

Safety Data Sheet

Sphaerex

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Version: 1.2

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(30782240/SDS_CPA_CA/EN)

1. Identification

Product identifier used on the label

Sphaerex

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 Agricultural Solutions Canada Inc.
510, 28 Quarry Park Boulevard SE,
Calgary, AB, T2C 5P9
CANADA

Telephone: +1 (403) 523-3000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

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

Other means of identification

PCP # 34263

Synonyms: metconazole + Prothioconazole

2. Hazards Identification

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

Classification of the product

Acute Tox.	4 (Inhalation - mist)	Acute toxicity
Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Repr.	2 (unborn child)	Reproductive toxicity
STOT SE	3 (irritating to)	Specific target organ toxicity — single exposure

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	respiratory system)	
Aquatic Acute	1	Hazardous to the aquatic environment - acute
Aquatic Chronic	1	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:



Signal Word:
Warning

Hazard Statement:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

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

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P391	Collect spillage.
P308 + P313	IF exposed or concerned: Get medical attention.
P332 + P313	If skin irritation occurs: Get medical attention.
P337 + P313	If eye irritation persists: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

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): 10.91 %
Synonym: Cyclopentanol, 5-[(4-chlorophenyl)methyl]-2,2-dimethyl-1-(1H-1,2,4-triazol-1-ylmethyl)-

Prothioconazole

CAS Number: 178928-70-6
Content (W/W): 18.19 %
Synonym: 3H-1,2,4-Triazole-3-thione, 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-

Decanamide, N,N-dimethyl-

CAS Number: 14433-76-2
Content (W/W): 20.0 - 30.0%
Synonym: No data available.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts

CAS Number: 84989-14-0
Content (W/W): 0.3 - 1.0%
Synonym: No data available.

Alcohols, C12-18, ethoxylated propoxylated

CAS Number: 69227-21-0
Content (W/W): 20.0 - 30.0%
Synonym: No data available.

Alcohols, C11-14-iso-, C13-rich, ethoxylated propoxylated

CAS Number: 78330-23-1
Content (W/W): 7.0 - 10.0%
Synonym: No data available.

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:

Keep patient calm, remove to fresh air, seek medical attention.

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:

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.

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, Hydrogen chloride, carbon oxides, nitrogen oxides, sulfur oxides, organochloric compounds
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.

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

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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.

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:

Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

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.

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

Metconazole TWA value 1 mg/m³ Respirable dust ;

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. 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.

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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). Remove 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:	liquid
Odour:	rubber-like
Odour threshold:	Not determined since harmful by inhalation.
Colour:	gold colour
pH value:	approx. 4 - 6 (1 %(m), 20 °C)
Melting point:	< 0 °C Information based on the main component/s.
Boiling point:	> 100 °C Information based on the main component/s.
Flash point:	> 145 °C
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:	390 °C
SADT:	> 75 °C Heat accumulation / Dewar 500 ml (SADT, UN-Test H.4, 28.4.4)
Vapour pressure:	approx. > 0.1 hPa (20 °C) Information based on the main component/s.
Density:	approx. 1.03 g/cm ³ (20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Thermal decomposition:	170 °C, 50 kJ/kg (DSC (OECD 113)) 280 °C, 370 kJ/kg (DSC (OECD 113)) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.
Viscosity, dynamic:	approx. 260 mPa.s (25 °C)
Solubility in water:	emulsifiable
Evaporation rate:	not applicable

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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

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 SDS section 7 - Handling and storage.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

170 °C (DSC (OECD 113))

280 °C (DSC (OECD 113))

Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

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: Of low toxicity after single ingestion. Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single skin contact.

Oral

Type of value: LD50

Species: rat

Value: > 2,000 - < 5,000 mg/kg

Inhalation

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Type of value: LC50
Species: rat
Value: > 2.063 mg/l
Exposure time: 4 h

Dermal

Type of value: LD50
Species: rat
Value: > 5,000 mg/kg

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.

Irritation / corrosion

Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation.

Skin

Species: rabbit
Result: Irritant.

Eye

Species: rabbit
Result: Irritant.

Sensitization

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

Buehler test

Species: guinea pig
Result: Non-sensitizing.

Aspiration Hazard

The product has not been tested. The statement has been derived from the properties of the individual components. No aspiration hazard expected.

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: Decanamide, N,N-dimethyl-

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. After repeated exposure the prominent effect is local irritation.

Genetic toxicity

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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

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.

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.

Information on: Decanamide, N,N-dimethyl-

Assessment of teratogenicity: The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Other Information

Misuse can be harmful to health.

12. Ecological Information

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: prothioconazole (ISO); 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole-3-thione
LC50 (96 h) 1.83 mg/l, Oncorhynchus mykiss

Information on: metconazole

LC50 (96 h) 2.1 mg/l, Oncorhynchus mykiss

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Aquatic invertebrates

Information on: prothioconazole (ISO); 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole-3-thione
EC50 (48 h) 1.3 mg/l, *Daphnia magna*

Information on: metconazole
EC50 (48 h) 4.2 mg/l, *Daphnia magna*

Aquatic plants

Information on: prothioconazole (ISO); 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole-3-thione
ErC50 (72 h) 0.03278 mg/l, *Skeletonema costatum*
ErC10 (72 h) 0.01427 mg/l, *Skeletonema costatum*
ErC50 (96 h) 0.03587 mg/l, *Skeletonema costatum*
ErC10 (96 h) 0.01562 mg/l, *Skeletonema costatum*

Information on: metconazole
EC10 (7 d) 0.004 mg/l, *Lemna gibba*
EC50 (7 d) 0.527 mg/l, *Lemna gibba*
No observed effect concentration (7 d) < 0.003 mg/l, *Lemna gibba*
EC50 (72 h) 2.2 mg/l, *Selenastrum capricornutum*
No observed effect concentration (72 h) 0.38 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)

Chronic toxicity to aquatic invertebrates

Information on: metconazole
No observed effect concentration (21 d) 0.16 mg/l, *Daphnia magna* (OECD Guideline 211)

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: Prothioconazole

Not readily biodegradable (by OECD criteria).

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: Prothioconazole

Bioconcentration factor: 19

Information on: metconazole

*Bioconcentration factor: 51 - 80, Lepomis macrochirus
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: Prothioconazole

low mobility in soil

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.*

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:

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.

14. Transport Information

Land transport
TDG

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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, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PROTHIOCONAZOLE, METCONAZOLE)

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 PROTHIOCONAZOLE, METCONAZOLE)

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.

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection DSL, CA released / exempt

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:

CAUTION:

Skin Irritant

Eye irritant.

KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED.

Causes eye irritation.

Do not get in eyes.

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Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.

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

16. Other Information

SDS Prepared by:

BASF Agricultural Solutions Canada NA Product Regulations

SDS Prepared on: 2022/04/21

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.

END OF DATA SHEET