

Safety Data Sheet

SOVRAN FUNGICIDE

Revision date : 2012/06/12
Version: 2.0

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(30172959/SDS_CPA_CA/EN)

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: C(18) H(19) N O(4)
Chemical family: strobilurine
PCP # 26257
Synonyms: kresoxim methyl

2. Hazards Identification

Emergency overview

CAUTION:
POISON.
WARNING:
Contains the allergen soy.
KEEP OUT OF REACH OF CHILDREN.
Causes eye irritation.
HARMFUL IF SWALLOWED.
Avoid contact with the skin, eyes and clothing.
Do not breathe dust.
Do not breathe vapours/mists.

State of matter: solid
Colour: dark brown
Odour: sulfur-like, mild

Potential health effects

Acute toxicity:
Harmful if swallowed.

Irritation / corrosion:
May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.
Irritation is possible when the product comes in contact with the skin, respiratory tract or the eyes.

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

Medical conditions aggravated by overexposure:

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Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

Potential environmental effects

Aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

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.

Remove contaminated clothing.

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.

Note to physician

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

5. Fire-Fighting Measures

Autoignition:	340 °C	
Upper explosion limit:		not determined
Flammability:	not highly flammable	(Directive 84/449/EEC, A.10)
Self-ignition temperature:	248 °C	(Directive 92/69/EEC, A.16)

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Hydrocarbons,

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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.

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.

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:

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

7. Handling and Storage

Handling

General advice:

Avoid contact with the skin, eyes and clothing.

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 away from heat. Protect against moisture. Protect from direct sunlight.

Storage incompatibility:

General advice: Segregate from foods and animal feeds.

Temperature tolerance

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

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 and Personal Protection

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

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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, 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.

9. Physical and Chemical Properties

Form:	granules	
Odour:	sulfur-like, mild	
Odour threshold:	No data available.	
Colour:	dark brown	
pH value:	5.8	
Melting point:	approx. 4 - 6 approx. 99 °C	(1 %(m), 20 °C) The data given are those of the active ingredient.
Density:	approx. 1.30 g/cm ³	(20 °C) (OECD Guideline 109)
Vapour density:		not determined
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:		not applicable
Solubility in water:		dispersible
Molar mass:	313.8 g/mol	

10. Stability and Reactivity

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. 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 oxidizing agents, strong bases, strong acids

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Hazardous reactions:

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.

Thermal decomposition:

150 °C, 2 K/min (DSC (DIN 51007))

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen monoxide, nitrogen dioxide, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.

210 °C, 2 K/min (DSC (DIN 51007))

Oxidizing properties:

not fire-propagating (Directive 92/69/EEC, A.17)

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg (Directive 84/449/EEC, B.1)

No mortality was observed.

Inhalation:

Type of value: LC50

Species: rat

Value: > 5.7 mg/l (OECD Guideline 403)

Exposure time: 4 h

Tested as dust aerosol.

No mortality was observed.

Dermal:

Type of value: LD50

Species: rat (male/female)

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

No mortality was observed.

Irritation / corrosion

Skin:

Species: rabbit

Result: non-irritant

Method: Directive 84/449/EEC, B.4

Eye:

Species: rabbit

Result: non-irritant

Method: Directive 84/449/EEC, B.5

Sensitization:

Buehler test

Species: guinea pig

Result: Skin sensitizing effects were not observed in animal studies.

Method: Directive 84/449/EEC, B.6

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Genetic toxicity

Information on: Kresoxim-methyl
No mutagenic effect was found in various tests with microorganisms and mammals.

Carcinogenicity

Information on: Kresoxim-methyl
Very high concentrations in the range of the maximum tolerated dose (MTD) have caused liver tumors in rats after chronic exposure. These concentrations will not be achieved under practical conditions.
Indication of possible carcinogenic effect in animal tests.

Reproductive toxicity

Information on: Kresoxim-methyl
The results of animal studies gave no indication of a fertility impairing effect.

Development:

Information on: Kresoxim-methyl
No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish

Acute:
Directive 84/449/EEC, C.1 static
Oncorhynchus mykiss/LC50 (96 h): approx. 0.5 mg/l

Aquatic invertebrates

Acute:
Directive 79/831/EEC static
Daphnia magna/EC50 (48 h): 0.31 mg/l

Aquatic plants

Toxicity to aquatic plants:
OECD Guideline 201 green algae/EC50 (72 h): 0.532 mg/l

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.

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14. Transport Information

Land transport

TDG

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 KRESOXIM-METHYL 50%)

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 KRESOXIM-METHYL 50%)

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 KRESOXIM-METHYL 50%)

15. Regulatory Information

Federal Regulations

Registration status:

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

Crop Protection 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.

16. Other Information

Recommended use: fungicide

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

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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.

MSDS Prepared by:

BASF NA Product Regulations

msds@basf.com

BASF HOTLINE (800) 454 – COPE (2673)

MSDS Prepared on: 2012/06/12

END OF DATA SHEET