

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Gravista Insecticide
Synonyms : EPA Reg. No.: 89459-116, RF2294 DMP MEC, 100542227

1.2. Recommended use and restrictions on use

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

1.3. Supplier

Central Garden & Pet Company
1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173 - United States

www.bugfreegrains.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
Skin corrosion/irritation Category 2	Causes skin irritation
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) :



GHS07

Signal word (GHS US) : Warning

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

Precautionary statements (GHS US) : Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center or doctor if you feel unwell.
If on skin: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Rinse mouth.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : This product is extremely toxic to freshwater and estuarine fish and invertebrates. This pesticide is highly toxic to bees exposed to direct treatment. Under United States Regulations

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(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	%
Deltamethrin	(CAS-No.) 52918-63-5	1.2
Piperonyl butoxide	(CAS-No.) 51-03-6	33.3
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	2.85
* Trade secret	(CAS-No.) 627-93-0	10.2 – 11.4
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

Comments : * The specific chemical identity 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. Call a poison center/doctor/physician if you feel unwell. 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 skin contact : Causes skin irritation.
- Symptoms/effects after eye contact : Causes 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 : Use water fog, foam, carbon dioxide, or dry chemical.
- 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. Evacuate area. Keep unauthorized personnel away. Large fires: Dike fire control water for later disposal. Stay upwind. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray.
- 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 : Avoid contact with skin and eyes. Do not touch or walk on the spilled product. Ventilate spillage area. Wear appropriate personal protective equipment, avoid direct contact.

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 : Ventilate area. Wear appropriate personal protective equipment, avoid direct contact. Do not touch spilled material. Do NOT wash away into sewer. Avoid release to the environment. Evacuate unnecessary personnel. Stay upwind. Stop leak if safe to do so.

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. Use appropriate PPE.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

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 : Avoid extreme temperatures. Store in a well-ventilated place. Keep cool. Do not store near heat or open flame. Keep container closed when not in use. Keep only in original container.

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:

Protective gloves

Eye protection:

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:

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 : Dark golden yellow liquid
Color : Golden yellow
Odor : Moderate, neutral, paint-like
Odor threshold : No data available
pH : 5.4 (2% aq. sol'n)

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Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.03 g/ml
Solubility	: Emulsifies
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: 75 cP @ 20°C; 39 cP @ 40°C
Explosion limits	: Not applicable
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

Avoid extreme temperatures. Avoid electrical portions of equipment due to the possibility of shock hazard.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May decompose upon heating to produce toxic vapors/gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Gravista Insecticide	
LD50 oral rat	175 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 2.12 mg/l/4h

GHS-US Properties	Classification
Acute toxicity (oral)	Harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Causes skin irritation.
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

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Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Potential health effects

Inhalation

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

Skin

Acute : May be harmful if absorbed through skin. May cause a transient, localized parasthesia, characterized by tingling, burning or numbness sensation in some individuals. Causes skin irritation.

Eye

Acute : Causes eye irritation.

Ingestion

Acute : Harmful if swallowed.

Mutagenicity

: Deltamethrin has been tested and found negative for mutagenicity potential. Piperonyl butoxide was not mutagenic in a battery of tests. (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity

: Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice. Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA. (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.

Reproductive Effects

: Deltamethrin does not cause birth defects or adverse effects on reproduction. Piperonyl butoxide did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits. (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

SECTION 12: Ecological information

12.1. Toxicity

Deltamethrin (52918-63-5)	
LC50 Acute fish 3	0.00174 mg/l (Exposure time: 96h - poecilia reticulata)
EC50 Daphnia 1	0.00415 mg/l (Exposure time: 24h - 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)
(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h - Daphnia magna)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

12.2. Persistence and degradability

Deltamethrin (52918-63-5)	
Persistence and degradability	Deltamethrin: Hydrolytic Half-Life: 2.28-2.70 days @ pH 9.0 Photolytic Half-Life: 64-86 days (water); 9 days (soil) Soil Half-Life: 14-40 days (cropped plots); 37-69 days (bare ground) in field dissipation studies.
(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

12.3. Bioaccumulative potential

No additional information available

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12.4. Mobility in soil

Deltamethrin (52918-63-5)	
Mobility in soil	The major routes of dissipation are soil binding and soil microbial degradation. Although soil binding is strong, it is not immediate. It appears that spray drift is the only significant route of exposure to aquatic organism. However, deltamethrin's strong binding capacity to slime, plants, sediment, etc., might rapidly prevent the availability of deltamethrin for bioconcentration in aquatic systems. Additionally, its insolubility in water will be a factor in limiting its bioconcentration as well. Deltamethrin hydrolyzes under alkaline conditions. Leaching studies indicate that Deltamethrin is immobile.
(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

12.5. Other adverse effects

Gravista Insecticide	
Ecological Fate	This product is extremely toxic to freshwater and estuarine fish and invertebrates. This pesticide is highly toxic to bees exposed to direct treatment.

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 (Deltamethrin and Piperonyl butoxide)	9	III	Marine pollutant
IATA	UN3082	Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, n.o.s (Deltamethrin and Piperonyl butoxide)	9	III	Acute aquatic toxicity

SECTION 15: Regulatory information

15.1. US Federal regulations

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 (627-93-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
FIFRA Labelling	
EPA Registration Number	89459-116
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	Warning
FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN.

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FIFRA Hazards to Humans and Domestic Animals	May be fatal if swallowed or absorbed through skin. Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wear coveralls, socks, chemical-resistant footwear, and chemical-resistant gloves including barrier laminate or > 14 mils nitrile, neoprene, polyvinyl chloride, Viton or butyl rubber. For overhead exposure wear chemical-resistant headgear. When mixing and loading, wear a chemical-resistant apron. When cleaning equipment wear a chemical-resistant apron. 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 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: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. 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 eye. Call a poison control center or doctor for treatment advice.
FIFRA Environmental Hazards	This product is extremely toxic to freshwater and estuarine fish and invertebrates. To protect the environment, do not allow pesticide to enter or run off 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 run off to water bodies or drainage systems. This pesticide is highly toxic to bees exposed to direct treatment. Do not apply or allow it to drift to crops or weeds on which bees are actively foraging.
FIFRA Physical Hazard	Do not use water-based sprays of RF2294 DMP MEC in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 25 March 2020

SDS US (GHS HazCom 2012) - CGP

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