

SAFETY DATA SHEET

I. IDENTIFICATION

REVISED: Jan. 1, 2015

BUG-JUICE INSECTICIDE PAINT ADDITIVE

Recommended Use: Pest Control



WALLA WALLA ENVIRONMENTAL, INC.	EMERGENCY PHONE	HMIS HAZARD RATING	
4 West Rees Avenue	(800) 247-9011	Health	1
P. O. Box 1298	(509) 522-0490	Flammability	0
Walla Walla WA 99362	(509) 522-0351 FAX	Reactivity	0

II. HAZARD(S) IDENTIFICATION

Labeling:

Symbols: None

Signal Words: Caution

Hazard Statement:

ROUTES OF ENTRY:	Eyes and skin
TARGET ORGANS:	Eyes, Ingestion
EFFECTS OF OVEREXPOSURE:	Acute overexposure may result in respiratory irritation and transient paresthesia. It has produced ataxia, salivation, tremors, convulsions and respiratory depression in laboratory animal tests.
• Eyes:	May cause slight irritation
• Skin:	Contact with product may result in transient tingling and reddening of the skin.
• Inhalation:	Harmful if inhaled
• Ingestion:	
• Delayed/Long-Term Effects:	To date, no symptoms are known.

COMMON NAME:

Bug-Juice Insecticide Paint Additive

CHEMICAL FAMILY:

Mixture; active ingredient deltamethrin: (s)-alpha-cyano-3-phenoxybenzyl-(1R,3R)-3(2-2-dibromovinyl)-cyclopropanecarboxylate

FORMULA:

Proprietary

HAZARDOUS COMPONENTS:

INGREDIENT	% BY WEIGHT	CAS REG. NO.
Deltamethrin	4.75%	52918-63-5
1,2-Propanediol	15.20 %	57-55-6
Nonylphenol ethoxylate, branched	2.85%	127087-87-0

SPECIAL CAUTIONS:

III. 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 physician or poison control center immediately.
• Skin:	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.
• Inhalation:	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable mouth-to-mouth, if possible. 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.

FLASH POINT	LEL (Lower)	UEL (Upper)
Does not flash	No data available	No data available

EXTINGUISHING MEDIA:

Carbon dioxide (CO₂), Dry chemical, Foam or Water.

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.

SPECIAL FIRE FIGHTING PROCEDURES:

Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. 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.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Dangerous gases are evolved in the event of a fire. 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.

V. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the adverse effect of the spill. Ensure that the disposal is in compliance with all Federal, State/Provincial and local regulations (see Section 13 for applicable RCRA number). Refer to Section 15 for applicable Reportable Quantity (RQ) and other regulatory requirements.

Small Spills: Absorb with an inert absorbent material such as granular clay, sawdust, or pet litter. Sweep up carefully while avoiding the formation of a dust cloud. Place in an approved chemical waste container for disposal. Rinse spill area with small amount of soapy water. Contain and absorb the residue with inert absorbents and place into the same disposal container. Area can be washed with water to remove the last trace residue. Do not allow water to contaminate water supplies or sewers.

Large Spills: Eliminate all ignition sources. Stop leak if you can do so without coming into contact with spilled material. Dike far ahead of liquid spill or later disposal. All equipment used to clean up spill should be grounded.

Additional Information: Prevent entry into waterways, sewers, basements, or confined areas. Inform appropriate authorities immediately if contamination occurs. Contact Walla Walla Environmental for further assistance, if necessary.

VI. HANDLING AND STORAGE

STORAGE TEMPERATURES:

Keep away from heat and sources of ignition.

SHELF LIFE:

SPECIAL SENSITIVITY:

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.

PRECAUTIONS TO BE TAKEN IN HANDLING:

Avoid breathing vapors or spray mist. 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.

PROPER STORAGE PRECAUTIONS:

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.

VII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

VENTILATION:

Ensure good ventilation. Control airborne concentrations below the appropriate exposure guideline (see below for any applicable OSHA/ACGIH Exposure Limits). Local exhaust ventilation may be necessary.

EYE PROTECTION:

Tightly fitting safety goggles.

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.

PROTECTIVE CLOTHING:

Wear long-sleeved shirt and long pants and shoes, plus socks. In normal use and handling conditions, please refer to the label and/or leaflet. Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

SPILL CLEAN-UP PROTECTIVE EQUIPMENT:

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. Follow all label instructions. Train employees in safe use of the product.

