



## Safety Data Sheet

### PENCOMAX - Reg. No: L 7879 (Act No 36 of 1947)

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1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	PENCOMAX
Other means of identification:	Penconazole 200 g/L EW
Recommended use:	Fungicide
Restrictions on use:	Agriculture
UN No:	3082
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056
Emergency Number:	POISON CENTRE (Uwww.agritech.co.za NITAS HOSPITAL) 012 664 1100 TYGERBERG: 021 931 6129 RED CROSS: 021 689 5227 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
Chemical Name:	1-(2,4-dichloro- $\beta$ -propylphenethyl)-1 <i>H</i> -1,2,4-triazole
2) Hazards Identification:	
Product Classification:	F, Xi R10; R20/22; R36/37/38; R51 Full text of phrases; see section 15
Label Elements:	Hazard symbols: F – Flammable Xi – Irritant     Signal words: Flammable, irritant
Health effects: eyes:	May cause mild irritation.
Health effects: skin:	May cause mild irritation.
Health effects: ingestion	May cause irritation and may be harmful.
Health effects: inhalation	Unlikely to cause harmful effects under normal conditions and use.
3) Composition Details:	
COMPOSITION	Penconazole 66246-88-6 200 g/L

<b>4) First Aid Measures:</b>	
<b>Inhalation:</b>	Unlikely to cause harmful effects under normal conditions and use. Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
<b>Skin contact:</b>	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Do not rub skin. Persons providing first aid must wear gloves to avoid selfcontamination. Seek medical assistance if irritation occurs.
<b>Eye contact:</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance immediately.
<b>Ingestion</b>	Harmful if swallowed. Rinse mouth. Administer medicinal charcoal repeatedly together with plenty of water. Never give anything by mouth to an unconscious person. Induce vomiting. For advice, contact the National Poisons Centre. Seek medical assistance immediately.
<b>Advice to physician:</b>	No specific antidote known. Treat symptomatically. Repeatedly administer medicinal charcoal in a large quantity of water.
<b>5) Fire-Fighting Measures:</b>	
<b>Flash point:</b>	> 40 °C May be flammable at elevated temperatures.
<b>Extinguishing Media:</b>	Fine water spray, foam, carbon dioxide. Do not use high volume water jet, due to contamination risk.
<b>Fire Fighting:</b>	Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways.  UNUSUAL FIRE OR EXPLOSION HAZARDS: Generating poisonous and corrosive fumes such as carbon oxides, nitrous gases and hydrogen chloride. Keep upwind
<b>Protective clothing:</b>	Fire may produce irritating or poisonous vapours, mists or other products of combustion. Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.
<b>6) Accidental Release Measures:</b>	

<p><b>Personal precautions:</b></p> <p><b>Environmental precautions:</b></p> <p><b>Occupational spill:</b></p>	<p>Avoid contact with skin and eyes. Do not breathe in spray or fumes. For personal protection see Section 8. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.</p> <p>Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers or lakes is unavoidable, warn the local authorities (Police and Department of Water/Environmental affairs) immediately. Considered as Marine Pollutant.</p> <p>Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with inert material, remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in waste containers. Wash area with water and detergent and absorb with further inert material. Heavily contaminated soil layers have to be dug out down to clean soil. If spill does enter waterways contact the local authority. Spilled product cannot be re-used and must be disposed of by incineration or disposal in a chemical waste disposal facility. If containers cannot be recycled, they should be disposed of together with the waste chemical. Generating poisonous and corrosive fumes.</p>
<p><b>7) Handling &amp; Storage:</b></p>	
<p><b>Handling:</b></p> <p><b>Storage:</b></p>	<p>Avoid skin and eye contact and inhalation of spray mist. Avoid inhalation of fog and vapours. Keep away from heat and sources of ignition. Take precautionary measures against static discharges (transfer operations: check grounding). May form explosive vapour-air mixtures. Spills may be slippery and should be cleaned up immediately. APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor. BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.</p> <p>Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Keep away from children or uninformed persons. <b>Max. Storage Temperature: 35 °C</b> <b>Min. Storage Temperature: -5 °C</b></p>
<p><b>8) Exposure Control / Personal Protection:</b></p>	
<p>It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.</p> <p><b>Occupational Exposure Limits:</b></p> <p><b>Engineering Controls:</b></p>	<p>Not available</p> <p>Not available</p>
<p><b>PERSONAL PROTECTIVE EQUIPMENT:</b></p>	

