



# BRAND LOGO / M LOGO / M MARC TO OBTAIN THE DIRECT PRODUCT

# Pecari 300 EC

syngenta®

**GROUP 3 FUNGICIDE**

**F**

**Product registration number:** MAPP 19637 **UFI:** W660-K07P-Y00A-F4SQ

A triazolothione fungicide for the control of stem-base, foliar and ear disease in winter and spring wheat, winter and spring rye, winter and spring barley, winter and spring triticale and for disease control in winter and spring oilseed rape.

An emulsifiable concentrate containing 300 g/L of prothioconazole (28.04% w/w).

## SAFETY PRECAUTIONS

### (a) Operator protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

**WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD)** when handling the concentrate. However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

**WASH ALL PROTECTIVE CLOTHING** thoroughly after use, especially the insides of gloves.

**IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY** with plenty of water and seek medical advice.

**WASH HANDS** before eating and drinking/smoking/after work.

**WHEN USING DO NOT EAT, DRINK OR SMOKE.**

**IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL**, seek medical advice immediately (show the label where possible).

### (b) Environmental protection

**DO NOT CONTAMINATE WATER** with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

To protect aquatic organisms, respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

**DO NOT ALLOW DIRECT SPRAY** from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local

Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

### (c) Storage and disposal

**KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS**

**KEEP OUT OF REACH OF CHILDREN**

**KEEP IN ORIGINAL CONTAINER**, tightly closed in a safe place/under lock and key/away from damp/sources of heat.

**RINSE CONTAINER THOROUGHLY** by using an integrated pressure rinsing device or manually rinsing three times. Add the washings to the sprayer at the time of filling and dispose of safely.

**DO NOT RE-USE CONTAINER** for any purpose.

*The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.*

Authorisation holder	Marketing Company
GLOBACHEM NV Brustem Industriepark - Lichtenberglaan 2019 B-3800 Sint-Truiden - Belgium Tel: +32 11 78 57 17 Fax: +32 11 68 15 65 E-mail: globachem@globachem.com Web: www.globachem.com	Syngenta UK Ltd CPC 4, Capital Park, Fulbourn, Cambridge CB21 5XE, Tel: +44 (0) 1223 883400

**SHAKE WELL BEFORE USE. PROTECT FROM FROST.  
FOR PROFESSIONAL USE ONLY.**

L1090281 GBR/07A PPE 4164117

**KEEP 50x20mm AREA CLEAR FOR BARCODE**

**L & PPE numbers must be kept close to this unprinted barcode area, with a white background behind them**

# 5 litres

The ALLIANCE FRAME  
the Syngenta Logo and the PURPOSE ICON  
are Trademarks of a Syngenta Group Company

Pecari® is registered  
trademark of Globachem N.V.

**PECARI® 300 EC**

An emulsifiable concentrate containing 300 g/L of prothioconazole (28.04% w/w).

BRAND LOGO / NAME  
 LOGO / NOM DE MARQUE  
 LOGO / NOMBRE DEL PRODUCTO

**Danger****Harmful if swallowed.****Causes skin irritation.****Causes serious eye damage.****Very toxic to aquatic life with long lasting effects.**

Wash hands thoroughly after handling.

Wear protective gloves / protective clothing / eye protection / face protection.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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

Rinse mouth.

Collect spillage.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

**MAPP 19637 UFI: W660-K07P-Y00A-F4S0****IMPORTANT INFORMATION**

FOR USE ONLY AS A PROFESSIONAL FUNGICIDE

Crops/situations:	Maximum individual dose (L product/ ha)	Maximum total dose (L product/ ha / crop)	Latest time of application
Barley (spring), barley (winter), rye (spring), rye (winter), triticale (spring), triticale (winter), wheat (spring), wheat (winter)	0.65	1.3	End of flowering (BBCH 69)
Oilseed rape (winter)	0.6	1.2	End of flowering (BBCH 69)
Oilseed rape (spring) <sup>1</sup>	0.5	1.0	End of flowering (BBCH 69)

<sup>1</sup> QUALIFIED RECOMMENDATION effectiveness and crop safety has not been fully established. For all qualified recommendations users are advised to test a small area first to establish crop safety.

