1. CHEMICAL IDENTIFICATION

Product Name: MEDALLION
EPA Signal Word: Caution
Active Ingredient(%): Fludioxonil (50%)
Chemical Name: 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile
Chemical Class: Substituted Benzodioxalcarbionitrile Fungicide

Product No.: A-7850 A
CAS No.: 131341-86-1

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>Surfactant</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Sodium Sulfate</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Dispersing Agent</td>
<td>15 mg/m3 (Total Dust)</td>
<td>10 mg/m3 (Total Dust)</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Solid Diluent</td>
<td>20 mppcf (containing &lt;1% quartz)</td>
<td>2 mg/m3</td>
<td>2 mg/m3 (Respirable)**</td>
<td>No</td>
</tr>
<tr>
<td>Crystalline Silica, Quartz</td>
<td>10 mg/m3/%SiO2+2 (Respirable)</td>
<td>0.1 mg/m3 (Respirable)</td>
<td>Not Established</td>
<td>IARC, 2A</td>
</tr>
<tr>
<td>Wetting Agent</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Fludioxonil (50%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
</tbody>
</table>

** recommended by NIOSH

3. HAZARDS IDENTIFICATION

Notes to Physician
There is no specific antidote if this product is ingested.
If a large amount has been ingested and emesis is inadequate, lavage stomach.
Treat symptomatically.

Symptoms of Acute Exposure
Exposure can result in slight eye or skin irritation.

Hazardous Decomposition Products
None Known

Physical Properties
Appearance: Off-White Powder
Odor: Sweet, Soap-Like

Unusual Fire, Explosion and Reactivity Hazards
None Known
4. FIRST AID MEASURES

If poisoning is suspected, immediately contact a physician, the nearest hospital, or the nearest Poison Control Center. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

Ingestion: If victim is fully conscious, give large quantities of water to drink and induce vomiting. Never give anything by mouth to an unconscious person.

Eye Contact: Immediately rinse eyes with a large amount of running water. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

Skin Contact: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

Inhalation: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

Notes to Physician

There is no specific antidote if this product is ingested.

If a large amount has been ingested and emesis is inadequate, lavage stomach.

Treatment symptomatically.

Medical Condition Likely to be Aggravated by Exposure

None Known

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method): Not Applicable
Flammable Limits (% in Air): Lower: %; Upper: % Not Applicable
Autoignition Temperature: Not Available
Flammability: Not Flammable

Unusual Fire, Explosion and Reactivity Hazards

None Known

In Case of Fire

Use dry chemical, foam, or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95 - 99.97% as appropriate for the size distribution of dusts present. For small spills, sweep up, keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS.
Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

Eye Contact: To avoid eye contact, wear safety glasses with side shields or chemical goggles.

Skin Contact: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.

Inhalation: To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95 - 99.97% as appropriate for the size distribution of dusts present.

Applicators/Handlers: Please refer to the product label for personal protective clothing/equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Off-White Powder</td>
</tr>
<tr>
<td>Odor</td>
<td>Sweet, Soap-Like</td>
</tr>
<tr>
<td>Melting Point</td>
<td>199.8°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Specific Gravity/Density</td>
<td>0.37 g/cc</td>
</tr>
<tr>
<td>pH</td>
<td>8-9(1% solution in H2O @ 25°C)</td>
</tr>
<tr>
<td>Solubility in H2O</td>
<td></td>
</tr>
<tr>
<td>Fludioxonil</td>
<td>1.8 mg/L @ 25°C</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td></td>
</tr>
<tr>
<td>Fludioxonil</td>
<td>3.90E-04 mPA @ 25°C</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td></td>
</tr>
<tr>
<td>Stability</td>
<td>Stable</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will Not Occur</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>None Known</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>None Known</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity/Irritation Studies</td>
<td></td>
</tr>
<tr>
<td>Ingestion</td>
<td>practically non-toxic</td>
</tr>
<tr>
<td>Oral LD50 (Rat)</td>
<td>&gt; 5,050 mg/kg body weight</td>
</tr>
<tr>
<td>Dermal</td>
<td>slightly toxic</td>
</tr>
<tr>
<td>Oral LD50 (Rabbit)</td>
<td>&gt; 2,020 mg/kg body weight</td>
</tr>
<tr>
<td>Inhalation</td>
<td>practically non-toxic</td>
</tr>
<tr>
<td>Inhalation LC50 (Rat)</td>
<td>&gt; 6.5 mg/l air - 4 hours</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>slightly irritating (Rabbit)</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>slightly irritating (Rabbit)</td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>Not a sensitizer (Guinea Pig)</td>
</tr>
<tr>
<td>Mutagenic Potential</td>
<td>Genotoxic in one study; negative in five others</td>
</tr>
<tr>
<td>Fludioxonil</td>
<td>Genotoxic in one study; negative in five others</td>
</tr>
<tr>
<td>Reproductive Hazard Potential</td>
<td>Delayed development at doses causing maternal toxicity</td>
</tr>
<tr>
<td>Fludioxonil</td>
<td>Delayed development at doses causing maternal toxicity</td>
</tr>
<tr>
<td>Chronic/Subchronic Toxicity Studies</td>
<td>Liver and kidneys toxicity high dose levels</td>
</tr>
<tr>
<td>Fludioxonil</td>
<td>Liver and kidneys toxicity high dose levels</td>
</tr>
<tr>
<td>Carcinogenic Potential</td>
<td>Marginal increase (7%) of liver tumors (female, rats: 3,000 ppm); Within historical control range</td>
</tr>
</tbody>
</table>

