

Safety Data Sheet (SDS) VERONA

According to UN GHS 8th Ed
Revision Date: 31/07/2022

First print date: 01/06/2018
Version: 1.1

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

Product identifier:

Identification as on the label/Trade name: VERONA

Common Name: Flusilazole 100 g/ℓ EC

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:

Erintrade cc t/a RT Chemicals, 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
Flammable Liquid (Category 3)	H226
Acute toxicity inhalation (Category 4)	H332
Skin irritation (Category 2)	H315
Eye irritation (Category 2)	H319
STOT SE (Category 3)	H335
STOT SE (Category 3)	H336
Carcinogenicity (Category 2)	H351
Reproduction toxicity (Category 1B)	H360D
Aspiration toxicity (Category 1)	H304
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 1)	H410

The most important adverse effects

The most important adverse physiochemical effects: Flammable Liquid and Vapour

The most important adverse human health effects: Suspected of causing cancer, May be fatal if swallowed and enters airways. Harmful if inhaled. May damage unborn child. Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation, drowsiness or dizziness.

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Label elements



Hazard pictograms

Signal Word: Danger

Hazard Statements:

H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H360D	May cause damage to unborn child
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
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing mist, vapours and spray.
P264	Wash hands and face thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release into the environment.
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER.
P303/361/353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [shower].
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/313	If exposed or concerned: Get medical attention.
P312	Call a poison centre if you feel unwell.
P331	Do NOT induce vomiting.
P332/313	If skin irritation occurs: get medical advice.
P337/313	If eye irritation persists: Get medical advice.
P362/364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

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P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of content/container to suitable landfill in accordance with local regulations.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS
Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Flusilazole	85509-19-9	10.4%	Acute Toxicity Oral (Category 4) H302 Carcinogenicity (Category 2), H351 Reproduction Toxicity (Category 1B) H360D Aquatic Chronic (Category 2) H411 Skin Irritation (Category 2) H315 Acute Toxicity -Inhalation (Category 3) H331 Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410
Polyoxyethylene nonyl phenyl ether	127087-87-0	< 2%	Skin Irritation (Category 2) H315 Eye damage (Category 1) H318 Aquatic Chronic (Category 2) H411
Solvesso 150#	64742-94-5	< 75 %	Aspiration Toxicity (Category 1)H304 Flammable liquids (Category 3), H226 Acute toxicity, Oral (Category 4), H302 Carcinogenicity (Category 2), H351 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 STOT SE (Category 3), Respiratory system, H335 STOT SE (Category 3), CNS,H336 Aquatic Acute (Category 1)H400 Aquatic Chronic (Category 1) H410

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: Wash out mouth with water if the patient is alert and conscious. 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. attention. 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:
Anticipated acute effects:

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Inhalation: Harmful in case of inhalation. May cause respiratory irritation

Ingestions: May be fatal if ingested and aspiration occurs

Skin contact: Irritant, may cause an allergic reaction.

Eye contact: Causes serious eye irritation

Anticipated delayed effects: Suspected of causing cancer. May damage the unborn child.

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 of polluted 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:

Fire may produce irritating or poisonous vapours (toxic fumes of hydrogen cyanide, chlorine, and oxides of nitrogen and carbon), mists or other products of combustion.

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

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material. To decontaminate the spill area, tools and equipment, wash with water and a suitable detergent.

Reference to other sections:

See section 1 for emergency contact details

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:**

This product is flammable. May be fatal if swallowed and enters airways. Causes severe skin, eye and respiratory irritation. Suspected of damaging the unborn child. Suspected of causing cancer. Use with adequate ventilation. 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. Do not get in eyes or on 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.

Conditions for safe storage, including incompatibilities:

Store product in a locked, segregated, and 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

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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 only in well ventilated areas. An approved full-face respirator suitable for protection from spray or mists of pesticides is required. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

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 Yellow
Odour	Characteristic of solvent
Odour threshold	No data available
pH	4 - 7.5
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	Flammable liquid and vapour
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density g/ml (20°C)	1.025 - 1.055 g/mℓ at 20 °C
Water solubility (g/l) at 20°C	Emulsifies 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	No data available
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILITY 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 direct sunlight, open flames, ignition sources, high temperatures, sources of heat.

