SAFETY DATA SHEET (GHS)

VAMPYRE® Misting Concentrate

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: VAMPYRE® Misting Concentrate
PRODUCT DESCRIPTION: A micro-emulsion, water-based spray with Pyrethrins.
PRODUCT CODE: 74406, EPA REG. NO. : 1021-1800
ACTIVE INGREDIENT(S): Pyrethrins; Piperonyl Butoxide

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.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:
Skin Sensitization, Category 1B
Acute Toxicity (Inhalation), Category 4
Acute Toxicity (Oral), Category 4

Environmental:
Acute Hazards to the Aquatic Environment, Category 1

Physical:
Combustible Liquids, Category 4

GHS LABEL

Exclamation mark (GHS 07)
Environment (GHS 09)

SIGNAL WORD: WARNING

HAZARD STATEMENTS
H227: Combustible liquid.
H317: May cause an allergic skin reaction.
H332: Harmful if inhaled.
VAMPYRE® Misting Concentrate

H302: Harmful if swallowed.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

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 not 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.
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins</td>
<td>3</td>
<td>8003-34-7</td>
</tr>
<tr>
<td>Piperonyl Butoxide</td>
<td>30</td>
<td>51-03-6</td>
</tr>
</tbody>
</table>

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. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.

INHALATION: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
NOTES TO PHYSICIAN: For skin effects, a highly efficient therapeutic agent for pyrethrin exposure is topical application of tocopherol acetate (Vitamin E).

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: OSHA-COMBUSTIBLE LIQUID

EXTINGUISHING MEDIA: Use water spray, foam, carbon dioxide or dry chemical.

HAZARDOUS COMBUSTION PRODUCTS: Under fire conditions this product will support combustion and may decompose to give off toxic gases such as carbon monoxide, carbon dioxide, 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: Shut off ignition sources. 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. Clean spill area of residues and absorbent.

LARGE SPILL: Shut off ignition sources. 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, etc. via drains, pumps, etc. Absorb with appropriate absorbent. Clean spill area of residues and absorbent.

ENVIRONMENTAL PRECAUTIONS

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

7. HANDLING AND STORAGE

GENERAL PROCEDURES: DO NOT APPLY THIS PRODUCT IN OR ON ELECTRICAL EQUIPMENT DUE TO THE POSSIBILITY OF SHOCK HAZARD. Do not use or store near heat, sparks, open flame, or any other ignition sources.

HANDLING: Mixers, loaders, and other handlers:

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

Applicators using a high-pressure hand-wand in an enclosed-area must also wear the following additional PPE:

- A MSHA/NIOSH-approved respirator with a dust/ mist filter with MSHA/NIOSH approval number prefix TC-21C, or any N, R, P or HE filter.

Applicators using hand-held foggers in an enclosed-area must also wear the following additional PPE:

- Wear a MSHA/NIOSH-approved respirator, such as a half-face, full-face, or hood-style NIOSH-approved respirator with a dust/ mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any N, R, P or HE filter.

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, well-ventilated place. Keep container closed. Do not use or store near heat, sparks, open flame, any ignition sources, or near strong acids, bases, and oxidizers. Always store pesticides in the original container. Store away
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

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.

RESPIRATORY: Applicators using a high-pressure hand-wand in an enclosed-area must also wear the following additional PPE:
A MSHA/NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C, or any N, R, P or HE filter.

Applicators using hand-held foggers in an enclosed-area must also wear the following additional PPE:
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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 toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Slight solvent smell.

APPEARANCE: Amber-colored liquid.

COLOR: Gardner Scale 10

pH: 5.25

Notes: @ 10% in water.

FLASHPOINT AND METHOD: 72.8°C (163°F) TAG Closed Cup

VAPOR DENSITY: Heavier than air.
FREEZING POINT: Not Available
SOLUBILITY IN WATER: Miscible in water.
SPECIFIC GRAVITY: 1.024 (Water = 1) at 20 °C (68 °F)
VISCOSITY #1: 99.2 CPS at 23 °C (73.4 °F)
(VOC): < 1.000 %

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: > 2000 mg/kg
Notes: Albino rabbit.
ORAL LD50: 500-5000 mg/kg
Notes: Albino rat.
INHALATION LC50: > 2.04 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 within 48 hours.

