

## EXCALIBUR 200 EW

## SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** EXCALIBUR 200 EW  
**Other identifier:** Penconazole 200 g/l  
**Recommended use:** Fungicide  
**Restrictions on use:** Agriculture

**Supplier:** Villa Crop Protection (Pty) Ltd.  
**Co. Reg. No.:** 1992/002474/07  
PO Box 10413,  
Aston Manor, 1630, South Africa

**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

#### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

(Hazcall24) +27 86 044 4411  
(Client: Villa Crop Protection)  
Griffon Poison Information Centre +27 82 446 8946  
(Client: Villa Crop Protection)

#### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946  
Poisons Information Centre +27 861 555 777

### 2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
<b>Physical</b>		
Flammability	Flam liq. 3	H226
<b>Health</b>		
Skin	Skin irrit.3	H316
Eye	Eye irrit. 2	H319
Aspiration	Asp. Tox. 2	H305
Specific Target Organ Toxicity – Single Exposure	STOT SE 3	H336
Specific Target Organ Toxicity – Repeated Exposure	STOT RE 2	H373
Reproductive toxicity	Repro. 2	H361d
<b>Environment</b>		
Aquatic acute	Aquatic acute 2	H401
Aquatic chronic	Aquatic chronic 2	H411

#### The most important adverse effects:

#### Physiochemical effects:

Flammable liquid and vapour (Flam. Liq. 3.)

#### Human health effects:

Causes mild skin irritation (Skin Irrit. 3).  
Causes serious eye irritation (Eye Irrit 2.).  
May be harmful if swallowed and enters airways (Asp. Tox. 2).  
May cause drowsiness or dizziness (STOT SE 3).  
May cause damage to organs through prolonged or repeated exposure (STOT RE 2).  
Suspected of damaging fertility or the unborn child (Repr. 2).

#### Label elements:



#### Signal word: Warning

#### Hazard statements:

H226: Flammable liquid and vapour.  
H305: May be harmful if swallowed and enters airways.  
H316: Causes mild skin irritation.  
H319: Causes serious eye irritation.  
H336: May cause drowsiness or dizziness.  
H373: May cause damage to organs through prolonged or repeated exposure.  
H361d: Suspected of damaging fertility or the unborn child.  
H401: Toxic to aquatic life.  
H411: Toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P203: Obtain, read and follow all safety instructions before use.  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233: Keep container tightly closed.  
P240: Ground and bond container and receiving equipment.  
P241: Use explosion-proof equipment.  
P242: Use non-sparking tools.  
P243: Take action to prevent static discharges.  
P260: Do not breathe dust, fume, gas, mist, vapours and spray.  
P261: Avoid breathing mist, vapours and spray.

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P264+P265: Wash hands thoroughly after handling. Do not touch eyes.

P271: Use only outdoors in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

P301+P316: IF SWALLOWED: Get emergency medical help immediately.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.

P318: IF exposed or concerned, get medical advice.

P319: Get medical help if you feel unwell.

P331: Do NOT induce vomiting.

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

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

P370+P378: In case of fire: Use carbon dioxide or dry chemical to extinguish small fires and water fog or foam for large fires.

P403+P233+P235: Store in a well-ventilated place.

Keep container tightly closed. Keep cool.

P405: Store locked up.

P391: Collect spillage.

P501: Dispose of content/container to suitable landfill in accordance with local regulations.

### Other hazards:

None known.

### Toxicity:

Classification according to GHS: Unclassified

Dodecylbenzene sulphonate	26264-06-2	<5%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 4 (H413)
Light aromatic solvent	64742-95-6	<25%	Asp. Tox. 2 (H305) STOT SE 3 (H336) STOT RE 2 (H373) Flam. Liq. 3 (H226)
Water	7732-18-5	<60%	Not Classified

### 4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.

**Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. **Seek medical attention if irritation occurs.**

**Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **EXCALIBUR 200 EW** causes mild skin irritation. **Obtain medical attention if irritation occurs.**

**Eyes:** Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek immediate medical attention.**

**Ingestion:** Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

**Anticipated acute effects:** Causes mild skin irritation. Causes serious eye irritation. May be harmful if swallowed and enters airways. The product contains solvent that may cause chemical pneumonitis if aspirated into lungs. May cause drowsiness or dizziness.

**Anticipated delayed effects:** May cause damage to organs through prolonged or repeated exposure. Suspected of damaging fertility or the unborn child. Watch for delayed onset of pulmonary infection.

**Most important symptoms / effects:** None known.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

#### Composition:

Chemical name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Penconazole	66246-88-6	20.63%	Acute Tox. 4 (H30) Repr. 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

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**Advice to physician:** Treat symptomatically and supportively. No specific antidote known. If ingested perform gastric lavage and administer activated charcoal.

