COMPOSITION OF 1 ML SOLUTION
125 mg Dimethylglycine (DMG)
50 mg Methylmethionine (Vitamin U)
30 µg Vitamin B₁₂

ANALYTICAL CONTENTS
Moisture 78.3 % (m/m)
Crude protein 10.30 % (m/m)
Crude fiber < 0.10 % (m/m)
Crude ash < 0.10 % (m/m)
Dry content 21.7 % (m/m)

PACK SIZE
30 ml plastic vial
120 ml bottle with child safety cup

INSTRUCTIONS FOR STORAGE
Avoid from light and store at max. 25˚C.
Keep out of the reach of children!

SHELF LIFE INSTRUCTIONS
Shelf life of the commercially packaged product is 1 year.

PRODUCED BY
Eisemann Kft.
Registration number: HU 13 1 00032

DISTRIBUTED BY
Vitamed Pharma Kft.
Registration number: HU 20 2 00030

REFERENCES
- Thomas M. Devlin: Textbook of Biochemistry with clinical correlations, 7th edition
- Jozsef Prokisch MD: Active agents of functional edibles, 1. Vitamins
Dimethylglycine (DMG)

Dimethylglycine is a tertiary amino acid taking part in metabolism as a natural actor. Initially called vitamin B16, but as no deficiency symptoms were detected, dimethylglycine is not considered to be a vitamin. As a methyl donor, dimethylglycine plays a role in transmethylation processes in animals. Transmission of the methyl group is an essential subprocess of a number of biochemical processes and molecule synthesis in the body. This is the reason why dimethylglycine has widespread indication areas with outstanding beneficial effect, such as immunity strengthening, speeding up the recovery process, enhancement of physical performance (through better oxygenisation of muscle cells), detoxification and supporting the fight against tumours.

S-Methylmethionine (Vitamin U)

The name vitamin U comes from the first detected effect of the molecule that it is favourable to prevent oesophagus and gastric ulcer (anti-ulcus vitamin). Later it reached evidence that it has a generally beneficial effect on the gastro-enteric system based on the support of mucin production and protection of the cells of mucosa. Its blood cholesterol level decreasing effect is affirmed in humans.

With its active methyl group it helps detoxification of the body and neutralization of histamine released upon inflammation. During transmission of its methyl group methionine is formed, which – due to its sulphur content – is one of the most important essential amino acids. As chains in the immunoglobulines connect through disulphide bonds, the proper amount of methionine is essential to be present for the efficient immune response.

Vitamin B₁₂

Vitamin B₁₂ has an important role in growth, in the formation of red blood cells and in the development of the nervous system. As coenzyme, it takes part in several major biochemical processes.

The cumulative effect of its active agents supports the body in maintaining health and in fighting diseases in many ways:

- Supporting the immune system
- Improving general status for better immune response against pathogens
- Enhancement of the detoxification procedure of the liver for faster toxin elimination
- Reducing the noxious effect of pathogens in animals
- Coenzyme activity to support reactions connected to the transmission of methyl groups of dimethylglycine and vitamin U (vitamin B₁₂)

**COMPOSITION**

| Composition | ...............................
|-------------|...............................

**RECOMMENDED USAGE**

**DOGS**

- Prevention of illnesses caused by viruses or bacteria and improving resistance (0.5 ml/10 kg of body weight/day).
- Supporting the natural immune response in case of diseases caused by viruses or bacteria to speed up recovery (1 ml/10 kg of body weight/day).
- Increasing the release of antitumour cytokines (Tumour Necrosis Factor, Interleukin 2) in cancerous diseases and reducing the possibility of metastasis formation (1 ml/10 kg of body weight/day).
- Improving the oxygen provision and metabolism of tissues (brain, heart, eyes) in senior dogs, this way maintaining their activity and mobility (0.5 ml/10 kg of body weight/day).
- Taken by working dogs during the intense strain, it enhances physical status and detains the piling of lactic acid in the muscles (1 ml/10 kg of body weight/day).

**BIRDS**

- Birds – due to their extremely fast metabolism and relatively poor adaptability – are highly sensible to changes of circumstances. With its buffer properties, DMGuard can reduce the negative effects of unexpected stress or significant change in circumstances (excessive heat, lack of heating, new cage). It is also beneficial in cases of feather picking, depumulation, repeated problems caused by parasites or fungi.
- Dosage: 1 drop/ 100 g of body weight, mixed into the drinking water.

**SMALL MAMMALS**

- Due to the fact that the majority of clinical researches starts with testing products on small mammals (degu, mouse or guinea pigs), there are numerous trial results available referring to the effects and way of mechanism of dimethylglycine on small mammals. Anti-diabetic effect of dimethylglycine is confirmed and we have known from these tests that dimethylglycine is not toxic (its LD₅₀ value is 7400 mg/kg of body weight for rats), it is not carcinogenic or mutagenic, moreover it supports the defence mechanism against such chemicals.
- The effect of DMGuard on metabolism of small rodents is similar to that of other mammals.
- The most convincing result of its administration is extended life and enhanced vitality.
- Taken by working dogs during the intense strain, it enhances physical status and detains the piling of lactic acid in the muscles (1 ml/10 kg of body weight/day).

**CATS**

- Prevention of illnesses caused by viruses or bacteria and improving resistance (0.5 ml/10 kg of body weight/day).
- Supporting the natural immune response in case of diseases caused by viruses or bacteria (leucosis, FIP, FIV) to speed up recovery (1 ml/10 kg of body weight/day).
- Increasing the release of antitumour cytokines (Tumour Necrosis Factor, Interleukin 2) in cancerous diseases and reducing the possibility of metastasis formation (1 ml/10 kg of body weight/day).
- Improving the oxygen provision and metabolism of tissues (brain, heart, eyes) in senior cats, this way maintaining their activity and healthy functions (0.5 ml/10 kg of body weight/day).

**FISHES**

- Helping the defense system to avoid stress effects in changing circumstances (change of water, light, temperature or composition of vegetation).
- Enhances the functioning of the immune system when fighting against chemicals, infections or parasites. It has a beneficial effect on reproduction.
- With its methionine compound, it helps the metabolism of vegetation as well, therefore plants can release more oxygen into the water which has a special importance during the increase of water temperature.
- Dosage: 2 drops/1 litre of water/day added to the water of the quarantine aquarium. For prevention 1 drop/1 litre of water in every 3 days dripped into the water of the aquarium.

**RECOMMENDED USAGE**

**SMALL MAMMALS**

- Dosage: 1 drop/ 100 g of body weight, mixed into the drinking water.

**FISHES**

- Dosage: 1 drop/1 litre of water/day added to the water of the quarantine aquarium. For prevention 1 drop/1 litre of water in every 3 days dripped into the water of the aquarium.

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**FISHES**

- Composition: ...............................

**SMALL MAMMALS**

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**DOGS**

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