

**Gadot Biochemical Industries**



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## **Marketing Information**

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# ***Gado Multimin***

**Soluble Mineral Combination for Water Enrichment**

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# The Importance of Calcium

Calcium is the most abundant mineral in our body. It makes up about 2% of the body-weight and about 39% of the total body minerals.

Plays an essential role in

- Building bone mass and preventing osteoporosis
- Critical in the homeostatic maintenance of neuromuscular system.
- Proper kidney function
- Regulation of blood pressure and blood cholesterol levels
- Essential for a wide range of fundamental cellular reactions.

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# The Importance of Magnesium

Magnesium plays an essential role in a range of biochemical and physiological processes.

The human body contains about 25 grams of Magnesium from which 50-60% is in the skeleton and 25-30% in muscle.

One third of skeletal magnesium is exchangeable and it is this fraction that may serve as a reservoir for maintaining a normal extracellular magnesium concentration.

- It is required for both anaerobic and aerobic energy generation.
- ATP and ADP complexes of magnesium participates as the substrate for the phosphate transfer reaction.
- Magnesium is essential for protein synthesis in replicating cells.
- Principal mineral of bones.
- Is required as cofactor for over 300 enzyme systems.
- Magnesium deficiency has been linked to :
  - Several cardiovascular diseases including high blood pressure.
  - Abnormalities in neuromuscular and gastrointestinal symptoms.
  - Migraine
  - Coronary heart vessel spasms
  - Fatigue and sleep disorder.
  - Malabsorption syndromes.
  - Genetic disorders
  - Endocrine disorders

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## **The Importance of Zinc**

Zinc (Zn) is an essential trace element which functions as a component of various enzymes in the maintenance of structural integrity of proteins and in the regulation of gene expression.

The average adult body contains between 1.5 and 2.5 g of zinc with approximately 60% in the muscles, 30% in the bones and 6% in the skin.

The highest concentrations of zinc are in the prostate gland and sperm in men, and in red and white blood cells. The retina of the eye, liver and kidneys also have high concentrations and there is some zinc in hair.

Zinc is an essential mineral for maintaining a healthy immune system and variety of other important body process. These include:

- Brain development
- Protein synthesis
- Cell growth
- Proper function of hormones such as insulin, sex and growth hormones.
- Prevention of infections.
- Wound healing
- Helps the body utilize vitamins, such as E and A.

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## **Choosing The Mineral Sources**

There are different sources of mineral in various forms so how to choose the proper one?

Properties to be considered:

- Bioavailability
- Mineral content
- Solubility
- Organoleptical characteristics
- Effect on the stomach
- Effect on kidney stones formation.
- Interaction with other ingredients

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## **Benefits of Citrate Based Minerals**

- High bioavailability.
- High mineral content: Cost effective Mineral source.
- Absence of an after-taste.
- Citrate based minerals does not cause stomach upset and can be taken on an empty stomach or with a meal.
- Good compatibility with other nutrients.

