

BOILER TREATMENT

ZenEarth's Boiler Treatment is all that is really needed for optimizing operation and simplifying maintenance of boiler systems. ZenEarth's Boiler Treatment is a complete multifunctional product for use in hot water, cooling and industrial water systems that is formulated to reduce efficiency losses caused by scale, corrosion, dissolved oxygen and pitting in water systems.

Boiler Treatment represents a balanced internal boiler water treatment program which addresses the following problems

- The control or removal of calcium and magnesium hardness through external (mechanical) pre-treatment or internal (chemical) treatment
 - Boiler Treatment can be formulated to en-capsulate lime particles with a fatty acid suspension which causes lime and minerals to flocculate and be filtered out of the system, or it can be made to suspend minerals and disperse them into the system water.
 - Boiler Treatment can control calcium and magnesium hardness by encapsulating either through external (mechanical) pre-treatment or internal (chemical) treatment.
- The maintenance of proper levels of sludge conditioners to ensure that any present or precipitated suspended solids remain fluid so they can be properly blown down.
 - Boiler Treatment blends an organic co- polymer with the micelles to effectively bond with and precipitate out hardness.
- The control of dissolved oxygen through external pre-treatment or through the use of a suitable oxygen scavenger.
 - Boiler Treatment provides outstanding protection from oxygen corrosion along with excellent feed-water and boiler system passivation. It is as effective as hydrazine without the associated safety hazards and handling precautions. It can be used in systems of any pressure, up to and including supercritical (220 bar g).
- The control of pH to allow needed chemical reactions to occur to maintain proper hardness levels.
 - Boiler Treatment keeps pH in the needed range to allow proper phosphate precipitation reactions.
- Bacteria and algae control.
 - Boiler Treatment can be formulated with a quaternary compound to effectively eliminate bacteria and algae that can disrupt the water chemistry and harm the boiler system.



ZEN EARTH PRODUCTS ARE:

Bio - Based

Readily Biodegradable

Non - Toxic

Non - Corrosive

Non - Hazardous

Non - Caustic

Non - Flammable

Non - Cancer Causing

DO NOT CONTAIN:

Ozone Depleting Substances

Petroleum Distillates

Glycol Ethers

Caustics

California Proposition 65 Chemicals

The active ingredients behind all "green" ZenEarth cleaning, solvent and lubricating products are combinations of various readily biodegradable plants and naturally occurring minerals. ZenEarth's proprietary, renewable, chemical/mechanical process creates a truly unique product that is safe for human use and for the environment. It is effective and versatile.

All ZenEarth active ingredient formulas are effective as a result of the creation of electrically charged particles known as micelle. When activated in water, micelles repel each other in a ceaseless random movement. Measuring only 2 – 4 nanometers in size, their extreme surface-area-to-volume ratio enables far greater efficacy than conventional technologies or formulas. Micelles do not produce a chemical reaction that generates new compounds when introduced into another material or the environment, instead they break down carbon based compounds into smaller particles that can be easily assimilated and metabolized by normal soil or water microorganisms.