Incompatible materials:

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Incompatible with strong oxidising agents.

Hazardous decomposition products:

Vapors may form explosive mixture with air. No decomposition if stored and applied 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.

Flusilazole CAS No. 85509-19-9	
Acute toxicity:	
Acute Oral LD50 (rat)	674 mg/kg
Acute Dermal LD50 (rat):	> 2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	3.7 mg/l
Skin irritation/ corrosion (rabbit)	Mild skin irritant
Eye damage / irritation (rabbit)	Mild eye irritant
Respiratory or skin sensitization	Not a skin sensitizer
Germ cell mutagenicity	No data available
Carcinogenicity	Suspected of causing cancer
Reproductive toxicity	Harmful to an unborn child
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.

Polyoxyethylene Nonyl Phenyl Ether CAS No. 127087-87-0	
Acute toxicity:	
Acute Oral LD50 (rat - male)	1602 mg/kg
Acute Dermal LD50 (rat):	No data available
Acute Inhalation LC50 - 4 h (rat)	No data available
Skin irritation/ corrosion	Not a skin irritant
Eye damage / irritation	Irritating to eyes
Respiratory or skin sensitization	Not a respiratory or skin sensitizer
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.

Solvesso 150# CAS No. 64742-94-5	
Acute toxicity:	
Acute Oral LD50 (rat - male)	>2000 mg/kg

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Acute Dermal LD50 (rabbit)	>2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	>5.5 mg/l
Skin irritation/ corrosion (rabbit)	Irritating to skin
Eye damage / irritation (rabbit)	Irritating to eyes
Respiratory or skin sensitization	Respiratory irritant
Germ cell mutagenicity	No data available
Carcinogenicity	Suspected carcinogen
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure (CNS)	May cause drowsiness or dizziness
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	May be fatal if swallowed and enters airways.

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

SECTION 12. ECOLOGICAL INFORMATION

Flusilazole CAS No. 85509-19-9	
Toxicity	
Birds Acute oral LD ₅₀	>1590 mg/kg Mallard Duck
Aquatic Toxicity Fish LC ₅₀ (96 hr) Aquatic Toxicity Daphnia EC ₅₀ (48 hr) Toxicity to bees LD ₅₀ (48 h) for contact	Rainbow trout 1.2 mg/l, Bluegill sunfish 17mg/l, 3.4 mg/l >150 µg/bee Nontoxic to bees
Persistence and degradability	Results of several different studies under varying environmental conditions indicate average DT50 95 d.
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

Polyoxyethylene Nonyl Phenyl Ether CAS No. 127087-87-0	
Toxicity	
Aquatic Toxicity Fish LC ₅₀ test (96 hr) Aquatic Toxicity Daphnia EC ₅₀ (48 hr) Toxicity to algae EC50 (96 hr) Toxicity to bacteria EC50 (5min)	84.7 mg/l 23.07 mg/l 12.0 mg/l Desmodesmus subspicatus (green algae) No data available
Persistence and degradability	No data available
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

Solvesso 150# CAS No. 64742-94-5	
Toxicity	

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Aquatic Toxicity Fish static test LC ₅₀ (96 h) (Naphthalene)	31.03 mg/l mg/l Bluegill; 0.9mg/l Pink Salmon trout;
Aquatic Toxicity Daphnia EC ₅₀ (48 h)	0.32 mg/l Crimson spotted Rainbow
Toxicity to algae –ErC50 (72h)	No data available
Toxicity to bacteria–EC50 (0.5h)	No data available
Persistence and degradability	Will evaporate and commence degradation on exposure to air.
Bioaccumulation potential	No data available
Mobility in Soil	Highly mobile in soil
Result of PBT and vPvB assessment	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	1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S (Contains Flusilazole).
Transport hazard class	3
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

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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

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.