

Material Safety Data Sheet



Issue No.: 2	1 st Edition: September 2005	Revision date: February 2010
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1. Identification of the material/supplier

Product Name: **ImazaCure 750 SG**
Other names: Imazalil sulphate
Recommended Use: Agricultural fungicide
Supplier: ICA International Chemicals (Pty) Ltd
Address: 28 Planken Street
Plankenbrug Industrial
STELLENBOSCH · 7600 · SOUTH AFRICA
Telephone No.: +27 (0) 21 886 9812
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2. Hazard Identification

Hazard Symbol: Xn; Xi; N.
Indication of Danger: Harmful; Irritant; Dangerous for the environment.
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
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S39: Wear eye/face protection.
S60/61: This material and its container must be disposed of as hazardous waste. Avoid release to the environment.

3. Composition/information on ingredients

INGREDIENT(s)	CAS NO.:	Classification	Proportion
Imazalil sulfate (ISO) 1-[2-(allyloxy)ethyl-2-(2,4-dichlorophenyl)]-1H-imidazolium hydrogen sulphate	58594-72-2/ 83918-57-4	<u>Classification:</u> Xn; R: 20/22; Xi; R41 N; R50/53 <u>Labelling:</u> Xn, N; R: 20/22; 41; 50/53 S: (2); 26; 39; 60/61	99-100 %

4. First Aid Measures

SHOW THIS MATERIAL AND SAFETY DATA SHEET TO A DOCTOR.

Types of Hazard / Exposure	Acute	Prevention	First Aid
INHALATION	DO NOT inhale spray mist or smoke.	Use in well ventilated area. Self-contained breathing apparatus	Move victim to fresh air; call emergency medical care. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
EYES	Redness and pain Can cause serious damage to eyes; highly irritating to the eye.	Wear safety goggles	Rinse eyes IMMEDIATELY with plenty of water for several minutes. Hold eyelids apart. Remove contact lenses if easily possible. Get medical attention.
ORAL (INGESTION):	Harmful if swallowed.	DO NOT eat, drink or smoke during work. Wash hands before eating	Rinse/wash mouth with water. DO NOT induce vomiting. Give water to drink to dilute the swallowed substance. Refer for medical attention.
SKIN	<i>May</i> cause sensitisation by skin contact.	Wear chemical resistant gloves	Remove contaminated clothes. Rinse skin with plenty of water or shower.

5. Fire Fighting measures

SMALL FIRES:

- Not a flammable product.
- Incompatible with strong oxidising agents, strong acids, reducing agents, bases.
- Dry chemical or CO₂.

LARGE FIRES:

- Water spray, or regular foam.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.

Hazards Gives off irritating or toxic fumes in a fire.

Precautions for fire fighters and special protective equipment Full protective clothing including self-contained breathing apparatus. Prevent people from exposure to smoke and fumes.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK:

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak or cover with plastic sheet to prevent spreading/leaking.
- Sweep spilled substance into sealable containers. Carefully collect remainder, then remove to safe place.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	<ul style="list-style-type: none">Wash hands thoroughly with soap and water after use and before eating or drinking.Keep separated from food and feedstuffs.Keep containers well closed.
ROUTES OF EXPOSURE:	<ul style="list-style-type: none">Always store pesticides in their original containers. <i>Never</i> transfer pesticides to soft drink bottles or <i>ANY</i> other containers. Children or others may mistake them for something to eat or drink.Keep out of reach of children.
INHALATION RISK:	<ul style="list-style-type: none">Do not inhale spray or mist. Keep in well ventilated area.
CONDITIONS FOR SAFE STORAGE	<ul style="list-style-type: none">DO NOT re-use the container for any other purpose.Use only plastic containers.Make provision to contain effluent from fire extinguishing.Keep separated from food and feedstuffs. Well closed. Keep in a well-ventilated room and secure area. Do not store in direct sunlight.Keep away from children.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:	TLV not established
ENGINEERING CONTROLS:	Facilities should be equipped with an eyewash facility and a safety shower.
PERSONAL PROTECTIVE EQUIPMENT:	EYES: Safety goggles or face shield. GLOVES: Wear chemical resistant PVC gloves. RESPIRATORY: If inhalation of spray mist is likely to occur wear a self-contained breathing apparatus. Use in well ventilated area ONLY. In case of insufficient ventilation, wear suitable respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE (colour, physical form:)	White/Cream granules
ODOUR:	Strong chemical
pH:	1 - 3 (CIPAC F MT 75.3)
MELTING POINT:	118 to 130 °C
Dissolution degree/	Residue after 5 min: NONE
Solution stability:	Residue after 18 h: NONE
INCOMPATIBILITY:	NOT compatible with fruit waxes, strong oxidising agents, strong acids, reducing agents and bases.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under normal conditions, but decomposes upon exposure to light.
CONDITIONS TO AVOID:	Protect from direct sunlight, open flames and heat sources. Decomposes upon heating.
INCOMPATIBLE MATERIALS:	Strong oxidizing agents, strong acids, reducing agents and bases.
HAZARDOUS DECOMPOSITION PRODUCTS:	The substance decomposes on burning producing toxic fumes of SO _x , NO _x , CO ₂ and chlorides.

