

CITY OF CARPINTERIA



Annual Integrated Pest Management Report

2024

Prepared by:

A handwritten signature in blue ink that reads "Tiffany Smith". The signature is written over a horizontal line.

Tiffany Smith
Parks and Facilities Supervisor
ISA Certified Arborist WE-10226A

TABLE OF CONTENTS

Introduction	1
Pest Issues and Control Tactics	3
Appendix	9
Safety Data Sheets	
List of Trained Personnel	
Glyphosate Fact Sheet	

INTRODUCTION

On January 9, 2012, the City Council adopted Resolution No. 5355, establishing an Integrated Pest Management (IPM) policy. The IPM policy is intended to manage pests by reducing or eliminating the use of pesticides at City facilities or improvements including buildings, grounds, open spaces, parks, and streets. The implementation of the IPM policy provides for long term beneficial effects on the overall public health. The IPM policy does not completely prohibit the use of pesticides. Rather, it requires the establishment of pesticide free zones where no pesticides are to be used within park play structures and picnic areas unless an emergency arises. The IPM policy references the use of pest control options and tactics from the University of California, Davis; California Invasive Plant Council; and California Department of Pesticide Regulation.

The IPM policy comprises of the following tenets:

1. Establishes the goal of reducing or eliminating the use of toxic pesticides through the use of common-sense principals of IPM. Use of IPM tactics, such as eliminating habitat, eliminate food sources, mulching, hand or mechanical weeding and rodent trapping, will be the first line of defense.
2. Establishes the use of IPM methodology for selecting the appropriate pest intervention options. Observation, identification and monitoring are three keys to early actions.
3. Commits the City to establish pesticide free zones where no pesticides will be used unless an emergency arises. These areas will include park play structures and picnic areas.
4. References the use of IPM tactics from reputable mainstream sources; specifically, the University of California at Davis, the California Invasive Plant Council and the California Department of Pesticide Regulation.
5. Avoids whenever possible the contamination of buildings, soil, air, and water and protects people, animals and beneficial plants and insects from toxic exposures.
6. Establishes the requirement that all personnel involved in pest management at the City receive training and continuing education on the use of pesticides.
7. Requires cooperation and communication between City departments and City Contractors by setting standard operating procedures for the control of pests.
8. Establishes an IPM Advisory Committee (IPMAC) with up to nine members that includes representation from the Parks, Recreation, and Community Services Department, Public Works Department, Carpinteria Open Space Management Advisory Board, and at least two at large community members that can make recommendations to the City Council on implementation and amendment of the IPM policy.
9. Establishes a public outreach and information program to help others in the community reduce the use of pesticides.
10. Establishes that effective public notification will be implemented when pesticides are used. The utilization of a Pesticide Hazard and Exposure Reduction (PHAER) Zone system is to be utilized to help accomplish the public notification objective. The PHAER Zone system also includes the creation of a

color metric pesticide list potentially used by the City which groups pesticides into three groups with low (green) medium (yellow) and high (red) toxicity.

The IPM policy requires year-round management including an annual report of any pesticide use, pest intervention options and tactics, and any recommendations for the ensuing year. Pursuant to the IPM policy, this report discloses information about issues and control tactics regarding the following encountered pests in year 2024:

- Weed and invasive plants
- Insects
- Rodents

Copies of safety data sheets of pesticide products and list of trained personnel of administering pesticides, respectively, are shown in the Appendix.

The 2024 Annual Integrated Pest Management Report does not include cost information, and cost-per-incident varies depending on the type of pest. Since the establishment of the IPM policy, implementation is shown to avoid or reduce the public health, financial, and legal risks of environmental cleanup and/or abatement.

A copy of this report is filed with the City Clerk for public inspection.

PEST ISSUES AND CONTROL TACTICS

1. Weeds and Invasive Plants

All weed and invasive plant control used manual methods including hand-hoeing or pulling, mower and weedeater equipment, and mulching. Herbicides were used for excessive infestation on an as-needed basis in the following areas:

- Coastal Vista Trail- Interim Linden Avenue to Holly Avenue Spur
- El Carro Park
- Franklin Creek Park
- Heath Ranch Park
- Viola Fields

Pesticide free zones were also established in the aforementioned areas.

Although glyphosate is determined to be safe based on independent scientific research, no glyphosate was used during the current reporting period. See Glyphosate Fact Sheet in the Appendix.

Broadleaf Weeds

Sometimes, broadleaf weeds can be controlled by simply altering the cultural practices to favor the grass plants rather than the weeds. Cultural controls may include raising or lowering the mowing height, changing the frequency of mowing, lengthening or shortening the period between irrigations, and/or increasing the application of fertilizer and aeration of the soil to ameliorate compaction.

Clover is the primary broadleaf weed. A dense infestation of broadleaf weeds such as clover will out compete the desired Bermuda grass but does not stand up to the rigors of sports play. As the turf weakens, the broadleaf weeds will readily invade the open areas that remain.

Due to the continuing growth of broadleaf weeds in sports fields, herbicides are recommended for use in order to improve turf conditions. Applications must be performed by trained personnel. A combination of proper cultural practices and herbicide is sometimes necessary to effectively control broadleaf weeds in turf.

Turf Encroachment

Another issue experienced in sports fields is the encroachment of turf into the softball and baseball infields. Turf that has encroached into the “skinned” area must be removed. Mechanical removal method is the only method to eliminate turf that has encroached because herbicides are not effective in these instances. The cost of mechanical removal method is higher, but the mechanical removal method is very effective.

Mulching

Mulching provides for the following benefits in controlling weeds:

- ✓ Reduces weed growth thereby reducing the need for herbicides or mowing.
- ✓ Holds in soil moisture and conserves water.
- ✓ Helps to keep the root zone temperatures at a beneficial level.
- ✓ Organic mulch such as wood chips adds nutrition as it breaks down.

Wood chips from tree grindings are regularly stockpiled on the City Hall Campus and are used as mulch for City parks, open spaces, and parkways. The wood chips are also made available to Carpinteria residents. The wood chips were used in the following areas:

- Carpinteria Community Garden
- City Hall
- Coastal Vista Trail- Interim Linden Avenue to Holly Avenue Spur
- El Carro Park
- Heath Ranch Park
- Monte Vista Park
- Seaside Park
- Tomol Interpretive Play Area
- Viola Fields

2. Insects

California Oak Moths

The California oak moth (*Phryganidia californica*) is a native insect of coastal California. Oak moth caterpillars voraciously feed upon the leaves of native Coast Live Oak trees and also some deciduous trees. The tan brown adult moths are commonly seen as they hover around infested trees. They prolifically mate and lay eggs for the next generation of caterpillars. The next generation of caterpillars feed on oak leaves. Extreme oak worm outbreaks occur approximately every eight to ten years. In the most extreme conditions, the infestation may lead to severe oak defoliation. During these outbreaks caterpillars are often seen suspending from silk strands, dropping to the ground, and congregating on surfaces such as benches, drinking fountains, and sidewalks. The infestation of the California oak moth was reduced.

Imidacloprid injections were used on the majority of Coast Live Oak trees in the following areas:

- Eighth Street (Street Trees)
- Franklin Creek Park
- Heath Ranch Park

- Memorial Park
- Ogan Road (Street Trees)

Pesticide free zones were established in the following areas:

- El Carro Park
- Franklin Creek Park
- Heath Ranch Park
- Memorial Park
- Monte Vista Park

The imidacloprid is taken up by the tree relatively slow and starts killing chewing insects after a few days. The imidacloprid continues to kill chewing bugs in the tree for up to a year with one injection. Direct injection of pesticides into the trunk of trees is an environmentally sound and economical way of treating for many kinds of insects that feed on trees. With injection into the circulatory system of a tree, a much lower dosage is needed because it all goes into the tree as opposed to spraying which deposits pesticide on the ground and adjacent areas for exposure to unintended receptors. Trunk injection was efficient and worked fast for insect damage control.

