

ADVION COCKROACH GEL BAIT

Date: 3/17/2014 Replaces: 11/1/2013

1. PRODUCT IDENTIFICATION

Product identifier on label	ADVION COCKROACH GEL BAIT
Product No.:	A20379A
Use:	Insecticide
Manufacturer:	Syngenta Crop Protection, LLC Post Office Box 18300 Greensboro NC 27419
Manufacturer Phone:	1-800-334-9481

Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications:	Skin Sensitizer: Category 1B
Signal Word (OSHA):	Warning
Hazard Statements:	May cause an allergic skin reaction

Hazard Symbols:



Precautionary Statements:		Avoid breathing dust.
		Contaminated work clothing must not be allowed out of the workplace.
		Wear protective gloves, protective clothing, eye protection.
		If on skin: Wash with plenty of soap and water.
		See Section 4 First Aid Measures.
		If skin irritation or rash occurs: Get medical advice.
		Wash contaminated clothing before reuse.
		Dispose of contents and container in accordance with local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Other inert ingredients	Other inert ingredients	Not Applicable	99.4%
methyl (4aS)-7-chloro-2,5-dihydro-2- [[(methoxycarbonyl)[4- (trifluoromethoxy)phenyl]amino]carbonyl]in deno[1,2-e][1,3,4]oxadiazine-4a(3H)- carboxylate	Indoxacarb Technical	173584-44-6	0.6%

Safety Data Sheet



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

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison contol center or doctor, or going for treatment.

Ingestion: If swallowed: First aid measures are not normally required. If you feel unwell or have concerns, contact Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Eye Contact: If in eyes: Rinse eyes with water. First aid measures are not normally required. If concerned, call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: First aid measures are not normally required. Wash material from the skin. If concerned, call Syngenta (800-888-8372), a poison control center or doctor for treament advice.

Inhalation: If inhaled: First aid measures are not normally required. If you feel unwell or have concerns, contact Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Most important symptoms/effects:

Allergic skin reaction

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container, seal container and arrange for disposition.



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7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities: Not Applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Other inert ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Indoxacarb Technical	Not Established	Not Established	1 mg/m³ 8hr & 12hr TWA (respirable)	Manufacturer

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely use dust-proof chemical goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A respirator is not normally required when handling this substance.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow gel Odor: None Odor Threshold: Not Available pH: 6.08 Melting point/freezing point: Not Available Initial boiling point and boiling range: Not Available

Safety Data Sheet



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	Flash Point (Te	,	Not Available	
	Flammable Lin	nits (% in Air):	Not Available	
	Flammability:		Not Available	
	Vapor Pressure	e: Indoxacarb Tee	chnical	Not Available
	Vapor Density:	Not Available		
	Relative Densit	y: 1.0755 g/ml @) 68°F (20°C)	
	Solubility (ies):	Indoxacarb Tee	chnical	Not Available
	Partition coeffic	cient: n-octanol/wa	ter: Not Available	
	Autoignition Te	mperature: Not A	vailable	
	Decomposition	Temperature: N	lot Available	
	Viscosity: Not	Available		
	Other: Not Av	ailable		

10. STABILITY AND REACTIVITY

Reactivity:Not reactive.Chemical stability:Stable under normal use and storage conditions.Possibility of hazardous reactions:Will not occur.Conditions to Avoid:None known

Incompatible materials: None known

Hazardous Decomposition Products: Not Available

11. TOXICOLOGICAL INFORMATION

Health effects information Likely routes of exposure: Dermal

Symptoms of exposure: Rash, redness or itching

Delayed, immediate and chronic effects of exposure: Allergic skin reaction

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 5000 mg/kg body weight
Inhalation:	Inhalation (LC50 Female Rat):	> 5.5 mg/l air - 4 hours
Eye Contact:	Non-Irritating (Rabbit)	
Skin Contact:	Non-Irritating (Rabbit)	
Skin Sensitization:	A skin sensitizer (Guinea Pig)	



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Reproductive/Developmental Effects

Indoxacarb Technical: Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity.

Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Chronic/Subchronic Toxicity Studies

Indoxacarb Technical: The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions. Inhalation; rat; Incoordination, mortality, red blood cell destruction causing abnormal decrease in number of red blood cells (anemia)

Carcinogenicity

Indoxacarb Technical: Animal testing did not show any carcinogenic effects. Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Did not cause genetic damage in animals.

Chemical Name	NTP/IARC/OSHA Carcinogen
Other inert ingredients	No
methyl (4aS)-7-chloro-2,5-dihydro-2- [[(methoxycarbonyl)[4- (trifluoromethoxy)phenyl]amino]carbonyl]in o[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxyla	
Other Toxicity Information None	
<u>Toxicity of Other Components</u> Other inert ingredients Not Applicable	
Target Organs	
Active Ingredients Indoxacarb Technical: Ne	rvous system
Inert Ingredients	
Other inert ingredients: No	ot Applicable

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Indoxacarb Technical: Fish (Rainbow Trout) 96-hour LC50 0.65 mg/l Bird (Bobwhite Quail) LD50 Oral 98 mg/kg Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.60 mg/l

Environmental Fate

Indoxacarb Technical:

Information given is based on data on the components and the ecotoxicology of similar products. Environmental Hazards: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.



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13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA Not regulated

Comments Water Transport - International Not regulated

Air Transport Not regulated

15. REGULATORY INFORMATION

Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution: Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

EPA Registration Number(s): 100-1484 EPCRA SARA Title III Classification: Section 311/312 Hazard Classes: Acute Health Hazard Section 313 Toxic Chemicals: None California Proposition 65: Not Applicable CERCLA/SARA 304 Reportable Quantity (RQ): Not Applicable RCRA Hazardous Waste Classification (40 CFR 261): Not Applicable TSCA Status: Exempt from TSCA, subject to FIFRA

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16. OTHER INFORMATION

PA Hazard Ratings		HMIS Hazard Ratings		0	Minimal
Health:	2	Health:	2	1	Slight
Flammability:	1	Flammability:	1	2	Moderate
Instability:	0	Reactivity:	0	3	Serious
· · · · · ·		-		4	Extreme
Syngenta Hazar	d Category: C,	S			4

For non-emergency questions about this product call:

		nergency questions	about this product call.	
	1-800-334-9481			
Original Issued Date: Revision Date:	2/25/2013 3/17/2014	Replaces:	11/1/2013	
Section(s) Revised: The information and		contained herein are	based upon data believed t	to be correct.
However, no guarar information contained		ny kind, expressed o	or implied, is made with resp	ect to the





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1. Product and Company Identification

Company BASF CORPORATION 100 Park Avenue Florham Park, NJ 07932, USA 24 Hour Emergency Response Information CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP (4357)

Registrant: Whitmire Micro-Gen Research Laboratories, Inc. 3568 Tree Court Industrial Blvd. St. Louis, MO 63122

Substance number: Synonyms: 000000552911 Dinotefuran

2. Hazards Identification

Emergency overview

CAUTION: KEEP OUT OF REACH OF CHILDREN. KEEP OUT OF REACH OF DOMESTIC ANIMALS. Causes eye irritation. Avoid contact with the skin, eyes and clothing. Wash thoroughly after handling.

See Product Label for additional precautionary statements.

State of matter: solid Colour: white Odour: odourless

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Relatively nontoxic after single ingestion. Relatively nontoxic after short-term inhalation. Relatively nontoxic after short-term skin contact.

Irritation / corrosion:

May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

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Sensitization:

Skin sensitizing effects were not observed in animal studies.

Medical conditions aggravated by overexposure:

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. There is a high probability that the product is not acutely harmful to aquatic plants.

3. Composition / Information on Ingredients

CAS Number 165252-70-0 Content (W/W) 40.0 % 60.0 % <u>Chemical name</u> Dinotefuran Proprietary ingredients

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Note to physician

Antidote: No Treatment: Tr

No known specific antidote. Treat symptomatically.

5. Fire-Fighting Measures

Autoignition:

not applicable

Suitable extinguishing media: water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons: water jet, carbon dioxide

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Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxides, acid halides The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately. Information regarding personal protective measures see, section 8.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Cleanup:

Cleaning operations should be carried out only while wearing breathing apparatus. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

For small amounts: Pick up with suitable appliance and dispose of. Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Contain with dust binding material and dispose of.

7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid dust formation. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Storage incompatibility:

General advice: Segregate from foods and animal feeds.

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Temperature tolerance

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

O C pł	orm: dour: olour: H value: ulk density:	granules odourless white 6.2 0.511 g/cm3 4.2645 Lb/USg	(22.8 °C)
	artitioning coefficient n- ctanol/water (log Pow):	-	not applicable
	olubility in water:		not applicable

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10. Stability and Reactivity

Dust explosivity characteristics: Kst: 74 m.bar/s

Minimum ignition energy:

> 100 mJ, 7.1 bar

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

Substances to avoid:

strong oxidizing agents

Hazardous reactions:

The product is chemically stable. Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

Possible thermal decomposition products: carbon monoxide, carbon dioxide Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50 Species: rat (female) Value: > 5,000 mg/kg

Inhalation:

Type of value: LC50 Species: rat (male/female) Value: > 2.07 mg/l Exposure time: 4 h

Dermal:

Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg

Irritation / corrosion

Skin:

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> Species: rabbit Result: Slightly irritating.

Eye:

Species: rabbit Result: mildly irritating

Sensitization:

Buehler test Species: guinea pig Result: Skin sensitizing effects were not observed in animal studies.

Repeated dose toxicity

Information on: Dinotefuran Experimental/calculated data: rat (male) day NOAEL: 100 mg/kg rat (female) day NOAEL: 127 mg/kg dog (male) day NOAEL: 559 mg/kg dog (female) day NOAEL: 22 mg/kg

Carcinogenicity

Information on: Dinotefuran No data available concerning carcinogenic effects.

Reproductive toxicity

Information on: Dinotefuran No data available concerning reproduction toxicity.

Development:

Information on: Dinotefuran No data available concerning teratogenic effects.

12. Ecological Information

Fish

Information on: Dinotefuran Acute: Oncorhynchus mykiss/LC50 (96 h): =>100 ppm

Aquatic invertebrates

Information on: Dinotefuran Acute: Daphnia magna/EC50 (48 h): >1000 ppm

Aquatic plants

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Information on: Dinotefuran Toxicity to aquatic plants: green algae/EC50 (72 h): > 100 mg/l swollen duckweed/EC50: >110 ppm

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:

The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignents. This product is not regulated by RCRA.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Federal Regulations

Registration status:
ChemicalTSCA, USblocked / not listedCrop ProtectionTSCA, USreleased / exempt

OSHA hazard category: No data available.;

EPCRA 311/312 (Hazard categories):

Not hazardous;

State regulations

CA Prop. 65: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

16. Other Information

Refer to product label for EPA registration number.

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Recommended use: insecticide

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by: BASF NA Product Regulations msds@basf.com MSDS Prepared on: 2012/08/02

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. END OF DATA SHEET



MATERIAL SAFETY DATA SHEET

for Avenger® Weed Killer Ready to Use (RTU)

(EPA Registration Number: 82052 - 3)

Emergency Phone Numbers:

Cutting Edge Formulations: (678) 546-5009 CHEMTREC 24 Hour Number (800) 424-9300

Section 1 – IDENTIFICATION

Product Name: Avenger® Weed Killer Ready to Use (RTU) Herbicide

Section 2 – INGREDIENT INFORMATION

Avenger Weed Killer Ready to Use (RTU) Herbicide consists of: d-Limonene (technical grade): 17.5% (CAS Number: 5989-27-5) Emulsifiers: 0 to 8% Water: 72 to 78%

Section 3 –HEALTH HAZARDS IDENTIFICATION

Health Hazards: May cause moderate eye irritation. Avoid contact with skin, eyes, or clothing. **Signs and Symptoms of Exposure:** Product may be irritating to the skin, eyes, nose and throat.

Emergency & First Aid Procedures :

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. **If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lens, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.

The toxicity parameters of the primary ingredient, d-Limonene, is as follows:

It is <u>not</u> acutely toxic. Oral: LD50 >5 g/kg, rabbit Dermal: LD50 >5 g/kg, rabbit Skin: The skin irritancy of limonene in guinea pigs and rabbits is considered moderate and low, respectively. Sensitization: d-Limonene is not a sensitizer. Inhalation: LC50 >1000 ppm Hazardous Materials Identification System - HMIS:

1 Health Hazard - Mild skin irritant

2 Flammability - Flashpoint 126° F (52°C), as determined by TAG Closed Cup

0 Reactivity - Stable

G Protection - Safety glasses, gloves

This substance contains no materials subject to the reporting requirements of SARA TITLE III SECTION 313.

Chronic Toxicity: Not listed as a carcinogen (OSHA, NTP, IARC, or ACGIH) Ecotoxicological Information: Product may be toxic to aquatic organisms.

Section 4 – PHYSICAL DATA

Appearance: Cloudy liquid

Odor: Orange or lemon-lime aroma Specific Gravity: 0.956 g/ml (59.7 lb/ cu. ft.) at 68°F (20°C) Flashpoint: 126°F (52°C), as determined by TAG Closed Cup pH: aqueous mixture containing 1% v/v of RTU has a pH of 8.0 at 68°F (20°C)

Viscosity: 4.0 cps at 23°C with #2 spindle at 30 RPM.

Section 5 – FIRE AND EXPLOSION HAZARD DATA

Flash Point: 126°F (52°C)

Extinguishing Media: Carbon dioxide, foam or dry chemical

Special Fire Fighting Procedures: SCBA recommended. Smother to exclude air. Do not use water. Handle as an oil fire.

Unusual Fire and Explosive Hazards: Combustible liquid. Keep away from heat, sparks, and open flame.

Hazardous Decomposition Materials: Smoke may be acrid and the fumes may be irritating. Burning generates CO, CO₂, and smoke.

Conditions to Avoid for Stability: Avoid temperatures over 122° F (50°C)

Section 6 – SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled: Use protective gloves to avoid skin contact. Small spills can be wiped up. Large spills should be absorbed by dirt, sand, or other suitable absorbents for disposal.

Section 7 – SPECIAL PROTECTION INFORMATION

Eye Protection: Safety goggles or glasses suggested.

Skin Protection: Oil resistant gloves.

Appropriate Hygienic Practices: Wash thoroughly after handling. Launder contaminated clothing before re-use.

Section 8 – SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Usual precautions for combustible liquids.

Section 9 – REGULATORY INFORMATION

Avenger Weed Killer RTU is registered as a pesticide with the U.S. Environmental Protection Agency (EPA). EPA Registration Number: 82052 - 3

Section 10 – TRANSPORTATION INFORMATION

TDG Status: Hazardous DOT Label/Placard [exemption § 173.150(f) applies] IMO Status: Hazardous Highway/Rail: per requirements for Combustible Liquids IATA Status: Hazardous Air/Ship: per requirements for Flammable Liquids

SHIPPING CLASSIFICATION:
Proper Shipping Name: TERPENE HYDROCARBONS, N.O.S.
Hazard Class: 3
Identification No.: UN2319
Packing Group: III
The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

Section 11 – ADDITIONAL INFORMATION

National Fire Protection Association Hazard Ratings - NFPA(R):

1 Health Hazard - Slight 2 Flammability - Moderate 0 Reactivity - Minimal

Key Legend Information: ACGIH American Conference of Governmental Industrial Hygienists OSHA Occupational Safety and Health Administration NTP National Toxicology Program IARC International Agency for Research on Cancer 4

The information contained herein is based on current knowledge and experience: no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information obtained by the user. No warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment. This information is furnished upon the condition the person receiving it shall determine the suitability for the particular purpose. This MSDS is to be used as a guideline for safe work practices and emergency response.



Cutting Edge Formulations, Inc.

3057 Summer Oak Place Buford, GA 30518 April, 2013



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1. Product and Company Identification

<u>Company</u> BASF CORPORATION 100 Campus Drive Florham Park, NJ 07932, USA 24 Hour Emergency Response Information CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP

Registrant: Whitmire Micro-Gen Research Laboratories, Inc. 3568 Tree Court Industrial Blvd. St. Louis, MO 63122

Substance number: Synonyms: 000000396123 Abamectin B1

2. Hazards Identification

Emergency overview

CAUTION: KEEP OUT OF REACH OF CHILDREN. KEEP OUT OF REACH OF DOMESTIC ANIMALS. HARMFUL IF SWALLOWED. HARMFUL IF INHALED. HARMFUL IF ABSORBED THROUGH SKIN. Avoid inhalation of dusts. Avoid contact with the skin, eyes and clothing. Wash thoroughly after handling.

See Product Label for additional precautionary statements.

State of matter: solid Colour: brown Odour: mild

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact.

Irritation / corrosion:

May cause slight but temporary irritation to the eyes. Contact may result in skin irritation.

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Sensitization:

Skin sensitizing effects were not observed in animal studies.

3. Composition / Information on Ingredients

CAS Number 71751-41-2 Content (W/W) 0.05 % 99.05 % <u>Chemical name</u> Abamectin Proprietary ingredients

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Have person sip a glass of water if able to swallow. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician

Treatment:

Treat symptomatically.

5. Fire-Fighting Measures

Flash point:

Substance/product is non-flammable.

Suitable extinguishing media: dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide,

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

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6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is not regulated by CERCLA ('Superfund').

Cleanup:

Dike spillage. Sweep/shovel up. Avoid raising dust. Use wet cleaning methods when applicable. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Storage stability:

May be kept indefinitely if stored properly. If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

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Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Breathing protection if breathable aerosols/dust are formed.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form: Odour:	powder mild	
Colour:	brown	
pH value:	4.9	(1 %(m))
Melting point:		not applicable
Boiling point:		not applicable
Relative density:	0.619	(23 °C)
Bulk density:	672.8 kg/m3	. ,
Vapour density:		not determined
Solubility in water:		insoluble
-		

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

Substances to avoid: caustics

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Hazardous reactions:

The product is chemically stable. No hazardous reactions when stored and handled according to instructions.

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products: carbon monoxide, carbon dioxide Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

Not an oxidizer.

11. Toxicological information

Acute toxicity

Oral: Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg (other)

Inhalation:

Type of value: LC50 Not inhalable due to the physico-chemical properties of the product.

Dermal:

Type of value: LD50 Species: rabbit (male/female) Value: > 2,000 mg/kg (other)

Irritation / corrosion

Skin:

Species: rabbit Result: non-irritant Method: Primary skin irritation test

Eye:

Species: rabbit Result: non-irritant Method: Primary eye irritation test May cause slight irritation to the eyes.

Genetic toxicity

Information on: Abamectin Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Carcinogenicity

Information on: Abamectin

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In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Information on: Abamectin The results of animal studies suggest a fertility impairing effect with high doses.

Development:

Information on: Abamectin Causes developmental effects in animals at high, maternally toxic doses.

12. Ecological Information

Fish

Information on: Abamectin Acute: Oncorhynchus mykiss/LC50 (96 h): 0.0036 mg/l

Aquatic invertebrates

Information on: Abamectin Acute: Daphnia magna/EC50 (48 h): 0.00034 mg/l

Aquatic plants

Information on: Abamectin Toxicity to aquatic plants: OECD Guideline 201 static green algae/EC50 (72 h): > 6.1 mg/l

Not readily biodegradable (by OECD criteria).

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Reference Bill of Lading

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15. Regulatory Information

Federal Regulations

Registration status:
ChemicalTSCA, USblocked / not listedCrop ProtectionTSCA, USreleased / exempt

EPCRA 311/312 (Hazard categories): Acute; Chronic

16. Other Information

Refer to product label for EPA registration number.

