

## Safety Data Sheet

### Section 1: Identification

#### Product identifier

- Product Name** • **Mavrik Perimeter**
- Synonyms** • 38070A; EPA Reg. No.: 2724-478
- Product Description** • Milky white liquid.

#### Relevant identified uses of the substance or mixture and uses advised against

- Recommended use** • Insecticide/miticide
- Restrictions on use** • Avoid contact with skin, eyes, or clothing. Avoid release to the environment. Keep out of the reach of children. Do not inhale.

#### Details of the supplier of the safety data sheet

- Manufacturer** • Wellmark International  
1501 E. Woodfield Road, Suite 200W  
Schaumburg, IL 60173  
United States
- www.zoecon.com

#### Emergency telephone number

- Manufacturer** • 1-800-248-7763
- Manufacturer (Transportation)** • 1-800-424-9300 - CHEMTREC
- Manufacturer (Transportation)** • 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### Section 2: Hazard Identification

#### United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

#### Classification of the substance or mixture

- OSHA HCS 2012** • Specific Target Organ Toxicity Repeated Exposure 2  
Eye Irritation 2A  
Acute Toxicity Inhalation 3

#### Label elements

OSHA HCS 2012

**DANGER**



- Hazard statements** • May cause damage to organs through prolonged or repeated exposure - skin.  
Causes serious eye irritation  
Toxic if inhaled

### Precautionary statements

- Prevention** • Avoid breathing dust, fume, gas, mist, vapors and/or spray.  
Use only outdoors or in a well-ventilated area.  
Wash thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER or doctor/physician.  
Get medical advice/attention if you feel unwell.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.
- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.  
Store locked up.  
Store in a well-ventilated place. Keep container tightly closed.

### Other hazards

- OSHA HCS 2012
- This product is toxic to fish and aquatic organisms. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Section 3 - Composition/Information on Ingredients

### Substances

- Material does not meet the criteria of a substance.

### Mixtures

Composition		
Chemical Name	Identifiers	%
Tau-fluvalinate	CAS:102851-06-9	22.3%
Sodium alkyl-naphthalenesulfonate, formaldehyde condensate	CAS:36290-04-7	2.2%
Ethylene glycol	CAS:107-21-1	8%
Other ingredients	NDA	67.5%

## Section 4: First-Aid Measures

### Description of first aid measures

- Inhalation**
- IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor for further treatment advice.
- Skin**
- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
- Eye**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

- Ingestion**
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Most important symptoms and effects, both acute and delayed**

- Causes eye irritation, toxic if inhaled, repeated exposure may cause damage to skin. Refer to Section 11 - Toxicological Information.

**Indication of any immediate medical attention and special treatment needed**

- Notes to Physician**
- Treat symptomatically and supportively.

**Section 5: Fire-Fighting Measures**

**Extinguishing media**

- Suitable Extinguishing Media**
- LARGE FIRE: Water spray, fog or regular foam.
  - SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

- Unsuitable Extinguishing Media**
- Avoid heavy hose streams.

- Firefighting Procedures**
- LARGE FIRES: Dike fire-control water for later disposal.
  - LARGE FIRES: Move containers from fire area if you can do it without risk. Stay upwind.
  - Ventilate closed spaces before entering.
  - Do not allow fire fighting water to escape into waterways or sewers.
  - Do not use direct stream of water. A direct stream of water may spread fire.
  - Do not breathe gas/fumes/vapour/spray.

**Special hazards arising from the substance or mixture**

- Unusual Fire and Explosion Hazards**
- No data available

- Hazardous Combustion Products**
- Thermal decomposition may produce toxic fumes/vapors which may include hydrogen cyanide, hydrogen chloride and hydrogen fluoride.

**Advice for firefighters**

- Wear positive pressure self-contained breathing apparatus (SCBA).

**Section 6 - Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**

- Personal Precautions**
- Ventilate enclosed areas. Avoid breathing fumes. Remove clothing and wash thoroughly after use. Use appropriate Personal Protective Equipment (PPE). Avoid contact with skin, eyes, and clothing.

- Emergency Procedures**
- Ventilate closed spaces before entering. Avoid release into the environment.

