

# Safety Data Sheet

Issue No: 1.8

Issue date: 17 January 2022

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **ICA-PROCHLORAZ 450 EC**

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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Emergency Tel No: Griffon Poison Information Centre: +27 (0) 82 446 8946  
Poisons Helpline 0861 555 777

## 2. HAZARD IDENTIFICATION

GHS classification of product

Acute Toxicity Oral – Category 4  
Acute Toxicity Dermal – Category 5  
Acute Inhalation – Category 4  
Eye Irritation – Category 2B  
Skin Irritation – Category 3  
Skin Sensitization – Category 1B  
Acute Aquatic Toxicity – Category 2  
Chronic Aquatic Toxicity – Category 1  
Flammable liquids – Category 3

GHS Label elements



Signal Word

**WARNING**

Hazard Statements

H266 Flammable liquid  
H304 Harmful if swallowed  
H313 May be harmful in contact with skin  
H332 Harmful if inhaled  
H320 Cause eye irritation  
H316 Cause mild skin irritation  
H317 May cause an allergic skin reaction  
H401 Toxic to aquatic life  
H410 Very 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.  
P103: Read carefully and follow all instructions.  
P260: Do not breathe mist or spray.  
P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.  
P233 + P235: Keep container tightly closed. Keep cool.  
P240: Ground and bond container and receiving equipment.  
P241: Use explosion-proof [electrical, ventilating, lighting] equipment.  
P242: Use non-sparking tools.  
P243: Take action to prevent static discharges.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink, or smoke when using this product.  
P271: Use only outdoors or in a well-ventilated area.  
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, and face protection.

P301 + P317: IF SWALLOWED: Get medical help.

P303 + P361 + P353: IF ON SKIN: Take off immediately all contaminated clothing. Rinse affected areas with water or take a shower.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P317: If eye irritation persists: Get medical help.

P332 + P317: If skin irritation or rash occurs: Get medical help.

P353: Rinse affected areas with water or shower.

P361 + P364: Take off immediately all contaminated clothing and wash it before reuse.

P370 + P378: In case of fire: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide to extinguish fire.

P391: Collect spillage.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of container and contents in accordance with local/national regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(s)	CAS NO:	Classification	Concentration (g/ℓ)
Prochloraz	67747-09-5	-	450
Solvent Naphtha (petroleum)	64742-94-5	-	400 – 500
Co-Formulants Confidential		Non-hazardous	Up to 1000 g/ℓ

### 4. FIRST AID MEASURES

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

#### INHALATION:

- DO NOT breathe fumes/vapour.
- Remove the patient from immediate source of exposure. Move victim to fresh air and keep comfortable.
- If breathing is irregular or stopped, perform artificial respiration, and administer oxygen.
- Get medical help.

#### SKIN:

- Avoid contact with skin (solvent). May cause mild skin irritation.
- Carefully remove contaminated clothing, shoes, and leather goods immediately and take a shower.
- Rinse affected areas (skin) immediately with non-abrasive soap or mild detergent and large amounts of water for at least 20 minutes. Wash contaminated clothing before re-use.
- Get medical help if irritation develops and persists.

#### EYES:

- Rinse eyes IMMEDIATELY with clean water for at least 15 minutes, while holding eyelids apart.
- Remove contact lenses after 5 minutes if present and easy to do.
- Continue rinsing while holding eyelids apart.
- Seek medical help if irritation continues.

#### INGESTION:

- May be harmful if swallowed; may cause lung damage if swallowed (solvent).
- If swallowed, DO NOT induce vomiting, unless instructed to do so by poison control centre or doctor. Seek medical attention immediately. Keep patient calm
- Never give anything by mouth to an unconscious person.
- For systemic poisoning initial treatment should be symptomatic and supportive after decontamination.

#### NOTE TO PHYSICIAN:

- There is no specific antidote for poisoning with prochloraz. All treatment should be based on observed signs and symptoms of distress in the patient.