Recommended use: insecticide

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by: BASF NA Product Regulations msds@basf.com MSDS Prepared on: 2011/07/18

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF HEREUNDER ARE GIVEN GRATIS AND BASF ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

END OF DATA SHEET

MATERIAL SAFETY DATA SHEET

Product Name: Bifen L/P Insecticide Granules

This product has been prepared to meet the requirements as defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200: the EO Directive, 91/155/EEC and other regulatory requirements. The information contained herein is for the concentrate as packaged, unless otherwise nee

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: Bifen L/P Insecticide Granules CHEMICAL NAME: Bifenthrin CHEMICAL FAMILY: Pyrethroid Pesticide EPA Reg. No.: 53883-124

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS COMPONENT

Bifenthrin	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
	0.20	82657-04-3	not listed	not listed

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

EMERGENCY OVERVIEW:

- Tan, solid granules with a slightly musty odor.
- Slightly combustible. May support combustion at elevated temperatures.
- Thermal decomposition and burning may form toxic by-products.
- For large exposures or fire, wear personal protective equipment.
- Highly toxic to fish and aquatic organisms. Keep out of drains and water courses.

POTENTIAL HEALTH HAZARDS: Effects from overexposure result from absorption through the skin or may result from inhaling the dust. Overexposure to this product may cause diarrhea. Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

MEDICAL CONDITIONS AGGRAVATED: None presently known.

SECTION 4 - FIRST AID MEASURES

FIRST AID		
If on skin or clothing • Take off contaminated clothing.		
	Rinse skin immediately with plenty of water for 15-20 minutes.	
Call a poison control center or doctor for treatment advice.		
Have the product container or label with you when calling a poison control center or doctor, or going for		
treatment. You may also contact the Poison Control Center 800-222-1222.		
Note to Physician - This product is a pyrethroid. If large amounts have been ingested, milk cream and		
other digestible fats and oils may increase absorption and should be avoided.		

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, CO2 or dry chemical. Soft stream water fog only if necessary. Contain all runoff. FIRE / EXPLOSION HAZARDS: Slightly combustible. This material may support combustion at elevated temperatures. FIRE FIGHTING PROCEDURES: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen flouride.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of the area.

Keep material out of lakes, streams, ponds and sewer drains. Large spills should be covered to prevent dispersal. For dry material, use a wet sweeping compound or water to prevent the formation of dust. If water is used, prevent runoff or dispersion of excess liquid by diking and absorbing with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump all waste material, including absorbent, into a drum and label contents for disposal.

To clean and neutralize spill area, tools and equipment, wash with a suitable solution of caustic or soda ash, and an appropriate alcohol (i.e., methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb, as above, any excess liquid and add to the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section 13, "Disposal Considerations".

SECTION 7 – HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN

PROHIBITIONS

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

PESTICIDE STORAGE

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use close tightly.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To confine spill: Cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. CONTAINER DISPOSAL

Paper and plastic bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust at all process locations where vapor or mist may be emitted. Ventilate all transport vehicles prior to unloading.

PERSONAL PROTECTIVE EQUIPMENT:

EYES AND FACE: For dust exposure, wear chemical protective goggles or a face shield.

RESPIRATORY: For splash, mist or spray exposure wear, as a minimum, a properly fitted half-face or full-face airpurifying respirator which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

PROTECTIVE CLOTHING: Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body cover barrier suit, such as a PVC suit. Leather items - such as shoes, belts and watchbands - that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

WORK HYGIENIC PRACTICES: Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking or using tobacco. Shower at the end of the workday. GLOVES:

Wear chemical protective gloves made of materials such as rubber, neoprene, or PVC. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Slightly musty APPEARANCE: Tan solid granule DENSITY: 1.39 g/mL (85 - 89 lb/cu ft.) MOLECULAR WEIGHT: 422.88 (bifenthrin)

SECTION 10 - STABILITY AND REACTIVITY

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

DERMAL LD₅₀: >2000 mg/kg (rabbit)

ORAL LD₅₀: >5000 mg/kg (rat)

ACUTE EFFECTS FROM OVEREXPOSURE: This product has low oral and dermal toxicity. It is non-irritating to the eyes and skin. Excessive exposure to dust may irritate the respiratory system, skin and eyes. This product caused diarrhea in laboratory animals. Bifenthrin does not cause acute delayed neurotoxicity. Experience to date indicates that contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data available for the formulation. In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals to bifenthrin. In lifetime feeding studies conducted with rodents, a slight increase in the incidence of urinary bladder tumors at the highest dose in male mice was considered to be an equivocal response, not evidence of a clear compound-related effect. The overall absence of genotoxicity has been demonstrated in mutagenicity tests with bifenthrin.

CARCINOGENICITY:

IARC: Not listed NTP: Not listed OSHA: Not listed OTHER: Not Listed (ACGIH).

SECTION 12 - ECOLOGICAL INFORMATION

Unless otherwise indicated, the data presented below are for the active ingredient.

ENVIRONMENTAL DATA: In soil, bifenthrin is stable over a wide pH range and degrades at a slow rate which is governed by soil characteristics. Bifenthrin will also persist in aquatic sediments. Bifenthrin has a high Log Pow (>6.0), a high affinity for organic matter, and is not mobile in soil. Therefore, there is little potential for movement into ground water. There is the potential for bifenthrin to bioconcentrate (BCF = 11, 750).

ECOTOXICOLOGICAL INFORMATION: Bifenthrin is highly toxic to fish and aquatic arthropods and LC50 values range from 0.0038 to 17.8 µg/L. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin had no effect on mollusks at its limit of water solubility. Bifenthrin is only slightly toxic to both waterfowl and upland game birds (LD50 values range from 1,800 mg/kg to >2,150 mg/kg).

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE: Dispose of in accordance with applicable Federal, state and local laws and regulations.

CONTAINER: Completely empty bag into application equipment. Do not reuse container. Dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

SECTION 14 – TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION: Insecticides, NOI, other than Poison. NMFC Item 102120. DOT HAZARD CLASS: not regulated UN NUMBER: N/A DOT PACKING GROUP: N/A DOT PRIMARY/SUBSIDIARY LABEL: N/A DOT PRIMARY/SUBSIDIARY PLACARD: N/A DOT EMERGENCY RESPONSE GUIDE #: N/A REPORTABLE QUANTITY (RQ): None MARINE POLLUTANT #1: bifenthrin (Severe Marine Pollutant - see 'Other Shipping Information' below) OTHER SHIPPING INFORMATION: Bifnethrin is a severe marine pollutant, but is not regulated in concentrations less than 1%. This material is not regulated for transport via any mode.

SECTION 15 - REGULATORY INFORMATION

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): Not listed SECTION 311 HAZARD CATEGORIES (40 CFR 370): Immediate, Delayed

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370): The threshold planning quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs. This product contains the following ingredients with a TPQ of less than 10,000 lbs.: None

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372): There are no ingredients in this product which are subject to Section 313 reporting requirements.

FIFRA: All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

OSHA HAZARD COMMUNICATION STANDARD STATUS: Regulated

CERCLA REPORTABLE QUANTITY: N/A

CALIFORNIA PROP 65 STATUS: Not listed

The information herein is given in good faith, but no warranty, expressed or implied, is made.

Control Solutions, Inc. 5903 Genoa-Red Bluff Pasadena, TX 77507-1041 (281) 892-2500

EMERGENCY TELEPHONE NUMBERS: (800) 424-9300 (CHEMTREC, transportation and spills) (800) 222-1222 (Poison Control Center, human health)

Date: 03-09-07

Material Safety Data Sheet

May be used to comply with

OSHA's Hazard Communication Standard, 29 CFR 1910.1200. This Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration (Non-Mandatory Form) Form Approved OMB No. 1218-0072

	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available,
Active ingredient: Clove Oil 18%, Citric Acid 30% Inert ingredients: Mineral oil, (USP), Water, Gum Arabic	the space must be marked to indicate this.
Total other 52% Total 100%	

Section I

Manufacturer's Name: St. Gabriel Organics	Emergency Telephone Number (800) 801-0061 Toll Free	
Address: 14044 Litchfield Drive	Telephone Number for Information (540) 672-0866	
Orange, Virginia 22960	Date Revised:Revised by:November 6, 2008Cathy A. Stiles	

Section II - Physical/Chemical Characteristics

Boiling Point	Data not found	Specific Gravity (H ₂ O = 1)	1.05	
Vapor Pressure (mm		Melting Point		
Hg.)	Data not found	C	N/A	
Vapor Density (AIR = 1)	Data not found	Evaporation Rate		
		(Butyl Acetate = 1)	<1.0	
Solubility in Water				
Not soluble – forms an emulsion				
Appearance and Odor				
Appearance: Milky White Odor: Clove smell				

Section III - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Not known	Not tested	N/A	N/A
Extinguishing Media			
Foam, Carbon Dioxide, or Dry C	Chemical extinguishers		
Special Fire Fighting Procedur	es		
Self contained breathing apparatus.			
~ * * *			
Unusual Fire and Explosion Ha	zards		
NONE			
Hazardous Decomposition Pro	ducts: Acid Vapors, Car	bon Dioxide, C	Carbon Monoxide

Section IV - Reactivity Data

Stability : Reacts with organic and inorganic bases.			Conditions to Avoid : Contact with skin, eyes, or prolong inhalation. Do not ingest product.
Incompatibility: Ba	ases and caustic comp	ounds (alkaline comp	ounds)
	position or Byproduc	· •	,
Hazardous Polymerization Will not occur.			

Section V - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?		
-	Yes	YES	YES		
Health Hazards:					
Contact with this prod	uct will result in eye ir	ritation. Contact with this prod	uct will cause severe skin		
6	· ·	cant respiratory irritation. Ingest	stion of this product could		
cause burns and desiro	cause burns and destroy tissue in the mouth, throat, and digestive tract.				
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?		
	N/A	N/A	N/A		

Emergency and First Aid Procedures: Inhalation: Remove person to fresh air. Seek immediate medical assistance.

Ingestion: Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinsing mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

Skin: Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse and discard contaminated shoes.

Eyes: Immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Call a physician immediately.

Section VI - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled: Cover the contaminated surface with sodium bicarbonate or a soda ash/flaked lime mixture (50-50). Mix and add water if necessary to form a slurry. Scoop up slurry and wash site with soda ash solution. Proper mixing procedures are essential. Trained personnel should conduct this procedure. Untrained personnel should be removed from the spilled area.

Waste Disposal Method:

If Empty - Do not reuse container. Place in trash or offer for recycling if available. **If Partly Filled** – Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Precautions to be taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Keep bottle/container tightly closed and store in a cool, dry place.

Other Precautions

NA

Section VII - Control Measures

Ventilation: Product for	Local Exhaust	Special	
outdoor use only.	N/A	N/A	

Protective Gloves:	Eye Protection	
Wear Neoprene, Nitrile, or oil/solvent resistant gloves.	Wear chemical goggles when handling the product and during application.	
Other Protective Clothing or Equipment: Wear long sleeved shirt, long pants, socks and shoes.		

Section VIII - Special Precautions

Precautions to be taken in Handling and Storing: Keep container tightly closed when not in use. Store only in the original container in a cool, dry place.

The above information is believed to be correct, but does not purport to be all inclusive. This data should be used only as a guide in handling this material. BurnOut IIconcentrate/St. Gabriel Organics shall not be held liable for any damage resulting from handling or from direct contact with this product.

MSDS: Burn Out II concentrate 11/6/08

SAFETY DATA SHEET D-Fense SC

1. IDENTIFICATION

Product name: Product type: EPA Registration No.:	D-Fense SC Insecticide 53883-276
Chemical name of active ingredient(s):	Deltamethrin : [(S)-alpha-Cyano-3-phenoxybenzyl (1R)-cis-3-(2,2-dibromovinyl)-2,2- dimethylcyclopropanecarboxylate]
Manufacturer/Registrant:	Control Solutions, Inc. 5903 Genoa-Red Bluff Pasadena, TX 77507
For fire, spill, and/or leak emergencies, contact Chemtrec: For medical emergencies and health	Phone: 1-800-424-9300
and safety inquiries, contact Safety Call: Poison Control Center	Phone: 1-866-897-8050 Phone: 1-800-222-1222
	Phone: 1-800-222-1222

2. HAZARDS IDENTIFICATIONS

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Toxicity:

Exposure	Acute	Acute	Acute	Eye	Skin	Skin
Route	oral	dermal	inhalation	irritation	irritation	Sensitization
Category	NC	NC	4	NC	NC	NC

NC: Not classified

SIGNAL WORD: Caution

HAZARD STATEMENT:

- Harmful in inhaled
- Toxic to aquatic organisms,

PICTOGRAM:



PRECAUTIONARY STATEMENTS:

- Avoid breathing vapors/spray. Use only in a well-ventilated area. If inhaled: Remove victim to fresh air and keep comfortable for breathing. Call a poison center if you feel unwell.

PHYSICAL CHEMICAL HAZARDS: Do not use water-based sprays of Delta 4.75% SC in conduits, motor housings, junction boxes, switch boxes, or other electrical equipment because of possible shock hazard.

Contact Chemtrec for emergency medical treatment at 1-800-424-9300.

STORAGE AND DISPOSAL: See Section 7 and 13.

OTHER HAZARDS: See Section 11 and 12.

SAFETY DATA SHEET D-Fense SC

3. COMPOSITION/INFORMATION ON INGREDIENTS									
COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)			
Deltamethrin	52918-63-5	4.75	NE	NE	NA	IARC – 3*			
Silicon Dioxide (Crystalline Free)	112945-52-5	2	10mg/m ³ (nuisance dust)	10mg/m ³ (total dust)	NA	NA			
Xanthan Gum	11138-66-2	0.5–0.3	15mg/m ³ (total dust) (8h TWA) 5mg/ ³ (respirable) (8h TWA)	NE	NE	NA			
Propylene Glycol	57-55-6	2	NE	NE	10 mg/m ³ **	NA			

NE= Not established; NA= Not applicable

* IARC Group 3: The agent (mixture or exposure circumstance) is unclassifiable as to carcinogenicity to humans.

** WEEL: Workplace Environmental Exposure Levels

4. FIRST AID MEASURES

FIRST AID

- **IF INHALED:** Move person to fresh air.
 - If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
 - Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® (866) 897-8050 for emergency medical treatment information.

5. FIRE FIGHTING MEASURES

FLASH POINT: NA FLAMMABLE LIMITS: NA

EXTINGUISHING MEDIA: Water fog, CO₂, foam, dry chemical.

UNUSUAL FIRE & EXPLOSION HAZARDS: Pesticide fires have potential to emit hazardous decomposition products.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition. Products of combustion include oxides of carbon and nitrogen.

FIRE-FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Keep upwind. Isolate hazard area. Avoid inhalation of smoke and fumes. Use water or foam to reduce fumes. Do not touch spilled material. If possible, move containers from area. Extinguish only if flow can be stopped. Use flooding amounts of water as a fog. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors.

6. ACCIDENTAL RELEASE MEASURES

SPILL CLEANUP: In case of spill on floor or paved surfaces, sweep up and remove to chemical waste storage area until proper disposal can be made. Rinse contaminated material with water and absorb with clay granules or universal absorbent pads. Dispose of with chemical waste.
CONTAINMENT: Do not discharge waste into municipal wastewater or public storm drains. Eliminate runoff as much as possible.

7. HANDLING AND STORAGE

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

PRECAUTIONS TO BE TAKEN IN HANDLING: Avoid breathing vapors and spray mist. Wash hands thoroughly with soap after handling pesticides and before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use.

PRECAUTIONS TO BE TAKEN IN STORAGE: Mix as needed. Store in original container in a secured dry storage area. Avoid extremes in temperatures. Prevent cross-contamination with other pesticides and fertilizers. If the container is leaking and/or material is spilled, on floor or paved surfaces, absorbed on sawdust or other commercially available absorbing material, sweep up and remove to chemical waste area for your disposal. Concentrate is stable at normal storage temperatures.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

EYE PROTECTION: Protective eyewear or chemical safety glasses

SKIN PROTECTION: Long-sleeve shirt, long pants, shoes plus socks.

HAND PROTECTION: Chemical-resistant gloves.

RESPIRATOR REQUIREMENTS: None required. Use NIOSH approved air purifying respirator or filtering face piece with N or P class filter when working in non-ventilated areas.

ADDITIONAL PROTECTIVE MEASURES:

Eyre wash facility and safety shower should be available. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing 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. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE LIMITS: Refer to Section 3.

ENGINEERING CONTROLS: Use only in adequately ventilated areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White liquid ODOR: Odorless ODOR THRESHOLD: Not available pH: 6.0 FLASH POINT: Not available

DENSITY: 1.04 g/mL@20°C WATER SOLUBILITY: Not available VISCOSITY: 5,000 cps @ 6 rpm; 3,000 cps @ 12 rpm FLAMMABILITY (Solid, Gas): Not applicable UPPER/LOWER FLAMMABILITY/EXPLOSIVE LIMITS: Not available AUTO-IGNITION TEMPERATURE: Not available EXPLODABILITY: Not applicable SOLUBILITY: Not available PARTITION COEFFICIENT (n-OCTANOL/WATER): Not available VAPOR PRESSURE: Not available VAPOR DENSITY: Not available MELTING POINT/FREEZING POINT: Not applicable BOILING POINT: Not available EVAPORATION RATE: Not available DECOMPOSITION TEMPERATURE: Not available

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions. **CONDITIONS TO AVOID:** Avoid exposure to extreme temperatures. **HAZARDOUS DECOMPOSITION PRODUCTS:** May release irritating and toxic gases due to thermal decomposition. Products of combustion include oxides of carbon and nitrogen. **HAZARDOUS POLYMERIZATION:** Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES: (Data from a similar product)

ROUTES OF EXPOSURE: Inhalation, Ingestion, Eye and Skin contact.

POTENTIAL HEALTH EFFECTS:

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

EYE CONTACT: Non-irritating.

INHALATION: Harmful if inhaled.

OTHER TOXICOLOGICAL INFORMATION: (Based on Deltamethrin Technical)

CHRONIC TOXICITY/CARCINOGENICITY: General neurological symptoms were exhibited in studies with rats, mice and dogs. These symptoms included unsteadiness, abnormal gait, tremors and liquid feces. No histopathologic findings were observed except some signs of slight hepatotoxicity in mice. No Observable Effect Levels hepatotoxicity in mice. No Observable Effect Levels (NOEL's) were 1 mg/kg/day in the 2 year rat and dog studies. The NOEL for the 2-year mouse study was approximately 12 mg/kg/day. Deltamethrin was not carcinogenic in rats or mice.

NEUROTOXICITY: Deltamethrin does not inhibit acetylcholinesterase. Neurobehavioral effects including unsteadiness, excessive salivation, vomiting, liquid feces, uncoordinated movement,

tremors, spasmodic convulsions which are typically related to Central Nervous System (CNS) stimulation, were observed in some studies, The NOEL for these studies was 1 mg/kg/day or higher.

REPRODUCTIVE/DEVELOPMENTAL: No developmental effects were observed in studies with rats or rabbits in the absence of maternal toxicity. The developmental NOEL for the rat study was 3.3 mg/kg/day while the developmental NOEL for rabbits was 25 mg/kg/day. Reproduction studies with rats produced clinical signs, reduced body weight gain and mortality in parents and offspring at very high dosages. The NOEL for the parents and offspring was 80 ppm or approximately 4 to 12 mg/kg/day for adults and 18 to 44 mg/kg/day for offspring.

MUTAGENICITY: No evidence of genotoxicity was observed in a battery of in vitro and in vivo studies.

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

Propylene Glycol - In rare cases, repeated or prolong exposure to Propylene Glycol may cause central nervous system effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 2 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

The pesticide is highly toxic to bees exposed to direct treatment. Do not apply or allow it to drift to crops or weeds on which bees are actively foraging.

