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PENCOL 10 EC

**SECTION 1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/
UNDERTAKING (➤)**

1.1. Product identifier:

Trade name: PENCOL 10 EC
(Emulsifiable concentrate (EC))

1.2. Relevant identified uses of the mixture: Agriculture - Fungicide

1.3 Details of the supplier of safety data sheet:

ASCENZA Agro, S.A.
Address: Av. do Rio Tejo, Herdade das Praias
2910-440 Setúbal
Portugal
Phone Nr.: 00 351 265 710 100
Fax Nr.: 00 351 265 710 105
E Mail: agroseguranca@agro.sapec.pt

1.4. Emergency telephone number:

Local Poisons Information Centre: +30 210 7793777

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the mixture:

According to classification rules of Regulation (EC) No 1272/2008: Repr. 2: H361d; Aquatic Chronic 2: H411.

Adverse physicochemical effects: -----

Adverse human health effects: Suspected of damaging the unborn child

Adverse environmental effects: Toxic to aquatic life with long lasting effects.

2.2. Label elements:

According to Regulation (EC) No 1272/2008:

Hazard
pictogram(s):



Signal word(s):

Warning

Hazard statement(s): H361d - Suspected of damaging the unborn child;
H411 - Toxic to aquatic life with long lasting effects.
Precautionary statement(s): P101 - If medical advice is needed, have product container or label at hand;
P201 - Obtain special instructions before use;
P270 - Do not eat, drink or smoke when using this product;
P281 - Use personal protective equipment as required;
P308+P313 - IF exposed or concerned - Get medical advice/attention.
Supplemental information: General: P405+P102 -Store locked up. Keep out of reach of children.
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use;
SP1 - Do not contaminate water with the product or its container.

2.3. Other hazards: The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No 1907/2006.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Not Applicable.

3.2. Mixtures:

Substance identifier			% (w/w)	Substance classification	REACH Registration No
Name	CAS No	EC No		According to Regulation No 1272/2008	
Cyclohexanone	108-94-1	203-631-1 (EINECS) 606-010-00-7 (INDEX)	10 - 15	Flam. Liq. 3: H226; Acute Tox. 4: H332	01-2119453616-35-XXXX
Penconazole (C ₁₃ H ₁₅ Cl ₂ N ₃)	66246-88-6	266-275-6 (EINECS) 613-317-00-X (INDEX)	10.2 (**)	Repr. 2: H361d; Acute Tox 4: H302; Acute Aquatic. 1: H400; Chronic Aquatic. 1: H410	(*)

(*) Active substance for use in plant protection products only, regarded as being registered (Article 15(1) of Regulation 1907/2006)

(**) Equivalent to 100g/l of pure Penconazole

Note: Full text of Hazard Statements not written out in full in this section, are referred in section 16.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures:

Inhalation: In case of inhalation move the victim to fresh air. Control breathing and if necessary provide oxygen therapy. Seek medical advice, if symptoms persist or develop.

Skin contact: In case of contact with skin take off contaminated clothing, and wash immediately affected area with water and soap for 15-20 minutes. Seek medical advice, if symptoms persist or develop.

Eye contact: In case of contact with eyes, separate eyelids and rinse immediately with plenty of water for 15-20 minutes; do not forget to remove lens. Seek medical advice, if symptoms persist or develop.

Ingestion: If swallowed, wash mouth with water provided the victim is conscious. Seek medical advice, if symptoms persist or develop. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless told so by a physician or poison control centre.

General measures: Seek medical assistance and show the container or label to the physician. Never leave the victim alone.

4.2. Most important symptoms and effects: (associated to active ingredients): (Penconazole):

Ingestion - gastrointestinal disorder: nausea, vomiting, diarrhoea and abdominal ache; anorexia, fever, headache, depression of central nervous system. **Inhalation** - respiratory disturbs: cough, dyspnoea, rhinitis, increase in bronchial secretions; **Contact** - irritation of the eyes, skin and mucous, watering of eyes, conjunctivitis; contact dermatitis.