**Environmental precautions**

- Avoid release to the environment. LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

- Containment/Clean-up Measures**
- SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

**Section 7 - Handling and Storage**

**Precautions for safe handling**

- Handling**
- Avoid breathing fumes. Avoid contact with skin or eyes. In case of inadequate ventilation, wear respiratory protection. Read label before use. Wash hands thoroughly with soap and water after handling. Use only in well ventilated areas. Do not take internally.

### Conditions for safe storage, including any incompatibilities

- Storage**
- Store locked up. Store only in original container in a cool, well-ventilated place. Do not contaminate water, food, or feed by storage or disposal.

## Section 8 - Exposure Controls/Personal Protection

### Control parameters

Exposure Limits/Guidelines		
	Result	ACGIH
Ethylene glycol (107-21-1)	Ceilings	100 mg/m <sup>3</sup> Ceiling (aerosol only)

### Exposure Limits Supplemental

ACGIH  
 •Ethylene glycol (107-21-1): **TLV Basis - Critical Effects:** (eye and upper respiratory tract irritation) | **Notice of Intended Changes (TLVs):** (10 mg/m<sup>3</sup> TWA (inhalable fraction and vapor); A4 - not classifiable as a human carcinogen; TLV basis: eye and upper respiratory tract irritation)

### Exposure controls

**Engineering Measures/Controls**

- Use adequate ventilation to remove vapors (fumes, dust, etc.) Wear appropriate gloves and clothing to prevent contact with skin.

**Personal Protective Equipment**

**Pictograms**



**Respiratory**

- In case of insufficient ventilation, use NIOSH approved respiratory protection. Mixers loaders, applicators and other handlers: wear a NIOSH approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or R, P or HE filter.

**Eye/Face**

- Wear safety goggles.

**Hands**

- Wear chemical resistant gloves.

**Skin/Body**

- Wear long-sleeved shirt, long pants, shoes, and socks.

**Environmental Exposure Controls**

- Avoid release to the environment. Avoid contaminating waterways and sewers.

## Section 9 - Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Milky white liquid.
Color	Milky white.	Odor	Strong oil-like.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	4.88 @ 25 C(77 F)
Specific Gravity/Relative Density	= 1.09 Water=1	Bulk Density	No data available
Water Solubility	No data available	Viscosity	400 Centipoise (cPs, cP) or mPas @ 20 C(68 F)
Explosive Properties	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available

Evaporation Rate	No data available		
<b>Flammability</b>			
Flash Point	Do not contain combustible components	UEL	No data available
LEL	No data available	Flammability (solid, gas)	No data available
<b>Environmental</b>			
Half-Life	No data available	Octanol/Water Partition coefficient	No data available

## Section 10: Stability and Reactivity

### Reactivity

- Non-reactive under normal handling and storage conditions.

### Chemical stability

- Stable

### Possibility of hazardous reactions

- Hazardous polymerization will not occur.

### Conditions to avoid

- Direct sunlight. Excessive heat >110°F.

### Incompatible materials

- No data available

### Hazardous decomposition products

- Thermal decomposition may produce toxic fumes/vapors which may include hydrogen cyanide, hydrogen chloride and hydrogen fluoride.

## Section 11 - Toxicological Information

### Information on toxicological effects

	CAS	
Mavrik Perimeter	NDA	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 5150 mg/kg; Inhalation-Rat LC50 • 0.52-1.65 mg/L 4 Hour(s); Skin-Rabbit LD50 • >2100 mg/kg; <b>Irritation:</b> Eye-Rabbit • Mild irritation; Skin-Rabbit • Essentially non-irritating

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Eye Irritation 2A
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation 3; Acute Toxicity - Oral - Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 • Classification criteria not met
Skin sensitization	OSHA HCS 2012 • Classification criteria not met

STOT-RE	OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2
STOT-SE	OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met

**Potential Health Effects**

**Inhalation**

- Acute (Immediate) • Toxic if inhaled.
- Chronic (Delayed) • No data available

**Skin**

- Acute (Immediate) • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed) • Repeated and prolonged exposure may cause skin lesions.

**Eye**

- Acute (Immediate) • Causes serious eye irritation.
- Chronic (Delayed) • No data available

**Ingestion**

- Acute (Immediate) • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed) • Tau-fluvalinate: evidence of neurotoxicity in peripheral nervous system (rats), however, effects were not persistent and were no longer evident after two weeks without treatment.

