

SECTION 1: Product and Company Identification

1.1. Product identifier

Trade name : Topeka
 Product code : EPA Reg. No. 9468-46-83979

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/preparation : Benzoic acid herbicide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Rotam North America, Inc.
 4900 Koger Blvd. Suite# 140
 Greensboro, NC 27407
 Phone: 1-(866) 927-6826 (toll free); 1-305-599-2221
msds@rotam.com

1.4. Emergency telephone number

Emergency number : (800)-424-9300 (CHEMTREC)
 (800)-222-1222 (National Poison Information Center)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Dimethylamine Salt of Dicamba –
Harmonized Classification (CLP Regulation)

Eye Irritation 2 H319

Aquatic Chronic 3 H412

Full text of H-phrases: see table in "Label elements" below

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

GHS Labeling Elements

Hazard pictograms (CLP) :



GHS07

Signal word : WARNING

Hazard statements : H319 – Causes serious eye irritation
 H412 – Harmful to aquatic life with long lasting effects

Precautionary statements : P280 – Wear protective gloves, protective clothing, eye protection and face protection
 P264 – Wash thoroughly after handling
 P270 – Do not eat, drink or smoke when using this product
 P273 – Avoid release to the environment
 P501 - Dispose of contents/container to local regulation.

Response statements : P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
 P362+P364 – Take of contaminated clothing and wash before reuse.
 P332+P313 – If skin irritation occurs: Get medical advice/attention.
 P301+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

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SECTION 3: Composition/information on ingredients

Name	Product identifier	%/wt.	g/L
Dimethylamine Salt of Dicamba - 3,6-dichloro-o-anisic acid, compound with dimethylamine (1:1)	(CAS No.) 2300-66-5	48.2	480*
Other Ingredients	NA	51.8	

*This product contains 40.0% 3,6-dichloro-o-anisic acid (Dicamba) or 4 pounds per gallon (480 g/L)

SECTION 4: First aid measures

4.1. Description of first aid measures

IF INHALED	: Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF IN EYES	: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call poison control center or doctor for treatment advice if irritation develops or persists.
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 by a poison control center or doctor. Do not give anything to an unconscious person.
First-aid measures – general	Have the product container or label with you when calling a poison control center or doctor, or going for treatment. See Label for Additional Precautions and Directions for Use.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Product is in an aqueous solution and is not flammable. If there is a fire in the area, cool containers with water to avoid overheating or rupture. For dried material, use foam, water spray, dry chemical or carbon dioxide.
Unsuitable extinguishing media	: High volume water jet. (Water contamination risk from runoff)

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Hazardous decomposition products may be released during prolonged heating like smoke, hydrogen chloride, organochlorine compounds, oxides of carbon, nitrogen oxides (NOx).
Explosion hazard	: Product is not explosive.
Reactivity	: The product is stable at normal handling- and storage conditions.

5.3. Advice for firefighters

Firefighting instructions	: Prevent runoff from entering drains, sewers or waterways. To fight large fires, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full-face piece operated in the positive pressure/demand mode. Full firefighting turnout gear (bunker gear): Any air respirator supplied with full face piece and operated in a pressure-demand or other positive pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full face piece.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Wear appropriate personal protective equipment (PPE): Eye and face protection, coveralls, gloves, boots. Avoid misting conditions during cleanup. Put in appropriate container and dispose according to Local, State or Federal regulations. Keep spills away from drinking supplies. After spill cleanup, flush the area with water. Read label.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear appropriate personal protective equipment (PPE): Eye and face protection, coveralls, gloves, boots.
Emergency procedures	: Avoid contact with spilled material

6.1.2. For emergency responders

Protective equipment	: Wear appropriate personal protective equipment (PPE): Eye and face protection, coveralls, gloves, boots.
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6.2. Environmental precautions

Prevent material from entering sewers, waterways, or low areas. Do not allow material to contaminate water systems.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Ventilate air. Cleanup personnel require protective clothing and respiratory protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Store in a cool, dry place. Keep separated from incompatible substances. Store in a cool and well-ventilated room. Keep out of the reach of children.

SECTION 8: Exposure controls/personal protection

8.1. Personal protective equipment

Eye/Face Protection: 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.

