MSDS SHEET

EMERGENCY PHONE NUMBERS: (800) 548-2223 INFOTRAC (800) 535-5053

1. PRODUCT IDENTIFICATION

PRODUCT NAME: PY-DRY™
PRODUCT DESCRIPTION: An insecticide dust
CHEMICAL NAME: Not applicable

2. COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS: % BY WEIGHT
*Pyrethrins................................................. 1.00
**Piperonyl Butoxide [Alpha-(2-(2-=butoxyethoxy)ethoxy)-4-5]........................ 10.00
Methylenedioxy-2-propyltoluene]
***Paraffinic, Naphthenic solvent........................ MAX 4.00

CAS #   EXPOSURE LIMITS  EINECS  R#   
*  008003-34-7  5 MG/M³ (OSHA,ACGIH) unknown  R20
**  000051-03-6  not applicable  200-075-7 unclassified  
*** 064742-47-8  100 ppm (525 mg/m³) unknown unclassified

(Supplier recommended PEL) TWA
PEL = Permissible Exposure Limits   TLV = Threshold Limit Value   TWA = Time Weighted Average (8 hr.)
STEL = Short Term Exposure Limit (15 min.)

3. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS: EMERGENCY OVERVIEW
HUMAN:
EYES: Airborne dust can cause temporary irritation, tearing and blurred vision.
SKIN: Prolonged or repeated exposure can cause irritation due to drying of the skin, possibly progressing into dermatitis.
INGESTION: Can cause stomach irritation, resulting in nausea, cramps and vomiting. Excessive ingestion can cause nervous system disorders, such as fatigue, dizziness, headaches, lack of coordination, tremors and unconsciousness.
INHALATION: Inhalation can cause nasal and respiratory irritation.
CHRONIC EFFECTS: None known

SAFETY: Eye and respiratory irritant
ECOLOGICAL: See sections 11 and 15

See TOXICOLOGICAL INFORMATION (section 11)

4. FIRST AID MEASURES

EYES: Immediately flush with large amounts of water for at least 15 minutes. If irritation persists, get medical attention.

SKIN: Immediately flush affected area with large amounts of water. Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, get medical attention.
INHALATION: Remove affected person to fresh air. Give oxygen, if necessary. If breathing has stopped, administer artificial respiration and get medical attention immediately.

INGESTION: Do not induce vomiting. Keep affected person warm and quiet and get medical attention immediately.

NOTE TO PHYSICIANS: CONTAINS SILICA POWDER

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Dusts at significant concentrations can form explosive mixtures with air when exposed to high temperatures.

FLASH POINT: >200ºF
METHOD: TAG CLOSED CUP

FLAMMABLE LIMITS:
LOWER LIMIT: not established
UPPER LIMIT: not established

AUTOIGNITION TEMPERATURE: not established

HAZARDOUS COMBUSTION PRODUCTS: None known

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or dry chemical

FIRE FIGHTING INSTRUCTIONS: Treat as a 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. Contain the run-off, if possible, for proper disposal.

6. ACCIDENTAL RELEASE MEASURES:

SMALL SPILL: Eliminate all ignition sources. Contain the spill (prevent this product from reaching surface waters or other water supplies). Sweep up the spill with sweeping compound and transfer into waste containers for disposal. Clean the spill area with detergent and water.

LARGE SPILL: Eliminate all ignition sources. Contain the spill (prevent this product from reaching surface waters or other water supplies). Sweep up the spill with sweeping compound and transfer into waste containers for disposal. Clean the spill area with detergent and water.

WASTE DISPOSAL METHOD: Contaminated absorbent and wash water should be disposed of according to local, state and federal regulations.

7. HANDLING AND STORAGE

HANDLING: Wear rubber gloves. Wear OSHA approved safety glasses, goggles or face shield. Mechanical ventilation should be used when handling this product in enclosed spaces. Wearing a respirator is required when handling this product. Do not contaminate water, feed or food 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, ignition sources and strong oxidizers. Emptied containers may retain product residues.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

EXPOSURE LIMITS: Not established by OSHA or ACGIH (see section 2 for individual components).

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

RESPIRATORY PROTECTION: NIOSH approved organic vapor respirator equipped with a dust collector.

