Hacco, Inc.
110 Hopkins Drive
Randolph, WI 53956
(920) 326-2461
(Regulatory Office)
(920) 326-5141
(Manufacturing Location)

In Case of Emergency, Call:
1-800-498-5743 (U.S. Medical Emergency)
1-651-523-0318 (International, Medical Emergency)
1-800-424-9300 (U.S. CHEMTREC)
1-703-527-3887 (International, CHEMTREC)
(collect calls will be accepted on all lines)

1. PRODUCT IDENTIFICATION

Product Name: Ramik® Bars All-Weather Rat and Mouse Killer
EPA Signal Word: CAUTION
Active Ingredient (%): Diphacinone (0.005%) CAS No.: 82-66-6
Chemical Name: 2-Diphenylacetyl-1,3-Indandione
Chemical Class: An indandione-type anticoagulant rodenticide
EPA Registration Number: 61282-12

Section(s) Revised: Emergency Phone Numbers

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphacinone (0.005%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Grain</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Flavorings</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Green Pigment</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
</tbody>
</table>

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

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure
Slightly irritating to the eyes. The active ingredient is designed to cause bleeding after repeated ingestion.

Hazardous Decomposition Products
None known

Physical Properties
Appearance: Green solid
Odor: Slight cereal and wax

Unusual Fire, Explosion, and Reactivity Hazards
None known.

4. FIRST AID MEASURES

Have the product container, label, or Material Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment. FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL 1-800-498-5743 (U.S. Medical Emergencies) or 1-651-523-0318 (International Medical Emergencies, Collect Calls will be accepted).

Ingestion: CALL PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY! Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice

Skin Contact: If on skin or clothing: Take off contaminated clothing. Wash skin with soap and water.

Inhalation: Not applicable.

Notes to Physician
This product contains anticoagulants with an effect similar to warfarin in that they act by interfering with the synthesis of prothrombin. The specific measure is the prothrombin time. Note this may not become prolonged until 12-18 hours after ingestion. The specific antidote is Vitamin K₁ (Phytomenadione BP).

Antidote must be administered under medical supervision. Initially, antidote should be given by injection (10-20 mg, or 0.25 mg/kg for children, by slow intravenous infusion at a rate of 1 mg/minute. In severe cases the use of fresh frozen plasma may be required). Maintenance treatment is given orally (40 mg/day in divided doses for adults; up to 20 mg/day in divided doses for children). The prothrombin time and the hemoglobin should be monitored. Patients should be kept under medical supervision until the prothrombin time has been normal for 3 consecutive days. Oral treatment may need to be continued for several weeks. (20 mg/day in divided doses for adults; up to 20 mg/day in divided doses for children). (For animal cases the dose is 2-5 mg/kg).

Medical Condition Likely to be Aggravated by Exposure
Bleeding and other conditions which may be aggravated by extended clotting time.

5. FIRE FIGHTING MEASURES

Fire and Explosion
Flash Point (Test Method): > 375°F (paraffin wax) Method: PMCC
Flammable Limits (% in Air): Lower: % Not Applicable Upper: % Not Applicable
Autoignition Temperature: Not Available
Flammability: Not Flammable
Extinguishing Media: Fog or Water Spray, Foam, Carbon Dioxide, Dry Chemical

Hazardous Decomposition Products:
None known.

Unusual Fire, Explosion, and Reactivity Hazards
None known.

In Case of Fire
Potentially hazardous in fire. Wear self-contained breathing apparatus. If water is used as an extinguishing media, diking is required to keep contaminated water out of all water supplies.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak
Control the spill at its source. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Once all material is collected, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING, AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Eye protection is not required for normal handling. Where eye contact is likely, wear tight-fitting chemical goggles.

Skin Contact: Gloves are not required for normal handling. Where heavy contact is likely, wear chemical resistant (such as nitrile or butyl) gloves.

