



MATERIAL SAFETY DATA SHEET

Gharda USA, Inc.
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Washington Crossing, PA 18977

Emergency Response Telephone Numbers

For Spills Call: 1-800-424-9300
Other Emergencies Call: 1-888-237-6961

I. MATERIAL IDENTIFICATION

**Product Name: Oracle™ Dicamba
Agricultural Herbicide**

EPA Registration No: 70907-12

<u>INGREDIENTS:</u>	(% w/w)
Dicamba Dimethylamine Salt (CAS Reg. No. 2300-66-2) DMA Salt of 3,6-dichloro-o-anisic acid*	49.77%
Dimethylamine Salt of Related Acids	0.60%
Inert Ingredients	49.63%

* Contains 41.35% dicamba acid equivalent, or 4 lbs/gallon (480 grams/liter)

Chemical Class: Substituted Benzoic Acid

EPA Signal Word: Warning

II. HAZARDOUS INGREDIENTS

<u>MATERIAL:</u>		<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Active Ingredient:	Dicamba DMA Salt	Not established	Not established
Related Compounds:	Trade Secret	NIA	N/A

III. HEALTH HAZARD INFORMATION

EYE: Causes severe eye irritation. May be corrosive.

SKIN CONTACT: Exposure may cause skin irritation and dermal sensitization.

SKIN ABSORPTION: The acute dermal toxicity is considered to be low. The percutaneous LD₅₀ for rabbits is greater than 2000 mg/kg.

INGESTION: The acute oral toxicity is considered to be low. The oral LD₅₀ for rats is 2629 mg/kg. Small amounts that might be swallowed incidental to normal handling operations are not likely to cause injury; swallowing larger amounts may be hazardous.

INHALATION: The acute inhalation toxicity is considered to be low. The LC₅₀ for rats is greater than 5.4 mg/l for 4 hours.

CANCER INFORMATION: Did not cause cancer in long-term animal studies. There were no treatment related increases in tumors at dietary levels up to 2500 ppm (rats and dogs) and 3000 ppm (mice).

TERATOLOGY (BIRTH DEFECTS): Did not cause birth defects in animal studies. Exposures having no effect on the mothers had no effect on the fetuses. The maternal and fetal no effect levels in rabbits were 30 mg/kg and 300 mg/kg, respectively. In the rat teratology study, the maternal and fetal no effect levels were 160 mg/kg and 400 mg/kg, respectively.

REPRODUCTIVE EFFECTS: Dicamba did not interfere with fertility in reproduction studies in laboratory animals. The no effect level in a two-generation rat reproduction study was 500 ppm.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Based on a number of *in vivo* and *in vitro* studies, the preponderance of data suggest that dicamba is not a mutagen.

IV. FIRST AID PROCEDURES

EYES: Hold eyelids open and flush with a steady gentle stream of water for 15 minutes. Get medical attention if irritation develops.

SKIN: Wash with a mild soap and rinse with plenty of water. Remove contaminated clothing and thoroughly wash before reuse.

INGESTION: Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching back of throat with finger or a blunt object. If person is unconscious, do not give anything by mouth and do not induce vomiting.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to-mouth. Get medical attention if symptoms persist.

NOTE TO PHYSICIAN: Treatment is symptomatic. Although symptoms are nonspecific, they may include exhaustion, muscular spasms, urinary incontinence, dyspnea and cyanosis. For ingestion, lavage stomach with tap water. Instill 30 gm activated charcoal in 3-4 oz. of water. Catharsis with 15 gm sulfate in 6-8 oz. water.

V. PHYSICAL HAZARD INFORMATION

CHEMICAL & PHYSICAL PROPERTIES:

Color:	Amber
Physical State:	Liquid
Odor:	Mild amine odor
Boiling Point:	>212 °F (100 °C)
Density:	9.68 lbs/gal (1.16 gm/Cm ³)
Solubility:	Fully soluble in water
Vapor Pressure:	18 mm Hg at 20°C
Vapor Density:	>1.0 (Air=1)
pH:	7 to 8
Stability:	Stable

FIRE AND EXPLOSION HAZARDS:

Flash Point:	Does not flash
Flammability Limits:	LFL: Not applicable UFL: Not applicable
Extinguishing Media:	Water Spray, Foam, Dry Chemical
Fire & Explosion Precautions:	Foam fire-extinguishing system is preferred because uncontrolled water can spread possible contamination. Do not allow fire fighting water to escape into waterways or sewers. Toxic irritating gases can be formed.
Fire-Fighting Equipment:	Use positive-pressure self-contained breathing apparatus and full protective equipment.

REACTIVITY:

Stability:	(CONDITIONS TO AVOID) None known.
Incompatibility:	(SPECIFIC MATERIALS TO AVOID) None known.

REACTIVITY – Cont.

Hazardous Decomposition: Under fire conditions, steam, dicamba amine salt, hydrogen chloride, organochloride products, oxides of nitrogen, or carbon monoxide can be formed.

Hazardous Polymerization: No data available.

VI. ENVIRONMENTAL PROTECTION

IN CASE OF SPILLS OR LEAKS: Absorb liquid with material such as sand, sawdust, or dirt. Sweep up and place in a suitable container for disposal. Area can be washed down with water and detergent to remove remaining herbicide. Keep product, contaminated materials and wash water out of sewers. Wash exposed body areas thoroughly after handling.

WATER DISPOSAL METHOD: Do not contaminate food, feed, or water by storage or cleaning of equipment. Wastes resulting from the use of this product may be disposed of on site, if approved waste handling facilities are available, or at an approved waste handling facility.

ENVIRONMENTAL PRECAUTIONS: This pesticide may cause injury to desirable trees and plants. Do not apply directly to water, surface waters or runoff areas. Avoid spray drift and other means of exposure to sensitive plants and other non-target areas.

VII. PERSONAL PROTECTION AND PRECAUTIONS

EXPOSURE GUIDELINE(S): ACGIH TLV and OSHA PEL levels are not established for dicamba acid or dicamba dimethylamine salt. For dimethylamine, the OSHA and ACGIH exposure limits based upon TWA and STEL are 9.2 mg/m³ and 27.6 mg/m³, respectively.

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guideline.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. For most conditions, no respiratory protection should be needed; however, if the exposure guideline is exceeded, use an approved organic vapor/mist respirator.

SKIN PROTECTION: Wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks when handling.

EYE/FACE PROTECTION: Use protective eyewear.

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: See label. Causes eye irritation. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating or smoking. Avoid breathing mist. Keep away from food, feedstuffs, and water supplies.

VIII. DOT HAZARDOUS MATERIALS INFORMATION

PROPER SHIPPING NAME: Environmentally Hazardous Substances, Liquid, N.O.S. (Dicamba)

HAZARD CLASS OR DIVISION: 9

IDENTIFICATION NUMBER: UN 3082

PACKING GROUP: III

ADDITIONAL INFORMATION: As per DOT Regulations, Dicamba has a Reportable Quantity (RQ) of 1000 pounds (454 kg).

IX. REGULATORY INFORMATION

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in section I (Material Identification) of the MSDS.

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Category	Rating
Health	1
Flammability	0
Reactivity	0

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

Category:

Chemical Name	CAS Number	RQ	% in Product
Dicamba	1918-00-9	1000	41.45%

Issue Date: March 1, 2000

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not "Hazardous" per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, and local laws and regulations. See MSDS for health and safety information.