Material Safety Data Sheet

1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION
Walla Walla Environmental, Inc.
4 West Rees Ave.
Walla Walla, Wa 99362
UNITED STATES OF AMERICA

Emergency Telephone Number:

In case of medical, environmental or transportation emergencies or inquiries, call:
1-800-247-9011

Product Name: BUG JUICE INSECTICIDE PAINT ADDITIVE
EPA Registration Number: 47332-11
Walla Walla Environmental, Inc.
4 West Rees Avenue
Walla Walla, WA 99362

For Medical, Transportation or other Emergency call: 800-247-9011
(M-F 7 a.m. – 5 p.m. PST)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
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<tbody>
<tr>
<td>Deltamethrin</td>
<td>52918-63-5</td>
<td>4.75</td>
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<tr>
<td>1, 2-Propanediol</td>
<td>57-55-6</td>
<td>15.20</td>
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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Caution! Hazard to humans and domestic animals. Harmful if inhaled. Do not breathe vapors or spray mist. Contact with product may result in transient tingling and reddening of the skin. Remove and wash contaminated clothing before re-use.

Physical State: Liquid Suspension
Odor: None
Appearance: White
Routes of Exposure: Inhalation, Skin Contact
Immediate Effects Skin: Contact with product may result in transient tingling and reddening of the skin.
Inhalation: Harmful if inhaled. Do not breathe vapors or spray mist.
Potential Environmental Effect
Extremely toxic to fish and aquatic invertebrates.

4. FIRST AID MEASURES

General
When possible, have the product container or label with you when calling poison control center or doctor or going for treatment.

Eye
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.

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.

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.

Note to Physician
There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient’s condition is recommended.

5. FIRE FIGHTING MEASURES

Flash Point
Not applicable

Suitable Extinguishing Media
Carbon dioxide (CO2), dry chemical, foam or water.

Fire Fighting Instructions
Fight fire from upwind position. Evacuate personnel to save areas. Cool closed container(s)/tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. In case of spill, leak or emergency, use a NIOSH approved chemical cartridge-type respirator.

Methods for Clean Up
Dikes are to prevent runoff. Collect and transfer the product into a properly labeled and tightly closed container. Soak up with inert absorbent material (e.g. sand, silica, gel, acid binder, universal binder, sawdust). Decontaminate tools and equipment following cleanup.

Additional Advice
Isolate area. Contaminated soli may have to be removed and disposed.
7. HANDLING and STORAGE
   Handling Procedures
   Avoid contact with skin, eyes and clothing. Handle and open container in a manner as to prevent spillage. Smoking, eating and drinking should be prohibited in the application area.

   Storing Procedures
   Store in original container. Do not contaminate water, food, or feed by storage or disposal. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.

   Work/Hygenic Procedures
   Handle in accordance with good industrial hygiene and safety practice. Recommendations for exposure control/personal protection are intended for manufacture, formulation and packaging of the product.

   Min/Max Storage Temp.  No data available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
   Additional advice on system design:
   ENGINEERING CONTROLS
   Control airborne concentrations below the appropriate exposure guideline (see below for any applicable OSHA/ACGIH Exposure Limits). Local exhaust ventilation may be necessary.

   Hygiene measures:
   Wash thoroughly after handling. Avoid skin contact.

   Eye protection:
   Wear safety glasses.

   Respiratory protection:
   Ensure good ventilation.

9. PHYSICAL and CHEMICAL PROPERTIES
   APPEARANCE: A white liquid
   ODOR: Odorless

   BASIC PHYSICAL PROPERTIES

   PHYSICAL STATE: Liquid
   PH: 6.6 in suspension
   VAPOR PRESSURE: Not available
   VAPOR DENSITY (AIR=1): Not available
   EVAPORATION RATE (BUTYL ACETATE = 1): Not available
   SPECIFIC GRAVITY OR DENSITY: 1.053 @ 200C
   PACKING (BULK) DENSITY: Not available
   BOILING POINT/RANGE: Not available
   MELTING/FREEZING POINT RANGE: Not available
   SOLUBILITY (IN WATER): Suspend
   SOLUBILITY IN SOLVENTS/OIL (SPECIFIED): Not available
   DUST EXPLOSION SEVERITY DATA: Not applicable
   MINIMUM IGNITION ENERGY (MJ): Not available
   MINIMUM EXPLOSION CONCENTRATION (MEC): Not available
   LIMITED OXYGEN CONCENTRATION (LOC): Not available
   VISCOSITY: 1650 mPa's @ 200C

10. STABILITY and REACTIVITY
   CHEMICAL STABILITY: Stable

   INCOMPATIBILITY: Strong oxidizing and reducing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products might include carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION
THE FOLLOWING DATA WERE DEVELOPED WITH: DELTAMETHRIN TECHNICAL 99.00%

ACUTE TOXICITY
ORAL LD50 (rat): > 15,000 mg/kg (practically non-toxic)
DERMAL LD50 (rabbit): > 10,000 mg/kg (practically non-toxic)
INHALATION LC50 (rat, 4hr): 1.02 mg/L (slightly toxic)
EYE IRRITATION (rabbit): non-irritating (Max. 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.

REPRODUCTIVE AND DEVELOPMENTAL 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
BUG 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.
12. ECOLOGICAL INFORMATION

ENVIRONMENTAL PRECAUTIONS
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 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 insolubility 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 @ 250C
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
13. **DISPOSAL CONSIDERATIONS**
Do not contaminate water, food or feed by disposal. 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.

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

**RCRA CLASSIFICATION:**
RCRA HAZARDOUS WASTE INGREDIENTS: None

14. **TRANSPORT INFORMATION**
**PROPER SHIPPING NAME:** Not DOT regulated.
**NOTE:** For transport purposes (49 CFR Part 173.132), the calculated 1-Hour LC50 (Rat) is: 4.08 mg/l.

15. **REGULATORY INFORMATION**
**STATE REGULATIONS**
CALIFORNIA (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

**U.S. FEDERAL REGULATIONS**
EPA Registration Number: 47332-11
CARCINOGENICITY: NTP: No IARC: No OSHA: No
SARA TITLE III SECTION 311/312 - HAZARD CLASSES:
Acute Health Hazard - Yes
Chronic Health Hazard - No
Fire Hazard - No
Sudden Release of Pressure Hazard - No
Reactivity Hazard - No
SARA TITLE III - NOTIFICATIONS AND INFORMATION
Section 302 (EHS) ingredients: None
Section 304 (CERCLA & EHS) ingredients (RQ): None
SARA 313 : No components listed

**WHMIS INGREDIENT DISCLOSURE LISTED COMPONENTS:**
CPC NUMBER: None

**WHMIS Classification for Control Product Regulations (CPR):**
- Registered pesticide under US FIFRA regulations; exempt from CPR classification.
- The MSDS contains all CPR required hazard-related information.
- WHMIS HAZARD RATING: See HMIS rating (Section 16)
16. OTHER INFORMATION

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.

Last Update:
June 16, 2011