#### POTENTIAL HEALTH AFFECTS, ACUTE AND DELAYED

- Slight irritation is possible for eyes.

### 5. FIRE FIGHTING MEASURES

#### SUITABLE EXTINGUISHING MEDIA:

**Small fires:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide CO<sub>2</sub>.

**Large fires:** Alcohol-resistant foam, carbon dioxide CO<sub>2</sub> or water spray.

#### UNSUITABLE EXTINGUISHING MEDIA:

DO NOT use high volume water jet, due to contamination risk.

#### EXTINGUISHING METHODS:

Fight fire from maximum distance. For massive fire, use unmanned hose holder or monitor nozzles. Collect contaminated extinguishing water separately; do not allow contaminated water to reach the sewage or effluent systems.

#### SPECIFIC HAZARDS FROM COMBUSTION PRODUCTS:

The vapour is heavier than air and may travel along the ground, distant ignition possible.  
**EXPLOSION HAZARD:** Fire will produce irritating, corrosive and/or toxic gases.

**PRECAUTIONS FOR FIRE FIGHTERS:** Fire fighters should wear full protective gear including self-contained breathing apparatus. Fight fire from safe distance and protected location. Vapours may be heavier than air, keep out of low areas and ventilate closed spaces before entering. Vapours may cause respiratory irritation and inhalation may cause dizziness and/or drowsiness. Contact with the fumes and vapours should be avoided by staying upwind. Clean all clothing before re-use. Severely contaminated clothing cannot be adequately decontaminated and must be disposed as a hazardous waste. Shower with soap and water after contact with this product.

**HAZCHEM CODE:** 2X

**FURTHER INFORMATION:**

- If possible, safely remove intact containers from the fire.
- Keep containers cool by spraying with water if exposed to fire.
- Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.
- In case of fire and/or explosion do not breathe fumes.

## 6. ACCIDENTAL RELEASE MEASURES

### SPILL OR LEAK:

**PERSONAL PRECAUTIONS:** Avoid contact with skin and eyes. Do not inhale spray or fumes.

**PROTECTIVE EQUIPMENT:** Wear personal protective clothing and equipment (see section 8).

**EMERGENCY PROCEDURES:** Keep people and animals away. Avoid contact with spilled material or contaminated surfaces.

**ENVIRONMENTAL PRECAUTIONS:** PREVENT spilled material from entering drains or sewer systems. If the product contaminates rivers and lakes or drains immediately inform respective authorities.

**METHOD AND MATERIALS FOR CONTAINMENT:** A vapour suppressing foam may be used to reduce vapours. Contain and absorb liquid spills with inert material, remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in clearly marked waste containers.

**METHODS AND MATERIALS FOR CLEANING UP:** Contain spillage, and then collect with non-combustible absorbent material, (e.g., sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:**

- Always store pesticides in their original containers, which include the label listing ingredients, directions for use, and first aid steps in case of accidental poisoning.
- Flammable – **KEEP AWAY** from open flames and sparks.
- Never transfer pesticides to soft drink bottles or other containers. Children or others may mistake them for something to eat or drink.
- Wear suitable protective clothing which include chemical-resistant overalls, footwear, socks, dust mask, eye shields and gloves.
- Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Wash hands, arms, and face after application. Wash gloves and contaminated protective clothing daily before re-use.

**CONDITIONS FOR SAFE STORAGE:**

- Keep out of reach of unauthorized persons, children, and animals. Always store pesticides in their original containers, which include the label listing ingredients, in a cool, dry, and well-ventilated area out of direct sunlight.
- Segregate from foods and animal feeds.
- DO NOT re-use the container for any other purpose.

**FIRE PRECAUTIONS:**

- Flammable, keep away from sources of ignition.
- DO NOT smoke while handling this product.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**ADI – Acceptable Daily Intake** Prochloraz (a.i) 0.01 mg kg<sup>-1</sup> bw day<sup>-1</sup>

**AOEL – Acceptable Operator Exposure Level** Prochloraz (a.i) 0.02 mg kg<sup>-1</sup> bw day<sup>-1</sup>

**NATIONAL EXPOSURE STANDARDS:** No exposure standards have been assigned for Prochloraz. Solvent naphtha (petroleum), heavy aroma., TLV (USA) : 434 mg/m<sup>3</sup>  
Exposure standard: Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day working week.

