



Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 08.07.2025

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SECTION 1: Identification

Product Identifier

Product Name: Tivado MPC

Product code: EPA Reg. No.: 91234-393



Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Suspension concentrate insecticide

Uses Advised Against: Any use other than specified above

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

Atticus, LLC

940 NW Cary Parkway

Suite 200

Durham, North Carolina 27513

(984) 465-4754

Emergency Telephone Number:

For Chemical Emergency

CHEMTREC

1-800-424-9300 (24 hours)

+1-703-527-3887 (24 hours)

Collect calls accepted

For Emergency Medical Treatment Information

SAFETYCALL

1-844-685-9173 (24 hours)

SECTION 2: Hazard(s) Identification

GHS Classification:

Skin sensitization, category 1B

Reproductive toxicity, category 2

Acute aquatic hazard, category 2

Chronic aquatic hazard, category 2

Label elements

Hazard Pictograms:



Signal Word: Warning

Hazard statements:

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H361 Suspected of damaging fertility or the unborn child.

H317 May cause an allergic skin reaction

H401 Toxic to aquatic life

H411 Toxic to aquatic life with long lasting effects

Precautionary Statements:

P101 If medical advice is needed, have product container or label at hand

P102 Keep out of reach of children

P103 Read label before use

P201 Obtain special instructions before use

P202 Do not handle until all safety precautions have been read and understood

P280 Wear protective gloves, protective clothing and eye protection.

P261 Avoid breathing mist, vapors or spray.

P272 Contaminated work clothing must not be allowed out of the workplace

P273 Avoid release to the environment

P308+P313 If exposed or concerned: Get medical advice.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice or attention.

P321 Specific treatment (see Sections 4-8 of this SDS and any supplemental information on the product label).

P363 Wash contaminated clothing before reuse

P391 Collect spillage

P405 Store locked up

P501 Dispose of contents and container in accordance with federal, state and local regulations.

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 203313-25-1	Spirotetramat	14.5
CAS Number: 56-81-5	Glycerol	7-11

Additional Information:

NOTE: Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information. For Chemical Emergency: spill, leak, fire, exposure or accident, call CHEMTREC day or night within USA and Canada at 1-800-424-9300 or +1-703-527-3887 (collect calls accepted).

After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. If respiratory symptoms develop or persist, seek medical advice/attention.

After Skin Contact:

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Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After Swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Dermal exposure may cause an allergic skin reaction. Symptoms may include irritation, redness, pain, rash, inflammation, itching, burning and dermatitis.

Delayed Symptoms and Effects:

Effects are dependent on exposure (dose, concentration, contact time).

Immediate Medical Attention and Special Treatment

Specific Treatment:

Not determined or not applicable.

Notes for the Doctor:

Treat symptomatically.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

In the event of fire, the following may be released: Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x).

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental Precautions:

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Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

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 and Material for Containment and Cleaning Up:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States	Spirotetramat	203313-25-1	Limit Value: 1.4 mg/m ³ (Industry)
OSHA	Glycerol	56-81-5	8-Hour TWA-PEL: 15 mg/m ³ (Mist, total)
	Glycerol	56-81-5	8-Hour TWA-PEL: 5 mg/m ³ (Mist, respirable fraction)
ACGIH	Glycerol	56-81-5	TLV-TWA: 10 mg/m ³ (8 hr, Particles, insoluble or poorly soluble, not otherwise specified, inhalable)
	Glycerol	56-81-5	TLV-TWA: 3 mg/m ³ (8 hr, Particles, insoluble or poorly soluble, not otherwise specified, respirable)
United States(California)	Glycerol	56-81-5	8-Hour TWA-PEL: 10 mg/m ³ (Particulates not otherwise regulated, total dust)
	Glycerol	56-81-5	8-Hour TWA-PEL: 5 mg/m ³ (Particulates not otherwise regulated, respirable fraction)

Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

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Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils, and shoes plus socks.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	white suspension liquid
Odor	odorless
Odor threshold	Not determined or not available.
pH	5.76
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	$> 101\text{ }^{\circ}\text{C}$ ($> 213.8\text{ }^{\circ}\text{F}$)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	1.0329 g/mL
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.

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Dynamic viscosity	Not determined or not available.
Kinematic viscosity	685.62 mm ² /s at 20±0.1 °C; 461.66 mm ² /s at 40±0.1 °C
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to Avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible Materials:

None known.

Hazardous Decomposition Products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

Route	Result
Oral	LD50 Rat: > 2,000 mg/kg
Dermal	LD50 Rat: > 4,000 mg/kg
Inhalation	LC50 Rat: > 3.0 mg/L (4 hr, (aerosol); Highest attainable concentration. No deaths.)

