

	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 1 of 9

SECTION 1. PRODUCT AND MANUFACTURER IDENTIFICATION.

1.1 Product Identification.

Trade Name: LEVAT
Name of the Active Ingredient: *Azospirillum brasilensis*.; *Azotobacter spp.*; *Bacillus spp.*

1.2 Identified uses of the substance or mixture.

Use: Inoculant

1.3 Distributor information

Company: AGRICULTURA NACIONAL, S.A. DE C.V
 Av. Periférico Sur 3325, Piso 3, Col San Jerónimo Lídice,
 10210 La Magdalena Contreras, CDMX
 Phone.: (55) 5089-1500 or 01-800-0211-568
Emergency phone number: 800-00-214-00
 (55) 55-59-15-88
Poison Care Center (ATOX): 01800 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 toxicity by inhalation H333	Category 5 May be harmful if inhaled

2.2 GHS label elements, including precautionary phrases:

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

Hazard-determining components for labeling:

Symbol(s)
 No pictogram

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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 2 of 9

Word of caution: CAUTION

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 position that makes breathing easier.
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 no higher than 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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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 3 of 9

SECTION 3. COMPOSITION/INFORMATION ON COMPONENTS

3.1 Mixtures

Type of formulation

Liquid

Active ingredient

Azospirillum brasilensis spp. (content 1x10⁵ cfu/ml); *Azotobacter* spp. (content 1x10⁵ cfu/ml); *Bacillus* spp. (content 1x10⁵ cfu/ml).

Guaranteed composition

NAME	CAS No.	CONCENTRATION
<i>Azospirillum brasilensis</i> (1X10 ⁵ CFU/ml)	N/A	40.00%
<i>Azotobacter</i> spp. (1x10 ⁵ CFU/ml)	N/A	40.00%
<i>Bacillus</i> spp. (1x10 ⁵ CFU/ml)	N/A	10.00%

Other information.

No information available.

N/A: Not Applicable

N/D: Not Available

SECTION 4. FIRST AID

4.1 Description of first aid

General recommendation

Remove the intoxicated person from the source of exposure and place him/her in a well ventilated area. Keep him/her warm and wrapped up well. Seek immediate medical attention. Keep patient warm and at rest..

Inhalation

Take the victim to a well-ventilated place..

Skin contact

Flush with plenty of water

Eye contact

Flush with plenty of water.

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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 4 of 9

Ingestion Induce vomiting immediately and get them to drink plenty of water. If necessary 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, and vomiting and abdominal pain.
Exacerbated 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.

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 a flammable product.
Risk of fire, flammability of the product: Non-flammable.
Flash point: N/A.
Flammable limits: Not considered flammable.
Products of combustion: N/D.
Fire risk present with other substances: No ignition hazard when in contact with any known substance but do not mix with any flammable substance.
Explosion hazard: Not considered a flammable product.
Risk of explosion 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. When ignited, it produces fumes that are slightly toxic to the environment.

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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 5 of 9

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

SECTION 6. CONTROL MEASURES IN CASE OF ACCIDENTAL SPILLS OR LEAKS.

6.1 Personal precautions, protective equipment and emergency procedures.

Precautions for safe handling

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

Cleaning methods

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

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

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, do not leave within reach of children and do not allow it to come into contact with animals or food.

Information for joint storage

Not compatible with bactericides and materials based on copper and sulfur.

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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 6 of 9

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 insert. In all other cases the following recommendations should be applied.

Respiratory protection	Use a mask or face shield.
Hand protection	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/A: Not applicable

N/D: Not available

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Essential physical and chemical properties

Shape	Liquid
Color	Brown
Odor	Sour
pH	6.49-7.79
Flammability	N/A
Vapour pressure	N/D
Relative density	1.001-1.006 g/ml
Solubility in water	Yes
Flash point	N/D
Viscosity	10.1-16.2 cp-s ²

9.2 Other information

N/D

N/A: Not applicable

N/D: Not available

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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 7 of 9

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal environmental conditions and not considered reactive.
10.2 Chemical stability	Becomes unstable at conditions over 45°C.
10.3 Possibility of harmful reactions	Not compatible with bactericides and copper and sulfur based materials. Does not polymerize.
10.4 Conditions to avoid	Do not store above 45°C.
10.5 Incompatible materials	Not compatible with bactericides and materials based on copper and sulfur.
10.6 Hazardous decomposition products	The product tends to decompose if not stored properly and at temperatures above 45°C (113°F)..

SECTION 11. TOXICOLOGY 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

Chronic Toxicity/Effects

Symptoms	See section 4.2.
Mutagenicity	No mutagenic effects
Neurological effects	N/A
Reproductive Toxicity	Not known to cause 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-accumulation potential

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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 8 of 9

Bioaccumulation

N/D

12.4 Mobility in soil

Mobility in soil

N/D

12.5 Other adverse effects

Additional ecological information

No effect on the environment

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 discharging product residues or empty containers into the 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., soil 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.

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)

Ground Transportation DOT: This product is not classified as hazardous for transport. Maritime Transportation IMDG: This product is not classified as dangerous for transport. Air Transportation ICAO/IATA: This product is not classified as hazardous for transport.

14.4 Packaging group

N/D

14.5 Environmental hazard label

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-182-SSA1-2010. Labeling of plant nutrients.

NOM-002-SCT/2011: List of most commonly transported hazardous substances and materials.

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	SAFETY DATA SHEET (SDS) LEVAT	
		Edition 1-00
		Page 9 of 9

NOM-018-STPS-2015, Harmonized system for the identification and communication of hazards and risks from hazardous chemicals in workplaces.

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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