Safety Data Sheet (SDS) MILNATE

According to UN GHS 8th Ed
Revision Date: 01/03/2024

First print date: 01/03/2024
Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: Milnate

Common name: Spiroxamine 500 g/l

Relevant identification uses of the substance and uses advised against:

Identified uses: Fungicide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

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Poisons Information Helpline: 0861 555 777
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SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

Hazard classes/Hazard categories	Hazard statement
Acute Tox (Category 4)	H302
Skin irritation (Category 2)	H315
Eye Damage (Category 1)	H318
Reproduction toxicity (Category 2)	H361
STOT RE (Category 2)	H373
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 1)	H410

The most important adverse effects

The most important adverse physiochemical effects: None known.

The most important adverse human health effects: May damage fertility or unborn child. Causes serious eye damage and skin irritation.

Label elements

Hazard pictograms

Signal Word: Danger

Hazard Statements:

H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H361	Suspected of damaging fertility or unborn child
H373	May cause damage to eyes through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P102	Keep out of reach of children
P203:	Obtain, read and follow all safety instructions before use.
P260	Do not breathe mist, vapors and spray
P264	Wash hands, forearms, and face thoroughly after handling
P270	Do not eat, drink, or smoke when using this product.
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+ P317	IF SWALLOWED: Get medical help.
P302+P352	IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P332+P317	If skin irritation occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P318	If exposed or concerned, get medical advice.
P362+364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up
P273	Avoid release to the environment.
P391	Collect spillage
P501	Dispose of contents/container in accordance with local/regional/ national regulations

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Spiroxamine	118134-30-8	50%	Acute toxicity (Category 4) (H302) Acute toxicity (Category 4) (H312) Skin irritation (Category 2) (H315) Skin sensitization (Category 1) (H317) Acute toxicity (Category 4) (H332) STOT RE (Category 2) (H373) Aquatic acute (Category 1) (H400) Aquatic chronic (Category 1) (H410) Reproductive (Category 2) (H316d)
Octyl phenoxy poly ethoxy	9002-93-1	<10%	Aquatic chronic (Category 3) (H412)
Calcium dodecylbenzene sulfonate	26264-06-2	<10%	Acute toxicity (Category 4) (H302) Skin irritation (Category 2) (H315) Aquatic chronic (Category 3) (H413) Eye damage (Category 1) (H318)
Ethyl Alcohol	64-17-5	<40%	Flam Liquid (Category 2) (H225)
Other inherts	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.		

For full text of H statements see section 16

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: Avoid inhalation of vapour or mist spray**.** If inhaled, remove to fresh air. Administer artificial respiration if breathing is stopped. Seek medical attention.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical attention if symptoms persist.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. If eye symptoms (redness, irritation, or pain) persist refer patient to ophthalmologist for examination of eyes.

In case of ingestion: Do NOT induce vomiting . If vomiting occurs spontaneously, keep head below hips to avoid aspiration. Keep patient at rest and transport to nearest medical facility for further treatment. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar,tie, belt, or waistband.

Most important symptoms and effects, both acute and delayed:

Ingestions: May be harmful if swallowed

Skin contact: Cause skin irritation

Eye contact: Causes serious eye damage.

Inhalation: Irritation, headache, dizziness, nausea vomiting

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically. Do not induce vomiting : contains petroleum distillates and / or aromatic solvents.

SECTION 5. FIRE FIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Small Fire: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

Large Fire: Water fog or foam can be used for larger fires or cooling of unaffected stock but avoid the accumulation ofpolluted run-off from the site.

Unsuitable extinguishing media**:** Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

May release irritating fumes upon combustion such as oxides of carbon and nitrogen.
Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling hazardous vapours and fumes. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.
Contain fire control agents for later disposal according to Section 13.
Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: Do not breathe in spray or fumes. Avoid contact with eyes and skin.
For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent Avoid contact with eyes and skin. Do not breathe in fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Prevent entry into drains, watercourses, groundwater or confined areas: dike if needed. This product is classified to be very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.
If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.
Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth

For large spills Prevent entry into drains, watercourses, or confined areas. Cover contained spill with an inert absorbent material e.g., sand, earth, vermiculite or diatomaceous earth. Vacuum, scoop or sweep up material into a clean, dry, sealable container. Label container with the contents and dispose of according to local regulations. Do not reuse spilled material. To decontaminate the spill area, tools and equipment, wash with water and a suitable detergent.

