

Material Safety Data Sheet

Issue No.: 1.2	1 st Edition: 22/05/2009	Revision date: 29 Oct 2009
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1. IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

Product Name: **Iproflo**
 Other names: None
 Chemical Group: Dicarboximide
 Recommended Use: Fungicide for agriculture use
 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 Phone No.:

2. HAZARD IDENTIFICATION

Hazard: **HAZARDOUS SUBSTANCE. NON-DANGEROUS GOOD**
 Classification: Classified as “hazardous” according to the criteria of NOHSC
 WHO classification: U, Unlikely to be Hazardous
 ADG Code classification: Classified as a “non-dangerous good” according to the Australian Code for the transport of Dangerous Goods by Road and Rail. If Shipped by sea, the product is a Class 9 - ENVIRONMENTALLY HAZARDOUS SUBSTANCE.
 SUSDP Classification: Poison schedule - EXEMPT.
 Risk Phrases: R40; Carc. Cat 3 - Harmful, limited evidence of a carcinogenic effect.
 N - Dangerous for the environment;
 R50 - Very toxic to aquatic *organisms*;
 R53 - May cause long-term adverse effects in the aquatic environment;
 Safety Phrases: S (2) - Keep out of reach of children
 S36 - Wear suitable protective clothing;
 S37 - Wear suitable gloves
 S60 - This material and its container must be disposed of as hazardous waste.
 S61 - Avoid release to the environment. Refer to special instructions.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(s)	CAS NO.:	US EPA PC Code	Label Classification	Proportion
Iprodione 3-(3,5-Dichlorophenyl)-2,4-dioxo-N isopropylimidazolidine-1-carboxamide	36734-19-7	109801	Xn ; N ; R: 40 - 50/53 S: (2)36/37 - 60 - 61	50%
Other non-hazardous ingredients, including water				To 100%

4. FIRST AID MEASURES

Show this MATERIAL SAFETY DATA SHEET to a doctor.

INHALATION:	<ul style="list-style-type: none">· If inhaled, move victim to fresh air.· Get medical attention if breathing gets worse.· DO NOT breath in spray mist, may aggravate acute or chronic asthma conditions.
EYES:	Check and remove any contact lenses. Rinse eyes IMMEDIATELY with clean water for at least 15 minutes. Hold eyelids apart while flushing. Get medical attention, if necessary.
SKIN:	Remove contaminated clothing immediately. Wash affected areas (skin) immediately with plenty water (and soap). May experience slight irritation in cases where person have previous history of skin conditions.
INGESTION:	If swallowed, DO NOT induces vomiting. Rinse mouth a couple of times with water. Seek medical attention if necessary.
MEDICAL ATTENTION:	<ul style="list-style-type: none">· No specific antidote known. Treat symptomatic and supportive.· Iprodione exhibits low acute oral and dermal toxicity in laboratory animals.
POTENTIAL HEALTH AFFECTS:	<i>No human poisonings have been reported.</i>

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	<ul style="list-style-type: none">· SMALL FIRE: Dry chemical, water spray or foam.· LARGE FIRE: Use water spray to cool fire-exposed containers. Avoid strong acids. Move containers from fire area if you can do it without risk.
HAZARDS FROM STRONG COMBUSTION PRODUCTS:	<ul style="list-style-type: none">· Not Flammable or combustible
PRECAUTIONS FOR FIRE FIGHTERS:	Fire fighters should wear full protective gear including self-contained breathing apparatus. If possible, safely remove intact containers from the fire.
HAZCHEM CODE:	No code has been assigned

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK:

- Avoid contact with spilled material or contaminated surfaces.
- DO NOT eat, drink or smoke.
- Wear personal protective clothing and equipment (see section 8). Keep people and animals away.
- PREVENT spilled material from entering drains or sewer systems. Dike and bund area with sand or earth to prevent contamination of drains or sewers.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	<ul style="list-style-type: none">• Use in well ventilated area. Wear suitable respiratory equipment in case of insufficient ventilation.• Not for human consumption. Always store fungicides in their original containers, which include the label listing ingredients, directions for use, and first aid steps in case of accidental poisoning. <i>Never</i> transfer pesticides to soft drink bottles or other containers. Children or others may mistake them for something to eat or drink.• Keep out of reach of children• Wear suitable protective clothing;• Wear suitable gloves to prevent skin irritation.• Wear eye/face protection to avoid contact with eyes.• DO NOT keep or store for prolonged periods in direct sunlight. Protect from frost.• Wash hands, arms and face after use. Wash gloves and contaminated protective clothing daily.
CONDITIONS FOR SAFE STORAGE	<ul style="list-style-type: none">• DO NOT re-use the container for any other purposes.• This product is not corrosive.• Store in the closed original container in a cool, dry and well ventilated, secure area. Do not store in direct sunlight. Keep away from children, animals, food, and seed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS:	No exposure standards have been assigned for this product.
BIOLOGICAL LIMIT VALUES:	No biological limit allocated.
ENGINEERING CONTROLS:	Provide ventilation to minimise exposure. If mists are generated, their concentration in the workplace air should be controlled to the lowest reasonable practicable level. Facilities should be equipped with an eyewash facility and a safety shower.
PERSONAL PROTECTIVE EQUIPMENT:	EYES: Safety goggles or face shield. CLOTHING: Wear cotton overalls buttoned to the neck and wrist to avoid skin contact. GLOVES: Wear elbow-length chemical resistant PVC gloves. RESPIRATORY: If inhalation of vapour is likely to occur wear an approved respirator/disposable fume mask/dust mask. Use in well ventilated area.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE (colour, physical form:)	White/cream liquid (suspension concentrate)
ODOUR:	No characteristic odour
pH:	6 - 9
VAPOUR PRESSURE:	No data available
PARTICLE SIZE:	2.189 µm (D50%), 4.218 µm (D90%)
BOILING POINT:	No data available
WET SIEVE:	< 0.1% (75 µm sieve)
SOLUBILITY IN WATER:	Soluble to form a suspension in water.

