



Novoclear Aqua

Product Brochure

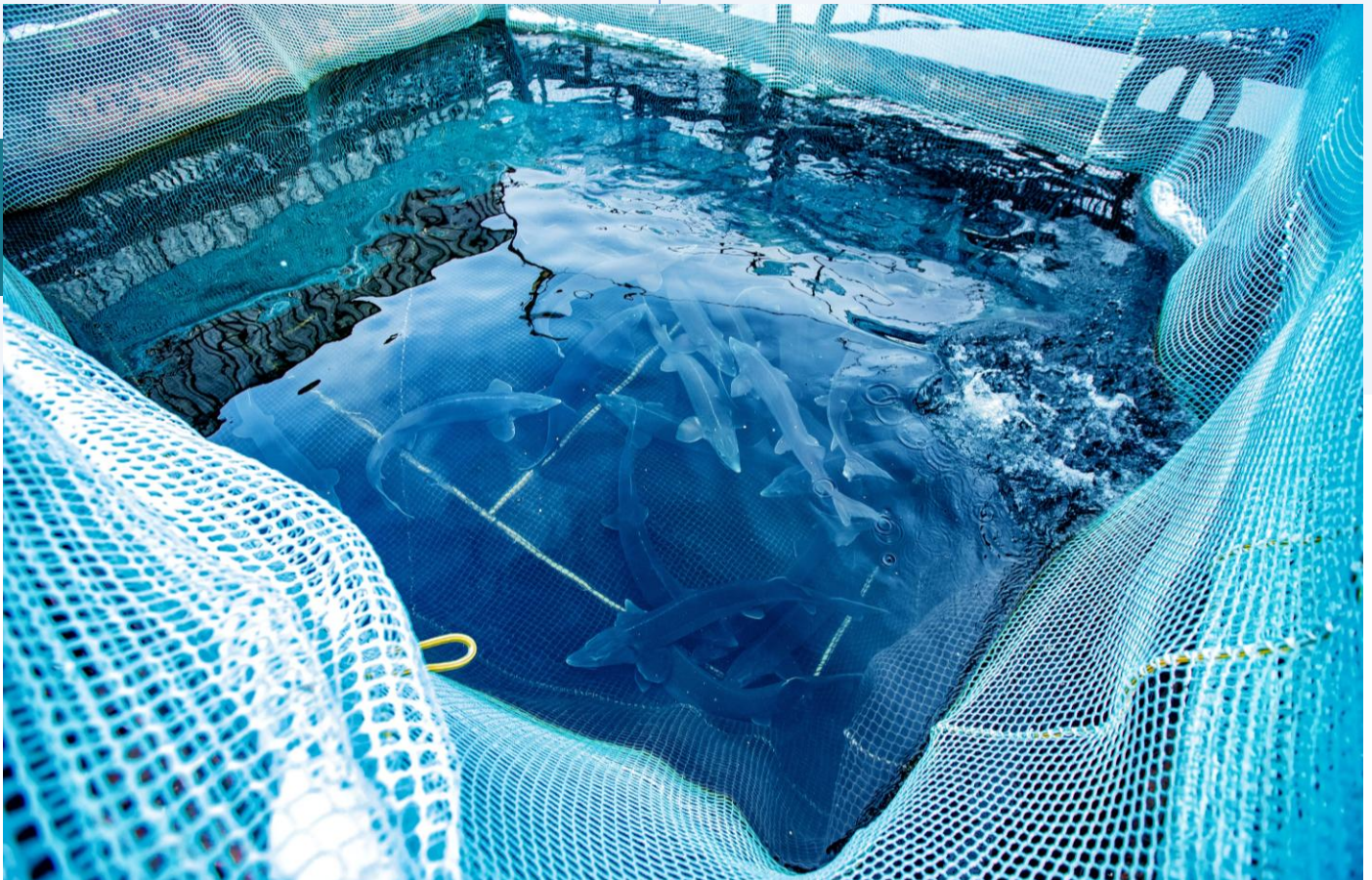
*An organic additive for health in aquaculture – Comprehensive
Protection & Enhanced Vitality*

Version 1.2

Challenges in Aquaculture

Intensive aquaculture produces a series of problems that need to be carefully managed to be able to achieve a successful, long-lasting production cycle:

- Managing high biological oxygen demand (BOD) from fish waste.
- Preventing dissolved oxygen depletion that impacts pH, alkalinity, and microbial activity.
- Balancing ammonia, nitrous oxides, nitrogen, phosphorus, and BOD.
- Supporting healthy plankton growth.
- Controlling water turbidity for optimal conditions.
- Breaking down organic waste and preventing CO₂, nitrate, and phosphate buildup.
- Reducing nutrient-rich effluents high in nitrogen and phosphorus.
- Controlling algae growth and mucus formation.
- Preventing harmful biofilm formation in ponds.
- Maintaining ecosystem balance and harmony.



