

The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

Agsurf Corporation
Material Safety Data Sheet

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"T-SQUARE" HERBICIDE
AGSURF0007 Revised 01-SEP-2008

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"T-SQUARE" is a trademark of Agsurf Corporation.
"Agsurf" is a trademark of Agsurf Corporation

Tradenames and Synonyms

T-SQUARE
T-SQUARE HERBICIDE
THIFENSULFURON METHYL
TRIBENURON METHYL

Company Identification

MANUFACTURER/DISTRIBUTOR
Agsurf Corporation
1209 Orange Street
WILMINGTON, DE 19801

PHONE NUMBERS

Transport Emergency : CHEMTREC: 1-800-424-9300
(outside of U.S. 703-527-3887)
Medical Emergency : 1-888-261-1410

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
*TRIBENURON METHYL	101200-48-0	25
METHYL 2-[[[(4-METHOXY-6-METHYL-1,3,5-TRIAZIN-2-YL)METHYLAMINO]] CARBONYL]AMINO]-SULFONYL] BENZOATE		
THIFENSULFURON METHYL	79277-27-3	50
(METHYL 3- [[[(4-METHOXY-6-METHYL-1,3,5-TRIAZIN-2YL)AMINO] CARBONYL]AMINO]SULFONYL]-2-THIOPHENECARBOXYLATE		
INERT INGREDIENTS		25

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Emergency Overview

CAUTION! Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

Potential Health Effects

Based on animal data, eye contact with TRIBENURON METHYL 75WG may cause eye irritation with discomfort, tearing, or blurring of vision.

Based on animal data, skin contact with TRIBENURON METHYL 75WG may cause skin irritation with discomfort or rash.

Based on animal data, eye contact with THIFENSULFURON METHYL 75WG may cause eye irritation with discomfort, tearing, or blurring of vision.

Based on animal data, skin contact with THIFENSULFURON METHYL 75WG may cause skin irritation with discomfort or rash.

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.

FIRST AID MEASURES

First Aid

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and 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 INHALED: No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

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

Have the product container or label with you when calling a

(FIRST AID MEASURES - Continued)

poison control center or doctor, or going for treatment. You may also contact 1-888-261-1410 for emergency medical treatment information.

FIRE FIGHTING MEASURES

Flammable Properties

TRIBENURON METHYL-

LEL : 0.173 g/l
Autoignition : 420°C (788°F)

THIFENSULFURON METHYL-

LEL : 0.25 g/l

Fire and Explosion Hazards:

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, CO2.

Fire Fighting Instructions

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

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

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

EMERGENCY RESPONSE: Chemical resistant coveralls, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

(ACCIDENTAL RELEASE MEASURES - Continued)

Initial Containment

Follow applicable Federal, State/Provincial and Local laws/
regulations.

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.

HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes, skin, or clothing. Wash thoroughly
with soap and water after handling. Wash clothing after use.
Do not store or consume food or drink, or use 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

Store product in original container only. Store in a cool, dry
place.

Do not contaminate water, other pesticides, fertilizer, food or
feed in storage.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

Personal Protective Equipment

Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category A on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber) all equal to or greater than 14 mils.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining personal protective equipment (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 to 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
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber) all equal to or greater than 14 mils.
- Shoes plus socks.

Exposure Guidelines

Applicable Exposure Limits

TRIBENURON METHYL

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (Agsurf)	: 1 mg/m ³ , 8 Hr. TWA

THIFENSULFURON METHYL

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (Agsurf)	: 5 mg/m ³ , 8 & 12 Hr. TWA

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

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Solubility in Water : 0 % Dispersible
pH : 5.7
Odor : (slight), Pungent.
Form : Granular Solid.
Color : (light), Brown, Tan.
Density : 0.7 g/mL

STABILITY AND REACTIVITY

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.

TOXICOLOGICAL INFORMATION

Animal Data

TRIBENURON METHYL 75WG

Inhalation 4 hour LC50: > 6.7 mg/L in rats
Ingestion LD50: > 5000 mg/kg in rats
Dermal LD50: > 5000 mg/kg in rats

TRIBENURON METHYL 75WG is a moderate eye irritant, and a slight skin irritant, but not a skin sensitizer in animals.

