

FARM-AG INTERNATIONAL (Pty) Ltd

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**Product Name:** FARMAG IMAZALIL 750 WG

Fungicide

UN No.: 3077

Creation Date: October 2008**Revision Date:** August 2017**24 Hr Emergency Number:** 082 771 2712**In case of poisoning:**

Poison Information Centre: 082 446 8946

Tygerberg Hospital: (021) 931 6129

Poison Emergency Enquiries (021) 689 5227

In case of Spillage:

HAZMAT: 0800 147 112

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS**Common Name:** imazalil**Chemical Name:** (±)-1-(b-allyloxy-2,4-dichlorophenylethyl)imidazole; allyl (±)-1-(2,4-dichlorophenyl)-2-imidazol1-ylethyl ether (IUPAC)**CAS No.:** 58594-72-2**Chemical family:** imidazole**Chemical formula:** C₁₄H₁₆Cl₂N₂O₅S (Mol. Wt. 395.2)**Use:** Systemic fungicide for post-harvest treatment of citrus fruit**Formulation:** imazilil (as sulphate): 750g/kg Water soluble powder**Hazardous ingredients:** imazalil**SYMBOL:** Xn, Xi, N**Indication of danger:** Harmful if swallowed, Irritant, Dangerous to the environment.**RISK PHRASES:** R20/22, R41, R50/53**SECTION 3 - HAZARD IDENTIFICATION****Toxicity class:** WHO II; EPA II**Human health hazards:** Harmful if swallowed or inhaled. Risk of serious damage to eyes.**Environmental hazards:** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS**

Symptoms of poisoning may include lethargy, ataxia, diarrhea, convulsions and salivation.

Inhalation:

Remove source of contamination, or leave contaminated area to fresh air as rapidly as possible. Obtain medical attention.

Skin contact:

If irritation occurs, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists, seek medical advice immediately.

Eye contact:

Immediately flush eyes with gently flowing lukewarm water for 15 minutes, holding the eyelids open. Seek medical attention immediately.

Ingestion:

In case of ingestion, have victim drink large quantities of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice.

Advice to physicians:

No specific antidote known. Symptomatic treatment.

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SECTION 5 - FIRE-FIGHTING MEASURES

Fire and explosion hazard:

Slight fire hazard when exposed to heat or flame.

Extinguishing media:

Extinguish small fires with Carbon dioxide, dry chemical powders or alcohol-resistant foam. Water spray can be used for cooling off unaffected stock, but avoid water coming in contact with the product.

Fire-fighting:

Use the maximum distance possible to fight fire. Remove containers from the fire area if possible. Contain fire control agents for disposal at a later stage. Use of water is advised to cool off unaffected containers.

Protection:

Wear self-contained breathing apparatus with full face-piece and full-length protective clothing, boots and chemical impermeable gloves, should the chemical be involved in a general fire. Toxic fumes may be given off in fire. No unprotected person should be allowed in the vicinity. Avoid contamination of surrounding vegetation. The product is toxic to fish and wildlife.

SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Occupational spill:

Keep spectators away. Isolate hazard area and deny entry. Stay upwind, out of low-lying areas, and ventilate closed spaces before entering. Cover spill with absorbent material. Sweep into disposal container. Wash area with detergent and water and follow with clean water rinse. Do not allow spill to contaminate water supplies. Dike far ahead of liquid spills for later disposal. 4

Personal precautions:

Chemical protective clothing usage is advised, i.e. wear neoprene gloves, cotton overalls, safety goggles, boots and adequate respiratory protection as indicated by circumstances. Report incident to emergency personnel in the event of a large spill.

Environmental:

Prevent contamination of sewers, waterways, drinking water, grazing, crops and low areas. Material is toxic to fish and wildlife.

Prevention of secondary hazard:

Inspect for damaged containers and take the necessary precautions.

SECTION 7 - HANDLING AND STORAGE REQUIREMENTS

Handling:

Read and observe precautions on product label. Relatively safe to handle. Handle with the care and caution due to crop protection chemicals. Avoid spillage. Poisonous by inhalation, skin, eyes and ingestion. Poisonous if swallowed or inhaled. Never repack from this container.

Storage:

Read and observe precautions on product label. Store in a dry, cool covered warehouse in well-labeled containers. Store under lock and key, out of reach of children, uninformed persons and animals. Store away from food, feedstuffs, fertilizers, seed and agricultural chemicals. Local regulations should be complied with.

Cleaning of equipment:

Clean protective clothing, used protective clothing and workers personal clothing shall be kept apart. All protective clothing and respirators shall be decontaminated, washed, rinsed and dried at the end of each day. Wash equipment after use with wetting agent. Extra care must be taken when cleaning equipment after use not to contaminate all sources of drinking water, rivers, dams and other crops.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure limits:

Effective ventilation to be maintained while handling the product.

Personal protective equipment:

Wear protective equipment during manufacturing, mixing of concentrate and application.