ECOTOXICITY INFORMATION: (Based on Deltamethrin Technical)

AVIAN TOXICITY:

Bobwhite Quail (LD_{50}) : > 2250 mg/kg Bobwhite Quail (dietary LC_{50}): > 5620 ppm Mallard Duck (dietary LC_{50}): > 8039 ppm

AQUATIC TOXICITY:

Rainbow Trout (96-Hour LC_{50}): 0.26 ppb Bluegill Sunfish (96-Hour LC_{50}) 0.17 ppb Sheepshead Minnow (96-Hour LC_{50}): 0.48ppb Chronic Toxicity-Fathead Minnow: MATC = 24 ppt Chronic Daphnia Toxicity: MATC =6.0 ppt

ENVIRONMENTAL FATE: The major routes of dissipation are soil binding and soil microbial degradation. Although soil binding is strong, it is not immediate. It appears that spray drift is the only significant route of exposure to aquatic organism. However, deltamethrin's strong binding capacity to slime, plants, sediment, etc., might rapidly prevent the availability of deltamethrin for bioconcentration in aquatic systems. Additionally, its insolubility in water will be a factor in limiting its bioconcentration as well. Deltamethrin hydrolyzes under alkaline conditions. Leaching studies indicate that Deltamethrin is immobile.

Water Solubility: <0.20 mg/l @ 25°C Hydrolytic Half-Life: 2.28-2.70 days @ pH 9.0 Photolytic Half-Life: 64-86 days (water); 9 days (soil) Soil Half-Life: 14-40 days (cropped plots); 37-69 days (bare ground) in field dissipation studies Bioconcentration Factor (BCF in bluegill sunfish): 189-3630x

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Not regulated

INTERNATIONAL TRANSPORTAION:

- **IMO (vessel):** UN3082, Environmentally Hazardous substances, liquid, n.o.s. (Deltamethrin), 9, PG III, Marine Pollutant
- IATA (air): UN3082, Environmentally Hazardous substances, liquid, n.o.s. (Deltamethrin), 9, PG III

15. REGULATORY INFORMATION

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 different from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION Harmful if inhaled. Avoid breathing vapor or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove contaminated clothing and wash before reuse.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Chronic health hazard (delayed)

Section 313: Not applicable

CERCLA RQ: Not applicable

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

CA PROPOSITION 65: Not applicable

STATE RIGHT-TO-KNOW: Propylene Glycol (CAS No. 57-55-6): MN

16. OTHER INFORMATION				
HAZARD RATINGS	NFPA	HMIS		
HEALTH:	2	1	0	MINIMAL
FLAMMABILITY:	1	0	1	SLIGHT
REACTIVITY:	0	0	2	MODERATE
			3	HIGH
			4	SEVERE
CDC DATE: 6 4 2015 Supers		an datad		2011 Changes made to all sections

SDS DATE: 6-4-2015. Supersedes version dated 4-1-2011. Changes made to all sections.

The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.



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EcoVia[™] 3-in-1 Emulsifiable Concentrate - RTU

Safety Data Sheet

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1. PRODUCT IDENTIFICATION

1.1. Product Identifiers

Product name

EcoVia[™] 3-in-1 Emulsifiable Concentrate– Diluted with water at 8 fl oz/gal

	Other Means of Ident	ification	L
	Product synonyms	:	none
1.2.	Recommended Uses/	Restrict	ions 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 busines	s 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
<u>Hazard statement(s)</u> H226	none
<u>Precautionary statement(s)</u> P210	none



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2.3. Other hazards which do not result in classification

none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Hazardous component(s) or components of note:

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



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- 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

Components with wompilee parameters				
Component	CAS-No.	Value	Control parameters	Basis
		TWA	400 ppm	NIOSH REL
Isopropyl alcohol	67-63-0	ST	500 ppm	NIO3H KEL
		TWA	400 ppm	OSHA PEL
Oils, peppermint	8006-90-4	TWA	10 mg/m ³	NIOSH REL
Butyl stearate	123-95-5	TWA	10 mg/m ³	ACGIH TLV



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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)
Flash point; Evaporation rate;	> 200 °F (93 °C) No data available
*	
Evaporation rate;	No data available
Evaporation rate; Flammability (solid, gas); Upper/lower flammability or	No data available No data available



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Relative density;	0.99 g/ml
Solubility;	Soluble in water
Partition coefficient: n- octanol/water;	No data available
Auto-ignition temperature;	No data available
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



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	No data availab	le				
	Carcinogenicit	у				
	IARC:	No component of this product presents at levels greater than or equal to 0.1% is identified as				
	ACGIH:	probable, possible or confirmed human carcinogen by 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 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 haz	ard				
	No data availab	le				
11.2.	Other information	tion				
	No data availab	le				
12. EC	COLOGICAL	INFORMATION				
12.1.	Toxicity					
	Toxicity to fish	LC50 – Danio rerio (zebrafish) – >200 mg/l (96 hr)				
	Toxicity to daph	nnia $EC50 - Daphnia magna (Water flea) - >100 mg/l (48 hr)$				

and other aquatic invertebrates 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.



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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. <u>Product Disposal:</u>

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.



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16. OTHER INFORMATION

Acronyms and abbrevi	ations 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
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

HMIS Rating		NFPA Rating
Health Hazard:	1	Health Hazard: 1
Flammability:	0	Flammability: 0
Reactivity:	0	Reactivity: 0

Preparation information

Prepared by:	Rockwell Labs Ltd
Version:	1.0
Revision Date:	May 10, 2016
Reason for revision:	none



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Safety Data Sheet

Release Date: 5/10/2016 Print Date: 5/10/2016 Version 1.0

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MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Essentria[™] IC³

COMPANY IDENTIFICATION:

Envincio LLC 501 Cascade Pointe Lane, Suite 103 Cary, NC 27513 www.envincio.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

ACTIVE INGREDIENTS	CAS NO.	% COMPOSITION
Rosemary Oil		10.0
Peppermint Oil		2.0
Geraniol		5.0
Ingredients not precisely ic	lentified are pr	oprietary or non-hazard-

ous. Values are not product specifications. **EXPOSURE LIMITS:** None established

3. PHYSICAL DATA

APPEARANCE: Clear Very Pale Yellow Liquid ODOR: Faint Minty Scent WEIGHT PER VOLUME: 0.995 g/ml

4. HAZARD IDENTIFICATION

Prolonged exposure to this product may cause dry skin, eye irritation, and drying of the nasal passages. Burning may produce toxic by-products.

State of California requires any product containing 8.5% or more of Rosemary Oil must at a minimum bear the signal word "Caution", the phrase "Keep Out of Reach of Children", appropriate precautionary language, and a requirement for protective eyewear and gloves.

5. FIRST AID

IF SWALLOWED: Rinse mouth out with water. Do not induce vomiting. Seek medical attention if feeling sick or nauseous.

IF INHALED: Move exposed person(s) to fresh air.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Wash exposed area with soap and water.

IF IN EYES: Flush with water for at least 15 minutes. Seek medical attention if irritation persists.

6. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 145°F (TCC)

FLAMMABLE LIMITS (LFL-UFL): Not tested

FIRE AND EXPLOSION HAZARDS: This product is combustible. **MEANS OF EXTINCTION:** Carbon Dioxide, Dry Chemical or Foam

FIRE FIGHTING INSTRUCTIONS: None NFPA RATING:

Health	1
Flammability	2
Reactivity	0
Other	None

7. REACTIVITY DATA

CHEMICAL STABILITY: Stable

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, smoke, fumes, and unburned hydrocarbons and terpenes.

POLYMERIZATION: Will not occur

8. SPILL OR LEAK PROCEDURES

If spilled, absorb liquid with an inert absorbent material and dispose of the empty container and absorbent material in accordance with local ordinances. Components of this product are not considered EPA hazardous wastes.

9. PERSONAL PROTECTION INFORMATION

Local exhaust ventilation is not required. If large quantities are handled indoors, ensure adequate mechanical ventilation.

RESPIRATORY PROTECTION: Not required with adequate ventilation. If ventilation is poor and large quantities are being handled, wear a properly fitted halfface or full-face air-purifying respirator which is approved for pesticides (NIOSH/MSHA in U.S.).

EYE PROTECTION: Safety glasses or chemical goggles. **GLOVES:** Wear Nitrile, Neoprene, or natural rubber gloves.



Manufactured for Envincio LLC 501 Cascade Pointe Lane, Suite 103, Cary, NC 27513 CHEMICAL SPILL, LEAK, FIRE: CHEMTREC 800-424-9300 MEDICAL EMERGENCIES ONLY: 866-257-4118

Effective Date: 5/1/2011



MATERIAL SAFETY DATA SHEET

OTHER PROTECTIVE EQUIPMENT: Long sleeve shirts, long pants, shoes, and socks.

10. HANDLING AND STORAGE

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

11. TOXICOLOGICAL INFORMATION

ORAL (rat): Not determined.

ACUTE EFFECTS FROM OVEREXPOSURE: Prolonged contact with the skin may cause irritation, and contact with the eyes may cause eye irritation. Inhalation of the vapor may cause irritation of nasal passages and/or dizziness. Ingestion of this product could result in irritation of the gastrointestinal tract, headache or nausea.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data is available.

CARCINOGENICITY:

NTP: No OSHA: No

12. ECOLOGICAL INFORMATION

While specific data regarding toxicity to fish or other aquatic organisms is not available for this product, care should always be taken to prevent pesticides from entering aquifers.

13. DISPOSAL CONSIDERATIONS

Do not reuse empty container. Triple rinse empty container then puncture container and recycle if possible. If recycling is not possible, triple rinse empty container then puncture container and dispose of container in a sanitary landfill, or incinerator, or if allowed by state and local regulations, by burning. If burned, stay out of smoke.

14. SHIPPING INFORMATION

GROUND: Not DOT regulated in available quantities (ref: CFR 49 § 173.150 (f))

AIR: Aviation Regulated Liquid, N.O.S. (contains Rosemary Oil), Class 9, UN3334, PG III

15. REGULATORY INFORMATION

SARA Title III: This product does not contain any ingredients subject to Section 313 (40 CFR 372) reporting requirements.

Envincio represents that this product is a Minimum-Risk pest control product, and qualifies for exemption from EPA registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

All information contained in this Material Safety Data Sheet is furnished free of charge and is intended for your evaluation. In our opinion the information is, as of the date of this Material Safety Data Sheet, reliable, however, it is your responsibility to determine the suitability of the information for your use. You are advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional or variable conditions or circumstances exist or because of applicable or government regulations. Therefore, you should use this information only as a supplement to other information gathered by you, and you must make independent determinations of the suitability and completeness of the information from all sources to assure both proper use of the material described herein and the safety and health of employees. Accordingly, no guarantee expressed or implied is made by Envincio LLC as to the results to be obtained based upon your use of the information, nor does Envincio LLC assume any liability arising out of your use of the information.

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH BUT NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE.

Essentria is a trademark of Envincio LLC.





SAFETY DATA SHEET

Issue Date: 10-Oct-2016

Revision Date: 10-Oct-2016

Version: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier Product Name: EPA Registration Number:	Exponent® Insecticide Synergist 1021-1511		
Other means of identification Part Code:	2332B		
Recommended use of the chemi	cal and restrictions on use:		
Recommended Use:	Insecticide.		
Details of the supplier of the safety data sheet			
Manufacturer Address:	FAX #:		
McLaughlin Gormley King Compar 8810 10th Avenue North Minneapolis, MN 55427	ny (763) 544-6437		
Telephone Number:	(800) 645-6466, or (763) 544-0341		
e-Mail Address: mgk-sds@mgk.com			
Emergency telephone numbers: 24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300 (703) 527-3887International:(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.		

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 - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2B
Skin sensitization	Category 1
Flammable liquids	Category 4

Label elements

Emergency Overview

WARNING

ī

Hazard statements

Hazard statements		
 H332 - Harmful if inhaled 		
 H320 - Causes eye irritation 		
• H317 - May cause an allergic skin react	ion	
 H400 - Very toxic to aquatic life 		
• H410 - Very toxic to aquatic life with lon	g lasting effects	
H227 - Combustible liquid	6 6	
Appearance: Clear, to light amber	Physical state: Liquid	Odor Slight - Solvent

Precautionary Statements - Prevention:

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 Wash face, hands and any exposed skin thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response:

P321 - Specific treatment (see Section 4/ First Aid).

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P363 - Wash contaminated clothing 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

P370 + P378 - In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage:

P403 + P235 - Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal:

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

Hazards not otherwise classified (HNOC):

Not applicable

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Piperonyl Butoxide (PBO)	51-03-6	91.30

*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: • No information available

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 centeror doctor for treatment advice.
Ingestion:	If swallowed, IMMEDIATELY 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 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 artificialrespiration, 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. Dry chemical. Carbon dioxide (CO2). Water spray (fog). Alcohol resistant foam.

Unsuitable extinguishing media:

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

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

Specific hazards arising from the chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition.

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.

<u>NFPA</u>	Health hazards 2	Flammability 2	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2	Flammability 2	Physical hazards 0	Personal protection X

Chronic Hazard Star Legend *:

* = Chronic Health Hazard

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:	Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.		
Environmental precautions:	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:	Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.		

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions:Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights,
electric motors and static electricity). Keep containers tightly closed in a cool,
well-ventilated place. Keep away from heat. Keep in properly labeled containers.
For more information, see product label.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Controls: Safety showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

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. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Appearance: Odor Odor threshold: Color (Gardner Scale):	Liquid Clear , to light amber Slight - Solvent No information available 1	
<u>Property:</u> pH: Melting point / freezing point: Boiling point / boiling range: Flash point:	<u>Values:</u> 5.1 No information available No information available 87.8 °C / 190.0 °F	Comment: • Method @ 5% in H ₂ O Tag Closed Cup;
Evaporation rate: Flammability (solid, gas): Upper flammability limit (UEL): Lower flammability limit (LEL): Vapor pressure: Vapor density: Specific Gravity: Water solubility: Partition coefficient; n-Octanol/ Water: Autoignition temperature: Decomposition temperature: Kinematic viscosity: Dynamic viscosity: Refractive Index:	No information available No information available 39.2 cPs @ 23.2°C. 1.4961	@ 25°C (77°F)
Other Information:		
Density: VOC Content (%):	1.052 g/cm ³ @ 20.0 °C 2	
Miscibility/ Solubility: Water: Alcohol Aromatic solvents: Petroleum distillates:	Miscible Miscible Miscible Miscible	

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

Heat, flames and sparks.

Incompatible materials:

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

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD50 Dermal LD50 Inhalation LC50 Eye contact: Skin Contact: Skin Irritation Index:	 >3,129 mg/kg (rat) >5,000 mg/kg (rabbit) >2.04 mg/L, (rat; 4 hours) Moderately irritating to the eyes. Irritation clearing in 72 hours. (rabbit). Slight irritation at 48 hours. (rabbit). 0.5
Sensitization:	Positive. (guinea pig).
Piperonyl Butoxide: Carcinogenicity/ Oncogenicity:	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: Developmental Toxicity Teratogenicity: STOT - single exposure: STOT - repeated exposure: Chronic toxicity:	No information available. No information available. No information available. No information available. No information available. Avoid repeated exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Persistence and degradability

No information available.

Bioaccumulation

No information available.

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 Shipping Information:	This material is not regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (<i>i.e.</i> , less-than 119 Gallons / 450 Liters).	
<u>Air (IATA/ ICAO)</u>	When shipping in Bulk-quantities (<i>i.e.</i> , more than 119 Gallons / 450 Liters), please contact MGK® for the proper shipping description.	
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.	
Hazard Class:	9	
Packing Group:	III	

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	
<u>Categories</u>	
Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

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 Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-1511

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

International:

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

KECL	Does not comply
PICCS	Does not comply
AICS	Complies

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 OR LAST REVISION.

Issue Date: 10-Oct-2016	Revision Date: 10-Oct-2016	Revision Note: - New SDS. - GHS - Classification.
SDS Prepared By: e-Mail Address:	<u> </u>	vitto, MGK® Chemistry Department. 2mgk.com
<u>Disclaimer:</u>	McLaughl accurate a not to beta	contained herein are based on information currently available to lin Gormley King Company and,to the best of our knowledge, are and based on sound expert opinion. Our statements herein, however, are aken as a warranty or representation for which McLaughlin Gormley King assumes legal responsibility.

End of Safety Data Sheet.

SAFETY DATA SHEET

Section 1: Identification

Product identifier:	FirstStrike [®] Soft Bait
Other identifier(s):	EPA Registration Number 7173-258
Uses or restrictions:	Rodenticide with difethialone
Manufacturer:	Liphatech, Inc. 3600 W. Elm Street, Milwaukee, WI 53209
Emergency phone:	800-351-1476 Monday - Friday 8:00 am - 4:30 pm (US Central time zone)
After hours:	Call CHEMTREC at 1-800-424-9300
Section 2. Horas	d Identification

Section 2: Hazard Identification

Hazard class: Specific Target Organ Toxicity (Single exposure), Category 2; Specific Target Organ Toxicity (Repeated exposure), Category 2 Warning: May cause damage to blood and reduce the clotting ability of blood if swallowed, inhaled or absorbed through skin. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. If exposed or if you feel unwell, call a poison control center or doctor. Dispose of container and contents according to instructions on product label. Store locked up.

Section 3: Composition / Information on Ingredients

Hazardous ingredients: Difethialone (CAS registry no. 104653-34-1) 0.0025%

Section 4: First Aid Measures

Emergency overview: This material may reduce the clotting ability of the blood and cause bleeding. Symptoms of toxicity include lethargy, loss of appetite, reduced clotting ability of blood, and bleeding. Have the product label with you when obtaining treatment advice.

If swallowed: Call a poison control center or doctor. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.

<u>If inhaled</u>: Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration and call poison control or doctor. <u>If in eyes</u>: 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.

If on skin or clothing: Take off contaminated clothing. Rinse skin with plenty of cool water for 15-20 minutes. Call a poison control center or doctor. <u>Note to Physician or Veterinarian</u>: Contains anticoagulant ingredient. For humans or animals ingesting bait and/or showing obvious poisoning symptoms (bleeding or prolonged prothrombin times), give Vitamin K₁ intramuscularly or orally. In severe cases, blood transfusions may be needed.

Section 5: Fire-fighting Measures

Extinguishing media: Use media suitable for the surrounding fire Specific fire or explosion hazards: None known

Special cautions for firefighters: Wear self-contained breathing apparatus (full facepiece) & full protective clothing. Contain runoff to prevent pollution.

Section 6: Accidental Release Measures

Precautions, PPE and Procedures: Wearing PPE as specified in Section 8, isolate and contain spill. Limit access to spill area to necessary personnel. Do not allow spilled material to enter sewers, streams or other waters. Methods and materials: Scoop up spilled material and place in a closed, labeled container for use according to label instructions or disposal.

Section 7: Handling and Storage

Precautions for safe handling: Read the entire product label before using this rodenticide. **Conditions for safe storage:** Store in original container in a cool, dry area out of reach of children, pets and domestic animals. Do not contaminate water, food or feed. Keep container tightly closed. Do not remove or destroy the product label.

Section 8: Exposure Controls / Personal Protection Established exposure limits: Not applicable Appropriate engineering controls: Special ventilation is not required for

Appropriate engineering controls: Special ventilation is not required for the normal handling and use of this product when following label instructions.

