



MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Company Address: The National Company For Agrochemicals & Investmet
Head office: 473 El_horreya St., Bolkly Alexandria-Egypt
Tel.: (203) 5440640/1 Fax.: (203) 5411150

Product Name: CONAZOLE 10% EC (PENCONAZOLE).

Formulation Type : Emulsifiable Concentrate

CAS RN : 66246-88-6

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

Chemical family: DMI: triazole

SECTION 2 - COMPOSITION/ INFORMATION ON INGREDIENTS

| Component | Percentage | CAS RN |
|------------------|------------|------------|
| Penconazole | 10% | 66246-88-6 |
| Inert Ingredient | 90% | ----- |

SECTION 3 - IDENTIFICATION OF HAZARDS

HEALTH EFFECTS

Acute Toxicity - This product is slightly hazardous (WHO Hazard Class III)

Swallowed: LOW TOXICITY

Tests on rats indicate a low toxicity following single doses of the undiluted product.

(LD₅₀ >2000 mg/kg)

Dermal: LOW TOXICITY

Absorption: Tests on rats indicate a low toxicity due to skin contact with the undiluted product.

(LD₅₀ >2000 mg/kg)

Inhaled: LOW TOXICITY

Tests on rats indicate a low toxicity due to inhalation of the undiluted product.

(LC₅₀ (4 h) = 4000 mg/m³)

Irritation

Eye: MODERATE IRRITANT (rabbits)

Skin: MODERATE IRRITANT (rabbits)

Respiratory System: SLIGHT IRRITANT (based on human experience)



Sensitisation

Skin: Penconazole technical did not induce a sensitisation reaction in guinea pigs.

The sensitising potential of the hydrocarbon liquid is not known.

CHRONIC (Active Ingredient)

Penconazole technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, teratogenic or reproductive effects was obtained.

SECTION 4- FIRST AID MEASURES

Eye contact

Immediately flush with plenty of water.

Continue for at least 15 minutes.

If easy to do, remove contact lenses.

Obtain medical attention from an eye specialist.

Skin contact

Immediately wash affected skin with plenty of water.

Use soap if available.

Take off contaminated clothing, wristwatch, jewellery.

Get medical advice from a poison control center or doctor.

Wash clothes and clean shoes before re-use.

Inhalation

Remove to fresh air.

If breathing is difficult, give oxygen.

Get medical advice from a poison control center or doctor.

Ingestion

Do NOT induce vomiting.

Immediately offer water to drink.

Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing media

Recommended: Water, foam, dry chemical, carbon dioxide (CO₂)

Unusual fire and explosion hazards

Minimize use of water to prevent environmental contamination.

Environmental precautions .



Hazardous products of combustion

Carbon monoxide (CO), nitrogen oxides (NO_x), hydrogen chloride (HCl) .

Fire fighting equipment

Self-contained breathing apparatus.

Equipment should be thoroughly decontaminated after use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spillage or Leak Disposal Procedures: Shut off or remove any sources of ignition. DO NOT smoke. Avoid contact with the spilled material or contaminated surfaces. When dealing with spills wear personal protective (clothing and equipment). Keep people and animals away and upwind. Prevent spilled material from entering drains or watercourses. Contain spill - remove liquid mechanically (explosion proof or hand pump) or absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, loosely covered drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

Waste Disposal Methods: When returnable container is empty or contents no longer required return it to the point of purchase. For non-returnable containers, triple or (preferably) pressures rinse them before disposal. Add rinsing to spray tank. Do not dispose of undiluted chemicals onsite. If recycling, replace cap and return clean containers to recycler or designated collection point. 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. Dispose of waste product via a licensed disposal contractor to an approved landfill.

SECTION 7 - HANDLING AND STORAGE

Handling

Avoid contact with eyes, skin and clothing.

Avoid breathing vapour or mist.

Wash hands thoroughly after handling or contact.

When using do not eat, drink or smoke.

