

**Syngenta Crop Protection, LLC**  
**Post Office Box 18300**  
**Greensboro, NC 27419**

**In Case of Emergency, Call**  
**1-800-888-8372**

**1. PRODUCT IDENTIFICATION**

Product Name: **BION 50WG** Product No.: A9180A  
 EPA Signal Word: Caution  
 Active Ingredient(%): Acibenzolar-S-Methyl (50.0%) CAS No.: 135158-54-2  
 Chemical Name: 1,2,3-Benzothiadiazole-7-carbothioic acid S-methyl ester  
 Chemical Class: Plant Activator  
 EPA Registration Number(s): 100-922 **Section(s) Revised: 1**

**2. HAZARDS IDENTIFICATION**

Health and Environmental

Harmful if inhaled. May be harmful in contact with skin. Irritating to eyes and skin.

May form flammable dust-air mixture.

Hazardous Decomposition Products

Not Available

Physical Properties

Appearance: Light brown to dark brown granules

Odor: Moderate, sulfurous-like

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

See also Sec. 7.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Crystalline Silica, Quartz and Cristobalite	10 mg/m <sup>3</sup> /(%SiO <sub>2</sub> +2) (respirable dust)	0.025 mg/m <sup>3</sup> (respirable silica)	0.05 mg/m <sup>3</sup> (respirable dust) **	IARC 1; ACGIH A2
Diatomaceous Earth	80 mg/m <sup>3</sup> /%SiO <sub>2</sub> (20 mppcf) TWA	Not Established	6 mg/m <sup>3</sup> TWA **	IARC 3
Acibenzolar-S-Methyl (50.0%)	Not Established	Not Established	10 mg/m <sup>3</sup> TWA ***	No

\*\* recommended by NIOSH

\*\*\* Syngenta Occupational Exposure Limit (OEL)

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

**4. FIRST AID MEASURES**

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

**Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a 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 Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Inhalation:** If inhaled: Move 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 Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

#### Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

#### Medical Condition Likely to be Aggravated by Exposure

Not Available

## **5. FIRE FIGHTING MEASURES**

### Fire and Explosion

Flash Point (Test Method): Not Applicable

Flammable Limits (% in Air): Lower: Not Applicable Upper: Not Applicable

Autoignition Temperature: Not Available

Flammability: Combustible powder

### Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

See also Sec. 7.

### In Case of Fire

Use appropriate extinguishing media for combustibles in the area. 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. 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

Avoid dust formation.

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 in Protective Equipment Section. Sweep up material and place in a 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**

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment

should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

This material could become charged under certain conditions such as pneumatic conveying.

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 just-proof chemical 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, natural rubber, polyethylene, 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, or P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Light brown to dark brown granules
- Odor: Moderate, sulfurous-like
- Melting Point: Not Available
- Boiling Point: Not Available
- Specific Gravity/Density: 0.61 g/cm<sup>3</sup>
- pH: 7 - 11 (1% in deionized water)

### Solubility in H<sub>2</sub>O

Acibenzolar-S-Methyl: 7.7 mg/l @ 68°F (20°C)

### Vapor Pressure

Acibenzolar-S-Methyl: 1.65 x 10<sup>(-6)</sup> mmHg @ 68°F (20°C)

## 10. STABILITY AND REACTIVITY

- Stability: Stable under normal use and storage conditions.
- Hazardous Polymerization: Will not occur.
- Conditions to Avoid: Not Available
- Materials to Avoid: Not Available
- Hazardous Decomposition Products: Not Available

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity/Irritation Studies (Finished Product)

- Ingestion:
- Oral (LD50 Rat) : > 5000 mg/kg body weight
- Dermal:
- Dermal (LD50 Rat) : > 2000 mg/kg body weight

Inhalation: Inhalation (LC50 Rat) : > 2.79 mg/l air - 4 hours  
Eye Contact: Irritating (Rabbit)  
Skin Contact: Moderately Irritating (Rabbit)  
Skin Sensitization: Not a Sensitizer (Guinea Pig)

#### Reproductive/Developmental Effects

Acibenzolar-S-Methyl: Developmental toxicity and fetal malformations at high maternal doses (rats).

#### Chronic/Subchronic Toxicity Studies

Acibenzolar-S-Methyl: Slight hemolytic anemia at highest dose level (rats, mice and dogs). Liver and spleen effects observed in highest dose level (rats and dogs).

#### Carcinogenicity

Acibenzolar-S-Methyl: Not carcinogenic at dietary levels up to 7500 ppm (rat) and 6000 ppm (mouse).

#### Other Toxicity Information

None

#### Toxicity of Other Components

Crystalline Silica, Quartz and Cristobalite

Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to crystalline silica developed respiratory tract cancers.

Diatomaceous Earth

The carrier in this product is naturally occurring diatomaceous earth. Natural diatomaceous earth contains a small percentage of naturally occurring crystalline silica, which is considered a human carcinogen. Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. The amount of crystalline silica in this product is minimal and the potential for overexposure in manufacturing operations is low.

#### Target Organs

Active Ingredients

Acibenzolar-S-Methyl: Blood, liver, spleen

Inert Ingredients

Crystalline Silica, Quartz and Cristobalite: Respiratory tract

Diatomaceous Earth: Respiratory tract

## **12. ECOLOGICAL INFORMATION**

#### Ecotoxicity Effects

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

Acibenzolar-S-Methyl:

The information presented here is for the active ingredient, acibenazolar-s-methyl.

Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).

**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, Solid, N.O.S. (Acibenzolar), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3077

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Acibenzolar)

Hazard Class: Class 9

Identification Number: UN 3077

Packing Group: PG III

**15. REGULATORY INFORMATION**

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65

Not Applicable

CERCLA/SARA 304 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

**16. OTHER INFORMATION**

NFPA Hazard Ratings

Health: 2  
Flammability: 1  
Instability: 0

HMIS Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/7/2007

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Replaces: 1/21/2013

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.

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