

# SAFETY DATA SHEET

Issue No: 3.5	Revision date: 11 April 2023 First print date: 31 August 2009
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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	<b>PROTECTOR 400 SC</b>
Other means of identification:	Pyrimethanil 400 g/l
Recommended Use:	Agricultural fungicide
Supplier:	ICA International Chemicals (Pty) Ltd
Address:	28 Planken Street Plankenbrug Industrial STELLENBOSCH · 7600 · SOUTH AFRICA
Telephone No:	+27-21 886 9812
Fax No:	+27-21 886 8209
Emergency Tel No:	Griffon Poison Information Centre: +27-82 446 8946 Human Poison Helpline: +27-861 555 777

## 2. HAZARD IDENTIFICATION

GHS Classification of product	Acute Toxicity Oral – Category 5 Acute Toxicity Dermal – Category 5 Acute Inhalation – Category 4 Eye Irritation – Category 2B Skin Irritation – Category 3 Acute Aquatic Toxicity – Category 2 Chronic Aquatic Toxicity – Category 2
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### GHS Label elements

GHS for Classification and Labelling of Chemicals (GHS) Rev 9, 2021; Regulation EC 1272/2008 [EU-GHS/CLP]



### Signal word

**WARNING**

### Hazard Statements

H303 – May be harmful if swallowed  
H313 – May be harmful in contact with skin  
H316 – Causes mild skin irritation  
H320 – Cause eye irritation  
H332 – Harmful if inhaled  
H401 – Toxic to aquatic life  
H411 – Toxic to aquatic life with long lasting effects

### General Precautionary Statements

P101: If medical advice is needed, have product container or label at hand.  
P102: Keep out of reach of children.

### Prevention Precautionary Statements

P103: Read carefully and follow all instructions.  
P261: Avoid breathing mist/vapours/spray.  
P264 + P265: Wash hands and face thoroughly after handling. Do not touch eyes.  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.

### Response Precautionary Statements

P301 + P317: IF SWALLOWED: Get medical help.  
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.  
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.  
 P332 + P317: If skin irritation occurs: Get medical help.  
 P362 + P364: Take off contaminated clothing and wash it before reuse.  
 P391: Collect spillage.  
 P405: Store locked up.  
 P501: Dispose of contents and container in accordance with national regulations.

Storage Precautionary Statements

Disposal Precautionary Statements

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS NO:	CONCENTRATION % (w/v)	CLASSIFICATION EC 1272/2008
Pyrimethanil	53112-28-0	40	Aquatic Chronic Category 2, H411
1,2-benzisothiazol-3-one	2634-33-5	< 1	Skin Sensitization Category 1, H317; Aquatic Acute Category ,1 H400

There are no additional ingredients present which, within the current knowledge of the provider of this SDS, and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. See section 16 for legend of additional H-phrases not in section 2.

### 4. FIRST AID MEASURES

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

#### INHALATION:

- Remove the victim from immediate source of exposure. Move victim to fresh air, if it can be done safely, and keep comfortable.
- If victim's breathing has stopped, perform artificial respiration.
- DO NOT perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- Administer oxygen if victim's breathing is difficult or irregular.
- Get medical help.

#### SKIN:

- Remove and isolate contaminated clothing, shoes, and leather goods immediately and take a shower.
- Rinse affected areas (skin) with non-abrasive soap or mild detergent and large amounts of running water. Wash contaminated clothing before re-use.
- Get medical help if irritation develops and persists.

#### EYES:

- IF IN EYES: Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do.
- Continue rinsing while holding eyelids apart.
- Seek medical help if irritation continues.

#### INGESTION:

- If swallowed, DO NOT induce vomiting, unless instructed to do so by poison control center or doctor.
- Have person sip a glass of water if able to swallow
- Never give anything by mouth to an unconscious person.
- If vomiting does occur, keep on giving fluids. Get medical help.

#### NOTE TO PHYSICIAN:

- There is no specific antidote. All treatments should be based on observed signs and symptoms of distress in the patient.