Novoclear Aqua

What is Novoclear Aqua

Novoclear Aqua is an advanced solution designed to address the complex challenges of intensive aquaculture, by optimising water quality and balancing key nutrients. Verified organic as an input to aquaculture, **Novoclear Aqua** promotes healthier aquatic environments and supports long term operational success.

It effectively manages high Biochemical Oxygen Demand (BOD) caused by fish excrement, regulates dissolved oxygen levels to prevent negative bacterial activity and maintains the balance between critical compounds such as ammonia (NH_3), nitrates (NO_x), nitrogen (N_2) and phosphorus (P).

Novoclear Aqua also supports microbial balance, controls water turbidity and facilitates the mineralization of organic waste, preventing the buildup of harmful compounds like CO_2 and nitrates. Additionally, it manages algae growth, prevents biofilm formation, to ensure a clean and balanced aquatic environment.

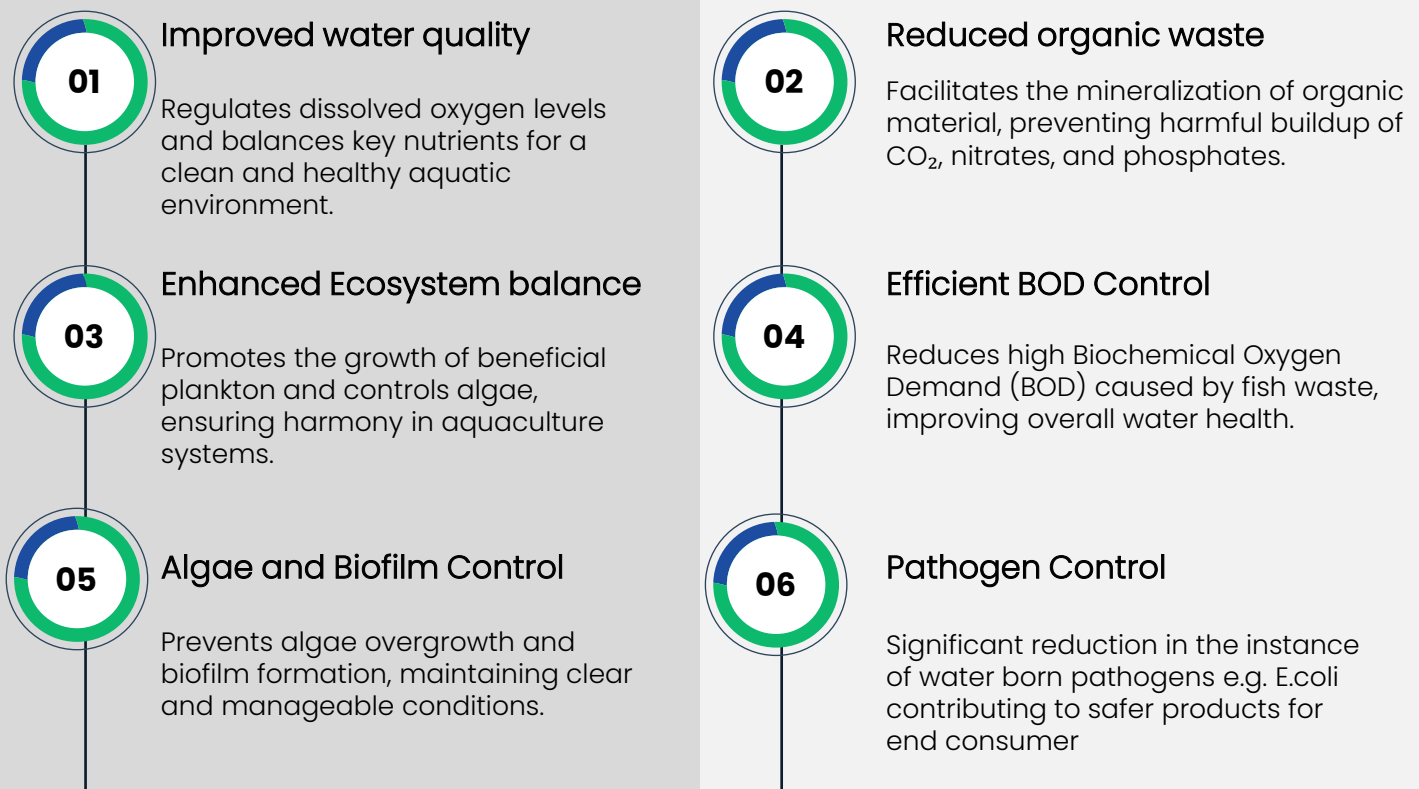


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What benefits will Novoclear Aqua provide?

