MATERIAL SAFETY DATA SHEET

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: **BICEP II MAGNUM FC** Product No.: A9560E

EPA Signal Word: Caution

Active Ingredient(%): Atrazine (33.0%) 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

EPA Registration Number(s): 100-817 **Section(s) Revised: 13, 15**

2. HAZARDS IDENTIFICATION

Health and Environmental

Harmful if inhaled. May be harmful if swallowed or in contact with skin. Causes mild eye and skin irritation.

Hazardous Decomposition Products

None known.

Physical Properties

Appearance: Off-white liquid

Odor: Latex 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

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Ethylene Glycol (< 10%)	Not Established	100 mg/m³ (ceiling) [aerosol]	Not Established	No
Benoxacor	Not Established	Not Established	1 mg/m³ TWA ***	No
Atrazine (33.0%)	Not Established	5 mg/m³ TWA	5 mg/m³ TWA **	IARC Group 3
s-Metolachlor (26.1%)	Not Established	Not Established	10 mg/m³ 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 contol 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

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	> 210°F	
Flammable Limits (% in Air):	Lower: Not Applicable	Upper: Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not Applicable	

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, 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

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.
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:	Off-white liquid
Odor:	Latex paint
Melting Point:	Not Applicable
Boiling Point:	Not Available
Specific Gravity/Density:	9.31 lbs/gal (typical) @ 68°F (20°C)
pH:	5 - 7 (1% solution in H2O @ 77°F (25°C))

Solubility in H2O

Atrazine :	33 mg/l @ 68°F (20°C)
s-Metolachlor:	0.48 g/l @ 77°F (25°C)

Vapor Pressure

Atrazine :	2.9 x 10(-7) mmHg @ 68°F (20°C)
s-Metolachlor:	2.8 x 10(-5) 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 Rat) :	3271 mg/kg body weight
Dermal:		
	Dermal (LD50 Rat) :	> 2020 mg/kg body weight
Inhalation:		
	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)	

Reproductive/Developmental Effects

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.

Carcinogenicity

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

None

Toxicity of Other Components

Benoxacor

Test results reported in Section 11 for the final product take into account any acute hazards related to the benoxacor in the formulation.

Ethylene Glycol (< 10%)

Test results reported in Section 11 for the final product take into account any acute hazards related to the ethylene glycol in the formulation.

Target Organs

Active Ingredients

Atrazine : Heart

s-Metolachlor: Liver

Inert Ingredients

Benoxacor: Not Applicable

Ethylene Glycol: Not Applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Atrazine :

Fish (Rainbow Trout) 96-hour LC50 4.5 ppm

Green Algae 5-day EC50 49 ppb

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 6.9 ppm

Bird (Bobwhite Quail) 12-day LD50 940 mg/kg

s-Metolachlor:

Fish (Rainbow Trout) 96-hour LC50 11.9 ppm

Green Algae 5-day EC50 0.008 ppm

Bird (Bobwhite Quail) LD50 Oral > 2510 mg/kg

Invertebrate (Water Flea) 48-hour EC50 26 ppm

Environmental Fate

Atrazine :

The information presented here is for the active ingredient, atrazine.
Low bioaccumulation potential. Not persistent in soil. Stable in water. Highly mobile in soil. Will leach. Sinks in water (after 24 h).

s-Metolachlor:

The information presented here is for the active ingredient, s-metolachlor.
Low bioaccumulation potential. Not persistent in soil. Stable in water. 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
Non-Bulk (< 119 gallon cap.): Not regulated.
Bulk (> 119 gallon cap.): Not regulated.

Comments

Water Transport - International
Not regulated.

Rail Transport
Proper Shipping Name: Other Regulated Substances, Liquid, N.O.S. (Ethylene Glycol)
Hazard Class or Division: Class 9
Identification Number: NA 3082
Packing Group: PG III

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Atrazine (33.0%) (CAS No. 1912-24-9)
Ethylene Glycol (< 10%) (CAS No. 107-21-1)

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

Report product spills > 10,000 gal. (based on ethylene glycol [RQ = 5,000 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	1	Health:	1
Flammability:	1	Flammability:	1
Instability:	0	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: 8/17/1999
Revision Date: 7/20/2011 Replaces: 11/20/2009

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