

Sharda International Africa (Pty) Ltd

(Co. Reg. No. 2010/002268/07)
P.O. Box 82021, Southdale, 2135, South Africa.

Tel: 031 764 3011, Tel: 087 822 2397
Email: rsa.regn@shardaintl.com, Website: <http://www.shardaintl.com>

SECTION 1. Chemical product and company identification

Product identifier:

Identification as on the label/Trade name: **Master 125 EC**

Additional information: Myclobutanil

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:

Company name: Sharda International Africa (Pty) Ltd

Address: P.O. Box 82021, Southdale, 2135

Phone number.: 031-764-3011

Emergency telephone numbers:

UNITAS Hospital: 0800-111-9900

Tygerberg Hospital: 021-931-6129

Netcare 911: 082911

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Physical and chemical properties	H226 Flammable liquid and vapour
Acute toxicity oral	H302 Harmful if swallowed
Inhalation	H332 Harmful if inhaled H304 May be fatal if swallowed and enters airways
Eye irritation	H319: Causes serious eye irritation
Reproduction toxicity	H361d Suspected of damaging fertility or the unborn child
Reproduction toxicity	H340 May cause genetic defects
Carcinogenicity	H350 May cause cancer
Hazardous to the Environment	H411: Toxic to aquatic life with long lasting effects

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: Harmful if swallowed, harmful if inhaled, may be fatal if swallowed and enters airways, causes serious eye irritation, suspected of damaging fertility or the unborn child, may cause genetic defects, may cause cancer

Label elements



Hazard pictograms:

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Signal Word: Danger

Hazard Statements:

H302: Harmful if swallowed, H319: Causes serious eye irritation, H411 Toxic to aquatic life with long lasting effects, H361d Suspected of damaging fertility or the unborn child, H226 Flammable liquid and vapour, H332 Harmful if inhaled, H304 May be fatal if swallowed and enters airways, H340 May cause genetic defects, H350 May cause cancer

Precautionary Statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area. P264 Wash face, hands and any exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P201, Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P281 Use personal protective equipment as required. P210, Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233 Keep container tightly closed. P240, Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting/equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P301+P312, IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P303+P361+P353, IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340, IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P301+P310, IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P305+P351+P338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. P308+P313 IF exposed or concerned: Get medical advice/attention. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P331 Do NOT induce vomiting. P330 Rinse mouth. P370+P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction. P391 Collect spillage

Special labelling of certain mixtures: None

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
			EC1272/2008

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.

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SECTION 4. FIRST AID MEASURES

Description of first aid measures:

Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

In case of inhalation:

Move to fresh air. Keep patient warm and at rest. Call a physician or poison control centre immediately.

In case of skin contact:

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

In case of eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

In case of ingestion:

Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed:

Inhalation: Harmful if inhaled

Ingested: Harmful if swallowed

Eye contact: causes serious eye irritation

Advice to physician: Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote

Indication of any immediate medical attention and special treatment needed:

Immediate medical attention is required if exposure to the product. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Use carbon dioxide, dry chemical powder or foam

SMALL FIRE: See above.

LARGE FIRE: See above.

Unsuitable extinguishing media: Water jet. Use a water jet only to cool heated containers

Specific hazards arising from the mixture:

In the event of fire, the following may be released, Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx)

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Special firefighting procedures:

Contain the spread of the fire-fighting media. Do not allow run-off from firefighting to enter drains or water courses.

Advice for fire-fighters:

Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Keep all personal away. Avoid contact with eyes and skin. Do not breathe in fumes

For emergency responders: Alert firefighting personnel, evacuate unprotected personnel and animals. Do not breathe in fumes. Ventilate area of spill or leak, especially in contained areas. Avoid contact with eye and skin.

Protective equipment:

Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill.

Emergency procedures:

Alert fire-fighting personnel, evacuate unprotected personal and animals

Environmental precautions:

Do not allow to get into surface water, drains and ground water.

Methods and materials for containment and cleaning up:

Material for containment and cleaning up:

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container.

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.