Reference to other sections:

See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Do not use near source of sparks or open flame. Harmful in contact with skin and if swallowed. Irritating to eyes and skin. Avoid contact with eyes and skin, and inhalation of spray and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet.Remove contaminated clothing and protective equipment before entering eating areas. Ensure adequate ventilation during use and handling.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Do not store near sources of sparks, flame or heat. Store product in a locked, segregated, and approved area, out of reach of unauthorised persons, children, and animals. Store in its original, labelled container, tightly closed, in an isolated, dry, cool, and well- ventilated area. Not to be stored next to foodstuffs, feed, and water supplies.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): No information available.

Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available.

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Adequate ventilation is essential. Appropriate measures depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Personal Protective Equipment

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort wear chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Use in a well-ventilated area. For use in well ventilated areas a respirator is generally not required.

If used in areas that are not well-ventilated Respiratory protection is required; use a NIOSH approved air purifying respirator with cartridges/canisters approved for organic vapours.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Colour	Light brown
Odour	Aromatic
Odour threshold	No data available
pH	5.0 – 11.0
Melting point / freezing point (° C)	Not applicable
Boiling point (° C)	No data available
Flash point (° C)	108 ˚C
Evaporation rate	No data available
Flammability	Not flammable
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density g/ml (20°C)	No data available
Water solubility (g/l) at 20°C	No data available
Partition coefficient : n-octanol/water	No data available
Auto-ignition temperature (° C)	No data available
Decomposition temperature (° C)	No data available
Viscosity, dynamic (mPa s)	No data available
Explosive properties	Not an explosive hazard
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILTY AND REACTIVITY

Reactivity: None known

Chemical stability: Stable under normal storage conditions for 2 years. Avoid excessive heat sources.

Possibility of hazardous reactions: No information available.

Conditions to avoid: Avoid excessive heat and ignition sources.

Incompatible materials: None known

Hazardous decomposition products: None known

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has been tested. The data reported is for the mixture.

Spiroxamine 500 g/l
Acute toxicity:

Acute Oral LD50 (rat)	>1000 mg/kg
Acute Dermal LD50 (rat):	>2000 mg/kg
Acute Inhalation LC50 - 4 h	2,4 mg/L
Skin irritation/ corrosion (rabbit)	Slight skin irritation
Eye damage / irritation (rabbit)	Not an eye irritant
Respiratory or skin sensitization (Guinea pig)	Not a skin sensitiser
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	Evidence of effects on development
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	May cause damage to eyes through repeated exposure.
Aspiration hazard	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Penconazole CAS No. 66246-88-6	
Toxicity	
Birds Acute oral LD_{50} Diet LC_{50} (5d)	 >550 mg/kg Bobwhite quail >500 mg/kg Bobwhite quail and Mallard Ducks
Aquatic Toxicity Fish LC_{50} (96 hr) Aquatic Toxicity Daphnia EC_{50} (48 hr) Toxicity to algae EC_{50} (72h) Toxicity to algae EC_{50} (120h) Toxicity to bees LD_{50} (48 h) for oral and topical Worms LC_{50} (14d)	18.5 mg/l Rainbow trout ; 7.5 mg/l Bluegill sunfish 6 mg/l 0.015 mg/l for (*Scenedesmus subspicatus*) 0.020 mg/l for (*Scenedesmus subspicatus*) >100 µg/bee, 4.2 µg/bee >1000 mg/kg earthworms
Persistence and degradability	Readily degraded in soil.
Bioaccumulation potential	No data available
Mobility in soil	DT_{50} 35–64 d.
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Keep out of drains, sewers, ditches, and waterways. Open dumping or burning of this pesticide is prohibited.
Waste resulting from the use of this product cannot be re-used or reprocessed. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Rinse empty container three times with a volume of water equal to at least one tenth of that of the container. Pour rinse water into spray tank. Dispose of as hazardous waste.

not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider. Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	3082
UN proper shipping name	Environmentally Hazardous Substance; Liquid, N.O.S. (Spiroxamine 500g/l)
Transport hazard class	9
Packaging group	III
Marine pollutant	Yes

SECTION 15. REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021.UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations:

National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management Waste Act 59 of 2008.

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

GHS aligned – all sections.

Relevant H statements (number and full text):

H312-Harmful in contact with skin

H317-May cause an allergic skin reaction.

H332-harmful if inhaled.

H225- Highly flammable liquid and vapour

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.