



Dissolvine[®] E-Mg-6

Dissolvine[®] E-Mg-6 is a product developed for usage on magnesium deficient crops through foliar application.

Dissolvine[®] E-Mg-6 can also be combined with water soluble compound (NPK) fertilizers. For other applications and products please ask for our other Akzo Nobel Micronutrients products.

Dissolvine[®] E-Mg-6 contains 62 grams Magnesium per kg of product as **Mg-disodium-EDTA** derived from ethylenediaminetetraacetic acid.

Crops and Soils Susceptible to Magnesium Deficiency

Magnesium deficiency affects many crops: sugar beet, cereals, cotton, potato, hops, citrus, kiwi, plum, sunflower, rose, brassica, pepper, lettuce, tomato, nut and vine. Fruit crops are highly susceptible to magnesium deficiency during heavy fruit production.

Magnesium is a secondary nutrient mostly commonly abundant in soils. Very poor (acid) sandy soils are known for magnesium deficiency. Magnesium is not strongly adsorbed to clay minerals and organic matter and can be easily replaced by other cations at the complex. Magnesium deficiency is induced by high contents of calcium, ammonium or potassium in the soil. Magnesium deficiency is also common on sodic soils by the antagonistic behavior of sodium.

Effects and Symptoms of Magnesium Deficiency

In green leaves a major function of magnesium is its role as the central atom in the chlorophyll molecule and is part of the cell wall structure. Thereby magnesium performs a key role in the regulation of cellular pH and the cation-anion balance. Magnesium activates several important enzymatic reactions in protein synthesis and energetic household. In almost all phosphorylation reactions magnesium is the cofactor and it accomplishes a bridging function in the photosynthesis.

Deficiency symptoms of magnesium are quite distinctive. Leaves from monocotyledons (cereals) get stripes along the leaves, so called 'tigering'. Leaves from dicotyledons keep their green veins, but the mesophyll will color light green to yellow; bronzing in citrus. In a further stage necrotic stains appear, that resemble potassium deficiency. Effects of low magnesium on fruit appear to be caused by the reduction in leaf surface and photosynthetic capacity.

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product. This sheet replaces all previous versions.

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This results in small and poor fruit quality. Early fruit drop is common.

Magnesium is a mobile element in the plant. Minor deficiencies can be quickly repaired by mobilization of magnesium from old tissue to new tissue. Therefore a relatively late foliar application with magnesium is possible.

These are the most frequent symptoms of Magnesium (Mg) deficiency:

- ☼ Chlorosis appears on mature leaves, because it is a mobile element in the plant.
- ☼ Monocotyledons get stripes along the leave: "tigering"
- ☼ Dicotyledons get chlorosis between the veins (bronzing in citrus) and in a later stage necrotic.
- ☼ Lower photosynthesis rate in leaves.
- ☼ Accumulation of starch and sugars

Directions for Use

Dissolvine[®] E-Mg-6 is meant for application to plants, after diluting with water.

Application of the Product

The product can be applied by foliar feeding

A. Foliar Application

Foliar feeding provides a rapid response and is recommended when fast correction is necessary. Repeated applications are necessary. For improving leaf coverage it is advisable to add a wetting agent, efficacy may be further increased by adding urea.

Dissolve the product to a suitable concentration, and apply with spraying equipment. The pH of final concentration should be 6-6.5, final EC lower than 1. Dose rates for a specific crop should be tested first on a small scale. Repeat the application after 2 weeks.

Dissolvine[®] E-Mg-6 can be applied in the vegetative phase as well as in the generative phase. Do not apply during blooming. To reduce the risks of leaf scorching avoid application during hot, sunny days. Treatments in the early morning are preferred.

B. Compound Fertilizers

In storage tank mixtures with compound fertilizers containing phosphates **Dissolvine® E-Mg-6** prevents precipitation of Mg-phosphate complexes. **Dissolvine® E-Mg-6** is stable from pH 6 - 10. Never bring **Dissolvine® E-Mg-6** in direct contact with concentrated acids.

Compatibility

The product can be mixed with most other NPK fertilizers like phosphate foliar fertilizers, and agrochemicals without inactivation, precipitation or scorching problems. Acidifying compounds unstabilize the magnesium EDTA complex. Do not mix with chemicals based on metal compounds (Fe, Zn, Cu, and Mn).

Use other chelated micronutrients, when applied at the same time, to ensure the performance of the magnesium chelate. With liquid fertilizers use the mixture without delay. Test mixed product first on a small scale.

Mixing

Add the required amount of product to a half filled sprayer tank, then complete the filling process. Ensure that sprayer nozzles are adequate for 200-1000 liters water/ha. Use the higher volume under dry conditions, when treating larger crops and at dense foliage.

Precautions

- √ Store in original container, keep tightly closed and store in cool dry place
 - √ Store away from children, pets, livestock and foodstuff
 - √ Wash hands after application and before meals
- No health hazards are involved in normal handling of **Dissolvine® E-Mg-6** but it is advisable to follow the above precautions.

Packing

The product is packed 25 kg net in cardboard boxes with an inside polyethylene bag. Shelf life of the product is more than 3 years.

Dose Rates

The following dosages can be used as guidance. Always adapt to the crop and cultivar involved and to the local circumstances.

A. Glass house Crops:

Crop	Foliar application
	2 weeks interval
Vegetables	1 g/l
Cut flowers	1 g/l
Potted flowers, pot plants	0.8 g/l

B. Arable Crops and Open Field Horticultural Crops:

Foliar application	0.5-1.5 kg/ha	Apply in a water volume that gives adequate coverage of the crop (200-1000 L). Do not exceed a concentration of 0.1%. Repeat after 2 weeks.
Citrus	0.5 - 1 kg/ha	
Apple	0.5 - 1 kg/ha	
Grape	0.5 - 1 kg/ha	
Vegetables	0.5-0.8 kg/ha	
Arable crops	1 - 1.5 kg/ha	

1 kg/ha = 0.9 lbs/acre

1 g/l = 0.13 oz/gal

Main characteristics

- Solubility in water: 900 g/l (20 °C)
- EC (1 g/l): 0.42 mS/cm
- Chloride free

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