Individual protection measures: Wear long pants, shoes, socks and waterproof gloves when handling this product. Follow manufacturer's instructions for cleaning/maintaining PPE, or else wash with detergent and hot water. Keep and wash PPE separately from other laundry. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. Wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet, and change into clean clothing.

	into clean clothing.		
	Section 9: Physical and Chemical Properties		
ı	Appearance: Soft paste, blue color, raw grain odor. Odor threshold not determined. Water solubility: Negligible pH: Not applicable		
	Relative density: 1.11 g/cc Viscosity: Not applicable		
<u>2;</u>	% Volatile (volume): Not applicable Evaporation rate: Not applicable Vapor density: Not applicable Vapor pressure: Not applicable		
<u>,</u>	Boiling point: Not determined Freezing point: Not applicable		
Flash point (ASTM D92): >150 °C Autoignition temp.: Not determined Flammability: Not a flammable solid Decomposition temp.: Not determined Explosive limits - Lower limit: Not applicable; Upper limit: Not applicable Partition coefficient (n-octanol/water): Not applicable			
	Section 10: Stability and Reactivity		
	Reactivity: Not reactive, not sensitive to shock or static discharge		
	Chemical stability: Stable Hazardous reactions: None Incompatible materials: None Conditions to avoid: None		
	Hazardous decomposition products: Oxides of carbon		
	Section 11: Toxicological Information		
	Likely routes of exposure: Ingestion, skin absorption. Symptoms of toxicity: Lethargy, loss of appetite, reduced clotting ability of blood, and bleeding.		
	Eye effects/eye irritation: Mild, transient irritant Acute oral effects: LD ₅₀ (oral-rat): >5000 mg/kg		
ss	Acute inhalation effects: LC50 (rat, 4 hour): 200 mg/L (extrapolated)		
у	Acute dermal effects: LD ₅₀ (dermal-rabbit): >2000 mg/kg Skin irritation: Non-irritating		
	Skin sensitization: Not a skin sensitizer		
20	Carcinogenicity: No ingredient listed by NTP, IARC or OSHA		
en	Section 12: Ecological Information		
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 a below the mean high water mark. Carefully follow label cautions and directions to reduce hazards to children, pets and non-target wildlife.			
	Section 13: Disposal Considerations		
	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		
5	product. Consult your state or local environmental agency for disposal of waste generated other than by use according to label instructions.		
	Section 14: Transport Information		
8,	Transportation data (49 CFR): This product is not regulated as a hazardous material for all modes of transportation within the U.S. Hazard Class, Packing Group and UN ID No.: Not applicable		
	Section 15: Regulatory Information		
	TSCA: All components of this product are listed on the TSCA inventory.		
	SARA section 313: Contains no reportable components. CA Proposition 65: Contains no substances subject to Prop 65 requirements.		
ı	FIFRA: This product is registered as a pesticide with the U.S. Environmental Protection Agency. The label requirements under Federal pesticide law differ from the classification criteria and hazard information required by OSHA on this Safety Data Sheet. Read and follow all cautions, directions and use		
	restrictions on the product label on the container.		

Section 16: Other Information

Prepared by: T. Schmit Date: 1 July 2016 This Safety Data Sheet is believed to be accurate at time of publication. No warranty, expressed or implied, is made with regard to this information. This information may not be adequate for every application, and the user must determine the suitability of this information due to the manner or conditions of use or storage, or local regulation.



FUSILADE® II TURF AND ORNAMENTAL Herbicide

Date:

6/9/2015 10/17/2014 Replaces:

1. PRODUCT IDENTIFICATION

Product identifier on labe	FUSILADE® II TURF AND ORNAMENTAL Herbicide
Product No.:	A12460A
Use:	Herbicide
Manufacturer:	Syngenta Crop Protection, LLC Post Office Box 18300 Greensboro NC 27419
Manufacturer Phone:	1-800-334-9481
Emergency Phone:	1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications:	Skin Corrosion/Irritation: Category 2 Skin Sensitizer: Category 1B Reproductive Toxicity: Category 2 Specific Target Organ Toxicity: Repeated Category 2 Aspiration Hazard: Category 1 Carcinogenicity: Category 1B Inhalation: Category 2
Signal Word (OSHA):	Danger
Hazard Statements:	May be fatal if swallowed and enters airways Causes skin irritation May cause an allergic skin reaction Fatal if inhaled May cause cancer Suspected of damaging fertility or the unborn child May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



Precautionary Statements:	Obtain special instructions before use.	
	Do not handle until all safety precautions have been read and understood.	
	Do not breathe mist, vapors, spray.	
	Wash hands and face thoroughly after handling.	
	Use only outdoors or in a well-ventilated area.	



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	Contaminated work clothing must not be allowed out of the workplace.
	Wear protective gloves, protective clothing, eye protection.
	In case of inadequate ventilation wear respiratory protection. See Section 8 Exposure Control/Personal Protection.
	If inhaled: Remove person to fresh air and keep comfortable for breathing.
	If swallowed: Immediately call a poison center, doctor or Syngenta.
	If on skin: Wash with plenty of soap and water.
	If skin irritation occurs: Get medical advice.
	If skin irritation or rash occurs: Get medical advice.
	If exposed or concerned: Get medical advice/attention.
	Immediately call a poison center, doctor or Syngenta.
	Get medical advice if you feel unwell.
	Specific treatment is urgent (see Section 4 First Aid Measures).
	See Section 4 First Aid Measures.
	Do NOT induce vomiting.
	Take off contaminated clothing and wash it before reuse.
	Wash contaminated clothing before reuse.
	Store locked up.
	Dispose of contents and container in accordance with local regulations.
Other Hazard Statements:	None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Naphthalene	Naphthalene	91-20-3	Trade Secret
Petroleum Solvent	Petroleum Solvent	64742-94-5	Trade Secret
Petroleum distillates, light paraffinic	Petroleum distillates, light paraffinic	64741-89-5	Trade Secret
Other ingredients	Other ingredients	Trade Secret	75.5%
Butyl(RS)-2-[4-[[5-(trifluoromethyl)-2- pyridinyl]oxy]phenoxy]propanoate	Fluazifop-P-Butyl	79241-46-6	24.5%

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

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison contol center or doctor, or going for treatment.

Ingestion:	If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888- 8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Eye Contact:	If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
Skin Contact:	If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20



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	minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
Inhalation:	If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificia respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center o doctor for further treatment advice.
Most impor	tant symptoms/effects:
Skin irrit	ation
Allergic	skin reaction
Indication c	fimmediate medical attention and special treatment needed:
There is	no specific antidote if this product is ingested.
Treat sy	mptomatically.
Persons	suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or c steroids.
systemi	

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

syngenta

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

6/9/2015

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Naphthalene	10 ppm TWA	10 ppm TWA (skin)	10 ppm TWA	NIOSH
Petroleum Solvent	Not Established	Not Established	100 mg/m³ (15-17 ppm) TWA	Manufacturer
Petroleum distillates, light paraffinic	Not Established	Not Established	Not Established	Not Applicable
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Fluazifop-P-Butyl	Not Established	Not Established	0.5 mg/m³ TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use chemical splash goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:Dark brown liquid, free of sedimentOdor:AromaticOdor Threshold:Not AvailablepH:6.2 (1% w/w dilution in deionized water)Melting point/freezing point:Not ApplicableInitial boiling point and boiling range:Not AvailableFlash Point (Test Method):> 212°F (TCC)Flammable Limits (% in Air):Not Available



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Flamma	ability: N	lot Applicable
Vapor F	Pressure: Fluazifop-P-Buty	l 4.5 x 10(-7) mmHg @ 68°F (20°C)
Relative	0ensity: Not Available ₂ Density: 0.9807 g/ml @ 6 ty (ies): Fluazifop-P-Buty	8°F (20°C) I Almost insoluble in water (1 mg/l @ pH 5 - 6.5)
	coefficient: n-octanol/wate	
Autoign	ition Temperature: Not Ava	ailable
Decomp	oosition Temperature: No	t Available
Viscosit	y: Not Available	
Other:	None	

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: None known.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

<u>Health effects information</u> Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Skin irritation

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Skin irritation, Allergic skin reaction

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body weight
Dermal:	Dermal (LD50 Rabbit) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Animal Not Available) :	0.54 mg/l air - 4 hours
Eye Contact:	Slightly Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	See "Other Toxicity Information	n", Sec. 11



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Reproductive/Developmental Effects

Fluazifop-P-Butyl : Embryo/foetoxic effects have been reported in rats. Did not show teratogenic effects in animal experiments.

Chronic/Subchronic Toxicity Studies

Fluazifop-P-Butyl : Effects on red cells, bone marrow, liver and spleen observed in long-term high dose feeding tests in dogs. No adverse health effects are expected in humans at airborne levels below the occupational exposure limit.

Carcinogenicity

Fluazifop-P-Butyl : Did not show mutagenic effects in animal experiments. Did not show carcinogenic effects in animal experiments.

Chemical Name	NTP/IARC/OSHA Carcinogen		
Naphthalene	See "Toxicity", Sec. 11		
Petroleum Solvent	No		
Petroleum distillates, light paraffinic	No		
Other ingredients	No		
Butyl(RS)-2-[4-[[5-(trifluoromethyl)-2- pyridinyl]oxy]phenoxy]propanoate	No		

Other Toxicity Information

Repeated and/or prolonged contact may cause skin sensitization.

Toxicity of Other Components

Naphthalene

Exposure to naphthalene can cause cataracts, liver damage, kidney failure, respiratory failure, hematuria, anemia, damage to red blood cells, leukocytosis, or coma. Carcinogen Status: NTP: Anticipated Carcinogen IARC: Group 2B Possible Human Carcinogen

Other ingredients

Not Applicable

Petroleum Solvent

May cause irritation to the eyes, skin and respiratory system. Excessive inhalation causes headache, dizziness, nausea and loss of motor skills.

Petroleum distillates, light paraffinic

May cause respiratory tract irritation. Harmful if swallowed. Pulmonary aspiration hazard.

Target Organs

Active Ingredients	
Fluazifop-P-Butyl :	Blood, bone marrow, liver, spleen
Inert Ingredients	
Naphthalene:	Eye, liver, kidney, respiratory tract, blood, CNS
Other ingredients:	Not Applicable
Petroleum Solvent:	Eye, skin, respiratory system, central nervous system
Petroleum distillates, light paraffinic:	Respiratory tract



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12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Fluazifop-P-Butyl :

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 6.02 ppm

Green Algae 4-day EC50 > 1.8 ppm

Bird (Mallard Duck) 14-day LD50 > 3528 mg/kg

Environmental Fate

Fluazifop-P-Butyl:

The information presented here is for the active ingredient, fluazifop-p-butyl. Not persistent in soil or water.

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA < 300 gallons: Not regulated > 300 gallons: Proper Shipping Name: Other Regulated Substances, Liquid, N.O.S. (RQ - Naphthalene) Hazard Class: Class 9 Identification Number: NA 3082 Packing Group: PG III

Comments

Water Transport - International Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fluazifop), Marine Pollutant Hazard Class: Class 9 Identification Number: UN 3082 Packing Group: PG III

Air Transport Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fluazifop) Hazard Class: Class 9 Identification Number: UN 3082 Packing Group: PG III



6/9/2015 Date: 10/17/2014

Replaces:

15. REGULATORY INFORMATION

Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution: Harmful if absorbed through skin or inhaled. Causes eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

EPA Registration Number(s):

100-1084

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Chronic Health Hazard

Section 313 Toxic Chemicals: Naphthalene Trade Secret (CAS No. 91-20-3)

California Proposition 65:

This product contains a chemical(s) known to the state of California to cause cancer and birth defects or other reproductive harm.

CERCLA/SARA 304 Reportable Quantity (RQ):

Report product spills > 305 gal. (based on naphthalene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings		0	Minimal
Health:	2	Health:	2	1	Slight
Flammability:	1	Flammability:	1	2	Moderate
Instability:	0	Reactivity:	0	3	Serious
Syngenta Hazard Category: C,S				4	Extreme
				*	Chronic

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date:	11/25/1998			
Revision Date:	6/9/2015	Replaces:	10/17/2014	
Section(s) Revised:	2, 4, 11			

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

Scimetrics SAFETY DATA SHEET (SDS)

SECTION 1: PRODUCT AND COMPANY	Y IDENTIFICATION				
Product Name: Kaput®-D Pocket Gopher B	ait Manufac	Manufacturer: Emergency Phone N			
EPA Reg. No. 72500-9		s Ltd. Corp.	Medical: 800-858-7378		
Use: Anticoagulant Rodenticide for control			Transportation: 800-424-93	00 (CHEMTREC)	
gophers – Ready to Use		on, CO 80549			
	Ph. 970-4	82-1330			
SECTION 2: HAZARDS IDENTIFICATIO					
Classification according to Regulation OSI					
See "Section 15: Regulatory Information" for			ental Classification		
SECTION 3: COMPOSITION/INFORMA		TS			
Component	CAS No.		% by Weight		
Diphacinone (2-(diphenylacetyl)-1 <i>H</i> -indene-	1,3(2 <i>H</i>)- 82-66-6		0.005%		
dione)	1 1		00.0050/		
Other inert ingredients are proprietary and no	n-nazardous		99.995%		
SECTION 4: FIRST AID MEASURES					
Symptoms: Ingestion of excessive quantities					
Have product container or label with you whe			ng for treatment. You may als	so contact the National Poison	
Information Center at 1-800-858-7378 for em					
If swallowed: Call a poison control center or		eatment advice. Have a	person sip a glass of water if	able to swallow. Do not induce vomitin	g
unless told to do so by the poison control cent					
If on skin or clothing: Take off contaminate			1	.1 (*	
If in eyes: Hold eye open and rinse slowly an				r the first 5 minutes, then continue	
rinsing eye. If irritation persists, call a poisor	1 control center or doctor 1	mmediately for treatmo	ent advice.		
Inhalation: Not applicable Note to Physician or Veterinarian: Contain	a the ontion on lont Dinhos	inona If availanted (his motorial may reduce the al	otting shility of the blood and says	
bleeding. For humans or animals ingesting ba					
orally	an and/or showing poison	ing signs (bleeding of e	elevated proutfolliblin times), g	Ive vitanini \mathbf{K}_1 , intrainuscularly of	
SECTION 5: FIRE-FIGHTING MEASUR	FS				_
Flash Point: Not applicable.	12/5				_
Flammable Limit: Not applicable.					
Extinguishing Media: For small fires, use w	ater sprav carbon dioxide	dry chemical powder	or foam		
Special Fire Fighting Procedures: Firefight				pparatus	
Unusual Fire and Explosion Hazards: None		in protective clothing t	and son contained broading up	puluus.	
SECTION 6: ACCIDENTAL RELEASE N					
General Information: Wear gloves when ha					
Spills/Leaks: Immediately wipe up spill, place		ntainer, and hold for w	aste disposal or re-use. Wash s	spill area after material pickup is	
complete.			I	I I II	
Reference to other sections: Refer to Section	on 7, 8 and 13 for further d	etails of personal preca	autions, protective equipment a	and disposal considerations.	
SECTION 7: HANDLING AND STORAG	E	*	* * *	*	
Storage Temperature: Room temperature					
Average Shelf Life: Bait is stable for a minir	num of 1 year when stored	correctly at room tem	perature		
Special Sensitivity: Avoid exposure to exces					
Precautions in Handling and Storage: Store			sible to children, pets, and wild	llife. Avoid contamination of lakes,	
streams and ponds. Wash hands thoroughly w					
SECTION 8: EXPOSURE CONTROLS/P	ERSONAL PROTECTIO	DN			
Established Limits:			Г		_
1	SHA	ACGIH		Other Limits	_
*	ot established	Not estab	lished	Not established	
Other Protective Measures:					
Appropriate Engineering Controls: Not require	red				
Respiratory Protection: Not required					
Eye Protection: Not required					
Skin Protection: Wear long-sleeved shirt lon					
		water-proof gloves.	Wash hands thoroughly with so	pap and water after handling the bait.	_
SECTION 9: PHYSICAL AND CHEMICA	AL PROPERTIES				-
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color:	Loose grain, red color	Vapor Press	sure:	Not applicable	Ţ
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color: Odor:	AL PROPERTIES Loose grain, red color Grain-like	Vapor Press Vapor Dens	sure:	Not applicable Not applicable	
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color: Odor: Odor Threshold:	AL PROPERTIES Loose grain, red color Grain-like Not determined	Vapor Press Vapor Dens Relative De	sure:	Not applicable Not applicable 54.38 lbs/cubic foot	
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color: Odor: Odor Threshold: pH:	AL PROPERTIES Loose grain, red color Grain-like Not determined 6.87	Vapor Press Vapor Dens Relative Den Solubility:	sure: ity: nsity:	Not applicable Not applicable 54.38 lbs/cubic foot Not applicable	
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color: Odor: Odor Threshold: pH: Melting Point:	AL PROPERTIES Loose grain, red color Grain-like Not determined 6.87 Not applicable	Vapor Press Vapor Dens Relative De Solubility: Partition co	sure: ity: nsity: efficient: n-octanol/water:	Not applicable Not applicable 54.38 lbs/cubic foot Not applicable Not applicable	
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color: Odor: Odor Threshold: pH: Melting Point: Boiling Point:	AL PROPERTIES Loose grain, red color Grain-like Not determined 6.87 Not applicable Not applicable	Vapor Press Vapor Dens Relative De Solubility: Partition co Auto-Ignitic	sure: ity: nsity: efficient: n-octanol/water: on Temperature:	Not applicable Not applicable 54.38 lbs/cubic foot Not applicable Not applicable Not applicable Not applicable	
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color: Odor: Odor Threshold: pH: Melting Point: Boiling Point: Flash Point:	AL PROPERTIES Loose grain, red color Grain-like Not determined 6.87 Not applicable Not applicable Not applicable	Vapor Press Vapor Dens Relative De Solubility: Partition co Auto-Ignitic Decomposit	sure: ity: nsity: efficient: n-octanol/water:	Not applicable Not applicable 54.38 lbs/cubic foot Not applicable Not determined	
SECTION 9: PHYSICAL AND CHEMICA Appearance/Color: Odor: Odor Threshold: pH: Melting Point: Boiling Point:	AL PROPERTIES Loose grain, red color Grain-like Not determined 6.87 Not applicable Not applicable	Vapor Press Vapor Dens Relative De Solubility: Partition co Auto-Ignitic	sure: ity: nsity: efficient: n-octanol/water: on Temperature:	Not applicable Not applicable 54.38 lbs/cubic foot Not applicable Not applicable Not applicable Not applicable	

Scimetrics

SAFETY DATA SHEET (SDS)

SECTION 10: STABILI	TV AND REACTIVITY				
Reactivity:	Not reactive				
Chemical Stability:		normal use and storage c	onditions		
Possibility of hazardous		U	onditions		
Conditions to Avoid:		ne temperatures			
Incompatible Materials:		ly alkaline materials			
	on Products: None known				
	LOGICAL INFORMAT				
Likely routes of exposur					
Symptoms of Exposure:	Reduced blood clotting ab	ility. Please refer to Sect	ion 4.		
LD50 Oral Ingestion: >5		· · · · · · · · · · · · · · · · · · ·			
LD50 Dermal (Skin Con					
LC50 Inhalation: N/A	8 8 ()				
Dermal Sensitization: No	ot Considered a Sensitizer				
Skin Irritation: Non-Irrit	ating				
Eye Irritation: Minimally	/ Irritating				
Carcinogenicity: Contain	ns no components known to	have a carcinogenetic ef	fect		
Component	NTP		IARC	OSHA	
Diphacinone	Not listed		Not listed	Not listed	
	GICAL INFORMATION				
		ats and other predatory ar	d scavenging mammal	and birds might be poisoned if they fe	ed upon animals that
				tertidal areas below the mean high wate	
	isposing of equipment was		1		
	bility: Diphacinone is bio				
Bioaccumulative Potenti		-			
Mobility in Soil: Not dete	ermined				
Other adverse effects: N	lone				
SECTION 13. DISPOSA	L CONSIDERATIONS				
Do not contaminate water	, food or feed by storage or	disposal.			
Pesticide Storage: Store	only in original container i	n a cool, dry place inacc	essible to children and	pets. Keep containers closed and awa	y from other chemicals.
	y and dispose of as indicat				•
Pesticide Disposal: Waste	es resulting from the use of	this product may be place	ed in trash or delivered	to an approved waste disposal facility.	
				ing or reconditioning; or puncture and	dispose of in a sanitary
landfill or by incineration.					
SECTION 14. TRANSP	ORTATION INFORMAT	TION			
UN Number: Not regulat	ed				
UN Proper Shipping Nat	ne: Not regulated				
Transport Hazard Class	: Not hazardous				
Packing Group Number	Not regulated				
Environmental Hazards	for DOT Road/Rail, DOT	Maritime, DOT Air: N	ot considered hazardou	s for transportation via road/rail, vessel	or air
	TL Class 55, 70 or 92 (dep	ending on packaging type)		
	TORY INFORMATION				
This product is subject to	EPA FIFRA regulations. T	his pesticide product is re	gulated by the United	States Environmental Protection Agency	y and is subject to
certain labeling requireme	nts under federal pesticide	law. These requirements	differ from the classifi	cation criteria and hazard information re-	equired for Safety Data
Sheets (SDS), and for wor	kplace labels of non-pestic	ide chemicals. The safety	, health, environmenta	and hazard information required on the	e pesticide is listed
below:					
Signal Word: CAUTION	1				
Precautionary Statemen					
		gh the skin. Causes mode	rate eye irritation. Avoi	d contact with eyes, skin, or clothing. I	Keep away from
children, domestic animal	s and pets.				
EPA Reg. No. 72500-9					
	om TSCA, subject to FIFRA	ł			
SECTION 16. OTHER I	NFORMATION				
NFPA Hazard Rating		HMIS Hazard Ratio	1g		
Health	1	Health	1	0 = Minimal	
Flammability	0	Flammability	0	1 = Slight	
Instability	0	Reactivity	0	2 = Moderate	
				3 = Serious	
				4 = Extreme	
-				•	
Disclaimer: Information	provided in this Safety Data	Sheet has been obtained	from sources believed	to be correct to the best of our knowled	ge but is not all
				to be correct to the best of our knowledging resulting from handling or from con	
inclusive and shall only be	e used as a guide. Scimetric	s Ltd. Corp. shall not be l	held liable for any dama		ntact with the above

Date created: May 30, 2015
MATERIAL SAFETY DATA SHEET

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200, the EU Directive, 91/155/EEC and other regulatory requirements.