Page: 3

Product Name: MEDALLION
12. ECOLOGICAL INFORMATION

**Other Toxicity Information**

Not Available

**Toxicity of Other Components**

**Dispersing Agent**

Dust may produce a respiratory allergenic response and/or irritation in some individuals. May cause severe eye injury but the damage is reversible.

**Sodium Sulfate**

Exposure may cause irritation of the nose, throat and lungs. Repeated or prolonged contact to the skin results in dermatitis. May cause mild irritation to the eyes.

**Solid Diluent**

May cause irritation to upper respiratory tract. Long term excessive exposures may cause a pulmonary fibrosis and may lead to severe and permanent damage to lungs. Abrasion may cause eye and skin irritation.

**Surfactant**

Exposure can result in eye, skin and respiratory tract irritation.

**Wetting Agent**

Exposure to skin and eyes may result in irritation.

**Target Organs**

**Active Ingredients**

- **Fludioxonil**: Liver and Kidneys

**Inert Ingredients**

- **Dispersing Agent**: Not Available
- **Sodium Sulfate**: Respiratory Tract, Skin and Eyes
- **Solid Diluent**: Lungs
- **Surfactant**: Eyes, Skin and Respiratory Tract
- **Wetting Agent**: None Known

### Eco-Acute Toxicity

**Fludioxonil:**

- Rainbow Trout 96-hour LC50 0.47 mg/l
- Bluegill Sunfish 96-hour LC50 0.74 mg/l
- Daphnia magna 48-hour LC50 0.90 mg/l
- Bobwhite Oral LD50 >2,000 mg/kg
- Mallard Oral LD50 >2,000 mg/kg
- Bobwhite 8-day Dietary LC50 >5,200 ppm
- Mallard 8-day Dietary LC50 >5,200 ppm

### Eco-Chronic Toxicity

**Fludioxonil:**

- Fish (Fathead minnow) Early Life Stage MATC 0.028 mg/l
- Invertebrate (Daphnia Magna) Life Cycle MATC 0.025 mg/l
- Mallard Reproduction NOEC 700 ppm
- Bobwhite Reproduction NOEC 125 ppm

**Environmental Fate**

**Fludioxonil:**

Not Available
13. DISPOSAL CONSIDERATION

Disposal
Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste  Not Applicable
Listed Waste:  Not Applicable

14. TRANSPORT INFORMATION

DOT Classification:
Not Applicable; No Label or Placard Required

B/L Freight Classification
Insecticides or Fungicides; Agricultural, N.O.S.

International Transportation
Not Applicable

15. REGULATORY INFORMATION

SARA Title III Classification
Section 311/312:  Acute Health Hazard
Chronic Health Hazard

Section 313 chemical(s):  Not Applicable

Proposition 65
Not Applicable

CERCLA Reportable Quantity (RQ)
None

RCRA Classification
Not Applicable

TSCA Status
Exempt from TSCA

16. OTHER INFORMATION

NFPA Hazard Ratings

<table>
<thead>
<tr>
<th>Hazard</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>0</td>
<td>Least</td>
<td>Slight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
<td>Moderate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>2</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Severe</td>
<td></td>
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</tbody>
</table>

Questions concerning the safe handling of the product should be referred to:

Industrial Health
1-800-334-9481

Issued Date:  6/28/94
Revised Date:  8/5/98  Supersedes:  1/21/98

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

RSVP# : NCP-955-769A-00118D