**BIOLOGICAL LIMIT VALUES:** No biological limit allocated.

**ENGINEERING CONTROLS:** Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. If airborne mist/vapours are generated use local exhaust ventilation

controls. Facilities should be equipped with an eyewash station and a safety shower. Where necessary, seek additional occupational hygiene advice. Use in well ventilated area ONLY.

#### PERSONAL PROTECTIVE EQUIPMENT:

**Respiratory protection:** Where exposure through inhalation may occur when handling and/or when preparing the spray mixture, wear a self-contained breathing apparatus (SCBA). If the product is used in confined spaces a respirator suitable for protection from dusts and mists of pesticides is adequate.

**Hand Protection:** Wear chemical-resistant gloves made of any waterproof material such as nitrile rubber. Glove thickness: 0.5 mm

**Eye protection:** The use of safety goggles (full-face shield) is recommended.

**Skin and Body protection:** Wear suitable protective clothing which include chemical-resistant overalls, footwear, socks, dust mask, eye shields and gloves. Remove and wash contaminated protective clothing daily.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Liquid
COLOUR	Light yellow to brown, clear
ODOUR:	Slight organic odour (aromatic)
MELTING/FREEZING POINT:	Not Available
BOILING POINT:	Not available
FLAMMABILITY:	Not Available
LOWER AND UPPER EXPLOSIVE LIMITS:	Not Available
FLASH POINT:	Flash point and method: Closed cup, 29°C (Pensky-Martens)
DECOMPOSITION TEMPERATURE:	220°C for active
pH	6 – 9 (1 % w/v in water)
VISCOSITY:	1570 mPa/s at 20 °C
SOLUBILITY:	26.5 mg/L (pH 7) 20 °C (a.i prochloraz) in water
N-OCTANOL/WATER PARTITION COEFFICIENT	$K_{ow} \log P = 3.5$ at 20 °C (a.i prochloraz)
VAPOR PRESSURE (active ingredient):	0.15 mPa at 20 °C (a.i prochloraz)
DENSITY:	~ 1.06 g/mL
RELATIVE VAPOR DENSITY:	Not Available
PARTICLE CHARACTERISTICS:	Not applicable

## 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under normal use and storage conditions. Reacts with strong oxidizing agents.
HAZARDOUS REACTIONS:	None known. Hazardous polymerization does not occur. Stable under normal conditions.
CONDITIONS TO AVOID:	Long exposure periods to direct sunlight and excessive heat. Open flames or areas where sparks can occur.
INCOMPATIBLE MATERIALS:	Incompatible with strong oxidizing agents, strong acids, and alkalis.
HAZARDOUS DECOMPOSITION PRODUCTS:	In fire, formation of hydrogen chloride, hydrogen cyanide, carbon monoxide and other toxic fumes and gases can be expected.

## 11. TOXICOLOGICAL INFORMATION

### ANIMAL ACUTE TOXICITY ESTIMATE DATA (ATE)

ORAL:	LD <sub>50</sub> (rat)	> 2 500 mg a.i. /kg bw
DERMAL:	LD <sub>50</sub> (rats)	> 2 500 a.i. mg/kg bw
INHALATION:	LC <sub>50</sub> (4h) rat	> 1.13 a.i. mg/ℓ
SKIN SENSITIZATION:		Not a skin Sensitizer
SKIN IRRITATION:		Causes mild skin irritation (Category 3)
EYE IRRITATION:		Causes eye irritation (Category 2B)