SKIN EFFECTS: Slight irritation at 72 hours. Produced a primary skin Irritation Index = 1.11

SENSITIZATION: When applied dermally to albino guinea pigs, this product appears to be a dermal sensitizer.

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.

Carcinogenicity/ Oncogenicity - Slightly elevated incidences of benign tumors of the thyroid and liver were seen in rats following lifetime administration of high doses of Pyrethrins. Further detailed scientific studies into the mode of action responsible for these effects show that:
1) Because of biological species differences, the rat thyroid tumors are not relevant to humans.
2) The rat liver tumors occur in animals only at doses greatly exceeding human exposure levels and that cause cell proliferation (mitogenesis).
Based on these data, the USEPA has classified Pyrethrins as "Not Likely to be Carcinogenic to Humans," at doses that do not cause a mitogenic response in the liver/ cell proliferation. Thus, Pyrethrins can be considered to be non-carcinogenic at exposure levels relevant to human use of Pyrethrins-containing products.

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.
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### 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION:** This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. This product has a potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. This product is highly toxic to bees exposed to direct treatment 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. 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 washwaters or rinsate.

### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** To avoid wastes, use all materials in the containers by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (NOTE: such programs are often run by state or local governments, or by industry).

**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:** This product contains the following RCRA/CERCLA Hazardous wastes/substances:

- Pyrethrins, N/A, 1 Lb.

### 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION)**
- **PROPER SHIPPING NAME:** UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., RQ (Pyrethrins)
- **PRIMARY HAZARD CLASS/DIVISION:** 9
- **PACKING GROUP:** III
- **REPORTABLE QUANTITY (RQ) UNDER CERCLA:** 1 Lb. (Pyrethrins/Pyrethrum)
- **OTHER SHIPPING INFORMATION:** This product is not regulated as a hazardous material by the DOT in quantities less than < 33.3 Lbs.

- Shipping name for quantities less than < 33.3 Lbs.: Insecticides, Insect or Animal Repellents, Liquid, N.O.S.
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AIR (ICAO/IATA)

SHIPPING NAME: UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., RQ (Pyrethrins)

PRIMARY HAZARD CLASS/DIVISION: 9

PACKING GROUP: III

NOTE: This material is not regulated as a hazardous material by IATA/ ICAO regulations in quantities less than < 33.3 Lbs.

Shipping name for quantities less than < 33.3 Lbs.: Insecticides, Insect or Animal Repellents, Liquid, N.O.S.

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Available

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

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

313 REPORTABLE INGREDIENTS:

COMPONENT, CAS#, Max %

Piperonyl Butoxide, 000051-03-6, 30.0

302/304 EMERGENCY PLANNING

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

See Section 13 of this MSDS for the components that are subject to emergency requirements under CERCLA Section 103(a)(40 CFR 302.4).

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 less than 1% VOC’s.

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. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, and clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE):
MIXER'S, LOADING, APPICATORS, AND OTHER HANDLERS:
Wear a long-sleeved shirt and long pants, shoes and socks.
Wear chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile Rubber, or Viton.

APPICATORS USING A HIGH-PRESSURE HAND-WAND IN AN ENCLOSED-AREA MUST ALSO WEAR THE FOLLOWING ADDITIONAL PPE:
A MSHA/NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C, or any R, P or HE filter.

APPICATORS USING HAND-HELD FOGGERS IN AN ENCLOSED-AREA MUST ALSO WEAR THE FOLLOWING ADDITIONAL PPE:
Wear a MSHA/NIOSH-approved respirator, such as a half-face, full-face, or hood-style NIOSH-approved respirator with a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any R, P or HE filter.

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 6/16/2014 MSDS. Revised: Section 9: COLOR.