1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT CODE: 002662

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS: EMERGENCY OVERVIEW

CAUTION. OSHA-COMBUSTIBLE LIQUID. Do not use or store near heat, sparks, open flame, or any other ignition sources. Harmful if swallowed, inhaled, or absorbed through the skin. Contains petroleum distillates - Vomiting may cause aspiration pneumonia. Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or spray mists of this product. DO NOT USE THIS PRODUCT IN OR ON ELECTRICAL EQUIPMENT DUE TO POSSIBILITY OF SHOCK HAZARD. DO NOT allow this product to exceed 160°F (71.1°C) as Hydrogen Cyanide Gas may be produced.

EYES: May cause temporary irritation, tearing, and blurred vision.

SKIN: Can cause skin irritation. Can cause a burning or pricking sensation on more sensitive areas (face, eyes, mouth).

SKIN ABSORPTION: Harmful if absorbed through the skin.

INGESTION: Harmful if swallowed. Small amounts of this material may get into the lungs during ingestion or vomiting and may cause mild to severe lung injury.

INHALATION: Harmful if inhaled.

CHRONIC EFFECTS: None known.

ECOLOGICAL: See Section’s 12 and 15.

TOXICOLOGICAL: See Section 11.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENT(s)</th>
<th>CAS #</th>
<th>EINECS</th>
<th>EXPOSURE LIMITS</th>
<th>% BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esfenvalerate [(S)-Cyano (3-</td>
<td>66230-04-4</td>
<td>None</td>
<td>2 mg/m³ (TWA, skin)</td>
<td>3.48</td>
</tr>
<tr>
<td>phenoxyphenyl) methyl 4-chloro-alpha-(1-</td>
<td></td>
<td></td>
<td>(supplier recommended)</td>
<td></td>
</tr>
<tr>
<td>-methylene) benzeneacetate]</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Paraffinic, Naphthenic solvent</td>
<td>64742-47-8</td>
<td>265-149-8</td>
<td>100ppm (525mg/m³) TWA</td>
<td>25→50</td>
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<tr>
<td>(supplier recommended)</td>
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</tbody>
</table>

PEL = Permissible Exposure Limits. TWA = Time Weighted Average (8 hr). TLV = Threshold Limit Value. STEL = Short Term Exposure Limit (15 min.). COMMENTS: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.
4. FIRST-AID MEASURES

FIRST AID PROCEDURES:

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.

INHALATION: 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 further treatment advice.

INGESTION: 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 doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: This product contains Pyrethroids and Petroleum Distillates; Vomiting may pose an aspiration pneumonia hazard. For skin effects, a highly efficient therapeutic agent for Pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E). Diazepam has been recommended to reduce the CNS effects of Esfenvalerate.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: 160 °F / 71.1 °C METHOD: TAG Closed Cup
This product is classified as an OSHA-COMBUSTIBLE LIQUID.

FLAMMABLE LIMITS:

LOWER FLAMMABLE LIMIT: not established.
UPPER FLAMMABLE LIMIT: not established.

AUTOIGNITION TEMPERATURE: not established.

SENSITIVE STATIC DISCHARGE: Yes, use proper bonding and/ or grounding procedures.

HAZARDOUS COMBUSTION PRODUCTS: Under fire conditions this product will support combustion and may decompose to give off toxic gasses such as HYDROGEN CYANIDE, carbon monoxide, carbon dioxide, and nitrogen oxides.

EXTINGUISHING MEDIA: Foam, carbon dioxide, or dry chemical.

FIRE FIGHTING INSTRUCTIONS: Treat as an oil fire. Keep personal removed and upwind of fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water spray. Contain the run-off, if possible, for proper disposal.
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.

**WASTE DISPOSAL METHOD:**
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 USE THIS PRODUCT IN OR ON ELECTRICAL EQUIPMENT DUE TO POSSIBILITY OF SHOCK HAZARD.

**COMBUSTIBLE LIQUID** - Do not use or store near heat, sparks, open flame, or any other ignition sources.

**HANDLING:** Take prudent precautions to avoid contact with skin, eyes, and clothing. Avoid breathing vapors or spray mists of this product. Do not contaminate water, food or feedstuffs by storage, handling or disposal. Read and observe all precautions and instructions on the label.

**STORAGE:** Store containers upright and closed. Store in areas that are cool, dry, and well-ventilated. Keep away from heat, sparks, open flame, and any other ignition sources. DO NOT allow this product to exceed 160°F (71.1°C) as Hydrogen Cyanide Gas may be produced. Keep away from strong acids, bases and oxidizers. Always store pesticides in the original container. Store away from food and pet food. KEEP OUT OF REACH OF CHILDREN.

**WORK HYGIENIC PRACTICES:**
DO NOT SMOKE, EAT, 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 and using the toilet.

**ELECTROSTATIC ACCUMULATION:**
This product contains petroleum distillates, for which there is the potential for electrostatic accumulation. Proper grounding procedures should be used when transferring this material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE LIMITS:** Not established by OSHA or ACGIH (see Section 3 for individual components).

