1. PRODUCT IDENTIFICATION

Product Name: DACONIL ACTION
Product No.: A16422A
EPA Signal Word: Warning

Active Ingredient(%): Acibenzolar-S-Methyl (0.11%)
Chemical Name: 1,2,3-Benzothiadiazole-7-carbothioic acid S-methyl ester
Chemical Class: Plant Activator
Active Ingredient(%): Chlorothalonil (53.94%)
Chemical Name: Tetrachloroisophthalonitrile
Chemical Class: Chlorinated Benzonitrile Fungicide

EPA Registration Number(s): 100-1364

Section(s) Revised: 1

2. HAZARDS IDENTIFICATION

Health and Environmental
Toxic if inhaled. May be harmful if swallowed. Irritating to eyes and skin. May cause an allergic skin reaction.

Hazardous Decomposition Products
None known.

Physical Properties
Appearance: Grey liquid
Odor: Weak paint

Unusual Fire, Explosion and Reactivity Hazards
During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. 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>Propylene Glycol</td>
<td>Not Established</td>
<td>Not Established</td>
<td>10 mg/m³ TWA ****</td>
<td>No</td>
</tr>
<tr>
<td>Chlorothalonil (53.94%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.1 mg/m³ TWA ***</td>
<td>IARC Group 2B</td>
</tr>
<tr>
<td>Acibenzolar-S-Methyl (0.11%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>10 mg/m³ TWA ***</td>
<td>No</td>
</tr>
</tbody>
</table>

*** Syngenta Occupational Exposure Limit (OEL)
**** Recommended by AIHA (American Industrial Hygiene Association)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
Syngenta Hazard Category: C, S

4. FIRST AID MEASURES
5. FIRE FIGHTING MEASURES

Fire and Explosion

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Test Method)</td>
<td>&gt; 212°F (Pensky-Martens CC)</td>
</tr>
<tr>
<td>Flammable Limits (% in Air)</td>
<td>Lower: Not Applicable</td>
</tr>
<tr>
<td></td>
<td>Upper: Not Applicable</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>&gt; 1202°F</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Unusual Fire, Explosion and Reactivity Hazards
During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

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, areas, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak
Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, 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 AND PACKAGING 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: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact: Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Grey liquid
Odor: Weak paint
Melting Point: Not Applicable
Boiling Point: Not Available
Specific Gravity/Density: 1.350 g/cm³ @ 68°F (20°C)

pH: 7.4 (1% solution in deionized H₂O @ 77°F [25°C])

Solubility in H₂O
Acibenzolar-S-Methyl: 7.7 mg/l @ 68°F (20°C)
Chlorothalonil: 0.81 mg/l @ 77°F (25°C)

Vapor Pressure
Acibenzolar-S-Methyl: 1.65 x 10^(-6) mmHg @ 68°F (20°C)
Chlorothalonil: 5.7 x 10^(-7) mmHg @ 77°F (25°C)

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 Female Rat) : 3045 mg/kg body weight

Dermal: Dermal (LD₅₀ Rat) : > 5000 mg/kg body weight

Inhalation: Inhalation (LC₅₀ Rat) : > 0.51 mg/l air - 4 hours

Eye Contact: Severely Irritating (Rabbit)
Skin Contact: Slightly Irritating (Rabbit)
Skin Sensitization: A weak skin sensitizer (based on the technical material)
12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
Chlorothalonil:
- Green Algae 5-day EC50 190 ppb
- Bird (Mallard Duck) LD50 Oral > 4640 mg/kg
- Invertebrate (Water Flea) 48-hour EC50 70 ppb
- Fish (Rainbow Trout) 96-hour LC50 47 ppb

Acibenzolar-S-Methyl:
- Fish (Rainbow Trout) 96-hour LC50 0.88 ppm
- Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 2.9 ppm
- Green Algae 72-hour EC50 80.1 ppm
- Bird (Bobwhite Quail) 14-day LD50 > 2000 mg/kg

Environmental Fate
13. DISPOSAL CONSIDERATIONS

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
Ground Transport - NAFTA
Not regulated.

Comments
Water Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant
Hazard Class: Class 9
Identification Number: UN 3082
Packing Group: PG III

Air Transport
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil)
Hazard Class: Class 9
Identification Number: UN 3082
Packing Group: PG III

15. REGULATORY INFORMATION

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

Section 313 Toxic Chemicals: Chlorothalonil (53.94%) (CAS No. 1897-45-6)

California Proposition 65
Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)
None

RCRA Hazardous Waste Classification (40 CFR 261)
Not Applicable

TSCA Status
Exempt from TSCA, subject to FIFRA

Acibenzolar-S-Methyl:
The information presented here is for the active ingredient, acibenzolar-s-methyl.
Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).

Chlorothalonil:
The information presented here is for the active ingredient, chlorothalonil.
Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).
### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>2</td>
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<tr>
<td>Flammability:</td>
<td>1</td>
</tr>
<tr>
<td>Instability:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<tr>
<td>1</td>
<td>Slight</td>
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<tr>
<td>2</td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td>Serious</td>
</tr>
<tr>
<td>4</td>
<td>Extreme</td>
</tr>
</tbody>
</table>

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/3/2011  
Revision Date: 7/21/2011  
Replaces:

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.

End of MSDS