Safety Data Sheet Detonate Herbicide

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1. Identification

Product identifier used on the label

Detonate

Recommended use of the chemical and restriction on use Recommended use*: herbicide

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

<u>Company:</u> Tenkoz Inc. 1725 Windward Concourse, Suite 410 Alpharetta, GA 30005, USA

Telephone: +1 770-343-8509

Emergency telephone number

CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: EPA Reg. No. : Molecular formula: Chemical family: Synonyms: 64310 7969-137-55467 C8 H6 Cl2 O3 . C4 H11 N O2 substituted, aromatic, carboxylic acid diglycolamine salt of dicamba

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

STOT SE

3 (irritating to respiratory system) 3 Specific target organ toxicity — single exposure

Hazardous to the aquatic environment - chronic

Label elements

Aquatic Chronic

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Pictogram: Signal Word: Warning Hazard Statement: H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects. Precautionary Statements (Prevention): Use only outdoors or in a well-ventilated area. P271 P273 Avoid release to the environment. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. Precautionary Statements (Response): P312 Call a POISON CENTER or doctor/physician if you feel unwell. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Precautionary Statements (Storage): P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. Precautionary Statements (Disposal): P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 3 % dermal

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 3 % oral

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 23 % Inhalation - vapour

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 23 % Inhalation - mist

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

CAUTION: HARMFUL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH SKIN. KEEP OUT OF REACH OF CHILDREN. KEEP OUT OF REACH OF DOMESTIC ANIMALS. Avoid contact with the skin, eyes and clothing.

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3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
104040-79-1	58.1 %	Benzoic acid, 3,6-dichloro-2-methoxy-, compd. with 2-(2-
		aminoethoxy) ethanol (1:1)

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Content (W/W)	Chemical name
58.1 %	Benzoic acid, 3,6-dichloro-2-methoxy-, compd. with 2-(2-
	aminoethoxy) ethanol (1:1)
41.9 %	Proprietary ingredients
	58.1 %

4. First-Aid Measures

Description of first aid measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Do not induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

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RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Protect contents from the effects of light. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep only in the original container in a cool, dry, wellventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination.

Protect from temperatures below: 0 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

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Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Remove contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form: Odour: Odour threshold:	liquid mild, pleasant, swee	tish Not determined due to potential health hazard by inhalation.
Colour: pH value:	light blue-green approx. 8.0	(25 °C) (measured with the undiluted substance)
Freezing point: Boiling point: Flash point:	approx. < 0 °C approx. 100 °C > 100 °C	Information applies to the solvent. Information applies to the solvent. No flash point - Measurement made up to the boiling point.
Flammability:	not flammable Based on the structure or composition there is no indication of flammability	
Lower explosion limit:		As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:		As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Autoignition:	465 °C	(Directive 92/69/EEC, A.15) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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Vapour pressure:	approx. 23.3 hPa	(20 °C) solvent.	Information applies to the
Density:	approx. 1.23 g/cm3	(25 °C)	
Vapour density: Partitioning coefficient n- octanol/water (log Pow): Information on: dicamba Partitioning coefficient n-	10.2648 Lb/USg -1.8	(77 °F) not appl not appl	licable
octanol/water (log Pow):	-1.0	(25 C)	(OECD Guideline 107)
Self-ignition temperature:			igniting The statements are the properties of the individual ents.
Thermal decomposition:	carbon monoxide, carbon dioxide, Hydrogen chloride, nitrogen oxide, nitrogen dioxide, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.		
Viscosity, dynamic: Solubility in water: Evaporation rate: Other Information:	22.4 mPa.s	(25 °C) soluble not applic ation on oth	cable er physical and chemical

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is chemically stable. Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

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Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, Hydrogen chloride, nitrogen oxide, nitrogen dioxide, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Slightly toxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

<u>Oral</u> Type of value: LD50 Species: rat Value: > 2,000 mg/kg

Inhalation Type of value: LC50 Species: rat Value: > 5.3 mg/l Exposure time: 4 h

Dermal Type of value: LD50 Species: rat Value: > 2,000 mg/kg

Irritation / corrosion

Assessment of irritating effects: May cause moderate but temporary irritation to the eyes. May cause slight irritation to the skin.

<u>Skin</u> Species: rabbit Method: FHSA Guideline May cause slight irritation to the skin.

Eye Species: rabbit

May cause moderate but temporary irritation to the eyes.

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Skin sensitization test Species: guinea pig Skin sensitizing effects were not observed in animal studies.

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Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 2-(2-aminoethoxy)ethanol

Assessment of repeated dose toxicity: After repeated administration the prominent effect is the induction of corrosion.

Genetic toxicity

Assessment of mutagenicity: Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Dicamba

Assessment of mutagenicity: Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Carcinogenicity

Assessment of carcinogenicity: The results of various animal studies gave no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Dicamba

Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Dicamba

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Dicamba

Assessment of teratogenicity: Causes developmental effects in animals at high, maternally toxic doses.

<u>Other Information</u> Misuse can be harmful to health.

Symptoms of Exposure

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The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Medical conditions aggravated by overexposure

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

12. Ecological Information

Toxicity

Aquatic toxicity Assessment of aquatic toxicity: There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Acutely toxic for aquatic plants.

<u>Toxicity to fish</u> LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss

<u>Aquatic invertebrates</u> EC50 (48 h) > 100 mg/l, Daphnia magna (static)

<u>Aquatic plants</u> EC50 (7 d) > 100 mg/l, Lemna gibba

EC10 (7 d) 1.7 mg/l, Lemna gibba

<u>Assessment of terrestrial toxicity</u> With high probability not acutely harmful to terrestrial organisms.

Other terrestrial non-mammals LC50 1,265 mg/kg, Colinus virginianus

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Information on: dicamba

Elimination information

Information on: dicamba

Bioaccumulative potential

Assessment bioaccumulation potential The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment bioaccumulation potential

Information on: dicamba

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Mobility in soil

<u>Assessment transport between environmental compartments</u> The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: dicamba

The substance will not evaporate into the atmosphere from the water surface. Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Additional information

Other ecotoxicological advice:

The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:

This product is not regulated by RCRA.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport IMDG

Not classified as a dangerous good under transport regulations

Air transport

Not classified as a dangerous good under transport regulations

Further information

DOT: This product is regulated if the amount in a single receptacle exceeds the Reportable Quantity (RQ). Please refer to Section 15 of this MSDS for the RQ for this product.

15. Regulatory Information

Federal Regulations

Registration status: Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories):

EPCRA 313: CAS Number

<u>Chemical name</u> dicamba

1918-00-9dicambaCERCLA RQCAS Number

1000 LBS 1918-00-9

<u>Chemical name</u> dicamba

Not hazardous;

State regulations

CA Prop. 65: There are no listed chemicals in this product.

NFPA Hazard codes:

Health : 1 Fire: 1 Reactivity: 1 Special:

HMIS III rating Health: 3 Flammability: 1 Physical hazard:0

Labeling requirements under FIFRA

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 workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION: HARMFUL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH SKIN. KEEP OUT OF REACH OF CHILDREN. KEEP OUT OF REACH OF DOMESTIC ANIMALS. Avoid contact with the skin, eyes and clothing.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2015/03/30

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