

eSHa MINAROLL™ - TRACE ELEMENTS, VITAMINS AND MINERALS

TRACE ELEMENTS, VITAMINS AND MINERALS

What is minaroll?

MINAROLL is a unique Polyvitamin combination of vitamins, trace elements and minerals. These things are vital factors in the make up of every organism.

Sufficient quantities are required for creating and maintaining a healthy metabolism in all living creatures. A good vitamin supply is essential to ensure a healthy aquarium. It increases the fishes natural resistance against infections and diseases, especially for fish that do not have natural food supply at their disposal and are fed with so-called "complete mono-food".



How does using minaroll benefit my fish?

Weekly use of MINAROLL provides fish with sufficient quantities of important vitamins, minerals and trace elements which may be missing from your aquarium. Using MINAROLL is beneficial for several reasons:

Fighting and recovery from Disease:

Fish require more vitamins, minerals and trace elements when fighting or recovering from disease. This results from the increased cell functions and activity associated with cell defence. MINAROLL increases resistance against disease by increasing the immune response. By stabilising the vitamin reserve the danger to your fish from damaging micro organisms is lessened.

Reducing Stress:

Detrimental environmental circumstances such as poor water quality, transportation etc mean that fish are often damaged in such a way that renders normal vitamin supply insufficient.

Increased cell activity:

Increased cell activity can occur during the spawning / breeding season or whenever fish are required to generate extra biological exertion (includes periods of fast growth and high consumption). MINAROLL provides extra vitamins, minerals and trace elements to compensate for incurred vitamin depletion.

Deficiency:

A-vitaminosis develops through insufficient biosynthesis (a direct decline of condition signifies A-vitaminosis). This can result from of the use of medication (i.e. anti-biotics, sulfanilamides etc.), or a lack of variation in diet.

General Maintenance:

MINAROLL can also be effective as a general supplement to maintain good, healthy fish condition. Healthy fish quickly eliminate damaging bacteria and other micro organisms through their biological defence mechanisms.

In all these cases, much larger quantities of vitamins, minerals and trace elements are required than can be provided by normal food.

MINAROLL - Composition per 20 ml

Vitamins:

Vitamin A	600	I.E.
Vitamin B1	480	mcg
Vitamin B2	120	mcg
Vitamin B3	1200	mcg
Vitamin B6	240	mcg
Vitamin E	240	mcg
Calcium Pantothenate	2.8	mcg
Biotin (vitamin H)	6	mcg
Vitamin B12	0.12	Y
Vitamin C	3600	mcg
Vitamin D	12	mcg

Minerals:

Calcium	6288	mcg (CaC3H5(OH)2PO4)
Iron	300	mcg (Fe. saccharated carb.)
Magnesium	960	mcg (MgC3H5(OH)2PO4)
Manganese	50	mcg (MnSO4.4H2O)
Phosphor	1080	mcg (Sub forma PO4)

Trace Elements:

Copper	9	mcg (CuSO4.5H2O)
Zinc	55	mcg (ZnSO4.7H2O)
Molybdeen	6	mcg (NaMoO4.2H2O)
Cobalt	11	mcg (CoSO47H2O)
Borium	21	mcg (Na2B4O7.10H2O)

Dosage

1 Calculate the volume of your aquarium. Calculate only the area occupied by water (deduct 10% for heavily decorated aquariums).

Litres	Length x Width x Depth in cm	: 1000
Gallons	Length x Width x Depth in inches	: 276
1 Litre = 0.22 Gallons	1 Gallon = 4.54 Litres	

2 Locate your aquarium volume on the dosage scale (metric or imperial). Read down to find the corresponding number of drops required.

3 Add drops of MINAROLL to your aquarium by holding the bottle upside down and squeezing the pipette.



It is possible to add MINAROLL directly onto food (same dosage applies).

Standard dosage

For general care and disease resilience:
Weekly: 20 drops

MINAROLL completes the standard dosage for a 2000 litre (440 Gallon) aquarium.

Dosage exceptions (For 100 Litres / 22 Gallons)

For recovery from acute and chronic disease:
Daily: 25 drops

For fish recovering from illness: Daily: 20 drops

For rapidly developing fish: Daily: 10 drops

WEEKLY

GALLONS	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
☼	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
LITRES	20	30	40	50	60	70	80	90	100	110	120	130	140													
☼	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	

What precautions must I take when using MINAROLL?

Water Changes?

It is generally not necessary to do a water change before or after using MINAROLL. However, there are a few exceptions where a partial water change should be carried out before treating the aquarium:

1 In the case of poor water quality. Regular testing with eSHa Aqua-Quick-Test can identify water quality problems in time to take corrective action when needed.

2 If you are close to your regular water change (20 - 25% per month - refer to an aquarium keeping guide).

Interactions (with chemically active substances)?

Chemically active substances, such as (fresh) active carbon, excessive use of dechlorinators, UV, oxidizers, etc. can degrade or remove this product. Which causes the effectiveness to decrease. In that case remove active carbon etc. and perform a large water change.

Overdosing?

It is not recommended to add more than the recommended dosages when using MINAROLL. However, MINAROLL remains nontoxic (under normal conditions) if more than the recommended dose is accidentally added.

Storage:

It is recommended to store this product at room temperature. Do not store below freezing.

Other Treatments?

MINAROLL is safe to use with all other eSHa products. It is not recommended to combine other treatments unless the manufacturer specifically states that doing so is safe. You can remove all MINAROLL components by filtering over fresh active carbon.

Sediment?

You may notice flake-like sediment forming in your bottle of MINAROLL. This can form under certain conditions and results because there are no artificial preservatives in MINAROLL. The sediment is a natural compound and is totally harmless and will not affect the performance of MINAROLL. The sediment dissolves when entering your aquarium.

Warnings:

- Always read the leaflet before use.
- This product may stain if spilt.
- Keep out of reach of children.
- Store bottle and leaflet in the original box
- For ornamental fish only.
- Keep away from cuts, eyes and other sensitive areas.
- This information is subject to change. Please check if you have the latest version.
- This information is general product information not to be mistaken for the instruction leaflet. No rights can be derived from this document.

TOGETHER WE WILL FIND THE SOLUTION

©2007 eSHa Lab. - P.O.B. 431 -
NL 6200 AK Maastricht

