

Novartis

BANVEL HERBICIDE

MANUFACTURER: NOVARTIS CROP PROTECTION, INC
 POST OFFICE BOX 18300
 GREENSBORO, NC 27419
 IN CASE OF EMERGENCY, CALL:
 NOVARTIS: 1-800-888-8372
 CHEMTREC: 1-800-424-9300

NOTES TO PHYSICIAN: There is no specific antidote if this product is ingested. Treat symptomatically. An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant. Induce emesis or lavage stomach.
 MEDICAL CONDITION LIKELY TO BE AGGRAVATED BY EXPOSURE: None Known

1. CHEMICAL IDENTIFICATION

PRODUCT NAME: BANVEL HERBICIDE
 PRODUCT NO.: Not Available
 EPA SIGNAL WORD: Warning
 ACTIVE INGREDIENT (%): Dicamba (Dimethylamine Salt) (48.2%)
 CAS NO.: 2300-66-5
 CHEMICAL NAME: Dimethylamine Salt of 3,6-Dichloro-o-anisic Acid
 CHEMICAL CLASS: Substituted Benzoic Acid Herbicide

2. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	OSHA PEL	ACGIH TLV	OTHER
Dicamba (Dimethylamine Salt)(48.2%)	Not Established	Not Established	Not Established
NTP/IARC/OSHA CARCINOGEN: No			

3. HAZARDS IDENTIFICATION

NOTES TO PHYSICIAN: There is no specific antidote if this product is ingested. Treat symptomatically. An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant. Induce emesis or lavage stomach.
 SYMPTOMS OF ACUTE EXPOSURE: Exposure may cause skin irritation and/or severe eye damage can occur. Symptoms may include exhaustion, muscular spasms, urinary incontinence, dyspnea and cyanosis.
 HAZARDOUS DECOMPOSITION PRODUCTS: None Known
 PHYSICAL PROPERTIES:
 APPEARANCE: Amber Liquid
 ODOR: Mild Amine Odor
 UNUSUAL FIRE, EXPLOSION AND REACTIVITY HAZARDS: Thermal decomposition products may include, but are not limited to Dicamba Amine Salt, HCl, Organochloride products, Oxides of Nitrogen and Carbon Monoxide.

4. FIRST AID MEASURES

If poisoning is suspected, immediately contact a physician, the nearest hospital, or the nearest Poison Control Center. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.
 INGESTION: If victim is fully conscious, give a large quantity of water to drink and induce vomiting. Never give anything by mouth to an unconscious person.
 EYE CONTACT: Immediately rinse eyes with a large amount of running water. Hold eyelids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.
 SKIN CONTACT: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.
 INHALATION: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION:
 FLASH POINT (Test Method): Not Available
 FLAMMABLE LIMITS (% in Air):
 LOWER (%): Not Available
 UPPER (%): Not Available
 AUTOIGNITION TEMPERATURE: Not Available
 FLAMMABILITY: Not Applicable
 UNUSUAL FIRE, EXPLOSION AND REACTIVITY HAZARDS: Thermal decomposition products may include, but are not limited to Dicamba Amine Salt, HCl, Organochloride products, Oxides of Nitrogen and Carbon Monoxide.
 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.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR LEAK: Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and a NIOSH-approved chemical cartridge pesticide respirator with organic vapor pre-cartridges or a supplied-air respirator. For small spills, cover with an absorbent material such as pet litter. Sweep up, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

INGESTION: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.
 EYE CONTACT: To avoid eye contact, wear safety glasses with side shields or chemical goggles.
 SKIN CONTACT: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.
 INHALATION: To avoid breathing mist or vapors, wear a NIOSH-approved chemical cartridge pesticide respirator with organic vapor pre-cartridges or a supplied-air respirator.

Novartis

BANVEL HERBICIDE

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber Liquid
 ODOR: Mild Amine Odor
 MELTING POINT: Not Applicable
 BOILING POINT: 212 deg F
 SPECIFIC GRAVITY/DENSITY: 1.19 @ 20 deg C (Typical)
 pH: 7-8
 SOLUBILITY IN H2O:
 DICAMBA (Dimethylamine Salt): Not Available.
 VAPOR PRESSURE:
 DICAMBA (Dimethylamine Salt): Not Available.