SKIN PROTECTION: Wear rubber gloves and protective clothing.

EYE PROTECTION: Wear OSHA approved safety glasses, goggles or face shield.
9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Off white powder
ODOR: Plant extract odor
PHYSICAL STATE: Solid
VAPOR DENSITY: Not established
BOILING POINT: Not established
MELTING POINT: Not established
SOLUBILITY IN WATER: Dispersible
BULK DENSITY @ 20°C: 0.13 g/cm³
COLOR, (GARDNER): Not applicable
PH: 6.6 @ 20% (v/v) washed in water
VISCOSITY: Not applicable
REFRACTIVE INDEX @ 25°C: Not applicable

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable
INCOMPATIBILITY: Strong acidic or alkaline materials
HAZARDOUS DECOMPOSITION PRODUCTS: Not applicable
HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE STUDIES:
EYE: Primary eye irritation (rabbit): Conjunctival irritation clearing in 24 hours.
SKIN: Primary skin irritation (rabbit): Irritation index = 0.00
Dermal Sensitization (guinea pig): Not a sensitizer
Acute Dermal LD50 (rabbit): >2.0 g/kg
INGESTION: Acute Oral LD₅₀ (male rat): >6.0 g/kg
INHALATION: Acute Inhalation LD₅₀ (rat): >5.40 mg/l

SUBCHRONIC:
DERMAL TOXICITY: 21 day repeated doses rabbit Not established
INHALATION TOXICITY STUDY: 3 month rat Not established

CHRONIC:
1 year feeding (dog) Not established
2 year feeding (rat) Not established

CARCINOGENICITY:
24 Month (albino rat) Not established
ONCOGENICITY:
18 Month (mouse) Not established
TERATOGENICITY: (rabbit) Not established
(teratogenicity: (rat) Not established
REPRODUCTION:
2 generation (rat) Not established
MUTAGENICITY: Not established
NEUROTOXICITY: Not established
Male (rat)
Female (rat)

12. ECOLOGICAL INFORMATION
TOXIC EFFECTS ON ORGANISMS:

**FISH:** LC$_{50}$ Not established

**BIRD:** Acute oral LD$_{50}$ Not established

TOXICITY TO USEFUL INSECTS:

**HONEYBEE:** LD$_{50}$ Not established

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13. **DISPOSAL CONSIDERATIONS**

RCRA/CERCLA HAZARDOUS WASTE:

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>RCRA ID#:</th>
<th>CERCLA RQ VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrethrins</td>
<td></td>
<td>1 lb.</td>
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</table>

**DISPOSAL METHOD:** PY-DRY™ should be disposed of according to local, state and federal regulations. When disposing of waste or surplus, avoid contact with eyes and skin. Wear impervious gloves/clothing and chemical safety goggles. Do not wash into drains. Do not mix with other waste materials.

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14. **TRANSPORT INFORMATION**

**U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:** Not considered hazardous when Pyrethrin content is 1 pound or less per shipping container.

**PROPER SHIPPING NAME:** Environmentally Hazardous Substances, Solid, N.O.S., RQ (Pyrethrins)

**HAZARD CLASS:** 9

**IDENTIFICATION NUMBER:** UN 3077

**PACKING GROUP:** III

**INTERNATIONAL TRANSPORTATION REGULATIONS:**

**ICAO/IATA DESCRIPTION:** Environmentally Hazardous Substances, Solid, N.O.S., 9, UN 3077, PG III, RQ (Pyrethrins)

**IMO DESCRIPTION (IMDG CODE):** Not considered hazardous by IMO Regulations for transportation via vessel.

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15. **REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS**

**SARA TITLE III:**

**SECTION 302:** Not listed

**SECTION 313:** 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:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>CHEMICAL NAME</th>
<th>% BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>51-03-6</td>
<td>Piperonyl butoxide</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>Glycol Ethers</td>
<td>less than .4</td>
</tr>
</tbody>
</table>

**STATE REGULATIONS:**

**VBOLATILE ORGANIC COMPOUNDS (VOCS):** This product does not exceed 3% VOCS by weight

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16. **OTHER INFORMATION**

The information herein is given in good faith, but no warranty, express or implied, is made. Consult Cardinal Chemical Company for further information.