Respiratory: In case of insufficient ventilation, wear adequate respiratory protection.

Hand: Gloves of synthetic material.

Eye: Safety goggles or safety shield.

Emergency eye wash: Where there is any 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.

Skin and body: Wear suitable protective clothing, e.g. cotton overalls and boots. Wash exposed skin areas, face and hands after handling.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white granule
Odour:	Slight odour
Flash point:	Not explosive
Explosive properties:	Not explosive
Melting point:	128-134° C
Decomposition temp:	Not known
pH :	3.00
Density:	0.46 g/ml (26°C)
Solubility in water:	Readily soluble in water >500 g/l
Partition coefficient in n-octanol / water:	(data for technical material) Log Pow : 3.76

SECTION 10 - STABILITY AND REACTIVITY

STABILITY AND REACTIVITY

Storage stability: Stable at elevated temperatures and at low temperatures. Do not store near crop protection chemicals, feed, fertilizers or seed. Avoid mild steel, copper and aluminium and exposure to light.

Compatibility: Compatible with most other fungicides, except those alkaline in nature. However a compatibility test is required before using with other products.

Thermal decomposition: Formation of toxic oxides of carbon, nitrogen and chlorine on heating.

SECTION 11 - TOXICOLOGICAL INFORMATION

Data for technical material of imazalil

Acute oral LD₅₀:	320 mg/kg (rat)
Acute dermal LD₅₀:	4200-4880 mg/kg (rat)
Acute Inhalation LC₅₀:	Harmful if inhaled. LC ₅₀ – 4Hr > 0.66 mg/l
Acute skin irritation:	Moderate
Acute eye irritation:	Moderate
Teratogenicity, Carcinogenicity, Mutagenicity:	No effect detected in animals.

SECTION 12 - ECOLOGICAL INFORMATION

Degradability:

The product is primarily applied to commodities after harvesting and therefore, environmental exposure to imazalil is minimal. The product has a half-life of 30-170 days.

ECOTOXICOLOGY

No data on 750 SP. All data on imazalil.

Birds:

Practically non-toxic.

Bobwhite quail – LC₅₀ (8 weeks): >1 000 mg/kg.

Mallard duck – LC₅₀ (8 days) : >2 510 mg/kg

Ring-neck pheasant – LD₅₀ (acute oral): 200 mg/kg

Fish:

Toxic to fish.

Rainbow trout – LC₅₀ (96 hr): 1.5 mg/l.

Bluegill sunfish – LC₅₀ (96 hr): 4.04 mg/l.

Bees:

Low toxicity to bees.

LD₅₀ (oral): 40µg/bee.

Daphnia:

Toxic to Daphnia magna. EC₅₀ (48 hr): 3.5 mg/l.

Earthworms:

No data available.

Soil micro-organisms:

No data available.

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SECTION 13 - DISPOSAL CONSIDERATION

Controlled incineration:

Incineration at high temperatures (1 000 °C) with sufficient residence time leads to complete detoxification and destruction and is the most environmentally acceptable method for disposal or buried in an approved landfill. Hydrolysis under alkaline conditions is a suitable method to dispose of small quantities of the product. Heating speeds up the process. After hydrolysis, dilute and dispose of via the sewage system. Comply with local legislation applying to waste disposal.

Package product wastes:

Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to drip. Thereafter rinse empty container three times with a volume of water equal to 10 % of that of the container. Add the rinsing to the contents of the spray tank. Combustible containers should be disposed of in pesticide incinerators or in specified landfill sites. Non-combustible containers must be triple rinsed with water, punctured and disposed of in specified landfill areas. Do not re-use container for any other purpose.

14. TRANSPORT INFORMATION

UN NUMBER: 3077**ADR/IRD:****Packaging group:** III**Class:** 9**Shipping name:** Environmentally hazardous substance, solid, N.O.S. (imazalil sulphate 75%).

15. REGULATORY INFORMATION

Symbol: Xn; Xi; N**Risk phrases:**

R20/22 Harmful by inhalation and if swallowed.

R41 Risk of serious damage to eyes.

R50/53 Very toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment. Safety phrases:

S2 Keep out of reach of children.

S13 Keep away from food, drink and animal feeding stuffs.

S25 Avoid contact with eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39 Wear suitable gloves and eye/face protection. This material and its container, must be disposed of as hazardous waste.

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment.

Indication of danger: Harmful. Irritant; Dangerous for the environment.

16. OTHER INFORMATION

Packed in 670g plastic containers and labelled according to South African regulations and guidelines.

Disclaimer:

All information and instructions provided in this Material Safety Data Sheet are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

To the best of FarmAg International (Pty) Ltd Protection's knowledge, the above information is true and accurate as of the date of preparation of this material safety data sheet. The above information is not intended to be exhaustive. Additional or other information may be required depending on actual conditions of use and handling. FarmAg International (Pty) Ltd makes no warranties, expressed or implied and shall not be liable for any damages or injury, howsoever caused, arising out of the use of this data sheet.