**Other Specific Restrictions:**

- This product must not be applied via hand-held equipment.
- Non-returnable containers must not be re-used for any purpose.

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.**

This leaflet is part of the approved Product Label.

## **DIRECTIONS FOR USE**

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be carefully read in order to obtain safe and successful use of this product.

## **GENERAL INFORMATION**

PECARI® 300 EC is an emulsifiable concentrate formulation containing 300 g/L prothioconazole. It is a triazolothione fungicide for the control of stem-base, foliar and ear disease in winter and spring wheat, winter and spring rye, winter and spring barley, winter and spring triticale and for disease control in winter and spring oilseed rape.

## **DISEASES CONTROLLED**

### Wheat

Stripe rust (*Puccinia striiformis*), Septoria leaf blotch (*Zymoseptoria tritici*), Glume blotch (*Parastagonospora nodorum*), Brown rust (*Puccinia recondita*), Tan spot (*Pyrenophora tritici-repentis*)\*, Powdery mildew (*Blumeria graminis*), Fusarium ear blight

### Barley

Brown rust (*Puccinia hordei*), Net blotch (*Pyrenophora teres*), Leaf blotch (*Rhynchosporium secalis*), Powdery mildew (*Blumeria graminis*), Fusarium ear blight

### Rye

Leaf blotch (*Rhynchosporium secalis*), brown rust (*Puccinia recondita*), Powdery mildew (*Blumeria graminis*)

### Triticale

Leaf blotch (*Rhynchosporium secalis*), Glume blotch (*Parastagonospora nodorum*), Stripe rust (*Puccinia striiformis*), Septoria leaf blotch (*Zymoseptoria tritici*), Powdery mildew (*Blumeria graminis*), Fusarium ear blight

### Winter oilseed rape

Stem rot (*Sclerotinia* sp.),

Phoma leaf spot (*Plenodomus lingam*)\*

\* PECARI 300 EC will provide moderate control of these diseases.

## **CROP SPECIFIC INFORMATION**

### ***Winter and spring cereals:***

Apply PECARI 300 EC at 0.65 L product/ha in 200-400 L water/ha. Apply as a MEDIUM spray quality (as defined by BCPC). Maximum total dose per crop is 1.3 L/ha.

Septoria leaf blotch (*Zymoseptoria tritici*) and Glume Blotch (*Parastagonospora nodorum*):  
Apply before disease is established in the crop. To protect the upper leaves and ear apply PECARI 300 EC from BBCH 29 (End of tillering) up to beginning of flowering (BBCH 61). Where disease pressure remains high application may be repeated.

### ***Stripe Rust (Puccinia striiformis):***

Apply PECARI 300 EC at the latest at the first signs of disease (BBCH 29-61). A second application may be made 2-3 weeks later if re-infection occurs. Applications made to established infections are likely to be less effective.

### ***Brown Rust (Puccinia recondita, Puccinia hordei):***

Apply PECARI 300 EC at the latest at the first signs of disease (BBCH 29-61). A second application may be made 2-3 weeks later if re-infection occurs. Applications made to established infections are likely to be less effective.

### ***Tan spot (Pyrenophora tritici-repentis), Powdery mildew (Blumeria graminis):***

Apply PECARI 300 EC at the latest at the first signs of disease in spring/early summer (BBCH 29-61). Where disease pressure remains high application may be repeated.

#### Fusarium ear blight:

Apply PECARI 300 EC soon after ear emergence until the end of flowering (BBCH 61-69) for moderate control of Fusarium ear blight without exceeding the maximum total dose per crop. Control of ear diseases can result in cleaner, brighter ears. Through the reduction of ear blight, PECARI 300 EC effectively reduces the level of the Fusarium mycotoxin deoxynivalenol (DON) in wheat grain. However, where Fusarium levels are high, the reduction achieved may not always be sufficient to ensure that DON levels fall below the statutory limit.

