

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Name : ClearLeaf Insecticide/Miticide
 Synonyms : EPA Reg. No.: 89459-137, 100547545, 100547546, RF2308 TAP EC

1.2. Recommended use and restrictions on use

Recommended use : Insecticide.
 Restrictions on use : Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do NOT take internally. Do not inhale.

1.3. Supplier

Central Garden & Pet
 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

Acute toxicity (oral) Category 4	Harmful if swallowed
Acute toxicity (inhalation) Category 3	Toxic if inhaled
Serious eye damage/eye irritation Category 2B	Causes eye irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



GHS06

GHS07

Signal word (GHS US) : Danger

Hazard statements (GHS US) : Harmful if swallowed
 Causes eye irritation
 Toxic if inhaled

Precautionary statements (GHS US) : Avoid breathing dust/fume/gas/mist/vapors/spray.
 Wash hands, forearms and face thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 If swallowed: Call a poison center or doctor if you feel unwell.
 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.
 Rinse mouth.
 If eye irritation persists: Get medical advice/attention.
 Store in a well-ventilated place. Keep container tightly closed. Keep cool.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This product is toxic to fish and aquatic organisms. This product is highly toxic to honeybees if bees and other pollinating insects exposed to direct treatment on blooming crops or weeds. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

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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	8.4
Abamectin	(CAS-No.) 71751-41-2	0.09
Piperonyl butoxide	(CAS-No.) 51-03-6	42
Trade Secret	(CAS-No.) Trade secret	3.7 – 4.2
Trade secret	(CAS-No.) Trade secret	4.3 – 5.7
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

Comments : * The specific chemical identity (name and/or CAS #) has been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 eye contact : Causes mild eye irritation.
- Symptoms/effects after ingestion : Harmful if swallowed.

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 : 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

- 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. Avoid contact with skin and eyes. Do not breathe vapors, fumes, spray. Only qualified personnel equipped with suitable protective equipment may intervene.

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.
- Emergency procedures : Evacuate unnecessary personnel. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stay upwind. Stop leak if safe to do so. Ventilate area. Wear appropriate personal protective equipment, avoid direct contact.

6.2. Environmental precautions

Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing vapor or spray mist. Handle and open container with care. Keep away from sources of ignition - No smoking.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Avoid extreme temperatures. Do not store near strong acids, oxidizing agents, hazardous or toxic substances. Keep away from ignition sources. Keep container closed when not in use. Keep cool. Protect from sunlight. Store in original container. Store locked up.

Incompatible materials : Heat, sparks, open flame. Strong acids. Strong bases. Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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:

Chemical-resistant gloves made out of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils or viton ≥ 14 mils

Eye protection:

Safety glasses

Skin and body protection:

Applicators and other handlers must wear long sleeved shirt and long pants, socks and shoes

Respiratory protection:

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



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Light brown liquid
Color : Light brown
Odor : Moderate, unpleasant, varnish-like
Odor threshold : No data available
pH : 4.67 @ 25 °C (77 °F)
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available
Flash point : 133.3 °C (271.9 °F)
Relative evaporation rate (butyl acetate=1) : No data available

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Flammability	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.05 @ 20 °C (68 °F)
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
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. Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Excessive heat and freezing conditions.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ClearLeaf Insecticide/Miticide	
LD50 oral rat	985 mg/kg (female rats)
LC50 Inhalation - Rat	> 2.07 mg/l (female rats) 0.54 - 2.07 mg/L (male rats)

GHS-US Properties	Classification
Acute toxicity (oral)	Harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Toxic if inhaled.
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

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Acute	: Toxic if inhaled.
Skin	
Acute	: May cause mild skin irritation.
Chronic	: Prolonged or repeated contact may cause dermatitis or irritation.
Eye	
Acute	: Causes mild eye irritation.
Ingestion	
Acute	: Harmful if swallowed.
Mutagenicity	: Tau-fluvalinate has been tested and found negative for mutagenicity potential. Abamectin: animal tests did not demonstrate mutagenic effects. Piperonyl butoxide was not mutagenic in a battery of tests.
Carcinogenicity	: Tau-fluvalinate is not listed as a carcinogen by OSHA, IARC, or NTP. Abamectin is not classified as a carcinogen by NTP, IARC and OSHA. Piperonyl butoxide is not classified as a carcinogen by IARC, NTP, OSHA.
Reproductive Effects	: Tau-fluvalinate has been tested and is not a reproductive toxin. Abamectin: Effects on reproduction have been seen only at doses that produced significant toxicity to the parents animals. Piperonyl butoxide did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits.

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 - Crustacea [1]	0.00094 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic crustacea 1	0.0003 mg/l (Daphnia magna)
NOEC Chronic crustacea 2	0.0000003 mg/l (Mysid shrimp)
Abamectin (71751-41-2)	
LC50 Acute fish 1	0.0036 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	0.0096 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.00034 mg/l (Exposure time: 48h - Daphnia magna)
Piperonyl butoxide (51-03-6)	
LC50 Acute fish 1	1.9 mg/l (Rainbow trout)
LC50 Acute fish 2	3.94 mg/l (Sheepshead minnow)
LC50 Acute crustacea 1	0.49 mg/l (Mysid shrimp)
LC50 Acute crustacea 2	0.51 mg/l (Gammarus fasciatus (amphipod))
NOEC Chronic fish 1	0.04 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.03 mg/l (Daphnia magna)

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 data 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 days

12.5. Other adverse effects

ClearLeaf Insecticide/Miticide	
Ecological Fate	This product is toxic to fish and aquatic organisms. This product is highly toxic to honeybees if bees and other pollinating insects are exposed to direct application on blooming crops or weeds.

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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	Not applicable
IMDG	UN3082	Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, N.O.S. (Tau-fluvalinate, Abamectin)	9	III	Marine pollutant
IATA	UN3082	Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, N.O.S. (Tau-fluvalinate, Abamectin)	9	III	Not applicable

Other Information : The calculated 1-hour acute toxicity for inhalation LC50 = 2.16, however it has been determined that a mist or aerosol cannot be formed if there is leakage during transport, therefore the 6.1 description does not apply.

SECTION 15: Regulatory information

15.1. US Federal regulations

Abamectin (71751-41-2)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %
Piperonyl butoxide (51-03-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1 %
Trade secret (Trade secret)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA Labelling	
EPA Registration Number	89459-137
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 Hazard statements	Caution
FIFRA Precautionary statements	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. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.
FIFRA First aid	If swallowed: Call a poison control center or doctor immediately for treatment advice. Have a 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for 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.
FIFRA Environmental hazards	This product is toxic to fish and aquatic organisms. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-watermark. Do not contaminate water when disposing of equipment wash water or rinsate. 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 highly toxic

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	to honeybees if bees and other pollinating insects are exposed to direct application on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees or other pollinating insects are actively foraging the treatment area. Treat during non-foraging periods to minimize adverse effects.
FIFRA Physical hazards	Do not use or store near heat or open flame

15.2. US State regulations

Abamectin (71751-41-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

SECTION 16: Other information

Issue date : 24 October 2023

SDS US (GHS HazCom 2012) - CGP

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