### 5. FIRE-FIGHTING MEASURES

This product is a fire hazard.

**Flash point:** 40 °C

**Suitable Extinguishing Media:** Use carbon dioxide, dry powder, or alcohol resistant foam. Water spray can be used for cooling of unaffected stock but avoid water coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for firefighting for later disposal. Avoid the accumulation of polluted run-off from the site.

**Unsuitable Extinguishing Media:** High volume water jet. Use a water jet only to cool heated containers.

**Specific hazards:** Fire may produce combustion products (traces of hydrogen cyanide and oxides of nitrogen and carbon), which are toxic and irritating.

**Special fire-fighting procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Remain upwind of fire. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

**Personal protective equipment:** Fire may produce harmful combustion products (traces of hydrogen cyanide and oxides of nitrogen and carbon). Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Avoid contact with eyes and skin. Do not breathe in spray mist/fumes or vapours. Ventilate area of spill or leak, especially in contained areas.

**Protective equipment:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Emergency procedures:** Alert firefighting personnel, evacuate unprotected personnel and animals.

**Environmental Precautions:** Prevent spilled product from entering sewers, waterways or ground water. This product is classified as very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water / Environmental Affairs. **EXCALIBUR 200 EW** is considered a marine pollutant.

**Methods and Materials for Containment:** Contain spilt product by diking area with sand or earth.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilt material back in original container. Do not re-use spilt material. Collect washings and add to the drums already collected. Do not flush spilt material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations. Open burning or dumping of this material is prohibited.

### 7. HANDLING AND STORAGE

**Handling:**

**Precautions for safe handling:** Do not use near source of sparks or open flame. Harmful in contact with skin and if swallowed. Irritating to eyes and skin. Avoid contact with eyes and skin, and inhalation of spray and vapour. Use with adequate ventilation. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

**General occupational hygiene:** Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean water mark. Water used to clean

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equipment must be disposed of correctly to avoid contamination.

### Storage:

**Conditions for safe storage:** Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well-ventilated area. Do not store near heat, open flame, sources of ignition or hot surfaces. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** Fluorinated plastic containers.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Permissible concentration:

No occupational exposure limits have been determined for the significant ingredients in this product.

### Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

### Personal Protective Equipment:

**Respiratory Protection:** For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved, air-purifying respirator with cartridges / canisters approved for organic vapours.

**Hand Protection:** The use of chemically protective impervious synthetic gloves is recommended to prevent against skin contact.

**Eye Protection:** this product causes serious eye damage. Wear a face shield/visor. The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

**Skin and Body Protection:** Employees must wear appropriate protective impervious clothing, rubber boots, hat and equipment to prevent repeated or prolonged skin contact with this product.

**Emergency eyewash:** Where there is any possibility that an employee's eyes may be exposed to this product, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White homogenous solution, without coagulation.

**Odour:** Weak chemical odour.

**Odour threshold:** Not available.

**pH (1% aqueous dilution):** 6.6 in a 1% aqueous solution.

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

**Flash Point:** 40 °C (closed cup).

**Flammability:** Flammable and combustible.

**Upper / lower explosion limits:** Not explosive.

**Vapour Pressure (mm Hg):** Not available.

**Relative Vapour Density:** Not available.

**Density / Relative density:** 1.02 g/ml.

**Solubility:** Forms an emulsion in water.

**Corrosiveness:** Not corrosive.

**n-octanol / water partition coefficient:** Not available.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** Not available.

**Viscosity:** Not available.

## 10. STABILITY AND REACTIVITY

**Chemical stability:** The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.

**Reactivity:** React with strong bases.

**Possibility of hazardous reactions:** React with strong bases.

**Conditions to avoid:** Protect from sunlight, open flame and sources of heat. Avoid contact with strong bases.

**Incompatible materials:** Strong bases.

**Hazardous decomposition products:** Fire may produce harmful combustion products, which are toxic and irritating.



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### 11. TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY:

Calculated according to GHS:

Oral LD<sub>50</sub>: > 5000 mg/kg

Dermal LD<sub>50</sub>: > 5000 mg/kg

Inhalation LC<sub>50</sub>: > 5 mg/l

**Skin Irritation:** Causes mild skin irritation.

**Eye Damage:** Causes serious eye irritation.

**Skin Sensitization:** Not classified.

**Respiratory Sensitization:** Not classified.

**Reproductive cell mutagenicity:** Not classified.

**Carcinogenicity:** Not classified.

**Reproductive toxicity:** Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity – single exposure:** May cause drowsiness or dizziness.

**Specific target organ toxicity – repeated exposure:** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard:** May be harmful if swallowed and enters airways.

