

MATERIAL SAFETY DATA SHEET

(DICAMBA TECHNICAL)

SECTION 1 IDENTIFICATION OF PRODUCT**Common name:** Dicamba**Chemical Class:** herbicide**Manufacturer :** CHANGZHOU BOOMING CROP SCIENCE CO.,LTD**Address:** NO.2, BUILDING 53,HUNDSUN SCIENCE &TECHNOLOGY PARK,BEITANGHE ROAD,TIANNING DISTRICT, CHANGZHOU, JIANGSU, CHINA**Phone:** 86-519-68208602**Fax:** 86-519-85851009**Chemical name:** 3,6-Dichloro-2-methoxybenzoic acid**CAS No. :** 1918-00-9**Formula:** C₈H₆Cl₂O₃**Molecular weight:** 221.0**SECTION 2 COMPOSITION INFORMATION ON INGREDIENTS**

Chemical name	Content
Dicamba	≥96.0%.
Other inert ingredients	Add up to 100%

SECTION 3 HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:**

Dicamba can irritate the eyes on contact
Dicamba can irritate the nose, throat and lungs
Dicamba can irritate the skin,
Dicamba can affect the liver.

SECTION 4 FIRST AID MEASURES

Inhalation : Remove to fresh air. If breathing stops administer artificial respiration and get medical attention immediately. If breathing is difficult refer to a physician.

Skin contact: Quickly remove contaminated clothing. Wash thoroughly with soap and water. Get medical attention if irritation persists.

Eye contact: Flush with running water for at least 15 minutes. If irritation persists

get medical attention

Ingestion: Give one or two glasses of water and induce vomiting. Get medical attention.

Acute Health Effects

The following acute (short-term) health effects may occur immediately or shortly after exposure to Dicamba:

Dicamba can irritate the skin causing a rash or burning feeling on contact.

Dicamba can irritate the eyes on contact

Breathing Dicamba can irritate the nose and throat causing coughing and wheezing

Exposure to Dicamba can cause nausea, vomiting, loss of appetite and weight loss, muscle weakness and exhaustion.

Chronic Health Effects:

The following chronic (long-term) health effects can occur at some time after exposure to Dicamba and can last for months or years:

Other Long-Term Effects

Breathing Dicamba can irritate the lungs causing coughing and/or shortness of breath. Dicamba may affect the liver.

Medical advice

If symptoms develop or overexposure is suspected, the following is recommended:

Liver function tests

Any evaluation should include a careful history of past and present symptoms with an exam.

Medical tests that look for damage already done are not a substitute for controlling exposure.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media : Powder, water spray, foam, carbon dioxide

Fire/Explosion Hazards: Risk of fire and explosion if formulations contain flammable/explosive solvents. Poisonous gases are produced in fire, including Chlorine gas.

Fire and explosion data : Flash point: not combustible
Auto ignition temperature: not established
Flammable limits: not established
Extinguishing media: water

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Evacuate persons not wearing protective equipment from area of spill until clean-up is complete. Collect powdered material in the most convenient and safe manner and deposit in sealed containers. Ventilate area

after clean-up is complete.

Disposal information: Place contaminated absorbant in drums and dispose of at an EPA approved incinerator. Do not reuse containers. Empty containers should be triple rinsed and disposed of in accordance with local, state, and federal regulations.

Methods for cleaning up: Do not wash away into sewer, sweep spilled substance into containers; if appropriate, moisten first to prevent dusting, carefully collect remainder, and then remove to safe place. Use a P2 filter respirator for harmful particles.

SECTION 7. HANDLING AND STORAGE

HANDLING:

Prior to working with Dicamba, workers should be trained on its proper handling and storage. Do not eat, smoke, or drink where Dicamba is handled, processed, or stored, since the chemical can be swallowed. Wash hands carefully before eating, drinking, smoking, or using the toilet. Where possible, automatically transfer Dicamba from drums or other storage containers to process containers.

STORAGE:

Store in tightly closed containers in a cool, well-ventilated area away from HEAT and WATER. Keep separated from food and feedstuffs.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupation exposure limits: No occupational exposure limits have been established for Dicamba. This does not mean that this substance is not harmful. Safe work practices should always be followed.

Engineering measures: Handle in a well ventilated area. Where possible, enclose operations and use local exhaust ventilation at the site of chemical release. If local exhaust ventilation or enclosure is not used, respirators should be worn. Eye wash fountains should be provided in the immediate work area for emergency use. Post hazard and warning information in the work area. In addition, as part of ongoing education and training effort, communicate all information on the health and safety hazards of Dicamba to potentially exposed workers.

