

BioPhosphate Adsorbents FACT SHEET

PREVENT Water Contamination

PROTECT Water Resources

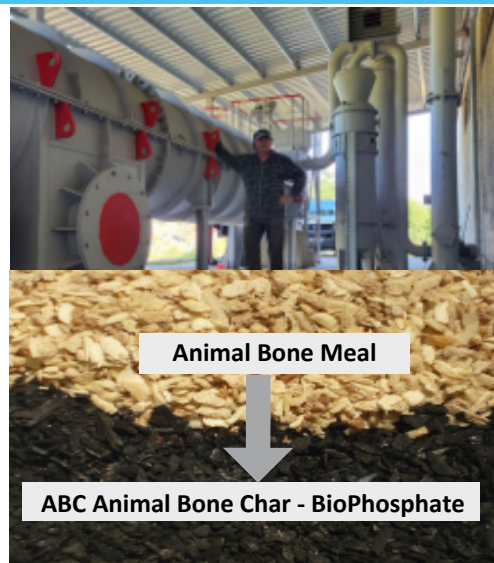
RECOVER Clean Water



High Value Adsorbents for High Impact Water Solutions • Ensuring Clean Water Supply

Key Features & Advantages

- **Produced at 850 °C:** Ensures complete removal of volatile organics, proteins, and pathogens.
- **Bio-based & Circular:** Derived from EU-authorized food-grade animal by-products.
- **High Adsorption Capacity:** Efficient in removing: Toxic elements (Pb, Cd, Cu, Zn, Hg), fluoride, chloride, nitrates, sulphates, arsenic, manganese, iron, radionuclides (Cs, Sr, U isotopes)
- **Reusable:** Regenerable through thermal or alkaline methods—up to 5–10 cycles.
- **Customizable:** Material properties (surface area, porosity, granule size) adjustable to fit industry-specific needs.
- **No chemicals or binders used:** safe for sensitive ecosystems and industries.
- **REACH certification:** Fully registered under REACH Authority for the highest tonnage band (>1,000 t/y). Registration number: 01-2119490075-38-0042.



What makes BioPhosphate Adsorbent Unique

The 3R Zero Emission and Energy-Independent Pyrolysis & Phosphorus Recovery Technology offers an advanced circular 3R BioPhosphate Adsorbents are bio-based, high-performance macroporous materials engineered from food-grade animal bone meal through a patented zero-emission pyrolysis process at 850 °C. These adsorbents are uniquely designed for efficient removal of toxic contaminants from water and wastewater, providing an eco-safe and scalable alternative to conventional activated carbon. Ideal for a wide range of water treatment and purification applications, BioPhosphate Adsorbents contribute to sustainable development goals by enabling clean water access, circular resource use, and climate resilience.

Applications under different industrial, clean up and extreme environmental conditions

- Municipal wastewater & drinking water treatment
- Heavy industry / metallurgy wastewater management
- Soil leachate and drainage filtration
- Radionuclide contaminated water purification
- Food, beverage, and dairy effluents (e.g., sugar, cocoa, coffee, etc.)
- Pharmaceutical and cosmetics industries
- Aquaculture & fish hatcheries

Why Choose BioPhosphate Adsorbents?

- **Specialized adsorbents** with unique structural and chemical properties, delivering high efficiency in applications where conventional adsorbents are not efficient.
- **Bio-based, cost-effective & sustainable alternative** to conventional activated carbon derived from coal or coconut shell.
- **Zero-emission & energy-independent production** = lower environmental impact.
- **REACH-registered and EU-compliant** for industrial and environmental use and also **meet US and Australian standards**.
- **Safe and scalable for international markets** (EU, US, AU).
- **Innovative, fast-acting and cost-efficient solution** for diverse applications and reliable clean water supply.

Strategic Industrial Fits

BioPhosphate Adsorbents are ideal for

- **Specific industrial applications** requiring tailored adsorbents.
- Companies working on **AI-designed filtration systems and advanced materials**.
- Industries seeking to **replace synthetic or fossil-derived materials with natural, regenerative alternatives**.
- Circular economy and **net-zero pioneers** looking for **environmentally compliant solutions**.



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