

	SAFETY DATA SHEET (SDS) NEMATRIX	
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SECTION 1. PRODUCT AND MANUFACTURER IDENTIFICATION

1.1 Product Identification

Trade Name: NEMATRIX

Name of the Active Ingredient: *Paecilomyces lilacinus*; *Bacillus subtilis*; *Pseudomonas fluorescens*; Walnut kernel extract; Yucca schidigera extract; Guiche de lechuguilla extract; Walnut shell extract; Pear cactus gel; Higuierilla oil; Chitosan.

1.2 Identified uses of the substance or mixture

Use: Nematicide for agricultural use

1.3 Supplier or manufacturer data:

Company: AGRICULTURA NACIONAL, S.A. DE C.V.
 Av. Periférico Sur 3325, Piso 3, Col San Jerónimo Lídice,
 10210 La Magdalena Contreras, CDMX
 Phone no.: (55) 5089-1500 or 01-800-0211-568

Telephone number in case of emergency: 800-00-214-00
 (55) 55-59-15-88

Poison Care Center (ATOX): 800 000 ATOX (2869).

SECTION 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture: Not considered a hazardous product.

Classification according to NOM-018-STPS-2015.

Acute toxicity by ingestion H303	Category 5 May be harmful if swallowed
Acute dermal toxicity H313	Category 5 May be harmful in contact with skin
Acute inhalation toxicity H333	Category 5 May be harmful if inhaled

2.2 GHS label elements, including precautionary phrases:

Labeling in accordance with NOM-018-STPS-2015.

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Hazard-determining components for labeling:

Symbol (s)

No pictogram

Signal word: ATTENTION

Hazard Statements

H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H333	May be harmful if inhaled

Cautionary advice

P101	If medical advice is needed: keep container and product label at hand.
P102	Keep out of reach of children
P103	Read label before use
P210	Keep away from heat, sparks, open flames, hot surfaces and other sources of ignition.
P233	Keep container tightly closed.
P234	Keep only in original container.
P262	Avoid contact with eyes, skin or clothing.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a ventilated area.
P280	Wear protective equipment for face, eyes and skin.
P301+P330	In case of ingestion, rinse mouth.
P302+P352	In case of skin contact, wash with plenty of water.
P304+P340	In case of inhalation, remove person to fresh air and keep in a breathing position.
P305+P351	In case of contact with the eyes, rinse thoroughly with water for several minutes.
P306+P360	In case of contact with clothing, immediately flush contaminated clothing and skin with plenty of water before removing clothing.
P370+P376	In case of fire, stop the leak if it can be done safely.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P410	Protect from sunlight.
P411	Store at a temperature not exceeding 25°C. Disposal:
P501	Dispose of contents and container in accordance with local regulations.

2.3 Other hazards that do not contribute to the classification.

No hazards identified

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SECTION 3. COMPOSITION/INFORMATION ON COMPONENTS

3.1 Mixtures

Type of formulation

Emulsifiable liquid

Active ingredient

Paecilomyces lilacinus 1x 10⁷ CFU/ml; *Bacillus subtilis* 1x 10⁸ CFU/ml; *Pseudomonas fluorescens* 1x 10⁷ CFU/ml;

Formulation components/active ingredients

NAME	CAS No.	CONCENTRATION
<i>Paecilomyces lilacinus</i> ≥1x 10 ⁷ CFU/ml	N/A	20.00% equivalent to 193.60 g/L
<i>Bacillus subtilis</i> ≥1x 10 ⁸ CFU/ml	N/A	20.00 % equivalent to 193.60 g/L
<i>Pseudomonas fluorescens</i> ≥1x 10 ⁷ CFU/ml	N/A	20.00 % equivalent to 193.60 g/L
Walnut kernel extract (<i>Carya Illinoensis</i>)	N/D	3.00% equivalent to 29.04 g/L
Extracto de Yucca schidigera (<i>Yucca schidigera</i>)	N/D	1.00 % equivalent to 9.68 g/L
Guiche de lechuguilla extract (<i>Agave lechuguilla</i>)	N/D	1.00 % equivalent to 9.68 g/L
Walnut shell extract (<i>Carya Illinoensis</i>)	N/D	1.00 % equivalent to 9.68 g/L
Pear Cactus gel (<i>Opuntia ficus-indica</i>)	N/D	1.50 % equivalent to 14.52 g/L
Higuerilla oil (<i>Ricinus communis</i>)	8001-9-74	1.00 % equivalent to 9.68 g/L
Chitosan (poly-D-glucosamine)	9012-76-4	1.00 % equivalent to 9.68 g/L

N/A: Not Applicable

N/D: Not Available

Other information.