#### POTENTIAL HEALTH EFFECTS, ACUTE AND DELAYED

- Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.

### 5. FIRE FIGHTING MEASURES

#### SUITABLE EXTINGUISHING MEDIA:

**Small fires:** Dry chemical powder, carbon dioxide (CO<sub>2</sub>), water spray or alcohol-resistant foam

**Large fires:** Water spray, fog, or alcohol-resistant foam

#### FIRE INVOLVING TANKS:

Cool containers with flooding quantities of water until well after fire is out. DO NOT get water inside containers. Withdraw immediately in case of

<b>UNSUITABLE EXTINGUISHING MEDIA:</b>	rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire.
<b>SPECIFIC EXTINGUISHING METHODS:</b>	DO NOT use high volume water jet, due to contamination risk. 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.
<b>SPECIFIC HAZARDS ARISING FROM COMBUSTION PRODUCTS:</b>	In case of fire, the formation of dense black smoke, Carbon oxide (CO <sub>x</sub> ) and Nitrogen oxides (NO <sub>x</sub> ) can be expected.
<b>PRECAUTIONS FOR FIRE FIGHTERS:</b>	Fire fighters should wear full protective gear including self-contained breathing apparatus (SCBA). Fight fire from safe distance. 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 chemical product.
<b>FURTHER INFORMATION:</b>	<ul style="list-style-type: none"> <li>· If possible, safely move undamaged intact containers away from the area around the fire.</li> <li>· Keep containers cool by spraying with water if exposed to fire.</li> <li>· Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.</li> <li>· In case of fire and/or explosion do not breathe fumes.</li> </ul>

## 6. ACCIDENTAL RELEASE MEASURES

### SPILL OR LEAK:

<b>PERSONAL PRECAUTIONS:</b>	Avoid contact with skin and eyes. Do not touch or walk through spilled material. Do not inhale spray or fumes.
<b>PROTECTIVE EQUIPMENT:</b>	Wear personal protective clothing and equipment (see section 8).
<b>EMERGENCY PROCEDURES:</b>	Keep people and animals away. Use water spray to reduce vapours or divert vapour cloud drift.
<b>ENVIRONMENTAL PRECAUTIONS:</b>	PREVENT spilled material from entering waterway and sewer systems, basements, and confined areas. If the product contaminates rivers and lakes or waterways immediately inform respective authorities.
<b>METHODS AND MATERIALS FOR CONTAINMENT:</b>	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.
<b>METHODS AND MATERIALS FOR CLEANING UP:</b>	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). Use clean, non-sparking tools to collect absorbed material.
<b>SECONDARY DISASTER PREVENTION MEASURES:</b>	NA

## 7. HANDLING AND STORAGE

<b>PRECAUTIONS FOR SAFE HANDLING:</b>	<ul style="list-style-type: none"> <li>· 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.</li> <li>· Never transfer pesticides to soft drink bottles or other containers. Children or others may mistake them for something to eat or drink.</li> <li>· Wear suitable protective clothing which includes chemical-resistant overalls, footwear, socks, dust mask, eye shields and gloves.</li> <li>· 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.</li> </ul>
<b>CONDITIONS FOR SAFE STORAGE:</b>	<ul style="list-style-type: none"> <li>· 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.</li> <li>· Segregate from foods and animal feeds.</li> <li>· DO NOT re-use the container for any other purpose.</li> </ul>
<b>PACKAGING MATERIAL</b>	HDPE Fluorinated Containers
<b>FIRE PRECAUTIONS:</b>	Not applicable