Novoclear Aqua is a **cutting-edge, verified organic** solution tailored to the challenges of intensive aquaculture. It optimizes water quality, balances key nutrients, and fosters a **healthier aquatic environment** for sustainable success. By effectively managing Biochemical Oxygen Demand (BOD) from fish waste and regulating dissolved oxygen levels, it helps prevent adverse bacterial activity and ensures ecosystem stability.

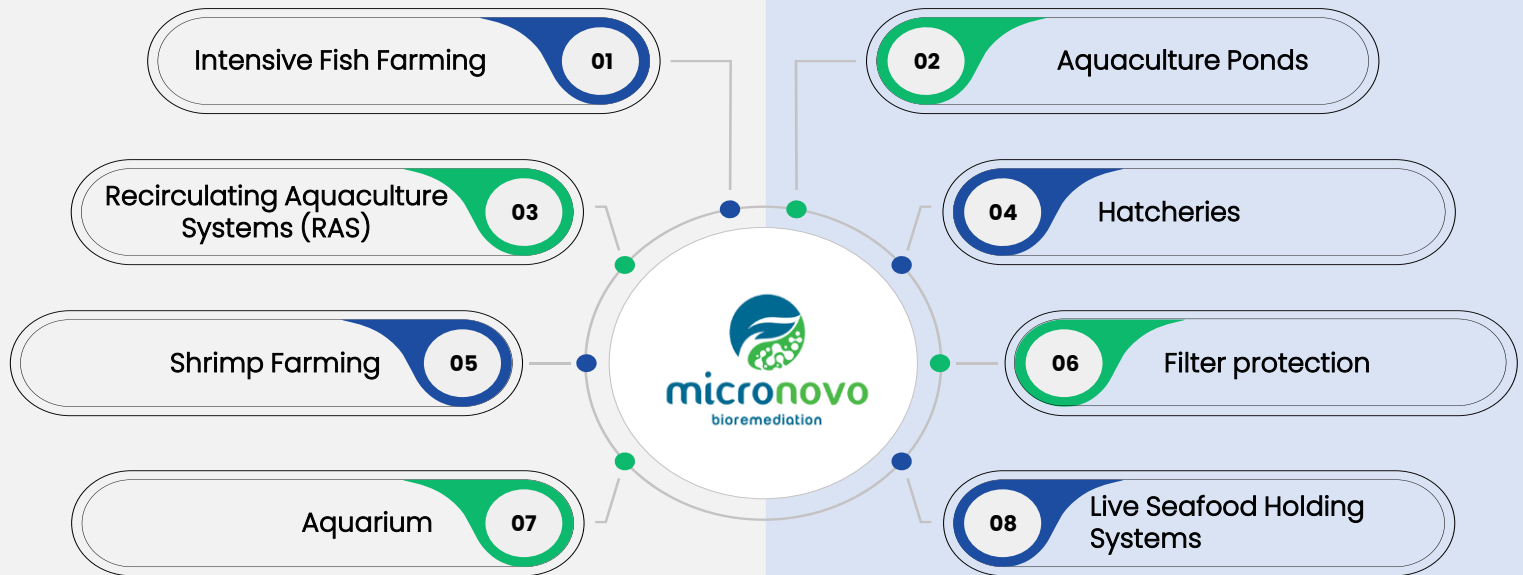
Novoclear Aqua has been found to support the balance of critical compounds like ammonia, nitrates, nitrogen, and phosphorus, while promoting healthy plankton growth (stimulating zooplankton and reducing phytoplankton & virioplankton) and controlling water turbidity. Its action facilitates the mineralization of organic waste, preventing harmful compound buildup, and manages algae growth and biofilm formation, ensuring clean and thriving aquatic systems.



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Product Applications

By understanding these key issues from the farmers' perspective, Novoclear Aqua offers a targeted solution aimed at improving health holistically. Its natural formulation addresses the root causes of these challenges, helping farmers overcome obstacles and achieve more sustainable and profitable operations.



Intensive fish farming operations: Manages water quality and balances nutrients to support high -density aquaculture.

Aquaculture ponds: Optimises oxygen levels, controls algae growth and prevents biofilm formation to maintain healthy aquatic environments.

Recirculating Aquaculture Systems (RAS): Enhances the efficiency of water treatment systems thereby reducing operational costs. Maintains dissolved oxygen, pH and keeps nutrient levels in check.

Hatcheries: Supports optimal conditions for young fish by regulating BOD, nutrient buildup and harmful plankton levels.

