

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15
Version: 5.0

Page: 1/11
(30663945/SDS_CPA_CA/EN)

1. Identification

Product identifier used on the label

Metiram 70% WG

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

Molecular formula: [C16 H33 N11 S16 Zn3] x

Synonyms: metiram

2. Hazards Identification

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

Classification of the product

Skin Sens.	1	Skin sensitization
STOT RE	2	Specific target organ toxicity — repeated exposure
Aquatic Acute	1	Hazardous to the aquatic environment - acute

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15

Version: 5.0

Page: 2/11

(30663945/SDS_CPA_CA/EN)

Aquatic Chronic

1

Hazardous to the aquatic environment - chronic

Label elements

Pictogram:



Signal Word:

Warning

Hazard Statement:

H317

May cause an allergic skin reaction.

H373

May cause damage to organs (Skeletal muscle) through prolonged or repeated exposure.

H400

Very toxic to aquatic life.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280

Wear protective gloves.

P273

Avoid release to the environment.

P260

Do not breathe dust/gas/mist/vapours.

P272

Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P314

Get medical advice/attention if you feel unwell.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P391

Collect spillage.

P362 + P364

Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

P501

Dispose of contents/container in accordance with local regulations.

3. Composition / Information on Ingredients

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

metiram

CAS Number: 9006-42-2

Content (W/W): <= 80.0%

Synonym: No data available.

methenamine

CAS Number: 100-97-0

Content (W/W): 1.0 - 3.0%

Synonym: 1,3,5,7-Tetraazatricyclo[3.3.1.1{3,7}]decane

sodium diisobutyl naphthalene sulphonate

CAS Number: 27213-90-7

Content (W/W): 1.0 - 3.0%

Synonym: Bis(2-methylpropyl)naphthalenesulfonic acid sodium salt

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15

Version: 5.0

Page: 3/11

(30663945/SDS_CPA_CA/EN)

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.

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 200-300 ml of water. 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

Antidote:	No known specific antidote.
Treatment:	Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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, Hydrogen chloride, nitrogen oxides, sulfur oxides, silica compounds, halogenated compounds, organometallic compounds
The substances/groups of substances mentioned can be released in case of fire.

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15

Version: 5.0

Page: 4/11

(30663945/SDS_CPA_CA/EN)

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. 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

Avoid raising dust. Sweep/shovel up. 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:

Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. 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 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.

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.

8. Exposure Controls/Personal Protection

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

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15

Version: 5.0

Page: 5/11

(30663945/SDS_CPA_CA/EN)

No substance specific occupational exposure limits known.

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 a NIOSH-certified (or equivalent) particulate respirator.

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:	solid
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	light brown
pH value:	approx. 4.5 - 6.5 (1 %(m), 23 °C)
Melting temperature:	approx. 156 °C The values mentioned are those of the active ingredient.
Boiling point:	The product has not been tested.
Flash point:	not applicable, the product is a solid
Flammability:	not highly flammable
SADT:	> 75 °C
Vapour pressure:	The value has not be determined because of the high melting point.
Bulk density:	approx. 603 kg/m ³ (20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	The statements are based on the properties of the individual components.
Self-ignition temperature:	not self-igniting
Thermal decomposition:	150 °C, 20 kJ/kg (DSC (OECD 113)) 235 °C, 20 kJ/kg (DSC (OECD 113)) 325 °C, > 830 kJ/kg (DSC (OECD 113))

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15
Version: 5.0

Page: 6/11
(30663945/SDS_CPA_CA/EN)

Viscosity, dynamic:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.
Solubility in water:	not applicable, the product is a solid dispersible
Evaporation rate:	not applicable

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.

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 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 bases, strong acids, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

150 °C, 2.5 K/min (DSC (OECD 113))

235 °C, 2.5 K/min (DSC (OECD 113))

325 °C, 2.5 K/min (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

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15
Version: 5.0

Page: 7/11
(30663945/SDS_CPA_CA/EN)

Acute toxicity

Assessment of acute toxicity: Relatively nontoxic after single ingestion. Relatively nontoxic after short-term inhalation. Slightly toxic after short-term skin contact.

Oral

Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg (OECD Guideline 401)

Inhalation

Type of value: LC50
Species: rat (male/female)
Value: > 2.71 mg/l (OECD Guideline 403)
Exposure time: 4 h
An aerosol was tested.
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.

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 eyes. Not irritating to the skin.

Skin

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

Eye

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

Sensitization

Assessment of sensitization: May cause sensitization by skin contact.

modified Buehler test

Species: guinea pig
Result: sensitizing
Method: OECD Guideline 406

Aspiration Hazard

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

Chronic Toxicity/Effects

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15
Version: 5.0

Page: 8/11
(30663945/SDS_CPA_CA/EN)

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: metiram

Assessment of repeated dose toxicity: Damages the skeletal muscle.

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

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.

Medical conditions aggravated by overexposure

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

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity to fish

LC50 (96 h) 0.473 mg/l, *Oncorhynchus mykiss* (OPP 72-1 (EPA-Guideline), Flow through.)

Aquatic invertebrates

EC50 (48 h) > 0.821 mg/l, *Daphnia magna* (Directive 79/831/EEC, semistatic)

Aquatic plants

EC50 (72 h) 0.01 mg/l (growth rate), *Skeletonema costatum*

No observed effect concentration (72 h) 0.0076 mg/l (growth rate), *Skeletonema costatum*

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15
Version: 5.0

Page: 9/11
(30663945/SDS_CPA_CA/EN)

EC50 (72 h) 0.157 mg/l (growth rate), algae (OECD Guideline 201, static)

No observed effect concentration (72 h) 0.002 mg/l (growth rate), algae (OECD Guideline 201)

Chronic toxicity to fish

No observed effect concentration (28 d) 0.0316 mg/l, Oncorhynchus mykiss

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) 0.00615 mg/l, Daphnia magna

Bioaccumulative potential

Bioaccumulation potential

Information on: metiram

Because of the n-octanol/water distribution coefficient (log Pow) 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: metiram

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

Not classified as a dangerous good under transport regulations

Sea transport

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15
Version: 5.0

Page: 10/11
(30663945/SDS_CPA_CA/EN)

IMDG

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

Air transport

IATA/ICAO

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

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:

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:

Potential skin sensitizer.

WARNING:

Contains the allergen soy.

KEEP OUT OF REACH OF CHILDREN.

The substance may cause sensitization of the skin in particularly sensitive individuals.

Avoid inhalation of dusts/mists/vapours.

Avoid contact with the skin, eyes and clothing.

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

Safety Data Sheet

Metiram 70% WG

Revision date : 2022/04/15
Version: 5.0

Page: 11/11
(30663945/SDS_CPA_CA/EN)

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2022/04/15

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