

# Safety data sheet

## CADENCE

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### 1. Substance/preparation 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)

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Substance number:	000000134581
Molecular formula:	C18 H12 Cl2 N2 O
Molecular weight:	343.21 g/mol
Chemical family:	carboxylic acid amide
Synonyms:	boscalid

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### 2. Hazardous ingredients

Not WHMIS controlled.

### 3. Hazard identification

Potential health effects

See Product Label for additional precautionary statements.

**Acute toxicity:**

Harmful if swallowed.

**Irritation:**

Irritating to eyes and respiratory system. Prolonged contact with the product can result in skin irritation.

Potential environmental effects

**Aquatic toxicity:**

Acutely toxic for aquatic organisms.

### 4. First-aid measures

**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. Remove contaminated clothing. If irritation develops, seek medical attention.

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### **If in eyes:**

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

### **If swallowed:**

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

### **Note to physician**

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

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## 5. Fire-fighting measures

Flash point: not applicable  
Autoignition: not applicable  
Self-ignition temperature: not self-igniting

### **Suitable extinguishing media:**

foam, dry extinguishing media, carbon dioxide, water spray

### **Hazards during fire-fighting:**

carbon monoxide, carbon dioxide, Hydrocarbons, halogenated hydrocarbons, nitrogen oxides, acid halides  
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:**

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. 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.

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## 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.

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### 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:**

Dust can form an explosive mixture with air.

### 8. Exposure controls and personal protection

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

#### Personal protective equipment

##### **RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:**

##### **Respiratory protection:**

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

##### **Hand protection:**

Chemical resistant protective gloves, Suitable materials, rubber, plastic

##### **Eye protection:**

Tightly fitting safety goggles (chemical goggles).

##### **General safety and hygiene measures:**

Avoid inhalation of dust. Wash soiled clothing immediately.

### 9. Physical and chemical properties

Form:	granules	
Odour:	faint odour	
Odour threshold:	No data available.	
Colour:	beige to brown	
pH value:	5.5	( 10 g/l)
Melting point:		not applicable
Boiling point:		The substance / product decomposes therefore not determined., not applicable
Vapour pressure:		negligible
Density:	approx. 1.497 g/cm <sup>3</sup>	( 20 °C) (OECD Guideline 109)
Relative density:	approx. 1.497	( 20 °C)
Bulk density:	470 - 600 kg/m <sup>3</sup>	
Viscosity, dynamic:		not applicable
Solubility in water:		dispersible

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### 10. Stability and reactivity

**Dust explosion class:**

Dust explosion class 2 (Kst-value 200 up to 300 bar m s<sup>-1</sup>) (St 2)

**Substances to avoid:**

oxidizing agents

**Corrosion to metals:**

Corrosive effects to metal are not anticipated.

**Oxidizing properties:**

Not an oxidizer.

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### 11. Toxicological information

**Acute toxicity**

**Oral:**

LD50/rat/male/female: > 2,000 mg/kg (OECD Guideline 423)  
Test conducted with a similar formulation.

**Inhalation:**

LC50/rat/male/female: > 5.4 mg/l / 4 h(OECD Guideline 403)  
Test conducted with a similar formulation.

**Dermal:**

LD50/rat/male/female: > 2,000 mg/kg (OECD Guideline 402)  
Test conducted with a similar formulation.

**Skin irritation:**

rabbit: non-irritant (OECD Guideline 404)  
Test conducted with a similar formulation.

rabbit: non-irritant

**Eye irritation :**

rabbit: Slightly irritating. (OECD Guideline 405)  
Test conducted with a similar formulation.

**Sensitization:**

modified Buehler test/guinea pig: Skin sensitizing effects were not observed in animal studies. (OECD Guideline 406)  
Test conducted with a similar formulation.

**Chronic toxicity**

**Genetic toxicity:**

*Information on: Boscalid*

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

**Carcinogenicity:**

*Information on: Boscalid*

*In long-term studies in rats the substance induced thyroid tumors.*

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**Reproductive toxicity:**

*Information on: Boscalid*

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

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**Developmental toxicity/teratogenicity:**

*Information on: Boscalid*

*No indications of a developmental toxic / teratogenic effect were seen in animal studies.*

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**Other information:**

Misuse can be harmful to health.

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## 12. Ecological information

### Environmental fate and transport

**Biodegradation:**

Evaluation: Not readily biodegradable (by OECD criteria).

*Information on: Boscalid*

*Test method:*

*OECD 301F; ISO 9408; 92/69/EEC, C.4-D, activated sludge, domestic*

*Degree of elimination:*

*0 - 10 % (28 d)*

*Evaluation:*

*Not readily biodegradable (by OECD criteria).*

*Information on: Boscalid*

### Environmental toxicity

*Information on: Boscalid*

*Acute and prolonged toxicity to fish:*

*Rainbow trout/LC50 (96 h): 2.7 mg/l*

*sunfish, bluegill/LC50: > 4.0 mg/l*

*Nominal concentration.*

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**Acute toxicity to aquatic invertebrates:**

static

*Daphnia magna/EC50 (48 h): > 1,000 mg/l*

**Toxicity to aquatic plants:**

*green algae/EC50: 45 mg/l*

*green algae/EC50 (72 h): 150 mg/l*

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## 13. Disposal considerations

**Waste disposal of substance:**

See product label for disposal and recycling instructions.

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## 14. Transport information

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Reference Bill of Lading

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### 15. Regulatory information

#### Federal Regulations

##### Registration status:

DSL, CA released / exempt

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.**

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### 16. Other information

**Refer to product label for EPA registration number.**

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#### Local contact information

BASF Canada Product Safety  
prod\_reg@basf.com

END OF DATA SHEET