1. Product and Company Identification

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: C₈ H₅ Cl₂ O₃.Na ; C₅ H₁₁ F₂ N₄ O₃.Na
Chemical family: substituted, aromatic, carboxylic acid
PCP # 30065
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: tan
Odour: almost odourless, moderate odour

Potential health effects

Acute toxicity:

Irritation / corrosion:
May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

Sensitization:
There is no evidence of a skin-sensitizing potential.

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.

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: not applicable
Lower explosion limit: not determined
Upper explosion limit: not determined
Self-ignition temperature: not determined

Suitable extinguishing media:
water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons:
carbon dioxide

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

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.
Further information:
Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

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:**
No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

**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.

8. Exposure Controls and Personal Protection

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

**Components with occupational exposure limits**
### cristobalite

<table>
<thead>
<tr>
<th>Agency</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>1.2</td>
<td>TWA value, millions of particles per cubic foot of air Respirable. The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.</td>
</tr>
<tr>
<td>ACGIH</td>
<td>0.025</td>
<td>TWA value, mg/m3 Respirable fraction.</td>
</tr>
</tbody>
</table>

### crystalline silica

<table>
<thead>
<tr>
<th>Agency</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>2.4</td>
<td>TWA value, millions of particles per cubic foot of air Respirable. The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.</td>
</tr>
<tr>
<td>ACGIH</td>
<td>0.025</td>
<td>TWA value, mg/m3 Respirable fraction.</td>
</tr>
</tbody>
</table>

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**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.

- **Hand protection:** 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. 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). Take off immediately all 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.

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### 9. Physical and Chemical Properties

- **Form:** granules
- **Odour:** almost odourless, moderate odour
- **Odour threshold:** No data available.
- **Colour:** light cream
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. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

**Substances to avoid:**
strong bases, strong acids, strong oxidizing agents

**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.

**Thermal decomposition:**
not determined

**Oxidizing properties:**
not fire-propagating

11. Toxicological information

**Acute toxicity**

**Oral:**
Type of value: LD50
Species: rat (male)
Value: 1,600 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: non-irritant
Eye:
Species: rabbit
Result: moderately irritating

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

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

Carcinogenicity

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: Dflufenzopyr
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: Dflufenzopyr
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

Acute:
Oncorhynchus mykiss/LC50 (96 h): > 200 mg/l

Bioaccumulation

Information on: dicamba
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Environmental mobility:
Information on: dicamba
Assessment transport between environmental compartments:
Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to
deeper soil areas with larger water loads.

Information on: Dflufenzopyr
Assessment transport between environmental compartments:
Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to
deeper soil areas with larger water loads.

Other adverse effects:
Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:
See product label for disposal and recycling instructions.

Contaminated disposal:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the
substance/product.

14. Transport Information

Land transport
TDG
Not classified as a dangerous good under transport regulations

Sea transport
IMDG
Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO
Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations
Registration status:
Crop Protection DSL, CA released / listed
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

Recommended use: herbicide

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.