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

**RESPIRATORY PROTECTION:** Not required. Take prudent precautions to avoid breathing vapors or spray mists of this product.

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

**EYE PROTECTION:** Take prudent precautions to avoid contact with eyes.

24 HOUR EMERGENCY PHONE (CHEMTREC): (800)-424-9300 (ALL OTHER AREAS): (703) 527-3887
9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Pale, yellow-colored liquid.
ODOR: Strong solvent odor.
PHYSICAL STATE: Liquid.
VAPOR PRESSURE: Not established
VOC: < 28%
VAPOR DENSITY: Heavier than air.
BOILING POINT: Not established
MELTING POINT: Not applicable.
SOLUBILITY: Miscible in water.
SPECIFIC GRAVITY: 0.853 (water = 1) @ 20°C (68°F)
COLOR, (GARDNER): 2
pH: 4.9 @ 5% in Water.
VISCOSITY: 10 CPS @ 23°C (73.4°F) Brookfield
REFRACTIVE INDEX: 1.4522 @ 25°C (77°F)

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.
INCOMPATIBILITY: Strong acidic or alkaline materials.
HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen Cyanide Gas may be formed by thermal decomposition at 160°F (71.1°C), or by contact with alkaline substances such as soda ash & lye.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE STUDIES:
EYE: Primary eye irritation (rabbit): Irritation clearing in 72 hours.
SKIN: Primary skin irritation index (rabbit): Moderate irritation at 72 hours. Irritation Index = 2.13
Dermal Sensitization (guinea pig): Negative; Not a dermal sensitizer.
Acute Dermal LD$_{50}$ (rabbit): > 2.0 g/kg
INGESTION: Acute Oral LD$_{50}$ (rat) = 1.47 g/kg
INHALATION: Acute Inhalation LC$_{50}$ (rat)
The Acute Inhalation LC$_{50}$ of this material places it in EPA Toxic Category III. Rats exposed for 4 hours to test atmosphere.
CARCINOGENICITY: 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 product is toxic to fish, birds and other wildlife. Do not contaminate ornamental fish ponds. 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 24 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. 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 into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

<table>
<thead>
<tr>
<th>PERSISTENCE IN THE ENVIRONMENT</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIODEGRADATION:</td>
<td>Not available</td>
</tr>
<tr>
<td>CHEMICAL DEGRADATION:</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**TOXIC EFFECTS ON ORGANISMS:**

| FISH: LC₅₀                      | Not established|
| BIRD: LC₅₀                      | Not established|

**TOXICITY TO USEFUL INSECTS:** Unknown
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. To avoid wastes, use all material in this container 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).

CONTAINER DISPOSAL:

PESTICIDE DISPOSAL - RESIDENTIAL USE: Non-refillable container. Do not reuse or refill this container. If empty: Place in trash or offer or 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.

PESTICIDE DISPOSAL - COMMERCIAL USE: 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 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 ¼ full with water and recap. 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 ¼ full with water. Replace and tighten closures. Tip container on its side and roll it 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 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 / CERCLA HAZARDOUS WASTE:

INGREDIENT RCRA ID #: CERCLA RQ-VALUE
None

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

U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.
HAZARD CLASS: Non-Hazardous
IDENTIFICATION NUMBER (UN or NA): N/A
PACKING GROUP: N/A

OTHER SHIPPING INFORMATION: Not regulated as Hazardous by the Department of Transportation for Non-Bulk quantities ( < 119 Gallons/ 450 Liters). Please contact MGK® when shipping in Bulk quantities.

INTERNATIONAL TRANSPORTATION REGULATIONS:

ICAO / IATA DESCRIPTION: Non-Hazardous
PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

IMO DESCRIPTION (IMDG CODE): Not Available.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

SARA TITLE III: (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)
311/ 312 HAZARD CATEGORIES:
FIRE: YES PRESSURE GENERATING: NO REACTIVITY: NO ACUTE: YES

SECTION 313 REPORTABLE INGREDIENTS:
This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:
CAS#: CHEMICAL NAME: % BY WEIGHT:
066230-04-4 Esfenvalerate [(S)-Cyano (3-phenoxyphenyl) methyl 4-chloro-alpha-(1 - methylethyl) benzeneacetate] 3.48

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.

STATE REGULATIONS:
VOLATILE ORGANIC COMPOUNDS (VOC): This product contains less than 28% VOC’s.

24 HOUR EMERGENCY PHONE (CHEMTREC): (800)-424-9300 (ALL OTHER AREAS): (703) 527-3887
16. OTHER INFORMATION

HMIS RATINGS:
We assign HMIS ratings to this product based on the hazards of its ingredient(s). Since the customer is most aware of the applications and conditions of use, he must ensure that the proper personal protective equipment is provided consistent with information contained in Section’s 7 and 8 of this MSDS.

HMIS RATINGS:  
Health 2  
Flammability 2  
Reactivity 1

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.

Material Safety Data Sheet prepared by T. Azzivitto