

Systemic aquarium care



**The easy way
to a permanently
clear aquarium**



 **Sera**®

The new sera system

The new aquarium care system by **sera** solves all problems in freshwater aquariums with just one product per step.

Example
Water care



Step 1



Step 2

- ✓ with improved active agent formula
- ✓ easy and effective application
- ✓ scientifically tested



Step 3



Step 4

Uncomplicated and safe with **sera**

- for optimal, extensive basic care
- for creating and lastingly maintaining appropriate water conditions
- for effective immediate help in case of trouble



Water testing

Basic precondition for creating optimal living conditions

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Water parameters alright

Water care

Permanently appropriate water parameters and a stable biological equilibrium

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Soft water care

Appropriate water parameters and breeding conditions, e.g. for discus fish and angelfish

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Water parameters not alright

Optimize water parameters

Uncomplicated and lasting immediate help in case of dangerous water parameters

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Cure diseases

Fish friendly disease treatment in aquariums

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Water testing

Knowing the relevant water parameters is the basic precondition for permanently providing the freshwater aquarium inhabitants optimal environmental conditions. Direct corrective measures are possible if the values are outside the recommended

range. Besides regularly monitoring the standard water parameters, selected parameters for sourcing should be checked immediately in case of suspicious observations.



item no. 04002

Checking the water parameters

pH value, carbonate hardness (KH), ammonium and nitrite

are among the most important water parameters. Extreme deviation from the desired values may immediately lead to life threatening situations. Whenever the appearance or the behavior of the fish becomes conspicuous, or other anomalies (such as plants dying suddenly) are observed in the aquarium, you should first check the basic water parameters. The **sera Quick Test** strips are particularly easy to use and can be used for routine controls. We recommend the **sera pH-Test**, **sera kH-Test**, **sera NH₄/NH₃-Test** and **sera NO₂-Test** for more precise results.

Total hardness (GH), nitrate, phosphate, iron, copper, chlorine, silicate and oxygen

Well-versed aquarists also know the average values for these parameters in their aquariums. Checking them every now and then is usually sufficient. In case of a corresponding suspicion (e.g. intoxications, algae growth, gasping for air) the parameters in question must be checked immediately and in a directed way.



item no. 08920



Some important water parameters and their desired values

Parameter	Importance	Desired value
pH value	All creatures in aquariums react sensitively towards pH value changes. Depending on the species kept, the pH value should be in the slightly acidic or a neutral (7) to slightly alkaline (8) range. Sudden pH value changes (such as rapidly sinking pH value) are very dangerous.	6 – 8
Carbonate hardness (KH)	The KH is defined by the hydrogen carbonate ion concentration in the water. Sufficiently high KH (at least 6°dKH) reliably buffers dangerous pH value variations.	6 – 10°dKH
Ammonium/Ammonia (NH ₄ /NH ₃)	Waste and breakdown product, a component of the nitrogen cycle and at the same time a dangerous fish poison! Good biological activity provided, it is ideally not detectable.	< 0.5 mg/l (better 0 mg/l)
Nitrite (NO ₂)	Waste and breakdown product, a component of the nitrogen cycle and also a dangerous fish poison! Good biological activity provided, it is ideally not detectable.	< 0.5 mg/l (better 0 mg/l)
Total hardness (GH)	The GH is formed by the entirety of alkaline earth ions (mainly calcium and magnesium) and serves as an important mineral source.	5 – 15°dGH
Nitrate (NO ₃)	Breakdown product and component of the nitrogen cycle. Hardly toxic plant nutrient that, however, supports algae growth in higher concentrations.	< 50 mg/l
Phosphate (PO ₄)	Waste and breakdown product. Hardly toxic plant nutrient that, however – especially in higher concentrations –, is the most important support for uncontrolled algae growth.	< 1 mg/l
Copper (Cu)	Heavy metal already toxic in low concentrations, but also essential trace element as well as effective agent in some treatments and biocides.	< 0.1 mg/l
Silicate (SiO ₃)	Diatoms are characterized by their silicate containing cell walls. Silicate levels above 2 mg/l in the aquarium water support their growth.	< 2 mg/l
Oxygen level (O ₂)	Essential for all aquarium inhabitants for breathing, but it is also important for breakdown processes (such as uneaten food, fish waste, plant remainders). It is normal that the saturation changes according to the time of day due to photo synthesis. Good water agitation and not exceedingly warm water support saturation.	> 4 mg/l (better > 6 mg/l)

A sera tip: Certain fish species (e.g. discus, angelfish or African cichlids) require water parameters that differ from these general desired values, especially for breeding. Your retailer knows about the species specific data concerning the optimal water hardness, the suitable pH value and other conditions (e.g. oxygen requirement).