Aphids

Ash trees and magnolia trees experienced aphid infestations. Aphids exude a sticky residue that was causing unpleasant staining and stickiness on sidewalks and other surfaces. The infestation can be detrimental to the health of the tree and can spread to other landscape plants. Imidicloprid injections were used in the following areas:

- Malibu Drive (Street Trees)
- Sterling Avenue (Street Trees)

Sprays with neem oil were also used. Trilogy is the brand name for a clarified hydrophobic extract of neem oil. Neem oil is a naturally occurring pesticide found in seeds from the neem tree. It has been used for hundreds of years to control pests and diseases. Components of neem oil can be found in many products today. These include toothpaste, cosmetics, soaps, and pet shampoos. Neem products do not necessarily provide absolute insect control. However, frequent applications can reduce aphid populations by repelling them and inhibiting their larval development, growth, fertility, mating, and egg laying as well as deterring feeding. Sprays were used in the following areas:

- Carpinteria Community Garden (Grounds)
- Carpinteria Community Library (Grounds)
- City Hall (Grounds)
- Veterans Memorial Building (Grounds)

Public education of aphid prevention was conducted by the Carpinteria Community Garden.

Ants

EcoVia was used for ants. It contains thyme oil and rosemary oil, and it is compliant with the National Organic Program. It is also an EPA exempt, FIFRA25-b organic essential oil insecticide. EcoVia was used in the following areas:

- Carpinteria Community Library (Building)
- City Hall (Building)
- Veterans Memorial Building

The Carpinteria Community Garden makes compost which is used to amend garden beds for ensuring rich soil provides plants with healthy defenses against insect pests. In addition, the cultivation of many “insectary” plants (i.e. plants especially attractive to beneficial insects) provides a robust ecosystem of insects that feed on common garden pests such as aphids, scale, and white flies. Bat boxes were also installed at the Carpinteria Community Garden in an effort to control invasive insects.

3. Rodents

Rats and Mice

Terad3 Rodenticide bait and Conrac Blox (bromadiolone) were used for rats and mice. Terad3 Rodenticide bait was used in the following areas:

- City Hall (Building)
- Carpinteria Community Pool (Building)
- Carpinteria Community Library (Building)
- Veterans Memorial Building

Cholecalciferol was used as a single feeding bait. Cholecalciferol is also known as vitamin D₃. Once the rat or mouse eats a lethal dose, their blood calcium begins to rise to a level that is lethal to the rodent. It is a type of vitamin D which is made by the skin when exposed to sunlight. It is found in some foods, and it is also manufactured and sold as a dietary supplement. Cholecalciferol was used in the following areas:

- Carpinteria Community Pool (Building)
- City Hall (Building)

Gophers

Another area of constant effort is in the control of gophers. Gophers can pose a serious threat to turf areas, especially sports fields. Gopher holes in sports fields and parks pose a solemn risk of injury to athletes and park goers. Gophers continue to be a major concern at El Carro and Viola playing fields. Gophers use their forepaws and incisor teeth to burrow and tunnel into the earth. Plant eaters by nature, they uproot and feed upon plants. Gophers are considered solitary rodents, yet dozens can infest an open

field if no control program is in place. Gopher mounds are often built in a line, indicative of a deeper tunnel system. Pocket gophers invade parks, yards and gardens, feeding on many garden crops, ornamental plants, vines, shrubs, and trees. A single gopher can inflict considerable damage in a very short time. Gophers gnaw and damage plastic water lines and irrigation systems. Their tunnels may divert and carry off irrigation water, which leads to soil erosion and inefficient water use. Mounds on turf areas interfere with mowing equipment and collapsing tunnels can create tripping and injury hazards. Sports fields suffer extensive damage when gopher infestations occur. It is unclear if plant stress from lack of irrigation has worsened the damage to sports field due to gophers. Irrigated turf areas commonly attract gophers because moist soils have more succulent root systems required for food. Non-irrigated areas surrounding the sports fields may be unable to support gopher populations so the animals migrate to greener pastures.

The California Fish and Wildlife Code classifies pocket gophers as non-game mammals. This means that if a gopher is causing property damage you can control them at any time and in any legal manner. The City continues to use a trapping service to help control gopher populations. It was effective, but it is not ideal. Since trapping techniques require observing active gophers, field damage continues to occur but with minimal damage.

Gopher trappings were used in the following areas:

- City Hall (Grounds)
- El Carro Park
- Franklin Creek Park
- Heath Ranch Park
- Memorial Park
- Veterans Memorial Building (Grounds)
- Viola Fields

In addition, carbon dioxide gas was used for gophers. The carbon dioxide gas settles into gopher tunnels and displaces breathable air causing suffocation. Carbon dioxide gas was used in the following areas:

- Carpinteria Creek Park
- City Hall (Grounds)
- El Carro Park
- Franklin Creek Park
- Heath Ranch Park
- Memorial Park
- Monte Vista Park
- Veterans Memorial Building (Grounds)
- Viola Fields

APPENDIX

SAFETY DATA SHEETACCORDING TO REGULATION EC:
Regulation (EU) 2015/830DATE OF ISSUE:
July 2017PREPARED BY:
CAR**SECTION 1. Identification of the substance/mixture and of the company /undertaking****1.1. Product Identifier:****CONTRAC BLOX****1.2. Relevant identified uses of the substance or mixture and uses advised against**

1.2.1 Relevant identified uses

USE: Anticoagulant Rodenticide – Ready to use (RB)**FORM:** Wax block bait (BB)

1.2.2 Uses advised against

Use only for the purpose detailed in Section 1.2.1

1.3. Details of the supplier of the safety data sheet**MANUFACTURER:**Bell Laboratories, Inc.
3699 Kinsman Blvd. Madison, WI 53704, USA
t: +1 608 241 0202
e: registration@belllabs.com**AUTHORISATION HOLDER:**Bell Laboratories, Inc.
Chaucer House, Chaucer Rd.
Sudbury, Suffolk
CO10 1LN, UK
e: emea@belllabs.com**1.4. Emergency telephone number: +1-952-852-4636 –Available 24h**

English language phone service or Local or Regional Poison Control Centre.

SECTION 2. Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]:**

STOR RE2 H373: May cause damage to the blood through prolonged or repeated exposure

2.2 Label Elements**Labelling according to Regulation (EC) 1272/2008****Hazard Pictogram:****Signal Word: Warning****Hazard Statement(s) (CLP):**

H373: May cause damage to the blood through prolonged or repeated exposure.

Precautionary Statements:

P102: Keep out of reach of children.

P103: Read label before using

P314: Get medical attention if you feel unwell.

P501: Dispose of contents/container in accordance with national regulations

2.3. Other Hazards

None

SECTION 3. Composition/information on ingredients**3.1 Substances:** No substances fulfill the criteria set forth in Annex II Section A of the REACH regulation (EC) No 1907/2006**3.2. Mixtures: Description of the mixture:** Formulated dry rodenticide bait containing Bromadiolone

Chemical name* (IUPAC)	% By weight*	CAS No.	EC No.	Classification**	
Bromadiolone [3-[3-(4'-Bromo-[1,1'-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-2H-1-benzopyran-2-one]	0.005 %	28772-56-7	249-205-9	Regulation 1272/2008	Acute Tox. 1 (oral) H300 Acute Tox. 1 (dermal) H310 Acute Tox 1 (Inhalation) H330 STOT RE 1 H372 Aquatic chronic 1 H410

*Unlisted components not listed are non-hazardous

SECTION 4. First aid measures

4.1. Description of first aid measures

General Advice: Please refer to the instructions below for each specific way of exposure.

Ingestion: Rinse mouth carefully with water. Do not give anything by mouth or induce vomiting unless instructed by physician.

Inhalation: Not applicable.

Eye contact: Flush with cool water for at least 15 minutes. If irritation develops, obtain medical assistance.

Skin contact: Wash with soap and water. If irritation develops, obtain medical assistance.

4.2. Most important symptoms and effects, both acute and delayed

Ingestion of excessive quantities may cause nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhea, bleeding.

4.3. Indication of any immediate medical attention and special treatment needed

Advice to physician: If ingested, administer Vitamin K₁ intramuscularly or orally as indicated for bishydroxycoumarin overdoses. Repeat as necessary as based upon monitoring of prothrombin times.