Shrimp farming: Helps manage the balance of oxygen and nutrients in shrimp ponds, ensuring a healthy habitat therefore increasing resilience to disease.

Filter Protection: Protect filtration systems by neutralising corrosive nitrogen compounds.

Aquarium: Prevents excessive algae growth while supporting beneficial plankton activity. Removes strain from filtration system, thus reducing costs

Live seafood holding systems: Maintains optimal water quality in tanks, ensuring healthy conditions and reducing waste buildup.

Aquaculture farmers face numerous challenges that can hinder the health and productivity of their livestock. Incorporating Novoclear Aqua into the has been proven to have several benefits.

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Product Data

Product Composition

CAS #	CAS # COMPONENT
Not Available	Enzyme and Microbial Blend
7727-37-9	Nitrogen
7440-09-7	Potassium
7440-44-0	Organic Carbon
Not Available	Organic matter
7732-18-5	Water

Physical & Chemical Properties

- **Appearance:** Brown
 - **Odour:** Molasses like
 - **Physical state:** Liquid
 - **pH Range:** Optimum pH range is 6.2
 - **Boiling point:** 100C
 - **Solubility (H2O):** Soluble
- **Vapour pressure:** None
 - **Vapour density:** None
 - **Specific gravity:** Approx. 1.0g/cc3
 - **Evaporation rate:** ND
 - **VOC:** NA
 - **Octanol/H2O Coeff.:** ND
 - **Flash point:** None

Safety

Handling & Storge Instructions:

Handling Procedures: Avoid eye contact

Storage Procedure: Store in cool dry area. Protect containers from damage.

Personal Protective Equipment (PPE):

First Aid Measures:

- **Eyes:** Check for and remove any contact lenses. Immediately flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.
- **Skin:** In case of contact, wash off with water.
- **Ingestion:** The product will produce an emetic effect.
- **Inhalation:** Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulties.

Full Material Safety Data Sheet (MSDS): MSDS is available separately

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Use Case

Tiger Prawn Farm

Indonesia – White spot outbreak at large Tiger Prawn aquaculture facility

The Challenge

White Spot Disease (WSD) is a highly contagious viral infection that poses a **significant threat** to prawn aquaculture, leading to substantial economic losses globally. The disease is characterized by rapid onset and **high mortality rates**, often resulting in the decimation of entire prawn populations within days. Infected prawns exhibit symptoms such as loose shells, visible white spots, and pink to red discoloration. Currently, there is no known cure or treatment for WSD, making prevention through effective management of production environments crucial.

A Proven Solution with Novoclear Aqua

In early 2018, a large tiger prawn aquaculture facility in Indonesia was infected with WSD. With no available cure, the farm opted to treat the water with **Novoclear Aqua** in an effort to support the stock through the disease and allow them to complete their growth cycle. This approach proved highly successful—within days, the prawns began to recover, ultimately reaching harvest with no further complications.

How Novoclear Aqua worked in this setting

Diseases like WSD exist naturally in aquaculture environments, waiting for conditions such as environmental stress or weakened immune systems to take hold. A key stressor in prawn farming is **ammonia buildup**, which suppresses immune function.

Novoclear Aqua rapidly converts ammonia into proteins and amino acids, eliminating this stressor quickly. By maintaining optimal water conditions, it significantly reduces disease risk and enhances prawn health.

Real-World Validation

Later in 2018, the region experienced **cold and erratic weather**, creating conditions favorable for WSD outbreaks. Neighboring farms suffered widespread infections between **days 40–50** of the growth cycle, leading to total stock loss.

However, the farm utilizing **Novoclear Aqua** remained free of infection until **day 70**—a significant delay compared to surrounding facilities. At that point, the farm adjusted its **Novoclear Aqua dosage**, increasing application rates to counteract the effects of colder temperatures and reduced bacterial activity. This allowed the prawns to continue their growth cycle and reach harvest, avoiding the devastating losses seen in neighboring farms.

This case highlighted a critical insight: in colder conditions, **Novoclear Aqua dosage must be increased** to maintain its protective effects, ensuring optimal water quality and disease prevention.



Image: White Spot Disease infected crustacean



Image: White Spot Disease infected shrimp

Conclusion

Ammonia buildup is a persistent challenge in all aquaculture systems, leading to poor water quality and weakened aquatic life. Whether in the form of ammonium, nitrite, or nitrate, ammonia is harmful to prawns and shellfish.

Novoclear Aqua offers a natural, cost-effective, and easy-to-apply solution—ensuring optimal water conditions, stronger prawn health, and higher survival rates, even in challenging environmental conditions.

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