4.3. Indication of any immediate medical attention and special treatment needed: Provide supportive care and symptomatic treatment. If swallowed induce vomiting or provide a gastric wash, avoiding aspiration or administrate activated charcoal or saline laxative (type: sodium or magnesium sulphate or similar).

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable extinguishing media: Dry chemicals, carbon dioxide (CO₂), foam and water spray.

Unsuitable extinguishing media: Water jet.

5.2. Special hazards arising from the mixture: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion (carbon and nitrogen oxides, chlorine compounds: HCl and eventually Cl₂).

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5.3. Advice for fire-fighters:

Protective measures: Evacuate non essential persons from fire site. Fight fire from a protected location. Avoid inhalation of fumes. Depending on fire location, it's preferable not to use water to prevent the risk of environmental contamination; if not possible, use spray water consciously. Use water spray to cool containers exposed to fire. Keep adequate measures to prevent environmental contamination. Dike fire control water for later disposal.

Special protective equipment for fire-fighters: Use self-contained breathing apparatus and complete protective clothes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Avoid contact or inhalation of product.

For emergency responders: Isolate the spill area and limit the access to essential personnel. Use adequate protective clothes, gloves and protective mask with vapour filter. Eliminate any possible ignition source. Avoid contact or inhalation of product. Ventilate confined space before entry.

6.2. Environmental precautions: Prevent spills dispersion. Keep spills and cleaning runoff, out of municipal sewers and open bodies of water. Block the leakage, if this operation doesn't implicate risks. If product has contaminated bodies of water or soil or vegetation, alert the local authorities.

6.3. Methods and material for containment and cleaning up: Cover entire spill with absorbing material or sand, collect it, avoiding producing dust, and place it in a container appropriate for later disposal. Avoid use of water for cleaning up.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Use adequate protective equipment to avoid direct contact or inhalation of the product. Handle product in well ventilated areas if possible with emergency eyewash and safety shower. Eliminate any possible ignition source on handling and storing areas. A good personal hygiene is required.

Do not smoke, drink or eat while handling the product.

After handling, remove contaminated clothing and wash hands thoroughly with soap and water.

Keep personal protective equipment and contaminated clothing separate from other laundry; wash it separately.

Don't handle damaged package without adequate protective devices.

Keep the container tightly closed when the product is not in use.

7.2. Conditions for safe storage, including any incompatibilities:

Keep product only in the original container, tightly closed and labelled.

Store on fresh, dry and well ventilated place, protected from sunlight, heat and humidity.

Do not store near flame and heat sources.

Keep away from food, drink and animal feeding stuffs.

Keep children and public away from storage place.

Provide fire-fighting measures and electrostatic discharges protection devices, in storing areas.

7.3. Specific end use: The authorized on label

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

(Penconazole): ADI: 0.03 mg/kg b.w/ day. AOEL: 0.03 mg/kg b.w / day.

8.2. Exposure controls:

Appropriate engineering controls: Ensure natural or mechanical ventilation, control of ignition sources, fire fighter measures and availability of shower / eyewash emergency in confined work areas.

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Individual protection measures, such as personal protective equipment:

Eye/ face protection: Chemical goggles or safety glasses that assure complete shielding of eyes (for example type Univet 543).

Skin Protection: Apron or other slight protection clothes, nitrile gloves and plastic or rubber boots.

Respiratory Protection: Panoramic mask or half-mask with combined filter ABEK replaceable.

