

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Product name MAGMECTIN ULTRA DUO 112EC
Common names Acetamiprid + Emamectin benzoate
Chemical names (E)-N-[(6-chloro-3-pyridinyl)methyl]-N'-cyano-N-methylethanimidamide
Avermectin B1, 4"-deoxy-4"-(methylamino)-,(4"R)-, benzoate (salt)

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Common name: Acetamiprid + Emamectin benzoate

CAS No.: 135410-20-7 / 155569-91-8

Chemical Family: Neonicotinoid /Avermectin

Chemical Formula: C₁₀H₁₁CIN₄ / C₅₆H₈₁NO₁₅(B1a); C₅₅H₇₉NO₁₅(B1b)

Molecular weight: 222.68 / 1008.3 (B1a); 994.2 (B1b)

Use: A broad spectrum non-systemic insecticide/acaricide for the control of mainly Spidermites, Lepidoptera pests, Thrips, Aphids and Leafminers in Tomatoes, Brassicas, Leafminers and Budworms in Tobacco and other pests in crops and ornamentals.

Formulation: 112g/litre Emulsifiable concentrate (EC)

Risk-Phrases: R22, R36/37/38, R41, R51/53, R61, R65

Safety-Phrases: H302, H304, H315, H318, H319, H335, H360, H411

3. HAZARDS IDENTIFICATION

- Harmful if swallowed.
- Possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
- Danger of serious damage to health by prolonged exposure if swallowed.
- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Inhalation:

Remove to fresh air. If breathing is irregular or has stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.

Skin contact:

Remove contaminated clothing, shoes and leather goods. Wash skin gently and thoroughly with clean, cold water and non-abrasive soap. Obtain medical attention if irritation persists.

Eye contact:

Immediately flush eyes with copious amounts clean, cold water for at least 15 to 20 minutes, holding the eyelid(s) open. Remove contact lenses if present. Obtain medical attention immediately.

Ingestion:

Do not induce vomiting. Do not give anything by mouth to an unconscious person. Obtain medical attention immediately. If the person is alert, rinse mouth thoroughly with water and give one or two glasses of water to drink.

Note to physician: No specific antidote known. Treat symptomatically and give supportive therapy.

5. FIRE FIGHTING MEASURES**Extinguishing agents:**

Small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Large fires: Alcohol-resistant foam or water spray.

Do not use a solid water stream as it may scatter and spread fire.

Fire fighting:

Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

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.

Dyke fire control water for later disposal. Do not scatter the material.

Avoid pollution of waterways.

Do not use high volume water jet, due to contamination risk.

Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Personal protective equipment:

Fire may produce irritating or toxic fumes such as oxides of carbon, and nitrogen, hydrogen chloride and other mists or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions:**

Avoid contact with skin and eyes. Do not inhale spray or fumes.

For personal protection see Section 8.

Environmental precautions:

Dispose of this material and its container at hazardous or special waste collection point in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.

Occupational spill:

In the event of minor spillage, absorb in sand or other inert material. Use appropriate container to avoid environmental contamination. Ventilate area. Remove all sources of ignition. Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

7. HANDLING AND STORAGE**Handling:**

Harmful if swallowed. Avoid contact with eyes and skin, and of spray and vapour. Use with adequate ventilation.

Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily.

Remove clothing immediately if the pesticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage:

Keep out of reach of unauthorised persons, children and animals.

Store in its original labelled container in isolated, dry, cool and well ventilated area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

PERSONAL PROTECTIVE EQUIPMENT:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment.

Respirator:

A particulate filter respirator may be necessary if effective engineering controls are not in place. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Clothing:

Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Gloves:

Employee must wear appropriate protective gloves to prevent contact with this substance. Nitrile rubber is suitable.

Eye protection:

Eye protection is not usually required. Any safety policies for a specific site should be followed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State at 20°C: Clear liquid

Colour: Yellow

Odour: Sweet, faint odour

pH: 7.3

Relative density: 0.95 g/cc

Auto-ignition temperature: 290

10. STABILITY AND REACTIVITY**Stability:**

The product is stable for 2 years, when stored under normal storage conditions at normal temperatures. Avoid extreme heating conditions, as vapours can be released which can be ignited.