Substance Data:

Name	Route	Result
Spirotetramat	oral	LD50 Rat: > 2,000 mg/kg
	dermal	LD50 Rat: > 2,000 mg/kg
	inhalation	LC50 Rat: > 4.183 mg/L

Skin Corrosion/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No skin irritation (rabbit)

Substance Data:

Name	Result
Spirotetramat	Non-irritant

Serious Eye Damage/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:

Mild irritation (rabbit)

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Substance Data:

Name	Result
Spirotetramat	Causes serious eye irritation.

Respiratory or Skin Sensitization

Assessment:

May cause an allergic skin reaction.

Product Data:

Skin sensitizing (guinea pig)

Substance Data:

Name	Result
Spirotetramat	May cause an allergic skin reaction.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
Spirotetramat	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Spirotetramat	Not Applicable

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

Name	Result
Spirotetramat	Not mutagenic

Reproductive Toxicity

Assessment:

Suspected of damaging fertility or the unborn child.

Product Data:

No data available.

Substance Data:

Name	Result
Spirotetramat	Suspected of damaging fertility. Suspected of damaging the unborn child.

Specific Target Organ Toxicity (Single Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data:

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Name	Result
Spirotetramat	May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Information on Likely Routes of Exposure:

No data available.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

No data available.

Other Information:

Information in this section is provided from a similar formulation.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment:

Toxic to aquatic life.

Toxic to aquatic invertebrates and oysters.

Potentially toxic to honeybee larvae. Exposure of adult bees to direct treatment or residues on blooming crops can lead to effects on honeybee larvae. Honeybee LD50: > 100 µg a.i./bee.

Product Data: No data available.

Substance Data:

Name	Result
Spirotetramat	Fish LC50 Bluegill sunfish: 2.2 mg/L (96 hr)
	Aquatic Invertebrates EC50 Daphnia magna: > 42.7 mg/L (48 hr)
	Fish LC50 Rainbow trout: 2.54 mg/L (96 hr)
	Fish LC50 Sheepshead minnow: 1.96 mg/L (96 hr)
	Aquatic Invertebrates LC50 Saltwater mysid: 5.5 mg/L (96 hr)
	Aquatic Invertebrates EC50 Eastern oyster: 0.85 mg/L (48 hr)
	Aquatic Invertebrates EC50 Chironomus riparius: 0.46 mg/L (28 d)

Chronic (Long-Term) Toxicity

Assessment:

Toxic to aquatic life with long lasting effects.

Product Data: No data available.

Substance Data: No data available.

Persistence and Degradability

Product Data: No data available.

Substance Data: No data available.

Bioaccumulative Potential

Product Data: No data available.

Substance Data: No data available.

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Mobility in Soil

Product Data: No data available.

Substance Data: No data available.

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packages:

CONTAINER DISPOSAL: Nonrefillable and refillable containers. Refer to the product label for specific container disposal instructions.

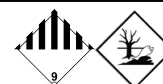
SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None
Additional Information	This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

International Maritime Dangerous Goods (IMDG)

UN Number	UN3082
UN Proper Shipping Name	Environmentally hazardous substance, liquid, N.O.S. (spirotetramat)
UN Transport Hazard Class(es)	9



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Packing Group	III
Environmental Hazards	Marine Pollutant
Special Precautions for User	None
Additional Information	This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	UN3082
UN Proper Shipping Name	Environmentally hazardous substance, liquid, N.O.S. (spirotetramat)
UN Transport Hazard Class(es)	9 
Packing Group	III
Environmental Hazards	Marine Pollutant
Special Precautions for User	None
Additional Information	This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.

SARA Section 313 Toxic Chemicals: None of the ingredients are listed.

CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

56-81-5	Glycerol	Listed
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New Jersey Right to Know:

56-81-5	Glycerol	Listed
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New York Right to Know: None of the ingredients are listed.

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Pennsylvania Right to Know:

56-81-5	Glycerol	Listed
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California Proposition 65: None of the ingredients are listed.

Additional information:

FIFRA: All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The regulatory information presented outside of this FIFRA section is pertinent only when this product is handled outside of normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates and oysters. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. This product is potentially toxic to honey bee larva through residues in pollen and nectar, but not to adult honeybees. Exposure of adult bees to direct treatment or residues on blooming crops can lead to effects on honeybee larvae.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

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. To the extent consistent with applicable law, neither Atticus, LLC nor Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ATTICUS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ATTICUS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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End of Safety Data Sheet