Thermal hazards: Not applicable

Environmental exposure controls: Avoid spill. Keep the product in proper storing conditions. Keep the containers closed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Physical State	Liquid
Colour	Light yellow
Odour	Uncharacteristic
Odour threshold	NA
pH (1% in water)	4.8
Melting point/ freezing point	NA
Initial boiling point and boiling range	NA
Flash point	65.5°C
Evaporation rate	NA
Flammability	Not flammable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	NA
Vapour density	NA
Relative density	0.98
Solubility	Miscible in water
Partition coefficient n-octanol/water	NA
Auto-ignition temperature	360°C
Decomposition temperature	NA
Viscosity	NA
Explosive properties	No explosive (based on components)
Oxidising properties	No oxidant (based on components)

9.2. Other information:

Miscibility	NA
Fat solubility	NA
Conductivity	NA
Gas group	Not applicable

SECTION 10. STABILITY AND REACTIVITY

10.1. **Reactivity:** No information available.

10.2. **Chemical stability:** Stable under normal use and storage conditions.

10.3. **Possibility of hazardous reactions:** No information available.

10.4. **Conditions to avoid:** Avoid storage in moist or hot conditions, near of ignition sources. Keep away from food, drinks and open bodies of water.

10.5. **Incompatible materials:** Polyethylene. Ferrous metals.

10.6. **Hazardous decomposition products:** Thermal decomposition or combustion may generate irritating and probably toxic gases (carbon and nitrogen oxides, chlorine compounds: HCl and eventually Cl₂).

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SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Acute toxicity (*):

Acute Oral LD ₅₀ :	>2000 mg/kg b.w. (Rats)
Acute Dermal LD ₅₀ :	>4000 mg/kg b.w. (Rats)
Acute Inhalation LC ₅₀ (4h):	>5294 mg/m ³ air (Rats)

Acute Effects (*):

Skin corrosion/ irritation:	Non irritant
Serious eye damage/irritation:	Non irritant
Respiratory sensitisation:	No information available
Skin sensitisation:	Not a skin sensitizer

Chronic effects (Penconazole):

Mutagenicity:	Not observed
Carcinogenicity:	Not observed
Reproductive toxicity:	Possible developmental toxic effects
STOT- single exposure:	No demonstrated
STOT- repeated exposure:	No demonstrated
Aspiration hazard:	No information available

(*) Based on available data, the classification criteria are not met.

Likely routes of exposure: Contact with skin, eyes, ingestion and inhalation.

Symptoms and effects: See subsection 4.2.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Acute toxicity:

Fish acute LC ₅₀ (96 h):	6.8 mg/l (Rainbow trout); 12.1 mg/l mg/l (Carp)
Aquatic invertebrates acute EC ₅₀ (48 h):	3.9 mg/l (<i>Daphnia magna</i>)
Algae acute E _r C ₅₀ (72 h):	4.9 mg/l (<i>Selenastrum capricornutum</i>) (Penconazole)
Birds acute oral LD ₅₀ :	2424 mg/kg b.w. (Japanese quail); > 1590 mg/kg b.w. (Mallard ducks); > 3000 b.w. (Pekin ducks) (Penconazole)
Bee oral LD ₅₀ (72 h):	> 215.6 µg/bee
Bee contact LD ₅₀ (72 h):	> 200 µg/bee
Aquatic plants CE ₅₀ (7 d):	1.26 mg/l (<i>Lemna gibba</i>)

Chronic toxicity (Penconazole):

Fish chronic NOEC (30 d):	0.32 mg/l (Fathead minnow)
Aquatic invertebrates chronic NOEC (21 d):	0.060 mg/l (<i>Daphnia magna</i>)
Algae chronic NOEC:	NA

12.2. Persistence and degradability: (Penconazole):

- Soil: Persistent in soil. Typical and Lab DT₅₀: 117 d; Field DT₅₀: 90 d.

- Water: Stable in water-sediment systems, DT₅₀: 853 d. Moderately fast chemical degradation in water phase only, DT₅₀: 2 d. Not readily biodegradable. Photodecomposition in water is moderately fast. DT₅₀: 4 d.

