

**T-Square Herbicide**

Version 1.0

Revision Date 10/09/2018

Ref. 130000122030

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : T-Square Herbicide
Tradename/Synonym : T-Square XP Herbicide
THIFENSULFURON METHYL: (Methyl 3-[[[(4-methoxy-6-methyl-1,3,5- triazin-2-yl)amino]carbonyl]amino] sulfonyl]-2-thiophenecarboxylate)
TRIBENURON METHYL: (Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]- amino]sulfonyl] benzoate)

Product Use : Herbicide

Restrictions on use : Do not use product for anything outside of the above specified uses

Manufacturer/Supplier : FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104, USA
(215) 299-6000 (General Information)
msdsinfo@fmc.com (E-Mail General Information)

Medical Emergencies : 1 800 / 331-3148 (U.S.A. & Canada)
1 651 / 632-6793 (All Other Countries - Collect)

For leak, fire, spill or
accident emergencies, call : 1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 741-5970 (CHEMTREC - International)
1 703 / 527 3887 (CHEMTREC - Alternate)

SECTION 2. HAZARDS IDENTIFICATION

Not classified as a hazardous substance or mixture according to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 2012.

Other hazards

No applicable data available.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Tribenuron methyl	101200-48-0	25 %
Thifensulfuron methyl	79277-27-3	50 %
Inert Ingredients		25 %

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

- General advice : Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
See Section 1 for emergency phone numbers.
See Label for Additional Precautions and Directions for Use.
- Inhalation : Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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Eye contact	: 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.
Ingestion	: No specific intervention is indicated as the compound is not likely to be hazardous. Consult a physician if necessary.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: No applicable data available.
Notes to physician	: No applicable data available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray, Foam, Dry chemical, Carbon dioxide (CO2)
Unsuitable extinguishing media	: High volume water jet, (contamination risk)
Specific hazards	: Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.
Special protective equipment for firefighters	: Wear full protective clothing and self-contained breathing apparatus.
Further information	: (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Safeguards (Personnel)	: Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.
Environmental precautions	: Prevent material from entering sewers, waterways, or low areas.
Spill Cleanup	: Sweep up and shovel into suitable containers for disposal.

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Accidental Release Measures : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Handling (Physical Aspects) : Keep away from heat and sources of ignition.

Dust explosion class : No applicable data available.

Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Keep out of the reach of children.

Storage period : No applicable data available.

Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Use only with adequate ventilation.

Personal protective equipment

Skin and body protection : Applicators and other handlers must wear:
Long sleeved shirt and long pants
Chemical resistant gloves made of any waterproof material
Shoes plus socks
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 made of any waterproof material
Shoes plus socks

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

Exposure Guidelines

Exposure Limit Values

Tribenuron methyl

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AEL *	(FMC)	0.5 mg/m3	12 hr. TWA
AEL *	(FMC)	1 mg/m3	8 hr. TWA
Thifensulfuron methyl			
AEL *	(FMC)	5 mg/m3	8 & 12 hr. TWA Total dust.
Titanium dioxide			
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
TLV	(ACGIH)	10 mg/m3	TWA
AEL *	(FMC)	10 mg/m3	8 & 12 hr. TWA Total dust.
AEL *	(FMC)	5 mg/m3	8 & 12 hr. TWA Respirable dust.

Other Ingredients

No applicable data available.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	: solid
Form	: dry flowable
Color	: light brown, beige

Odor : slightly pungent

Odor threshold : No applicable data available.

pH : 5.7 at 10 g/l 25 °C (77 °F)

Melting point/range : No applicable data available.

Boiling point/boiling range : No applicable data available.

Flash point : Not applicable

Evaporation rate : No applicable data available.

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Flammability (solid, gas)	: No applicable data available.
Upper explosion limit	: No applicable data available.
Lower explosion limit	: 0.173 g/L
Vapour Pressure	: No applicable data available.
Vapour density	: No applicable data available.
Specific gravity (Relative density)	: No applicable data available.
Bulk density	: 0.59 g/cm ³
Water solubility	: dispersible
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: No applicable data available.
Decomposition temperature	: 305°C (581°F)
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No applicable data available.
Chemical stability	: Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	: No applicable data available.
Conditions to avoid	: None reasonably foreseeable.
Incompatible materials	: No materials to be especially mentioned.
Hazardous decomposition products	: Decomposes slowly in water.

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SECTION 11. TOXICOLOGICAL INFORMATION**T-Square Herbicide**

- Inhalation 4 h Acute toxicity estimate : > 5.5 mg/l , Rat
- Dermal Acute toxicity estimate : > 2,000 mg/kg , Rat
- Oral Acute toxicity estimate : > 5,000 mg/kg , Rat
- Skin irritation : No skin irritation, Rabbit
Minimal effects that do not meet the threshold for classification.
- Eye irritation : Moderate irritation, Rabbit
Minimal effects that do not meet the threshold for classification.
- Sensitisation : Did not cause sensitisation on laboratory animals (rabbit, guinea pig).

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

No reproductive, mutagenic, or teratogenic effects were observed in animal testing studies.

SECTION 12. ECOLOGICAL INFORMATION

Thifensulfuron methyl and tribenuron methyl have low to slight aquatic toxicity.

* 96 hour LC50, rainbow trout, bluegill sunfish: >100 mg/L for both technicals.

* LC50, mallard duck, bobwhite quail: >5620 mg/kg for both technicals.

- Additional ecological information : 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 or rinsate.

SECTION 13. DISPOSAL CONSIDERATIONS

- Waste disposal methods - Product : Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility according to Federal, State and local regulations.

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Waste disposal methods - : Container Refilling and Disposal:
Container Refer to the product label for instructions.

Contaminated packaging : No applicable data available.

SECTION 14. TRANSPORT INFORMATION

IATA_C	UN number	: 3077
	Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (Thifensulfuron-methyl, Tribenuron methyl)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9MI
IMDG	UN number	: 3077
	Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl, Tribenuron methyl)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9
	Marine pollutant	: yes (Thifensulfuron-methyl, Tribenuron methyl)

Not regulated as a hazardous material by DOT.

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA special provision A197, and ADR/RID special provision 375.

SECTION 15. REGULATORY INFORMATION

Other regulations : This Safety Data Sheet is for a pesticide product registered by the US Environmental Protection Agency (USEPA) and is therefore also subject to certain labeling requirements under US pesticide law (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the mandatory hazard information required by USEPA on the pesticide label:

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CAUTION!

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

SARA 313 Regulated Chemical(s) : Tribenuron methyl

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Kaolin

Title III hazard classification : Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire: No
Reactivity/Physical hazard: No
Pressure: No

EPA : In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

California Prop. 65 : WARNING! This product contains a chemical or chemicals known to the State of California to cause cancer.

SECTION 16. OTHER INFORMATION**NFPA**

Health	:	1
Flammability	:	1
Reactivity/Physical hazard	:	0

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