

**PRODUCT** : MAGMECTIN 19.2EC  
**EFFECTIVE DATE** : March 2020  
**REVISION No.** : 0  
**PAGES** : 6

**1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY**

**Product name** : MAGMECTIN 19.2 EC  
**Common name** : EMAMECTIN BENZOATE 19.2G/L EC  
**Chemical name** : Avermectin B1, 4"-deoxy-4"-(methylamino)-,(4"R)-, benzoate (salt)

**Supplier** : **NOVA AGRO (HK) LIMITED**  
(Reg. No. 1023146)  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

**Common name:** Emamectin benzoate

**CAS No.:** 155569-91-8

**Chemical Family:** Avermectin

**Chemical Formula:** C<sub>56</sub>H<sub>81</sub>NO<sub>15</sub>(B1a); C<sub>55</sub>H<sub>79</sub>NO<sub>15</sub>(B1b)

**Molecular weight:** 1008.3 (B1a); 994.2 (B1b)

**Use:** Non-systemic insecticide which penetrates leaf tissues by translaminar movement. Paralysis the Lepidoptera, which stop feeding within hours of ingestion, and die within 24 hours.

**Formulation:** 19.2g/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.

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**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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State at 20°C: Liquid  
Colour: yellow  
Odour: Sweet, faint odour  
pH: 6.8

Relative density: 0.92 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 LD<sub>50</sub> rats:***Emamectin technical: 56-63 mg/kg*

Formulation calculated: &gt;2000 mg/kg

**Acute dermal LD<sub>50</sub> rats:***Emamectin technical: >2000 mg/kg*

Formulation calculated: &gt;2000 mg/kg

**Inhalation:***Emamectin technical: LC<sub>50</sub> (4hours): >1.05 - 0.66 mg/L*

Formulation: 5.5 mg/L

**Acute skin irritation:** Moderate**Acute eye irritation:** Moderate**Dermal sensitization:** Not a skin sensitizer.**Carcinogenicity:** Not carcinogenic.**12. ECOLOGICAL INFORMATION****Mobility, Degradability & Accumulation:**

Emamectin is rapidly degraded in the soil and environment.

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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:**Oral LD<sub>50</sub>: Bobwhite quail: 264 mg/kg

Mallard ducks: 76 mg/kg

**Fish:** Low acute risk to fish.LC<sub>50</sub> (96 hours): rainbow trout: 174 µg/L

Sheepshead minnow 1430 µg/L

**Daphnia:**LC<sub>50</sub> (48 hours): 0.99 µg/L**Bees:** Very toxic to bees.**Worms:** LC<sub>50</sub>: >1000 mg/kg dry soil**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**Proper shipping name:** Environmentally Hazardous Substance, Liquid.**Road Transport ADR/RID:** 1993**Maritime Transport IMDG/IMO:** 1993**EMAMECTIN IS CONSIDERED A MARINE POLLUTANT**

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**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.