



MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE AND COMPANY

Company Address: The National Company For Agrochemicals & Investment

Head office: 473 El_horreya St., Bolkly Alexandria-Egypt

Tel.: (203) 5440640/1

Fax.: (203) 5411150

Product Name: DEMECTIN 1.8 % EC (Abamectin).

Formulation Type : Emulsifiable Concentrate

CAS RN: 71751-41-2

Chemical Name: A mixture containing a minimum of 80% avermectin B_{1a} (i): 5-*O*-demethylavermectin B_{1a} and a maximum of 20% avermectin B_{1b} (ii): 5-*O*-demethyl-25-de(1-methylpropyl)-25-(1-methylethyl)avermectin B_{1b}

Chemical Family: Avermectin

SECTION 2 - COMPOSITION/ INFORMATION ON INGREDIENTS

Component	Percentage	CAS RN
Abamectin	1.8 %	71751-41-2
Inert ingredient	98.2 %	-----

SECTION 3 - IDENTIFICATION OF HAZARDS

Emergency Overview:

Danger! Poison. Hazard to humans and domestic animals.

Keep out of the reach of children. Poisonous if swallowed, inhaled or absorbed through the skin.

Rapidly absorbed through skin. Do not breathe fumes or dust.

Harmful if swallowed. Toxic in contact with skin. May cause sensitization by skin contact.

Potential health effects :

Eye: May be absorbed through the eye and produce symptoms similar to those from ingestion.

Causes redness, irritation, tearing.

Skin: Harmful if absorbed through skin. May produce symptoms similar to those from ingestion.

May cause irritation, redness, swelling.

Inhalation: Highly toxic if inhaled. May produce symptoms similar to those from ingestion.

May cause dizziness, headache, nausea, vomiting, death.

Ingestion: May be fatal if swallowed. May lead to rapid onset of nausea, vomiting, diarrhea, abdominal pain, involuntary shaking, excess salivation, pinpoint pupils, blurred vision, profuse sweating, temporary paralysis, respiratory depression, and convulsions.



SECTION 4- FIRST AID MEASURES

IF INHALED: Remove to fresh air and keep at rest. If signs of poisoning occur, obtain urgent medical advice, as above. If breathing stops or shows signs of failing, start artificial respiration. Do not use the direct mouth-to-mouth method. Administer oxygen if necessary. Get to a doctor or hospital quickly. If advised by doctor or Poisons Information Center.

IF ON SKIN: If poisoned by skin absorption, remove any contaminated clothing and shoes immediately. Wash skin thoroughly with soap and water for 15-20 minutes. Seek immediate medical assistance - get to doctor or hospital quickly. Persons assisting the patient should protect themselves from contamination. If advised by doctor or Poisons Information Center

IF SWALLOWED: Wash out mouth with water. Keep patient at rest and seek urgent medical advice as above. Transport patient to doctor or hospital quickly. If advised by doctor or Poisons Information Center

DO NOT attempt to give anything by mouth to a semi-conscious or unconscious person.

IF IN EYES: Flush eyes with plenty of water for 15 minutes.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 70.4°C (closed cup)

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 yellow liquid
ODOR:	Aromatic odour
ACIDITY :	0.3234% as H ₂ SO ₄
DENSITY:	0.90-0.95 gm/cm ³
FLASH POINT:	70.4 °C
VISCOSITY:	16.86 cp
REFRACTIVE INDEX:	1.45486

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: This material is stable under normal handling and storage conditions. Rapidly hydrolysed in alkaline media. Stable in water up to 100 °C at pH 7.

CONDITIONS TO AVOID: Extremes of temperature and direct sunlight.

INCOMPATIBILITY: Strong oxidizing agents bases.

SECTION 11 - TOXICOLOGICAL INFORMATION

I- Acute Toxicity:

Acute Oral	Male Rat LD ₅₀ : 12.34 mg/kg Female Rat LD ₅₀ : 14.51 mg/kg
Acute Dermal	Male Rat LD ₅₀ : >800 mg/kg Female Rat LD ₅₀ : >800 mg/kg
Inhalation	Male and Female Rat LC ₅₀ : > 5.04 mg/l, 4 h
Skin Irritation	Irritant to skin
Eye Irritation	Moderately Irritant



SECTION 12 - ECOLOGICAL INFORMATION

FISH TOXICITY: LC₅₀ Oncorhynchus mykiss (rainbow trout), 0.247 mg/l , 96 h

Toxicity to daphnia and other aquatic invertebrates :

EC₅₀ Daphnia magna (Water flea), 0.095 mg/l , 48 h

Toxicity to algae : EC₅₀ Pseudokirchneriella subcapitata (green algae), 80 mg/l , 72 h

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

DOT SHIPPING DESCRIPTION: PESTICIDE, LIQUID, TOXIC, N.O.S., (CONTAINS ABAMECTIN)

UN NUMBER: UN 2902

DOT HAZARD CLASS: 6.1

DOT PACKING GROUP: PG III

DOT PRIMARY/SUBSIDIARY LABEL: Keep Away From Food

DOT PRIMARY/SUBSIDIARY PLACARD: Keep Away From Food

SECTION 15- REGULATORY INFORMATION

RISK PHRASE

T+: Very toxic

Risk Symbols

R24/25 Toxic in contact with skin and if swallowed.

R36/38 Irritating to eyes and skin.

R48/24/25 Toxic: Danger of serious damage to health by prolonged exposure in contact with



skin and if swallowed.

R50 Very toxic to aquatic organisms.

SAFETY PHRASE

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

S2 Keep out of reach of children.

SECTION 16 - OTHER INFORMATION

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