

SAFETY DATA SHEET

GardenTech Sevin Insect Killer Lawn Granules

Date: 5/22/17



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name GardenTech Sevin Insect Killer Lawn Granules

Other means of identification

Product Code(s) 279-3346-71004

Synonyms

BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl (1R,3R)-rel-3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethylcyclopropanecarboxylate (CAS name); 2-methyl-3-phenylbenzyl (1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name)

ZETA-CYPERMETHRIN: (+/-)- α -cyano(3-phenoxyphenyl)methyl (+/-) cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name); (RS)- α -cyano-3-phenoxybenzyl (1RS)-cis-trans-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name)

Active Ingredient(s) Bifenthrin, Zeta-cypermethrin

Formula $C_{23}H_{22}ClF_3O_2$ (Bifenthrin)
 $C_{22}H_{19}Cl_2NO_3$ (Zeta-cypermethrin)

Chemical Family Pyrethroid

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label

Supplier Address

TechPac, LLC.
1000 Parkwood Circle - Suite 700
Atlanta, GA 30339
General information: 866-945-5033

Emergency telephone number

For leak, fire, spill or accident emergencies, call:
1-800-424-9300

For medical emergencies (human or animal), call:
1-800-420-9347

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|-------------|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Serious eye damage/eye irritation | Category 2B |
| Skin sensitization | Category 1B |
| Carcinogenicity | Category 2 |

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Warning

Hazard Statements

H302 - Harmful if swallowed
 H317 - May cause an allergic skin reaction
 H320 - Causes eye irritation
 H332 - Harmful if inhaled
 H351 - Suspected of causing cancer



Precautionary Statements - Prevention

P202 - Do not handle until all safety precautions have been read and understood
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P280 - Wear protective gloves
 P281 - Use personal protective equipment as required

Precautionary Statements - Response

P308 + P313 - If exposed or concerned: Get medical advice/attention
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P337 + P313 - If eye irritation persists: Get medical advice/ attention
 P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
 P362 - Take off contaminated clothing and wash before reuse
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
 P330 - Rinse mouth

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

Dispose of contents/container according to label directions

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects. May be harmful in contact with skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Pyrethroid.

| Chemical name | CAS-No | Weight % |
|----------------------------|-------------|----------|
| Bifenthrin | 82657-04-3 | 0.115 |
| Zeta-cypermethrin (F2700) | 52315-07-8 | 0.029 |
| Oxo-decyl alcohol acetate | 108419-34-7 | <1 |
| Microcrystalline cellulose | 9004-34-6 | <1 |

Synonyms are provided in Section 1.

4. FIRST AID MEASURES

| | |
|---|--|
| Eye Contact | Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice. |
| Skin Contact | 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. |
| Inhalation | Move to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. |
| Ingestion | 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 induce vomiting or give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | Central nervous system effects. |
| Indication of immediate medical attention and special treatment needed, if necessary | This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. |

5. FIRE-FIGHTING MEASURES

| | |
|--|---|
| Suitable Extinguishing Media | Dry chemical, CO ₂ , water spray or regular foam. Avoid heavy hose streams. |
| Specific Hazards Arising from the Chemical | None known |
| Explosion data | |
| Sensitivity to Mechanical Impact | Not sensitive. |
| Sensitivity to Static Discharge | Not sensitive. |
| Protective equipment and precautions for firefighters | As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind. |

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

Other For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1

"Product and Company Identification" above.

| | |
|----------------------------------|---|
| Environmental Precautions | Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. |
| Methods for Containment | Use a wet sweeping compound or water to prevent dust formation. Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Sweep up and shovel into suitable containers for disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13. |

7. HANDLING AND STORAGE

| | |
|------------------------------|---|
| Handling | Handle in accordance with good industrial hygiene and safety practice. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. |
| Storage | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep/store only in original container. Keep away from food, drink and animal feedingstuffs. |
| Incompatible products | Strong oxidizing agents, Fluorine, Chlorine trifluoride, Oxygen difluoride |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH | Mexico |
|--|---|---|---|---|
| Microcrystalline cellulose (9004-34-6) | TWA: 10 mg/m ³ | TWA: 15 mg/m ³ TWA: 5 mg/m ³ | TWA: 10 mg/m ³ TWA: 5 mg/m ³ | Mexico: TWA 10 mg/m ³ Mexico: STEL 20 mg/m ³ |
| Chemical name | British Columbia | Quebec | Ontario TWAEV | Alberta |
| Microcrystalline cellulose (9004-34-6) | TWA: 10 mg/m ³ TWA: 3 mg/m ³ | TWA: 10 mg/m ³ TWA: 5 mg/m ³ | TWA: 10 mg/m ³ | TWA: 10 mg/m ³ TWA: 5 mg/m ³ |

