

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****COMPANY ADDRESS:**

ALBAUGH, LLC  
Ankeny, IA 50021  
1-800-247-8013

**EMERGENCY TELEPHONE NUMBERS:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call  
CHEMTREC Day or Night

- Within USA and Canada: 1-800-424-9300 CCN771
- Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

PRODUCT NAME : **T-METHYL 4.5L ST**  
 CHEMICAL NAME : Thiophanate-methyl  
 PRODUCT USE : Fungicide for seed treatment  
 PRODUCT CODE : EPA Reg. No 42750-295

**SECTION 2 - HAZARDS IDENTIFICATION SUMMARY**

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Light tan to brown liquid suspension

**HEALTH HAZARDS:** Warning. Harmful if swallowed. Moderate eye irritant.

**PHYSICAL HAZARDS:** May release toxic fumes if burned.

**ENVIRONMENTAL HAZARDS:** Harmful to aquatic life

**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Thiophanate-methyl	46.2%	23564-05-8
Other ingredients	53.8%	n/a

**SECTION 4 - FIRST AID MEASURES**

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

**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 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 INHALED:** Move person 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 further 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.

**NOTE TO PHYSICIAN:** No specific antidote. Treat symptomatically. Symptoms of Poisoning: The compound does not cause any definite symptoms that would be diagnostic. Contact with the eyes may cause irritation.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

**SECTION 5 - FIRE FIGHTING MEASURES**

## National Fire Protection Rating (NFPA)

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**FLASHPOINT:** > 100°C (212°F)

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, or water spray when fires involve this material.

**FIRE AND EXPLOSION HAZARD:** Can burn in fire, releasing toxic gases from thermal decomposition or combustion.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water to prevent environmental damage due to run off.

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full facepiece.

Minimize use of water to prevent environmental contamination

### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**IN CASE OF SPILLS OR LEAKS:** Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**SMALL SPILL:** Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

**LARGE SPILL:** Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

Minimize use of water to prevent environmental contamination

### **SECTION 7 - HANDLING AND STORAGE**

KEEP OUT OF REACH OF CHILDREN!

**HANDLING:** Use only in a well-ventilated area. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

**STORAGE:** Store in a cool dry location. Do not store in direct hot sunlight. Do not store above 90°F for prolonged periods of time. After prolonged storage in intense cold, allow product to return to approximately 75°F before using.

Do not contaminate water, food or feed by storage and disposal.

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION****EXPOSURE LIMITS (8 hour TWA, ppm):**

COMPONENT	OSHA PEL	ACIGH TLV
Thiophanate-methyl	Not listed	Not listed

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to minimize exposure to airborne contaminants. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:**

Handlers mixing, loading and apply the product as a dip must wear:

1. Coveralls over long-sleeved shirt and long pants
2. Chemical-resistant gloves
3. Chemical-resistant footwear plus socks
4. Chemical resistant apron

All other mixers, loaders and applicators must wear:

1. Long-sleeved shirt and long pants
2. Shoes plus socks
3. Chemical-resistant gloves for all mixers and loaders and for application using hand held equipment, and
4. Chemical-resistant apron for mixers, loaders, and other handlers exposed to concentrate

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

**USER SAFETY RECOMMENDATIONS:** 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 PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Light tan to brown liquid suspension
<b>Odor:</b>	faint odor
<b>pH:</b>	5.0 – 7.0
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	No data
<b>Flash Point:</b>	No data
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	Not flammable
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	No data
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	1.18 - 1.22 g/ml (9.8 – 10.1 lb/gl)*
<b>Solubility:</b>	Disperses
<b>Partition Coefficient:</b>	No data
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	No data

\*Listed density is an approximate value and does not necessarily represent that of a specific batch.

**SECTION 10 - STABILITY AND REACTIVITY**

**PRODUCT REACTIVITY:** None known

**CHEMICAL STABILITY:** Stable, however may decompose if heated.

**HAZARDOUS REACTION/POLYMERIZATION:** Product will not undergo polymerization.

**CONDITIONS TO AVOID:** Avoid temperatures above (115°F, 46°C) and below 25°F (-6°C).

**INCOMPATIBLE MATERIALS:** Acidic and oxidizing materials

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition can produce oxides of sulfur, nitrogen and carbon monoxide.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

Data from similar but not identical formulation:

**ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	1,750 mg/Kg
Dermal LD <sub>50</sub> (rat)	> 5,000 mg/Kg
Inhalation LC <sub>50</sub> (rat)	> 2.02 mg/L
Eye Irritation (rabbit)	Moderately irritating
Skin Irritation (rabbit)	Slightly irritating
Sensitization (guinea pig)	Non-sensitizer

**CARCINOGEN STATUS:**

OSHA	- Not listed
NTP	- Not listed
IARC	- Not listed

EPA has classified thiophanate-methyl as likely to be carcinogenic based on dose-dependent responses in liver tumors in mice tests.

**TERATOGENICITY:** Developmental and reproductive toxicity results were noted in rabbit and rat studies

**MUTAGENICITY:** Weight of evidence indicates that metalaxyl is non-mutagenic

**SECTION 12 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seed spilled during loading and planting. Dispose of all excess treated seed by burying seed away from bodies of water.

**FATE:** Thiophanate-methyl has a soil half-life of 20 -- 60 days. It degrades to methyl 2 benzimidazole carbamate (MBC) after application which is persistent and moderately mobile depending on soil type and other conditions.

**FISH TOXICITY:** (technical)

96 hour LC <sub>50</sub> , Rainbow trout	–	8.3 ppm
96 hour LC <sub>50</sub> , Bluegill	–	> 40 ppm

**AVIAN TOXICITY:** (technical)

Dietary LC <sub>50</sub> , Bobwhite quail	–	> 10,000 ppm
Dietary LC <sub>50</sub> , Mallard duck	-	> 4,000 ppm

**BEE TOXICITY:** (technical)

48-hour Contact LD <sub>50</sub>	-	> 100 ug/bee
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**SECTION 13 - DISPOSAL CONSIDERATIONS**

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refer to the container label to determine if it is refillable and for complete cleaning and disposal instructions.

**SECTION 14 - TRANSPORT INFORMATION****SHIPPING DESCRIPTION:**

≥ 2 - 118 gallons	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S., 9, III (thiophanate-methyl), RQ
≥ 119 gallons	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S., 9, III (thiophanate-methyl), Marine Pollutant, RQ

<b>TRANSPORT HAZARD CLASS:</b>	Class 9
<b>UN NUMBER:</b>	3082
<b>DOT PACKING GROUP:</b>	PG III

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** 10 pounds

**SARA TITLE III STATUS:**

311/312 Hazard Categories –	Immediate and Delayed Health
313 Toxic Chemicals –	Thiophanate-methyl (CAS # 23564-05-8)

**CALIFORNIA PROP 65:** Not listed

**TSCA:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SECTION 16 - OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	1
	FLAMMABILITY	1
	PHYSICAL HAZARD	0
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**DISCLAIMER:** The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS 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-approved label.

**REVISED DATE:** September, 2015

**REFERENCE:** Initial release