Antidote: Phytomenadione, Vitamin K₁ is antidotal

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media: water, foam or inert gas.

Unsuitable Extinguishing Media: None known.

5.2. Special hazards arising from the mixture: High temperature decomposition or burning in air can result in the formation of toxic gases, which may include carbon monoxide and traces of bromine and hydrogen bromide.

5.3. Advice for firefighters: Wear protective clothing and self-contained breathing apparatus.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: Protective equipment should be worn when handling the bait. Collect spillage without creating dust.

6.1.2 For emergency responders: Protective equipment should be worn when handling the bait. Collect spillage without creating dust.

6.2. Environmental precautions: Do not allow bait to enter drains or water courses. Where there is contamination of streams, rivers, or lakes contact the appropriate respective authorities.

6.3. Methods and materials for containment and cleaning up

6.3.1 For Containment: Sweep up spilled material immediately. Place in properly labeled container for disposal.

6.3.2 For Cleaning Up: Wash contaminated surfaces with detergent. Dispose of all wastes in accordance with all local, regional and national regulations.

6.3.3 Other Information: Not applicable

6.4. Reference to other sections: Refer to Sections 7, 8 & 13 for further details of safe handling, personal protective equipment, and disposal considerations.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

7.1.1 Protective Measures: Keep product in the original container. Do not handle the product near food, animal foodstuffs or drinking water. Keep out of reach of children. Do not use near heat sources, open flame, or hot surfaces.

7.1.2 Advice on general occupational hygiene: Do not eat, drink or smoke whilst handling. Wash thoroughly with soap and water after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store only in original container in a cool, dry place, inaccessible to pets and wildlife. **KEEP OUT OF REACH OF CHILDREN.** Keep container tightly closed when not in use.

7.3. Specific end uses(s)

Rodenticide - ready to use

SECTION 8. Exposure controls/personal protection

8.1. Control Parameters

Occupational exposure limits: Not established

8.2. Exposure Controls

8.2.1 Appropriate engineering controls: Not required

8.2.2 Personal Protection

Respiratory protection: Not required

Eye protection: Not required

Skin protection: Wear rubber gloves (for example, EN 374 or disposable latex gloves)

Hygiene recommendations: Wash thoroughly with soap and water after handling.

8.2.3 Environmental exposure controls: Prevent the substance from entering drains and water-courses.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance/Colour:	Blue solid wax blocks
Odour:	Sweet grain-like
Odour Threshold:	No data
pH:	Not applicable, not dispersible with water
Melting point:	No data (melting point for Bromadiolone is 192.6 – 193.9°C)
Boiling point:	No data
Flash point:	Not applicable
Evaporation rate:	Not applicable, is a solid
Upper/lower flammability or explosive limits:	No data
Vapour Pressure:	Not applicable
Relative Density:	1.12 g/mL @ 20°C
Solubility (water):	Not water soluble
Partition coefficient: n-octanol/water:	No data
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No data
Explosive properties:	Not applicable
Oxidising properties:	Not applicable

9.2. Other Information: None known

SECTION 10. Stability and reactivity

10.1. Reactivity: Stable when stored in original container in a cool, dry location. There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability: Stable when stored in original container in a cool, dry location.

10.3. Possibility of hazardous reactions: Please refer to 10.6 (Hazardous decomposition products).

10.4. Conditions to avoid: Avoid extreme temperatures (below 0°C or above 40°C).

10.5. Incompatible materials: Avoid strongly alkaline materials.

10.6. Hazardous decomposition products: High temperature decomposition or burning in air can result in the formation of toxic gases, which may include carbon monoxide and traces of bromine and hydrogen bromide.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

11.1.1 Substances : Not applicable

11.1.2 Mixtures – Not applicable

11.1.2.1 (a) Acute Toxicity

LD50, oral (ingestion): >5000 mg/kg (rats) (Bromadiolone Rat LD50 oral: <5mg/kg bw).

LD50, dermal (skin contact): > 5001 mg/kg (rats) (Bromadiolone Rat LD50 dermal: 7.48 mg/kg bw (female rats).

LC50, inhalation: Not applicable

11.1.2.1 (b) Skin corrosion/irritation : Not irritating to skin.

11.1.2.1 (c) Serious eye damage/Irritation: Not irritating to eyes.

11.1.2.1 (d) Respiratory or skin sensitization: Dermal sensitization: Not a Sensitizer (Buehler test method).

11.1.2.1 (e) Germ cell mutagenicity: Not considered to have a mutagenetic effect.

11.1.2.1 (f) Carcinogenicity: Contains no components known to have a carcinogenetic effect.

11.1.2.1 (g) Reproductive Toxicity: No data available.

- 11.1.2.1 (h) STOT-Single Exposure: No data available.
11.1.2.1 (i) STOT Repeated Exposure: Specific Target organ toxicity – Repeated exposure, Category 2
11.1.2.1 (j) Aspiration Hazard: Not relevant.

SECTION 12. Ecological information

General Information: The environmental risk assessment shows that Bromadiolone does not cause unacceptable risk in the aquatic environment, terrestrial environment or in the atmosphere. Bromadiolone is neither expected to accumulate in sediment nor contaminate groundwater. Predatory and scavenging mammals and birds might be poisoned if they have eaten the bait. Use a bait station to minimize these risks. Please note, the data below reflects the active ingredient Bromadiolone. This product is formulated @0.005% or 50ppm Bromadiolone. When compared to the data relevant to the active ingredient, ecological effects should be significantly lower for this product.

12.1. Toxicity

For Bromadiolone:

Fish: 96h LC50 ((*Oncorhynchus mykiss*)) = 4.33 mg/l

Invertebrates: 48h EC50 (*Daphnia magna*) 0.222 mg/l

Algae: 72h EbC50 *Selenastrum capricornutum* =>ErC50 = 7.31 mg/l

Microorganisms (activated sludge): EC50 >100 mg/L (based on water solubility at pH 7 and T = 20°C)

12.2. Persistence and degradability: For Bromadiolone: Not readily biodegradable under normal conditions. However, photolysis of Bromadiolone is rapid with a half-life 0.5 hours or less (pH7 and 9, 25°C). In addition Bromadiolone is not volatile and therefore would not be expected to be present in the air in significant quantities.

12.3. Bioaccumulative potential: For Bromadiolone: Log Pow is >3, which indicates a potential to bioaccumulate

BCF: For Bromadiolone, estimated for freshwater fish = 1750 (QSAR by Vieth et al (1979))

12.4. Mobility in Soil: KOC: 1223 to 36011 mL/g (advanced adsorption test). Mobility of Bromadiolone in soil is considered to be limited..

12.5. Results of PBT and vPvB assessment: Other than the active ingredient, this mixture does not contain any substances that are assessed to be PBT or vPvB.

12.6. Other adverse effects: None.

SECTION 13. Disposal considerations

13.1. Waste Treatment Methods

13.1.1 Product/packaging disposal: Wastes resulting from use may be disposed of on-site or at an approved waste disposal facility. Dispose of all wastes in accordance with all local, regional and national regulations.

13.1.2 Waste treatment-relevant information: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

13.1.3 Sewage disposal-relevant information: Not applicable

13.1.4 Other disposal recommendations: None

SECTION 14. Transport information

14.1. UN number: Not applicable

14.2. UN proper shipping name: ADR/RID (Road/Rail): Not applicable

14.3. Transport hazard class(es): Not applicable

14.4. Packing group: Not applicable

14.5. Environmental hazards

ADR/RID (Road/Rail): Not considered hazardous by ADR/RID Regulations for transportation via road/rail.

IMDG (Maritime): Not considered hazardous by IMO Regulations for transportation *via* vessel.

IATA (Air): Not considered hazardous by IATA Regulations for transportation *via* air.

