



**wilchem**  
SIGNATURE RANGE

# MAGNESIUM

MAGNESIUM AMINO ACID CHELATE  
Mg 50 g/L : N 86 g/L : AA 172 g/L

**Analysis (w/v)**  
Magnesium (Mg) – 50 g/L  
Amino Acid (AA) – 172 g/L  
Nitrogen (N) – 86 g/L  
pH – 4.8 to 5.4  
Specific gravity (SG) – 1.25

## Signature Amino Acid Chelates

Wilchem Signature is a range of amino acid chelates. Amino acids are *bidentate chelants* – they form two bonds to the nutrient to form a “chelate ring”. The chelate ring is stronger than a single ionic bond, which protects the nutrient and maintains it in solution. Amino acid chelates increase nutrient uptake efficiency, leading to increase yield and quality.

### Uses:

Wilchem Signature Magnesium is used to correct and prevent magnesium deficiency in a wide range of crops. Signature Magnesium can be applied via fertigation, furrow injection or foliar applications for broadacre, viticultural and horticultural production where magnesium deficiency may occur.

### Directions for use:

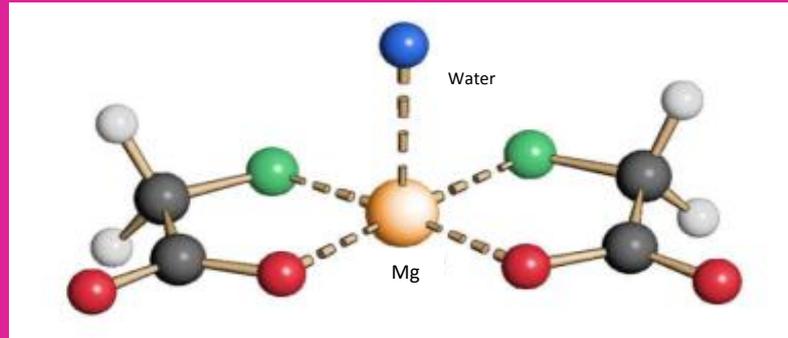
Foliar sprays are the most effective way of applying Signature Magnesium however, it is also suitable for fertigation and furrow injection as chelates reduce reactions in the soil solution making the nutrients more available and for a longer period.

### Magnesium Deficiency:

Magnesium deficiency occurs mainly in sandy soils with low pH. Cold conditions and applications of potassium can reduce the availability of magnesium. Applications of other positively charge ions can inhibit the uptake of potassium. Areas that have repeated green manure can show symptoms over time. Magnesium deficiency in plants can also led to grass tetany (magnesium deficiency in animals). Crops that are susceptible to magnesium include vines, fruit trees and vegetables.

### Deficiency Symptoms:

- Symptoms appear first in old leaves (highly mobile)
- Weak plants
- Interveinal chlorosis through the middle of older leaves
- Curling of leaves upward along margins



Crop	Rate L/Ha	Timing	Water L/Ha
Beans/Peas/Lupins	2-3	10-14 days before flowering, earlier if know deficiency	50 - 80
Canola	2-3	4-6 true leaves	50 - 80
Citrus	2-4	Apply fortnightly until bloom, do not spray during blossom or at harvest	300 - 1000
Grapevines	2-4	Before and after flowering	300 - 800
Pasture	1-2	Sufficient foliage when deficiency occurs	50 - 80
Lucerne	3-4	10 to 14 days before flowering	50 - 80
Cereal	2-3	Sufficient foliage when deficiency occurs	50 - 80

### The Function:

Magnesium is a key element in chlorophyll production leading to increased photosynthesis. Magnesium assists with the utilisation and mobilisation of phosphorus and iron. It is an essential activator of many plant enzymes. It is also important is seed formation and the formation of oils and fats.

### Compatibility with Agricultural Chemicals:

Signature Magnesium is compatible with a wide range of agricultural herbicides and pesticides. Check the Compatibility Guide as a reference. Always do a small jar test before preparing a full tank mix.

### Other Details:

Liquid fertilizers can be corrosive to metals so flush equipment clean after use. Avoid inhaling fumes. Avoid contact with eyes and skin. Wash thoroughly with soap and water after handling. Protect from frost. Amino acids are an organic substance and over time some slight precipitation may occur. Do not store for extended periods in direct sunlight.

**Wilchem takes your crop as seriously as you do!**