Additional information: None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Use only in area provided with appropriate exhaust ventilation

General occupational hygiene:

Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

Conditions for safe storage, including incompatibilities:

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Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Protect from freezing. Keep away from direct sunlight. Keep away from food, drink and animal feeding stuffs.

Incompatible substances: None known

Packaging material:

HDPE (high density polyethylene)

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): None known

Biological exposure indices (BEI): None known.

Additional exposure limits under the conditions of use: None known.

Exposure control:

Appropriate engineering controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite 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 OSHA PELs 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.

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Where there is possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use

Respiratory protection:

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection:

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0,4 mm
Protective index	Class 6
Directive	Protective gloves complying with EN374.

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Eye/face protection:

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection:

Wear standard coveralls and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

Environmental exposure controls: Environmental manager must be informed of all major spillages.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form	Liquid, clear to slightly turbid
Colour	tan
Odour	aromatic
pH	5,0 - 7,0 (1 %) (23 °C) (deionized water)
Flash point	>148 °C
Vapour pressure	No data available
Density	ca. 0,98 g/cm ³ (20 °C)
Water solubility	emulsifiable
Partition coefficient: n-octanol/water	Prothioconazole: log Pow: 3,82 (20 °C) (pH 7) Tebuconazole: log Pow: 3,7 N,N-Dimethyldecanamide: log Pow: 2,46
Viscosity, dynamic	49,9 mPa.s (20 °C)
Surface tension ca.	29,1 mN/m (20 °C)
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive

Other information Further safety related physical-chemical data are not known.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

Thermal decomposition Stable under normal conditions.

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

No hazardous reactions when stored and handled according to prescribed instructions.

Conditions to avoid: Extremes of temperature and direct sunlight.

Incompatible materials: Store only in the original container.

Hazardous decomposition products: No decomposition products expected under normal conditions of use.

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SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

ACUTE TOXICITY:

Myclobutanil	
Acute toxicity	
Acute Oral LD ₅₀ (male rats)	1600 mg/kg
Acute Oral LD ₅₀ (female rats)	1800 mg/kg
Acute Dermal LD ₅₀ (rabbits):	>5000 mg/kg
Acute Inhalation LC ₅₀	5.1 mg/ℓ
Skin irritation/ corrosion (rabbits)	Not a skin irritant
Eye irritation (rabbits)	Cause serious irritation to the eyes
Respiratory or skin sensitization	Not a skin sensitizer
Germ cell mutagenicity	No data available
Carcinogenicity	May cause cancer
Reproductive toxicity	May cause genetic defects Suspected of damaging fertility or the 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

Assessment STOT Specific target organ toxicity – single exposure

Prothioconazole: Based on available data, the classification criteria are not met.

Tebuconazole: Based on available data, the classification criteria are not met.

N,N-Dimethyldecan-1-amide: May cause respiratory irritation.

Assessment STOT Specific target organ toxicity – repeated exposure

Prothioconazole did not cause specific target organ toxicity in experimental animal studies.

Tebuconazole did not cause specific target organ toxicity in experimental animal studies.

N,N-Dimethyldecanamide did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Tebuconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

N,N-Dimethyldecanamide was not genotoxic in a battery of in vitro tests.

Assessment carcinogenicity

Prothioconazole was not carcinogenic in lifetime feeding studies in rats and mice.

Tebuconazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver.

The mechanism of tumour formation is not considered to be relevant to man.

N,N-Dimethyldecanamide is not considered carcinogenic.

Assessment toxicity to reproduction

Prothioconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Prothioconazole is related to parental toxicity.

Tebuconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Tebuconazole is related to parental toxicity.

N,N-Dimethyldecanamide is not considered a reproductive toxicant at non-maternally toxic dose levels.

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Assessment developmental toxicity

Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole are related to maternal toxicity.

Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.

N,N-Dimethyldecanamide did not cause developmental toxicity in rats and rabbits.

Aspiration hazard: Based on available data, the classification criteria are not met.