14.6. Special precautions for user: Not applicable

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture: Regulated under Regulation (EU) 528/2012

Substances in Candidate list (Art 59 REACH) : None

Substances subject to authorization (Annex XIV REACH): None

Restrictions (Annex XVII REACH): None

15.2. Chemical safety assessment: Exempt, CONTRAC BLOX is regulated under Regulation (EU) 528/2012

SECTION 16. OTHER INFORMATION

CLASSIFICATION AND PROCEDURES USED IN PREPARATION OF THIS SDS: Regulation (EU) 2015/830, Regulation 528/2012,

16.1. Abbreviations and acronyms

Not applicable

16.2. Key literature references and sources of data

Assessment Report (Inclusion of active substances in Annex I to Directive 98/8/EC, 17 September 2009, revised 16 December 2010. EU Regulation 2015/830 and 528/2012

16.3. Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008: Not classified on the basis of available test data.

Classification according to Directive 1999/45/EC: Not classified on the basis of available test data.

16.5. Further Information: This Safety Data Sheet has been compiled in accordance with Regulation (EU) 2015/830, (EC) No 1907/2006 (as amended by Regulation (EU) No 453/2010), and Regulation (EC) 1272/2008. For additional information, please contact the manufacturer noted in Section 1. The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Bell Laboratories, Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your consideration and investigation. The user is responsible to ensure that they have all current data relevant to their particular use.

1. PRODUCT IDENTIFICATION

1.1. Product Identifiers

Product name : **EcoVia™ EC Emulsifiable Concentrate – Diluted with water at 6 fl oz/gal**

Other Means of Identification

Product synonyms : none

1.2. Recommended Uses/Restrictions to Use

Uses : FIFRA 25(b) exempt “minimum risk” pesticide product for the control of various pest species per label – ready to use dilution(s)

Restrictions : See product label for details

1.3. Supplier Details

Company : Rockwell Labs Ltd
1257 Bedford Avenue
North Kansas City, MO 64116-4308
USA

Telephone : 1 816-283-3167

1.4. Emergency Contact

Outside normal business hours

Emergency Phone # : 1 800-424-9300 (USA & Canada)
1 703-527-3887 (Outside USA & Canada)

2. HAZARDS IDENTIFICATION

2.1. Classification of Substance or Mixture

none

2.2. GHS label elements, including precautionary statements

Pictogram(s) none

Signal word none

Hazard statement(s)

H226 none

Precautionary statement(s)

P210 none

2.3. Other hazards which do not result in classification

none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

No data available

3.2. Mixtures

Hazardous component(s) or components of note:

Chemical Identity	Contains (% w/w)	CAS-No.	Hazard Classification
none	-----	-----	-----

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Consult a physician or poison control center. Provide this safety data sheet to medical personnel. Move out of hazardous areas.

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.

In case of 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 treatment advice.

In case of eye contact

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If swallowed

Call a poison control center or doctor 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.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed, if necessary

None known

5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Specific hazards arising from the chemical

Oxides of carbon, nitrogen, and sulfur.

5.3. Special protective equipment and precautions for fire fighters

Wear self contained breathing apparatus for firefighting if deemed necessary.

Additional information: none.

5.4. Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled product and contaminated surfaces. Evacuate personnel to safe areas during emergencies. For safe handling instructions see section 7. For proper PPE see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

Wipe up any spilled material and dispose of according to instructions in section 13. Wash contaminated surfaces with soap and water.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene practices. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. For additional precautions see section 2.2

7.2. Conditions for safe storage, including any incompatibilities

Store upright in original container. Do not store where children or animals may gain access.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace parameters

Component	CAS-No.	Value	Control parameters	Basis
Isopropyl alcohol	67-63-0	TWA	400 ppm	NIOSH REL
		ST	500 ppm	
		TWA	400 ppm	OSHA PEL

8.2. Appropriate engineering controls

Ensure relevant engineering controls are employed to prevent exceeding threshold values for the listed control parameters in section 8.1.

8.3. Individual protection measures, such as personal protective equipment

In normal use and handling conditions refer to the product label for required PPE. In all other cases the following recommendations would apply.

Eye/face protection

Safety glasses or other similar eye protection conforming to ANSI Z87.1 standards recommended when handling product.

Skin protection

Chemical resistant nitrile rubber or similarly compatible gloves recommended when handling product. Dispose of contaminated gloves after use in accordance with applicable local and state regulations. Wash exposed skin with soap and water immediately. Wash all contaminated clothing prior to reuse.

Respiratory protection

Not required under normal use conditions. Chemical cartridge respirator with organic vapor cartridge recommended when risk assessment shows need for air-purifying respirators.

Thermal hazards

None known

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance;	White liquid
Odor;	Thyme
Odor threshold;	No data available
pH;	No data available
Melting point/freezing point;	No data available
Initial boiling point and boiling range;	No data available
Flash point;	> 200 °F (93 °C)
Evaporation rate;	No data available
Flammability (solid, gas);	No data available
Upper/lower flammability or explosive limits;	No data available
Vapor pressure;	No data available
Vapor density;	No data available
Relative density;	0.99 g/ml
Solubility;	Soluble in water
Partition coefficient: n-octanol/water;	No data available
Auto-ignition temperature;	No data available

EcoVia™ EC Emulsifiable Concentrate - RTU

Safety Data Sheet
Release Date: 9/18/2020
Print Date: 9/18/2020
Version 1.1

Decomposition temperature; No data available
Viscosity; Similar to that of water

9.2. Additional Information

No data available

10. STABILITY AND REACTIVITY

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents. Strong reducing agents.

10.5. Hazardous decomposition products

Other decomposition products – no data available

In the event of a fire: see Section 5

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity Estimate (ATE)

LD50 Oral – Rat – > 5000 mg/kg

LD50 Dermal – Rat – > 5000 mg/kg

LD50 Inhalation – Rat – no data available

Skin corrosion/irritation

No data available

Serious eye damage/irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

No data available

Aspiration hazard

No data available

11.2. Other information

No data available

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish	LC50 – Pimephales promelas (fathead minnow) – >200 mg/l (96 hr)
Toxicity to daphnia and other aquatic invertebrates	EC50 – Daphnia magna (Water flea) – >100 mg/l (48 hr)

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1. Disposal Methods.

The best disposal method is to use the entire quantity per label directions. If it is necessary to dispose of unused material then follow the label instructions and relevant local, state and federal waste disposal guidelines.

Product Disposal:

Do not contaminate water, food or feed by storage or disposal.

Packaging Disposal:

If empty: Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency or 1-800-CLEANUP which is managed as a public-private partnership.

See section 8 for proper PPE and precautionary handling measures.

14. TRANSPORT INFORMATION

DOT

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

This chemical is a FIFRA 25(b) Exempt pesticide product that is not registered by the Environmental Protection Agency but is subject to certain labeling requirements under various state pesticide laws. 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:

KEEP OUT OF THE REACH OF CHILDREN
CAUTION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Isopropyl alcohol – CAS-No. 67-63-0

SARA 311/312 Hazards

None

California Proposition 65 Components

This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or reproductive harm.

TSCA

All components of this product are listed, exempted, or excluded from listing on the U.S. Toxic Substances Control Act chemical substance inventory.

16. OTHER INFORMATION

Acronyms and abbreviations used

LD50	Lethal Dose, 50%
OECD	Organization for Economic Cooperation and Development
IARC	International Agency for Research on Cancer
ACGIH	American Conference of Industrial Hygienists

EcoVia™ EC Emulsifiable Concentrate - RTU

Safety Data Sheet

Release Date: 9/18/2020

Print Date: 9/18/2020

Version 1.1

NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
DOT	Department of Transportation
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
SARA	Superfund Amendments and Reauthorization Act
TSCA	Toxic Substances Control Act
CAS-No.	Chemical Abstract Services - Number
PPE	Personal Protective Equipment
HMIS	Hazardous Materials Identification System
NFPA	National Fire Protection Association
PPM	Parts Per Million
ANSI	American National Standards Institute
TWA	Time Weighted Average
PEL	Permissible Exposure Limit
REL	Recommended Exposure Limit
ST	Short Term

Hazard Rating System Crossover

<u>HMIS Rating</u>		<u>NFPA Rating</u>	
Health Hazard:	0	Health Hazard:	0
Flammability:	0	Flammability:	0
Reactivity:	0	Reactivity:	0

Preparation information

Prepared by:	Rockwell Labs Ltd
Version:	1.1
Revision Date:	September 18, 2020
Reason for revision:	Minor reformatting changes

Notice to Reader: The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Rockwell Labs Ltd provides no warranties, express or implied, and assumes no responsibility for the accuracy and completeness of the data contained herein. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are trademarks of Rockwell Labs Ltd.