1. Company and Product Identification

Product: Matran[™] EC (DR-E-041)

EcoSMART Technologies, Inc.

Emergency Telephone Number InfoTrac Chemical Response System (800) 535-5053 (24 hours)

Manufacturer: 318 Seaboard Lane, Suite 208 Franklin, TN 37067

For General Information: (888) 326-7233 (8 am to 4 pm CST)

	2. Ingredients		
Ingredient Name Active Ingredients:	<u>% by weight</u>	CAS #	Exposure Limits
Clove Oil Inert Ingredients:	50.0%	8000-34-8	None established
Emulsifiers and solvents	to 100%		None established

3. Hazards Identification

Overview: Clear amber liquid with a clove scent.

Potential Health Effects: Prolonged exposure to this product may cause skin irritation, eye/nasal irritation, dizziness, headache or nausea

State of California requires any exempt pesticide product containing 8.5% or more of Clove Oil must at a minimum bear the signal word "CAUTION", the phrase "Keep Out of Reach of Children", appropriate precautionary language, and a requirement for protective eyewear and gloves.

4. First Aid Measures

Eyes:	Flush with water for at least 15 minutes. Remove contact lenses, if present, after the first
	5 minutes, then continue rinsing eye. Call a physician if irritation persists.
Skin:	Wash exposed area with soap and water for at least 15 minutes. Remove contaminated
	clothing. Get medical attention if irritation persists.
Inhalation:	Remove person to fresh air. If not breathing, give artificial respiration, preferably mouth-
	to-mouth. Get medical attention.
Ingestion:	Rinse mouth out with water. Obtain medical attention as soon as possible. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

5. Fire Fighting Measures

Flashpoint:	>190°F (Closed Cup)
Flammable Limits:	Not tested

Extinguishing Media:	Use	Foam,	Carbon	Dioxide,	or	Dry	Chemical
		guishers.					
Fire and Explosion Hazards:	None	!					
Special Fire Fighting Procedures:	None	1					
Hazardous Decomposition Products:			,	monoxide, and terpen		ke, fun	nes, and

6. Spill/Leak Procedures

If spilled, absorb liquid with an inert absorbent material and dispose of the empty container and absorbent material in accordance with local ordinances. Components of this product are not considered EPA hazardous wastes.

7. Handling and Storage

Store in a cool, dry place. Do not allow to freeze. Do not smoke or eat in the product handling area. Keep out of the reach of children and animals.

8. Exposure Control/Personal Protection

Ventilation:	Local exhaust ventilation is not required. If large quantities are handled indoors, ensure adequate mechanical ventilation.
Respiratory Protection:	
Eye Protection:	Safety glasses or chemical goggles.
Gloves:	Wear chemical resistant gloves such as Nitrile, Neoprene, or natural rubber gloves.
Other Protective equipment:	•

9. Physical Properties

Appearance: Pale amber liquid	Specific Gravity (water =1): 1.06 ± 0.02
Odor: Clove scent	

10. Stability and Reactivity

Chemical Stability:Stable

Hazardous Polymerization:...... Will not occur

11. Toxicological Information

Rat Acute Oral:	Not Determined							
Rate Dermal:	Not Determined							
Acute effects from Overexposure:	Components of this product have low oral and derma						dermal	
-	toxicity.	Prolonged	contact	with	the	skin	may	cause

12. Environmental Information

While specific data regarding toxicity to fish or other aquatic organisms is not available for this product, care should always be taken to prevent pesticides from entering aquifers.

13. Disposal

Do not reuse empty container. Triple rinse empty container then puncture container and recycle if possible. If recycling is not possible, triple rinse empty container then puncture container and dispose of container in a sanitary landfill, or incinerator, or if allowed by state and local regulations, by burning. If burned, stay out of smoke.

14. Transportation Information

Ground: Not DOT regulated.

Reportable Quantity: A Reportable Quantity (RQ) has not been established for this material.

15. Regulatory Information

NFPA Ratings:	Health - 1	Fire - 2	Reactivity - 0	Special - none
SARA Title III:	This product d 372) reporting		any ingredients subject	to Section 313 (40 CFR

State of California requires any exempt pesticide product containing 8.5% or more of Clove Oil must at a minimum bear the signal word "Caution", the phrase "Keep Out of Reach of Children", appropriate precautionary language, and a requirement for protective eyewear and gloves.



Date Issued : 6/12/2014 MSDS No : NyGuard® IGR Date-Revised : 6/11/2014 Revision No : 1

NyGuard® IGR Concentrate

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NyGuard® IGR Concentrate **PRODUCT DESCRIPTION:** An Emulsifiable Insecticide Concentrate with Insect Growth Regulator. **PRODUCT CODE:** 2482A, EPA REG. NO. : 1021-1603 **ACTIVE INGREDIENT(S):** NYLAR® (Pyriproxyfen)

MANUFACTURER

McLaughlin Gormley King Company 8810 10th Avenue North Minneapolis, MN 55427 Emergency Contact: SafetyCall® Emergency Phone: 1(888) 740-8712 Alternate Emergency Phone: 1(952) 852-9509 Product Stewardship: 1(800) 645-6466 E-Mail: mgk-sds@mgk.com 24 HR. EMERGENCY TELEPHONE NUMBERS FOR TRANSPORTATION: CHEMTREC[®] U.S. and CANADA:1(800) 424-9300 CHEMTREC[®] All Other Areas:1(703) 527-3887

COMMENTS: MGK® Hours of operation are 8:00 am to 4:30 pm CST, 14:00 to 22:30 GMT.

For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to 1-888-740-8712 or 1-952-852-9509 outside of the U.S.A.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 2 Eye Irritation, Category 2B Acute Toxicity (Inhalation), Category 5 Acute Toxicity (Oral), Category 5

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

GHS LABEL

Exclamation mark (GHS 07)

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H315: Causes skin irritation. H320: Causes eye irritation. H333: May be harmful if inhaled. H303: May be harmful if swallowed.



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NyGuard® IGR Concentrate

H400: Very toxic to aquatic life.

PRECAUTIONARY STATEMENT(S)

Prevention:

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P270: Do no eat, drink, or smoke when using this product.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:

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

COMMENTS: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard [29 CFR 1910.1200(a)(1)], and the G.H.S.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
NYLAR® (Pyriproxyfen)	10	95737-68-1

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

4. FIRST AID MEASURES

- **EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- SKIN: 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. 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 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.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: This product is NOT classified as flammable or combustible by OSHA.

EXTINGUISHING MEDIA: Foam, carbon dioxide or dry chemical.



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NyGuard® IGR Concentrate

HAZARDOUS COMBUSTION PRODUCTS: This product is classified as Non-Combustible, however in the extreme temperatures that fires may produce, some of the constituents of this formula may decompose to give off such gases as carbon dioxide, carbon monoxide, and nitrogen oxides.

FIRE FIGHTING PROCEDURES: Treat as an oil fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. Absorb with appropriate absorbent such as sand, or vermiculite. Clean spill area of residues and absorbent.

LARGE SPILL: Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. Collect product into drums, storage tanks, etc., via drains, pumps, etc. Absorb with appropriate absorbent such as sand or vermiculite. Clean spill area of residues and absorbent.

GENERAL PROCEDURES: Contaminated absorbent and wash water should be disposed of according to local state/provincial and federal/national regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: DO NOT APPLY THIS PRODUCT IN OR ON ELECTRICAL EQUIPMENT DUE TO THE POSSIBILITY OF SHOCK HAZARD.

HANDLING: Take prudent precautions to avoid contact with skin, eyes, and clothing. Do not contaminate water, food or feedstuffs, by storage, handling, or by disposal.

READ AND OBSERVE ALL PRECAUTIONS AND INSTRUCTIONS ON THE PRODUCT LABEL.

STORAGE: Store in a cool, dry place. Keep container closed. Always store pesticides in the original container. Store away from food and pet-food.

KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
			OSHA PEL ACGIH TLV Supp			Suppli	erOEL
Chemical Name		ppm	mg/m ³	ppm	mg/m³	ppm	mg/m³
NYLAR® (Pyriproxyfen)	(Pyriproxyfen) TWA					None	

ENGINEERING CONTROLS: Ventilate treatment area thoroughly before re-entry.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Take prudent precautions to avoid contact with eyes.

SKIN: Take prudent precautions to avoid contact with skin and clothing.

WORK HYGIENIC PRACTICES: DO NOT SMOKE, EAT, OR DRINK, OR APPLY COSMETICS IN WORK AREA!



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NyGuard® IGR Concentrate

Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking, or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid ODOR: Sweet surfactant odor. APPEARANCE: Yellow to amber oily liquid. COLOR: 3.0 on Gardner Scale. pH: 5 Notes: @ 10% in water. FLASHPOINT AND METHOD: > 93.3 ℃ (200 °F) TAG Closed Cup VAPOR DENSITY: Heavier than air. FREEZING POINT: Not Available SOLUBILITY IN WATER: Partially miscible in water. SPECIFIC GRAVITY: 0.939 (Water = 1) at 20 ℃ (68 °F) VISCOSITY #1: 28 CPS at 22 ℃ (71.6 °F) Brookfield (VOC): 0 %

10. STABILITY AND REACTIVITY

STABLE: Yes **HAZARDOUS POLYMERIZATION:** No **CONDITIONS TO AVOID:** Not compatible with strong acids or bases. Not compatible with strong oxidizers.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: > 5000 mg/kg

Notes: Albino rabbit.

ORAL LD₅₀: > 5000 mg/kg

Notes: Albino rat.

INHALATION LC₅₀: > 5.05 mg/L

Notes: Rats exposed for 4 hours to test atmosphere. The Acute Inhalation LC₅₀ of this material places it in EPA Toxic Category IV.

EYE EFFECTS: Irritation clearing by Day 4.

SKIN EFFECTS: Slight irritation at 72 hours. Irritation Index = 2.5

SENSITIZATION: Negative; Not considered to be a dermal sensitizer to albino guinea pigs.

GENERAL COMMENTS: Some or all of the toxicity data reported above was bridged from a substantially similar formula.

COMMENTS: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as being carcinogens.



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12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: This product is toxic to fish and aquatic invertebrates. 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, wash water, or rinsate. See the "Directions for Use" on the product label for additional precautions and requirements.

13. DISPOSAL CONSIDERATIONS

EMPTY CONTAINER: Non-refillable container. DO NOT reuse or refill this container.

Triple-rinse container (or equivalent) promptly after emptying. Then, offer for recycling if available, or puncture and dispose of container in a sanitary landfill.

Triple-rinse as follows for containers less than < 5 gallons (< 18.9 L) or less: 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 re-cap. 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.

Triple-rinse as follows for containers greater than > 5 gallons (> 18.9 L): Empty the remaining contents into application equipment or a mix-tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it 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.

RCRA/EPA WASTE INFORMATION: None of the ingredients in this product appear on the RCRA lists (40 CFR 261.24, 40CFR 251.33) or CERCLA Hazardous Substance list (40 CFR Part 302 Table 302.4)

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

OTHER SHIPPING INFORMATION: This material is considered to be NON-HAZARDOUS by DOT regulations.

AIR (ICAO/IATA)

SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

NOTE: Not considered hazardous by IATA/ ICAO regulations for transportation via air.

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Available

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes

313 REPORTABLE INGREDIENTS: This product contains no SARA Title III Section 313 chemicals that exceed the reporting



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limits.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: There are no SARA Title III Section 302 extremely hazardous substances present in this formulation (40 CFR 355).

There are no components that are subject to emergency requirements under CERCLA Section 103(a)(40 CFR 302.4) in this formulation.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All chemical substances found in this product comply with the Toxic Substances Control Act's inventory reporting requirements.

REGULATIONS

STATE REGULATIONS: VOLATILE ORGANIC COMPOUNDS (VOC):

This product contains no VOC's (0%).

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT):

NOTE: 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, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

CAUTION. Causes moderate eye irritation. Do not induce vomiting because of aspiration pneumonia hazard. Avoid contact with skin, eyes, and clothing.

PHYSICAL OR CHEMICAL HAZARDS: Do not use this product in or on electrical equipment due to the possibility of shock hazard.

16. OTHER INFORMATION

REVISION SUMMARY: This MSDS replaces the 6/11/2014 MSDS. Revised: **Section 9:** APPEARANCE, COLOR, FLASHPOINT AND METHOD, ODOR, pH, SPECIFIC GRAVITY, VISCOSITY #1, (VOC). **Section 11:** ACUTE (DERMAL LD₅₀ (rabbit), ORAL LD₅₀ (rat), INHALATION LC₅₀ (rat)), EYE EFFECTS, SKIN EFFECTS. **Section 15:** STATE REGULATIONS.



HMIS RATINGS NOTES: We assign HMIS ratings to this product based on the hazards of its ingredients(s). Since the customer is most aware of the applications and conditions of use, he or she must ensure that the proper Personal Protective Equipment is provided, consistent with the information contained in Section's 2, 7, and 8 of this MSDS.

COMMENTS: The data contained herein are based on information currently available to McLaughlin Gormley King Company and, to the best of our knowledge, are accurate and based on sound expert opinion. Our statements herein, however, are not to be taken as a warranty or representation for which McLaughlin Gormley King Company assumes legal responsibility.



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NyGuard® IGR Concentrate

MSDS Prepared by T. Azzivitto



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Formulator: Gowan Company P.O. Box 5569 Yuma, Arizona 85366-5569 (800) 883-1844		Emergency Phone: For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC [®] :		(928) 783-3803 Inside the U.S.: (800) 424-9300 Outside the U.S.: (703) 527-3887		
			For MEDICAL Emer	gency:	(888) 478-0798	
Product:		Sedgeham	mer [®] + Turf Herbi	cide		
EPA Signal	Word:	Caution		EPA Regis	tration No.:	81880-24-10163
Active Ingr	edient:	Halosulfuron	methyl (5.0%)	CAS No.:		100784-20-1
Chemical N	lame:	Methyl 3-chlo carboxylate(ro-5-(4,6-dimethoxypy IUPAC)	rimidin-2-ylcarb	amoylsulfamoyl)-	1-methylpyrazole-4-
Chemical C	class:	Sulfonylurea				

2. Hazards Identification

Physical Properties

Appearance: Off-white to light tan granule Odor: Practically odorless

Medical Conditions Likely to be Aggravated by Exposure

CAUSES MODERATE EYE IRRITATION. Avoid contact with eyes or clothing.

Hazardous Decomposition Products

None known

Unusual Fire, Explosion, and Reactivity Hazards

None known

3. Composition/Information On Ingredients

INGREDIENT NAME	CAS No.	OSHA – PEL	ACGIH – TLV	NTP/IARC/OSHA CARCINOGEN
Halosulfuron methyl (5.0%)	100784-20-1	None	None	No

Only the identities of the active ingredient(s) and any *hazardous* inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

4. First Aid Measures

FIRST AID			
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes.		
 Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. 			
Call poison control center or physician for treatment advice.			
Have the product container or label with you when calling a poison control center or physician, or going for treatment.			
FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-888-478-0798.			
This product is identified as SEDGEHAMMER, EPA Reg. No. 81880-24-10163			

5. Fire Fighting Measures

Flash Point

This material is not combustible as tested by the Tag Closed Cup Test.

Auto Ignition Temperature

Not determined.

Appropriate Extinguishing Media

In case of fire, use water (flood with water), dry chemical, CO₂, or alcohol foam

Special Fire Fighting Procedures

Firefighters and others that may be exposed to vapors, mists, dusts, or products of combustion should wear full protective clothing and self-contained breathing apparatus. Equipment should be thoroughly cleaned after use.

Unusual Fire or Explosion Hazards

None known

6. Accidental Release Measures

In Case of Spills or Leaks

Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment described in Section 8. Sweep up spill, scoop or vacuum and remove. Flush residual spill area with water. Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush residual spill area with water. Refer to Section 13 for disposal information and Section 15 for reportable quantity information.

7. Handling and Storage

Users should:

• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

• Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

PESTICIDE STORAGE: Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Store under cool, dry conditions (below 120°F). Do not store under moist conditions.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

8. Exposure Controls/Personal Protection

Personal Protective Equipment:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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

ENGINEERING CONTROLS STATEMENTS: When handlers use closed systems, or enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Physical and Chemical Properties

Appearance: Off-white to light tan granule Odor: Practically odorless pH: 4.86 Density: 0.642 g/mL

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. Stability and Reactivity

Stability: This product should be stable for at least two years under normal conditions of warehouse storage. Store in a cool, well-ventilated place away from foodstuffs, reducing agents and acids.

Hazardous decomposition products: None known.

Hazardous polymerization: Will not occur.

Incompatibility with other materials: None.

Conditions to avoid: Store under cool, dry conditions (below 120°F). Do not store under moist conditons.

11. Toxicological Information

Oral LD ₅₀ (Rat):	>5,000 mg/kg
Dermal LD ₅₀ (Rat):	>5,000 mg/kg
Acute Inhalation (Rat, 4-hr):	>2.05 mg/l
Eye Irritation (Rabbit):	Moderately irritating
Dermal Sensitization (Guinea Pig):	Sedgehammer+ is not considered a dermal sensitizer in guinea pigs.

Halosulfuron-methyl, the active herbicidal ingredient in Sedgehammer herbicide, is considered to be practically nontoxic orally or by inhalation and no more than slightly toxic dermally. It is slightly irritating to eyes and essentially nonirritating to the skin. Halosulfuron-methyl did not produce skin allergy in the guinea pig.

12. Ecological Information

Ecotoxicity data shown is for the active ingredient, halosulfuron-methyl.