Further information: No further toxicological information is available

SECTION 12. ECOLOGICAL INFORMATION

Anticipated behaviour of the chemical product in the environment /possible environmental impact/ecotoxicity:

Myclobutanil	
Acute toxicity	
Birds: LD ₅₀ for bobwhite quail Dietary LC ₅₀ (8 d) bobwhite quail and mallard ducks	510 mg/kg >5000 mg/kg
Fish LC ₅₀ (96 h) for bluegill sunfish Rainbow trout ELS NOEC for fathead minnows	4.4 mg/ℓ 2.0 mg/ℓ 1.0 mg/ℓ
Daphnia: LC ₅₀ (48 h)	17 mg/ℓ
Algae EC ₅₀ (96 h) <i>Scenedesmus subspicatus</i>	0.91 mg/ℓ
Other aquatic spp. NOEC for sediment-dwelling organisms (<i>Chironomus riparius</i>)	5.0 mg/ℓ
Bees – Non-toxic to bees LD ₅₀ (oral) LD ₅₀ (contact)	>171 µg “Systhane 20 EW” bee (>33.9 µg active /bee) 200 µg “Systhane 20 EW” bee (>39.6 µg active /bee)
Worms Acute LC ₅₀ for <i>Eisenia foetida</i> Reproduction NOEC for <i>Eisenia foetida</i>	99 mg/kg >10.3 mg/kg
Other beneficial spp.	Harmless in Tier 1 laboratory studies on <i>Aphidius rhopalosiphi</i> , <i>Pardosa</i> sp., and <i>Coccinella septempunctata</i>

Persistence and degradability

Biodegradability Prothioconazole: Not rapidly biodegradable

Tebuconazole: Not rapidly biodegradable

N,N-Dimethyldecanamide: rapidly biodegradable

Koc

Prothioconazole: Koc: 1765

Tebuconazole: Koc: 769

Bioaccumulative potential

Bioaccumulation

Prothioconazole: Bioconcentration factor (BCF) 19: Does not bioaccumulate.

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Tebuconazole: Bioconcentration factor (BCF) 35 – 59: Does not bioaccumulate.

N,N-Dimethyldecanamide: Does not bioaccumulate.

Mobility in soil

Prothioconazole: Slightly mobile in soils

Tebuconazole: Slightly mobile in soils

N,N-Dimethyldecanamide: Slightly mobile in soils

PBT and vPvB assessment

Prothioconazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Tebuconazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

N,N-Dimethyldecanamide: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Additional ecological information

No other effects to be mentioned

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General Information: Do not discharge into drains, water courses or onto the ground. Discharge, treatment or disposal may be subject to national, state, or local laws. Empty containers may contain product residues. Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Disposal Methods: Destroy the container by perforating and flattening and dispose of through an approved waste dump site, incineration plant or recycling company.

Container: Since emptied containers retain product residue, follow label warnings even after container is emptied.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number: 3082

Un proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBUCONAZOLE, PROTHIOCONAZOLE SOLUTION)

UN Classification transport hazard class(es): 9

Packing group (if applicable) III

Marine pollutant (Y/N) Yes, Considered a marine pollutant

Transport in bulk according to MARPOL 73/78, Annex II and the IBC Code: Not available

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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 Substances.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC

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

SANS 11014:2010 – Safety data sheet for chemical products, Content and order section

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.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

GHS aligned

Relevant classification and H statements (number and full text):

H302: Harmful if swallowed, H319: Causes serious eye irritation, H411 Toxic to aquatic life with long lasting effects, H361d Suspected of damaging fertility or the unborn child, H226 Flammable liquid and vapour, H332 Harmful if inhaled, H304 May be fatal if swallowed and enters airways, H340 May cause genetic defects, H350 May cause cancer

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.

Notice to readers:

To the best of our knowledge, the information contained herein is accurate and is based on the present state of our knowledge and does not therefore guarantee specific properties. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for any accuracy or completeness of the information contained herein.

Final determinations of suitability of any material are sole responsibility of the users, who must take responsibility for observing existing laws and regulations. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.