SAFETY DATA SHEET

Issue Date: 21-Oct-2020

Revision Date: 21-Oct-2020

Version: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: Onslaught® FastCap Spider & Scorpion Insecticide

EPA Registration Number: 1021-2574

Other means of identification

Part Code: 2964B, 2964C

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide.

Details of the supplier of the safety data sheet

Manufacturer Address:

McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
USA

FAX #:

(763) 544-6437

Telephone Number: (800) 645-6466, or (763) 544-0341

e-Mail Address: mgk-sds@mgk.com

Emergency telephone number

24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300

International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments:

MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT.
For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to
(888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

OSHA Regulatory Status:

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2

Label elements

Emergency Overview

WARNING

Hazard statements

• H302 - Harmful if swallowed

- H332 - Harmful if inhaled
- H315 - Causes skin irritation



Appearance: cream , light yellow / brown

Physical state: Liquid

Odor Slight - Sweet

Precautionary Statements - Prevention:

- 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
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear protective gloves

Precautionary Statements - Response:

- P321 - Specific treatment (see Section 4/ First Aid).
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P332 + P313 - If skin irritation occurs: Get medical advice/attention
 P362 - Take off contaminated clothing and wash before reuse
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth

Precautionary Statements - Storage:

- P404 - Store in a closed container

Precautionary Statements - Disposal:

- P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):

Do not use this product in or on electrical equipment due to the possibility of shock hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Esfenvalerate	66230-04-4	6.40
Prallethrin (ETOC®)	23031-36-9	1.60
Piperonyl Butoxide (PBO)	51-03-6	8.00
Petroleum distillates, hydrotreated light	64742-47-8	<10 *

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable

Description of first aid measures

Eye contact:	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.
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 treatment advice.
Ingestion:	If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.
Inhalation:	Remove affected 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.
Self-protection of the First Responder:	Use personal protective equipment as required.
Note to physicians:	For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:

Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂), Hydrogen cyanide.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions: Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. For more information, see product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines:

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Supplier OEL
Petroleum distillates, hydrotreated light 64742-47-8	-	-	-	TWA: 100 ppm TWA: 525 mg/m ³

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Protective eyewear is recommended, but is not required.

Skin and body protection: Wear protective gloves and protective clothing.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local

regulations.

General Hygiene Considerations:

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Liquid
Appearance: cream , light yellow / brown
Odor Slight - Sweet
Odor threshold: No information available
Color (Gardner Scale): No information available

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	5.5	@ 5% in H ₂ O.
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	> 93.3 °C / > 200.0 °F	Tag Closed Cup.

Evaporation rate: No information available
Flammability (solid, gas): No information available
Upper flammability limit (UEL): No information available
Lower flammability limit (LEL): No information available
Vapor pressure: No information available
Vapor density: No information available
Specific Gravity: No information available
Water solubility: No information available
Partition coefficient; n-Octanol/ Water: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Kinematic viscosity: No information available
Dynamic viscosity: 1,446 cPs
Refractive Index: No information available

@ 21.3 °C

Other Information:

Density 1.011 g/cm³ @ 20.0 °C
VOC Content (%): 1.95

Miscibility/ Solubility:

Water: Immiscible
Alcohol: Immiscible
Aromatic solvents: Immiscible
Petroleum distillates: Immiscible

10. STABILITY AND REACTIVITY

Reactivity

No data available

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

Extremes of temperature and direct sunlight.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide (CO₂), Hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD₅₀ 1,750 mg/kg (rat)
Dermal LD₅₀ >5,000 mg/kg (rabbit)
Inhalation LC₅₀ >2.04 mg/L, (rat; 4 hours)
Eye contact: Slightly irritating. Irritation clearing in 72 hours. (rabbit).
Skin Contact: Moderate irritation at 72 hours. (rabbit).
Skin Irritation Index: 2.4

Sensitization: Negative. (guinea pig).

Piperonyl Butoxide: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is questionable and under review. The doses at which tumors were observed for PBO greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceeded anticipated human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product will result in carcinogenic effects.

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP

Reproductive toxicity: No information available.
Developmental Toxicity No information available.
Teratogenicity: No information available.
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient; n-Octanol/ Water:
Prallethrin (ETOC®) 23031-36-9	4.49

Other adverse effects: No information available

Environmental hazards (EPA):

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Other DOT Shipping Information: This material is **not** regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (*i.e.*, less-than 119 Gallons / 450 Liters).

When shipping in Bulk-quantities (*i.e.*, more than 119 Gallons / 450 Liters), please contact MGK® for the proper shipping description.

Air (IATA/ ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Vessel (IMO/ IMDG)

UN/ID Number: UN3082
Proper Shipping Name: Environmentally hazardous substance, Liquid, n.o.s.(Esfenvalerate, Prallethrin)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes

15. REGULATORY INFORMATION

US 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	SARA 313 - Threshold Values %
---------------	-------------------------------

Piperonyl Butoxide (PBO) - 51-03-6

1.0

SARA 311/312 Hazard**Categories**

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

CWA (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

US State Regulations:**California Proposition 65:**

This product does not contain any intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-2574

Difference between SDS and EPA (FIFRA) Pesticide label:

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 pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:

- Harmful if swallowed
- Causes moderate eye irritation

International Inventories:

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	- Personal protection X

*Chronic Hazard Star Legend * = Chronic Health Hazard*

Issue Date:
21-Oct-2020

Revision Date:
21-Oct-2020

Revision Note:
- Product Code Changed
- SDS sections updated
- 1
- 4
- 9
- 11
- 12
- 14

SDS Prepared By:
e-Mail Address:

Troy Azzivitto, MGK® Chemistry Department.
mgk-sds@mgk.com

Disclaimer:

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate

precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

End of Safety Data Sheet

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
102000030997

1/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name	SUSPEND® POLYZONE®
Product code (UVP)	84493910
SDS Number	102000030997
EPA Registration No.	432-1514

Relevant identified uses of the substance or mixture and uses advised against

Use	Insecticide
Restrictions on use	See product label for restrictions.

Information on supplier

Supplier	Bayer Environmental Science A division of Bayer CropScience LP 500 Centregreen Way, Suite 400 Cary, NC 27513 USA
Responsible Department	Email: SDSINFO.BCS-NA@bayer.com
Emergency telephone no.	
Emergency Telephone Number (24hr/ 7 days)	1-800-334-7577
Product Information Telephone Number	1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200
Skin irritation: Category 2

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements
Causes skin irritation.

Precautionary statements

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
10200030997

2/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

Wash thoroughly after handling.
Wear protective gloves.
IF ON SKIN: Wash with plenty of water/ soap.
Specific treatment (see supplemental first aid instructions on this label).
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Hazards Not Otherwise Classified (HNOC)

No health hazards not otherwise classified.
No physical hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Deltamethrin	52918-63-5	4.75

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move 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 physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	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 physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms	To date no symptoms are known.
Indication of any immediate medical attention and special treatment needed	

Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.
------------------	--

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
10200030997

3/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Carbon dioxide (CO₂), Dry chemical, Foam, Water

Unsuitable High volume water jet

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for firefighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point No data available

Auto-ignition temperature No data available

Lower explosion limit No data available

Upper explosion limit No data available

Explosivity Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Dike area to prevent runoff. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated surface thoroughly. Decontaminate tools and equipment following cleanup.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
10200030997

4/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.01 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection Chemical resistant nitrile rubber gloves

Eye protection Tightly fitting safety goggles

Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.
Keep and wash PPE separately from other laundry.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
102000030997

5/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to light beige
Physical State	suspension
Odor	characteristic
Odour Threshold	No data available
pH	≤ 7.0 (100 %) (23 °C)
Viscosity, kinematic	No data available
Vapor Pressure	No data available
Vapor Density (Air = 1)	No data available
Density	ca. 1.05 g/cm ³ (20 °C)
Evaporation rate	No data available
Boiling Point	No data available
Melting / Freezing Point	No data available
Water solubility	dispersible
Minimum Ignition Energy	Not applicable
Decomposition temperature	Stable under normal conditions.
Self-accelerating decomposition temperature (SADT)	No data available
Partition coefficient: n-octanol/water	Not applicable
Viscosity	700 - 1,700 cps (25 °C)
Flammability	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	Not applicable
Particle size	No data available

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
102000030997

6/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Extremes of temperature and direct sunlight. freezing
Incompatible materials	No incompatible materials known.
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Eye contact, Skin contact, Inhalation

Immediate Effects

Eye May cause eye irritation.