Thoroughly clean equipment after use.

Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.

Emptied containers retain vapour and product residue.



FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

Storage

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

Keep container tightly closed in a cool, well-ventilated place.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

ENGINEERING CONTROLS: Control process conditions to avoid contact. Use only in well ventilated areas.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: Wear Safety Goggles

CLOTHING: Wear cotton overalls buttoned to the neck and wrist and a washable hat.

GLOVES: Wear elbow length PVC gloves.

RESPIRATOR: If inhalation is likely, wear a respirator with an organic vapour cartridge.

Other: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles or face shield, respirator face piece and contaminated clothing.

USER SAFETY RECOMMENDATIONS:

1.Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

2.Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

3.Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|------------------------------|------------------------------------------|
| PHYSICAL DESCRIPTION: | Clear yellowish liquid. |
| ODOR: | Aromatic |
| ALKALINITY: | 0.018 ± 0.004 % as NaOH |
| DENSITY: | 0.9779 ± 0.0008gm/cm ³ (20°C) |
| VISCOSITY : | 6.932 ± 0318 cp |
| FLASH POINT: | 55.2 ± 0.836 °C (closed cup) |
| REFRACTIVE INDEX : | 1.44144 ± 0.0597 |



SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable to hydrolysis (pH 1-13), and to temperatures up to 350 °C.

pKa 1.51, v. weak base

CONDITIONS TO AVOID: Extreme heat and fire.

INCOMPATIBILITY WITH OTHER MATERIALS: Incompatible with alkaline materials.

HAZARDOUS POLYMERIZATION: Non-known

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

- Oral LD₅₀ (rats) - >2000 mg/Kg
- Dermal LD₅₀ (rats) - >2000 mg/Kg
- Inhalation LC₅₀ (4h) (rats) - 4000 mg/m³ of air
- Eye Irritation (rabbits) - Moderate irritant to eyes
- Skin Irritation (rabbits) - Moderate irritant to skin
- Sensitization (guinea pig) - Not skin sensitizer

Penconazole technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, teratogenic or reproductive effects was obtained.

SECTION 12 - ECOLOGICAL INFORMATION

AVIAN TOXICITY : LC₅₀ >5000 PPM

BEE TOXICITY: LD₅₀ >100µg/bee.

FISH TOXICITY: LC₅₀ 4.27mg/l of Water

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE: Pesticide wastes are toxic and hazardous. Dispose of in accordance with applicable and local laws and regulations. Do not discharge or pour into soil, drainage system or bodies of water.

CONTAINER: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning (plastic containers). If burned, stay out of smoke.



SECTION 14 - TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly

PROPER SHIPPING NAME: Environmentally Hazardous Substance, liquid, N.O.S.

UN NUMBER: 3082

HAZARD CLASS: Class 9 (Miscellaneous Dangerous Goods)

PACKING GROUP: III

PRIMARY/SUBSIDIARY LABEL: Keep Away From Food

PRIMARY/SUBSIDIARY PLACARD: Keep Away From Food

SECTION 15- REGULATORY INFORMATION

| | | |
|--------------------------------|-------|---------------------------------------------------------------------------------------------|
| <u>Classifications</u> | N | DANGEROUS FOR THE ENVIRONMENT. |
| <u>Hazard Symbols</u> | Xi | IRRITANT. |
| <u>Risk Phrases (R)</u> | 36 | Irritating to eyes. |
| | 51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| <u>Safety Phras</u> | (S) | 2 Keep out of the reach of children. |
| | 13 | Keep away from food, drink and animal feeding stuffs. |
| | 20/21 | When using do not eat, drink or smoke. |
| | 35 | This material and its container must be disposed of in a Safeway. |
| | 57 | Use appropriate containment to avoid environmental contamination. |
| <u>Special Label</u> | | To avoid risks to man and the environment, comply with the instructions for use. |

SECTION 16 - OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Agrochem knowledge. Agrochem makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.