10. STABILITY AND REACTIVITY

REACTIVITY:
 STABILITY: Stable
 HAZARDOUS POLYMERIZATION: Will Not Occur
 CONDITIONS TO AVOID: None Known
 HAZARDOUS DECOMPOSITION PRODUCTS: None Known

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:
 INGESTION: Slightly toxic
 ORAL LD50 (Rat): 2,629 mg/kg body weight
 DERMAL: Slightly toxic
 DERMAL LD50 (Rabbit): >2,000 mg/kg body weight
 INHALATION: Practically non-toxic
 INHALATION LC50 (Rat): >5.4 mg/l air - 4 hours
 EYE CONTACT: Mildly irritating (Rabbit)
 SKIN CONTACT: Corrosive (Rabbit)
 SKIN SENSITIZATION: Not a sensitizer (Guinea Pig)
 MUTAGENIC POTENTIAL:
 DICAMBA (Dimethylamine Salt): DNA Repair (in vitro) was positive. Ames Test and Chromosomal aberration were both negative.
 REPRODUCTIVE HAZARD POTENTIAL:
 DICAMBA (Dimethylamine Salt): None Observed
 CHRONIC/SUBCHRONIC TOXICITY STUDIES:
 DICAMBA (Dimethylamine Salt): None Observed
 CARCINOGENIC POTENTIAL:
 DICAMBA (Dimethylamine Salt): None Observed
 OTHER TOXICITY INFORMATION: Not Available
 TOXICITY OF OTHER COMPONENTS: Not Available
 TARGET ORGANS:
 ACTIVE INGREDIENTS:
 DICAMBA (Dimethylamine Salt): Eyes and Skin
 INERT INGREDIENTS: Not Available

12. ECOLOGICAL INFORMATION

SUMMARY OF EFFECTS:
 DICAMBA (Dimethylamine Salt): Not Available
 ECO-ACUTE TOXICITY:
 DICAMBA (Dimethylamine Salt):
 RAINBOW TROUT 96-HOUR LC50: >1,000 mg/L
 BLUEGILL SUNFISH 96-HOUR LC50: >1,000 mg/L
 DAPHNIA MAGNA 48-HOUR LC50: >1,800 mg/L
 ECO-CHRONIC TOXICITY:
 DICAMBA (Dimethylamine Salt): Not Available
 ENVIRONMENTAL FATE:
 DICAMBA (Dimethylamine Salt):
 HYDROLYSIS: 30 Days
 PHOTOLYSIS: May degrade following prolonged exposure to sunlight
 SOIL HALF-LIFE: ~2 Weeks

13. DISPOSAL CONSIDERATION

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:
 BULK: RQ, Environmentally Hazardous Substance, Liquid, N.O.S. (dicamba), 9, UN3082, PGIII
 NON-BULK: Not Applicable; No Label or Placard Required
 B/L FREIGHT CLASSIFICATION: Compound; Weed Killing (Herbicide), N.O.S.
 INTERNATIONAL TRANSPORTATION: RQ, Environmentally Hazardous Substance, Liquid, N.O.S. (dicamba), Class 9, UN3082, PGIII

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:
 SECTION 311/312: Acute Health Hazard
 SECTION 313 CHEMICAL(S): Not Applicable
 PROPOSITION 65: Not Applicable
 CERCLA REPORTABLE QUANTITY (RQ): 250 Gal. (Dicamba)
 RCRA CLASSIFICATION: Not Applicable
 TSCA STATUS: Exempt from TSCA

16. OTHER INFORMATION

NFPA HAZARD RATINGS: 0 Least
 HEALTH: 2 1 Slight
 FLAMMABILITY: 0 2 Moderate
 REACTIVITY: 0 3 High
 4 Severe
 QUESTIONS CONCERNING THE SAFE HANDLING OF THE PRODUCT SHOULD BE REFERRED TO: Industrial Health
 1-800-334-9481
 ISSUED DATE: 10/1/93
 REVISED DATE: 6/18/97
 SUPERSEDES: 10/1/93

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#: Not Available

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES: although preparer and owner have taken reasonable care in the preparation of this document, we extend no warranties and make no representation as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each user should make a determination as to the suitability of the information for their particular purpose(s). A request has been made to the manufacturer to approve the contents of this material safety data sheet. Upon receipt of any changes a new MSDS will be made available.

COMPAS Code: 24661630