**Mutagenic Effects**

- Tau-fluvalinate has been tested and found negative for mutagenicity potential.

**Carcinogenic Effects**

- Tau-fluvalinate is not listed as a carcinogen by OSHA, IARC, or NTP.

**Reproductive Effects**

- Tau-fluvalinate has been tested and is not a reproductive toxin.

**Section 12 - Ecological Information**

**Toxicity**

Components		
Tau-fluvalinate (22.3%)	102851-06-9	<b>Aquatic Toxicity-Fish:</b> 96 Hour(s) LC50 <i>Rainbow trout</i> 0.00091 mg/L [Acute] 96 Hour(s) LC50 <i>Blue gill</i> 0.0012 mg/L [Acute] 96 Hour(s) LC50 <i>Sheepshead minnow</i> 0.0015 mg/L [Acute] <b>Aquatic Toxicity-Crustacea:</b> 48 Hour(s) LC50 <i>Daphnia magna</i> 0.00094 mg/L [Acute] 96 Hour(s) LC50 <i>Mysid shrimp</i> 0.0000079 mg/L [Acute] NOEC <i>Daphnia magna</i> 0.0003 mg/L [Chronic] NOEC <i>Mysid shrimp</i> 0.0000003 mg/L [Chronic]

**Persistence and degradability**

- Tau-fluvalinate is expected to degrade rapidly under aerobic conditions but be persistent under anaerobic conditions.

**Bioaccumulative potential**

- No data available

**Mobility in Soil**

- Tau-fluvalinate is expected to be highly immobile. Soil half life: 14.9 days.

**Other adverse effects**

**Potential Environmental Effects**

- This product is toxic to fish and aquatic organisms.

**Section 13 - Disposal Considerations**

## Waste treatment methods

### Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. To avoid wastes, use all material in this container by formulation according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

### Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Non-refillable container. Do not reuse or refill container. See label for specific disposal instructions.

## Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN2902	Pesticide, liquid, toxic, n.o.s. (Tau-Fluvalinate)	6.1	III	Not Applicable
IMO/IMDG	UN2902	Pesticide, liquid, toxic, n.o.s. (Tau-Fluvalinate)	6.1	III	Marine Pollutant
IATA/ICAO	UN2902	Pesticide, liquid, toxic, n.o.s. (Tau-Fluvalinate)	6.1	III	Not Applicable

**Special precautions for user** • None specified.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** • No data available

### Other information

- The calculated 1-hour acute toxicity for inhalation LC50 = 2.08 mg/L.

**IMO/IMDG** • No data available

**IATA/ICAO** • No data available

## Section 15 - Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications** • Acute, Chronic, SARA Title III Section 313

### FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

### CAUTION

**Precautionary Statements** • Keep out of reach of children.

**Hazards to Humans and Domestic Animals** • HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION Harmful if swallowed, absorbed through the skin, or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist or vapor. Wear long-sleeved shirt, long pants, shoes, socks, and chemical resistant gloves (such as or made out of any waterproof material, selection category A).

**First Aid** • 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 a 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 eyes. • Call a poison control center for treatment advice.

**Environmental Hazards** • This product is toxic to fish and aquatic organisms. To protect the environment, do not allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems. Use with care when applying in areas adjacent to any body of water. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not apply when weather conditions favor drift from the target area. This product is toxic to honey bees if bees are exposed to direct application. However, dried residues of this product are non-toxic to honey bees. Treat during non-foraging periods to minimize adverse effects.

**Physical or Chemical Hazards** • Do not use or store near heat or open flame.

Inventory		
Component	CAS	TSCA
Tau-Fluvalinate Technical	102851-06-9	No
Sodium alkyl-naphthalenesulfonate, formaldehyde condensate	36290-04-7	Yes
Ethylene glycol	107-21-1	Yes
Tau-fluvalinate	102851-06-9	No

## United States

### Environment

#### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Tau-Fluvalinate Technical	102851-06-9	Not Listed
• Sodium alkyl-naphthalenesulfonate, formaldehyde condensate	36290-04-7	Not Listed
• Ethylene glycol	107-21-1	
• Tau-fluvalinate	102851-06-9	Not Listed

#### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Tau-Fluvalinate Technical	102851-06-9	Not Listed
• Sodium alkyl-naphthalenesulfonate, formaldehyde condensate	36290-04-7	Not Listed
• Ethylene glycol	107-21-1	5000 lb final RQ; 2270 kg final RQ
• Tau-fluvalinate	102851-06-9	Not Listed