No information available.

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SECTION 4. FIRST AID

4.1 Description of first aid

General recommendation	Remove the victim from the source of exposure by placing him/her in a well ventilated area and keeping him/her warm. Seek immediate medical attention. Keep patient warm and at rest.
Inhalation	Remove the victim to a ventilated place.
Contact with the skin	Wash with plenty of water
Contact with the eyes	Wash with plenty of water
Ingestion	Induce vomiting immediately and get the victim to drink plenty of water. Provide medical assistance for any complications that may arise.

4.2 Main symptoms and acute and chronic effects

Signs and Symptoms	Eyes: May cause irritation.
	Skin: May cause irritation.
	Inhalation: May cause respiratory tract irritation.
	Ingestion: May cause intestinal spasms, diarrhea, nausea, vomiting and abdominal pain.
	Carcinogenic effects: No carcinogenic effects.
	Aggravated by overexposure: May cause hypersensitivity.

4.3 Instructions for any medical care and special treatment to be administered immediately.

Antidote and treatment	Symptomatic treatment. Consult a physician in all cases. In case of ingestion give the Safety Data Sheet and the product label to the physician.
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SECCIÓN 5. FIRE SAFETY MEASURES

5.1 Extinguishing agents.

Suitable Use any convenient means to extinguish the fire such as CO₂, water, chemical powder, foam and others.

5.2 Specific hazards arising from the substance or mixture

Fire protection measures: Not considered flammable.

Fire hazard, flammability of the product: Not flammable.

Flash point: N/A.

Flammable limits: Not considered flammable.

Products of combustion: N/A.

Fire hazard present with other substances: No ignition hazard when in contact with any known substance but should not be mixed with any flammable substance.

Explosion hazard: Not considered a flammable product.

Explosion hazard due to static discharge: No risk of explosion due to static discharge.

Risk of fire due to mechanical impact: No risk of explosion due to mechanical impact. On ignition it produces fumes that are slightly toxic to the environment.

5.3 Recommendations for firefighting personnel

Special protective equipment for firefighting personnel Use firefighting equipment

Additional information Evacuate personnel and move away from the path of the fire.

N/A: Not Applicable

N/D: Not Available

SECCIÓN 6. MEDIDAS DE CONTROL EN CASO DE DERRAMES O FUGAS ACCIDENTALES.

6.1 Personal precautions, protective equipment and emergency procedures

Safe handling precautions Wear safety glasses. Wear appropriate personal protective equipment (full coverall). Use plastic gloves. Wear safety shoes. Wear a face shield or safety mask.

6.2 Environmental precautions

Does not produce any effect on the environment. When ignited it produces fumes that are slightly toxic to the environment

6.3 Containment and cleaning methods and materials

NEMATRIX

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Cleaning methods

Use absorbent material, wash with water and detergent and disinfect the area.

SECTION 7. HANDLING AND STORAGE

7.1 Safe handling precautions

Safe handling recommendations

Store the product in a cool, sheltered and ventilated place, keep out of reach of children and do not allow it to come into contact with animals or food.

7.2 Conditions for safe storage, including possible incompatibilities

Technical requirements for storerooms and containers

Store the product in cool, covered and ventilated places. Keep out of the reach of children and do not place in contact with animals or food. The product is compatible with coppers and bactericides. Avoid combining with products or very acid solutions with a pH lower than 5.

Information for joint storage

The product is compatible and stable in solutions and with products of slightly acid or alkaline reaction.

SECTION 8. EXPOSURE CONTROLS/INDIVIDUAL PROTECTION

8.1 Control parameters

N/D

8.2 Exposure controls

Personal Protection

In normal usage and handling conditions refer to the instructions on the label and/or package label. In all other cases the following recommendations should be applied.

Respiratory protection

Use a face mask or safety mask.

Protection for the hands

Use plastic gloves.

Eye protection

Wear safety glasses.

Skin and body protection

Wear appropriate personal protective equipment (full coverall).
Wear safety shoes.

General protective and hygienic measures

Clean and maintain personal protective equipment according to the manufacturer's instructions. Store and wash personal protective equipment separately from other clothing.

