



## MATERIAL SAFETY DATA SHEET

Syngenta Crop Protection, Inc  
Post Office Box 18300  
Greensboro, NC 27419

In Case of Emergency, Call

1-800-888-8372

### 1. CHEMICAL IDENTIFICATION

Product Name: **BICEP II MAGNUM** Product No.: A9560A  
EPA Signal Word: Caution  
Active Ingredient(%): Atrazine (32%) CAS No.: 1912-24-9  
Chemical Name: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine  
Chemical Class: Triazine Herbicide  
  
Active Ingredient(%): S-Metolachlor (26.1%) CAS No.: 87392-12-9  
Chemical Name: Acetamide, 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)-, (S)  
Chemical Class: Chloroacetanilide Herbicide

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Ethylene Glycol	Not Established	100 mg/m <sup>3</sup> (Ceiling) [Aerosol]	Not Established	No
Surfactant	Not Established	Not Established	Not Established	No
Benoxacor	Not Established	Not Established	Not Established	No
Atrazine (32%)	Not Established	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup> **	IARC, 3
S-Metolachlor (26.1%)	Not Established	Not Established	Not Established	No

\*\* recommended by NIOSH

### 3. HAZARDS IDENTIFICATION

#### Symptoms of Acute Exposure

Exposure may cause irritation to eyes and skin.

#### Hazardous Decomposition Products

None Known

#### Physical Properties

Appearance: Off-White Liquid

Odor: Latex Paint

#### Unusual Fire, Explosion and Reactivity Hazards

Thermal decomposition products may include, but are not limited to, carbon monoxide, hydrogen cyanide and acetonitrile. This product is a NFPA Class IIIB Combustible Liquid.

## 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 a large quantity 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.

Treat symptomatically.

An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant.

### Medical Condition Likely to be Aggravated by Exposure

None Known

## 5. FIRE FIGHTING MEASURES

### Fire and Explosion

- Flash Point (Test Method): >200 °F
- Flammable Limits (% in Air): Lower: %; Upper: % Not Available
- Autoignition Temperature: Not Available
- Flammability: Not Applicable

### Unusual Fire, Explosion and Reactivity Hazards

Thermal decomposition products may include, but are not limited to, carbon monoxide, hydrogen cyanide and acetonitrile. This product is a NFPA Class IIIB Combustible Liquid.

### In Case of Fire

Use dry chemical, foam, or CO<sub>2</sub> 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 a NIOSH-approved chemical cartridge pesticide respirator with organic vapor pre-cartridges or a self-contained breathing apparatus (SCBA). For small spills, cover the spill with an absorbent material such as pet litter. Sweep up 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

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

**FOR COMMERCIAL APPLICATIONS AND 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. 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 spray or mist, wear a NIOSH-approved chemical cartridge pesticide respirator with organic vapor pre-cartridges or a supplied-air respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-White Liquid  
Odor: Latex Paint  
Melting Point: Not Applicable  
Boiling Point: 102°C  
Specific Gravity/Density: 1.11 g/cm<sup>3</sup> @ 25°C  
pH: 6-8(1% solution in H<sub>2</sub>O @ 25°C)

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

Atrazine : 33.000 mg/l @ 22°C  
S-Metolachlor : 0.480 g/L @ 25°C

### Vapor Pressure

Atrazine : 3.85E-02 mPA @ 25°C  
S-Metolachlor : 2.50E-05 mmHg @ 25°C

## 10. STABILITY AND REACTIVITY

### Reactivity

Stability: Stable Under Standard Conditions  
Hazardous Polymerization: Will Not Occur  
Conditions to Avoid: None Known

### Hazardous Decomposition Products

None Known

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity/Irritation Studies

Ingestion: Slightly Toxic  
Oral LD50 (Rat) : 3,271 mg/kg body weight

Dermal: Slightly Toxic  
Dermal LD50 (Rabbit) : > 2,020 mg/kg body weight

Inhalation: Slightly Toxic  
Inhalation LC50 (Rat) : > 2.5 mg/l air - 4 hours

Eye Contact: Mildly Irritating (Rabbit)  
Skin Contact: Slightly Irritating (Rabbit)  
Skin Sensitization: Not a Sensitizer (Guinea Pig)

### Mutagenic Potential

Atrazine : None observed  
S-Metolachlor: None Observed

### Reproductive Hazard Potential

Atrazine : None observed  
S-Metolachlor: None Observed

### Chronic/Subchronic Toxicity Studies

Atrazine : Cardiotoxicity in long term study with high doses (dogs)  
S-Metolachlor: None Observed

### Carcinogenic Potential

Atrazine : Mammary tumors (female Sprague-Dawley rats), sex and strain specific  
None observed (male Sprague-Dawley rats, F-344 rats or mice)  
S-Metolachlor: Benign liver tumors at high dose levels (female rats).

