

Technical Data Sheet



LPG456



GENERAL INFORMATION

Category

Chemical Group

Formulation

Inorganic fertilizer

Not applicable

Liquid

Formulation Guarantee

Mode of Action

Manufacturer / Formulator / Distributor

Antidote

Registration

Ingredients

% w/w

Content w/v

Metallic magnesium MgO) -----3.86 %

Metallic iron (Fe) -----1.94 %

Metallic zinc (Zn) -----5.00 %

Total 100,000

LPG 456® is an inorganic foliar fertilizer that induces natural cytokinins, formulated with NLT (Nanoliquid Technology) and composed of zinc, magnesium, and iron derived from sources that are completely soluble and assimilable by plants, in concentrations suitable for stimulating plant metabolism, increasing photosynthesis, and biomass gain in plants. NLT (Nanoliquid Technology) promotes greater penetration, efficiency, and speed of **LPG 456®** components.

IQ Chemicals & Labs SA de CV / Agroenzymas Mx

There is no specific antidote. Treatment is symptomatic and supportive.

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MODE OF ACTION AND EFFICACY

The contents of **LPG456®** have the following effects on plants:

- The **elements in LPG456®** are present in the quantities and sources necessary to stimulate photosynthesis and thereby increase growth and biomass gain. Zinc is an important component of various enzymes involved in the metabolism of other elements and plant growth functions (CO₂ capture, antioxidant formation, hormone formation, etc.). Magnesium participates in radiation capture as a component of chlorophyll and an important cofactor for other enzymes, while Iron is a component of ferredoxins, which stimulates the proper functioning of the electron transport chain in the photosynthesis process. All three elements are directly related to the growth of plants and organs of interest.
- **LPG456®** is an inducer of natural cytokinins, so its application promotes the harmonious functionality of crops and improves active photosynthesis. In addition, **LPG456®** reinforces the processes of differentiation, development, growth, and yield of crops thanks to its microelements and NLT (Nanoliquid Technology).
- **NLT (NANOLIQUID TECHNOLOGY)**. A formulation based on nanoparticles (30-100 nm) designed and added to **LPG456®** that encapsulates, protects, increases penetration via endocytosis, and releases a greater amount of active ingredients into the plant in a controlled manner, increasing the speed of response, improving and enhancing its effect, and generating a more sustained response.

APPLICATION METHODS

LPG456® is designed for foliar applications.

Although **LPG456®** easily penetrates crops, it is recommended to add a penetrant or adhesive to the spray solution to ensure adequate coverage of the compounds.

To prepare the solution, it is recommended to dilute the indicated dose in a separate container with water, fill 50% of the spray container, add **LPG456®**, shake, and then fill the container to 100% capacity.

SPECIAL PRECAUTIONS

LPG456® It is not toxic to humans, animals, or plants; however, it is recommended to follow the recommendations for other agrochemical products with which it is applied.

GENERAL RECOMMENDATIONS

In addition to the application method, the effectiveness of **LPG456®** can be increased by considering the following points:

Nutritional status of the plant.

- Applications of **LPG 456®** on crops with zinc, magnesium, and iron deficiencies rapidly correct the symptoms of deficiency in the crop.
- Applications of **LPG 456®** on crops with good nutritional characteristics adequately stimulate biomass gain in the plant in general and in the organs of interest.

Phenological stage where it is applied. It is recommended to apply **LPG 456®** under the following situations:

- During critical stages of growth (rapid vegetative growth and organ formation: flowers, fruits, etc.).
- On the formation of the organ of interest in its early stages.
- Daily on the crop to stimulate harmonious vegetative growth and development.

Managed dose. It is recommended to manage the dose according to the following situations:

- Use high doses when there is a deficiency of the components of **LPG 456®**.
- Use low doses in the early stages of cultivation and high doses in the advanced stages of cultivation, as well as during the formation of important organs (ears, flowers, fruits, etc.).

EFFECTS ON CROPS

The elements that make up **LPG456®** come from highly soluble sources and are present in the right quantities to harmoniously stimulate the physiological processes of plants, with the main actions in the plant being:

- **Stimulate vegetative growth by inducing the following functions within the plant:** Increases chlorophyll content, increases the content of enzymes that capture CO₂, increases the content of antioxidant enzymes that regulate Reactive Oxygen Species for proper plant growth, increases photosynthesis, increases vegetative growth of crops.
- **Increase the quality and quantity of organs of economic interest:** Stimulates the formation of growth phytohormones, stimulates the formation of enzymes that trigger the development of organs of interest, stimulates the quality and setting of flowers and fruits, and increases biomass and yield.
- Quickly correct deficiencies in zinc, magnesium, and iron.

