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C8 H5 Cl2 O3.Na; C5 H11 F2 N4 O3.Na substituted, aromatic, carboxylic acid

1. Product and Company Identification

Use: crop protection product, herbicide

Company BASF Canada Inc. 100 Milverton Drive Mississauga, ON L5R 4H1 CANADA 24 Hour Emergency Response Information CANUTEC (reverse charges): (613) 996-6666 BASF HOTLINE: (800) 454-COPE (2673)

Molecular formula: Chemical family: 25811/26143/26406

Synonyms: sodium dicamba; sodium diflufenzopyr

2. Hazards Identification

Emergency overview

WARNING:

POISON.

Contains the allergen sulfite(s).

Potential skin sensitizer.

CAUTION: Eye irritant.

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed.

Avoid inhalation of mists/vapours.

Avoid contact with the skin, eyes and clothing.

State of matter: solid Colour: light cream Colour: brownish

Odour: almost odourless, moderate odour

Potential health effects

Acute toxicity:

Slightly toxic after single ingestion. Relatively nontoxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Irritation / corrosion:

May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

Sensitization:

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Caused skin sensitization in animal studies.

Potential environmental effects

Aquatic toxicity:

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

Terrestrial toxicity:

Acutely harmful to terrestrial organisms.

Degradation / environmental fate:

No data available concerning biodegradation and elimination.

3. Composition / Information on Ingredients

Not WHMIS controlled.

4. 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.

If inhaled:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

Hold eyelids open to facilitate rinsing. Flush with copious amounts of water for at least 15 minutes. If symptoms persist, seek medical advice.

If swallowed:

If person is conscious and can swallow, give two glasses of water. Induce vomiting. Immediate medical attention required.

Note to physician

Antidote: No known specific antidote. Treatment: Treat symptomatically.

5. Fire-Fighting Measures

Flash point:

Lower explosion limit:

Upper explosion limit:

Self-ignition temperature:

not applicable
not determined
not determined
not determined

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, hydrogen fluoride, Hydrogen chloride, halogenated hydrocarbons, Hydrocarbons,

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If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released if the product is involved in a fire.

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:

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. Contain contaminated water/firefighting water.

Cleanup:

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

Handling

General advice:

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 contents from the effects of light. Protect against heat. 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. Avoid dust 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.

Storage

General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Temperature tolerance

Protect from temperatures above: 40 °C

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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 and 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

Respiratory protection:

Wear a NIOSH-certified (or equivalent) particulate respirator.

Chemical resistant protective gloves, Suitable materials, rubber, plastic

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:

Avoid inhalation of dust.

9. Physical and Chemical Properties

Form: granules

Odour: almost odourless, moderate odour

Odour threshold: No data available. Colour: light cream brownish

pH value: 8.5 (25°C) > 200 °C estimate Melting point: (760 mmHg) Boiling point: approx. 155 °C Vapour pressure: not determined

Relative density: No data available.

Bulk density: 610 kg/m3 (25°C)

Partitioning coefficient nnot applicable octanol/water (log Pow):

Viscosity, dynamic: not applicable Viscosity, kinematic: not applicable Solubility in water: dispersible

10. Stability and Reactivity

Conditions to avoid:

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

Substances to avoid:

No substances known that should be avoided.

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Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

Value: > 1,800 mg/kg

Inhalation:

Type of value: LC50 Species: rat Value: > 5.34 mg/l Exposure time: 4 h

Dermal:

Type of value: LD50 Species: rat

Value: > 5,000 mg/kg

Irritation / corrosion

Skin:

Species: rabbit Result: mildly irritating Method: FHSA Guideline

Eye:

Species: rabbit

Result: moderately irritating

Sensitization:

Skin sensitization test Species: guinea pig Result: sensitizing

Genetic toxicity

Information on: Dicamba

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.

Information on: Diflufenzopyr

No mutagenic effect was found in various tests with microorganisms and mammals.

Carcinogenicity

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Information on: Dicamba

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not

observed.

Information on: Diflufenzopyr

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not

observed.

Reproductive toxicity

Information on: Dicamba

The results of animal studies gave no indication of a fertility impairing effect.

Information on: Diflufenzopyr

The results of animal studies gave no indication of a fertility impairing effect.

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish

Information on: Dicamba

Acute:

Oncorhynchus mykiss/LC50 (96 h): 135 mg/l

Information on: Diflufenzopyr

Acute:

Oncorhynchus mykiss/LC50 (96 h): 106 mg/l Lepomis macrochirus/LC50: > 135 mg/l

Aquatic invertebrates

Acute:

OECD Guideline 202, part 1 static Daphnia magna/EC50 (48 h): 50.22 mg/l

Information on: Dicamba

Acute:

Daphnia magna/EC50 (48 h): > 11.37 - < 100 mg/l

Information on: Diflufenzopyr

Acute:

Daphnia magna/EC50 (48 h): 15 mg/l

Aquatic plants

Information on: Dicamba Toxicity to aquatic plants: green algae/EC50: > 3.7 mg/l

Information on: Diflufenzopyr Toxicity to aquatic plants: green algae/EC50 (48 h): 0.11 mg/l

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13. Disposal considerations

Waste disposal of substance:

See product label for disposal and recycling instructions.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection DSL, CA released / exempt

Chemical DSL, CA blocked / not listed

WHMIS does not apply to this product.

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.

16. Other Information

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations msds@basf.com MSDS Prepared on: 2011/04/11

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