



## Material Safety Data Sheet

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HAZARDS IDENTIFICATION  
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## Potential Health Effects

CAUTION! Avoid contact with skin, eyes, and clothing.

## ANIMAL DATA

Oral LD50: > 5,000 mg/kg (rat)

Very low toxicity.

Dermal LD50: > 2,000 mg/kg (rabbit)

Low toxicity.

## INHALATION

LC50, 4 hour: > 7.9.mg/L (rat) (active ingred.)

Low toxicity.

## SKIN IRRITATION AND SENSITIZATION

Not a primary skin irritant, not a sensitizer.

## EYE IRRITATION

Moderate irritant, normal within 3 days.

## CHRONIC STUDIES - THIFENSULFURON METHYL

## FEEDING STUDIES

No oncogenic effects observed in the 18-month mouse, 2-year rat, or 1-year dog feeding studies.

Lower body weights and weight gains were observed for rats fed the highest dietary concentrations, 2,500 ppm. Slightly lower serum sodium concentrations, which were not biologically significant, were observed in rats fed the 500 and 2,500 ppm diets. The no-observable-effect levels (NOEL) were 500 ppm and 25 ppm for the body weight and serum sodium effects, respectively.

There were no compound-related effects in mice fed for 18 months with diets that contained the active ingredient. The NOEL was 7,500 ppm, the highest dose tested.

Slightly lower body weights and higher liver weights were observed for dogs fed for one year with diets that contained 7,500 ppm. There were no microscopic or functional changes associated with these effects. The NOEL was 750 ppm.

## REPRODUCTION

No effect on rat reproduction or lactation at any dose tested (highest dose tested 2,500 ppm diet). There were no

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(HAZARDS IDENTIFICATION - Continued)

gross or microscopic compound-related effects on the offspring at any dose tested.

MUTAGENICITY

Not mutagenic in the Ames bacterial assay; the in vitro Chinese hamster ovary assay; the in vitro unscheduled DNA synthesis; the in vivo cytogenetic assay; or in the mouse micronucleus assay.

TERATOGENICITY

No teratogenic effects in rats at 800 mg/kg/day (highest dose tested), nor in rabbits at 650 mg/kg/day (highest dose tested).

HUMAN HEALTH EFFECTS

Overexposure to thifensulfuron methyl by skin contact may initially include skin irritation with discomfort or rash. Significant skin permeation, and systemic toxicity, after contact appears unlikely. There are no reports of human sensitization. Overexposure by eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision. Overexposure by inhalation may initially include irritation of the upper respiratory passages, with coughing and discomfort.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

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FIRST AID MEASURES  
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First Aid

INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

SKIN CONTACT

In case of contact, wash skin with plenty of soap and water. Wash contaminated clothing before reuse.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

## Material Safety Data Sheet

## (FIRST AID MEASURES - Continued)

## INGESTION

No specific intervention is indicated as compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

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FIRE FIGHTING MEASURES  
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## Flammable Properties

Flammable limits in Air, % by Volume  
LEL : 0.25 g/l

Not a fire or explosion hazard.

Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

## Extinguishing Media

Water Spray, Dry Chemical, CO<sub>2</sub>.

## Fire Fighting Instructions

Wear self-contained breathing apparatus. Runoff from fire control may be a pollution hazard.

If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the contaminated area.

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ACCIDENTAL RELEASE MEASURES  
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## Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

## Initial Containment

Dike spill. Prevent material from entering sewers, waterways, or low areas.

## Spill Clean Up

Shovel or sweep up.

## Accidental Release Measures

If spill area is on ground near valuable plants and trees, remove top 2 inches of soil after initial clean up.

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HANDLING AND STORAGE  
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## Handling (Personnel)

Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

## Storage

Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

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EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## Engineering Controls

Use only with adequate ventilation.

## Personal Protective Equipment

Always follow label instructions when using this product.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

## Exposure Guidelines

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## Applicable Exposure Limits

## THIFENSULFURON METHYL

PEL (OSHA) : None Established  
TLV (ACGIH) : None Established  
AEL \* (DuPont) : 5 mg/m<sup>3</sup>, 8 & 12 Hr. TWA

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

pH : 4.4 (1% aqueous solution)  
Odor : None  
Form : Solid, granular  
Color : Tan  
Density : 0.6 g/mL

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable at normal temperatures and storage conditions.

## Incompatibility with Other Materials

None reasonably foreseeable.

## Decomposition

Decomposition will not occur.

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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See Potential Health Effects section

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ECOLOGICAL INFORMATION  
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## Ecotoxicological Information

## Aquatic Toxicity

Thifensulfuron methyl has low to slight toxicity.

96 hour LC50, rainbow trout: > 100 mg/L

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(ECOLOGICAL INFORMATION - Continued)

96 hour LC50, bluegill sunfish: &gt; 100 mg/L

## ENVIRONMENTAL TOXICITY

LC50, mallard duck: &gt; 5620 mg/kg

LD50, mallard duck: &gt; 2510 mg/kg

LC50, bobwhite quail: &gt; 5620 mg/kg

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DISPOSAL CONSIDERATIONS  
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## Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by other procedures allowed by State and Local authorities.

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TRANSPORTATION INFORMATION  
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## Shipping Information

DOT/IMO

Proper Shipping Name : NOT REGULATED

## Shipping Information -- Canada

This material is Not Regulated.

Please contact DuPont Canada Inc. for details.

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REGULATORY INFORMATION  
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## U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes

Chronic : No

Fire : No

Reactivity : No

Pressure : No

## Canadian Regulations

Regulated under the Pest Control Products Act--WHMIS Exempt

## (REGULATORY INFORMATION - Continued)

Registration No. 22002 Pest Control Products Act

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OTHER INFORMATION  
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## NFPA, NPCA-HMIS

NFPA Rating  
Health : 1  
Flammability : 1  
Reactivity : 0

NPCA-HMIS Rating  
Health : 1  
Flammability : 1  
Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

## Additional Information

## REGULATORY CONTROLS

"HARMONY" Herbicide is regulated under EPA/FIFRA.

EPA Reg. No. 352-446.

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The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : E.I. du Pont Canada Company  
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# Indicates updated section.

End of MSDS