Appropriate engineering controls

| | |
|-----------------------------|---|
| Engineering measures | Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment. |
|-----------------------------|---|

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------|---|
| Eye/Face Protection | If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. |
| Skin and Body Protection | Wear long-sleeved shirt, long pants, socks, and shoes. |
| Hand Protection | Protective gloves |
| Respiratory Protection | For dust, splash, mist or spray exposures wear a filtering mask. |
| Hygiene measures | Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before re-use. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing separately from regular household laundry. |
| General information | If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|-------------------------------------|---|
| Appearance | Granules |
| Physical State | Solid |
| Color | No information available |
| Odor | No information available |
| Odor threshold | No information available |
| pH | 7.15 @ 22.1°C (1 suspension in water) |
| Melting point/freezing point | Not applicable |
| Boiling Point/Range | No information available |
| Flash point | Not applicable |
| Evaporation Rate | No information available |
| Flammability (solid, gas) | No information available |
| Flammability Limit in Air | |
| Upper flammability limit: | No information available |
| Lower flammability limit: | No information available |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Density | 46.78 lb/cu ft (loose); 54.40 lb/cu ft (tapped) |
| Specific gravity | No information available |
| Water solubility | No information available |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available |
| Viscosity, kinematic | No information available |
| Viscosity, dynamic | No information available |
| Explosive properties | No information available |
| Oxidizing properties | Based on known chemistry, neither the active ingredients nor the inert ingredients are considered to be either strong oxidizing or reducing agents. |
| Molecular weight | No information available |
| Bulk density | No information available |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Reactivity | Not applicable |
| Chemical Stability | Stable under recommended storage conditions. |
| Possibility of Hazardous Reactions | None under normal processing. |
| Hazardous polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | None known |
| Incompatible materials | Strong oxidizing agents, Fluorine, Chlorine trifluoride, Oxygen difluoride. |
| Hazardous Decomposition Products | See Section 5 for more information. |

11. TOXICOLOGICAL INFORMATION

Acute toxicological data presented below is based on testing of the active ingredient [Zeta-cypermethrin (F2700)/Bifenthrin 1:4 16.25% SFR MUP] only.

Product Information

| | |
|--|---|
| LD50 Oral | 727.3 mg/kg |
| LD50 Dermal | > 5000 mg/kg |
| LC50 Inhalation | > 2.11 mg/L 4 hr (Rat, male and female) |
| Serious eye damage/eye irritation | Mildly irritating. |
| Skin corrosion/irritation | Slightly irritating. |
| Sensitization | Sensitizer |

Information on toxicological effects

Symptoms Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge.
Large doses of zeta-cypermethrin, ingested by laboratory animals, may produce signs of toxicity including tremors, incoordination, convulsions, staggered gait, and oral discharge.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early exposure in animal studies, but tremors disappeared with continued exposure
Zeta-cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver weight.

Mutagenicity Bifenthrin, Zeta-cypermethrin: Not genotoxic in animal studies.

Carcinogenicity Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice.
Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.

Neurological effects Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure.
Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.

Reproductive toxicity Bifenthrin, Zeta-cypermethrin: No toxicity to reproduction in animal studies.

Developmental toxicity Bifenthrin, Zeta-cypermethrin: Not teratogenic in animal studies.

STOT - single exposure Causes damage to organs. See listed target organs below.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure. See listed target organs below.

Target organ effects Central Nervous System (CNS), blood Thyroid, liver

Neurological effects Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure.
Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.

Aspiration hazard No information available.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---|-------|----------|-----|------|
| Zeta-cypermethrin (F2700) 52315-07-8 | | Group 2A | | |

Legend:

IARC (International Agency for Research on Cancer)
Group 2A - Probably Carcinogenic to Humans

12. ECOLOGICAL INFORMATION**Ecotoxicity**

| Bifenthrin (82657-04-3) | | | | |
|--------------------------------|-----------|-----------|--------|-------|
| Active Ingredient(s) | Duration | Species | Value | Units |
| Bifenthrin | 96 h LC50 | Fish | 0.1 | µg/L |
| | 72 h EC50 | Algae | 0.822 | mg/L |
| | 48 h EC50 | Crustacea | 0.11 | µg/L |
| | 21 d NOEC | Fish | 0.012 | µg/L |
| | 21 d NOEC | Crustacea | 0.0013 | µg/L |

| Zeta-cypermethrin (F2700) (52315-07-8) | | | | |
|---|-----------|-----------|-------|-------|
| Active Ingredient(s) | Duration | Species | Value | Units |
| Zeta-cypermethrin | 48 h EC50 | Crustacea | 0.14 | µg/L |
| | 96 h LC50 | Fish | 0.69 | µg/L |

| | | | | |
|--|-----------|-----------|-------|------|
| | 72 h EC50 | Algae | >1 | mg/L |
| | 21 d NOEC | Crustacea | 0.01 | µg/L |
| | 21 d NOEC | Fish | 0.015 | µg/L |

Persistence and degradability Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.
Zeta-cypermethrin: Non-persistent, Readily hydrolyzed, Not readily biodegradable.