48-hr EC50 Daphnia magna: >107 mg/L; practically nontoxic.
96-hr LC50 Bluegill sunfish: >118 mg/L; practically nontoxic.
96-hr LC50 Rainbow trout: >131 mg/L; practically nontoxic.
5-day EC50 Algae (Selenastrum capricornutum): 0.0041/L; very highly toxic.

13. Disposal Considerations

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

DISPOSAL AUTHORITIES: If none of the foregoing procedures is permitted by state and local authorities, then contact your State Pesticide or Environmental control Agency, or your local Hazardous Waste Disposal office, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

14. Transport Information

DOT Classification Not Regulated International Maritime Organization Not Regulated International Civil Aviation Organization Not Regulated

15. Regulatory Information

SARA Title III Classification

Section 302/304: Section 311/312: Not applicable Immediate (acute) health hazard Delayed (chronic) health hazard Not applicable

Section 313 chemical(s):

Proposition 65 Not Applicable

CERCLA Reportable Quantitiy (RQ)

None

RCRA Classification

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA Status

Exempt from TSCA

16. Other Information

NFPA Hazard Ratings

J.			
Health:	1	0 Least	
Flammability:	0	1 Slight	
Reactivity:	0	2 Moderate	
-		3 High	
		4 Severe	

Notice: The information and recommendations contained herein are provided in good faith and are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.

Prepared By:

Gowan Company (883) 883-1844

Sedgehammer® is a registered trademark of Gowan Company, LLC

Revision Date: June 10,1998	MAIENAL SAFELI DALA SHEEL		
Product Name:	Scythe [®] Herbicide	Contact:	Mycogen Corporation
Common Synonyms: Mycogen Code U.S. EPA Registration Number:	Scythe MYX 6121 53219 - 7		5501 Oberlin Drive San Diego, CA 92121 1-800-745-7476
Primary Hazards:	Eye and Skin Irritant	Emergency Telephone:	1-800-228-5635
SECTION 1 - MATERIAL IDENTIFICATION INGREDIENT 1 Common Name: Chemical Name: Molecular Formula: CAS Number Dercent:	Pelargonic acid Nonanoic acid C9H18O2 112-05-0	<u>SECTION 4 - REACTIVITY</u> Stability: Hazardous Polymerization: Materials to Avoid: Hazardous Decomposition Products	Stable None likely Oxidizing agents Decomposition may produce carbon dioxide and carbon monoxide.
INGREDIENT 2 Common Name: Chemical Name:	Paraffinic petroleum oil	<u>SECTION 5 - HEALTH HAZARD</u> Primary Route of Entry: Exposure Limit: Corrosivity:	
Molecular Formula: CAS Number Percent:	64741-88-4 30%	Skin/Eye Irritation: Sensitization:	potentially degrade concrete and loosen paint from painted metal surfaces. Moderate skin and eye irritant Not tested
SECTION 2 - PHYSICAL DATA Appearance: Odor: Boiling Point: Melting Point: Vapor Pressure: Specific Gravity: Solubility in Water: PH:	Colorless to faint yellow liquid Wax-like odor 230 - 237°C (atmospheric pressure) 12.5°C 20 mm Hg @ 153°C 0.900 Emulsifiable in water 3.75 (1% solution in distilled water)	Effects of Overexposure: Toxicity: Dermal LD50 (Rabbit) Inhalation LC50 (Rat) Dermal Irritation (Rat) Eye Irritation (Rabbit) Skin Sensitization (G. Pig)	
SECTION 3 FIRE AND EXPLOSION DATA Flash Point: Method: Extinguishing Media:	>200°F (not flammable) Pensky Martin closed cup Use water spray, dry chemical, foam or carbon dioxide.	<u>SECTION 6 - FIRST AID</u> If swallowed:	Emergency First Aid Procedures: Call a doctor or get medical attention. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, eggwhites, gelatin solution, or if these are not
Procedures: Unusual Fire and Explosion	Wear self-contained breathing apparatus when fire fighting in confined area.	If on skin:	available, drink large quantities of water. Avoid alcohol. Wash with plenty of soap and water. Get medical attention if irritation persists.
Hazards:	Foam or water can cause frothing.	If in eyes:	Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention if irritation persists.
		Note to Physician:	Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

MATERIAL SAFETY DATA SHEET

Scythe® MSDS: Page 1 of 2

Scythe® MSDS: Page 2 of 2

SECTION 7 - SPILL, LEAK AND DISPOSAL PROCEDURES Steps To Be Taken In Case Material Is Released Or Spilled:

Do not breath vapor. Do not handle in confined spaces without adequate ventilation. If inadequate use suitable respirator. Avoid contact with skin and eyes.

Contain leaking liquid with sand, earth or other absorbant and place in a clean container for disposal.

Waste Disposal Method:

Waste, including spills or rinsates, and leftover pesticide that cannot be used according to label instructions must be disposed of according to applicable federal, state, and local procedures.

Wear long-sleeved shirt and long pants, and shoes plus socks. SECTION 8 - SPECIAL HANDLING Clothing:

Ensure good ventilation. Specific respiratory protection should not be necessary. Respiratory Protection:

Wear chemical resistant gloves such as Barrier Laminate, nitrile rubber or neoprene rubber. Protective Gloves:

Protective eyewear such as chemical safety goggles should be worn

Eye Protection:

Although general guidance has been provided, the degree of protection required in a particular situation depends on factors such as concentration and duration. More detailed advice on protective devices is available from Mycogen.

Wash hands and exposed skin before eating, drinking, or smoking and after SECTION 9 - SPECIAL PRECAUTIONS Precautions To Be Taken In Handling And Storing: Keep in original container, tightly closed in a safe place. Remove any heavily contaminated clothing immediately. Wash any contamination from skin or eyes immediately. Empty container completely and dispose of safely. working with product.

Environmental Hazards: Do not apply directly to water or wetlands. Do not contaminate water by disposal of equipment washwaters.

SECTION 10 - SHIPPING REGULATIONS DOT Shipping Name: DOT Hazard Class/1.D. No.: Freicht Classification:

None Compounds Tree or Weed None None

Killing, Herbicides, N.O.I. NMFC 50320. Class 60

No	No No	No	No	ting:	-	-	0
SARA Title III Hazard Classification: Immediate (acute) Health:	Delayed (chronic) Health: Fire:	Sudden Release of Pressure:	Reactive:	National Fire Protection Association Rating:	Health:	Flammability:	Reactivity:

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

MYCOGEN CORPORATION

Scythe® is a registered trademark of the Mycogen Corporation

Material Safety Data Sheet

Product Name: SPEED ZONE Broadleaf Herbicide for Turf

MSDS No.: 654-6 Vers		ersion No.:	001					EPA R	egistration N	o.: 2217-83
1. Basic In	formation:									
Manufacturer: Address: City, State Zip: Information Co		& Safety Dept.			TPA alth	Fire 1	Read	ivity	2 Healt 1 Flamm	n nability
Information Tel Emergency Cor	ephone Number: (816)421-4070 ntact: Chemtrec				\searrow		\checkmark		0 React	ivity
	ephone Number: (800)424-9300					Specia			B Pers.	Protection
Last Update:	10/5/2001					~				
Chemical State: Chemical Type: 2. Ingredie	Pure X Mixture	Solid								
Trade Secre			EHS		IARC		SARA 313	OSHA	ACGIH	Other
CAS No.	Chemical Name	% Range		NŢP		SUB Z		PEL	TLV	Limits
1928434	2,4-Dichlorophenoxyacetic acid, isooctyl (2-ethylhexyl) ester	28.57%	Ν	Ν	Y	Ν	Υ	NI	NI	NI
1918009	3,6-Dichloro-o-anisic acid (Dicamba)	1.71%	Ν	Ν	Ν	Ν	Y	NI	NI	NI
128639021	Carfentrazone-ethyl	0.62%	Ν	Ν	N	N	Ν	NI	NI	NI
16484778	R(+)2(2-Methyl-4-chlorophenoxy) propionic acid (MCPP)	5.88%	Ν	Ν	Y	Ν	Ν	NI	NI	NI
3. Hazarda	ous Identification:]			F	irst A	id Me	asures (Continued)	

Hazard Catagory:

X Acute X Chronic Fire

Pressure Reactive

Hazardous Identification Information:

The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in its Group 2B (limited evidence for carcinogenicity in humans.) The US EPA has given the chlorophenoxy herbicides 2,4-D, 2,4-DP, MCPP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.) More current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2.4-D toxicology has concluded that 2,4-D is not a carcinogen.

4. First Aid Measures:

Route(s) of Entry: Skin contact, Inhalation, Ingestion.

Health Hazards (Acute and Chronic): EYES: Moderately irritating to eyes.

SKIN: Moderately irritating to the skin.

INHALATION: Moderately irritating to the mucous membranes. Inhalation of sprays may cause burning sensations in the respiratory tract, resulting in coughing.

INGESTION: May cause vomiting, with pain in the chest and abdomen, and diarrhea.

Signs and Symptoms:

Inhalation may cause burning in the chest, with coughing. Prolonged inhalation sometimes causes dizziness. Ingestion usually leads to vomiting. Pain in the chest and abdomen, and diarrhea may follow. Headache, mental confusion, and bizarre behavior are early

manifestations of severe poisoning, which may progress to unconsciousness.

Medical Conditions Generally Aggravated by Exposure:

Individuals with chronic skin disease or known sensitivity to chlorophenoxy compounds should either avoid using them or take strict precautions to avoid contact. (respirator, gloves, etc.)

Emergency First Aid Procedure:

If swallowed:

- · Call a poison control center or doctor immediately for treatment advice.
- Do not induce vomiting unless told to by a poison control center or

doctor.

- · Do not give any liquid to the person.
- · Do not give anything by mouth to an unconscious person.

If in eves:

· 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

· Call a poison control center or doctor for treatment advice.

If on skin:

- · Take off contaminated clothing.
- · Rinse skin immediately with plenty of water for 15 20 minutes.
- · Call a poison control center or doctor for treatment advice.

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 treatment advice.

Other Health Warnings:

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may

Material Safety Data Sheet

Product Name: SPEED ZONE Broadleaf Herbicide for Turf

MSDS No.: 654-6

Version No.: 001

Pensky Martens CC

EPA Registration No.: 2217-833

First Aid Measures (Continued)

F.P. Method:

cause aspiration pneumonia.

5. Fire Fighting Measures:

Flash Point: >200°F

Lower Explosive Limit: NI Upper Explosive Limit: NI

Upper Explosive Limit: NI

Fire Extinguishing Media: Foam, CO2, dry chemical.

Special Fire Fighting Procedures:

Wear positive-pressure breathing apparatus and full protective clothing. Fight fire from maximum distance. Stay up-wind and out of low areas.

Unusual Fire and Explosion:

Fire fighting precautions would be the same as those used for any petroleum based oil product. Runoff from fire control area or dilution water may cause pollution. If surface water is contaminated, contact local authorities.

6. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:

Do not touch spilled material. See Section 8 for Personal Protective Equipment. Contain and absorb spilled material on Dri-Rite, sand or other inert absorbent. Collect into drums; cover and label for disposal. Flush area with water if possible.

7. Handling and Storage:

Precautions to be Taken:

Do not contaminate water, food, or feed by storage or disposal. STORAGE: Store in original container in a locked storage area. Keep from freezing.

Other Precautions:

Engineering Control Statements of non-WPS uses:

Containers over 1 gallon and less than 5 gallons: Persons engaged in open pouring of this product must also wear coveralls or a chemical resistant apron.

Containers of 5 gallons or more: Do not open-pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

8. Exposure Controls/Personal Protection:

Ventilation Requirements:

Good local ventilation is recommended; mechanical ventilation may be used if exposure limits may be exceeded.

Personal Protective Equipment:

Clothing Requirement Statement:

When mixing, loading, or applying this product, wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and eye protection. It is recommended that safety glasses include front, brow, and temple protection.

Personal Hygiene Statement:

After using this product, rinse gloves before removing, remove clothing and launder separately before reuse, and promptly and thoroughly wash hands and exposed skin with soap and water. Remove saturated clothing as soon as possible and shower.

PROTECTIVE CLOTHING: Wear long sleeves and pants; chemical-resistant gloves and shoes with socks.

Exposure Controls/Personal Protection (Continued)

EYE PROTECTION: Safety glasses with side shields or safety goggles.

RESPIRATORY PROTECTION: If exposure limits may be exceeded, wear a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a NIOSH approved respirator with any R, P or HE filter.

Melting Point: NI

9. Physical and Chemical Properties:

Boiling Point: >200 °F

Evaporation Rate (Butyl Acetate = 1) : <1

Vapor Pressure (mm Hg.): NI

Vapor Density (Air = 1): NI

Specific Gravity (H20 = 1): 0.96650

Solubility in Water: Emulsifiable

Appearance and Odor: Amber liquid, ester odor

Other Information:

pH = 2.92 for a 1% aqueous solution Density = 8.05 pounds/gallon Freezing point <35°F Viscosity: 8.11 cps @ 23.8°C

10. Stability and Reactivity:

Stability: Stable

Incompatibility (Materials to Avoid): None known

Decomposition/By-Products:

May produce gases such as HCI, organo chlorides, nitrogen oxides, and carbon monoxide when burning.

Hazardous Polymerization:

Will not occur.

11. Toxicological Information:

EYES: Moderately irritatiing to the eye.

SKIN: Moderately irritating to the skin. Acute demal LD50 is greater than 2,000 mg/kg for males, and between 1,000 and 2,000 for females. This product is considered to be a contact sensitizer.

INHALATION: Acute inhalation LC50 is greater than 2.06 mg/L in male and female rats.

INGESTION: Acute oral LD50 is greater than 2,000 mg/kg for male and female rats.

12. Ecological Information:

Carfentrazone is very toxic to algae and moderately toxic to fish. This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. 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. When cleaning equipment, do not pour the washwater on the ground;

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Ecological Information (Continued)

spray or drain over a large area away from wells and other water sources.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D and MCPP-p have been associated with mixing, loading and disposal sites. Caution should be exercised when handling 2,4-D and MCPP-p pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

13. Disposal Considerations:

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: For Metal Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

For Plastic Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities by burning. If burned stay out of smoke.

14. Transport Information:

The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept.

Freight Class: Herbicides, NOI - NMFC #50320

In our current available sizes, this product does not qualify as a Hazardous Material.

15. Regulatory Information:

OSHA STATUS: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS: This product is exempt from TSCA Regulation under FIFRA Section 3(2)(B)(ii) when used as a pesticide.

CERCLA REPORTABLE QUANTITY: 339 pounds of the formulation which contains 100 pounds of 2,4-D 2-ethylhexyl ester

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None SECTION 311/312 HAZARD CATEGORIES: Immediate Health Hazard, Delayed Health Hazard

SECTION 313 TOXIC CHEMICALS: Dicamba CAS# 1918-00-9, 2,4-D 2-ethylhexyl ester CAS# 1928-43-4

RCRA STATUS: When discarded in its purchased form, this product is a listed RCRA hazardous waste and should be managed as a hazardous waste. (40 CFR 261.20-24)

16. Other Information:

REASON FOR ISSUE: New MSDS in the ANSI Z400.1-1998 format

Note: NI means not Indicated.

Other Information (Continued)

The information and statements in this Material Safety Data Sheet are believed to accurately reflect the scientific evidence used in making the hazard determination, but is not to be construed as a warranty or representation for which we assume legal responsibility. Additional information may be necessary or desirable depending on particular, exceptional or variable conditions or circumstances of use or storage or because of locally applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information available to you and must make independent determinations of the suitability of the information for your particular circumstances or conditions and of the completeness of the information available from all sources to assure both the proper use of the material described herein and the safety and health of employees.

Westbridge

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME:	SUPPRESS [®] Herbicide EC, EPA Reg. No. 51517-9
MANUFACTURER'S NAME:	Westbridge Agricultural Products
ADDRESS:	1260 Avenida Chelsea, Vista, CA 92081
TELEPHONE NO.:	(800) 876-2767
POISON CONTROL TELEPHONE:	(800) 222-1222
COMPOSITION:	Fatty Acids (Caprylic-Capric Acids)
RECOMMENDED USE:	A Liquid Herbicide Concentrate For Agricultural Use.

2. HAZARD IDENTIFICATION

CLASSIFICATION:

SIGNAL WORD:



WARNING. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin and clothing. Wear protective eyewear such as goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tabacoo, or using the toilet. Remove and wash contaminated clothing before reuse. SUPPRESS® Herbicide EC does not contain toxic chemicals in concentrations subject to the reporting requirements of

OSHA or Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 or 40 CFR Part 372.

OTHER HAZARDS:

3. COMPOSITION INFORMATION

<u>COMPOSITION</u>	Concentration %	CAS Number
Caprylic Acid	47.0%	124-07-2
Capric Acid	32.0%	334-48-5
Inert Ingredients	21.0%	N/A

4. FIRST AID MEASURES

lf on Skin OR Clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If on Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing. Call a poison control center or doctor for treatment advice.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration. Call poison control center or doctor for treatment advice.
If Swallowed:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

NOTES TO PHYSICIAN: Treat patient symptomatically.

5. FIRE-FIGHTING MEASURES

GENERAL INFORMATION:	THIS PRODUCT IS NOT FLAMMABLE			
FLASH POINT:	N/A			
TEST METHOD:	N/A			
EXTINGUISHING MEDIA:	N/A			
SPECIAL FIRE FIGHTING PROCEDURES: N/A				

AUTOIGNITION TEMPERATURE: N/A FLAMMABLE: This product is not flammable UNUSUAL FIRE AND EXPLOSION HAZARD: N/A

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

NEUTRALIZING CHEMICALS: N/A

7. HANDLING AND STORAGE

HANDLING REQUIREMENTS:

- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Workers should wash hands and face before eating, drinking and smoking.
- Wear appropriate respirator when ventilation is inadequate.
- Wear face mask or face shield.
- Wear impermeable or chemical resistant gloves.
- Remove contaminated clothing and protective equipment before entering eating areas.
- Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist.

STORAGE REQUIREMENTS:

- KEEP OUT OF REACH OF CHILDREN.
- Store in a dry and cool area above freezing and below 95°F and out of direct sunlight.
- Keep in the original container or an approved alternative made from a compatible material.
- Keep container tightly closed when not in use.
- Do not store in unlabeled containers.
- Do not reuse empty containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION REQUIREMENTS:

Indoor use - adequate mechanical ventilation

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

Wear goggles or face shield.				
Wear appropriate respirator when ventilation is inadequate. Do not intentionally breathe dust/spray.				
Impermeable or chemical resistant gloves.				
Wear suitable protective clothing, such as face shield or face mask.				

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Clear, liquid with fatty odor. Rancid.
pH:	3.26 <u>+</u> 0.5
BOILING POINT, 760 MM HG:	100°C
MELTING POINT:	N/A
FLASH POINT:	>95°C
SPECIFIC GRAVITY (H ₂ 0=1):	0.9061
EVAPORATION RATE (BUTYLACETATE=1):	N/A
FLAMMABLE:	This product is not flammable
VAPOR PRESSURE:	Not known
VAPOR DENSITY (AIR=1):	Not known
SOLUBILITY IN H ₂ 0:	Insoluble.
AUTOIGNITION TEMPERATURE:	N/A
% VOLATILES BY VOL:	None

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY DATA

GENERAL INFORMATION: Stable under recommended storage conditions. CORROSIVE: _X_YES ___ NO INCOMPATIBILITY (materials to avoid): N/A HAZARDOUS DECOMPOSITION/COMBUSTION PRODUCTS: N/A

STABILITY: X stable unstable

HAZARDOUS POLYMERIZATION: N/A

CHRONIC OVEREXPOSURE: Expected toxicity none.