**Chronic Effects:** Not classified.

#### POTENTIAL ADVERSE EFFECTS:

**Oral:** May be harmful if swallowed and enters airways.

**Skin contact:** Causes mild skin irritation.

**Eye contact:** Causes mild skin irritation.

### 12. ECOLOGICAL INFORMATION

This product is toxic to aquatic life with long lasting effects.

#### ECOTOXICITY DATA:

Penconazole

#### Mobility, Degradability & Accumulation:

#### Fish: (Toxic to fish)

LC <sub>50</sub> (96 h)	Carp	3.8 to 4.6 mg/ml
	Rainbow trout	1.7 to 4.3 mg/l
	Bluegill sunfish	2.1 to 2.8 mg/l

#### Daphnia:

IC <sub>50</sub> (48 h)	<i>Daphnia magna</i>	7 to 11 mg/l
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#### Algae:

EC <sub>50</sub> (5 days)	<i>Selenastrum capricornutum</i>	0.83 mg/l
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IC <sub>50</sub> (5 days):	<i>Scenedesmus subspicatus</i>	3.0 mg/l
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#### Birds: (Not toxic to birds)

Oral LD <sub>50</sub> (8 days)	Japanese quail	2424 mg/kg
	Pekin ducks	>3000 mg/kg
	Mallard duck	>1590 mg/kg

#### Bees: (Not toxic to bees)

LD <sub>50</sub> (contact and topical)		>5 µg/bee
LD <sub>50</sub> oral (48h)		>83 µg/bee

#### Earthworm: (Not toxic to earthworms)

LC <sub>50</sub> (14days)		>1000 mg/kg soil
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### ENVIRONMENTAL EFFECTS

#### Penconazole

**Plants:** The metabolic pathways are hydroxylation of the propyl side chain, conjugation to glucosides or metabolism to triazolalanine and triazolyacetic acid.

**Persistence and degradability:** DT<sub>50</sub> in soil is 133 to 343 days, depending on the soil type. DT<sub>50</sub> for photolysis is 4 days in natural sunlight. After oral administration to animals, **EXCALIBUR 200 EW** is rapidly eliminated, practically to entirety with urine and faeces.

**Bio-accumulative potential:** Residues in tissues were not significant and there was no evidence for accumulation.

**Mobility in soil:** Not determined.

**Other adverse effects:** Not determined.

### 13. DISPOSAL CONSIDERATIONS

**Waste:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

**Container:** Emptied containers retain product and vapour residues. Do not re-use the empty container for any other purpose. Triple rinse empty containers by

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inverting the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a third of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner. 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. Observe all labelled safeguards until container is destroyed.

### 14. TRANSPORT INFORMATION

This product is classified as a marine pollutant.

**UN Number:** 1993  
**Road Transport ADR / ORD:**  
Class: 3  
Packaging group: III  
UN Proper Shipping Name: FLAMMABLE LIQUID,  
N.O.S. (Penconazole  
200 g/l)

**Maritime Transport IMDG / IMO:**  
Class: 3  
Packaging group: III  
UN Proper Shipping Name: FLAMMABLE LIQUID,  
N.O.S. (Penconazole  
200 g/l)

**Marine pollutant (Y/N):** Yes  
**Air Transport IATA / ICAO:**  
Class: 3  
Packaging group: III  
UN Proper Shipping Name: FLAMMABLE LIQUID,  
N.O.S. (Penconazole  
200 g/l)

**Special / Environmental Precautions:** Wedge drums tightly to avoid movement.

**Transport in bulk:** Refer to MARPOL 73/78, Annex II and the IBC code.

### 15. REGULATORY INFORMATION

**Safety, health and environmental regulations / legislation for the mixture:**

OHSA 1993 Regulations for Hazardous Chemical Substances.

**Relevant information regarding restrictions:** None.

**EU regulation:** Regulation EC1272/2008 (EU-GHS/CLP)

**Other national regulations:** None.

**Chemical Safety Assessment carried out?** No

### 16. OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10, 20 and 25 litres fluorinated plastic containers labelled according to South African regulations and guidelines.

**Other hazard statements, abbreviations and explanations:**

**H302:** Harmful if swallowed.

**H413:** May cause long lasting harmful effects to aquatic life.

**IATA:** International Air Transport Association.

**IBC:** International Bulk Chemical.

**ICAO:** International Civil Aviation Organization.

**IMDG:** International Maritime Dangerous Goods

**IMO:** International Maritime Organization.

**LD<sub>50</sub> value:** The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

**TWA:** Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

**ST/STEL:** Short-term exposure limits.

**Disclaimer:** The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

### END OF DOCUMENT

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**Next revision:** June 2027

For detailed information on revisions, contact the Registration holder.