NOTE: Eye wash facility and safety shower should be available.

EXPOSURE LIMITS – OSHA

ACTION LEVEL	TWA	STEL	TLV	PEL

VIII. PHYSICAL AND CHEMICAL PROPERTIES

BOILING: N/A	SPECIFIC GRAVITY: 1.053 @ 20°C
VAPOR PRESSURE (Air = 1): N/A	PERCENT VOLATILE by Vol. (%):
VAPOR DENSITY (AIR=1): N/A	VOLATILE ORGANIC COMPOUNDS (V.O.C.):
SOLUBILITY IN WATER: Suspends	EVAPORATION RATE: (Butyl acetate =1): No data available
pH: 6.6 in suspension	FREEZE-THAW STABILITY: No data available
PARTITION COEFFICIENT: No data available	AUTOIGNITION TEMP: No data available
APPEARANCE AND ODOR: White Liquid/Odorless	MELT/FREEZE POINT: No data available
FLAMMABILITY:	VISCOSITY: 1650 mPa's @ 20°C

FLASH POINT	LEL (Lower)	UEL (Upper)
No Data Available	No Data Available	No Data Available

IX. STABILITY AND REACTIVITY DATA**STABLE / UNSTABLE:**

Stable under recommended storage conditions.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products might include carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION (MAY/WILL NOT) OCCUR:

Will not occur

CONDITIONS TO AVOID:

Strong oxidizing and reducing agents

X. TOXICOLOGICAL INFORMATION**ROUTE OF ENTRY:**

Inhalation, Skin contact, Eye contact, Ingestion

EFFECTS OF ACUTE/CHRONIC EXPOSURE TO PROTECT:

Oral Toxicity: LD50 (rat) > 15,000 mg/kg (practically non-toxic)
 Dermal LD (rabbit): >10,000 mg/kg (practically non-toxic)
 Inhalation LC50 (rat, 4 hr): 1.02 mg/L (slightly toxic)
 Eye Irritation (rabbit): non-irritating (Mas. Avg. Score = 0.33)
 Skin Irritation (rabbit): non-irritating (Primary Irr. Index = 0.04)
 Skin Sensitization (guinea pig): non-sensitizing

NOTE:

The severity classifications listed above are those of Walla Walla Environmental, and, particularly for eye irritation, may not always coincide with EPA-mandated Precautionary Statements. THE FOLLOWING DATA WERE DEVELOPED WITH: Bug-Juice, the active ingredient CHRONIC TOXICITY AND 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 (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. Bug-Juice was not carcinogenic in rats or mice.

EXPOSURE LIMITS:

Not established.

IRRITANCY OF PRODUCT:

Skin Irritation (rabbit): Non-irritating (Primary Irr. Index = 0.04)
Eye Irritation (rabbit): Non-irritating; (Max. Avg. Score = .033)

SENSITIZATION TO PRODUCT:

Skin Sensitization (guinea pig): Non-sensitizing

TERATOGENICITY:

Information not available.

REPRODUCTIVE TOXICITY:

No developmental effects were observed in studies with rabbits in the absence of maternal toxicity. The development NOEL for the rat study was 11 mg/kg/day (highest dose tested). The developmental NOEL in rabbits was 25 mg/kg/day. A 2-generation reproductive study with rats produced clinical signs of toxicity, reduced body weight gain and mortality in both parents and offspring. The parental and reproductive (offspring) NOEL's were 80 ppm, which is equivalent to approximately 4 mg/kg/day for adults and 18 mg/kg/day for the offspring.

NEUROTOXICITY

BIG-JUICE 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.

MUTAGENICITY (GENETIC EFFECTS)

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

CARCINOGENICITY:

Not carcinogenic in lifetime feeding studies in rats and mice.

NOTE: Acute toxicity studies have been bridged from a similar formulation(s).

The non-acute information pertains to the active ingredient(s).

XI. ECOLOGICAL INFORMATION**ENVIRONMENTAL CONSIDERATIONS:**

This product is extremely toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the 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.

THE FOLLOWING DATA WERE DEVELOPED WITH DELTAMETHRIN TECHNICAL 99.00%.

ECOLOGICAL TOXICITY:

Deltamethrin Technical is highly toxic to fish and other aquatic species, however, the toxicity to avian species is relatively low.

