SECTION 1: Identification

1.1. Identification
Product form : Mixture
Trade name : Centynal Synergized Insecticide
Synonyms : EPA Reg. No.: 89459-115, RF2293 DP MEC, 100542226

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
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 which do not result in classification : This product is extremely toxic to fish and aquatic vertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Under United States
Centynal Synergized Insecticide
Safety Data Sheet


2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deltamethrin</td>
<td>(CAS-No.) 52918-63-5</td>
<td>1.2</td>
</tr>
<tr>
<td>Piperonyl butoxide</td>
<td>(CAS-No.) 51-03-6</td>
<td>33.3</td>
</tr>
<tr>
<td>* Trade secret</td>
<td>(CAS-No.) 827-93-0</td>
<td>11 - 12.3</td>
</tr>
<tr>
<td>Non-hazardous and/or does not meet criteria for classification</td>
<td>(CAS-No.) N/A</td>
<td>Balance</td>
</tr>
</tbody>
</table>

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, alcohol resistant 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.
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Dark amber liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Dark amber</td>
</tr>
<tr>
<td>Odor</td>
<td>Moderate, neutral, paint-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>5.6 (2% aq. sol'n)</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Freezing point : Not applicable
Boiling point : No data available
Flash point : 114ºC (237ºF)
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Non-flammable
Vapor pressure : No data available
Relative vapor density at 20 ºC : 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 : 83 cP @ 20ºC; 37 cP @ 40ºC
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

<table>
<thead>
<tr>
<th>Centynal Synergized Insecticide</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>175 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LC50 Inhalation - Rat</td>
<td>&gt; 2.12 mg/l/4h</td>
</tr>
</tbody>
</table>

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
### Reproductive Carcinogenicity
- **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
- **Acute**: Deltamethrin has been tested and found negative for mutagenicity potential. Piperonyl butoxide was not mutagenic in a battery of tests.

#### Carcinogenicity
- **Acute**: Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice. Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA.

#### Reproductive Effects
- **Acute**: Deltamethrin is not a reproductive toxin and does not cause birth defects. 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

<table>
<thead>
<tr>
<th>Deltamethrin (52918-63-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Acute fish 3</td>
<td>0.00174 mg/l (Exposure time: 96h - poecilia reticulata)</td>
</tr>
<tr>
<td>EC50 - Crustacea [1]</td>
<td>0.00415 mg/l (Exposure time: 24h - Daphnia magna)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Piperonyl butoxide (51-03-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Acute fish 1</td>
<td>1.9 mg/l (Rainbow trout)</td>
</tr>
<tr>
<td>LC50 Acute fish 2</td>
<td>3.94 mg/l (Sheepshead minnow)</td>
</tr>
<tr>
<td>LC50 Acute crustacea 1</td>
<td>0.49 mg/l (Mysid shrimp)</td>
</tr>
<tr>
<td>LC50 Acute crustacea 2</td>
<td>0.51 mg/l (Gammarus fasciatus (amphipod))</td>
</tr>
<tr>
<td>NOEC Chronic fish 1</td>
<td>0.04 mg/l (Fathead minnow)</td>
</tr>
<tr>
<td>NOEC Chronic crustacea 1</td>
<td>0.03 mg/l (Daphnia magna)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Deltamethrin (52918-63-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Deltamethrin: Hydrolytic Half-Life: 2.28-2.70 days @ pH 9.0 Photo lytic 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.</td>
</tr>
</tbody>
</table>

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Deltamethrin (52918-63-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility in soil</td>
<td>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.</td>
</tr>
</tbody>
</table>

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01/14/2022  EN (English US)  5/7
12.5. Other adverse effects

<table>
<thead>
<tr>
<th>Centynal Synergized Insecticide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecological Fate</td>
</tr>
<tr>
<td>This product is extremely toxic to fish and aquatic vertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>UN number</th>
<th>Proper Shipping Name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN3082</td>
<td>Packaging greater than 5 L: Environmentally hazardous substance, liquid, n.o.s (Deltamethrin and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
</tr>
<tr>
<td>IATA</td>
<td>UN3082</td>
<td>Packaging greater than 5 L: Environmentally hazardous substance, liquid, n.o.s (Deltamethrin and Piperonyl butoxide)</td>
<td>9</td>
<td>III</td>
</tr>
</tbody>
</table>

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

EPA Labelling

EPA Registration Number 89459-115
This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labelling 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 Warning
KEEP OUT OF REACH OF CHILDREN.

FIFRA Precautionary statements

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 chemicalresistant headgear. When mixing and loading, wear a chemical-resistant apron. When cleaning equipment, wear a chemical-resistant apron. When eating, use 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 hazards
Do not use water-based sprays of RF2293 DP 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

Issue date : 25 March 2020
Revision date : 14 January 2022

Indication of changes:
Sec. 14: Revised transportation description.

SDS US (GHS HazCom 2012) - CGP

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.