#### Net Blotch (*Pyrenophora teres*):

Apply PECARI 300 EC at the latest at the first signs of disease in spring/early summer (BBCH 29-61). For severe infections, a second application 2-3 weeks later will give most effective control when conditions remain favourable for disease development.

#### Leaf Blotch (*Rhynchosporium secalis*):

Apply PECARI 300 EC in spring at the latest at the first signs of disease (BBCH 29-61). For severe infections a second application may be necessary 2-3 weeks later.

#### Winter oilseed rape:

Apply PECARI 300 EC at 0.6 L product/ha in 200-400 L water/ha. Apply as a MEDIUM spray quality (as defined by BCPC). Maximum total dose per crop is 1.2 L/ha.

The higher spray volumes are recommended where the crop is dense or disease pressure / risk is high to ensure good penetration to the lower leaves and stem bases. Disease control may be compromised by reducing water volumes, where good spray coverage is difficult to achieve.

#### Phoma leaf spot (*Plenodomus lingam*):

Apply PECARI 300 EC in autumn or spring at the latest at the first sign of disease (BBCH 16-59). Repeat application in spring if disease symptoms reoccur after first application in autumn.

#### Stem rot (*Sclerotinia sp.*):

Apply PECARI 300 EC at early to full flowering (BBCH 61-69) without exceeding the maximum total dose per crop.

#### Spring oilseed rape (QUALIFIED RECOMMENDATION):

PECARI 300 EC can also be used on varieties of spring oilseed rape but effectiveness and crop safety has not been fully established.

Conditions of use for spring oilseed rape described in the IMPORTANT INFORMATION box must be followed.

#### MIXING AND SPRAYING

Thoroughly shake the pack before use. Add the required quantity of PECARI 300 EC to the half-filled spray tank with the agitation system in operation and then fill to the required level. Continue agitation at all times during spraying and stoppages until the tank is completely empty. Spray immediately after mixing. A spray pressure of 2-3 bar is recommended. Sprayers should be thoroughly cleaned before use, and filters and jets checked for damage and blockages. Boom height should be adjusted to ensure even coverage of the crop, particularly at later growth stages. The correct height is one at which the spray from alternate nozzles meets just above the crop. In dense crops, at later growth stages, higher water volumes should be used. Thoroughly wash all spray and measuring equipment with water immediately after use.

#### RESISTANCE

Repeated application of PECARI 300 EC alone should not be used on the same crop against a high risk pathogen. Tank-mixtures or alternation with fungicides having a different mode of action (e.g. morpholines) have been shown to protect against the development of resistant forms of disease. The possible development of disease strains resistant to PECARI 300 EC cannot be excluded or predicted.

Where such resistant strains occur, PECARI 300 EC is unlikely to give satisfactory control. To avoid development of resistance apply product protectively in response to disease forecasts. PECARI 300 EC contains a DMI fungicide (FRAC group 3). Resistance to some DMI fungicides has been identified in Septoria leaf blotch which may seriously affect the performance of some products. Never use DMIs alone or repeatedly for powdery mildew control. Always mix with a non DMI fungicide at effective doses to ensure a high level of disease control. Alternate or mix fungicides with different modes of action in repeat spray programmes. Include another mode of action with eradicant activity if mildew already active.

For further advice on resistance management in DMI's, contact your agronomist or specialist advisor, and visit the Fungicide Resistance Action Group (FRAG)-UK webs.

### **CONDITIONS OF SUPPLY**

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

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### **Section 6 of the Health and Safety at Work Act** **Additional Product Safety Information**

(This section does not form part of the product label under the Plant Protection Products Regulations 1995.)

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has 'off-label' approval or is otherwise permitted under the Plant Protection Products Regulations.

The information on this label is based on the best available information including data from test results.

