

PHOSLOCK®



What is Phoslock®?

Phoslock® is a lanthanum-modified bentonite clay. Its active ingredient, lanthanum, has a strong affinity (1:1 Molar) to bind phosphate which is the soluble form of phosphorus. Unlike other methods, Phoslock® does not lose its binding ability over time.

The binding of lanthanum and phosphate forms an insoluble mineral, Rhabdophane, which does not release phosphate back into the water column once bound.

Phoslock® granules are applied by mixing with in-situ lake water to create a slurry, which is then sprayed over the water surface. The slurry falls through the water column, binding phosphate as it sinks, before settling on the sediments, where Phoslock® binds phosphate as it is released from the sediments until all lanthanum binding sites are saturated with phosphate.

100lbs of Phoslock® will bind to 1 lb of Phosphorus.

Phoslock® Performance

- Phoslock operates over a wide pH range (ph 4 - 12) but is most effective between pH 5 - 9, making it suitable for most natural water bodies.
- Uptake of phosphorus under ideal conditions is rapid, with > 90% of the available phosphorus being removed in less than 4 hours.
- It binds phosphorus under anoxic conditions, under different alkalinities and varying salinities.
- Phosphorus remains permanently bound to Phoslock; the complex is stable even at low pH values, anoxic conditions and is not available for microbial recycling.
- Low sludge volume - it forms a fluid layer < 3mm on the sediment surface and can increase sediment stability.
- Binding capacity does not decrease with age and will continue to bind phosphorous until all binding sites are full.
- Settling rate can be quicker than that of other products.
- More versatile and less risky than aluminium and iron salts.
- Additionally, Phoslock® remains stable under varying environmental conditions making it a reliable solution for phosphorus control.

Phoslock® Application Methods

Reset Dose:

80-150# Per acre foot in early spring without knowing water chemistry. An additional 55# per acre foot for a maintenance dosage may be necessary. For a comprehensive reset dose we recommend sediment testing and wet chemistry analysis.

Early Spring:

150-200# per surface acre in the early spring is the optimal time for Phoslock® applications and then as required in response to inflows or stratification / de-oxygenation and overturn or mixing of the water column that introduces FRP from sediments.

Mid Summer: (Shock N Lock)

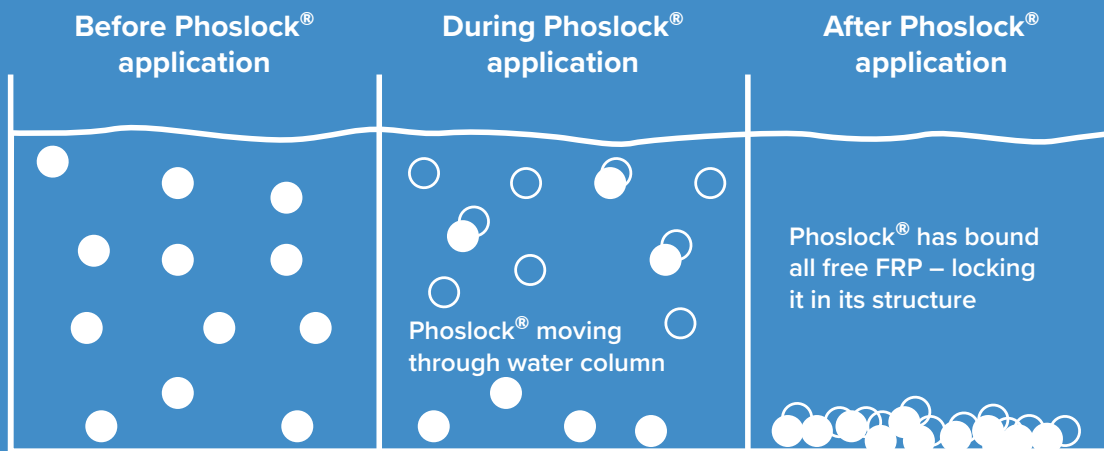
150-200# per surface acre of Phoslock® can be used to sequester phosphorus after algacide treatments. For best results it is recommended to wait 2-3 days for FRP to be available in the water column.

Late Fall:

150-200# per surface acre in the autumn is also the perfect time to apply Phoslock® as most available phosphorus is found in the sediment allowing for a perfectly targeted application.

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How Phoslock® works



Phoslock binds the available FRP (filterable reactive phosphorous)

KEY

- Phosphate
- Phoslock®

DIRECTIONS FOR USE

For use in aquatic systems to reduce phosphorus and improve water quality. Used to remove phosphate in a variety of natural environments such as lakes, rivers, estuaries, dams, ornamental ponds and natural wetlands. Also in artificial environments including waste effluents such as sewage and industrial effluents and as a barrier within containment cells for leachable wastes.

Before use, always consult with water industry specialists at PET.



NSF/ANSI/CAN 60
by Water Quality
Association (WQA).
Maximum use level
of 80 mg/L

CHEMWATCH GHS: 4621-39

Hazards classifications

- Non-hazardous product.
- Non-dangerous good. According to the WHS regulations and the ADG code.

FIRST AID

If in eyes

- Hold eyes open and rinse slowly and gently with water.
- Seek medical attention if eye irritation persists.

If inhaled

- Immediately move to fresh air.

If swallowed

- Do not induce vomiting unless instructed to do so by a doctor.

PRECAUTION

Avoid ingestion, inhalation, contact with eyes and skin. Breathing dust may be irritating.

- Non Flammable
- Net weight - 25kg
- INSTRUCTIONS FOR STORAGE:
KEEP DRY

HOTLINE CONTACT

For full safety data sheet and directions for use, scan the QR code:



CONTACT

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Find out more at petwatersolutions.com

