

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 1/11  
(30646935/SDS\_CPA\_CA/EN)

### 1. Identification

#### Product identifier used on the label

## COTEGRA FUNGICIDE

#### 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

PCP # 32530/32531

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### 2. Hazards Identification

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

##### Emergency overview

CAUTION:  
POISON.

Potential skin sensitizer.

Contains 1,2-benzisothiazolin-3-one as a preservative.

Contains 2-methyl-4-isothiazolin-3-one as a preservative.

Contains 2-bromo-2-nitropropane-1,3-diol as a preservative.

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed.

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 2/11  
(30646935/SDS\_CPA\_CA/EN)

Harmful if inhaled.  
Harmful if absorbed through skin.  
Avoid contact with the skin, eyes and clothing.  
Avoid inhalation of mists/vapours.  
Wash thoroughly after handling.

### 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>
178928-70-6	13.1 %	3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-
188425-85-6	21.8 %	boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide
57-55-6	< 10.0%	Propylene glycol

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

Not WHMIS controlled.

### 4. First-Aid Measures

#### Description of first aid measures

##### General advice:

Remove contaminated clothing.

##### If inhaled:

Keep patient calm, remove to fresh air.

##### If on skin:

Wash thoroughly with soap and water.

##### If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

##### If swallowed:

Rinse mouth and then drink plenty of water.

#### 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.

#### Indication of any immediate medical attention and special treatment needed

##### Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 3/11  
(30646935/SDS\_CPA\_CA/EN)

### 5. Fire-Fighting Measures

#### Extinguishing media

Suitable extinguishing media:  
water spray, dry powder, foam, carbon dioxide

#### Special hazards arising from the substance or mixture

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

#### Advice for fire-fighters

Protective equipment for fire-fighting:  
Wear self-contained breathing apparatus and chemical-protective clothing.

#### Further information:

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

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

#### 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. 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

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:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

#### Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 4/11  
(30646935/SDS\_CPA\_CA/EN)

### 8. Exposure Controls/Personal Protection

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

No occupational exposure limits known.

#### **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:**

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

### 9. Physical and Chemical Properties

Form:	suspension
Odour:	faintly aromatic
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	milky white
pH value:	approx. 5 - 7 ( 20 °C)
Melting temperature:	approx. 0 °C Information applies to the solvent.
boiling temperature:	approx. 100 °C Information applies to the solvent.
Flash point:	No flash point - Measurement made up to pilot light extinguishes.
Flammability:	not flammable

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 5/11  
(30646935/SDS\_CPA\_CA/EN)

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:	> 652 °C	(Regulation 440/2008/EC, A.15)
Vapour pressure:	approx. 23 hPa ( 20 °C) Information applies to the solvent.	
Density:	approx. 1.15 g/cm <sup>3</sup> ( 20 °C)	
Vapour density:	not applicable	
Partitioning coefficient n-octanol/water (log Pow):	not applicable	
Thermal decomposition:	110 °C, 370 kJ/kg (DSC (OECD 113)) (onset temperature) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
Viscosity, dynamic:	approx. 94.7 mPa.s ( 40 °C)	
Solubility in water:	dispersible	
Evaporation rate:	not applicable	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

## 10. Stability and Reactivity

### Reactivity

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

Oxidizing properties:

not fire-propagating (Regulation 440/2008/EC, A.21)

### 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

See MSDS section 7 - Handling and storage.

### Incompatible materials

strong acids, strong bases, strong oxidizing agents

### Hazardous decomposition products

Decomposition products:

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 6/11  
(30646935/SDS\_CPA\_CA/EN)

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

Thermal decomposition:  
110 °C, 3 K/min (DSC (OECD 113))  
(onset temperature)  
Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

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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 by inhalation. Virtually nontoxic after a single skin contact.

#### Oral

Type of value: LD50  
Species: rat  
Value: > 2,000 mg/kg  
No mortality was observed.

#### Inhalation

Type of value: LC50  
Species: rat  
Value: > 1.5 mg/l  
An aerosol was tested.  
Highest concentration available for testing. No mortality was observed.

#### Dermal

Type of value: LD50  
Species: rat  
Value: > 5,000 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.

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

#### Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

#### Skin

Species: rabbit  
Result: non-irritant

#### Eye

Species: rabbit

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 7/11  
(30646935/SDS\_CPA\_CA/EN)

Result: non-irritant

### Sensitization

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

Mouse Local Lymph Node Assay (LLNA)

Species: guinea pig

Result: Non-sensitizing.

### **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: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

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

#### 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: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

*Assessment of carcinogenicity: In long-term studies in rats the substance induced thyroid tumors. The effect is caused by an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.*

#### 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. 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.

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## 12. Ecological Information

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 8/11  
(30646935/SDS\_CPA\_CA/EN)

### Toxicity

#### Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

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

#### Toxicity to fish

*Information on: 3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-*

*LC50 (96 h) 1.83 mg/l, Oncorhynchus mykiss*

*Information on: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

*LC50 (96 h) approx. 2.7 mg/l, Oncorhynchus mykiss*

#### Aquatic invertebrates

*Information on: 3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-*

*LC50 (48 h) 1.3 mg/l, daphnia*

*Information on: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

*EC50 (48 h) 5.33 mg/l, Daphnia magna (OECD Guideline 202, part 1)*

#### Aquatic plants

*Information on: 3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-*

*EC50 (72 h) 2.18 mg/l, Desmodemus subspicatus*

*EC50 (72 h) 0.046 mg/l, Skeletonema costatum*

*Information on: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

*EC50 (96 h) 2.61 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)*

*EC10 (72 h) 1.19 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)*

### 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.

#### Assessment biodegradation and elimination (H2O)

*Information on: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

*Not readily biodegradable (by OECD criteria).*

*Information on: 3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-*

*Not readily biodegradable (by OECD criteria).*



# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 9/11  
(30646935/SDS\_CPA\_CA/EN)

### Bioaccumulative potential

#### Assessment bioaccumulation potential

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

#### Assessment bioaccumulation potential

*Information on: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

*Does not accumulate in organisms.*

*Information on: 3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-*

*Does not accumulate in organisms.*

### 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: boscalid (ISO); 2-chloro-N-(4'-chloro[1,1'-biphenyl]-2-yl)-nicotinamide*

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

*Information on: 3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-*

*low mobility in soil*

### 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:**

Rinse the container or liner as needed for disposal. Add rinsate to spray tank. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Consult the product label for additional details.

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## 14. Transport Information

**Land transport**  
TDG

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 10/11  
(30646935/SDS\_CPA\_CA/EN)

Not classified as a dangerous good under transport regulations

### Sea transport IMDG

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

### Air transport IATA/ICAO

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

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

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

Crop Protection DSL, CA released / exempt

### 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.**

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## 16. Other Information

### SDS Prepared by:

BASF NA Product Regulations  
SDS Prepared on: 2017/04/13

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.

# Safety Data Sheet

## COTEGRA FUNGICIDE

Revision date : 2017/04/13  
Version: 3.1

Page: 11/11  
(30646935/SDS\_CPA\_CA/EN)

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END OF DATA SHEET