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### **SAFETY DATA SHEET v2.1**

#### **1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/ UNDERTAKING**

##### **1.1 Product Identifier**

Trade name : PECARI 300 EC

Design code : A23248A

Product Registration Number : MAPP19637

Unique Formula Identifier (UFI): W660-K07P-Y00A-F4SQ

##### **1.2 Relevant identified uses of the substance or mixture and uses advised against Use of the Substance/Mixture:**

Fungicide

Recommended restrictions on use: professional use

1.3 Details of the supplier of the safety data sheet

Company : Syngenta UK Limited, CPC4, Capital Park, Fulbourn, Cambridge CB21 5XE, United Kingdom

Telephone : +44 (0) 1223 883400

Telefax : +44 (0) 1223 882195

E-mail address of person responsible for the SDS: customer.services@syngenta.com

##### **1.4 Emergency telephone number**

Emergency telephone number: +44 1484 538444

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Acute toxicity, Category 4 - H302: Harmful if swallowed.

Skin irritation, Category 2 - H315: Causes skin irritation.

Serious eye damage, Category 1 - H318: Causes serious eye damage.

Short-term (acute) aquatic hazard,

Category 1- H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Category 1 - H410: Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Hazard pictograms



Signal Word Danger

Hazard H302 Harmful if swallowed.

Statements H315 Causes skin irritation.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements P264 Wash hands thoroughly after handling.

P280 Wear protective gloves, protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water.

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

+P338 If skin irritation occurs: Get medical advice/attention. medical advice, medical attention

P391 Collect spillage.

P501 Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

Hazardous components which must be listed on the label:

- 2-pyrrolidinone, 1-butyl-
- N-(n-octyl)-2-pyrrolidinone

### Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Components

Chemical Name	CAS No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-pyrrolidinone, 1-butyl-	3470-98-2 222-437-8	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319	25-50
prothioconazole (ISO)	178928-70-6 613-337-00-9	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	>= 25 - < 30
N-(n-octyl)-2-pyrrolidone	2687-94-7 403-700-8 613-098-00-0	Skin Corr. 1B; H314 Aquatic Chronic 2; H411	5-10

For explanation of abbreviations see section 16.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

If inhaled : Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control centre immediately.

In case of skin contact : Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

If swallowed : If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Nonspecific. No symptoms known or expected.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : There is no specific antidote available. Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable extinguishing media:

Extinguishing media - small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires: Alcohol-resistant foam or Water spray

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).

Exposure to decomposition products may be a hazard to health.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus. Further information : Do not allow run-off from fire fighting to enter drains or water courses.

Cool closed containers exposed to fire with water spray.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Refer to protective measures listed in sections 7 and 8.

### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and material for containment and cleaning up

Methods 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). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

### 6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : No special protective measures against fire required. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Keep away from direct sunlight.

### 7.3 Specific end use(s)

Specific use(s) : For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
prothioconazole (ISO)	178928-70-6	TWA	1.4 mg/m <sup>3</sup>	Supplier

#### Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health effects	Value
2-pyrrolidinone, 1-butyl-	Workers	Inhalation	Long-term systemic effects	24.1 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	10 mg/kg
	Consumers	Inhalation	Long-term systemic effects	4.29 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	5 mg/kg
	Consumers	Oral	Long-term systemic effects	4 mg/kg
	Consumers	Oral	Acute systemic effects	4 mg/kg
N-(n-octyl)-2-pyrrolidone	Workers	Inhalation	Long-term systemic effects	17.45 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	2.5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	5.75 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	1.25 mg/kg
	Consumers	Oral	Long-term systemic effects	1.25 mg/kg



## Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
2-pyrrolidinone, 1-butyl-	Fresh water	4 mg/l
	Freshwater intermittent	1 mg/l
	Marine water	0.4 mg/l
	Marine water - intermittent	0.1 mg/l
	Sewage treatment plant	30.62 mg/l
	Fresh water sediment	20.168 mg/kg
	Marine sediment	2.017 mg/kg
N-(n-octyl)-2-pyrrolidone	Soil	1.68 mg/kg
	Fresh water	0.091 mg/l
	Marine water	0.0091 mg/l
	Intermittent use/release	0.122 mg/l
	Sewage treatment plant	170 mg/l
	Fresh water sediment	3.14 mg/kg
	Marine sediment	0.314 mg/kg
Soil	0.164 mg/kg	

