

Safety Data Sheet

Issue No: 2.1

Issue date: October 2021

1. Identification of the material/supplier

Product Name IMACULATE 300 EC
Other names Imazalil
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
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Emergency Tel No. Griffon Poison Information Centre no: +27 82 446 8946
 Poisons Helpline 0861 555 777

2. Hazard Identification

GHS classification of product

Flammable Liquid Category 3
 Acute Oral Toxicity Category 4
 Acute Dermal Toxicity Category 5
 Acute Inhalation Category 5
 Skin irritant Category 2
 Irritating to eyes Category 2A
 Skin sensitiser Category 1B
 Hazardous to the aquatic environment, long-term Category 2

GHS Label elements



Signal Word

Warning

Hazard Statements

H226 Flammable liquid and vapour
 H302 Harmful if swallowed
 H313 May be harmful in contact with skin
 H315 Causes skin irritation
 H317 May cause an allergic skin reaction
 H319 Causes serious eye irritation
 H333 May be harmful if inhaled
 H411 Toxic to aquatic life with long lasting effects

Precautionary Statements

P101: If medical advice is needed: Have product container or label at hand.
 P102: Keep out of reach of children.
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P261: Avoid breathing mist, vapours and spray.
 P264: Wash thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P273: Avoid release to the environment.
 P280: Wear protective gloves, protective clothing, eye protection and face protection.
 P391: Collect spillage.
 P301+312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
 P303+P361+P353: IF ON SKIN: (or hair): Take off immediately contaminated clothing. Rinse skin with water/shower, use soap.
 P304+P312: IF INHALED: Call a POISON CENTER/DOCTOR if you feel unwell.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
 P330: IF SWALLOWED: Rinse mouth.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P362+P364: Take off contaminated clothing and wash before reuse.
 P370 + P378: In case of fire: Use carbon dioxide, foam or dry chemical to extinguish.
 P403 + P235: Store in a well-ventilated place. Keep cool.
 P501: Dispose of contents and container in accordance with local regulation.

3. Composition/information on ingredients			
INGREDIENT(s)	CAS NO.:	Current entry in EU Annex VI CLP Regulation (Technical Material)	Proportion
±-1-[β-Allyloxy-2,4-Dichlorophenylethyl)imidazole [Imazalil (ISO)]	35554-44-0	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	± 30%
Other components		Strictly confidential	To 100%

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.

5. FIRE FIGHTING MEASURES:

SMALL FIRES:

- Extinguishing media: Carbon dioxide, foam, dry chemical and water fog.

LARGE FIRES:

- Apply water in large quantities (flooding) as a mist or spray.
- Keep unopened containers cool with flooding amounts of water.

Products of decomposition: Fumes, smoke and carbon monoxide.

Precautions for fire fighters and special protective equipment:

For fires in enclosed areas, fire fighters must use Self-Contained Breathing Apparatus.

Water spray should only be used to keep fire-exposed containers cool, flush spills away from exposures, disperse vapours and protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.

6. ACCIDENTAL RELEASE MEASURES:

SPILL OR LEAK:

- Avoid breathing vapours, mist or gas. Remove all sources of ignition. Do not let product enter drains or waterways.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak or cover with plastic sheet to prevent spreading/leaking.
- Contain spillage and then collect with non-combustible adsorbent material (e.g. sand or earth) and place into sealable containers for disposal.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

- No Smoking. DO NOT expose to heat or flames. Keep away from sources of ignition.
- Keep out of reach of children.

ROUTES OF EXPOSURE:

- Avoid heat, sparks, flame and build-up of static electricity.
- Wear eye protection (safety glasses) to avoid contact with eyes.
- Avoid inhalation of vapour or mist, wear a self-contained breathing apparatus.

CONDITIONS FOR SAFE STORAGE

- Store away from strong oxidisers.
- Do not store in direct sunlight.
- Store in a cool, dry, well-ventilated room and secure area.
- Keep containers well closed.
- Always store fungicides in their original containers.
- Keep separated from food and feedstuffs.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: No unacceptable health risk for operators or other workers identified
 AOEL 0.05 mg/kg bw/day

ENGINEERING CONTROLS:	Facilities should be equipped with an eyewash facility and a safety shower.
PERSONAL PROTECTIVE EQUIPMENT:	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. EYES: Safety glasses or face shield. GLOVES: Wear chemical resistant PVC gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES	
APPEARANCE (Physical, colour, aspect:)	Clear, yellow liquid
ODOUR:	Strong chemical odour
pH:	~ pH 6-8
DENSITY:	~ 1.004 g/cm ³
VISCOSITY:	20°C = 24 mN/m
CORROSIVE:	Not a corrosive material
FLASH POINT:	32 °C closed cup
PERSISTANT FOAM:	No foam after 1 min
SURFACE TENSION:	26.6 mN/m
COMPATIBILITY:	Compatible with citrus wax

10. STABILITY AND REACTIVITY	
CHEMICAL STABILITY:	Stable under normal conditions.
CONDITIONS TO AVOID:	Protect from direct sunlight, open flames and heat sources.
INCOMPATIBILITY:	Incompatible with strong oxidising agents, strong acids agents and bases.
HAZARDOUS DECOMPOSITION PRODUCTS:	The substance decomposes on burning producing toxic fumes of nitrogen oxides and chloride.

