



Safety Data Sheet

Section 1: Identification

Product identifier

Product Name

- **Mavrik Aquaflow Insecticide/Miticide**

Synonyms

- 100510895; 38040A; 38060A; 38090A; 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.centralgrower.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 alkylnaphthalenesulfonate, 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 ³ 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/m³ 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		

Flammability

Flash Point	Do not contain combustible components	UEL	No data available
LEL	No data available	Flammability (solid, gas)	No data available
Environmental			
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 Aquaflow Insecticide/Miticide	NDA	Acute Toxicity: 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; Irritation: 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	Aquatic Toxicity-Fish: 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] Aquatic Toxicity-Crustacea: 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 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 the 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 alkylnaphthalenesulfonate, 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 alkylnaphthalenesulfonate, 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 alkylnaphthalenesulfonate, 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 alkylnaphthalenesulfonate, 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

- Revision Date** • 25/November/2015
- Last Revision Date** • 25/November/2015
- Preparation Date** • 25/November/2015
- Disclaimer/Statement of Liability** • 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.
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