Potential mild skin irritation.

Causes substantial but temporary eye injury.

SKIN CONTACT:

EYE CONTACT:

11. TOXICOLOGICAL INFORMATION

SYMPTOMS OF OVEREXPOSURE

INHALATION:None expected.SKIN ABSORPTION:None expected.INGESTION:None expected.

EFFECTS OF OVEREXPOSURE

ACUTE OVEREXPOSURE: Expected toxicity none to slight.

SUSPECTED CANCER AGENT?

 X
 NO:
 This product's ingredients are not found in the lists below.

 YES:
 Federal OSHA
 NTP
 IARC
 Cal/OSHA
 Prop 65

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS: No known significant effects or critical hazards.

13. DISPOSAL PROCEDURES

WASTE DISPOSAL METHOD: Follow all applicable Federal, State and local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

CAUTION: Do not contaminate soil, surface water, drains, sewers or ditches with product or used containers.

14. TRANSPORT INFORMATION

Not D.O.T. Regulated.
Substances Not Regulated.
Substances Not regulated
HDPE Containers

15. REGULATORY INFORMATION

 EPA REG. NO.:
 51517-9

 ORGANIC CERTIFICATION:
 Yes – Organic Materials Review Institute (OMRI)

 PROPOSITION 65 (CA):
 N/A.

 SARA TITLE III, SECTION 313 TOXIC CHEMICALS: None.

16. OTHER INFORMATION

All information, recommendations and suggestions appearing herein concerning our products are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, we make no guarantee, expressed or implied, as to the effects of such use, the results to be obtained, or the safety and toxicity of the product; nor do we assume any liability arising out of use, by others, of the product referred to herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

®SUPPRESS is a registered trademark of Westbridge Agricultural Products.

PREPARED BY:Ivonne Sanchez, Regulatory/R&D Coordinator at Westbridge Agricultural ProductsPREPARED DATE:November 25, 2013REV. DATE: September 25, 2014 IS



SUSPEND® SC INSECTICIDE

Version 2.0 / USA 102000032681

1/10 Revision Date: 07/07/2017 Print Date: 07/08/2017

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

Product identifier		
Trade name	SUSPEND® SC INSECTICIDE	
Product code (UVP)	85373676	
SDS Number	102000032681	
EPA Registration No.	432-763	
Relevant identified uses of the	e substance or mixture and uses advised against	
Identified uses	Insecticide	
Restrictions on use	See product label for restrictions.	
Information on supplier		
Supplier	Bayer Environmental Science 2 T.W. Alexander Drive Research Triangle PK, NC 27709 United States	
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

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Hazards Not Otherwise Classified (HNOC)

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Co	omponent Name
Deltamethrin	-

CAS-No. 52918-63-5

Concentration % by weight 4.75

SUSPEND® SC INSECTICIDE

Version 2.0 / USA 102000032681

BAYER ER

2/10 Revision Date: 07/07/2017 Print Date: 07/08/2017

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. There is no specific antidote.	

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	
Suitable	Carbon dioxide (CO2), Dry chemical, Foam, Water
Unsuitable	None known.
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	Evacuate personnel to safe areas. 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.



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No data available
No data available
No data available
No data available
Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures		
Precautions	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.	
Methods and materials for containment and cleaning up		
Methods for cleaning up	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 floors and objects thoroughly, observing environmental regulations. 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.	

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling		
Advice on safe handling	Avoid contact with skin, eyes and clothing. Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.	
Advice on protection against fire and explosion	Keep away from heat and sources of ignition.	
Hygiene measures	Smoking, eating and drinking should be prohibited in the application area. 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. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.	

Conditions for safe storage, including any incompatibilities



SUSPEND® SC INSECTICIDE

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Requirements for storage areas and containers	Store in original container. 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. Protect from freezing.
	products, tertilizers, tood, and teed. Protect from freezing.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m3		OES BCS*
		(TWA)		

*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 gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber. Eye protection Tightly fitting safety goggles Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks. General protective measures Eye wash facility and safety shower should be available. 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white
Physical State	suspension
Odor	characteristic
Odour Threshold	No data available
рН	<= 7.0 at 100 % (23 °C)
Vapor Pressure	No data available
Vapor Density (Air = 1)	No data available
Density	1.05 g/cm³ at 20 °C

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5/10 Revision Date: 07/07/2017 Print Date: 07/08/2017

Evaporation rate	No data available
Boiling Point Melting / Freezing Point	No data available No data available
Water solubility	immiscible
Minimum Ignition Energy	Not applicable
Decomposition temperature	No data available
Partition coefficient: n- octanol/water	No data available
Viscosity	1,300 - 1,800 cps at 25 °C
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 10: STABILITY AND REACTIVITY

Reactivity	
Thermal decomposition	No data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	freezing
Incompatible materials	Strong oxidizing agents, Strong reducing agents
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Inhalation, Skin contact, Eye contact, Ingestion
Immediate Effects	
Skin	Contact with product may result in transient tingling and reddening of the skin.



SUSPEND® SC INSECTICIDE

Version 2.0 / USA 102000032681

6/10 Revision Date: 07/07/2017 Print Date: 07/08/2017

Inhalation	Harmful if inhaled.
Information on toxicological	effects
Acute oral toxicity	LD50 (Rat) > 15,000 mg/kg
Acute inhalation toxicity	LC50 (Rat) > 1.02 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths
Acute dermal toxicity	LD50 (Rabbit) > 10,000 mg/kg
Skin irritation	slight irritation (Rabbit)
Eye irritation	Minimally irritating. (Rabbit)
Sensitisation	Non-sensitizing. (Guinea pig)

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 hyperactivity 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.

Further information

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

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish Toxicity to aquatic invertebrates	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.15 µg/l Exposure time: 96 h The value mentioned relates to the active ingredient deltamethrin. EC50 (Daphnia magna (Water flea)) 0.0131 µg/l Exposure time: 48 h The value mentioned relates to the active ingredient deltamethrin.
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
Кос	Deltamethrin: Koc: 10240000
Bioaccumulation	Lepomis macrochirus (Bluegill sunfish)
	Bioconcentration factor (BCF): 189 - 3,930
Bioaccumulation	Deltamethrin: Bioconcentration factor (BCF) 1,400 Does not bioaccumulate.
Mobility in soil	Deltamethrin: Immobile in soil
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. 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 methodsProductPesticide, spray mixture or rinse water that cannot be used according to
label instructions may be disposed of on site or at an approved waste
disposal facility.
If these wastes cannot be disposed of by use according to label
instructions, contact your State Pesticide or Environmental Control
Agency, or the Hazardous Waste representative at the nearest EPA
Regional Office for guidance.Contaminated packagingTriple rinse containers.
Add washings to sprayer at time of filling.



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	Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. 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 Class Packaging group Marine pollutant Proper shipping name	3082 9 III YES ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)
IATA UN number Class Packaging group Environm. Hazardous Mark Proper shipping name	3082 9 III YES ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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.

(DELTAMETHRIN SOLUTION)

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-763 US Federal Regulations TSCA list None. US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D) None. SARA Title III - Section 302 - Notification and Information None. SARA Title III - Section 313 - Toxic Chemical Release Reporting



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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 None.

Canadian Regulations Canadian Domestic Substance List None.

Environmental CERCLA None. Clean Water Section 307 Priority Pollutants None. Safe Drinking Water Act Maximum Contaminant Levels None.

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:Harmful if inhaled.
Avoid inhalation of vapour or mist.
Contact with product may result in transient tingling and reddening
of the skin.
Remove and wash contaminated clothing before re-use.

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
ΙΑΤΑ	International Air Transport Association



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IMDG N.O.S. NTP OECD TDG TWA UN WHO	Not otherwise spe US. National Toxic	cology Program (NTP) Re conomic Co-operation ar Dangerous Goods erage	
NFPA 704 (National F	0	ciation):	Others - none
•		System, based on the Physical Hazard - 0	Third Edition Ratings Guide) PPE -
0 = minimal hazard, 1 =	= slight hazard, 2 = m	oderate hazard, 3 = seve	ere hazard, 4 = extreme hazard

Reason for Revision: The following sections have been revised: Section 13. Disposal considerations. Section 14: Transport Information.

Revision Date: 07/07/2017

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.



SAFETY DATA SHEET Taurus SC finished spray solution

Taurus SC finished spray solution
Dilution of 53883-279
Termiticide/Insecticide; See product label for a complete list of uses and use sites
See product label for any restrictions on the use of this product.
Phenylpyrazole
Fipronil: 5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-
(trifluoromethylsulfinyl)pyrazole-3-carbonitrile
Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: White milky liquid with a mild sweet odor.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

This product does not meet the regulatory definition of a hazardous chemical under 29 CFR 1910.1200. However, good industrial hygiene practices should be used in the manufacture and handling of the product.

Signal Word:	CAUTION	FIFRA Signal Word
Hazard Statement(s):	None required	

Precautionary Statement(s):

Prevention:No statements required. See section 8 for personal protective equipment.Response:No statements required. See section 4 for first aid statements.Storage:No statement required. See section 7 for storage information.Disposal:No statements required. See section 13 for disposal information.

SECTION 3: COMPOSTION/INFORMATION ON INGREDIENTS		
Chemical Name	CAS Number	Weight %
Fipronil	120068-37-3	0.03 - 0.06%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIF	RST AID MEASURES
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF INGESTED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Note to Physic	ian: There is no specific antidote. All treatment should be based on observed signs and

Note to Physician: There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. In severe cases of overexposure by oral ingestion, lethargy, muscle tremors, and in extreme cases, possibly convulsions may occur.

Most important symptoms/effects, acute and delayed: None known

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Foam, dry chemical, carbon dioxide or water spray
Unsuitable Extinguishing Media:	Water jet
Hazardous Combustion Products:	Thermal decomposition may produce toxic oxides of carbon and
	nitrogen. Hydrogen chloride and hydrogen cyanide may also be released.
Special Protective Equipment &	Evacuate area and fight fire upwind from a safe distance to avoid
Precautions:	hazardous vapors and decomposition products. Foam and/or dry
	chemical are preferred to minimize environmental contamination. If
	water is used, dike and collect water to prevent run-off. Wear self-
	contained breathing apparatus and full fire-fighting turn-out gear
	(Bunker gear).
Unusual Fire & Explosion Hazards:	None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	See Section 8 for personal protection equipment.
Environmental Precautions:	Keep spilled material and any rinsate from contaminating soil or from entering
	sewage and drainage systems and bodies of water.
Methods for Containment:	Isolate the spill area. Keep unnecessary and unprotected personnel from
	entering. Absorb small spills with sand, vermiculite or other inert absorbent.
	Dike large spills using absorbent or impervious material such as clay or sand.
	Recover and contain as much free liquid as possible for reuse. Allow absorbed
	material to solidify and scrape up for disposal.
Methods for Clean-up:	Place contaminated material in appropriate container for disposal. After
	removal, flush contaminated area thoroughly with water. Pick up wash liquid

with additional absorbent and place in a disposable container. Do not put spilled material back in the original container. None known

Other Information:

SECTION 7: HANDLING AND STORAGE

- Handling: RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.
- Storage: See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.

Storage Temperature (Min/Max):Not determinedProduct Incompatibilities:Strong oxidizers

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
No components listed			

Engineering Controls:	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.
Respiratory Protection:	In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.
Eye Protection:	Chemical goggles or safety glasses and full-face shield.
Protective Gloves:	Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.
Other Protective Clothing	: Long-sleeved shirt, long pants and chemical resistant footwear plus socks.
General Safety Measures	Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
Appearance:	White milky liquid	Upper/Lower Flammability Limits:	Not determined
Odor:	None	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
рН :	6.0 - 8.0	Relative Density (@24°C):	Not determined
Melting /Freezing Point:	Not determined	Solubility:	Not determined
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	Not applicable	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	Not determined

SECTION 10: STABILITY AND REACTIVITY	
Reactivity:	No hazardous chemical reactions known.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known.
Conditions to Avoid:	Extreme temperatures
Incompatible Materials:	Strong oxidizing agents
Hazardous Decomposition Products:	Thermal decomposition may produce toxic oxides of carbon and nitrogen. Hydrogen chloride and hydrogen cyanide may also be released.

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	None known
Oral LD₅₀:	>5,000 mg/kg (rat)(Based upon similar product)
Dermal LD ₅₀ :	>2,000 mg/kg (rat)(Based upon similar product)
Inhalation LC ₅₀ :	>2.9 mg/L (4-hour)(rat)(Based upon similar product)(No mortality was
	observed)
Eye Irritation/Damage:	Non-irritant (Based upon similar product)
Skin Corrosion/Irritation:	Slightly irritating (Based upon similar product)
Skin Sensitization:	Non-sensitizer (Based upon similar product)
Chronic/Subchronic Toxicity	: <u>Fipronil Technical</u> : Causes mortality and signs of neurotoxicity through
	prolonged or repeated exposure.
Mutagenicity:	No data available
Reproductive Toxicity:	No data available
Neurotoxicity:	No data available
Target Organs:	No data available
Aspiration Hazard:	Not anticipated to be an aspiration hazard.
Carcinogenicity:	Fipronil Technical: The EPA has classified fipronil as a Group C – Possible
	Human Carcinogen based upon laboratory animal studies (increased thyroid
	tumors in male and female rats). Humans and rats have the same mechanism
	of action which produced fipronil-induced thyroid tumors in the rat;
	however, the rat appears to be more highly sensitive than humans.
Therefore, the fipronil-induced rat thyroid tumors are not considered suggestive of a human health risk.

Chemical Name	ACGIH	IARC	NTP	OSHA
No components listed				

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This pesticide is toxic to birds, fish, and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Care must be taken to avoid runoff. Do not contaminate water by cleaning equipment or disposal of wastes. Do not contaminate water when disposing of equipment washwaters.

ECOTOXICITY DATA:	Data presented below is on the fipronil technical product.
Fish Toxicity:	Zebra fish: 96-hour LC ₅₀ = 0.071 mg/L
Aquatic Invertebrate Toxicity:	<i>Daphnia magna</i> : 96-hour EC₅₀ <0.1 mg/L
Aquatic Plant Toxicity:	<i>P. subcapitata</i> : EC_{50} = 3.0 mg/L
Avian Toxicity:	Japanese quail: LD ₅₀ = 148.5 mg/kg
Honeybee Toxicity:	Oral LD ₅₀ = 0.003 μ g/bee

ENVIRONMENTAL EFFECTS:

Persistence and Degradability:	No data available
Bioaccumulation:	No data available
Mobility:	No data available
Other Adverse Effects:	No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:	Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a
	violation of Federal law. If these wastes cannot be used according to label
	instructions, contact your State Pesticide or Environmental Control Agency or the
	Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.
Container Disposal:	Refer to the pesticide label for full information on disposal. When possible, triple
	rinse the container and offer for recycling if available.
RCRA Characteristics:	It is the responsibility of the individual disposing of this product to determine the
	RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

DOT (Ground): IMDG (Sea): IATA (Air): Not determined

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Harmful if swallowed, absorbed through skin or inhaled. Do not get in eyes, on skin or on clothing. Do not breathe spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances:NoneSection 311/312 – Hazard Categories:None for the finished spray solutionSection 313 – This product contains a chemical or chemicals which are subject to the reportingrequirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
None listed		

CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
None listed		

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Propylene glycol	Х		Х

SECTION 16: OTHER INFORMATION		

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards – None

Disclaimer: Control Solutions, Inc. believes the information presented herein is accurate and correct as of the document date. The presented information is based upon available data from reliable sources. Control Solutions, Inc. makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability

Taurus SC finished spray solution

of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

Revision Date:	September 23, 2016
Document Superseded:	N/A – New document
Revision Note:	



TERAD3[®] BLOX

SAFETY DATA SHEET

ACCORDING TO REGULATION: OSHA Hazard Communication Standard 29 CFR 1910.1200

DATE OF ISSUE: January 2015

PREPARED BY: CAR

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TERAD3[®] BLOX

EPA Registration Number: 12455-106

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

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)

2. HAZARD IDENTIFICATION

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

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

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	Proprietary	99.925%

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.

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.

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.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not handle the product near food, animal foodstuffs or drinking water. 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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

<i>,</i> ,,,	
Information on basic physical an	d chemical properties
Appearance/Color:	Blue-grey-beige-brown wax block
Odor:	Sweet grain-like
Odor Threshold:	Not applicable, odor not associated with a hazardous material.
pH:	Not applicable, Terad3 Blox is not dispersible with water.
Melting point:	Not applicable to rodenticide bait
Boiling point:	Not applicable to rodenticide bait
Flash point:	Not applicable, Terad3 Blox does not contain components classified as flammable.
Evaporation rate:	Not applicable, Terad3 Blox is a solid.
Upper/lower flammability or	Not applicable, Terad3 Blox does not contain components classified as flammable or explosive.
explosive limits:	
Vapor Pressure:	Not applicable to rodenticide bait
Vapor Density:	NA: Terad3 Blox is a solid
Relative Density:	1.13 g/mL @ 20°C
Solubility (water):	Not water soluble
Solubility (solvents):	Not applicable to rodenticide bait
Partition coefficient: n-	Not applicable to rodenticide bait
octanol/water:	
Auto-ignition temperature:	Not applicable, Terad3 Blox does not contain components classified as flammable.
Decomposition temperature:	Not applicable to rodenticide bait
Viscosity:	Not applicable, Terad3 Blox is not a liquid.
	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.

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: Terad3 Blox 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: Terad3 Blox contains no components known to have a mutagenetic effect.

Carcinogenicity: Terad3 Blox contains no components known to have a carcinogenetic effect.

	Components	NTP	IARC	OSHA
	Cholecalciferol	Not listed	Not listed	Not listed
11	Choicealements	1 (of listed	1 tot libited	1 tot listea

Reproductive Toxicity: Terad3 Blox: No data

Aspiration Hazard: Not applicable. Terad3 Blox is a wax block.

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

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects: This product is toxic to fish, birds and other wildlife. Dogs and predatory and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait. Do not apply this product directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff also may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

Persistence and degradability: Terad3 Blox is inherently biodegradable. Cholecalciferol slowly decomposes in water.

Bioaccumulative potential: Not determined for Terad3 Blox. Cholecalciferol water solubility is extremely low (< 0.1mg/l).

Mobility in Soil: Not determined for Terad3 Blox. Mobility of cholecalciferol in soil is considered to be limited.

Other adverse effects: None.

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 may be placed in trash or delivered to an approved waste disposal facility.

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.

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

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

16. OTHER INFORMATION

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

Ν	NFPA	Health: 1 (caution)	Flammability: 0 (will not burn)	Reactivity: 0 (stable)	Specific Hazard: None
I	HMIS	Health: 2 (moderate)	Flammability: 0 (minimal)	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.



Date Issued : 1/16/2013 MSDS No : Vendetta™ PLUS Date-Revised : 7/16/2014 Revision No : 2

Vendetta™ PLUS Cockroach Gel Bait

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Vendetta[™] PLUS Cockroach Gel Bait PRODUCT DESCRIPTION: An Insecticide Formulation for Killing Cockroaches. PRODUCT CODE: 2976, EPA REG. NO. : 1021-2593 ACTIVE INGREDIENT(S): Abamectin; NYLAR® (Pyriproxyfen)

MANUFACTURER

McLaughlin Gormley King Company 8810 10th Avenue North Minneapolis, MN 55427 Emergency Phone: 1(888) 740-8712 Alternate Emergency Phone: 1(952) 852-9509 Product Stewardship: 1(800) 645-6466 E-Mail: mgk-sds@mgk.com

24 HR. EMERGENCY TELEPHONE NUMBERS FOR TRANSPORTATION: CHEMTREC[®] U.S. and CANADA:1(800) 424-9300 CHEMTREC[®] All Other Areas:1(703) 527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Sensitization, Category 1B Acute Toxicity (Oral), Category 5

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

GHS LABEL



SIGNAL WORD: WARNING

HAZARD STATEMENTS

H317: May cause an allergic skin reaction. H303: May be harmful if swallowed.

