

Safety Data Sheet

CABRIO® 20 EG

Revision date : 2017/06/06

Version: 6.0

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(30233990/SDS_CPA_CA/EN)

1. Identification

Product identifier used on the label

CABRIO® 20 EG

Recommended use of the chemical and restriction on use

Recommended use*: fungicide

* 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

Company:

BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

CANUTEC (reverse charges): (613) 996-6666

BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Molecular formula: C₁₉ H₁₈ Cl N₃ O₄

PCP # 27323

Synonyms: pyraclostrobin

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Hazards not otherwise classified

Labeling of special preparations (GHS):

This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

According to Controlled Products Regulations (CPR) (SOR/88-66)

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Emergency overview

CAUTION:

Harmful if swallowed.

Avoid contact with the skin, eyes and clothing.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
175013-18-0	< 20.0%	Pyraclostrobin
1332-58-7	<= 7.0%	Kaolin
7631-86-9	<= 0.5%	Silicon dioxide
7783-20-2	15.0 - 20.0%	Ammonium sulphate

According to Controlled Products Regulations (CPR) (SOR/88-66)

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
175013-18-0	19.992 %	Pyraclostrobin
112926-00-8	>= 19.0 - <= 21.0%	Silica gel, precipitated, crystalline free
1332-58-7	>= 5.0 - <= 8.0%	Kaolin

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.

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.

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:

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

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.

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Indication of any immediate medical attention and special treatment needed

Note to physician

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

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons:
carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, ammonia, nitrogen dioxide, nitrogen oxide, Hydrogen chloride, halogenated hydrocarbons, Ammonium sulphate, Hydrocarbons, acid halides

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

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. Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.

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. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

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7. Handling and Storage

Precautions for safe handling

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. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. 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. Avoid dust formation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Dust explosion class: Dust explosion class 1 (Kst-value >0 up to 200 bar m s-1).

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, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed. 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.

Components with occupational exposure limits

Kaolin	OSHA PEL	PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ; TWA value 10 mg/m3 Total dust ; TWA value 5 mg/m3 Respirable fraction ;
	ACGIH TLV	TWA value 2 mg/m3 Respirable fraction ; The value is for particulate matter containing no asbestos and <1% crystalline silica.
Silicon dioxide	OSHA PEL	TWA value 6 mg/m3 ; TWA value 20 millions of particles per cubic foot of air ; TWA value 0.8 mg/m3 ; The exposure limit is calculated from the equation, 80mg/m3)/(%SiO2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits.

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Silica gel, precipitated,
crystalline free

OSHA PEL

TWA value 6 mg/m³ ; TWA value 0.8 mg/m³ ;
The exposure limit is calculated from the
equation, 80mg/m³/(%SiO₂), using a value of
100% SiO₂. Lower percentages of SiO₂ will yield
higher exposure limits.
TWA value 20 millions of particles per cubic foot
of air ;

Personal protective equipment

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.

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. Wash soiled clothing immediately.

9. Physical and Chemical Properties

Form:	low dusting fine granules
Odour:	faint odour, smoky
Odour threshold:	Not determined since harmful by inhalation.
Colour:	grey-brown
pH value:	approx. 5 - 7 (1 %(m), 20 °C)
Melting temperature:	approx. 64 °C The data given are those of the active ingredient.
Flash point:	not applicable, the product is a solid
Flammability:	not highly flammable

(Directive
92/69/EEC, A.10)

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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.	
Vapour pressure:	negligible	
Density:	approx. 1.68 g/cm ³ (20 °C)	(OECD Guideline 109)
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	not applicable	
Self-ignition temperature:	296 °C	(Directive 92/69/EEC, A.16)
Thermal decomposition:	carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, ammonia, Hydrogen chloride, halogenated hydrocarbons, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.	
Viscosity, dynamic:	not applicable, the product is a solid	
Solubility in water:	dispersible	
Molar mass:	387.83 g/mol	
Evaporation rate:	not applicable	

10. Stability and Reactivity

Reactivity

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

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing. (Directive 92/69/EEC, A.17)

Dust explosion class:

Dust explosion class 1 (Kst-value >0 up to 200 bar m s⁻¹) (St 1)

Chemical stability

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

Possibility of hazardous reactions

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

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.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

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Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, ammonia, Hydrogen chloride, halogenated hydrocarbons, 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.

Oral

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 401)

Inhalation

Type of value: LC50

Species: rat (male)

Value: approx. 4.5 mg/l (OECD Guideline 403)

Exposure time: 4 h

Type of value: LC50

Species: rat

Value: 18.8 mg/l

Exposure time: 1 h

Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Assessment other acute effects

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

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

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Irritation / corrosion

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

Skin

Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Species: rabbit
Result: Slightly irritating.
Method: Primary skin irritation test

Eye

Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization

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

Buehler test

Species: guinea pig
Result: Skin sensitizing effects were not observed in animal studies.
Method: OECD Guideline 406

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: Pyraclostrobin

Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation. The substance may cause damage to the olfactory epithelium after repeated inhalation.

Information on: Kaolin

Assessment of repeated dose toxicity: Repeated inhalative uptake of particles/dust reaching the alveoli may cause damage to the lungs.

Information on: Silica gel, precipitated, crystalline free

Assessment of repeated dose toxicity: The substance may cause damage to the lung after repeated inhalation of high doses.

Genetic toxicity

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

Carcinogenicity

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

Reproductive toxicity

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

Teratogenicity

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

Other Information

Misuse can be harmful to health.

Symptoms of Exposure

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.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

Toxicity to fish

LC50 (96 h) 0.25 mg/l, Cyprinus carpio (OECD Guideline 203, static)

Aquatic invertebrates

EC50 (48 h) 0.0382 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants

EC50 (72 h) 17.39 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)

EC50 (72 h) 1.4 mg/l (biomass), Pseudokirchneriella subcapitata (OECD Guideline 201)

Assessment of terrestrial toxicity

With high probability not acutely harmful to terrestrial organisms.

Bioaccumulative potential

Bioaccumulation potential

Information on: Pyraclostrobin

Bioconcentration factor: 379 - 507, Oncorhynchus mykiss (OECD-Guideline 305)

Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

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

Information on: Pyraclostrobin

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Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

See product label for disposal and recycling instructions.

Container 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

Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains PYRACLOSTROBIN)

Air transport

IATA/ICAO

Hazard class:	9
Packing group:	III
ID number:	UN 3077
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains PYRACLOSTROBIN)

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection DSL, CA released / exempt

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Chemical DSL, CA released; restriction on quantity / not listed

According to Controlled Products Regulations (CPR) (SOR/88-66)

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

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2017/06/06

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.

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