## 8.2 Exposure controls

### Engineering measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

### Personal protective equipment

**Eye/face protection:** Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded. Tightly fitting safety goggles. Face-shield

### Hand protection

Material : Nitrile rubber

Break through time : > 480 min

Glove thickness : 0.5 mm

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Skin and body protection:** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use. Wear as appropriate: Impervious clothing

**Respiratory protection:** No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Protective measures:** The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance : viscous liquid  
Colour : dark brown  
Odour : sweetish, weak  
Odour Threshold : No data available  
pH : 5.1. Concentration: 1 % w/v  
Melting point/range : No data available  
Boiling point/boiling range : No data available  
Flash point : does not flash  
Evaporation rate : No data available  
Flammability (solid, gas) : No data available  
Upper explosion limit / Upper flammability limit: No data available  
Lower explosion limit / Lower flammability limit: No data available  
Vapour pressure : No data available  
Relative vapour density : No data available  
Density : 1.07 g/cm<sup>3</sup>  
Water solubility : emulsifiable  
Solubility in other solvents : No data available  
Partition coefficient: noctanol/water: No data available  
Auto-ignition temperature : 232 °C  
Decomposition temperature : No data available  
Viscosity, dynamic : 158 mPa.s (20 °C)  
Viscosity, kinematic : 148 mm<sup>2</sup>/s (20 °C)  
Explosive properties : Not explosive  
Oxidizing properties : The substance or mixture is not classified as oxidizing.

### 9.2. Other information

Particle size : No data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

None reasonably foreseeable.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

Materials to avoid : None known.

### 10.6 Hazardous decomposition products

Hazardous decomposition products: No hazardous decomposition products are known.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Information on likely routes of exposure: Ingestion, Inhalation, Skin contact, Eye contact, Acute toxicity,

Acute oral toxicity : Acute toxicity estimate: 1,000 mg/kg  
Method: Calculation method

#### Components:

#### **2-pyrrolidinone, 1-butyl-:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

**prothioconazole (ISO):**

Acute oral toxicity : LD50 (Rat): &gt; 6,200 mg/kg

Acute inhalation toxicity : LC50 (Rat): &gt; 4.99 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: Highest attainable concentration

Acute dermal toxicity : LD50 (Rat): &gt; 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation**

Result : Irritating to skin.

**Components:****2-pyrrolidinone, 1-butyl-:**

Result : Irritating to skin.

**prothioconazole (ISO):**

Species : Rabbit

Result : No skin irritation

**N-(n-octyl)-2-pyrrolidone:**

Species : Rabbit

Result : Corrosive after 3 minutes to 1 hour of exposure

**Serious eye damage/eye irritation****Product:**

Result : Risk of serious damage to eyes.

**Components:****2-pyrrolidinone, 1-butyl-:**

Result : Eye irritation

**prothioconazole (ISO):**

Species : Rabbit

Result : No eye irritation

**N-(n-octyl)-2-pyrrolidone:**

Species : Rabbit

Result : Irreversible effects on the eye

**Respiratory or skin sensitisation****Components:****prothioconazole (ISO):**

Test Type : mouse lymphoma cells

Species : Mouse

Result : Did not cause sensitisation on laboratory animals.

**Germ cell mutagenicity****Components:****prothioconazole (ISO):**

Germ cell mutagenicity- Assessment: Weight of evidence does not support classification as a germ cell mutagen.