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>ADI – Acceptable Daily Intake</b>	0.17 mg kg <sup>-1</sup> bw day <sup>-1</sup>
<b>AOEL – Accepted Operator Exposure Level</b>	0.12 mg kg <sup>-1</sup> bw day <sup>-1</sup>
<b>NATIONAL EXPOSURE STANDARDS:</b>	Not available
<b>BIOLOGICAL LIMIT VALUES:</b>	Not available
<b>ENGINEERING CONTROLS:</b>	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.
<b>PERSONAL PROTECTIVE EQUIPMENT:</b>	<p><b>Respiratory Protection:</b> Where exposure through inhalation may occur when handling and/or when preparing the spray mixture, wear a face mask. If the product is used in confined spaces a respirator suitable for protection from dusts and mists of pesticides is adequate.</p> <p><b>Hand Protection:</b> Wear chemical-resistant gloves made of any waterproof material such as nitrile rubber. Glove thickness: 0.5 mm</p> <p><b>Eye Protection:</b> The use of safety goggles (full-face shield) is recommended.</p> <p><b>Skin and Body Protection:</b> Wear suitable protective clothing which includes chemical-resistant overalls, footwear, socks, dust mask, eye shields and gloves. Remove and wash contaminated protective clothing daily.</p>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Liquid
<b>COLOUR:</b>	White grey
<b>ODOUR:</b>	Slight chemical odour
<b>MELTING POINT / FREEZING POINT °C:</b>	Pyrimethanil: 96.3 °C
<b>BOILING POINT:</b>	Not measurable
<b>DECOMPOSITION TEMPERATURE (a.i):</b>	189.5 – 344.7 °C
<b>FLAMMABILITY:</b>	Not applicable
<b>EXPLOSIVE LIMITS:</b>	<b>PROTECTOR 400 SC</b> is not considered an explosive
<b>FLASH POINT:</b>	99.6 °C
<b>AUTO-IGNITION TEMPERATURE:</b>	Not available
<b>pH (1% IN WATER):</b>	6.0 – 9.0
<b>KINEMATIC VISCOSITY:</b>	$\text{Kinematic viscosity} = \frac{\text{Dynamic viscosity (mPa/s)}}{\text{Density (g/mL)}}$ $\text{Kinematic viscosity} = \frac{1415 \text{ (mPa/s)}}{1.06 \text{ (g/mL)}}$
<b>VISCOSITY:</b>	Kinematic viscosity = 1334.91 mm <sup>2</sup> /s 1415 mPa/s
<b>DENSITY / RELATIVE DENSITY:</b>	1.06 g/mL
<b>SOLUBILITY - WATER (a.i):</b>	Pyrimethanil = 110 mg/L (pH 7) 20 °C
<b>N-OCTANOL / WATER PARTITION COEFFICIENT:</b>	Log P <sub>ow</sub> = 2.84 at 20 °C
<b>VAPOUR PRESSURE (a.i):</b>	Pyrimethanil = 1.1 X 10 <sup>-3</sup> Pa at 20 °C
<b>RELATIVE VAPOUR DENSITY:</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>REACTIVITY:</b>	Not applicable
<b>CHEMICAL STABILITY:</b>	Stable under normal use and storage conditions.
<b>HAZARDOUS REACTION:</b>	Not applicable
<b>CONDITIONS TO AVOID:</b> (e.g. – heat, freezing, pressure, static discharge, shock, or vibration)	Avoid excessive heat and freezing.
<b>INCOMPATIBLE MATERIALS:</b>	Strong oxidizers and Oxidizing agents
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	When heated to decomposition, irritant or dangerous fumes/vapours may be emitted. See section 5.

## 11. TOXICOLOGICAL INFORMATION

	ANIMAL ACUTE TOXICITY DATA (Product)	
ORAL:	LD <sub>50</sub> (rat) = 5000 mg a.i. /kg bw	Category 5 (OECD 423)
DERMAL:	LD <sub>50</sub> (rat) > 2000 mg a.i. /kg bw	Category 5 (OECD 402)
INHALATION:	LC <sub>50</sub> (4h) rat > 2.320 a.i. mg/ℓ	Category 4 (OECD 403)
SKIN IRRITATION / CORROSION:		Category 3 (OECD 404)
SERIOUS EYE IRRITATION / DAMAGE:		Category 2B (OECD 405)
RESPIRATORY OR SKIN SENSITIZATION:		Not Classified (OECD 406)
GERM CELL MUTAGENICITY:		Not Classified
CARCINOGENICITY:		Not Classified
REPRODUCTIVE TOXICITY:		Not Classified
SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:		Not Classified
SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:		Not Classified
ASPIRATION HAZARD:		Not Classified