Inhalation: Respiratory protection is not required for normal handling. In the event of an unusual dust exposure, use engineering controls or a NIOSH-approved particulate respirator (N, P, R, or HE filter) to keep exposure below the Occupational Exposure Limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Green solid
Odor: Slight cereal and wax
Melting Point: 130°F (paraffin wax)
Boiling Point: Not Available
Specific Gravity/Density: Bulk Density 63 lbs. /ft³
pH: Not Available
Solubility: Insoluble
Vapor Pressure (mmg Hg): Not Available
Vapor Density: Not Available

10. STABILITY AND REACTIVITY

Stability: Stable under normal use and storage conditions.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: None known.
Materials to Avoid: None known.
Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:
- Oral (LD₅₀ Rat): > 7 mg/kg body weight (Diphacinone Technical at 98% active)
- Oral (LD₅₀ Rat): > 100,000 mg/kg body weight (Ramik Bars)

Dermal: Not Available

Inhalation:
- Dermal (LD₅₀ Rat): See “Other Toxicity Information,” Section 11
- Inhalation (LC₅₀ Rat): See “Other Toxicity Information,” Section 11

Eye Contact: See “Other Toxicity Information,” Section 11
Skin Contact: See “Other Toxicity Information,” Section 11
Skin Sensitization: Not Available
Other Toxicity Information

Systemically toxic concentrations of this product will probably not be absorbed through human skin. Because of the formulation of this product, inhalation is not expected to be a normal route of exposure. No irritation is likely to develop following contact with human eyes. Irritation will probably not develop following contact with human skin.

Effects of overexposure are those of anticoagulant overdose, i.e., reduced blood clotting ability with spontaneous bleeding in various organs. Body accumulation can result from repeated exposures. Individuals with blood clotting disorders may be more susceptible to overexposure effects.

Toxicity of Other Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Pigment</td>
<td>Not Available</td>
</tr>
<tr>
<td>Grains</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flavorings</td>
<td>Not Available</td>
</tr>
<tr>
<td>Paraffin Wax</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Target Organs

Active Ingredients

Diphacinone Technical: Blood

Inactive Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Pigment</td>
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<tr>
<td>Flavoring</td>
<td>Not Available</td>
</tr>
<tr>
<td>Paraffin Wax</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Do not discharge effluent containing this product directly to water. Do not contaminate water when disposing of equipment wash water.

13. DISPOSAL CONSIDERATIONS

Container Disposal

Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For containers 1 gallon or less: Do not reuse empty container (bottle, can, bucket). Wrap container and put in trash.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

14. TRANSPORT INFORMATION

DOT Classification

Proper Shipping Name: Exterminator, Vermin, O/T Poison
Hazard Class: Not Applicable
UN Number: Not Applicable
Packing Group: Not Applicable
Label: Not Applicable
Special Instructions: Not Applicable
IMDG Classification
Proper Shipping Name:   Exterminator, Vermin, O/T Poison
Hazard Class:   Not Applicable
UN Number:   Not Applicable
Packing Group:   Not Applicable
Label:   Not Applicable
Special Instructions:   Not Applicable

IATA Classification
Proper Shipping Name:   Exterminator, Vermin, O/T Poison
Hazard Class:   Not Applicable
UN Number:   Not Applicable
Packing Group:   Not Applicable
Label:   Not Applicable
Special Instructions:   Not Applicable

Canadian Classification
Proper Shipping Name:   Exterminator, Vermin, O/T Poison
Hazard Class:   Not Applicable
UN Number:   Not Applicable
Packing Group:   Not Applicable
Label:   Not Applicable

15. REGULATORY INFORMATION

EPA SARA Title III Classification
Section 311/312 Hazard Classes: Exempt for low concentrations of Hazardous ingredients in mixture.
Section 313 Toxic Chemicals: Not Applicable

California Proposition 65
Not Applicable

CERLA/SARA 302 Reportable Quantity (RQ)
None

RCRA Hazardous Waste Classification (40 CFR 261)
Not Applicable

TSCA Status
Exempt from TSCA, subject to FIFRA
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: 1</td>
<td>Health: 1</td>
</tr>
<tr>
<td>Flammability: 1</td>
<td>Flammability: 1</td>
</tr>
<tr>
<td>Instability: 0</td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

For Non-Emergency Questions About This Product Call:
1-800-621-8829
Neogen Corporation
Lexington, KY
www.Hacco.com

Original Issue Date: September 30th, 2005
Revision Date: September 1st, 2008
Replaces: June 3rd, 2008

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