Personal protective equipment:

Respiratory system:

For field applications check with supervisor and safety equipment supplier regarding the appropriate respiratory equipment. NIOSH has established new testing and certification requirements for negative pressure, air purifying, particulate filter and filtering face piece respirators. The filter classifications of dust/mist/fume, paint spray or pesticide profilers, and filters for radon daughters, have been replaced with the N, R, and P series. Each series has three levels of filtering efficiency: 95%, 99%, and 99.9%. Check with safety equipment supplier or respiratory manufacturer to determine which respirator is appropriate for facility. Where the potential for high exposure exists, use a MSHA/NIOSH approved supplied-air respirator with a full face piece operated in a pressure-demand or other positive-pressure mode. For increased protection use in combination with an auxiliary self-contained breathing apparatus operated in a pressure-demand or other positive-pressure mode. If while wearing a filter or cartridge respirator Dicamba can be smelt, tasted or otherwise detected, or if while wearing particulate filters abnormal resistance to breathing is experienced, or eye irritation occurs while wearing a full face piece respirator, leave the area immediately. Check to make sure the respirator-to-face seal is still good. If it is, replace the filter or cartridge. If the seal is no longer good, a new respirator may be needed.

Clothing :

Wear chemical resistant gloves, long pants, long sleeved shirt, chemical resistant boots, and a hat. Avoid direct contact with the skin. All protective clothing (suits, gloves, footwear, headgear) should be clean, available each day, and put on before work. Workers whose clothing has been contaminated by Dicamba should change into clean clothing promptly. Contaminated work clothes should be laundered by individuals who have been informed of the hazards of exposure

Eye protection: to Dicamba. Wear impact resistant eye protection with side shields or goggles. Wear a face shield along with goggles when working with corrosive, highly irritating or toxic substances.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: off-white solid

Melting point: 114 - 116°C

Boiling point: >200 °C

Density: 1.488(25°C)

Pka: 1.97

Solubility in water g/100 ml at 25°C: 0.79

Vapour pressure Pa at 25°C : 1.67mPa

Solubility: In water 6.6 g/l (pH 1.8), >250 (pH 4.1, 6.8, 8.2) (all g/l, 25 °C). In ethanol 922, cyclohexanone 916, acetone 810, dichloromethane 260, dioxane 1180, toluene 130, xylene 78 (all in g/l, 25 °C)

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable under normal conditions

Conditions to avoid: Avoid excessive heat

Materials to avoid: None known

Hazardous polymerization: Will not occur

Hazardous decomposition: Thermal decomposition may release toxic and/or hazardous gases.

SECTION 11 TOXICOLOGICAL INFORMATION

Routes of entry: Contact, inhalation, ingestion

Acute oral LD₅₀: In rats is reported to be 1707mg/kg

Acute dermal LD₅₀: Prolonged skin exposure may result in the material being absorbed through the skin. The dermal LD50 in rabbits is >2000 mg/kg.

Acute inhalation LC₅₀ (4 h): for rats >4.44mg/l

Acute skin irritation: Dicamba can irritate the skin causing a rash or burning feeling on contact.

Acute eye irritation: Extremely irritating, may be corrosive

Carcinogenicity: Ingredients in this product are not listed as carcinogens by NTP, IARC, or OSHA.

Reproductive Hazard: There is no evidence that Dicamba affects

reproduction. This is based on test results presently available to the New Jersey Department of Health and Senior Services from published studies.

SECTION 12 ECOLOGICAL INFORMATION

Degradability: The degradation rate in plants varies greatly with species. In wheat, the major metabolite is 5-hydroxy-2-methoxy-3,6-dichlorobenzoic acid, whilst 3,6-dichlorosalicylic acid is also a metabolite.

ECOTOXICOLOGY:

Birds: Acute oral LD₅₀ for mallard ducks 2000 mg/kg. Eight-day dietary LC₅₀ for mallard ducks and bobwhite quail >10 000 mg/kg diet

Fish: LC₅₀ (96 h) for rainbow trout: 3.2, bluegill sunfish: 9.6 µg/l.

Daphnia EC₅₀: (48 h) 0.34 ppb

SECTION 13 DISPOSAL EMPTY CONTAINERS

Do not reuse containers. Empty containers should be triple rinsed and disposed of in accordance with regulations.

SECTION 14 TRANSPORT INFORMATION

The substance is not subject to IATA DGR.

The product presents no other dangerous properties.

The goods are packaged according to the packaging requirement of ordinary goods.

SECTION 15 REGULATORY INFORMATION

Symbol: Xn

Risk phrases: R 20/21/22

Safety phrases : S 2-13

Note: A

SECTION 16 OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including



CHANGZHOU BOOMING CROP SCIENCE CO.,LTD.

Tel: 86-519-68208602 Fax: 86-519-85851009

Add: NO. 2, BUILDING 53, HUNDSUN SCIENCE & TECHNOLOGY PARK,
BEITANGHE ROAD, TIANNING DISTRICT, CHANGZHOU, JIANGSU, CHINA.

in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.