11. TOXICOLOGICAL INFORMATION

ANIMAL ACUTE TOXICITY DATA (PRODUCT)

ORAL:	LD ₅₀ (rat)	Between 300 and 2000mg/kg
DERMAL:	LD ₅₀ (rat)	>2000mg/kg
INHALATION:	LC ₅₀ rat	>between 0.53 and 3.35 mg/L air. No risk due to dust inhalation.
DERMAL IRRITATION:	Rabbit (OECD 404)	Irritating to skin.
EYE IRRITATION:	Rabbit (OECD 405)	Severely irritating to eyes

12. ECOLOGICAL INFORMATION:

The substance is VERY TOXIC TO AQUATIC ORGANISMS.

Avoid release to the environment in circumstances *different from normal use.*

ECOTOXICITY: Imazalil sulphate:	Fish:	<ul style="list-style-type: none">LC₅₀ (96hr) = 1.48mg/L (Rainbow trout)Bioaccumulation = BCF 48.7 to 63.8 (Rainbow trout)LC₅₀ (96hr) = 2.75mg/L (Zebra fish)EC₅₀ (48hr) = 3.5mg/L (Daphnia magna)
	Bees	<ul style="list-style-type: none">Not toxic to bees.Acute contact (product) LD₅₀ = 39mg/bee (48 hours)(Honey bee)Acute oral toxicity LD₅₀ = 35.1mg/bee (48 hours)(Honey bee)
	Birds	<ul style="list-style-type: none">Not hazardous to birds.5-day Dietary toxicity LD₅₀ > 5620 mg/kg food (mallard duck)LD₅₀ = 2000 mg/kg (Ring-necked pheasants)
	Earthworms	<ul style="list-style-type: none">Acute toxicity LC₅₀ > 541 mg/kg soil
ECOLOGICAL FATE & RISKS:		<ul style="list-style-type: none">The use of currently registered products containing imazalil in accordance with approved labelling will not pose unreasonable risks or adverse effects to humans or the environment.

13. DISPOSAL CONSIDERATIONS:

Do not use fungicide containers or packaging material for storing water or food. Triple or preferable pressure rinse empty containers with clean water before disposal. Add rinsing to spray/mixing tank. Do not dispose of undiluted chemical on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. IF NOT recycling, break crush or puncture and bury empty containers in a local authority landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of any water source (river, dam, spring, or borehole). Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION:

HAZARD WARNING:	Class 9
UN NUMBER:	3077
PROPER SHIPPING NAME:	Environmentally hazardous substance, solid, n.o.s.
CLASS AND SUBSIDIARY RISK(S):	Xn; R50/R53
PACKING GROUP:	III (minor danger)
HAZCHEM CODE:	None allocated

15. REGULATORY INFORMATION:

16. OTHER INFORMATION

This Material and Safety Data Sheet replace the previous version dated September 2005.

Reason for update: To conform to the SABS ISO 11014-1: 1994 standard of the 16 Header Format.

This information concerns only the product conforming to its specifications and limits to the uses herein stated. This sheet complements the technical sheet of use but does not replace it. The information contained on this sheet is based on knowledge of the product on date of publication. It is given in good faith.

The data does not signify any warranty with regard to the product properties. This Material Safety Data Sheet (MSDS) summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how to prevent accidents in the normal workplace including in conjunction with other products. Care for the environment is essential for our future.

Abbreviations and Acronyms:	ADG:	Australian Dangerous Goods Code, Rail & road 6 th edition
	CAS Number:	Chemical Abstract Service Registry Number
	NOHSC:	National Occupational Health and Safety Commission

END of MSDS