

# Safety Data Sheet

## Caramba Fungicide

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### 1. Identification

#### Product identifier used on the label

## Caramba Fungicide

#### Recommended use of the chemical and restriction on use

Recommended use\*: crop protection product, 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.  
5025 Creekbank Road  
Building A, Floor 2  
Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

#### Emergency telephone number

##### 24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: (800) 454-COPE (2673)

#### Other means of identification

PCP # 297/29917  
Synonyms: metconazole

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### 2. Hazards Identification

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

##### Classification of the product

Carc.	2	Carcinogenicity
Repr.	2 (unborn child)	Reproductive toxicity
Acute Tox.	4 (oral)	Acute toxicity
Aquatic Acute	2	Hazardous to the aquatic environment - acute
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

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STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
STOT RE	2	Specific target organ toxicity — repeated exposure
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

### Label elements

Pictogram:



Signal Word:  
Danger

Hazard Statement:

H318	Causes serious eye damage.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361	Suspected of damaging the unborn child.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe dust/gas/mist/vapours.
P202	Do not handle until all safety precautions have been read and understood.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or physician.
P308 + P313	IF exposed or concerned: Get medical attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth
P391	Collect spillage.

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 in accordance with local regulations.
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### 3. Composition / Information on Ingredients

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

metconazole

CAS Number: 125116-23-6

Content (W/W): 8.6 %

Synonym: Cyclopentanol, 5-[(4-chlorophenyl)methyl]-2,2-dimethyl-1-(1H-1,2,4-triazol-1-ylmethyl)-

naphthalene

CAS Number: 91-20-3

Content (W/W): < 1.0%

Synonym: Naphthalin

diethylene glycol

CAS Number: 111-46-6

Content (W/W): 25.0 - 30.0%

Synonym: Diethylene glycol

solvent naphtha

CAS Number: 64742-94-5

Content (W/W): 3.0 - 5.0%

Synonym: Solvent naphtha, petroleum, heavy arom.

Naphthalene, 2-methyl-

CAS Number: 91-57-6

Content (W/W): 1.0 - 3.0%

Synonym: No data available.

Alcohols, C9-11, ethoxylated

CAS Number: 68439-46-3

Content (W/W): 50.0 - 75.0%

Synonym: Ethoxylated alcohols(C=9-11)

### 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. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

##### If inhaled:

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

##### If on skin:

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

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### **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.

### **If swallowed:**

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Do not give solids or liquids. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

### **Most important symptoms and effects, both acute and delayed**

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

### **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.

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## **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, Hydrogen chloride, nitrogen oxides, halogenated compounds, silica compounds  
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.

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## **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. Contain contaminated water/firefighting water.

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### 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.

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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. 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.

### Conditions for safe storage, including any incompatibilities

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

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.

Protect from temperatures below: 2 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 30 °C

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

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## 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

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solvent naphtha	ACGIH, US:	TWA value 200 mg/m3 Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures.
	ACGIH, US:	Skin Designation Non-aerosol (total hydrocarbon vapor); Danger of cutaneous absorption
	ACGIH, US:	Skin Designation Non-aerosol (total hydrocarbon vapor); Danger of cutaneous absorption
	ACGIH, US:	TWA value 200 mg/m3 Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures.
Metconazole		TWA value 1 mg/m3 Respirable dust ;
Naphthalene, 2-methyl-	ACGIH, US:	TWA value 0.5 ppm ;
	ACGIH, US:	Skin Designation ; The substance can be absorbed through the skin.
	ACGIH, US:	Skin Designation ; Danger of cutaneous absorption

### 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 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.

#### 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 or tightly fitting safety goggles (chemical goggles) 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). 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:	liquid
Odour:	faint odour
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	off-white
pH value:	approx. 5.0 - 7.0 ( 1 %(m), 20 °C)
Melting point:	< 0 °C
Boiling point:	approx. 220 °C Information applies to the solvent.
Flash point:	> 121 °C (ASTM D93)
Flammability:	not applicable
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:	349 °C
Vapour pressure:	The product has not been tested.
Density:	approx. 1.046 g/cm <sup>3</sup> ( 20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	approx. 66 mPa.s ( 20 °C)
Solubility in water:	( 20 °C) emulsifiable
Evaporation rate:	not applicable
Other Information:	The product has not been tested. The statement has been derived from the properties of the individual components or from products of a similar structure or composition.