Your own measurements:

		Desired value						
Date and time								
Standard measurement	pH							
	KH (°dKH)							
	NH ₄ (mg/l)							
	NO ₂ (mg/l)							
Test as required	GH (°dGH)							
	NO ₃ (mg/l)							
	PO ₄ (mg/l)							
	Fe (mg/l)							
	Cu (mg/l)							
	Cl (mg/l)							
	SiO ₃ (mg/l)							
	O ₂ (mg/l)							
Others (e.g. CO ₂ , temperature, conductivity)								



Water care

Water quality is the crucial factor for all aquarium inhabitants doing well. The **sera** care products for freshwater aquariums allow obtaining appropriate water parameters, safety against dangerous pollution and a stable biological equilibrium easily and lastingly. The most frequently occurring problems, such as water pollution, disease and algae pests, are prevented in the first place.

Step 1

Condition water:

sera aquatan

Substances toxic for fish, such as chlorine and heavy metals, can get into the aquarium water with every water change. **sera aquatan** immediately removes the pollutants and converts the aquarium water into healthy aquarium water for fish, invertebrates, plants and useful micro organisms.



Application:

In case of new setups, partial water changes and other stress situations

In case of carbonate hardness below 6

Step 2

Raise KH/pH:

sera KH/pH-plus

Most fish species in community aquariums prefer slightly harder water (at least 6°dKH). **sera KH/pH-plus** gently raises the KH and the pH value and stabilizes them lastingly. Under these circumstances, the aquarium turns out particularly durable and easy to maintain. Dangerous pH variations are buffered safely.



Step 3

Provide minerals:

sera mineral salt

Essential minerals and trace elements are often not sufficiently present in aquarium water. **sera mineral salt** directly provides all important trace elements as well as valuable calcium, magnesium and potassium. This closes the supply gap and stabilizes the mineral balance.



For providing minerals and trace elements

In case of new setups, partial water changes, new additions and filter cleaning

Step 4

Create an equilibrium:

sera bio nitrivec

The dangerous toxic substances ammonium and nitrite are permanently formed in aquarium water as waste and breakdown products. The liquid biofilter medium **sera bio nitrivec** contains millions of purification bacteria that help create a stable biological equilibrium and thus continuously break down the arising toxic substances.



Soft water care

Some fish species (e.g. angelfish and discus fish) are accommodated to living environments with soft water and a generally acidic pH value. **sera** has developed the easy-to-use special “Soft water care” product range for creating and lastingly maintaining the optimal environmental conditions for them. Keeping the animals under conditions as natural as possible considerably increases their liveliness, their good health and, last not least, their successful reproduction.

Step 1

Condition water:

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In case of new setups, partial water changes and other stress situations

In case of too high pH and KH values

Application:

Step 2

Lower pH/KH:

sera pH/KH-minus

Some fish species (e.g. discus and angelfish) are accommodated to soft water and require these conditions in particular for reproducing. In case the water is too hard or the pH value has risen due to natural metabolism processes, **sera pH/KH-minus** allows lowering the pH value and the carbonate hardness (KH) precisely and thus creating appropriate keeping conditions.



Step 3

Permanently pH < 7:

sera super peat

After having adjusted the KH and the pH value with **sera pH/KH-minus**, **sera super peat** keeps the water permanently soft and slightly acidic. The functional granulate consisting of natural black peat releases valuable humic and fulvic acids for a long period of time. The blackwater effect achieved this way provides optimal breeding conditions for many fish species.



For lastingly stable softwater conditions

In case of new setups, partial water changes, new additions and filter cleaning

Step 4

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Optimize water parameters

In spite of effective care, imbalances may occasionally occur in an aquarium. Acutely life threatening water conditions may result from this. There are many possible causes – besides the usual startup difficulties with new setups, these include larger maintenance and cleaning measures, disease treatments and overfeeding. The **sera** “Optimize water parameters” care product range provides the suitable products for removing the problem as quickly as possible, in an uncomplicated way and lastingly, and for obtaining optimal environmental conditions again.

