MATERIAL SAFETY DATA SHEET

SLUGBUG

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION REAL FARM TECHNOLOGIES, LLC 605 12TH Street Aurora, NE 68818

PRODUCT NAME: SLUGBUG

EPA REG. NO.: 84930-4-89286

CHEMICAL NAME: Bifenthrin: (2 methyl[1,1 –biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate* - *Cis isomers 97% minimum, trans isomers 3% maximum. **CHEMICAL FAMILY:** Insecticide

Hotline Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – WARNING: May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses), Harmful if inhaled or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

3. COMPOSITION, INFORMATION ON INGREDIENTS							
Chemical Ingredients:	Percentage by Weight:	CAS No.	<u>TLV (Units)</u>				
Bifenthrin	25.0	82657-04-3	Not listed				
Inert Ingredients, including							
Aromatic Hydrocarbons, contains	75.0	64742-94-5	100ppm				
Naphthalene		91-20-3	52				

4. FIRST AID MEASURES

If in 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.

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 Swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person. **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.

Note to Physician: This product is a Pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is systematic and supportive. Digestible fats, oils or alcohol may increase absorption and so should be avoided. Contains petroleum distillate — vomiting may cause aspiration pneumonia. This product contains light aromatic hydrocarbons that can produce a severe pneumonitis or fatal pulmonary edema if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Reversible skin sensitizations (paresthesia) may occur. **FOR A MEDICAL EMERGENCY** INVOLVING THIS PRODUCT have the product container or label with you when calling a poison control center or doctor.

5. FIRE FIGHTING MEASURES

FLASH POINT (^OF/Test Method): FLAMMABLE LIMITS (LFL & UFL): EXTINGUISHING MEDIA: HAZARDOUS COMBUSTION PRODUCTS: SPECIAL FIRE FIGHTING PROCEDURES: >160°F Not established Use foam, dry chemical, carbon dioxide, water spray or fog. Toxic fumes may be emitted in a fire situation. Evacuate area and fight fire upwind from a safe distance to avoid hazardous

vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Moderately Combustible Liquid. Can form explosive mixtures at temperatures at or above the flashpoint. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion. **FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full facepiece. Full fire fighting turn-out gear (Bunker gear).

HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and toxic chlorine compounds. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Pick up spilled liquid with absorbent material and sweep up for disposal. Place it and damaged unusable containers in a landfill appropriate for non hazardous chemical waste. Check local, state and federal regulations for proper disposal. **NOTE:** Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water. Always wear proper protective equipment when working with the product.

7. HANDLING AND STORAGE

HANDLING: Wash hands after handling, and 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.

STORAGE: Do not freeze. Do not store below 40F. If crystals are observed warm material to above 60F by placing container in a warm location. Shake or roll container periodically to re-dissolve solids. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, 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.

RESPIRATORY PROTECTION: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit.

EYE PROTECTION: Wear chemical goggles or shielded safety glasses when handling and mixing product.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements.

Personal Protective Equipment (PPE): Eye protection, long sleeved shirt and long pants, shoes plus socks and chemical resistant gloves. Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:Amber liquid, mild aromaticSOLUBILITY: EmulsifiespH: 5.3SPECIFIC GRAVITY (Water=1):0.93 - 0.99 g/mlBULK DENSITY:7.74 - 8.24 lbs/gal.VAPOR PRESSURE: Not establishedBOILING POINT: Not establishedFRCENT VOLATILE (by volume): Not establishedPERCENT VOLATILE (by volume): Not establishedEVAPORATION RATE: Not establishedNote: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: Stable
 CONDITIONS TO AVOID: Excessive heat and fire.

 IMCOMPATIBILITY: None Known
 HAZARDOUS POLYMERIZATION: Will not occur.

 HAZARDOUS DECOMPOSITION PRODUCTS: May emit toxic fumes as it burns.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀: >200 mg/kg Eye Irritation: Causes minimal irritation Inhalation LC₅₀: >1.80 mg/L Carcinogenic Potential: None listed in OSHA, NTP, IARC, or ACGIH

Acute Dermal LD₅₀: >2,000 mg/kg Skin Irritation: May causes irritation Skin sensitization: Sensitizer

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. 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 make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

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The use of ARC-BIFENICIDE 25EC is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to http://www.acrecycle.org/ for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Shipping Description: PYRETHROID PESTICIDE, LIQUID, TOXIC (BIFENTHRIN), 6.1, UN3352, III ERG GUIDE 151 DOT HAZARD CLASS: Toxic 6.1 UN NUMBER: UN 3352 DOT PACKING GROUP: PG III DOT PRIMARY/SECONDARY LABEL: Toxic 6.1 DOT PRIMARY/SECONDARY PLACARD: Toxic 6.1

15. REGULATORY INFORMATION

NFPA RATINGS:	Least = 0	Slight = 1	Moderat	:e = 2	High = 3	Severe = 4
Ratings for this proc	duct: Health	-3 Fla	mmability – 2	Instability	- o	Special Hazards – None Specified
SARA Title III Hazaro	d Category:	Immediate Delayed	<u>Y</u>	Fire Reactive	<u>Y</u> <u>N</u>	Sudden Release of Pressure <u>N</u>

Reportable Quantity (RQ) under U.S. CERCLA: Napthalene (CAS No. 91-20-3), 100 lbs.

SARA, Title III, Section 313: Bifenthrin (CAS No. 82657-04-3); Napthalene <4% (CAS No. 91-20-3); 1,2,4 Trimethylbenzene <1% (CAS No. 95-63-6)

CA Proposition 65: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

16. OTHER

Date of Issue: 02/04/13 Supersedes: New

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