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COMPATIBILITY

LPG456® has been shown to be compatible with other agrochemicals with current registration, as well as increasing the effectiveness of fertilizers, biostimulants, and bioregulators. It is recommended not to mix with products with high calcium, phosphorus, and/or copper content. If the origin of the products is unknown, it is recommended to perform a quick compatibility test in small proportions.
Do not mix it with mineral oils and sulfur. If the origin of the material is unknown, it is recommended to perform a small stability test.

PHYTOTOXICITY AND RESIDUES

LPG456® is not phytotoxic at the recommended doses and crops.
Do not contaminate water, food, or animal feed when storing or handling the product. Keep it in its original container. • Storage: Keep in a cool place. • Product disposal: If the material is not used in its entirety, keep it in its original container until it is used. • Do not remove the label or repackage the product. Container disposal: Do not reuse the container. Do not refill the container. Take to collection centers. Triple wash as follows: Empty the remaining contents into a waste tank for 10 seconds until the container begins to drip. Fill the container 1/4 full, with water and shake. Shake for 10 seconds. Pour the rinse into the waste container, repeat the operation from side to side, and repeat a third time from top to bottom.

OUR VALUE OFFER

Harmonious, vigorous crops and functions.
Biomass gain and increase in the size of organs of interest.

RECOMMENDATIONS AND DOSAGE TABLE

CROP	DOSE (L/Ha)	APPLICATION METHOD
Rice	1.5-2.0	To stimulate biomass gain in the organ of interest, apply during critical periods of development. • Begin applications during vegetative growth once tillering has begun. • Repeat at the time of flower primordium differentiation. • Repeat when 40% of the ear is exposed. In conditions of magnesium, iron, and zinc deficiency, apply every 15-20 days during crop development.
Coffee	1.5-2.0	To stimulate biomass gain in the organ of interest, apply during critical periods of development. • First application 15 days before flowering, once rainfall has been established. • Repeat when petals dry. To stimulate vegetative growth and lateral sprouting: Apply once sprouting begins after pruning.
Corn	1.0-2.0	To stimulate biomass gain in the organ of interest, apply during critical periods of development. • First application on stage V4. • Repeat before stage V6. In conditions of magnesium, iron, and zinc deficiency, apply every 15-20 days during crop development.
Sugar cane	1.5-2.0	To stimulate biomass gain in the organ of interest, apply during critical periods of development. • First application to the crown, either on ratoon or ratoon subsequently. • Repeat once vegetative growth has begun. In conditions of magnesium, iron, and zinc deficiency, apply every 60 days during crop development.
Avocado	2.0-4.0 (200 ml / 100 L 100 liters of spray water)	To stimulate biomass gain in the organ of interest, apply during critical periods of development. • First application on inflorescence formation. • Second application on flowering, seeking to cover the highest percentage of these. • Third application on fruit the size of a match head. In conditions of magnesium, iron, and zinc deficiency, apply every 60 days during crop development. Adjust dosage according to the age and size of the tree.

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Pineapple	2.0-4.0 (200 ml / 100 L 100 liters of spray water)	To stimulate biomass gain in the organ of interest, apply during critical periods of development. • First application once the last third of flowers within the sorosis are open. • Second application 30 days after the first. • Third application 30 days after the second application. In conditions of magnesium, iron, and zinc deficiency, apply every 60 days during crop development
Tomato	1.5-2.0	• To stimulate biomass gain in the organ of interest, apply to flowering and small fruits every 15 days. In conditions of magnesium, iron, and zinc deficiency, apply every 60 days during crop development
Alfalfa, forage sorghum, pasture grasses	1.0-2.0	• Apply 5 days after grazing or cutting. • Repeat once vegetative growth has begun
Wheat, barley, oats	1.0-2.0	• Apply at the time of tillering. • Repeat at the heading stage and at flowering.
Potato	2.0	Start applications at the beginning of stolon growth, repeat after 30 days during tuber growth.
Agave	1.0-2.0	To stimulate leaf and stem biomass gain: • Apply at the beginning of vegetative growth. • Repeat monthly.
Beans, chickpeas, broad beans, soybeans	1.0-1.5	• Apply when the first flowers appear. • Repeat when the pods are full.
Cotton	1.0-2.0	• Apply at the beginning of the delimitation of the plot segment. • Repeat when the first flowers appear. Apply a third coat 20-30 days after the previous one.
Oil palm	2.0-4.0	• Apply directly to the flower. Repeat 20 days after the first one.