Bioaccumulation Bifenthrin: The substance has a potential for bioconcentration.
Zeta-cypermethrin: The substance does not have a potential for bioconcentration.

Mobility Bifenthrin, Zeta-cypermethrin: Immobile, Not expected to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

Contaminated Packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

14. TRANSPORT INFORMATION

DOT Not regulated for transportation if shipped in Non Bulk packaging. The classification below pertains to the shipment in Bulk packaging.

UN/ID no UN3077
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s.
Hazard class 9
Packing Group III
Marine Pollutant Bifenthrin, Zeta-cypermethrin.
Description UN3077, Environmentally hazardous substances, solid, n.o.s. (Bifenthrin, Zeta-cypermethrin), 9, III

TDG
UN/ID no UN3077
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s.
Hazard class 9
Packing Group III
Marine Pollutant Bifenthrin, Zeta-cypermethrin.
Description UN3077, Environmentally hazardous substances, solid, n.o.s. (Bifenthrin, Zeta-cypermethrin), 9, III

ICAO/IATA
UN/ID no UN3077
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s.
Hazard class 9
Packing Group III
Description UN3077, Environmentally hazardous substances, solid, n.o.s. (Bifenthrin, Zeta-cypermethrin), 9, III
Limited quantity 30 kg G

IMDG/IMO
UN/ID no UN3077
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s.
Hazard class 9
Packing Group III
EmS No. F-A, S-F
Marine Pollutant Bifenthrin, Zeta-cypermethrin

GardenTech Sevin Insect Killer Lawn Granules

Date: 5/22/17

Description

UN3077, Environmentally hazardous substances, solid, n.o.s. (Bifenthrin, Zeta-cypermethrin), 9, III

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

| Chemical name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|-------------------------|------------|----------|-------------------------------|
| Bifenthrin - 82657-04-3 | 82657-04-3 | 0.115 | 1.0 |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute health hazard | Yes |
| Chronic health hazard | Yes |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

FIFRA Information

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. This pesticide is extremely toxic to fish, aquatic invertebrates, oysters and shrimp.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| Bifenthrin 82657-04-3 | X | | |
| Zeta-cypermethrin (F2700) 52315-07-8 | | X | |
| Microcrystalline cellulose 9004-34-6 | X | X | X |

International Inventories

| Chemical name | TSCA (United States) | DSL (Canada) | EINECS/ELINC S (Europe) | ENCS (Japan) | China (IECSC) | KECL (Korea) | PICCS (Philippines) | AICS (Australia) |
|---|-------------------------|-----------------|----------------------------|-----------------|------------------|--------------|------------------------|---------------------|
| Bifenthrin 82657-04-3 | | | | X | X | X | | |
| Zeta-cypermethrin (F2700) 52315-07-8 | | | X | | X | X | X | X |
| Oxo-decyl alcohol acetate 108419-34-7 | X | X | | | X | | X | X |
| Microcrystalline cellulose 9004-34-6 | X | X | X | X | X | X | X | X |

Mexico - Grade

Moderate risk, Grade 2

| Chemical name | Carcinogen Status | Mexico |
|----------------------------|-------------------|---|
| Microcrystalline cellulose | | Mexico: TWA 10 mg/m ³ Mexico: STEL 20 mg/m ³ |

| Chemical name | Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use - Threshold Quantities | Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities |
|---------------|---|--|
| Bifenthrin | 100 2500 kg/yr | 100 kg/yr |

WHMIS Hazard ClassD2A - Very toxic materials
D2B - Toxic materials**16. OTHER INFORMATION**

| | | | | |
|-------------|--------------------------|-----------------------|--------------------------|------------------------------|
| NFPA | Health Hazards 2 | Flammability 1 | Instability 0 | Special Hazards - |
| HMIS | Health Hazards 2* | Flammability 0 | Physical hazard 0 | Personal Protection X |

*Indicates a chronic health hazard.

NFPA/HMIS Ratings Legend

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Revision date:

2016-08-24

Reason for revision:

Initial Release

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