

# Material Safety Data Sheet

Issue No: 2.2

Issue Date: 23 May 2018

## 1. Identification of the material/supplier

**Product Name:** ImazaCure 750 SG  
**Other names:** Imazalil sulphate (Soluble Granule)  
**Recommended Use:** Agricultural fungicide(systemic)  
**Supplier:** ICA International Chemicals (Pty) Ltd  
**Address:** 28 Planken Street  
 Plankenbrug Industrial  
 STELLENBOSCH ▪ 7600 ▪ SOUTH AFRICA  
**Telephone No:** +27 (0) 21 886 9812  
**Fax No:** +27 (0) 21 886 8209  
**Emergency Tel. No:** Griffon Poison Information Centre +27 82 446 8946  
 Poisons Helpline 0861 555 777

## 2. Hazard Identification

**Hazard Symbol:** Xn; N.  
**Indication of Danger:** Harmful; 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.  
 S24/25-37: Avoid contact with skin and eyes. Wear suitable gloves.  
 S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S39: Wear eye/face protection.  
 S46: If swallowed, seek medical advice immediately and show this container or label.  
 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:	Hazardous Classification for ACTIVE INGREDIENT (EU standard)	Proportion
1-[2-(allyloxy)ethyl-2-(2,4-dichlorophenyl)]-1H-imidazolium hydrogen sulphate [Imazalil sulfate (ISO) powder	58594-72-2	Conc >= 25%: Xn; R22; R43 <b>Classification:</b> Xn; R: 20/22; N; R50-53 <b>Labelling:</b> Xn, N; R: 22-43-50/53 S : (2); 24/25-37-46-60-61	99-100%  (Imazalil as sulphate = 750g/kg)

## 4. FIRST AID MEASURES

**Show this MATERIAL SAFETY DATA SHEET to a doctor.**

**INHALATION:** If experiencing respiratory symptoms, remove person to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Call for medical assistance.

**EYES:** Rinse eyes IMMEDIATELY with clean water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing while holding eyelids apart. Seek medical assistance if irritation continues.

**SKIN:** Remove contaminated clothing. Rinse affected areas (skin) immediately with plenty of water/shower. Wash contaminated clothing before re-use.

**INGESTION:** If swallowed, DO NOT induce vomiting. Never give anything to an unconscious person. Rinse mouth with water. If vomiting does occur, keep on giving fluids. Get medical advice.

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### 5. Fire Fighting measures

#### SMALL FIRES:

- Not a flammable product.
- Incompatible with strong oxidising agents, strong acids, reducing agents, bases.
- Dry chemical or CO<sub>2</sub>.

#### LARGE FIRES:

- Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- 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.
- Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
- Pick up without creating dust and put substance into sealable containers for safe disposal.
- Prevent contaminating waterways and/or rivers. Do not let product enter drains or be discharge into the environment.

### 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:**

- Avoid formation of dust and aerosols.
- Provide appropriate exhaust ventilation at places where dust is formed.
- Keep containers well closed.

**ROUTES OF EXPOSURE:**

- **IRRITANT: Eyes and Inhalation:** Wear eye protection (safety glasses) to avoid contact with eyes. Avoid inhalation of dust, wear a dust mask. Ensure adequate ventilation.
- Keep out of reach of children.

**CONDITIONS FOR SAFE STORAGE**

- Do not store in direct sunlight.
- Store in a cool, dry, well-ventilated room and secure area.
- Keep containers well closed. Keep separated from food and feedstuffs.
- Always store fungicides in their original containers. **Never transfer** fungicides to soft drink bottles or ANY other containers. Children or others may mistake them for something to drink.

### 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 glasses or face shield.  
**SKIN:** Wear chemical resistant PVC gloves.  
**RESPIRATORY:** Wear a dust mask (type N95 – US) or 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/Solution stability:** Residue after 5 min: NONE  
Residue after 18 h: NONE

**INCOMPATIBILITY:** NOT compatible with fruit waxes, strong oxidising agents, strong acids, reducing agents and bases.

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### 10. STABILITY AND REACTIVITY

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

### 11. TOXICOLOGICAL INFORMATION

#### ANIMAL ACUTE TOXICITY DATA (PRODUCT)

<b>ORAL:</b>	LD <sub>50</sub> (rat)	500mg - 664mg/kg
<b>DERMAL:</b>	LD <sub>50</sub> (rat)	>2000mg/kg
<b>INHALATION:</b>	LC <sub>50</sub> rat	>between 2.430mg – 2.802 mg/L air.
<b>DERMAL IRRITATION:</b>	Rabbit (OECD 404)	Mild irritant to skin.
<b>EYE IRRITATION:</b>	Rabbit (OECD 405)	Severe eye irritant.

### 12. ECOLOGICAL INFORMATION:

**The substance is VERY TOXIC TO AQUATIC ORGANISMS.**  
**Avoid release to the environment in circumstances different from normal use.**

<b>ECOTOXICITY:</b> <b>Imazalil sulphate:</b>	Fish:	<ul style="list-style-type: none"> <li>• LC<sub>50</sub> (96hr) = 1.48mg/L (Rainbow trout)</li> <li>• Bioaccumulation = BCF 48.7 to 63.8 (Rainbow trout)</li> <li>• LC<sub>50</sub> (96hr) = 2.75mg/L (Zebra fish)</li> <li>• EC<sub>50</sub> (48hr) = 3.5mg/L (Daphnia magna)</li> </ul>
	Bees	<ul style="list-style-type: none"> <li>• Not toxic to bees.</li> <li>• Acute contact (product) LD<sub>50</sub> = 39µg/bee (48 hours)(Honey bee)</li> <li>• Acute oral toxicity LD<sub>50</sub> = 35.1µg/bee (48 hours)(Honey bee)</li> </ul>
	Birds	<ul style="list-style-type: none"> <li>• Not hazardous to birds.</li> <li>• 5-day Dietary toxicity LD<sub>50</sub> &gt; 5620 mg/kg food (mallard duck)</li> <li>• LD<sub>50</sub> = 2000 mg/kg (Ring-necked pheasants)</li> </ul>
	Earthworms	<ul style="list-style-type: none"> <li>• Acute toxicity LC<sub>50</sub> &gt; 541 mg/kg soil</li> </ul>
	<b>ECOLOGICAL FATE &amp; RISKS:</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>

### 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:

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

## Material Safety Data Sheet

### 15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements.

Hazard Symbol:



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 (EPA).

### 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 <sup>th</sup> edition
CAS Number:	Chemical Abstract Service Registry Number
NOHSC:	National Occupational Health and Safety Commission

This MSDS is valid for three years from date of issue

END of MSDS