

MATERIAL SAFETY DATA SHEET

PENCO 10% EC

SECTION (1.) IDENTIFICATION OF THE SUBSTANCE

Trade Name: Penco10% EC

Active Ingredient: Penconazole

Chemical Classification: Triazole

Chemical Name: 1-(2,4-dichloro- β -propylphenethyl)-1H-1,2,4-triazole (IUPAC)

Chemical Formula: C₁₃H₁₅Cl₂N₃

CAS RN: 66246-88-6

USE: Fungicide

Formulation: Emulsifiable concentrate

SECTION(2.) COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Proportion
Penconazole	66246-88-6	100 g/L
Other inert ingredients	(non hazardous)	Balance

SECTION(3.) HAZARDS IDENTIFICATION

Risk Phrases

R36 Irritating to eyes.

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

Safety Phrases

S2 Keep out of the reach of children.

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

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

S35 This material and its container must be disposed of in a safe way.

S57 Use appropriate containment to avoid environmental contamination

SECTION (4).FIRST AID MEASURES

Ingestion:

If victim is fully conscious, have the person sip a glass of water if able to swallow. Do not induce vomiting unless instructed to do so by a physician. Never give anything by mouth, or attempt to induce vomiting, in an unconscious or convulsing person.

Inhalation:

Move person from contaminated area to fresh air. If the individual is not breathing, call an ambulance and begin artificial respiration.

Eye Contact:

Immediately flush eyes repeatedly with large amounts of clean, running water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Hold eyelids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

Skin Contact:

Remove contaminated clothing. Using plenty of soap and water, wash then rinse skin, hair and under fingernails for 15-20 minutes. Do not apply any medicating agents except on the advice of a physician. Obtain medical attention if irritation persists.

Note to Physician:

No specific antidote is available. If poisoning is suspected apply symptomatic therapy.

SECTION (5.)FIRE FIGHTING MEASURES

Flammability: Not flammable.

Extinguishing agents:

Extinguish warehouse and factory fires using fine-water spray or foam.

In case of fire:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff

SECTION (6).ACIDENTAL RELEASE MEASURES

Procedure for spill:

- (1) Keep all bystanders away.
- (2) Wear full length clothing and PVC gloves.
- (3) Reposition any leaking containers so as to minimize further leakage.
- (4) Dam and absorb spill with an absorbent material (e.g. sand or soil).
- (5) Shovel the absorbed spill into drums.
- (6) Disposal of the absorbed material will depend upon the extent of the spill.
 - For quantities up to 50 L of product bury in a secure landfill site.
 - For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.
- (7) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable

SECTION (7).HANDLING AND STORAGE

Store in the tightly sealed, original containers in a dry, secure, well-ventilated place away from fertilizers, seed, feed and food. Store out of direct sunlight. Keep out of reach of children, unauthorized persons and animals. Wash thoroughly with soap and water after handling. Always wash thoroughly after handling. Remove contaminated clothing promptly, and wash it before wearing again. Wear personal protective equipment (see Section 8) when applying ACHIEVE Liquid.

SECTION(8.)EXPOSURE CONTROL/PERSONAL PROTECTION

Avoid contact with eyes and skin. Do not inhale spray mist.

When preparing the spray wear:

- cotton overalls buttoned to the neck and wrist,
- a washable hat,
- elbow-length PVC gloves,
- impervious footwear and
- a face-shield or goggles.

If clothing becomes contaminated with product remove clothing immediately. If product gets on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

SECTION (9.) PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid yellow

Density : 0.98 g/cm³ (CIPAC F p.11 MT 3)
Acidity : 0.05 g/Kg as H₂SO₄ (CIPAC F p.96 MT 31)
Emulsion stability : 0 h initial emulsification complete (CIPAC F p.108 MT 36)
0.5 h initial emulsification complete
2.0 h cream 0.5 ml
24 h re emulsification complete
pH : 5.5 (CIPAC F p.205 MT 75)
Storage stability * : Accepted (CIPAC J p.128 MT46.3)

SECTION(10.)STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal use and storage conditions

Conditions to avoid:

None known

Materials to Avoid:

Can decompose at high temperatures, forming toxic gases

Hazardous Polymerization:

Material is not known to polymerize

SECTION (11.)TOXICOLOGICAL INFORMATION

Acute toxicity/Irritation Studies (End product):

Oral:	Slightly Toxic	
	LD50 (rat):	> 4000 mg/kg
Dermal:	Slightly Toxic	
	LD50(rat):	> 3000 mg/kg
Inhalation:	Slightly Toxic	
	LC50 (rat):	> 5.34 mg/L
Eye irritation:	Moderately irritating (rabbits)	
Skin irritation:	Slightly irritating (rabbits)	
Sensitization:	Non-sensitizing (guinea pig)	

Chronic / Long term effects (penconazole technical)

Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

SECTION (12.) ECOLOGICAL INFORMATION

Available data for Penconazole technical:

Birds: Practically non-toxic to bird
Acute oral LD50 for mallard ducks > 1500 mg/kg. Dietary LC50 (8 d) for mallard ducks > 5600 ppm. Dietary LC50 (8 d) for bobwhite quails > 5600 ppm.

Fish: Moderately toxic to fish
LC50 (96 h) for rainbow trout 3.1 mg/L. LC50 (96 h) for bluegill sunfish 2.2 mg/L.

Bees: Moderately toxic to bees
Non-toxic to bees. LD50 (oral) > 5 µg/bee, LD50 (contact) > 100 µg/bee

Daphnia: Moderately toxic to daphnia
EC50 (48 h) > 5 mg/L.

Algae: Moderately toxic to algae
EC50 (96h) for *Selenastrum caprocornutum* 0.85 mg/L.

Earthworm: Practically non-toxic to earthworm
LC50 for *Eisenia fetida* > 1000 mg a.i./kg soil

SECTION (13). DISPOSAL INSTRUCTION

Dispose of empty, used containers by:

- (a) Triple rinsing or preferably pressure rinsing containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.
- (b) If recycling, replace cap and return clean containers to recycler or designated collection point.
- (c) If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SECTION (14.) TRANSPORT INFORMATION

UN NO.: 3077

Class: 9

SECTION (15). REGULATORY INFORMATION

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Not Applicable

Section 313 Toxic Chemicals: Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

SECTION(16.) OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS 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. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.