



TECHNICAL APPLICATION GUIDE

Liquid Calcium and Magnesium Amendment for Professional Agriculture



1. PRODUCT DESCRIPTION

MagniCal Liquid is a high-efficiency liquid mineral amendment formulated with soluble Calcium (CaO) and Magnesium (MgO) carbonates in a 100% homogeneous suspension. It enhances soil fertility, corrects acidity, and supplies essential nutrients to strengthen plant development.

2. USAGE OBJECTIVES

- Correct acidic soils and raise pH.
- Provide calcium and magnesium in a balanced ratio (Ca/Mg \approx 1.4).
- Improve soil structure and nutrient absorption.
- Strengthen the root system and chlorophyll formation.

3. GUARANTEED COMPOSITION (% w/w)

- Calcium Oxide (CaO): 9.0%
- Magnesium Oxide (MgO): 6.5%
- pH: 8.0 – 8.5
- Density: \sim 1.3 kg/L
- Physical state: 100% homogeneous suspension

4. APPLICATION METHOD

Crop Type	Application Method	Dosage per Hectare	Dosage per Plant*	Frequency
Citrus (orange, lemon)	Fertigation	8–12 L/ha	80–150 mL/plant	2–3 times per season
	Foliar	250–300 mL/hl	—	Every 15–20 days
Avocado	Fertigation	10–15 L/ha	150–250 mL/plant	Twice per year
	Foliar	250–300 mL/hl	—	2–3 applications
Grapevine (table/wine)	Fertigation	8–10 L/ha	80–120 mL/plant	2 times per season
	Foliar	250 mL/hl	—	At flowering and fruit set
Potato	Fertigation	10–12 L/ha	—	Pre-sowing and 20 days after
	Foliar	250 mL/hl	—	Every 15 days
Corn / Sorghum / Wheat	Fertigation	6–10 L/ha	—	2 applications per cycle
	Foliar	200 mL/hl	—	At 4 and 8 leaf stages
Rice	Fertigation	8–10 L/ha	—	At 25 and 45 days
	Foliar	200–250 mL/hl	—	As needed
Vegetables (tomato, lettuce)	Fertigation	5–8 L/ha	10–25 mL/plant (irrigation)	2–3 times per cycle

Crop Type	Application Method	Dosage per Hectare	Dosage per Plant*	Frequency
	Foliar	200–250 mL/hl	—	Every 10–15 days
Banana / Plantain	Fertigation	12–15 L/ha	200–300 mL/plant	3 times per year
	Foliar	300 mL/hl	—	During vegetative and flowering stages
Sugarcane	Fertigation	10–15 L/ha	—	Every 2 months
	Foliar	250–300 mL/hl	—	Directed application
Pastures and Alfalfa	Fertigation	5–8 L/ha	—	After each cut
	Foliar	200 mL/hl	—	To promote regrowth
Strawberries / Berries	Fertigation	6–8 L/ha	20–30 mL/plant	Monthly
	Foliar	250 mL/hl	—	During flowering and fruit filling

5. COMPETITIVE MARKET COMPARISON

MagniCal Liquid offers a clear advantage over conventional liquid dolomites. While typical products on the market focus primarily on correcting soil acidity with high calcium content, MagniCal Liquid delivers a balanced contribution of both calcium and magnesium. Magnesium not only helps neutralize soil acidity but also provides essential nutritional value, supporting chlorophyll formation and plant metabolism. In contrast, calcium primarily acts as a pH corrector without a direct nutritional role.

The balanced Ca/Mg ratio of 1.40 in MagniCal Liquid is considered ideal because it supplies both elements in proportions that promote nutrient synergy and avoid competitive inhibition in the soil. Higher ratios, like those found in other products, can lead to calcium dominance and magnesium deficiency, negatively affecting crop health and yield.

This makes MagniCal Liquid especially valuable for crops sensitive to magnesium deficiency.

Below is a technical comparison:

Feature	MagniCal Liquid	Other Products in the Market
CaO (%)	9.0%	13%
MgO (%)	6.5%	2–3%



Feature	MagniCal Liquid	Other Products in the Market
Ca/Mg Ratio	1.40 (balanced)	4.3 to 6.5 (unbalanced)
Application Focus	Nutrition + Correction	Acid correction only
Mg-sensitive crops	Recommended	Limited

6. GENERAL RECOMMENDATIONS

- Shake well before use.
- Do not mix with phosphate or strongly acidic products.
- Apply with clean water during cool hours.
- Use personal protective equipment during handling.
- Perform a compatibility test before tank mixing.

7. AVAILABLE PRESENTATIONS

- Containers of 5 L, 20 L, 200 L, and 1000 L (HDPE)
- Storage: Store in a cool, dry place, protected from direct sunlight.
- Shelf life: 24 months from manufacturing date

8. CONTACT

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MagniCal Liquid: Corrects, nourishes, and balances. A smart solution for sustainable agriculture.