8.2. Exposure controls

Exposure limits have not been established for Dicamba or its salts.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Amber to dark brown
Odor	: Slight amine odor
Odor threshold	: No data available
pH (1%)	: 5.71
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable – Aqueous solution
Self-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non- flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density/bulk density	: 1.15 g/mL at 20 °C
Solubility	: Soluble in water
Log Pow	: No data available
Log Kow	: No data available

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Viscosity, kinematic	: 6.1 cSt at 26 °C
Viscosity, dynamic	: 5.3 cP at 26 °C
Explosive properties	: Not explosive
Oxidizing properties	: No oxidizing properties
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable at normal handling- and storage conditions.

10.2. Chemical stability

Stable under normal conditions. Resistant to hydrolysis under normal conditions; stable in acids & alkalis.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Protect from heat.

10.5. Incompatible materials

Oxidizers

10.6. Hazardous decomposition products

May produce gases such as hydrogen chloride, organochlorine products, and oxides of carbon and nitrogen under fire conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Topeka	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (4 h)	2.02 mg/L
Irritation	: Skin – Slight irritant. Eye - irritant
Corrosivity	: Not corrosive to eyes or skin
Sensitization	: Not a skin sensitizer
Repeated dose toxicity	: Repeated overexposure to Dicamba may cause liver changes or a decrease in body weight.
Carcinogenicity	: Dicamba did not cause cancer in long-term animal studies. The U.S. EPA has given dicamba a Class D classification (not classifiable as to human carcinogenicity).
Mutagenicity	: In vitro and in vivo animal tests with dicamba did not demonstrate mutagenic effects.
Toxicity for reproduction	: Dicamba did not interfere with fertility in reproduction studies in laboratory animals

SECTION 12: Ecological information

12.1. Toxicity

Dicamba	
Fish (Bluegill and Rainbow Trout 96 hr.)	LC50: 135 mg/L
Daphnia (48 hr.)	EC50: 110 mg/L
Acute toxicity to Honey bee	Nontoxic to bees LD50 >100 µg/bee
Acute toxicity mallard ducks, 8 day	>10,000 mg/kg
Acute toxicity bobwhite Quail, 8 day	>10,000 mg/kg

12.2. Persistence and degradability

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.

12.3. Bioaccumulative potential

Aquatic hydrolysis, volatilization, adsorption to sediments, and bioconcentration are not expected to be significant.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Pesticide disposal: 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 disposal (Contaminated packaging material should be treated as the product. See label for proper disposal methods):

[FOR NON-REFILLABLE CONTAINERS LESS THAN 5 GALLONS:]

Non-refillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

[FOR NON-REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]

Non-refillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

[FOR REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

Contaminated packaging material should be treated as the product. See label for proper disposal methods.

SECTION 14: Transport information

Not Regulated by US DOT in individual packages less than 2500 LBS (257 US Gallons)

Not Regulated by Canadian TDG for ground shipment

Ground transport

Not Regulated by US DOT in packages less than 2500 LBS (257 US Gallons)

(Packages 2500 LBS or greater – RQ: UN3082; Environmentally Hazardous Substance, Liquid, NOS (Dicamba); 9; PGIII)

Not Regulated by Canadian TDG

Transport by sea (IMDG)

Not regulated

Air transport (IATA)

Not Regulated

Additional Air, Sea and International Transportation Information

UN-No.	: Not Applicable
Proper Shipping Name	: Not Applicable
Transport document description	: Not Applicable
Class (UN)	: Not Applicable
Hazard labels (UN)	: Not Applicable
Packing group (UN)	: Not Applicable
Marine Pollutant (Y/N)	: NO
Dangerous for the environment	: Not applicable

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SECTION 15: Regulatory information

FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word	: CAUTION
Hazard statements	: Causes moderate eye irritation.
Precautionary statements	: Do not get in eyes, on skin or on clothing. Wear appropriate protective eyewear such as goggles, face shield, or safety glasses. Wear protective gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

SARA 313 Regulated Chemical(s): Not applicable

Title III hazard classification:

Acute Health Hazard: No
Chronic Health Hazard: No
Fire: No
Reactivity/Physical hazard: No
Pressure: No

CERCLA/DOT Reportable Quantities (RQ)

Dicamba – 1000 LBS

Canadian Regulatory Information:

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS Classification: D2B – Toxic

SECTION 16: Other information

MSDS US

Disclaimer: The information provided by Rotam North America, Inc. contained herein is given in good faith and correct to the best of our knowledge. However, the information given is designed only as guidance for safe handling, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.