Safety Data Sheet (SDS) Bronic 250 SC

According to UN GHS 8th Ed
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Version: 1.1

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

Product identifier:

Identification as on the label/Trade name: Bronic 250 SC

Common name: Azoxystrobin 250g/L SC

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 Africom (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261
Fax: 086 541 7948
Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911
Griffon Poison Information Centre: +27 82 446 8946
Poisons Information Helpline: 0861 555 777
Tygerberg Hospital: +27 21 931 6129

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 toxicity inhalation (Category 4)	H332
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None known

The most important adverse human health effects: Harmful if inhaled.

Label elements

Hazard pictograms
Signal Word: Warning

Hazard Statements:

H332	Harmful if inhaled
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
P103	Read label before use
P271	Use only outdoors or in a well-ventilated area.
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
Azoxystrobin	131860-33-8	25%	Acute Toxicity Inhalation (Category 3) H331 Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410
Glycol	107-21-1	<1%	Acute Toxicity Oral (Category 4) H302
Water	-	Balance	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

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 and remove source of contamination. Administer artificial respiration if breathing is stopped. Seek medical attention.

In case of skin contact: Remove contaminated clothing and shoes. Wash skin gently and thoroughly with cold water and nonabrasive soap. 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: Rinse mouth with water if the patient is alert and conscious. Have person drink plenty of water if able to swallow. Do not induce vomiting, unless instructed to do so by a physician. If vomiting occurs, keep head lower than hips to prevent aspiration. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar,tie, belt, or waistband. Obtain medical attention of not feeling well.

Most important symptoms and effects, both acute and delayed:

Inhalation: Harmful in case of inhalation.

Delayed effects: None known

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

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: Keep all personal away may be toxic by inhalation. 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:

Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed.Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid inhalation. Avoid contact with eyes, skin or clothing.

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. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet

Conditions for safe storage, including incompatibilities:

Store product in an approved area, out of reach of unauthorized persons, children, and animals.

Store in its original, labelled container, tightly closed, in an isolated, dry, cool, and well- ventilated area. Avoid excess heat. Not to be stored next to foodstuffs, feed, and water supplies. Avoid cross contamination with other pesticides and fertilisers.

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. 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	Off white to Light Yellow
Odour	Slight odour
Odour threshold	No data available
pH	5-8
Melting point / freezing point (° C)	Not applicable
Boiling point (° C)	No data available
Flash point (° C)	No data available
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)	1.01-1.04
Water solubility (g/l) at 20°C	Soluble in water
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 explosion 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:
Should not be applied in combination with strong acidic and strong alkaline products.

Hazardous decomposition products:
None known. Store and use as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Azoxystrobin CAS No. 131860-33-8	
Acute toxicity:	
Acute Oral LD50 (rat)	>5000 mg/kg
Acute Dermal LD50 (rat):	> 2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	0.7 mg/l
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

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

Ethylene Glycol CAS No. 107-21-1	
Acute toxicity:	
Acute Oral LD50 (rat)	7712 mg
Acute Dermal LD50 (mouse)	3500 mg/kg
Acute Inhalation LC50 - 6 h (rat)	2.5 mg/l
Skin irritation/ corrosion (rabbit)	Not a skin irritant
Eye damage / irritation	Not an eye irritant
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

SECTION 12. ECOLOGICAL INFORMATION

Azoxystrobin CAS No. 131860-33-8	
Toxicity	
Birds Acute oral LD_{50}	>2000 mg/kg Mallard ducks and Bobwhite quail

Aquatic Toxicity Fish LC_{50} (96 hr) Aquatic Toxicity Daphnia EC_{50} (48 hr) Toxicity to algae – static test EC_{50} (72h) Toxicity to bees LD_{50} (48 h)	0.47 mg/l Rainbow trout ; 1.1 mg/l Bluegill sunfish ;1.3 mg/l Carp 0.66 mg/l Sheepshead minnow 0.28 mg/l 0.18 mg/l for *Pseudokirchneriella subcapitata* >25 µg/bee (oral); >200 µg/bee (contact)
Persistence and degradability	In soil, DT50 (lab.) 70 d (geometric mean; normalised to 20°C, pF2; SFO kinetics). In soil, in the dark, up to six identified metabolites were formed; over 120 d, up to 27% of applied radiolabel is evolved as CO2. Dissipation in the field is faster; DT50 (geometric mean; SFO) 28 d, DT90 94 d (best fit, HS kinetics: DT50 13 d, DT90 236 d). On soil, photolysis DT50 11 d
Bioaccumulation potential	No data available
Mobility in soil	Azoxystrobin is classified as moderately mobile in soil; average Kfoc for azoxystrobin c. 430. Field dissipation studies showed that neither azoxystrobin nor its major degradants were typically found in soil below the top 15 cm. In water sediment systems (lab.,20°C, dark), water phase ave. DT50 6.1 d (SFO), total system ave. DT50 214 d (SFO). Degradation in atmosphere occurs by reaction with hydroxyl radicals (AOP model), DT50 2.7h.
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

Ethylene Glycol CAS No. 107-21-1	
Toxicity	
Aquatic Toxicity Fish Static LC_{50} (96 hr) Aquatic Toxicity Daphnia LC_{50} (48 hr) Toxicity to algae – static test EC_{50} (72h) Toxicity to bacteria static test EC20 activated sludge (30 minutes) ISO 8192	>72860 mg/l Pimephales promelas (*fathead minnow*) >100 mg/l Daphnia magna (Water flea) >10000 mg/l - Scenedesmus quadricauda (Green algae) >1995 mg/l >84 µg/bee.
Persistence and degradability Biodegradability-aerobic 10 days	90-100 % - Readily biodegradable.
Bioaccumulation potential	No data available
Mobility in Soil	No data available
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. (Azoxystrobin 250 g/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):

Acute toxicity inhalation (Category 4): Harmful if inhaled

Aquatic Toxicity acute (Category 1): Very toxic to aquatic life

Aquatic Toxicity chronic (Category 1): Very toxic to aquatic life with long lasting effects

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.