### Other Toxicity Information

Not Available

### Toxicity of Other Components

#### Benoxacor

Results in stomach, liver, and kidney toxicity at high doses. Caused tumors in nonglandular portion of stomach of rodents (histomorphologic region not found in humans). Exposure may cause slight eye irritation. Repeated skin contact may cause a sensitization (allergic) reaction in sensitive individuals.

#### Ethylene Glycol

Ethylene Glycol has been shown to produce dose-related teratogenic effects in rats and mice. Exposure to high concentrations of mists or aerosols may result in effects on the hematopoietic system and central nervous system with headache, dizziness and drowsiness. Severe kidney damage results from swallowing large volumes of Ethylene Glycol.

#### Surfactant

Repeated or prolonged skin contact causes irritation. This product is also reported to be a moderate eye irritant.

#### Surfactant

Severely irritating to skin and eyes. Contact with eyes will cause chemical burns. Inhalation of mist will result in irritation of upper respiratory tract.

### Target Organs

#### Active Ingredients

Atrazine : Heart  
S-Metolachlor : Liver

#### Inert Ingredients

Benoxacor : Gastrointestinal Tract, Liver and Kidneys  
Ethylene Glycol : Blood, Kidneys and Central Nervous System  
Surfactant : Eyes and Skin  
Surfactant : Eyes

## **12. ECOLOGICAL INFORMATION**

### Summary of Effects

#### Atrazine :

Low toxicity to fish and wildlife.

#### S-Metolachlor:

Not Available

### Eco-Acute Toxicity

Atrazine : Rainbow Trout 96-hour LC50 9.9 mg/L  
Bluegill Sunfish 96-hour LC50 42 mg/L  
Bobwhite Oral LD50 940 mg/kg  
Bobwhite 8-day Dietary LC50 >5,000 ppm  
Mallard 8-day Dietary LC50 >5,000 ppm  
Ceriodaphnia dubia 48 HR LC50 4.9 mg A.I./L  
Peking Duck LD50 >10,000 mg/kg  
S-Metolachlor: Not Available

### Eco-Chronic Toxicity

Atrazine : Fish (Fathead minnow) Early Life Stage MATC >0.25 and <0.46 mg A.I./L  
Mallard Reproduction NOEC 225 ppm a.i.  
Bobwhite Reproduction NOEC 225 ppm a.i.  
Invertebrate (Ceriodaphnia dubia) Life Cycle NOEL 2.5 ppm

S-Metolachlor: Not Available

### Environmental Fate

Atrazine :

No data available for the formulation. The information presented here is for the active ingredient, atrazine. A thorough review of environmental information is not possible in this document. For additional information call the toll free number listed in Section 16.

#### **ENVIRONMENTAL PERSISTENCE/MOBILITY:**

Stable in sterile water, both in the light and dark. In laboratory soil, degrades slowly under both aerobic and anaerobic conditions in the dark (t1/2 ~ 5 mo); more rapidly in the light (t1/2 = 45 d). Exhibits medium to very high mobility with four soil textures (Koc = 39 to 155).

S-Metolachlor:

No data available for the formulation. The information presented here is for the active ingredient, s-metolachlor. A thorough review of environmental information is not possible in this document. For additional information call the toll free number listed in Section 16.

#### **ENVIRONMENTAL PERSISTENCE/MOBILITY:**

Degrades on soil in the light (t1/2 ~ 95 d). Primary aerobic soil degradation (t1/2 ~ 9 d) is more rapid than secondary degradation (t1/2 = 68 d). Mobility classified as high to medium in various soils (Koc = 110 to 369).

## **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: Under certain circumstances, discarded product may exhibit TCLP hazardous characteristics. A hazardous waste determination should be done on a case by case basis.

Listed Waste: Not Applicable

## **14. TRANSPORT INFORMATION**

### DOT Classification:

SURFACE Transportation  
Non-Bulk (< 119 gallon cap.): NOT Regulated  
Bulk (> 119 gallon cap.): NOT Regulated

### B/L Freight Classification

Herbicides, NOIBN

### International Transportation

NOT Regulated

## **15. REGULATORY INFORMATION**

### SARA Title III Classification

Section 311/312: Acute Health Hazard  
Chronic Health Hazard

Section 313 chemical(s): Atrazine (32%) (CAS No. 1912-24-9)  
Ethylene Glycol (CAS No. 107-21-1)

### Proposition 65

Not Applicable

### CERCLA Reportable Quantity (RQ)

30,900 gallons (based on ethylene glycol, CAS # 107-21-1 [RQ=5,000] in the formulation)

RCRA Classification

Under certain circumstances, discarded product may exhibit TCLP hazardous characteristics. A hazardous waste determination should be done on a case by case basis.

TSCA Status

Exempt from TSCA, subject to FIFRA

**16. OTHER INFORMATION**

NFPA Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

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

1-800-334-9481

Issued Date: 6/10/1996

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Supersedes: 7/22/1998

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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