. Prolonged or repeated use of the product may cause allergic reactions in some individuals. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (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: 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, shoes, socks 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:

	OSHA		ACGIH		
Component	TWA	STEL	TWA	STEL	Unit
Tribenuron-methyl	NE	NE	NE	NE	
Kaolin Clay	15 (T) 5 (R)	NE	2.0 (R)	NE	mg/m3

T=Total Dust NE = Not Established
R = Respirable Fraction

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White colored granules with a faint odor.

Boiling Point:	Not applicable	**Solubility in Water:**	Dispersible
Density:	0.6327 g/ml (tapped)	**Specific Gravity:**	Not applicable
Evaporation Rate:	Not applicable	**Vapor Density:**	Not applicable
Freezing Point:	Not applicable	**Vapor Pressure:**	Not applicable
pH:	**7**.08 (1% solution)	**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: Not known.
Incompatible Materials: Not known.
Hazardous Decomposition Products: Under fire conditions may produce oxides of carbon 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: >2,000 mg/kg (female)
Dermal: Rat LD50: >2,000 mg/kg
Inhalation: Rat 4-hr LC50: >5.41 mg/L
Eye Irritation: Rabbit: Mildly irritating
Skin Irritation: Rabbit: Mildly irritating

Subchronic (Target Organ) Effects: Repeated ingestion exposure to tribenuron-methyl may cause body weight loss and effect liver and thyroid.
Carcinogenicity / Chronic Health Effects: 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 akaolin dust may produce coughing, sneezing and nasal irritation.
Reproductive Toxicity: For tribenuron methyl no reproductive effects were observed in rats.
Developmental Toxicity: Development effects with tribenuron methyl occurred in the rat, but only at a dose level also toxic to the mother.
Genotoxicity: Tribenuron-methyl did not produce genetic damage in bacterial or mammalian cell cultures or in animals.

See Section 2: HAZARDS IDENTIFICATION for more information.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on Tribenuron-Methyl:

96-hour LC50 Bluegill:	>1,000 mg/l	Bobwhite Quail 8-day Dietary LC50:	>5,620 ppm
96-hour EC50 Rainbow Trout:	>1,000 mg/l	Bobwhite Quail Oral LD50:	>2,250 mg/kg
48-hour EC50 Daphnia:	720 mg/l	Mallard Duck 8-day Dietary LC50:	>5,620 ppm
72-hour EC50 Green Algae	0.011 mg/l	Honey Bee Contact LD50:	>100 µg/bee

Environmental Fate:

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:
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:

Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Fiber Drums with Liners: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of liner in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose in the same manner.

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, NOS, (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):
None

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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