12.3. Bioaccumulative potential: (Penconazole): Moderate bioaccumulation potential. BCF: 320.

12.4. Mobility in soil: (Penconazole): Low to slight mobility.

12.5. Results of PBT and vPvB assessment: The mixture isn't PBT/ vPvB.

12.6. Other adverse effects: NA.

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SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Surplus disposal: Dispose in a safe manner in accordance with local/ national regulations. Avoid personnel exposure. Waste material code: 07 04 13* (Council Decision 2001/118/EC).

Containers disposal: Empty containers should be triple rinsed (or equivalent). Do not reuse product containers. Dispose of product containers, waste containers and residues in an authorised waste collection point. Containers should be closed and labelled. Waste material code packaging: 15 01 10* (Council Decision 2001/118/EC).

SECTION 14. TRANSPORT INFORMATION

14.1. UN number: 3082

14.2. UN proper shipping name:

ADR/RID: UN 3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains: Penconazole); 9; III; (-).

IMDG: UN 3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains: Penconazole); 9; III.

IATA: UN 3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains: Penconazole); 9; III.

14.3. Transport hazard class(es): 9

14.4. Packing group: III

14.5. Environmental hazards:

ADR/RID: Dangerous for the environment.

IMDG: Marine pollutant.

IATA: Dangerous for the environment.

14.6. Special precautions for user: Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable: the product is not transported in bulk.

Note: ADR/ RID/ IMDG Limited Quantities Exemption: Combined packages with a total weight not greater than 30 kg are exempt provided each individual package do not exceed 5 lt

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the mixture:

Seveso category: E2.

15.2. Chemical safety assessment: Chemical safety assessment was not carried out for the mixture.

SECTION 16. OTHER INFORMATIONS

Content review: The sections / sub sections marked with (➤) were changed with relevant information, from the previous version.

Methods for evaluation of the information used for classification: Classification assigned in accordance with the classification criteria of the Greek authorities.

List of Hazard Warnings mentioned in previous sections

H226 - Flammable liquid and vapour;

H302 - Harmful if swallowed;

H332 - Harmful if inhaled;

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects.

Consulted Data Bases:

ESIS: European Chemical Substances Information;

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FOOTPRINT (2007/2008) The FOOTPRINT Pesticide Properties DataBase; Database collated by the University of Hertfordshire as part of the EU-funded FOOTPRINT project (FP6-SSP-022704). <http://www.eu-footprint.org/ppdb.html>;

AGRITOX - Base de données sur les substances actives phytopharmaceutiques;
EU Pesticide Database.

Literature references:

The e-Pesticide Manual, version 3.2 2005-06, Thirteenth Edition, Editor: CDS Tomlin;
Manual Toxicológico de Produtos Fitosanitários para Uso Sanitário - Instituto Nacional de Toxicologia / AEPLA (Associação Empresarial para la Protección de las Plantas (Espanha).
ADR 2015 Editor Tutorial; IMDG Code, 2014 Edition; IATA Code, 2014 Edition.
EFSA Scientific Report (2008) 175, 1-104, Conclusion regarding the peer review of the Penconazole.

Glossary:

ADI: Acceptable Daily Intake	LC ₅₀ : Medium Lethal Concentration
AOEL: Acceptable Operator Exposure Level	NA: No data available
BCF: Bio-concentration factor	NOEL: No observed effect level
b.w.: Body weight	NOEC: No observed effect concentration
CAS: Chemical Abstract Service	PBT: Persistent, bioaccumulative and toxic
DT ₅₀ : Time for 50% loss; half-life	TLV: Threshold Limit Value
EC ₅₀ : Medium Effective Concentration	TWA: Time Weighted Average
LD ₅₀ : Medium Lethal Dose.	vPvB: Very persistent and very bioaccumulative

This 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 the product will be handled and used in the workplace including in conjunction with other products.

No liability will be accepted for any injury, loss or damage resulting from failure to take account of information or advice contained in this safety data sheet.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.