N/D: Not Available

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Essential physical and chemical properties

Shape	Fluid liquid
Color	Brown
Odor	Herbal
pH	6.0-7.5
Flammability	N/A
Vapour pressure	N/D
Relative density	0.970-1.00 g/ml
Solubility in water	Yes
Flash point	N/D
Viscosity	<100 cp-s ²

9.2 Other information

N/D

N/A: Not Applicable

N/D: Not Available

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal environmental conditions and is not considered reactive.
10.2 Chemical stability	Becomes unstable at temperature conditions higher than 45°C.
10.3 Possibility of hazardous reactions	It is compatible with copper and bactericides. It does not polymerize.
10.4 Conditions to avoid	Do not store at temperatures higher than 45° C..
10.5 Incompatible materials	Avoid combining with products or solutions of very acid pH, lower than 5. The product is compatible and stable in solutions and with products that have a slightly acid or alkaline reaction.
10.6 Hazardous decomposition products	The product tends to decompose if not properly stored or if exposed to temperature conditions higher than 45°C (113° F) as mentioned above.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity	N/A
Acute inhalation toxicity	N/D
Acute dermal toxicity	N/D
Skin irritation (rabbit)	N/D
Eye irritation (rabbit)	N/D
Sensitization (guinea pig)	N/D

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Chronic Toxicity/Effects

Symptoms	See section 4.2.
Carcinogenicity	No carcinogenic effects.
Mutagenicity	No mutagenic effects
Neurological effects	N/D
Reproductive Toxicity	Not known to cause any reproductive system problems.

N/A: Not Applicable

N/D: Not Available

SECTION 12. ECOTOXICOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	N/D
Toxicity to invertebrates	N/D
Toxicity to aquatic plants	N/D

12.2 Persistence and degradability

Biodegradability	N/A
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12.3 Bio-accumulative Potential

Bioaccumulation	N/D
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12.4 Mobility in soil

Mobility in soil	N/D
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12.5 Other adverse effects

Additional ecological information	No effect on the environment
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N/A: Not Applicable

N/D: Not Available

SECTION 13. DISPOSAL INFORMATION

13.1 Disposal of the substance (waste):

During product handling, avoid washing or pouring product residues or empty containers into soil, rivers, lagoons, streams, dams, canals or water reservoirs to prevent contamination.

Handle empty containers and product residues in accordance with the provisions of the General Law for the Prevention and Integral Management of Waste, its Regulations or the Empty Container Management Plan, registered with SEMARNAT.

In case of spills, wear personal protective equipment and recover the spilled product with some absorbent material (e.g., earth or clay), collect the waste in an airtight container and take it to the nearest authorized hazardous waste collection center. Triple wash the empty container and pour the rinsing water into the tank or container where the application mixture is prepared.

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SECTION 14. TRANSPORTATION INFORMATION

In accordance with NOM-002-SCT/2011

14.1 UN Number	Not regulated as a hazardous product.
14.2 Official Transport Designation of the United Nations	N/A
14.3 Transport hazard class(es)	Land Transport DOT: This product is not classified as hazardous for transport. Maritime Transport IMDG: This product is not classified as dangerous for transport. Air Transport ICAO/IATA: This product is not classified as hazardous for transport.
14.4 Packing group	N/A
14.5 Environmentally hazardous marking	Not considered a hazardous product.
14.6 Hazard identification number.	N/A
N/A: Not Applicable N/D: Not Available	

SECTION 15. REGULATORY INFORMATION (MEXICO)

NOM-232-SSA1-2009. Pesticides: Establishing the requirements for packaging, packing and labeling of technical grade products for agricultural, forestry, livestock, gardening, urban, industrial and domestic use.
NOM-002-SCT/2011: List of most commonly transported hazardous substances and materials.
NOM-018-STPS-2015, Harmonized system for the identification and communication of hazards and risks from hazardous chemicals in the workplace.

SECTION 16. OTHER INFORMATION

Text of the hazard statements mentioned in Section 2

- The information is believed to be correct, but it is not comprehensive and is to be used only as a reference, which is based on the current knowledge of the chemical or mixture and is applicable to the appropriate safety precautions for the product.
- Considering that the use of this information and the products is beyond the manufacturer's control, the company assumes no liability in this regard. Determining the conditions of safe use of the product is the obligation of the user.

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