## 12. ECOLOGICAL INFORMATION

ECOTOXICITY:			
PYRIMETHANIL	Birds: LD <sub>50</sub> (oral)	<i>Anas platyrhynchos</i> (Mallard duck) Acute LD <sub>50</sub> > 2000 mg/kg bw/day <i>Colinus virginianus</i> (Bobwhite quail) LC <sub>50</sub> /LD <sub>50</sub> > 5200 mg/kg diet Chronic NOEL = 95.96 mg/kg bw/day	
	Fish: LC <sub>50</sub>	<i>Oncorhynchus mykiss</i> (Rainbow trout) Acute (96h) LC <sub>50</sub> = 10.56 mg a.i./ℓ NOEC = 1.6 mg a.i./ℓ (21-day)	
	Aquatic invertebrates - <i>Daphnia</i>	<i>Daphnia magna</i> (Water flea) Acute (48h) EC <sub>50</sub> = 2.9 mg a.i./ℓ Chronic (21-day) NOEC = 0.94 mg a.i./ℓ	
	Aquatic crustaceans	<i>Lemna gibba</i> Acute (96h) LC <sub>50</sub> = 7.8 mg a.i./ℓ	
	Algae - EC <sub>50</sub> / NOEC	<i>Raphidocelis subcapitata</i> Acute (72h) EC <sub>50</sub> = 1.2 mg a.i./ℓ	
	Bees	<i>Apis mellifera</i> Acute contact 48-hour LD <sub>50</sub> > 100 (µg bee-1) Acute oral 48-hour LD <sub>50</sub> > 100 (µg bee-1)	
	Earthworms: LC <sub>50</sub> /NOEC	<i>Eisenia fetida</i> Acute (14-day) LC <sub>50</sub> = 313 mg a.i./kg d.w. soil Chronic NOEC = 4.12 mg a.i./kg d.w.	
	AQUATIC TOXICITY	Acute – Category 2 Chronic – Category 2	OECD 201, 202, 203 Summation Method [(M x 10 x Chronic 1) + Chronic 2] ≥ 25%
	PERSISTENCE, DEGRADABILITY AND MOBILITY:	<b>Pyrimethanil</b> is moderately persistent in the soil and moderately mobile. DT <sub>50</sub> = 23 – 54 days K <sub>foc</sub> = 355.7 (moderately mobile)	
	BIO-ACCUMULATIVE POTENTIAL:	BCF = log P <sub>ow</sub> < 3 (low risk)	
	SOIL MICRO-ORGANISMS:	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.

**TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** Containers must be completely emptied before being disposed of. 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. 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.

#### 14. TRANSPORT INFORMATION

**UN NUMBER:** 3082  
**UN PROPER SHIPPING NAME:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, (40% pyrimethanil)  
**TRANSPORT HAZARD CLASS(ES):** Class 9  
**PACKAGING GROUP:** III (low danger)  
**GHS TRANSPORT PICTOGRAM(S):**



**ENVIRONMENTAL HAZARDS:** Marine Pollutant: Yes – Category 2  
**TRANSPORT IN BULK:** Not applicable, not to be transported in bulk.  
**SPECIAL PRECAUTIONS FOR USER:** Not applicable

#### 15. REGULATORY INFORMATION

Conforms to South Africa Regulation for Hazardous Chemical Agents, 2021.  
 South African Registration number L8606, Act 36 of 1947.  
 SDS valid for five years from date of issue.

#### 16. OTHER INFORMATION

**Legend:** Full text of H-Statements referred to under sections 3:

H317 – May cause an allergic skin reaction  
 H400 – Very toxic to aquatic life

**Key literature references and sources of data:** Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 9, 2021. UN Model Regulations Rev. 22 (2021). EU REGULATION (EC) No. 1272/2008.

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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Issue: 3.5 – 11 April 2023 (Section 14: Transport Information Updated).

END of SDS