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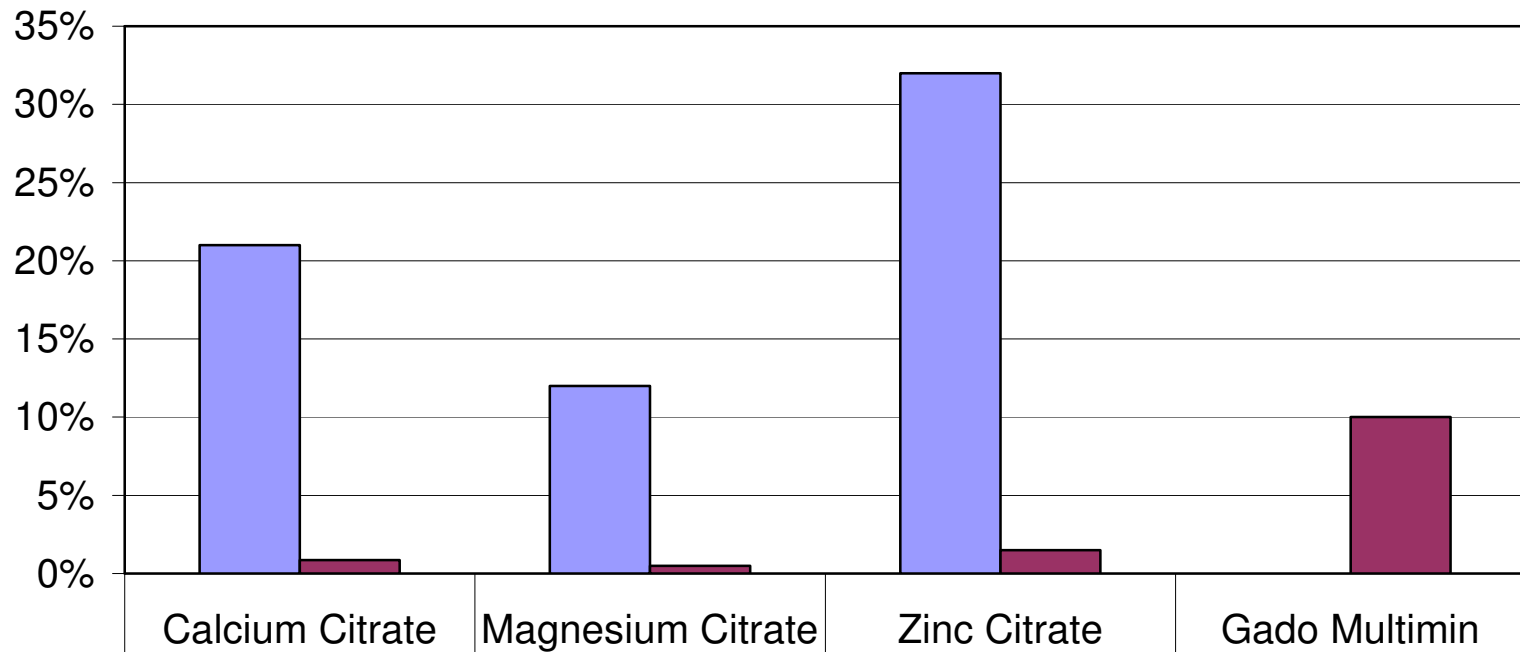
## Optimal Calcium / Magnesium / Zinc intake

<i>Age</i>	<i>Calcium RDA mg/day</i>	<i>Magnesium RDA mg/day</i>	<i>Zinc RDA mg/day</i>
<i>Less than 6 months</i>	400	30	2.5
<i>7-12 months</i>	600	75	3
<i>1-3 years</i>	800	65	3
<i>4-8 years</i>	800-1200	110	5
<i>9-13 years</i>	1200-1500	200	8
<i>14-18 years</i>	1200-1500	300	9-11
<i>19-24</i>	1000	265	8-11
<i>Men 25-50 years</i>	1000	300-350	8-11
<i>Women 25-50 years</i>	1000	270-280	8-11
<i>51-70 years</i>	1000	350	8-11
<i>&gt;70 years</i>	1500	350	8-11
<i>Women Pregnancy or breast feeding</i>	1200-1500	350	11-12

Based on that, the optimal mineral ratio in the supplement should be of approximately:

***100 PARTS OF CALCIUM PER 25 PART OF MAGNESIUM PER 1 PART OF ZINC.***

## Mineral content and Solubility of Citrate Based Minerals



■ Mineral content	21%	12%	32%	
■ Solubility	0.850%	0.500%	1.500%	10.000%

**Gado Multimin** contains: 8.2% calcium, 2.1% Magnesium & 0.1% Zinc

# ***Gado Multimin***

Organic mineral source - Citrate

Calcium Content - 7.8-8.6%

Magnesium Content - 2-2.4%

Zinc Content - 0.07-0.1%

Solubility (as is) - > 10%

Taste – Slightly acidic, Pleasant

PH (1% in water) – 3.5 – 4.5

Best use for mineral enrichment of water and iced tea.

## **Gado Multimin for Mineral Enrichment of Water**

**Gado Multimin** was found to be the most suitable product for mineral enrichment of water.

The physical characteristics of **Gado Multimin** are specifically designed to enable getting citrate based minerals soluble in water.

**Gado Multimin** provides the essential minerals calcium, magnesium and zinc at the ratio of the **Recommended Dietary Allowances**. **Gado Multimin** enables enrichment of water up to 100% of the RDA per liter without precipitation. However, the ratio maybe altered as per specific requirement.

Using **Gado Multimin** for mineral enrichment of water has the following advantages:

- High bioavailability.
- All main minerals in one ready to use product.
- Mineral content is already at the required RDA ratio.
- Water solution of **Gado Multimin** is stable at all antimicrobial heat treatments (sterilization, pasteurization, UHT).
- Low interference with other minerals.
- Good compatibility with other nutrients and minerals.

**Gado Multimin** is produced to order, packed in 10 kg or 25 lb paper bags.