11. TOXICOLOGICAL INFORMATION: ATE		
ANIMAL ACUTE TOXICITY DATA		
ORAL:	LD ₅₀ (rat)	500 mg/kg (Cat.4)
DERMAL:	LD ₅₀ (rat)	>2000 mg/kg (Cat. 5)
INHALATION:	LC ₅₀ rat	>5.667 mg/ℓ air (Cat. 5)
DERMAL IRRITATION:	Rabbit	Irritant to skin. (Cat. 2)
SKIN SENSITISATION:	Guinea Pig	Positive as skin sensitiser (Cat. 1B)
EYE IRRITATION:	Rabbit	Irritating to eyes (Cat. 2A)

12. ECOLOGICAL INFORMATION: ATE	
Avoid release to the environment in circumstances different from normal use.	
ECOTOXICITY:	<ul style="list-style-type: none"> Fish: <ul style="list-style-type: none"> • LC₅₀ (96hr) = 7.07 mg/ℓ (<i>Danio rerio</i>) similar product • NOEC (mg ℓ⁻¹) Chronic 21 day = 0.143 mg/ℓ <i>Oncorhynchus mykiss</i> ETA Algae: <ul style="list-style-type: none"> • EC₅₀ (72hr) = 1.65 mg/ℓ (<i>Pseudokirchneriella subcapitata</i>) similar product • EC₅₀ (72hr) = 2.9 mg/ℓ (<i>Raphidocelis subcapitata</i>) ETA • EC₅₀ = 2.6 mg/ℓ <i>Selenastrum capricornutum</i> ETA • NOEC = 1.38 mg/ℓ <i>Selenastrum capricornutum</i> ETA Daphnia: <ul style="list-style-type: none"> • EC₅₀ (48hr) = 2.88 mg/ℓ (<i>Daphnia sp</i>) similar product Bees: <ul style="list-style-type: none"> • Acute contact (product) LD₅₀ = 39 mg/bee (48 hours) similar product • Acute oral toxicity LD₅₀ = 35.1 mg/bee (48 hours) similar product Avian/Bird: <ul style="list-style-type: none"> • LD₅₀ > 577.3mg/kg body weight (Japanese quail) similar product Earthworm: <ul style="list-style-type: none"> • LC₅₀ (14 days) = 671.3 mg/kg soil (<i>Eisenia foetida</i>) similar product Bioaccumulation: <ul style="list-style-type: none"> • BCF 48.7 to 63.8
NO mutagenic effects; NO long term effects on carbon or nitrogen transformation process by soil microorganisms.	

13. DISPOSAL CONSIDERATIONS:


On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities.

Invert empty container over mix or spray tank and allow draining for at least 30 seconds until flow has slowed to a drip. Triple rinse the empty container with clean water equal to a minimum of 30 % of the volume of the container. Add rinsing to the contents of the spray tank. Replace cap and return clean container to recycler. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. Do not use container for any other purpose.

DO NOT burn empty containers or product.

DIP Disposal: According to local legislative requirements

14. TRANSPORT INFORMATION:

UN NUMBER:	1993
UN PROPER SHIPPING NAME:	FLAMMABLE LIQUID, N.O.S. (MIXTURE contains imazalil, petroleum solvent, alcohols) Class 3 PG III (32 Celsius degrees c.c.) MARINE POLLUTANT
TRANSPORT HAZARD CLASS	3
HAZARD LABEL	
PACKING GROUP:	III
ENVIRONMENTAL HAZARD	Hazardous to the aquatic environment, long-term Category 2

15. REGULATORY INFORMATION:

The use products containing imazalil usage in accordance with approved labelling will not pose unreasonable risks or adverse effects to humans or the environment. South African registration number L7927, Act 36 of 1947

16. OTHER INFORMATION

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 Safety Data Sheet (SDS) summarises to our best knowledge 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.

190119 – Flammability updated

211025- Update density, pH range, composition

This SDS is valid for five years from date of issue

END of SDS