MATERIAL SAFETY DATA SHEET

Date-Issued: 08/02/2006
MSDS Ref. No: 027783
Date-Revised: 
Revision No:

Manna Pro Equine Fly & Mosquito Concentrate II
Manna Pro Livestock & Premise Insecticide Concentrate II

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Manna Pro Equine Fly & Mosquito Concentrate II
Manna Pro Livestock & Premise Insecticide Concentrate II

PRODUCT DESCRIPTION: An Insecticide Concentrate / Repellent.

PRODUCT CODE: 027783, EPA REG. NO. : 1021-1758-55392

MANUFACTURED FOR MANNA PRO Corp.
770 Spirit Park 40 Dr. Suite 150
St. Louis, MO 63005

24 HR. EMERGENCY TELEPHONE NUMBERS
CHEMTREC U.S. and CANADA: (800) 424-9300
CHEMTREC All Other Areas: (703) 527-3887
Emergency Phone: (888) 740-8712

Customer Service: (800) 690-9908

COMMENTS: Manna Pro Hours of operation are 8:30 am to 5:00 pm CST, 14:30 to 23:00 GMT.

For information regarding MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call the INTERNATIONAL POISON CENTER 24 hours a day at 1-888-740-8712.

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS#</th>
<th>EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permethrin</td>
<td>2.5</td>
<td>052645-53-1</td>
<td>258-067-9</td>
</tr>
</tbody>
</table>

COMMENTS: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: CAUTION. May be harmful if absorbed through the skin. Avoid contact with skin, eyes, and clothing.

POTENTIAL HEALTH EFFECTS

EYES: May cause mild eye irritation.

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

SKIN ABSORPTION: May be harmful if absorbed through the skin.
**INGESTION:** May be harmful if swallowed in large amounts.

**INHALATION:** Excessive inhalation may be irritating to the respiratory tract.

**CHRONIC:** None known.

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

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### 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 pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

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### 5. FIRE FIGHTING MEASURES

**FLASHPOINT AND METHOD:** > 93.3°C (200°F) TAG Closed Cup

**FLAMMABLE CLASS:** This product is NOT classified as flammable or combustible by OSHA.

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

**HAZARDOUS COMBUSTION PRODUCTS:** Under fire conditions this product may support combustion and may decompose to give off toxic gases such as Carbon Monoxide, Carbon Dioxide, and Nitrogen Oxide’s. Chlorine gas and Hydrogen Chloride may also be formed under fire conditions.

**FIRE FIGHTING PROCEDURES:** Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream.

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### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** 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 such as sand, or vermiculite. Clean spill area of residues and absorbent.
**LARGE SPILL:** 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, storage tanks, etc., via drains, pumps, etc. Absorb with appropriate absorbent such as sand or vermiculite. Clean spill area of residues and absorbent.

**ENVIRONMENTAL PRECAUTIONS**

**WATER SPILL:** 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.

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**7. HANDLING AND STORAGE**

**GENERAL PROCEDURES:** DO NOT USE IN OR AROUND ELECTRICAL EQUIPMENT DUE TO THE POSSIBILITY OF SHOCK HAZARD.

**HANDLING:** Take prudent precautions to avoid contact with skin, eyes, and clothing. Mechanical ventilation should be used when handling this product in enclosed spaces. Avoid breathing vapors or spray mists of this product. Wearing a respirator is not normally required when handling this product, but recommended in the absence of proper mechanical ventilation. Do not contaminate water, food or feedstuffs, by storage, handling, or by disposal. Read and observe all precautions and instructions on the label.

**STORAGE:** Store in a cool, dry place, preferably a locked storage area. Store above freezing. Do not store diluted spray. Store with container tightly sealed. Keep pesticide in original container; do not transfer to food or drink container. Avoid contamination of food, feed, and domestic water supplies.

KEEP OUT OF REACH OF CHILDREN.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE GUIDELINES:**

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Supplier OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
<td>ppm</td>
</tr>
<tr>
<td>Permethrin</td>
<td>TWA</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

**EXPOSURE LIMITS**

**ENGINEERING CONTROLS:** Mechanical ventilation should be used when handling this product in enclosed spaces. Local exhaust ventilation may be necessary.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Take prudent precautions to avoid contact with eyes.

**SKIN:** Take prudent precautions to avoid contact with skin and clothing.
RESPIRATORY: Wearing a respirator is not normally required when handling this product. Use in well ventilated areas. Take prudent precautions to avoid breathing vapors and/or spray mists of this product.

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 sweet-smell.
APPEARANCE: Milky opaque white liquid.
pH: 5.86
VAPOR PRESSURE: Not Available
VAPOR DENSITY: Heavier than air.
BOILING POINT: Not Available
FREEZING POINT: Not Available
MELTING POINT: Not Available
SOLUBILITY IN WATER: Partially miscible in water.
EVAPORATION RATE: Not Available
DENSITY: Not Available
SPECIFIC GRAVITY: 1.001 (Water = 1) at 20°C (68°F)
VISCOSSITY: 5.67CPS at 24°C (75.2°F) Brookfield
MOLECULAR WEIGHT: Not Available
(VOC): <1 %

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

CONDITIONS TO AVOID: Not compatible with strong acids or bases. Not compatible with strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: May decompose under fire or extreme temperatures to give off toxic Chlorine gas, Hydrogen Chloride, as well as Carbon Monoxide, Carbon Dioxide, and Nitrogen Oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: >2000 mg/kg
    Albino rabbit.

ORAL LD₅₀: >5000 mg/kg
    Albino rat.

INHALATION LC₅₀: The Acute Inhalation LC₅₀ of this material places it in EPA Toxic Category IV.

EYE EFFECTS: No irritation noted during the study.
SKIN EFFECTS: No irritation noted at 72 hours. Irritation Index = 0.4

SENSITIZATION: Negative; Not considered to be a dermal sensitizer to albino guinea pigs.

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.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Environmental data not available for this product.

ECOTOXICOLOGICAL INFORMATION: This pesticide is extremely toxic to fish. For terrestrial uses: 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 wash waters or rinsate. 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.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

IF EMPTY:
Do not reuse this container. Place in trash or offer for recycling if available.

IF PARTLY FILLED:
Call your local solid waste agency or 1-800-CLEAN-UP for disposal instructions. Never place unused product down any indoor or outdoor drain.

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

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.
PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

AIR (ICAO/IATA)
PROPER SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.
PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

VESSEL (IMO/IMDG)
PROPER SHIPPING NAME: Not Available

15. REGULATORY INFORMATION

UNITED STATES
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES:

FIRE: NO PRESSURE GENERATING: NO REACTIVITY: NO ACUTE: YES

313 REPORTABLE INGREDIENTS:
COMPONENT, CAS#, Max %

Permethrin, 052645-53-1, 2.50

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 1% VOC’s.

16. OTHER INFORMATION

REVISION SUMMARY Revision #: 5 This MSDS replaces the July 13, 2004 MSDS. Any changes in information are as follows: In Section 1 [ ] Print CHEMTREC Phone Number 24 Hour Emergency Phone Numbers In Section 2 Section 2 Footnotes In Section 4 Firstaid - Ingestion Notes to Physician In Section 7 General Procedures In Section 9 Specific Gravity Method Specific Gravity °F Specific Gravity °C

HMIS RATING

| HEALTH: | 1 |
| FLAMMABILITY: | 1 |
| PHYSICAL HAZARD: | 1 |

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