

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:	NORTHSTAR	Product No.:	A11896A
EPA Signal Word:	Caution		
Active Ingredient(%):	Dicamba (Sodium Salt) (39.9%)	CAS No.:	1982-69-0
Chemical Name:	3,6-dichloro-o-anisic acid		
Chemical Class:	Substituted Benzoic Acid Herbicide		
Active Ingredient(%):	Primisulfuron-Methyl (7.5%)	CAS No.:	86209-51-0
Chemical Name:	3-[4,6-bis(difluoromethoxy)-pyrimidin-2-yl]-1-(2-methoxycarbonyl-phenylsulfonyl) urea		
Chemical Class:	Sulfonyl Urea Herbicide		
EPA Registration Number(s):	100-923	Section(s) Revised:	2, 8, 11, 14, 15, 16

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Starch	15 mg/m ³ (total) TWA; 5 mg/m ³ (resp) TWA	10 mg/m ³ TWA	10 mg/m ³ (total) TWA; 5 mg/m ³ (resp) TWA**	No
Primisulfuron-Methyl (7.5%)	Not Established	Not Established	Not Established	No
Dicamba (Sodium Salt) (39.9%)	Not Established	Not Established	Not Established	No

** recommended by NIOSH

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

3. HAZARDS IDENTIFICATION
Symptoms of Acute Exposure

May cause eye and skin irritation.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Light brown solid

Odor: Sweet

Unusual Fire, Explosion and Reactivity Hazards

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

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):	Not Applicable	
Flammable Limits (% in Air):	Lower: % Not Applicable	Upper: % Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not Flammable	

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. 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

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, PACKAGING AND USE 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 (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

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 solid
Odor: Sweet
Melting Point: Not Available
Boiling Point: Not Applicable
Specific Gravity/Density: 38.40 lbs./cu.ft.
pH: 7.9

Solubility in H₂O

Dicamba (Sodium Salt): 360 g/l @ 77°F (25°C)
Primisulfuron-Methyl: 12 mg/l @ 77°F (25°C)

Vapor Pressure

Dicamba (Sodium Salt): Not Available
Primisulfuron-Methyl: 3.8 x 10⁽⁻⁸⁾ 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: Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion: Slightly Toxic
Oral (LD50 Rat) : 2,932 mg/kg body weight

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

Inhalation: Practically Non-Toxic
Inhalation (LC50 Rat) : > 3.6 mg/l air - 4 hours

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

Reproductive/Developmental Effects

Dicamba (Sodium Salt): None observed.
Primisulfuron-Methyl: None observed.

Chronic/Subchronic Toxicity Studies

Dicamba (Sodium Salt): None observed.

Primisulfuron-Methyl: Effects on liver, kidneys, teeth, bone and testes (rats and mice), bladder (mice), gallbladder and thyroid (dogs) at extremely high doses.

Carcinogenicity

Dicamba (Sodium Salt): None observed.

Primisulfuron-Methyl: Does not present a human carcinogenic hazard. Liver tumors occur only at high doses that caused toxicity and mortality in the test animals.

Other Toxicity Information

None

Toxicity of Other Components

Starch

May cause eye and skin irritation. May cause respiratory tract irritation. Low hazard for usual industrial handling.

Target Organs

Active Ingredients

Dicamba (Sodium Salt): Eye, skin

Primisulfuron-Methyl: Liver, kidney, bone, testes, thyroid, bladder, gallbladder

Inert Ingredients

Starch: None

12. ECOLOGICAL INFORMATION

Summary of Effects

Dicamba (Sodium Salt):

Not Available

Primisulfuron-Methyl:

Practically nontoxic to birds and invertebrates. Slightly toxic to fish.

Eco-Acute Toxicity

Primisulfuron-Methyl: Bees LC50/EC50 > 100 ug/bee
Invertebrates (Water Flea) LC50/EC50 260 ppm
Fish (Trout) LC50/EC50 70 ppm
Fish (Bluegill) LC50/EC50 > 80 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 > 5,000 ppm
Birds (8-day dietary - Mallard Duck) LC50/EC50 > 5,000 ppm

Dicamba (Sodium Salt): Rainbow Trout 96-hour LC50 >1,000 mg/L
Bluegill Sunfish 96-hour LC50 >1,000 mg/L
Daphnia magna 48-hour LC50 1,600 mg/L

Eco-Chronic Toxicity

Primisulfuron-Methyl: Fish (Fathead minnow) Early Life Stage MATC 14.6 ppm
Invertebrate (Daphnia Magna) Life Cycle MATC 0.7 ppm
Mallard Reproduction NOEC 500 ppm
Bobwhite Reproduction NOEC 500 ppm

Dicamba (Sodium Salt): Not Available

Environmental Fate

Dicamba (Sodium Salt):

Hydrolysis: Resistant to hydrolysis Photolysis: Not Available Soil Half-life: 2 to 25 days

Primisulfuron-Methyl:

The information presented below is for the active ingredient, primisulfuron-methyl.

Does not bioaccumulate. Not persistent in soil. Stable in water. Highly mobile in soil. Will leach. 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.

Note: Packages imported into the U.S. are marked, labeled and delivered to their first destination as Class 9.

Air Transport - NAFTA

Not regulated.

Note: Packages imported into the U.S. are marked, labeled and delivered to their first destination as Class 9.

B/L Freight Classification

Herbicides, NOI (NMC Class 60)

Comments

Water Transport - International

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

Hazard Class or Division: Class 9

Identification Number: UN 3077

Packing Group: PG III

IMDG EMS #: F-A, S-F

Note: Not regulated by IMDG; IMDG Spec. Prov. 909; moving under ADR/RID Classification

Air Transport - International

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

Hazard Class or Division: Class 9

Identification Number: UN 3077

Packing Group: PG III

IMDG EMS #: F-A, S-F

Note: Not regulated by ICAO; IATA Spec. Prov. 97; moving under ADR/RID Classification

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Dicamba (Sodium Salt) (39.9%) (CAS No. 1982-69-0)

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

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: 03/20/1998

Revision Date: 02/03/2005

Replaces: 05/13/2003

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.

RSVP# : SCP-955-00186G

End of MSDS