SPECIFIC GRAVITY: 1.18 g/ml
FLASH POINT: Not flammable
EVAPORATION RATE: No data available

UPPER AND LOWER
FLAMMABLE (explosive) LIMITS: Not combustible/explosive

VISCOSITY: ~1710
CORROSION: Not a corrosive substance.
OXIDISING PROPERTIES: Not likely to occur

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use. Active ingredient content remains unchanged in 3 years at normal temperatures. Relatively stable in acid media, but decomposes in alkaline media.

CONDITIONS TO AVOID: Extreme heat.

INCOMPATIBLE MATERIALS: Avoid strong acids, strong alkalis and strong oxidising agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride and oxides of carbon may be given off in extreme heat and fires.

HAZARDOUS REACTIONS: No dangerous reaction known under conditions of use.

11. TOXICOLOGICAL INFORMATION

ANIMAL ACUTE TOXICITY DATA

Acute ORAL:	LD ₅₀ (rat)	>3500mg/kg bw (a.i.)
Acute DERMAL:	LD ₅₀ (rabbit)	>4400mg/kg bw (a.i.). Slight irritation to skin may be possible.
INHALATION:	LC ₅₀ rat	>3.3mg/L air (a.i.). Low toxicity level.
EYE IRRITATION:	(OECD 405)	Non irritating (rabbit). Slight eye irritation may be possible.
SENSITISATION:	Guinea pig	Non sensitizer
CHRONIC TOXICITY:	LD ₅₀ (dog)	>2000mg/kg bw
LONG TERM STUDIES	Rat	Category 3: Harmful, limited evidence of a carcinogenic effect.
MUTAGENICITY:		Non mutagenic

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

- Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
- DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

Fish

- Active ingredient: LC₅₀ (96hr) - 2.25mg/L (bluegill sunfish)
- Active ingredient: LC₅₀ - 0.24 - 0.43mg/L (water flea - *Daphnia magna*) = HIGHLY TOXIC.

- Bees
 - Non-toxic.
 - LD₅₀ 160 micrograms a.i./bee (*Apis mellifera*)

- Birds
 - Low hazard to birds.
 - LC₅₀ > 10 400mg/kg (Mallard ducks)
 - LC₅₀ > 2000mg/kg (Bobwhite quail)

PERSISTENCE AND DEGRADABILITY:

- Soil:
Rapidly metabolised in soil and thus no accumulation occur.
- Water:
Iprodione rapidly degraded with rapid transfer of degradation products to sediment. Slow decrease of bound degradation products in sediment.

MOBILITY:

- Iprodione has low mobility; this observation is confirmed by field measurements.

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

UN NUMBER:	3082
PROPER SHIPPING NAME:	Class 9 - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 50% iprodione)
CLASS AND SUBSIDIARY RISK(S):	Marine Pollutant
UN PACKING GROUP:	III (minor danger)
HAZCHEM CODE:	Non allocated

15. REGULATORY INFORMATION

Poisons Schedule No.: EXEMPT
(According to the SUSDP established under the Therapeutic Goods Act Australia (1989).

16. OTHER INFORMATION

Reason for update: Minor corrections & 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
	APVMA:	Australian Pesticide and Veterinary Medicines Authority
	CAS Number:	Chemical Abstract Service Registry Number
	EPG:	Emergency Procedure Guide
	IATA:	International Air Transport Association
	ICAO:	International Civil Aviation Organization
	IMDG:	International Maritime Dangerous Goods Code
	NDPSC:	National Drugs and Poisons Scheduling Committee
	NOHSC:	National Occupational Health and Safety Commission
	SUSDP:	Standard for the Uniform Scheduling of Drugs and Poisons.

END of MSDS