**N-(n-octyl)-2-pyrrolidone:**

Germ cell mutagenicity- Assessment: In vitro tests did not show mutagenic effects

**Carcinogenicity****Components:****prothioconazole (ISO):**

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

**Reproductive toxicity****Components:****prothioconazole (ISO):**

Reproductive toxicity - Assessment: No toxicity to reproduction

## **N-(n-octyl)-2-pyrrolidone:**

Reproductive toxicity - Assessment: No toxicity to reproduction

### **STOT - single exposure**

#### **Components:**

##### **prothioconazole (ISO):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

### **STOT - repeated exposure**

#### **Components:**

##### **prothioconazole (ISO):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

#### **Components:**

##### **prothioconazole (ISO):**

Toxicity to fish :

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 1.83 mg/l  
Exposure time: 96 h

Toxicity to daphnia and  
other aquatic invertebrates:

EC50 (*Daphnia magna* (Water flea)): 1.3 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants:

EC50 (*Raphidocelis subcapitata* (freshwater green alga)): 2.18 mg/l  
Exposure time: 72 h  
ErC50 (*Skeletonema costatum* (marine diatom)): 0.03278 mg/l  
Exposure time: 72 h  
EC10 (*Skeletonema costatum* (marine diatom)): 0.01427 mg/l  
End point: Growth rate  
Exposure time: 72 h

M-Factor (Acute aquatic toxicity):

10

Toxicity to fish (Chronic toxicity):

NOEC: 0.308 mg/l  
Exposure time: 97 d  
Species: *Oncorhynchus mykiss* (rainbow trout)

Toxicity to daphnia and  
other aquatic invertebrates

(Chronic toxicity):

EC10: 0.61 mg/l  
Exposure time: 21 d  
Species: *Daphnia magna* (Water flea)

M-Factor (Chronic aquatic toxicity): 1

## **N-(n-octyl)-2-pyrrolidone:**

Toxicity to fish :

LC50 (*Danio rerio* (zebra fish)): > 12.8 - < 44.8 mg/l  
Exposure time: 96 h

Toxicity to daphnia and  
other aquatic invertebrates:

EC50 (*Daphnia magna* (Water flea)): 12.2 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants:

ErC50 (*Desmodesmus subspicatus* (green algae)): 19 mg/l  
Exposure time: 72 h

Toxicity to microorganisms :

EC50 (*Pseudomonas putida*): 460 mg/l  
Exposure time: 0.5 h

Toxicity to fish (Chronic toxicity):

NOEC: 0.91 mg/l  
Exposure time: 35 d  
Species: Fish

Toxicity to daphnia and  
other aquatic invertebrates

(Chronic toxicity):

NOEC: 2.5 mg/l  
Exposure time: 21 d  
Species: *Daphnia magna* (Water flea)

## 12.2 Persistence and degradability

### Components:

#### prothioconazole (ISO):

Biodegradability : Result: Not rapidly biodegradable

#### N-(n-octyl)-2-pyrrolidone:

Biodegradability : Result: Readily biodegradable.

## 12.3 Bioaccumulative potential

### Components:

#### prothioconazole (ISO):

Bioaccumulation : Remarks: Does not bioaccumulate.

## 12.4 Mobility in soil

### Components:

#### prothioconazole (ISO):

Distribution among environmental compartments: Remarks: Low mobility in soil.

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### Components:

#### prothioconazole (ISO):

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB).

#### N-(n-octyl)-2-pyrrolidone:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB).

## 12.6 Other adverse effects

### Product:

Endocrine disrupting potential: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Product : Do not contaminate ponds, waterways or ditches with chemical or used container.

Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration.