Step 1

Remove pollutants:

sera toxivec

Destabilizing factors, such as overfeeding, overstocking or new additions, may lead to sudden and massive pollution peaks by ichthyotoxic pollutants such as ammonia and nitrite in the aquarium water. In such emergency situations, **sera toxivec** immediately removes these toxic substances, as well as other dangerous substances such as chlorine and heavy metals. This makes emergency water changes, which mean stress for the fish, unnecessary.



In case of acute water pollution

For removing cloudiness and phosphate

Step 2

Remove cloudiness and phosphate:

sera phosvec-clear

Mineral as well as dead organic material may lead to cloudiness. The latter may additionally increase the phosphate level in the water and thus support algae growth. **sera phosvec-clear** binds cloudiness, removes excess phosphate and thus prevents algae growth.



Step 3

Supply oxygen:

sera O₂ plus

The breath of the inhabitants and other natural breakdown processes constantly consume oxygen in the aquarium. While even slight under supply already causes stress, extreme oxygen deficiency is quickly fatal. **sera O₂ plus** immediately adds oxygen and thus improves the living conditions for all aquarium inhabitants.



In case of acute oxygen deficiency

In case of new setups, partial water changes, new additions and filter cleaning

Application:

Step 4

Create an equilibrium:

sera bio nitrivec

The dangerous toxic substances ammonium and nitrite are permanently formed in aquarium water as waste and breakdown products. The liquid biofilter medium **sera bio nitrivec** contains millions of purification bacteria that help create a stable biological equilibrium and thus continuously break down the arising toxic substances.



Cure diseases

Good keeping conditions are the best disease prevention. In spite of all efforts, however, diseases can not entirely be avoided. Quick and consistent reaction is required, regardless of having introduced the pathogens by new additions or plants, or other factors being responsible for the disease outbreak. The **sera** range of disease treatments “Cure diseases” accompany the therapy from supporting preparation via the treatment itself with specialized, effective **sera** treatments, up to cleaning and biologically activating the water after a successful treatment.

Step 1 Prepare water:

sera ectopur

The salt blend **sera ectopur** releases active oxygen. Breathing is alleviated, and stress is being reduced. The contained salt stimulates the new formation of mucous membranes and thus supports the removal of pathogens on or within the skin. The efficacy of disease treatments is being supported, and regeneration is considerably accelerated.



Before disease treatments and in case of stress

Step 2 Treat diseases:

sera omnipur

sera mycopur

sera baktapur direct

sera med Professional range

sera costapur

sera baktapur

sera bakto Tabs

Occurring diseases can be reduced by good care conditions, but unfortunately it can never be entirely excluded. Proceeding quickly and consistently is crucial if ever the fish are ill. **sera** provides a full range of effective treatments for the directed treatment of the most frequently occurring diseases of fish in freshwater aquariums.



In case of aquarium fish diseases

Advice: The guide “Healthy aquarium fish” provides more specific advice for using the **sera** treatments correctly and safely.



Step 3

Remove pollutants:

sera super carbon

After a disease treatment, the remainders that are now not required anymore should be removed as quickly and as entirely as possible. This avoids unnecessary water pollution and further stress. The special active carbon **sera super carbon** removes not only treatment remainders but also other dangerous toxic substances and tints quickly, without side effects and without affecting the pH.



Application:

After disease treatments and in case of intoxications

In case of partial water changes, filter cleaning and disease treatments

Step 4

Create an equilibrium:

sera bio nitrivec

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Water testing

Water parameters alright

Water care

- 1. Condition water
sera aquatan
- 2. Raise KH/pH
sera KH/pH-plus
- 3. Provide minerals
sera mineral salt
- 4. Create an equilibrium
sera bio nitrivec

Soft water care

- 1. Condition water
sera aquatan
- 2. Lower pH/KH
sera pH/KH-minus
- 3. Permanently pH < 7
sera super peat
- 4. Create an equilibrium
sera bio nitrivec

Water parameters not alright

Optimize water parameters

- 1. Remove pollutants
sera toxivec
- 2. Remove cloudiness and phosphate
sera phosvec-clear
- 3. Supply oxygen
sera O₂ plus
- 4. Create an equilibrium
sera bio nitrivec

Cure diseases

- 1. Prepare water
sera ectopur
- 2. Treat diseases
sera treatments
- 3. Remove pollutants
sera super carbon
- 4. Create an equilibrium
sera bio nitrivec



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