Skin Causes skin irritation.

Information on toxicological effects

Acute oral toxicity LD50 (female Rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (male/female combined Rat) > 2.08 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
Highest attainable concentration.
No deaths

|| LC50 (male/female combined Rat) > 8.32 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

Acute dermal toxicity LD50 (male/female combined Rat) > 5,000 mg/kg

Skin corrosion/irritation Moderate skin irritation. (Rabbit)

Serious eye damage/eye irritation Moderate eye irritation. (Rabbit)

Respiratory or skin sensitisation Skin: Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – single exposure

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
10200030997

7/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

Deltamethrin: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient neurobehavioral effects typical for pyrethroid neurotoxicity.

Assessment mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

Deltamethrin 52918-63-5 Overall evaluation: 3

OSHA

None.

Assessment toxicity to reproduction

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Deltamethrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

Aspiration hazard

Based on available data, the classification criteria are not met.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.15 µg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 0.0131 µg/l Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
102000030997

8/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

Toxicity to aquatic plants	EC50 (Algae) > 9.1 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin.
Biodegradability	Deltamethrin: Not rapidly biodegradable
Koc	Deltamethrin: Koc: 10240000
Bioaccumulation	Deltamethrin: Bioconcentration factor (BCF) 1,400 Does not bioaccumulate.
Mobility in soil	Deltamethrin: Immobile in soil
Environmental precautions	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply when weather conditions favor runoff or drift. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Do not contaminate water, food, or feed by disposal. Dispose in accordance with all local, state/provincial and federal regulations. Follow advice on product label and/or leaflet.
Contaminated packaging	Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material
IMDG	
UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
10200030997

9/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(DELTAMETHRIN SOLUTION)

IATA

UN number **3082**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(DELTAMETHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN
POISON

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1514

US Federal Regulations

TSCA list

Water 7732-18-5
1,2-Propanediol 57-55-6
Butoxypolyethylene-/propylene glycol 9038-95-3

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No export notification needs to be made.

SARA Title III - Section 302 - Notification and Information

Not applicable.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

1,2-Propanediol 57-55-6 MN, RI
Pyrogenic (fumed) amorphous silica 112945-52-5 CA, MN

None.

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
10200030997

10/11
Revision Date: 05/20/2020
Print Date: 05/22/2020

EPA/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 required on the pesticide label:

Signal word: Caution!

Hazard statements: Causes moderate eye irritation.
Contact with product may result in transient tingling and reddening of the skin.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: The following sections have been revised: Section 11: Toxicological Information. Reviewed and updated for general editorial purposes.

Revision Date: 05/20/2020

This information is provided in good faith but without express or implied warranty. The customer assumes

SAFETY DATA SHEET



SUSPEND® POLYZONE®

Version 3.0 / USA
102000030997

11/11

Revision Date: 05/20/2020

Print Date: 05/22/2020

all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.



TERAD3[®] BLOX

SAFETY DATA SHEET

ACCORDING TO REGULATION: OSHA Hazard
Communication Standard 29 CFR 1910.1200

DATE OF ISSUE:
January 2020

PREPARED BY:
CAR

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TERAD3[®] BLOX

EPA Registration Number: 12455-106

Relevant identified uses: Acute Rodenticide - Ready to use

Uses advised against: Use only for the purpose described above

MANUFACTURER/SUPPLIER:

Bell Laboratories, Inc.

3699 Kinsman Blvd.

Madison, WI 53704, USA

Email: sds@belllabs.com

Phone: 608-241-0202

Medical or Vet Emergency: 877-854-2494 or 952-852-4636

Spill or Transportation Emergency: 800-424-9300 (CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION

Classification according to Regulation OSHA 1910.1200(d): Not classified

Signal Word: None

See Section 15 for information on FIFRA applicable safety, health, and environmental classifications.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	% By weight
Cholecalciferol [9,10-secocholesta- 5,7,10(19)-trien-3-ol]	67-97-0	0.075%
Inert and Non-Hazardous Ingredients (Unlisted components are non-hazardous)	Proprietary	99.925%

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Ingestion: Call physician or emergency number immediately. Have person sip a glass of water if able to swallow. Do not induce vomiting unless instructed by physician.

Inhalation: Not applicable.

Eye contact: Hold eye open and rinse slowly with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation develops, obtain medical assistance.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. If irritation develops, obtain medical assistance.

Most important symptoms and effects, both acute and delayed

Ingestion of excessive quantities may cause hypercalcemia, anorexia, nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhea, profuse sweating, headache.

Advice to physician: There is no specific antidote. If serum calcium levels are elevated, treatment with calcitonin is effective in reducing calcium to normal levels. Continue monitoring serum calcium and treat as necessary for hypercalcemia. (Reference: AMA Drug Evaluations, Third Edition (1977) Chapter 16, pp. 248-251)

Advice to Veterinarian: For animals ingesting bait and/or showing poisoning signs, induce vomiting by using hydrogen peroxide or administration of activated charcoal with a cathartic. If clinical signs develop, treatment consisting of saline diuresis combined with the use of furosemide, corticosteroids, and phosphate binders are recommended. Calcitonin or pamidronate may be needed for animals that remain hypercalcemic despite symptomatic treatment.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media: water, foam or inert gas.

Unsuitable Extinguishing Media: None known.

Special hazards arising from the mixture: High temperature decomposition or burning in air can result in the formation of toxic gases, which may include oxides of carbon.

Advice for firefighters: Wear protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Gloves should be worn when handling the bait. Collect spillage without creating dust.

Environmental precautions: Do not allow bait to enter drains or water courses. Where there is contamination of streams, rivers or lakes contact the appropriate environment agency.

Methods and materials for containment and cleaning up

For Containment: Sweep up spilled material immediately. Place in properly labeled container for disposal or re-use.

For Cleaning Up: Wash contaminated surfaces with detergent. Dispose of all wastes in accordance with all local, regional and national regulations.

Reference to other sections: Refer to Sections 7, 8 & 13 for further details of personal precautions, personal protective equipment and disposal considerations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Do not handle the product near food, animal foodstuffs or drinking water. Keep out of reach of children. Do not use near heat sources, open flame, or hot surfaces. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Conditions for safe storage, including any incompatibilities: Store only in original container in a cool, dry place, inaccessible to pets and wildlife. Do not contaminate water, food or feed by storage or disposal. Keep containers closed and away from other chemicals.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Established Limits

Component	OSHA	ACGIH	Other Limits
Cholecalciferol	Not Established	Not Established	Not Established

Appropriate Engineering Controls: Not required

Occupational exposure limits: Not established

Personal Protective Equipment:

Respiratory protection: Not required

Eye protection: Not required

Skin protection: Shoes plus socks, and waterproof gloves.

Hygiene recommendations: Keep and wash PPE separately from other laundry. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet, and change into clean clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance/Color:	Blue-grey-beige-brown wax block
Odor:	Sweet grain-like
Odor Threshold:	No Data
pH:	No Data
Melting point:	No Data
Boiling point:	No Data
Flash point:	No Data
Evaporation rate:	No Data
Flammability:	No Data
Upper/lower flammability or explosive limits:	No Data
Vapor Pressure:	No Data
Vapor Density:	No Data
Relative Density:	1.13 g/mL @ 20°C
Solubility (water):	No Data
Solubility (solvents):	No Data
Partition coefficient: n-octanol/water:	No Data
Auto-ignition temperature:	No Data
Decomposition temperature:	No Data
Viscosity:	No Data

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable when stored in original container in a cool, dry location.

