

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Trade name : Mavrik Aquaflow Insecticide/Miticide
 Synonyms : 100510895, 38040A, 38060A, 38090A, EPA Reg. No.: 2724-478

1.2. Recommended use and restrictions on use

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

1.3. Supplier

Wellmark International
 1501 E. Woodfield Road, Suite 200W
 Schaumburg, IL 60173 - United States
 www.centralgrower.com

1.4. Emergency telephone number

Emergency number : 1-800-248-7763
 1-800-424-9300 - CHEMTREC
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Serious eye damage/eye irritation Category 2A	Causes serious eye irritation
Acute toxicity (inhalation) Category 3	Toxic if inhaled
Specific target organ toxicity (repeated exposure) Category 2	May cause damage to organs through prolonged or repeated exposure

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Causes serious eye irritation
 Toxic if inhaled
 May cause damage to organs (skin) through prolonged or repeated exposure

Precautionary statements (GHS-US) : Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash hands, forearms and face thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If inhaled: Remove person to fresh air and keep comfortable for breathing
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Call a poison center or doctor
 Get medical advice/attention if you feel unwell.
 If eye irritation persists: Get medical advice/attention.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of contents/container to in accordance with local/regional/national/international regulations

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2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : 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.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Tau-fluvalinate	(CAS-No.) 102851-06-9	22.3
Sodium alkylnaphthalenesulfonate, formaldehyde condensate	(CAS-No.) 36290-04-7	2.2
Ethylene glycol	(CAS-No.) 107-21-1	8
Other ingredients	(CAS-No.) N/A	Balance

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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 and attention.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Toxic if inhaled.

Symptoms/effects after skin contact : May cause damage to skin through prolonged or repeated exposure.

Symptoms/effects after eye contact : Causes serious eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Avoid heavy hose streams.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : 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. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray. Move containers away from the fire area if this can be done without risk.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

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Emergency procedures : As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Do NOT wash away into sewer. Avoid release to the environment. Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe fumes. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wear personal protective equipment. Read label before use. Wash hands immediately after handling the product.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethylene glycol (107-21-1)		
ACGIH	ACGIH TWA (ppm)	25 ppm (Vapor fraction)
ACGIH	ACGIH STEL (mg/m ³)	10 mg/m ³ (Inhalable fraction, Aerosol only)
ACGIH	ACGIH STEL (ppm)	50 ppm (Vapor fraction)
ACGIH	Remark (ACGIH)	Kidney dam; URT & eye irr

8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear chemically resistant protective gloves.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.

Respiratory protection:

Wear respiratory protection. In case of insufficient ventilation, use NIOSH approved respiratory protection. 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.



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Milky white liquid
Color	: Milky white
Odor	: Strong oil-like
Odor threshold	: No data available
pH	: 4.88 (25 °C)(77 °F)
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.09
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 400 cP (20 °C)(68 °F)
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Excessive heat > 110° F. Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce toxic fumes/vapors which may include hydrogen cyanide, hydrogen chloride and hydrogen fluoride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Mavrik Aquaflow Insecticide/Miticide	
LD50 oral rat	5150 mg/kg
LD50 dermal rabbit	> 2100 mg/kg
LC50 inhalation rat (mg/l)	0.52 - 1.65 mg/l/4h
pH	4.88 (25 °C)(77 °F)

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GHS-US Properties	Classification
Acute toxicity	Inhalation: Toxic if inhaled.
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	Not classified
Germ cells mutagen	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicant (single exposure)	Not classified
Specific target organ toxicant (repeated exposure)	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not classified

Potential health effects

Inhalation

Acute : Toxic if inhaled.

Skin

Acute : Under normal conditions of use, no health effects are expected.

Chronic : Repeated and prolonged exposure to tau-fluvalinate may cause skin lesions.

Eye

Acute : Causes serious eye irritation.

Ingestion

Acute : Under normal conditions of use, no health effects are expected.

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

Carcinogenicity : Tau-fluvalinate is not listed as a carcinogen by OSHA, IARC, or NTP, No other component present at 0.1% or greater are listed by IARC, OSHA or NTP.

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

SECTION 12: Ecological information

12.1. Toxicity

Tau-fluvalinate (102851-06-9)	
LC50 Acute fish 1	0.00091 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	0.0012 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute fish 3	0.0015 mg/l (Exposure time: 96h - Sheepshead minnow)
LC50 Acute crustacea 1	0.0000079 mg/l (Exposure time: 96h - Mysid shrimp)
EC50 Daphnia 1	0.00094 mg/l (Exposure time: 48h - Daphnia magna)
NOEC Chronic crustacea 1	0.0003 mg/l (Daphnia magna)
NOEC Chronic crustacea 2	0.0000003 mg/l (Mysid shrimp)

12.2. Persistence and degradability

Tau-fluvalinate (102851-06-9)	
Persistence and degradability	Tau-fluvalinate is expected to degrade rapidly under aerobic conditions but be persistent under anaerobic conditions.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Tau-fluvalinate (102851-06-9)	
Mobility in soil	Tau-fluvalinate is expected to be highly immobile. Soil half life: 14.9 day

12.5. Other adverse effects

Mavrik Aquaflow Insecticide/Miticide	
Ecological Fate	This product is toxic to fish and aquatic organisms.

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SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Ethylene glycol RQ = 5,000 lb
IMDG	UN3082	Packaging 5 L or greater: Environmentally Hazardous substance, Liquid, N.O.S. (Tau-fluvalinate)	9	III	Marine pollutant
IATA	UN2902	Pesticide, liquid, toxic, n.o.s. (Tau-Fluvalinate)	6.1	III	Acute aquatic toxicity

Other Information : DOT: The calculated 1-hour acute toxicity for inhalation LC50 = 2.08 mg/L, however it has been determined a mist or aerosol cannot be formed if there is leakage during transport, therefore the 6.1 classification does not apply

SECTION 15: Regulatory information

15.1. US Federal regulations

Sodium alkylnaphthalenesulfonate, formaldehyde condensate (36290-04-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag

XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).

ethylene glycol (107-21-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ

5000 lb

SARA Section 313 - Emission Reporting

1 %

FIFRA Labelling

EPA Registration Number

2724-478

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.

FIFRA Signal word

Caution

FIFRA Precautionary Statement

KEEP OUT OF REACH OF CHILDREN.

FIFRA Hazards to Humans and Domestic Animals

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).

FIFRA 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.

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FIFRA 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.
FIFRA Physical Hazard	Do not use or store near heat or open flame

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 25 November 2015
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Indication of changes:

Sec. 14: Updated transportation description.

SDS US (GHS HazCom 2012) - CGP

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