<p><b>Clothing:</b></p> <p><b>Gloves:</b></p> <p><b>Eye protection:</b></p> <p><b>Emergency eye wash:</b></p>	<p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance. Respiratory protection: Respirator with filter for organic vapour.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance</p> <p>The use of safety goggles with side shields is recommended.</p> <p>Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.</p>
<b>9) Physical &amp; Chemical Properties:</b>	
<b>Form:</b>	Liquid
<b>Colour:</b>	White
<b>Odour:</b>	Characteristic
<b>Solubility:</b>	Emulsifies in water.
<b>pH:</b>	6.8
<p><b>Odour threshold:</b></p> <p><b>Melting point / Freezing point      Boiling point:</b></p> <p><b>Flash point:</b></p> <p><b>Evaporation rate:</b></p> <p><b>Flammability (solid, gas)</b></p> <p><b>Upper/ lower flammability or explosive limits:</b></p> <p><b>Vapour pressure:</b></p> <p><b>Vapour density:</b></p> <p><b>Relative density:</b></p> <p><b>Partition coefficient: n-octanol/water      Auto-ignition temperature:</b></p> <p><b>Viscosity:</b></p>	<p>Not available</p> <p>60.3 – 61°C (Penconazole)</p> <p>&gt;360°C/760 mmHg (Penconazole)</p> <p>&gt;40°C</p> <p>Not available</p> <p>Flammable, combustible</p> <p>Not explosive</p> <p>0.37 mPa @ 25°C (Penconazole)</p> <p>Not available</p> <p>1.007 g/ml</p> <p>Log K<sub>ow</sub> 3.1 @ pH 5.7 (Penconazole)</p> <p>Not available</p> <p>Not available</p>
<b>10) Stability &amp; Reactivity:</b>	
<p><b>Stability:</b></p> <p><b>Conditions to avoid:</b></p> <p><b>Incompatible materials:</b></p> <p><b>Hazardous decomposition product(s):</b></p>	<p>When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.</p> <p>Avoid direct sunlight, open flames and sources of heat.</p> <p>Strong bases.</p> <p>Heating can release vapours which can be ignited. Combustion products are toxic and/or irritant.</p>
<b>11) Toxicological Information:</b>	
<p>Oral : LD<sub>50</sub> &gt; 3 000 mg/kg, rat. Dermal : LD<sub>50</sub> &gt; 4 000 mg/kg, rabbit. Inhalation : LC<sub>50</sub> (4h) &gt; 5.3 mg/L, rat.</p> <p>Skin irritation: Mild irritant, rabbit. Eye irritation : Mild irritant, rabbit. Sensitization : Did not cause sensitization on laboratory animals.</p> <p><b>Oral</b> Acute oral LD<sub>50</sub> for rats 2125, mice 2444 mg/kg. <b>Skin and eye</b> Acute percutaneous LD<sub>50</sub> for rats &gt;3000 mg/kg. Not a skin irritant; irritating to eyes (rabbits). Not a skin sensitiser (guinea pigs). <b>Inhalation</b> LC<sub>50</sub> (4 h) for rats &gt;4000 mg/m<sup>3</sup>. <b>NOEL</b> (2 y) for rats 3.8, mice 0.71 mg/kg b.w. daily; (1 y) for dogs 3.3 mg/kg b.w. daily. <b>ADI/RfD</b> (JMPR) 0.03 mg/kg b.w. [1992]. <b>Other</b> Not mutagenic, not teratogenic, not oncogenic. <b>Toxicity Class</b> WHO (a.i.) U</p>	

**12) Ecological Information:**

Bees : LD50 (48h) Oral >35 µg/bee; Contact >80 µg/bee.

Birds : LD50 Bobwhite quail & Mallard ducklings > 2000 mg/kg.

Dietary LC50 (8d) Bobwhite quail & Mallard ducklings >5 000 mg/kg diet.

Fish : LC50 (96h) Rainbow trout >70 mg/L, Bluegill sunfish >25 mg/L.

Daphnia : EC50 (48h) > 0.02 mg/L.

Algae : NOEL *Selenastrum capricornutum* 50 mg/L. **Algae** EC50 (72 h) for green algae 10 mg/l. Worms : (14d) > 16 mg/kg soil. **Worms** Acute LC50 (14 d) >1000 mg/kg.

Persistence: Rapidly degraded in biologically active soils under aerobic conditions. DT50 13-20days.

**Birds** Acute oral LD50 (8 d) for Japanese quail 2424, Pekin ducks >3000, mallard ducks >1590 mg/kg. LC50 (8 d) for bobwhite quail and mallard ducks >5620 ppm. **Fish** LC50 (96 h) for rainbow trout 1.7–4.3, carp 3.8–4.6, bluegill sunfish 2.1–2.8 mg/l. **Daphnia** IC50 (48 h) 7–11 mg/l. **Algae** IC50 (5 d) for *Scenedesmus subspicatus* 3.0 mg/l; EC50 (5 d) for *Selenastrum capricornutum* 0.83 mg/l. **Bees** Non-toxic to bees; LD50 (oral and topical) >5 µg/bee. **Worms** LC50 (14 d) for earthworms >1000 mg/kg.

DT50 in soil is 133–343 d, depending on soil type. DT50 for photolysis is 4 d (natural sunlight).

**13) Disposal Considerations:**

**Waste Disposal** : : In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved chemicals waste disposal facility.

**Container Disposal** : Refer to the product label for instructions.

Container Refilling and Disposal:

If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product.

DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.

Do not transport if this container is damaged or leaking.

**14) Transportation Information:**

UN NUMBER: 3082

Road Transport ADR/ RID:

Class: 9

Packaging group: III

Labelling no: 9 Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( PENCOMAX )

Air transport IATA / : Class:

9

Packaging group: III Labelling no: 9 Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( PENCOMAX )

Maritime Transport IMDG / IMO:

Class: 9

Packaging group: III Labelling

no: 9

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( PENCOMAX )

**15) Regulatory Information:**

**Symbol** N - Dangerous for the environment

Xi – Irritant

F-Flammable

**R-phrase(s):**

R10-Flammable

R20/22-Harmful by inhalation and if swallowed

R36/37/38: Irritating to eyes, respiratory system and skin

R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrase(s):**

S2 - Keep out of reach of children.

S13 – Keep away from food, drink and animal feeding stuffs.

S16- Keep away from sources of ignition: No smoking.

S20/21 – When using, do not eat drink or smoke.

S23- Do not breathe vapour/spray

S24/25: Avoid contact with skin and eyes.

S36/37/39-Wear suitable protective clothing, gloves and eye/face protection.

S61 - Avoid release to the environment.

**16. Other Information**

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

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