#### U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Tau-Fluvalinate Technical	102851-06-9	Not Listed
• Sodium alkyl-naphthalenesulfonate, formaldehyde condensate	36290-04-7	Not Listed
• Ethylene glycol	107-21-1	1.0 % de minimis concentration
• Tau-fluvalinate	102851-06-9	Not Listed



## Section 16 - Other Information

<b>Revision Date</b>	<ul style="list-style-type: none"><li>• 25/November/2015</li></ul>
<b>Last Revision Date</b>	<ul style="list-style-type: none"><li>• 25/November/2015</li></ul>
<b>Preparation Date</b>	<ul style="list-style-type: none"><li>• 25/November/2015</li></ul>
<b>Disclaimer/Statement of Liability</b>	<ul style="list-style-type: none"><li>• The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.</li></ul>

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**AMOUNT MAVRIK® PERIMETER  
IN WATER TO MAKE**

SITE	PEST	5 GALLONS	1 GALLON	SPECIFIC DIRECTIONS
Woody and Herbaceous Ornamentals—Outdoors	Aphids, Thrips, Mites, Clover Mites, Whiteflies, Leaf-Feeding Caterpillars (i.e., Tent, Orlando, Gypsy Moth, Bagworm, Canker Worm, etc.), Lygus Plant Bugs, Beetles (Flea, Cucumber, Elm Leaf), Leafhoppers, Earwigs, Ants, Crickets, Armyworms, Cutworms, Sowbugs, Chiggers*, Millipedes*, Springtails (Collembola), Adelgids, Mosquitoes, Glassy-Wing Sharpshooters, Stink Bugs, Bark Scorpions, Strawberry Root Weevils*, Obscure Root Weevils*, Blackvine Root Weevils*	0.2–0.5 fl oz (1 1/3–3 teaspoons)	.04–0.1 fl oz (1.2–3 ml) (1/3–2/3 teaspoon)	Make applications to large, mature ornamental specimen plants or plants in containers larger than 5 gallons in size. Mix 0.2–0.5 fl oz or 1 1/3–3 teaspoons of MAVRIK® PERIMETER in 5 gallons of water. Apply 5 gallons of spray solution per equivalent of 1,000 square feet of growing area using a low pressure, coarse fan spray application. Spray interval is typically 14–28 days but not more than 4 applications per month. Do not exceed 24 applications per year. Use sufficient water to thoroughly cover the surfaces to be treated. Use lower rates for light to moderate insect pressure. Spray on ground around base of tree or shrub and/or up main trunk or stem and foliage.
Eugenia and Pepper Tree	Psyllids	0.25–0.5 fl oz (1 1/2–3 teaspoons)	0.5–0.1 fl oz (1/3–2/3 teaspoon)	Apply 0.25–0.5 fl oz (1 1/2–3 teaspoons of MAVRIK® PERIMETER per 5 gallons of water to protect new foliage, depending on pest pressure. Use the higher rate of MAVRIK® PERIMETER for heavier infestations of psyllids. Apply 2 applications at 14 day intervals under heavy reinfestation pressure or if new foliage is present. If pruning is needed, prune the entire hedge, then delay application until adults and new shoots are present.
Ant Mound Treatment	Fire Ants and other mounding ant pests	0.5 fl oz (1.5 ml) (3 teaspoons)	0.1 fl oz (3 ml) (2/3 teaspoon)	<b>Individual ant mound treatment:</b> Apply as drench using 1 gallon of spray solution per mound to control mounding ant colonies, including the fire ant. Thoroughly mix 2/3 teaspoon (0.1 fl oz/3 ml) of MAVRIK® PERIMETER with 1 gallon of water. Drench the mound using 1 gallon of dilution per mound. Apply the dilution starting on the perimeter of the mound and ending at the center of the mound until the entire mound is wet but not to the point of runoff.

\* Except in California

To the extent consistent with applicable law, Seller makes no warranty, express or implied, concerning the use of this product other than indicated on the label. To the extent consistent with applicable law, Buyer assumes all risk of use and handling of this material when such use and handling are contrary to label instructions.

For more information or in case of emergency, call **1-800-248-7763. www.zoecon.com**

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