Avian

Bobwhite Quail (LD50): >2250 mg/kg
Bobwhite Quail (dietary LC50): >5620 ppm
Mallard Duck (dietary LC50): >8039 ppm
Quail Reproduction (repro NOEL): 450 ppm
Duck Reproduction (repro NOEL): 450 ppm

Aquatic

Rainbow Trout (96-Hour LC50): 0.26 ppb
Bluegill Sunfish (96-Hour LC50): 0.17 ppb
Sheepshead Minnow (96-Hour LC50): 0.48 ppb
Eastern Oyster (96-Hour LC50): 8.2 ppb
Mysid Shrimp (96-Hour LC50): 4.6 ppt; NOEC = 1. Ppt
Mollusk Shell Deposition (EC50): 8.2 ppb
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 organisms. 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 solubility in water will be a factor in limiting its bioconcentration, as well. Bug-Juice hydrolyzes under alkaline conditions. Leaching studies indicate that Bug-Juice is immobile.

THE FOLLOWING DATA WERE DEVELOPED WITH: Bug-Juice

Technical Water Solubility: <0.20 micrograms/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
Kads: 960 – 4750 depending on soil type
Koc: 204,000 – 577,000 depending upon soil type
Bioconcentration Factor (BCF in bluegill sunfish): 189-3630x

PERSISTENCE AND DEGRADABILITY:

Deltamethrin: not rapidly biodegradable

BIO-ACCUMULATIVE POTENTIAL:

Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 189 – 3,930

MOBILITY IN SOIL:

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.

XII. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. 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 Packaging: Triple rinse containers. Add washings to sprayer at time of filling. 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.

Container Disposal: Do not reuse empty container. Wrap container with paper and put in trash collection.

SPECIAL DISPOSAL CONSIDERATIONS:

Do not contaminate water, food or feed by disposal.

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

XIII. TRANSPORTATION INFORMATION

D.O.T. HAZARDOUS SHIPPING (if applicable): Not dangerous goods/not hazardous material	D.O.T. HAZARD CLASS: Class 9
D.O.T. LABELS:	D.O.T. FRT CLASS NON-BULK:
D.O.T. PLACARDS:	D.O.T. FRT CLASS BULK:

NOTE: For transport purposes (49 CFE Part 173.132), the calculated 1-Hour LC (Rat) is: 4.08 mg/l.

WHMIS HAZARD CLASS: See HMIS rating (Section 15)	WHMIS LABELS REQUIRED:
WHMIS REGULATED INGREDIENT: Classification for Control Product Regulations (CPR): Registered pesticide under US FIFRA regulations; exempt from CPR classification.	REGULATED CONCENTRATION LEVEL:
PRODUCT REGULATED COMPONENT: (Also refer to Section XIV. Regulatory Information)	CONCENTRATION IN THIS PRODUCT:
MARINE POLLUTANT: Yes	SPECIAL PRECAUTIONS:

XIV. REGULATORY INFORMATION**FDA APPROVAL:****WHMIS CLASSIFICATION (Canada)****CERCLA – REPORTABLE QUANTITIES (CFR 40 302.4)**

Regulated Component:	Reportable Quantity (RQ) - final
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SARA TITLE III NOTIFICATION: (CFR 40) (Community Right to Know)

Sec. 311. Extremely Hazardous Substances (EHS):	TQ Limit:	CAS Reg. No.:
Sec. 312. Hazardous Chemicals – CFR 1910.119 (OSHA Status)		CAS Reg. No.:
Acute:	Yes	
Chronic:	No	
Fire:	No	
Pressure:	No	
Reactive:	No	
Sec. 313. Toxic Chemicals-40 CFR 372365 (Form R): No components listed		CAS Reg. No.:

PROPOSITION 65:

This product does not contain any chemical which is known to the State of California to cause cancer or birth defects or other reproductive harm. The following chemicals associated with the product are subject to the right-to-know regulations in these states. No components regulated.

RCRA STATUS-40 CFR 302.4:

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.

TSCA STATUS:

1,2-Propanediol 57-55-6
Nonylphenol ethoxylate, branched 127087-87-0

XV. OTHER INFORMATION**SPECIAL COMMENTS:****Hazard Ratings:**

HEALTH FLAMM REACT OTHER
NFPA 1 0 0
HMIS 1 0 0 B

Revised Sections:

Prepared by: Regulatory Department
Phone: 800-247-9011

Disclaimer:

This information is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with label instructions.

PREPARED BY: Cassie J. Rothstrom, President & CEO

DATE: 5/6/2014

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