## 12. ECOLOGICAL INFORMATION (a.i.)

### ECOTOXICITY:


Birds: LD <sub>50</sub> (oral)	<i>Colinus virginianus</i> (Bobwhite quail) Acute LD <sub>50</sub> > 662 mg/kg bw/day LC <sub>50</sub> /LD <sub>50</sub> > 1 580 mg/kg diet Chronic NOEL = 33.1 mg/kg bw/day
Fish: LC <sub>50</sub>	<i>Oncorhynchus mykiss</i> (Rainbow trout) Acute (96h) LC <sub>50</sub> = 1.5 mg a.i./ℓ <i>Pimephales promelas</i> (Fathead minnow) NOEC = 0.049 mg a.i./ℓ (36-day)
Aquatic invertebrates - <i>Daphnia</i>	<i>Daphnia magna</i> (Water flea) Acute (48h) EC <sub>50</sub> = 4.3 mg a.i./ℓ Chronic (21-day) NOEC = 0.022 mg a.i./ℓ
Aquatic crustaceans	<i>Americamysis bahia</i> Acute (96h) LC <sub>50</sub> = 0.77 mg a.i./ℓ
Algae - EC <sub>50</sub> / NOEC	<i>Scenedemus subspicatus</i> Acute (72h) EC <sub>50</sub> = > 0.0055 mg a.i./ℓ Chronic (96h) NOEC = 0.01mg a.i./ℓ
Earthworms: LC <sub>50</sub> /NOEC	<i>Eisenia fetida</i> Acute (14-day) LC <sub>50</sub> > 500 mg a.i./kg d.w. soil Chronic NOEC = 4.2 mg a.i./kg d.w.
Bees	<i>Apis mellifera</i> Acute contact 48-hour LD <sub>50</sub> = > 141.3 (µg bee <sup>-1</sup> ) Acute oral 48-hour LD <sub>50</sub> = > 101 (µg bee <sup>-1</sup> ) Not toxic to bees
<b>PERSISTENCE, DEGRADABILITY and MOBILITY:</b>	Prochloraz is moderately to persistent in the soil and slightly mobile. <u>Prochloraz</u> DT <sub>50</sub> = 69 – 120 days
<b>SOIL MICRO-ORGANISMS:</b>	Carbon transformation No significant adverse/long-term effect Nitrogen transformation No significant adverse/long-term effect

## 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 the empty container over the spray or mixing tank and drain for at least 30 seconds until the flow has slowed down to a drip. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler ([www.croplife.co.za](http://www.croplife.co.za)). Do not bury, burn, or donate the container to any other parties that may use it as a container for food or beverages. Offer container for recycling or puncture and dispose of at authorized landfill. Do not use container for any other purpose.

## 14. TRANSPORT INFORMATION

### ROAD AND RAILWAY TRANSPORT ADR/RID:

<b>UN NUMBER:</b>	1993
<b>UN PROPER SHIPPING NAME:</b>	FLAMMABLE LIQUID, N.O.S. (MIXTURE contains petroleum solvent and Prochloraz) ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S (MIXTURE contains petroleum solvent and Prochloraz)
<b>TRANSPORT HAZARD CLASSES:</b>	Class 3 (Subsidiary hazard 9)
<b>PACKAGING GROUP:</b>	III (low danger)
<b>ENVIRONMENTAL HAZARD:</b>	Severe Marine Pollutant
<b>SPECIAL PRECAUTION FOR USER:</b>	Closed cup, Flash Point 29°C, Very toxic to aquatic life with long lasting effect.
<b>TRANSPORT IN BULK:</b>	Not applicable, not transported in a tank.
<b>GHS TRANSPORT PICTOGRAM:</b>	
<b>HAZCHEM CODE:</b>	2X
<b>Tel No:</b>	+27 (0) 21 886 9812

## **15. REGULATORY INFORMATION**

South African Registration number L8478, Act 36 of 1947  
SDS valid for five years from date of issue.

## **16. OTHER INFORMATION**

This Safety Data Sheet (SDS) 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 SDS and consider the information in the context of how to prevent accidents in the normal workplace including in conjunction with other products.

The information was obtained from sources which we believe are reliable. However, the information is provided in good faith. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and for these reasons we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used for this product only.

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END of SDS