If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR	RID	IMDG	IATA
UN 3082	UN 3082	UN 3082	UN 3082

### 14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROTHIOCONAZOLE)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROTHIOCONAZOLE)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PROTHIOCONAZOLE)

IATA : Environmentally hazardous substance, liquid, n.o.s. (PROTHIOCONAZOLE)

### 14.3 Transport hazard class(es)

ADR	RID	IMDG	IATA
9	9	9	9

#### 14.4 Packing group

ADR

Packing group : III

Classification Code : M6

Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (-)

RID

Packing group : III

Classification Code : M6

Hazard Identification Number : 90

Labels : 9

IMDG

Packing group : III

Labels : 9

EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo aircraft): 964

Packing instruction (LQ) : Y964

Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft): 964

Packing instruction (LQ) : Y964

Packing group : III

Labels : Miscellaneous

#### 14.5 Environmental hazards

ADR	RID	IMDG	IATA (Passenger)	IATA (Cargo)
Environmentally hazardous: yes	Environmentally hazardous: yes	Marine pollutant: yes	Environmentally hazardous: yes	Environmentally hazardous: yes

#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet.

Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

### 15. REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Conditions of restriction for the following entries should be considered: Number on list 3

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

UK REACH List of substances subject to authorisation (Annex XIV): Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation: Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH) E1 ENVIRONMENTAL HAZARDS

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

## 16. OTHER INFORMATION

### Full text of H-statements:

H302: Harmful if swallowed.  
H314: Causes severe skin burns and eye damage.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.  
H411: Toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox.: Acute toxicity  
Aquatic Acute: Short-term (acute) aquatic hazard  
Aquatic Chronic: Long-term (chronic) aquatic hazard  
Eye Irrit.: Eye irritation  
Skin Corr.: Skin corrosion  
Skin Irrit.: Skin irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative.

### Further information

#### Classification of the mixture:

Acute Tox. 4	H302
Skin Irrit. 2	H315
Eye Dam. 1	H318
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

#### Classification procedure:

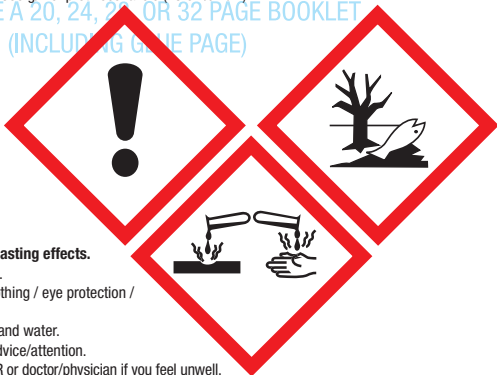
Calculation method
Based on product data or assessment
Based on product data or assessment
Calculation method
Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**PECARI® 300 EC**

An emulsifiable concentrate containing 300 g/L of prothioconazole (28.04% w/w).

USE PAGES CAN BE ADDED OR REMOVED AS NECESSARY  
TO CREATE A 20, 24, 28 OR 32 PAGE BOOKLET  
(INCLUDING GUIDE PAGE)

**Danger****Harmful if swallowed.****Causes skin irritation.****Causes serious eye damage.****Very toxic to aquatic life with long lasting effects.**

Wash hands thoroughly after handling.

Wear protective gloves / protective clothing / eye protection / face protection.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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

Rinse mouth.

Collect spillage.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

**MAPP 19637 UFI: W660-K07P-Y00A-F450**

TEXT AREA

98 x 130 mm

**IMPORTANT INFORMATION**

FOR USE ONLY AS A PROFESSIONAL FUNGICIDE

Crops/situations:	Maximum individual dose (L product/ ha)	Maximum total dose (L product/ ha / crop)	Latest time of application
Barley (spring), barley (winter), rye (spring), rye (winter), triticale (spring), triticale (winter), wheat (spring), wheat (winter)	0.65	1.3	End of flowering (BBCH 69)
Oilseed rape (winter)	0.6	1.2	End of flowering (BBCH 69)
Oilseed rape (spring) <sup>1</sup>	0.5	1.0	End of flowering (BBCH 69)

<sup>1</sup> QUALIFIED RECOMMENDATION effectiveness and crop safety has not been fully established. For all qualified recommendations users are advised to test a small area first to establish crop safety.

**Other Specific Restrictions:**

- This product must not be applied via hand-held equipment.
- Non-returnable containers must not be re-used for any purpose.

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.**



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GLUE PAGE  
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