Chemical stability: Stable when stored in original container in a cool, dry location.

Possibility of hazardous reactions: Refer to Hazardous decomposition products

Conditions to avoid: Avoid extreme temperatures (below 0°C or above 40°C).

Incompatible materials: Avoid strongly alkaline materials.

Hazardous decomposition products: High temperature decomposition or burning in air can result in the formation of toxic gases, which may include oxides of carbon.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity

LD50, oral (ingestion): >5001 mg/kg (rats) (Cholecalciferol Rat LD50 oral: 43.6 mg/kg bw).

LD50, dermal (skin contact): > 5001 mg/kg (rats) (Cholecalciferol not determined).

LC50, inhalation: Product is a wax block and therefore exposure by inhalation is not relevant.

Skin corrosion/irritation : Not irritating to skin.

Serious eye damage/Irritation: Not irritating to eyes.

Respiratory or skin sensitization: Dermal sensitization: Not a Sensitizer (Guinea pig maximization test).

Germ cell mutagenicity: Contains no components known to have a mutagenetic effect.

Carcinogenicity: Contains no components known to have a carcinogenetic effect.

Components	NTP	IARC	OSHA
Cholecalciferol	Not listed	Not listed	Not listed

Reproductive Toxicity: No data

Aspiration Hazard: Not applicable. Product is a wax block.

Target Organ Effects: Damage caused by an accumulation of calcium.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Effects: This product is extremely toxic to birds and mammals. Do not apply this product directly to water, where surface water is present or to intertidal areas below the mean high water mark. Carefully follow label cautions and directions to reduce hazards to children, pets and non-target wildlife.

Persistence and degradability: Product is inherently biodegradable. Cholecalciferol slowly decomposes in water.

Bioaccumulative potential: Not determined. Cholecalciferol water solubility is extremely low (< 0.1mg/l).

Mobility in Soil: Not determined. Mobility of cholecalciferol in soil is considered to be limited.

Other adverse effects: None.

SECTION 13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store only in original container in a cool, dry place inaccessible to children and pets. Keep containers closed and away from other chemicals.

Pesticide Disposal: Wastes resulting from the use of this product according to the label instructions must be disposed of as specified on the product label. **RCRA waste status:** This product is not regulated as a hazardous waste under Federal law. State and local regulation may affect the disposal of this product. Consult your state or local environmental agency for disposal of waste generated other than by use according to label instructions.

Container Handling: Non-refillable container. Do not reuse or refill this container. [Plastic:] Offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; or by incineration. In most states, burning is not allowed. [Paper:] Dispose of empty container by placing in trash, at an approved waste disposal facility or by incineration. In most states, burning is not allowed.

RCRA Waste Status: This product is not regulated as a hazardous waste under Federal law.

SECTION 14. TRANSPORT INFORMATION

UN number: Not regulated

UN proper shipping name: Not regulated

Transport hazard class(es): Not regulated

Packing group: Not regulated

Environmental Hazards

DOT Road/Rail: Not considered hazardous for transportation via road/rail.

DOT Maritime: Not considered hazardous for transportation by vessel.

DOT Air: Not considered hazardous for transportation by air.

Freight Classification: LTL Class 60

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

Special precautions for user: None

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

FIFRA: This pesticide product is regulated 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 safety, health, environmental, and hazard information required on the pesticide label is listed below and reflected throughout this SDS. The pesticide label also includes other important information, including directions for use.

Signal Word: CAUTION

Precautionary Statements: Contains the calcium mobilizer, cholecalciferol. Harmful if swallowed or absorbed through the skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing.

Potential Health Effects:

Eye Contact: May cause irritation

Skin Contact: Non-irritating to the skin

Ingestion: Harmful if swallowed

TSCA: All components are listed on the TSCA Inventory or are not subject to TSCA requirements

CERCLA/SARA 313: Not listed

CERCLA/SARA 302: Not listed

PROPOSITION 65: Contains no components subject to warning requirement.

SECTION 16. OTHER INFORMATION

For additional information, please contact the manufacturer noted in Section 1.

NFPA	Health: 1 (caution)	Flammability: 1 (slight)	Reactivity: 0 (stable)	Specific Hazard: None
HMIS	Health: 2 (moderate)	Flammability: 0 (slight)	Reactivity: 0 (minimal)	Protective Equipment: B

Disclaimer: The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Bell Laboratories, Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your consideration and investigation. The user is responsible to ensure that they have all current data, including the approved product label, relevant to their particular use.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: Trilogy®, Triact®, Neem Oil 70%®, Nimbuz®
EPA Registration No. 70051-2
Product Type: Emulsifiable Concentrate
Active Ingredient: Clarified Hydrophobic Extract of Neem Oil
CAS No.: 947173-77-5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Insecticide, Miticide and Fungicide
Uses advised against: Any use not listed on the label.

1.3. Details of the supplier of the safety data sheet

Name: Certis U.S.A., L.L.C.
Address: 9145 Guilford Road, Suite 175
Columbia, Maryland 21046
U.S.A.
Phone Number: +01 (800) 847-5620
Website/E-mail: www.certisusa.com/ customerservice@certisusa.com

1.4. Emergency telephone number

Emergency number: Chem-Tel: +1 800 255-3924

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Classification: Flammable Liquid Cat. 4

Signal Word: Warning

Hazard Statements: Combustible Liquid

Pictogram: None

Precautionary Statements:

- Keep away from flames and hot surfaces. No smoking.
- Wear protective gloves/eye protection/face protection.
- In case of fire, use a suitable dry chemical, foam or carbon dioxide to extinguish.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents/container in accordance with all local, regional, national, and international regulations.
- Refer to product label for complete precautionary statements, PPE, and storage and disposal instructions.

2.2 Other Hazards: Not available.

SECTION 3: Composition/information on ingredients

3.1 Substance

Ingredient	CAS Number	% by weight
Clarified Hydrophobic Extract of Neem Oil	947173-77-5	70.0
Specific identity of other components is withheld as a trade secret		30.0

SECTION 4: First aid measures

4.1. Description of first aid measures

- Generic measures** Call a poison control center or doctor for treatment advice. Have the product container or label with you when you calling the poison control center or doctor or going for treatment.
- Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses after 5 minutes, if present, then continue rinsing eye.
- Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
- Inhalation:** Call a poison control center or doctor for treatment advice.
- Ingestion:** Call a poison control center or doctor for treatment advice.

4.2. Most important symptoms and effects, both acute and delayed

May cause moderate skin or eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Not available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable Extinguishing Media:** Dry chemical, foam, or carbon dioxide extinguisher.
- Unsuitable Extinguishing Media:** Do not extinguish with water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: None known.

5.3. Advice for firefighters

Protection of Firefighters: Keep upwind of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Keep unauthorized people away from the concerned area. Use personal protections as indicated in Section 8. Evacuate the area and observe emergency procedures.

For emergency responders: Use personal protective equipment as recommended in Section 8. Isolate the area and deny entry to unnecessary and unprotected personnel.

6.2. Environmental precautions

This product is hazardous to fish and aquatic vertebrates. 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 water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

6.3. Methods and material for containment and cleaning up

Methods for Containment: Contain and/or absorb with inert material, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate PPE.

Methods for Clean-Up: None specified.

Other Information: Not available.

6.4. Reference to other sections

Refer to section 8 for further information on protective clothing and section 13 for directions for waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Applicators and other handlers must wear:

- Long sleeved shirt, long pants,
- chemical resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, or poly vinyl chloride)
- shoes plus socks

Follow manufacturers instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container. Store in a dry place, away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).

7.3. Specific end use(s)

Use only as specified on label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OSHA Permissible Exposure Limits (PELs): Not established.

ACGIH Threshold Limit Values: Not established.

Other Exposure Limits: Not established.