TRIBENURON METHYL

Repeated ingestion doses caused body weight loss, increased liver and thyroid/parathyroid weights, altered clinical chemical parameters, but no significant gross or microscopic treatment related effects were noted. Long-term dosing caused 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. Developmental effects occurred in the

(TOXICOLOGICAL INFORMATION - Continued)

rat, but only at a dose also toxic to the dam. No reproductive effects were observed in rats. TRIBENURON METHYL did not produce genetic damage in bacterial or mammalian cell cultures or in animals.

THIFENSULFURON METHYL 75WG

Inhalation 4 hour LC50: > 5.3 mg/L in rats
Ingestion LD50: > 5000 mg/kg in rats
Dermal LD50: > 5000 mg/kg in rats

THIFENSULFURON METHYL 75WG is a moderate skin and eye irritant, but is not a skin sensitizer in animal tests.

THIFENSULFURON METHYL

Repeated ingestion exposures to THIFENSULFURON METHYL caused decreased body and organ weights, and some blood chemistry changes, including increased blood urea nitrogen and decreased protein and globulins. Long-term exposures caused an increase in liver and gall bladder weights, decreased body weight gain, and a decreased level of sodium in the blood when compared to the control group.

No carcinogenic effects were observed in animal tests with THIFENSULFURON METHYL. Animal data show developmental effects only at exposure levels producing toxic effects in the adult animal. Tests in animals demonstrate no reproductive toxicity.

THIFENSULFURON METHYL does not produce genetic damage in bacterial or mammalian cell cultures or animals.

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

THIFENSULFURON METHYL

96 hour LC50 - Rainbow trout: > 100 mg/L.
96 hour LC50 - Bluegill sunfish: > 100 mg/L.

AVIAN TOXICITY:

THIFENSULFURON METHYL

Acute Oral LD50 - Mallard Duck: > 2510 mg/kg.
Acute Dietary LC50 - Mallard Duck: > 5620 mg/kg.
Acute Dietary LC50 - Bobwhite Quail: > 5620 mg/kg.

AQUATIC TOXICITY:

TRIBENURON METHYL

96 hour LC50 - Rainbow trout: > 1000 mg/L.
Very low to low toxicity.

AVIAN TOXICITY:

TRIBENURON METHYL

Acute Oral LD50 - Bobwhite Quail: > 2250 mg/kg.
Acute Dietary LC50 - Bobwhite Quail: > 5620 ppm.
Acute Dietary LC50 - Mallard Duck: > 5620 ppm.

DISPOSAL CONSIDERATIONS

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.

Do not contaminate water, food, or feed by storage or disposal. Waste resulting from the use of this product may be disposed of on the site or at an approved waste disposal facility.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Waste Management

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

Container Disposal

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

For Fiber Sacks: Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Container Refilling and Disposal (For Containers up to 250 gal): This is a refillable container. If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. Reseal and return the container to any authorized Agsurf refilling facility. If the container is not to be refilled, triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by

(DISPOSAL CONSIDERATIONS - Continued)

incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on the product label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-888-261-1410 day or night.

Container Disposal for Bulk Containers: When this container is empty, replace the cap and seal all openings that have been opened during use, and return the container to the point of purchase or to a designated location named at time of purchase of this product. The container must only be refilled with this pesticide product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact Agsurf. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with State and local regulations.

For minor spills, leaks, etc., follow all precautions indicated on the product label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-888-261-1410 day or night.

TRANSPORTATION INFORMATION

Shipping Information

DOT

Proper Shipping Name : AGRICULTURAL HERBICIDE, SOLID
NOT REGULATED-----
REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : No
Fire : No
Reactivity : No

(REGULATORY INFORMATION - Continued)

In the United States this product is regulated by the US Environmental Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act. It is a violation of federal law to use this product in a manner inconsistent with its labeling.

EPA Reg. No. 352-611-85588

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating
Health : 1
Flammability : 1
Reactivity : 0

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

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: Agsurf Corporation
Address : Wilmington, DE 19801
: www.agsurf.com

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS