

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

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

**1. PRODUCT IDENTIFICATION**

Product Name: **VANQUISH HERBICIDE** Product No.: A10182A  
 EPA Signal Word: Caution  
 Active Ingredient(%): Dicamba (56.8%) CAS No.: 1918-00-9  
 Chemical Name: 3,6-Dichloro-o-Anisic Acid  
 Chemical Class: Substituted Benzoic Acid Herbicide  
 EPA Registration Number(s): 100-884 **Section(s) Revised: 14, 15**

**2. HAZARDS IDENTIFICATION**
Health and Environmental

May be harmful if swallowed or in contact with skin. Causes moderate eye irritation.

Hazardous Decomposition Products

None known.

Physical Properties

Appearance: Clear, dark green liquid

Odor: Odorless

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
Dicamba (56.8%)	Not Established	Not Established	10 mg/m <sup>3</sup> TWA ***	No

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

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

None known.

## **5. FIRE FIGHTING MEASURES**

### Fire and Explosion

Flash Point (Test Method):	> 220°F (Closed Cup)	
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. 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 certified respirator with any N, R, P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, dark green liquid  
Odor: Odorless  
Melting Point: Not Applicable  
Boiling Point: Not Available  
Specific Gravity/Density: 1.25 g/ml  
pH: 7 - 8

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

Dicamba: 6.6 g/l @ 77°F (25°C)

### Vapor Pressure

Dicamba: 1 x 10<sup>(-6)</sup> 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 Rabbit) : 3512 mg/kg body weight  
Dermal:  
Dermal (LD50 Rabbit) : > 2000 mg/kg body weight  
Inhalation:  
Inhalation (LC50 Rat) : > 5.3 mg/l air - 4 hours  
Eye Contact: Moderately Irritating (Rabbit)  
Skin Contact: Non-Irritating (Rabbit)  
Skin Sensitization: Not a Sensitizer (Guinea Pig)

### Reproductive/Developmental Effects

Dicamba: None observed.

### Chronic/Subchronic Toxicity Studies

Dicamba: None observed.

### Carcinogenicity

Dicamba: None observed.

### Other Toxicity Information

None

Toxicity of Other Components

Not Applicable

Target Organs

Active Ingredients

Dicamba: Eye, skin

Inert Ingredients

Not Applicable

**12. ECOLOGICAL INFORMATION**

Ecotoxicity Effects

Dicamba:

Fish (Rainbow Trout) 96-hour LC50 135.4 mg/l

Bird (Bobwhite Quail) LD50 Oral 216 mg/kg

Green Algae EC50 > 3.7 mg/l

Invertebrate (Daphnia Magna) 48-hour EC50 > 11.37 - < 100 mg/l

Environmental Fate

Dicamba:

The information presented here is for the active ingredient, dicamba.

Low bioaccumulation potential. Not persistent in soil. Stable in water. Highly mobile in soil. Degrades rapidly. 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

Containers (< 170 gal): Not regulated.

Containers (> 170 gal):

Proper Shipping Name: RQ Environmentally Hazardous Substances, Liquid, N.O.S., (Dicamba)

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Comments

International Transport - Water

Containers (< 170 gal): Not regulated.

Containers (> 170 gal):

Proper Shipping Name: RQ Environmentally Hazardous Substances, Liquid, N.O.S. (Dicamba)

Hazard Class: Class 9

Identification Number: UN 3082  
Packing Group: PG III

Air Transport  
Containers (< 170 gal): Not regulated.  
Containers (> 170 gal): Prohibited.

## 15. REGULATORY INFORMATION

### EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Dicamba (56.8%) (CAS No. 1918-00-9)

### California Proposition 65

Not Applicable

### CERCLA/SARA 302 Reportable Quantity (RQ)

Report product spills > 170 gal (based on dicamba [RQ = 1,000 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

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: 9/1/1992

Revision Date: 8/26/2010

Replaces: 4/28/2009

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