

aquaLife®



**Cloudy pond water? Use AquaLife CLARIFY for Ponds** for clear water overnight!

Suspended particles that are too buoyant to settle out and too small for the filter to remove make your pond cloudy. **AquaLife CLARIFY for Ponds** contains special polymers that attract suspended particles like a magnet, causing them to clump together. Clumps of particles then either settle to the bottom of the pond or get filtered out. The result? A sparkling clear pond!

Unlike formulations based on harsh inorganic salts, **AquaLife CLARIFY for Ponds** will not harm aquatic life or plants and does not alter the pH of the water.

One ounce of **AquaLife CLARIFY for Ponds** treats 150 gallons of cloudy water. Immediately after addition, the pond may develop a hazy appearance, but should clear completely within 12 to 24 hours.

No other product can match **AquaLife CLARIFY for Ponds** for effectiveness, safety and great value. Available exclusively from independent retailers.

**Dosage:** One ounce (30 mL) per 150 gallons. Maintain aeration and filtration. May be re-treated as necessary.

**Product: CLARIFY for Ponds**

**Category:** Additives and Supplements, Pond

**Unique Product Features: AquaLife CLARIFY for Ponds** enhances filtration and clears cloudy water overnight.

**Packaging:** Available in 4, 8 or 16 ounce bottles.

#### **Product Rationale**

Suspended matter in aquarium water sometimes cannot be adequately removed by filtration, resulting in cloudiness. Suspended matter can consist of large solids that will settle out by gravity alone, and much smaller particles that neither will settle out nor can be removed by standard mechanical filtration. The presence of these smaller particles results in cloudy water. Removal of cloudiness can be accomplished by three processes: coagulation, flocculation, and sedimentation.

- Coagulation destabilizes suspended particles by neutralizing their surface charges. Once neutralized, the particles no longer repel each other and can be brought together.
- Flocculation brings together the destabilized, or "coagulated," particles to form larger clumps, or "flocs."
- Sedimentation refers either to settling of the flocculated particles, or to their physical removal by mechanical filtration.

#### **The Chemistry of Cloudy Water**

The particles that cause cloudy water repel each other because most of their surfaces are negatively charged. Coagulation of particles must occur before they can be removed. In aquariums with delicate fish, plants and aquatic life coagulation can be effected by the addition of certain low-molecular-weight, water-soluble organic polymers with numerous ionized sites. These polymers neutralize the surface charge on suspended particles, allowing them to clump together, or coagulate. By adding high-molecular-weight, water-soluble organic polymers coagulated suspended matter can be flocculated into larger clumps, or flocs. Polymers increase floc size by ionic binding to clumped particles. Polymers also work by molecular bridging, literally "tying" two clumps together like a piece of string.

Therefore, coagulation involves neutralizing charged particles to destabilize suspended solids. In most clarification processes, a flocculation step then follows. Flocculation starts when neutralized or entrapped particles begin to collide and fuse to form larger particles. This process can be enhanced by the addition of polymeric flocculant aids.

**AquaLife CLARIFY for Ponds** is formulated with both low and high molecular weight polymers for maximum effectiveness and economical dosing.

Available from  
Authorized Dealers nationwide  
Dealer Inquiries:  
[www.aqualifesupport.com](http://www.aqualifesupport.com)

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