

# MATERIAL SAFETY DATA SHEET

## DICAMBA MAX 4

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night: 1-800-424-9300  
For Medical Emergencies Only, Call 1-877-325-1840

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** DICAMBA MAX 4  
**EPA Reg. No.:** 83222-14  
**Synonyms:** Dimethylamine Salt of Dicamba; Dicamba DMA; DMA Salt of Dicamba  
**Product Type:** Herbicide

**Company Name:** Direct Ag Source, LLC  
30473 260<sup>th</sup> St.  
Eldora, IA 50627

**Date of Issue:** February 28, 2008  
**Sections Revised:** New or updated information all sections

### 2. HAZARDS IDENTIFICATION

**Emergency Overview:**

**Appearance and Odor:** Dark brown liquid with a slight amine odor.

**Warning Statements:** Keep out of reach of children. CAUTION. Causes moderate eye irritation. Avoid contact with eyes or clothing.

**Potential Health Effects:**

**Likely Routes of Exposure:** Inhalation, eye and skin contact.

**Eye Contact:** Mildly irritating based on toxicity studies.

**Skin Contact:** Slightly toxic and slightly irritating based on toxicity studies.

**Ingestion:** Slightly toxic based on toxicity studies.

**Inhalation:** Low inhalation toxicity.

**Medical Conditions Aggravated by Exposure:** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

See Section 11: TOXICOLOGICAL INFORMATION for more information.

**Potential Environmental Effects:**

Available data suggests that dicamba is slightly toxic to fish and invertebrates and practically non-toxic to birds.

See Section 12: ECOLOGICAL INFORMATION for more information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Dimethylamine Salt of Dicamba (3,6-Dichloro-o-anisic Acid)	2300-66-5	48.2
Other Ingredients		51.8

### 4. FIRST AID MEASURES

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**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on Skin:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**If Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

### 5. FIRE FIGHTING MEASURES

**Flash Point:** Not applicable due to aqueous formulation

**Autoignition Temperature:** Not determined

**Flammability Limits:** Not determined

**Extinguishing Media:** Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Unusual Fire and Explosion Hazards:** If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

**Hazardous Decomposition Materials (Under Fire Conditions):** May produce gases such as hydrogen chloride, organochlorine products, and oxides of carbon and nitrogen.

#### **National Fire Protection Association (NFPA) Hazard Rating:**

**Rating for this product: Health: 1 Flammability: 1 Reactivity: 0**

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

**Methods for Containment:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Cleanup and Disposal:** Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

**Other Information:** Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

### 7. HANDLING AND STORAGE

#### **Handling:**

Avoid contact with eyes or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this

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product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **Storage:**

Store in original container in a well-ventilated area separately from fertilizer, feed and foodstuffs. Avoid cross-contamination with other pesticides. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal. Do not contaminate water, food or feed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### **Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

### **Personal Protective Equipment:**

**Eye/Face Protection:** Not normally required. To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

**Respiratory Protection:** Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

**General Hygiene Considerations:** Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

### **Exposure Guidelines:**

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Dicamba	NE	NE	NE	NE	

NE = Not Established

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Dark brown liquid with a slight amine odor.

**Boiling Point:** Not determined

**Solubility in Water:** Soluble

**Density:** 9.73 pounds/gallon

**Specific Gravity:** 1.168 @ 20°C

**Evaporation Rate:** Not determined

**Vapor Density:** Not determined

**Freezing Point:** Not determined

**Vapor Pressure:** Not determined

**pH:** 6.5 – 7.5

**Viscosity:** 6.342 cst @ 20°C

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Conditions to Avoid:** None known

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**Incompatible Materials:** None known

**Hazardous Decomposition Products:** Under fire conditions may produce gases such as hydrogen chloride, organochlorine products, and oxides of carbon and nitrogen.

**Hazardous Reactions:** Hazardous polymerization will not occur.

### 11. TOXICOLOGICAL INFORMATION

#### **Toxicological Data:**

Data from laboratory studies on this product are summarized below:

**Oral:** Rat LD<sub>50</sub>: >5,000 mg/kg (female)

**Dermal:** Rat LD<sub>50</sub>: >5,000 mg/kg

**Inhalation:** Rat 4-hr LC<sub>50</sub>: >2.02 mg/L

**Eye Irritation:** Rabbit: Mildly irritating

**Skin Irritation:** Rabbit: Slightly irritating

**Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

**Subchronic (Target Organ) Effects:** Repeated overexposure to dicamba may cause liver changes or a decrease in body weight.

**Carcinogenicity / Chronic Health Effects:** Dicamba did not cause cancer in long-term animals studies. The U.S. EPA has given dicamba a Class D classification (not classifiable as to human carcinogenicity).

**Reproductive Toxicity:** Dicamba did not interfere with fertility in reproduction studies in laboratory animals.

**Developmental Toxicity:** Animal tests with dicamba have not demonstrated developmental effects.

**Genotoxicity:** Animal tests with dicamba did not demonstrate mutagenic effects.

**Assessment Carcinogenicity:** None listed with ACGIH, IARC, NTP or OSHA.

See Section 2: HAZARDS IDENTIFICATION for more information.

### 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity:**

Data on Dicamba:

96-hour LC <sub>50</sub> Bluegill:	135 mg/l	Bobwhite Quail 8-day Dietary LC <sub>50</sub> :	>10,000 ppm
96-hour LC <sub>50</sub> Rainbow Trout:	135 mg/l	Mallard Duck 8-day Dietary LC <sub>50</sub> :	>10,000 ppm
48-hour EC <sub>50</sub> Daphnia:	110 mg/l		

#### **Environmental Fate:**

Dicamba poorly binds to soil particles, is potentially mobile in the soil and highly soluble in water. Aerobic soil metabolism is the main degradative process for dicamba with a typical half-life of 2 weeks. Degradation is slower when low soil moisture limits microbe populations. In water, microbial degradation is the main route of dicamba dissipation. Aquatic hydrolysis, volatilization, adsorption to sediments, and bioconcentration are not expected to be significant.

### 13. DISPOSAL CONSIDERATIONS

#### **Waste Disposal Method:**

Triple rinse pesticide from containers and use rinsates in the pesticide application. Wastes which cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

#### **Container Handling and Disposal:**

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After triple rinsing (or equivalent), offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities, such as burning of plastic containers. If burned, stay out of smoke.

### 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

#### DOT

##### **≤ 254 gallons per complete package**

Non Regulated – See 49 CFR 173.132(b)(3)

##### **> 254 gallons per complete package**

RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(DICAMBA), 9, UN 3082, III

#### IMDG

Non Regulated - See IMDG 2.6.2.1.3

#### IATA

Non Regulated - See IATA 3.6.1.5.3

### 15. REGULATORY INFORMATION

#### U.S. Federal Regulations:

**TSCA Inventory:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

#### SARA Hazard Notification/Reporting:

##### **Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):**

Immediate

#### **Section 313 Toxic Chemical(s):**

Dicamba (CAS No. 1918-00-9), 40.0% equivalent by weight in product

#### Reportable Quantity (RQ) under U.S. CERCLA:

Dicamba (CAS No. 1918-00-9) 1,000 pounds

#### RCRA Waste Code:

None

#### State Information:

Other state regulations may apply. Check individual state requirements.

**California Proposition 65:** Not Listed

### 16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

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Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

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