PRECAUTIONARY STATEMENT(S)

Prevention:

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P270: Do no eat, drink, or smoke when using this product.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:



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P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:

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

COMMENTS: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard [29 CFR 1910.1200(a)(1)], and the G.H.S.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Abamectin	0.05	71751-41-2
NYLAR® (Pyriproxyfen)	0.5	95737-68-1

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

4. FIRST AID MEASURES

EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN: 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. 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 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.

NOTES TO PHYSICIAN: For skin effects, a highly efficient therapeutic agent for pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: This product is NOT classified as flammable or combustible by OSHA.

EXTINGUISHING MEDIA: Foam, carbon dioxide or dry chemical.

HAZARDOUS COMBUSTION PRODUCTS: This product is classified as Non-Combustible, however in the extreme temperatures that fires may produce, some of the constituents of this formula may decompose to give off such gases as carbon dioxide, carbon monoxide, and nitrogen oxides.

FIRE FIGHTING PROCEDURES: Treat as an oil fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream.



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6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Sweep into a container for reuse.

LARGE SPILL: Scoop or shovel into containers for reuse.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Contains Pyrethroids, which are toxic to fish and other aquatic invertebrates. Contaminated absorbent and wash water should be disposed of according to local, state/provincial and federal/national regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: DO NOT APPLY THIS PRODUCT IN OR ON ELECTRICAL EQUIPMENT DUE TO THE POSSIBILITY OF SHOCK HAZARD.

HANDLING: Wear chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile Rubber, or Viton. Wear a longsleeved shirt and long pants, shoes and socks. Mechanical ventilation should be used when handling this product in enclosed spaces. Do not contaminate water, food or feedstuffs by storage, handling, or disposal.

READ AND OBSERVE ALL PRECAUTIONS AND INSTRUCTIONS ON THE PRODUCT LABEL.

STORAGE: Store in a cool, dry place. Keep container closed. Always store pesticides in the original container. Store away from food and pet-food.

KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSH	A HAZARDOUS CON	IPONENTS	6 (29 CFR19	910.1200)			
		EXPOSURE LIMITS					
		OSH	A PEL	ACGI	H TLV	Suppl	ierOEL
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Abamectin	TWA	None		None		[1]	0.02 [1]
NYLAR® (Pyriproxyfen)	TWA	None		None		None	
OSHA TABLE COMMENTS:							

1. Recommended by manufacturer.

ENGINEERING CONTROLS: Mechanical ventilation should be used when handling this product in enclosed spaces. Local exhaust ventilation may be necessary.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Take prudent precautions to avoid contact with eyes.

SKIN: Wear chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile Rubber, or Viton, and wear protective clothing.

PROTECTIVE CLOTHING: Wear a long-sleeved shirt and long pants, shoes and socks.

WORK HYGIENIC PRACTICES: DO NOT SMOKE, EAT, OR DRINK, OR APPLY COSMETICS IN WORK AREA! Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking, or using the



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toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Gel.

ODOR: Odor of dog food.

APPEARANCE: Brown/ tan-colored.

pH: 5.1

Notes: @ 5% in water. VAPOR DENSITY: Heavier than air. FREEZING POINT: Not Applicable SOLUBILITY IN WATER: Partially miscible in water. SPECIFIC GRAVITY: 1.36 (Water = 1) at 20 °C (68 °F) VISCOSITY #1: 3450 CPS at 54.8 °C (130.6 °F) Brookfield (VOC): 0 %

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID: Not compatible with strong acids or bases. Not compatible with strong oxidizers.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: > 5000 mg/kg **Notes:** Albino rabbit.

ORAL LD₅₀: > 5000 mg/kg

Notes: Albino rat.

EYE EFFECTS: Minimal eye irritation, clearing within 24 hours (Albino rabbits). Maximum Mean Total Score = 6.7.

SKIN EFFECTS: Non-irritating (Albino rabbits). Produced a Primary Dermal Irritation Index of 0.1. All animals were free of erythema and edema by Day 7.

SENSITIZATION: Positive.

GENERAL COMMENTS: Some or all of the toxicity data reported above was bridged from a substantially similar formula.

COMMENTS: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as being carcinogens.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: This pesticide is toxic to fish and wildlife. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

13. DISPOSAL CONSIDERATIONS



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DISPOSAL METHOD:

IF EMPTY:

Non-refillable container. Do not reuse or refill this container. Place in trash or offer for recycling if available.

IF PARTLY FILLED:

Call your local solid waste agency for disposal instructions. Never pour unused product down any indoor or outdoor drain.

RCRA/EPA WASTE INFORMATION: None of the ingredients in this product appear on the RCRA lists (40 CFR 261.24, 40CFR 251.33) or CERCLA Hazardous Substance list (40 CFR Part 302 Table 302.4)

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

OTHER SHIPPING INFORMATION: This material is considered to be NON-HAZARDOUS by DOT regulations.

AIR (ICAO/IATA)

SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

NOTE: Not considered hazardous by IATA/ ICAO regulations for transportation via air.

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Available

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No PRESSURE GENERATING: No REACTIVITY: No ACUTE: Yes

313 REPORTABLE INGREDIENTS: This product contains no SARA Title III Section 313 chemicals that exceed the reporting limits.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: There are no SARA Title III Section 302 extremely hazardous substances present in this formulation (40 CFR 355).

There are no components that are subject to emergency requirements under CERCLA Section 103(a)(40 CFR 302.4) in this formulation.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All chemical substances found in this product comply with the Toxic Substances Control Act's inventory reporting requirements.

REGULATIONS

STATE REGULATIONS: VOLATILE ORGANIC COMPOUNDS (VOC):



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This product contains no VOC's (0%).

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT): NOTE: 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, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

CAUTION. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE):

Wear chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile Rubber, or Viton. Wear a long-sleeved shirt and long pants, shoes and socks.

PHYSICAL OR CHEMICAL HAZARDS: Do not apply this product around electrical equipment due to the possibility of shock hazard.

16. OTHER INFORMATION

REVISION SUMMARY: This MSDS replaces the 1/16/2013 MSDS. Revised: **Section 2:** EMERGENCY OVERVIEW - IMMEDIATE CONCERNS POTENTIAL HEALTH EFFECTS (SKIN, INGESTION). **Section 15:** FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT).



HMIS RATINGS NOTES: We assign HMIS ratings to this product based on the hazards of its ingredients(s). Since the customer is most aware of the applications and conditions of use, he or she must ensure that the proper Personal Protective Equipment is provided, consistent with the information contained in Section's 2, 7, and 8 of this MSDS.

COMMENTS: The data contained herein are based on information currently available to McLaughlin Gormley King Company and, to the best of our knowledge, are accurate and based on sound expert opinion. Our statements herein, however, are not to be taken as a warranty or representation for which McLaughlin Gormley King Company assumes legal responsibility.

MSDS Prepared by T. Azzivitto



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1. Identification

Product identifier used on the label

PT WASP-FREEZE II WASP & HORNET INSECTICIDE

Recommended use of the chemical and restriction on use Recommended use*: insecticide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

<u>Company:</u> BASF CORPORATION 100 Park Avenue Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number:597802EPA Registration number:499-550Synonyms:Prallethrin

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

1

Asp. Tox.

Aspiration hazard

Label elements

Pictogram:

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3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Weight %	Chemical name
23031-36-9	0.1 %	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-
		propen-1-yl)-, 2-methyl-4-oxo-3-(2-propyn-1-yl)-2-
		cyclopenten-1-yl ester
64742-47-8	75.0 - 100.0%	Distillates, petroleum
124-38-9	3.0 - 5.0%	carbon dioxide

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

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If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting due to aspiration hazard.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon monoxide, carbon dioxide, nitrogen oxides The substances/groups of substances mentioned can be released in case of fire. Aerosol container contains flammable gas under pressure.

Advice for fire-fighters

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is not regulated by CERCLA ('Superfund').

Methods and material for containment and cleaning up

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Dike spillage. Pick up with suitable absorbent material. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

Aerosol container contains flammable gas under pressure. The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Segregate from foods and animal feeds.

Further information on storage conditions: Protect from direct sunlight. Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame.

Storage stability:

May be kept indefinitely if stored properly. If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet. Protect from temperatures above: 130 °F Explosive at or above indicated temperature.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

carbon dioxide	OSHA PEL	PEL 5,000 ppm 9,000 mg/m3 ; STEL value 30,000 ppm 54,000 mg/m3 ; TWA value 10,000
	ACGIH TLV	ppm 18,000 mg/m3; STEL value 30,000 ppm;TWA value 5,000 ppm;

ACGIH TLV

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TWA value 200 mg/m3 Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures. Skin Designation Non-aerosol (total hydrocarbon vapor); The substance can be absorbed through the skin.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	aerosol
Odour:	characteristic, of petroleum distillate (e.g. gasoline, kerosene)
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	colourless
pH value:	approx. 4.5 - 6.5
	(23.7 °C)
Melting point:	< -30 °C
	Information applies to the solvent.

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Boiling point:	approx. 193 - 245 °C	
	Information applies to the solvent.	
Flash point:	73 °C	
	Information applies to the solvent.	
Flammability of Aerosol	> 18 in	(ASTM D 3065)
Products:	no flashback	
NFPA 30B flammability:	Level 3 Aerosol	
Lower explosion limit:	As a result of our experience with this	
	product and our knowledge of its	
	composition we do not expect any	
	hazard as long as the product is used	
·	appropriately and in accordance with	•
	the intended use.	
Upper explosion limit:	As a result of our experience with this	
	product and our knowledge of its	
	composition we do not expect any	
	hazard as long as the product is used	
	appropriately and in accordance with the intended use.	
Autoignition:	220 - 250 °C	
Autoightion.	Information applies to the solvent.	
Vapour pressure:	approx. 0.19 - 0.25 hPa	
vapour pressure.	(20 °C)	
	Information applies to the solvent.	
Density:	approx. 0.8 g/cm3	
Donoty.	(20 °C)	
Vapour density:	not applicable	
Partitioning coefficient n-	approx. 4.49	
octanol/water (log Pow):	(25 °C)	
(The values mentioned are those of	
	the active ingredient.	
Thermal decomposition:	carbon monoxide, carbon dioxide	
	Stable at ambient temperature. If prod	uct is heated above
	decomposition temperature toxic vapo	
	avoid thermal decomposition, do not o	verheat.
	No decomposition if stored and handle	
	prescribed/indicated.	
Viscosity, dynamic:	approx. 2.32 cps	
	(21.6 °C)	
Solubility in water:	dispersible	
	not applicable	
Evaporation rate:		
Evaporation rate: Other Information:	If necessary, information on other phys	sical and chemical

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Oxidizing properties: not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

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Possibility of hazardous reactions

The product is chemically stable. No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials

strong oxidizing agents, alkali or alkaline-earth metal strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off. Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition: Possible thermal decomposition products: carbon monoxide, carbon dioxide Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat. No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Relatively nontoxic after single ingestion. Relatively nontoxic after short-term skin contact. Relatively nontoxic after short-term inhalation. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. Virtually nontoxic after a single ingestion.

<u>Oral</u> Type of value: LD50 Species: rat (female) Value: > 5,000 mg/kg

Inhalation Type of value: LC50 Species: rat (male/female) Value: > 2.08 mg/l Exposure time: 4 h

Dermal

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Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg

Assessment other acute effects

Assessment of STOT single: Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion

Assessment of irritating effects: May cause slight but temporary irritation to the eyes. May cause moderate irritation to the skin.

<u>Skin</u> Species: rabbit

Result: Irritant.

<u>Eye</u>

Species: rabbit Result: non-irritant

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies. There is no evidence of a skin-sensitizing potential.

Buehler test

Species: guinea pig

Result: Skin sensitizing effects were not observed in animal studies.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: carbon dioxide

Assessment of repeated dose toxicity: The substance may cause damage to the lung after repeated inhalation of high doses. The substance may cause damage to the heart after repeated inhalation of high doses, as shown in animal studies.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

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Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: carbon dioxide

Assessment of teratogenicity: The potential to cause toxicity to development cannot be excluded at maternally toxic doses.

<u>Other Information</u> Misuse can be harmful to health.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

12. Ecological Information

Toxicity

Aquatic toxicity Assessment of aquatic toxicity: Toxic to aquatic life with long lasting effects. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

Information on: Prallethrin LC50 (96 h) 0.012 mg/l, Oncorhynchus mykiss The ecological data given are those of the active ingredient.

Aquatic invertebrates

Information on: Prallethrin EC50 (48 h) 0.0062 mg/l, daphnia

Aquatic plants

Information on: Prallethrin EC50 (72 h) 2 mg/l, algae

Persistence and degradability

<u>Assessment biodegradation and elimination (H2O)</u> The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H2O)

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Information on: Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propen-1-yl)-, 2-methyl-4oxo-3-(2-propyn-1-yl)-2-cyclopenten-1-yl ester

Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment bioaccumulation potential

Information on: Prallethrin

Information on: Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.

Accumulation in organisms is expected.

Mobility in soil

Assessment transport between environmental compartments No data available.

Additional information

Other ecotoxicological advice: Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Do not cut, puncture, crush, or incinerate empty aerosol containers. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

14. Transport Information

Land transport USDOT

Hazard class:2.1ID number:UN 1950Hazard label:2.1Proper shipping name:AEROSOLS

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Sea transport

Version: 4.0

Hazard class: ID number: Hazard label: Marine pollutant: Proper shipping name:	2.1 UN 1950 2.1, EHSM YES AEROSOLS (contains HYDROTREATED LIGHT DISTILLATES (PETROLEUM), PRALLETHRIN)
Air transport IATA/ICAO	
Hazard class: ID number: Hazard label:	2.1 UN 1950 2.1

Proper shipping name: AEROSOLS, FLAMMABLE

Further information

DOT: This product may be classified as ORM-D (Consumer Commodity) or Limited Quantity. After 12/31/2020, ORM-D will not apply.

15. Regulatory Information

Federal Regulations

Registration status:
ChemicalTSCA, USblocked / not listedCrop ProtectionTSCA, USreleased / exempt

EPCRA 311/312 (Hazard categories): Acute; Chronic; Fire; Sudden release of pressure

State regulations State RTK PA

PA	124-38-9	carbon dioxide
	64742-47-8	Distillates, petroleum
MA	64742-47-8	Distillates, petroleum
	124-38-9	carbon dioxide
NJ	124-38-9	carbon dioxide
	64742-47-8	Distillates, petroleum

CAS Number

Labeling requirements under FIFRA

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 workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

Chemical name

CAUTION: KEEP OUT OF REACH OF CHILDREN. May cause moderate but temporary irritation to the eyes. Avoid contact with the skin, eyes and clothing.

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Wash thoroughly after handling. Aerosol container contains flammable gas under pressure. Flammable Liquid

16. Other Information

SDS Prepared by: BASF NA Product Regulations SDS Prepared on: 2017/06/19

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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Weed Zap[®] 02390 Herbicide

Vegetable oil, essential oil

SECTION 1: Product and Company Identification

Safergro Laboratories, Inc.	Product name:
4987Olivas Park Drive, Ventura, CA 93003	Product code:
Tel: (805) 650-8918 Fax: (805) 650-8942 <u>info@safergro.com</u>	Product use:
Emergency tel: (800) 428-3493 (within United States)	Product type:
(805) 650-8933 (outside United States)	

SECTION 2: Hazards Identification

Signal word:	Caution	
Hazard statement:	None	
Precautionary statement:	Avoid contact with skin, eyes or clothing. I attention if irritation persists.	n case of contact, immediately flush eyes or skin with plenty of water. Get medical
HMIS Rating:	Health = 1 Flammability = 0	Reactivity = 0

SECTION 3: Composition/Information on Ingredients

Component	CAS No.	%
Cinnamon oil	8015-91-6	45 %
Clove oil	8000-34-8	45 %
Lactose	64044-51-5	0-10%

The specific identity and/or exact percentage of composition is not provided because it is a trade secret or is not considered hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

SECTION 4:	First Aid Measures	
Inhalation: Skin contact: Eye contact: Ingestion:	Remove from source of exposure. Get medical attention if necessary. Wash with plenty of soap and water. Get medical attention if irritation persists. Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention if irritation persists. Call physician or Poison Control Center. Drink one or two glasses of water. Do not induce vomiting. If person is unconscious, do not give anything by mouth or induct vomiting.	

SECTION 5: Firefighting Measures

Suitable extinguishing media: Water spray, dry chemical, carbon dioxide, foam Special hazards arising from the substance or mixture: None Protection for firefighters: Wear protective clothing and equipment

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear protective clothing, gloves, and safety eye goggles.

Environmental precautions

Avoid discharge into environment

Methods and material for containment and cleaning up

Contain all spills and leaks to prevent discharge into the environment. Use appropriate tools to transfer spill material to proper disposal container. Or recover material and use it for its intended purpose.

SECTION 7: Handling and Storage

Precautions for safe handling

Avoid overheating or freezing.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from direct sunlight. Keep containers tightly closed when not in use.

SECTION 8: Exposure Controls/Personal Protection

Exposure controls

Product has no occupational exposure limits. Avoid inhaling dusts or vapors. Practice good industrial hygiene and safety.

Personal protection

Eye protection:	Eye protection is not required. To avoid contact with eyes, use safety eye goggles.
Skin protection:	Wear protective clothing as necessary to minimize contact. Use chemical resistant gloves.
Respiratory protection:	Not required. Wear approved respiratory equipment if necessary.



SECTION 9: Physical and Chemical Properties

Appearance	Yellow, amber color	Vapor pressure	Not applicable
Odor	Cinnamon, clove odor	Vapor density	Not applicable
рН	6 - 7.5	Relative density	1 g/ml
Physical state	Liquid	Solubility	Not water soluble
Melting point / Freezing point	0°C / 32°F	Partition coefficient	Not applicable
Boiling point	100°C / 212°F	Auto-ignition temperature	Not applicable
Flash point	Not applicable	Decomposition temperature	Not applicable
Evaporation rate	Not applicable	Viscosity	Lightly viscous
Flammability	Non-flammable	Explosive properties	Non-explosive
Explosive limits	Not applicable	Oxidizing properties	Non-oxidizer

SECTION 10: Stability and Reactivity

Reactivity: None

Chemical stability: Product is stable.

Possibility of hazardous reactions: Under normal conditions, hazardous reaction will not occur. **Conditions to avoid:** Avoid heat **Incompatible materials:** None

Hazardous decomposition products: No known hazardous decomposition products.

SECTION 11: Toxicological Information

Information on toxicological effects

Acute toxicity	Harmful if swallowed	Dose toxicity	Not known to be toxic
Irritation	May cause eye or skin irritation	Carcinogenicity	Not known to be carcinogenic
Corrosivity	Not known to be corrosive	Mutagenicity	Not known to be mutagenic
Sensitization	Not known to cause sensitization	Reproductive toxicity	Not known to cause reproductive harm

SECTION 12: Ecological Information

Ecotoxicity: Not considered hazardous. Persistence and degradability: Biodegradable Bioaccumulative potential: Not available Mobility in soil: Mobile

SECTION 13: Disposal Considerations

Waste treatment methods

Not hazardous waste. Dispose of product in accordance with regulations.

SECTION 14: Transport Information

Not regulated by U.S. DOT as hazardous material.	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
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SECTION 15: Regulatory Information

Safety, health and environmental regulations/legislation specific for the product None

SECTION 16:	Other Information

Packing group:

Environmental hazards: Special precautions for user: Not applicable Not applicable

Not applicable

Issued: 5/11/2015

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