8.2. Exposure controls

Engineering Controls: None specified.

Personal Protective Equipment

Eye/Face Protection: None specified.

Skin Protection: Long-sleeved shirt and long pants, shoes plus socks.

Hand Protection: Chemical resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, or poly vinyl chloride)

Body Protection: Long-sleeved shirt and long pants, shoes plus socks.

Respiratory Protection: None specified.

Thermal Hazards: None specified.

General Hygiene Considerations: Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

Environmental exposure controls: For terrestrial use only: Do not apply directly to water or to areas where surface water is present, or to inter tidal areas below the mean high water mark. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Brown liquid.

Odour: Citrus/garlic.

Odour Threshold: Not determined.

pH: 1% dilution 4.5-6.5.

Melting Point / Freezing Point:	37°F (3°C).
Initial Boiling Point:	>275 °F.
Boiling Range:	Not determined.
Flash Point:	70°C.
Evaporation Rate:	Not determined.
Flammability (solid, gas):	Not applicable.
Lower & Upper Flammability Limits:	Not applicable.
Vapour Pressure:	Not determined.
Volatility by weight :	25%.
Density:	0.86-0.95 g/ml.
Solubility:	Not determined.
Partition Coefficient (n-octanol/water):	Not determined.
Auto-ignition Temperature:	Not determined.
Decomposition Temperature:	Not determined.
Viscosity:	Not determined.
Explosive Properties:	None known.
Oxidising Properties:	None known.

9.2. Other information

Not available.

SECTION 10: Stability and reactivity

<u>10.1. Reactivity</u>	Combustible liquid, no known hazardous reactions when handled and stored according to stated provisions.
<u>10.2. Chemical stability</u>	Stable when handled and stored according to stated provisions.
<u>10.3. Possibility of hazardous reactions</u>	No known hazardous reactions when handled and stored according to stated provisions.
<u>10.4. Conditions to avoid</u>	Keep away from flames and hot surfaces. Do not store below 40°F (4°C).
<u>10.5. Incompatible materials</u>	None known.
<u>10.6. Hazardous decomposition products</u>	None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Toxicological information on the substance or mixture:

LD₅₀ (oral)	> 5000 mg/kg (test with similar product containing higher concentration of the same active ingredient)
LD₅₀ (dermal)	> 2000 mg/kg (test with similar product containing higher concentration of the same active ingredient)
LC₅₀ (inhalation)	> 6.17 ± 1.23 mg/L (test with similar product containing higher concentration of the same active ingredient)
Skin corrosion / irritation:	Slightly irritating, Toxicity Category IV (test with similar product containing higher concentration of the same active ingredient)
Eye irritation:	Minimally irritating, Toxicity Category III (test with similar product containing higher concentration of the same active ingredient)
Respiratory or skin sensitization:	Mildly sensitizing (test with similar product containing high concentration of the same AI)

Other information on adverse health effects:

Carcinogenicity

NTP Listed: Not applicable.
IARC Listed: Not applicable.
OSHA: Not applicable.

11.2 Reference to other sections

See Section 4 for symptoms and acute and delayed effects.

SECTION 12: Ecological information

12.1. Toxicity

Test species	Test method	Test substance	LC ₅₀
Bobwhite Quail	14-day acute oral	Active Ingredient	LD ₅₀ > 2,150 mg a.i./kg body weight
<i>Pimephales promelas</i> (Fathead Minnow)	96-hour	Active Ingredient	NOEC 96-hour: 2,000 mg/L
<i>Daphnia magna</i>	48-hour	Active Ingredient	NOEC 48-hour: 2,000 mg/L
<i>Apis mellifera</i> L	This product is toxic to bees exposed to direct treatment. Do not apply when bees are actively visiting the treatment area.		

12.2. Persistence and degradability

Neem oil degrades rapidly and does not persist in the environment.

12.3. Bioaccumulative potential

Neem oil is not intended for use in aquatic environments. Appropriate cautions are required for use around bodies of water.

12.4. Mobility in soil

No data available.

12.5. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Disposal Instructions: Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Keep in original container. Store in a dry place, away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container.

-for containers equal to or less than 5 gallons-

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as following: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

-for containers greater than 5 gallons-

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

-for 250-gallon refillable containers-

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate

vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

SECTION 14: Transportation information

14.1. UN number

Not regulated.

14.3. Transport hazard class(es)

Not regulated.

14.5. Environmental hazards

Not regulated.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not regulated.

14.2. UN proper shipping name

Not regulated.

14.4. Packing group

Not regulated.

14.6. Special precautions for user

Not regulated.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA: This product 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-pesticidal chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION, KEEP OUT OF REACH OF CHILDREN

Harmful if absorbed through the skin. Causes moderate eye irritation.

This product is hazardous to fish and aquatic invertebrates.

This product is highly toxic to bees exposed to direct treatment.

OSHA: N/A
TSCA Status: Exempt
CERCLA Reportable Quantity: N/A
SARA Title III:
Section 302: N/A
Section 311/312: N/A
Section 313: N/A

RCRA Status: N/A

SECTION 16: Other information

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither Certis USA nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of

the user. All material may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

SDS Authoring Information:

Revision date: April 17, 2019
Date of Previous version: March 23, 2015
Reason for Revision: Periodic update.
SDS Prepared by: Certis U.S.A., L.L.C.

LIST OF TRAINED PERSONNEL

City of Carpinteria	Position	Department
Tiffany Smith	Parks and Facilities Supervisor	Public Works

Contractor	Address	Contractor License No.
Santa Barbara Pest Control	719 E. Haley St, Santa Barbara, CA 93103	N/A
Showscapes, Inc.	1200 Paseo Camarillo, Camarillo, CA 93010	797240

GLYPHOSATE

Fact Sheet

EPA has concluded its regulatory review of glyphosate, the most widely used herbicide in the United States. After a thorough review of the best available science, as required under the Federal Insecticide, Fungicide, and Rodenticide Act, EPA has concluded there are no risks of concern to human health when glyphosate is used according to the label and that it is not a carcinogen. EPA scientists had performed an independent evaluation of available data for glyphosate and found:

No risks of concern to human health from proper use of glyphosate. Glyphosate products used according to label directions do not result in risks to children or adults.

No indication of children being more sensitive to glyphosate. After evaluating numerous studies from a variety of sources, EPA found no indication of children being more sensitive to glyphosate from *in utero* or post-natal exposure. As part of the human health risk assessment, EPA evaluated all populations including infants, children and women of child-bearing age and found no risks of concern from ingesting food with glyphosate residues. EPA also found no risks of concern for children entering or playing on residential areas treated with glyphosate.

No evidence of glyphosate causing cancer in humans. EPA concluded glyphosate is not likely to be carcinogenic to humans. EPA considered a significantly more extensive and relevant data set than the International Agency on the Research for Cancer (IARC). EPA's database includes studies submitted to support registration of glyphosate and studies EPA identified in the open literature. For instance, IARC only considered eight animal carcinogenicity studies while EPA used fifteen (15) acceptable carcinogenicity studies. EPA does not agree with IARC's conclusion about glyphosate being "probably carcinogenic to humans."

EPA's cancer classification is consistent with other international expert panels and regulatory authorities, including the Canadian Pest Management Regulatory Agency, Australian Pesticide and Veterinary Medicines Authority, European Food Safety Authority, European Chemicals Agency, German Federal Institute for Occupational Safety and Health, New Zealand Environmental Protection Authority, and Food Safety Commission of Japan and the Joint Food and Agriculture Organization/World Health Organization (FAO/WHO) Meeting on Pesticide Residues (JMPR).

For more information, read the [Revised Glyphosate Issue Paper: Evaluation of Carcinogenic Potential](#).

No indication of glyphosate is an endocrine disruptor. Glyphosate underwent Tier I screening under EPA's Endocrine Disruptor Screening Program. Based on all available information, EPA concluded, using a weight-of-evidence approach, the existing data do not indicate glyphosate has the potential to interact with the estrogen, androgen, or thyroid signaling pathways. The screening program did not indicate the need for additional testing for glyphosat