### 10. Stability and Reactivity

#### Reactivity

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

Oxidizing properties:  
not fire-propagating

#### Chemical stability

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

#### Possibility of hazardous reactions

The product is chemically stable.

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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 oxidizing agents, strong bases, strong acids

### Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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## 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: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

#### Oral

Type of value: LD50  
Species: rat (female)  
Value: 2,102 mg/kg

Type of value: LD50  
Species: rat (male)  
Value: 3,536 mg/kg

#### Inhalation

Type of value: LC50  
Species: rat  
Value: 9.57 mg/l (calculated)

#### Dermal

Type of value: LD50  
Species: rat (male/female)  
Value: > 4,000 mg/kg

#### Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.



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

### Irritation / corrosion

Assessment of irritating effects: Causes substantial but temporary eye injury. May cause slight irritation to the skin.

### Skin

Species: rabbit  
Result: non-irritant

### Eye

Species: rabbit  
Result: Irritant.

### Sensitization

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

### Buehler test

Species: guinea pig  
Result: Non-sensitizing.  
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: metconazole*

*Assessment of repeated dose toxicity: Adaptive effects were observed after repeated exposure in animal studies.*

#### *Information on: diethylene glycol*

*Assessment of repeated dose toxicity: The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.  
The substance may cause damage to the liver after repeated ingestion.*

#### *Information on: naphthalene*

*Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects. The substance may cause damage to the olfactory epithelium after repeated inhalation. Repeated dermal uptake of the substance did not cause substance-related effects.*

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### 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.

*Information on: Metconazole*

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*Assessment of carcinogenicity: In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans.*

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### Reproductive toxicity

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.

### *Information on: Metconazole*

*Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.*

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### Other Information

Misuse can be harmful to health.

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## 12. Ecological Information

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for fish. Acutely toxic for aquatic invertebrates. Acutely toxic for aquatic plants.

#### Toxicity to fish

LC50 (96 h) 10 mg/l, *Oncorhynchus mykiss*

#### Aquatic invertebrates

EC50 (48 h) 9.28 mg/l, *Daphnia magna*

#### Aquatic plants

EC50 (72 h) > 6.91 mg/l, *Selenastrum capricornutum*

#### Chronic toxicity to fish

#### *Information on: metconazole*

*EC10 (95 d) 0.00398 mg/l, *Oncorhynchus mykiss**

*No observed effect concentration (95 d) 0.00291 mg/l, *Oncorhynchus mykiss* (OECD Guideline 210)*

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#### Assessment of terrestrial toxicity

With high probability not acutely harmful to terrestrial organisms.

### **Persistence and degradability**

#### Assessment biodegradation and elimination (H2O)

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

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### Assessment biodegradation and elimination (H2O)

*Information on: metconazole*

*Not readily biodegradable (by OECD criteria).*  
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### **Bioaccumulative potential**

#### Assessment bioaccumulation potential

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

#### Bioaccumulation potential

*Information on: metconazole*

*Bioconcentration factor: 51 - 80, Lepomis macrochirus  
Does not accumulate in organisms.*  
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### **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: metconazole*

*The substance will not evaporate into the atmosphere from the water surface.  
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.*  
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### **Additional information**

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

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## **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.

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## **14. Transport Information**

### **Land transport**

TDG

Not classified as a dangerous good under transport regulations

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### Sea transport

#### IMDG

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Marine pollutant: YES  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains METCONAZOLE, SOLVENT NAPHTHA)

### Air transport

#### IATA/ICAO

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains METCONAZOLE, SOLVENT NAPHTHA)

### Further information

Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1. This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Crop Protection DSL, CA released / exempt

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

### **Labeling requirements under Pest Control Products Act**

Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. The following is the hazard information required on the pest control product label:

#### WARNING:

Eye irritant.

KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED.

Causes eye irritation.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

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There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

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### 16. Other Information

**SDS Prepared by:**  
BASF NA Product Regulations  
SDS Prepared on: 2022/03/29

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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END OF DATA SHEET