Conditions and Materials to Avoid:

Keep the product in a cool, dry place, at below 30°C. Protect from sunlight, open flame and sources of heat. Avoid contact with oxidizing agents, strong acids and bases. Not corrosive.

Hazardous decomposition products:

Fire may produce irritating or toxic fumes such as oxides of carbon, and nitrogen, hydrogen chloride and other mists or other products of combustion.

11. TOXICOLOGICAL INFORMATION**Acute oral LD₅₀ rats:**

Acetamiprid technical: 146-217 mg/kg

Emamectin technical: 56-63 mg/kg

Formulation calculated: 50-500 mg/kg

Acute dermal LD₅₀ rats:

Acetamiprid technical: >2000 mg/kg

Emamectin technical: >2000 mg/kg

Formulation calculated: >2000 mg/kg

Inhalation:

Acetamiprid technical: LC₅₀ (4 hours) >0.29 mg/kg

Emamectin technical: LC₅₀ (4hours): >1.05 - 0.66 mg/L

Formulation: > 2.0 mg/L

Acute skin irritation: Mild (rabbit)

Acute eye irritation: Moderate (rabbit)

Dermal sensitization: Not a skin sensitizer.

Carcinogenicity: Not carcinogenic.

12. ECOLOGICAL INFORMATION

Mobility, Degradability & Accumulation:

Acetamiprid degrades quickly in soils, primarily by biological processes. It also degrades readily in natural waters. Acetamiprid is adsorbed very strongly on soil particles, especially in soils containing large amounts of clay or organic matter. Movement in the soil is therefore extremely limited and downward leaching of the parent molecule through the soil does not occur under normal conditions of use. Acetamiprid does not accumulate in the environment.

Emamectin is rapidly degraded in the soil and environment.

Metabolism has been investigated in lettuce, cabbage and sweet corn. It is non-systemic, and rapidly degrades in sunlight to various complex residues in which non-degraded parent is the only significant residue. The residues were very low.

ECOTOXICOLOGY:

Birds:

Acetamiprid:

Slightly toxic. Oral LD₅₀ value is 180 mg/kg for bobwhite quail.

Emamectin benzoate:

Oral LD₅₀: Bobwhite quail: 264 mg/kg

Mallard ducks: 76 mg/kg

Fish:

Acetamiprid:

Low toxicity. LC₅₀ value for carp is >100 mg/l.

Emamectin benzoate:

Low acute risk to fish.

LC₅₀ (96 hours): rainbow trout: 174 µg/L

Sheepshead minnow 1430 µg/L

Daphnia:

Acetamiprid:

LC₅₀ (3-6h) > 1000 mg/L

LC₅₀ (48 hours): 0.99 µg/L

Bees: Very toxic to bees (Emamectin benzoate)

Worms: LC₅₀: >1000 mg/kg dry soil (Emamectin benzoate)

13. DISPOSAL CONSIDERATIONS

Product disposal:

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products 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.

Container disposal:

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

Containers and packages must be completely emptied before being disposed of. Shake out thoroughly into the mixing tank and destroy the empty container thereafter. Destroy the empty container by perforation and burying it.

Never re-use the empty container for any other purpose. Do not burn the empty container. Refer to label attached.

Comply with any local legislation applying to disposal.

14. TRANSPORT INFORMATION

UN NUMBER: 1993

CLASS: 3

PACKAGING GROUP: III

Road Transport ADR/RID: 1993

Maritime Transport IMDG/IMO: 1993

EMAMECTIN ULTRA DUO IS CONSIDERED A MARINE POLLUTANT

15. REGULATORY INFORMATION

Symbol: Xn Harmful

N Dangerous for the environment.

Risk phrase(s):

R 22 Harmful if swallowed.

R36/37/38 – irritating to eyes, respiratory system and skin.

R41- Risk of serious damage to eyes.

R 48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

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

R68/20/21/22 Harmful, possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

Safety phrases:

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H360 May damage the unborn child.

H411 Toxic to aquatic life with long lasting effects.

16. OTHER INFORMATION

Packaging:

Packed in 500ml, 1L, 5L and 20L HDPE plastic containers and shipper paper boxes and labelled according to International regulations and guidelines.

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 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.
