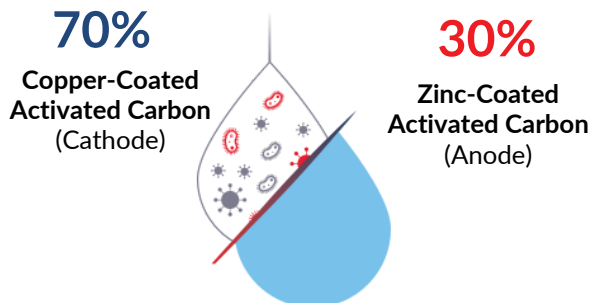


# A NEW ERA IN WATER TREATMENT

## INTRODUCTION

X2 Is the world's first **High-Redox Technology**, a next generation granular filtration media that revolutionizes water treatment by **Advanced Oxidation-Reduction (Redox)** processes

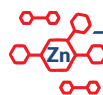
X2 is uniquely engineered using two specialized carbon-based adsorbers:



Together, these two **highly conductive, regenerable carbons** create an **electrochemical Redox reaction** that eliminates at an atomic level. **This self-sustaining redox cycle** ensures superior oxidation, disinfection, and organics removal, including heavy metals, setting a **new standard in water treatment efficiency**.



PREMIUM QUALITY  
MADE IN GERMANY



Zn-Mesoporous Metal Organic

Framework incorporated with  
**Copper Ions** on modified **Activated Carbon**

## HOW X2 WORKS

### THE REDOX MECHANISM

X2 is a **dual-function granular filtration media** that integrates:

- **Zinc-Coated Activated Carbon as an Anode** (Electron Donor)
- **Copper-Coated Activated Carbon as a Cathode** (Electron Acceptor)

As water flows through the X2 **filtration media**, it undergoes a **continuous electro chemical reaction**, where the **zinc-coated carbon donates electrons (Oxidation)** and the **copper-coated carbon accepts electrons (Reduction)**. This controlled redox environment **destroys organic contaminants, reduces heavy metals, and neutralizes harmful microorganisms**.

Zinc (Zn) Oxidation



Copper (Cu) Reduction



This reaction produces highly active Hydroxyl Radicals ( $\text{OH}^{\bullet}$ ), Sulfate Radicals ( $\text{SO}_4^{\bullet}$ ), Superoxide Radicals ( $\text{O}_2^{\bullet}$ ) Making X2 one of the **most powerful non-toxic oxidizers** available.

# WORLD'S FIRST HIGH-REDOX TECHNOLOGY

PREMIUM QUALITY



MADE IN GERMANY

## ✓ ELIMINATES ORGANIC POLLUTANTS

Pesticides, Insecticides, Herbicides, Rodenticides, and Fungicides.

## ✓ ELIMINATES

2,4-Dichlorophenoxyacetic Acid (2,4-D), Aldrin/Dieldrin, Atrazine, Chlordane, Chlordecone, DDT, UDE, DDD, Endosulfan and Endrin.

## ✓ ELIMINATES 99.9% OF

Glyphosate, Heptachlor/Heptachlor Epoxide, Hexachloro benzene, Methoxy chlor, Methylene chloride, Pentachloro-phenol, Polychlorinated Biphenyls (PCBs), Pyrethroids, Toxaphene.

*All these contaminants have serious health effects.*



## ✓ ELIMINATES PHARMACEUTICALS

Scientists have demonstrated the presence of pharmaceuticals in drinking water is a major concern all over the world.

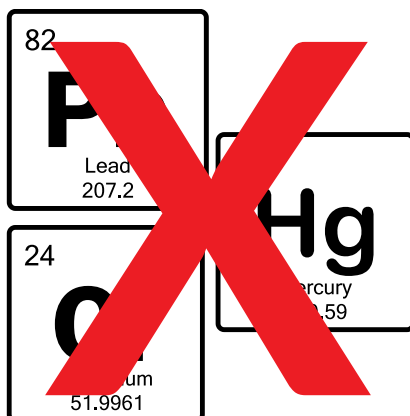
**X2** is the first media that eliminates all pharmaceuticals.

## ✓ KILLS BACTERIA & VIRUSES

Biofilm, Legionella, E. Coli, Salmonella, Pseudomonas

## ✓ NEUTRALIZES ALL DISINFECTION BYPRODUCTS

No Chlorine, No Halogenated by products (HBPs) These are very toxic. No Trihalomethanes (THMs: mainly Chloroform) and No Haloacetic Acids (HAAs), with Smaller amounts of Haloaldehydes, Haloacetonitriles and Haloketones.



## ✓ REMOVES HEAVY METALS

Lead, Mercury, and Chromium are big concerns for the health

**Lead can cause serious health problems**

If too much enters your body from drinking water. It can cause damage to the **Brain and Kidneys** and can interfere with the production of **red blood cells** that carry oxygen to all parts of your body.





## Eliminate Chromium-6 Out of Your Water by Redox-assisted Adsorption

The Selective Removal of Cr(VI) and Cr(Total). Unlike conventional oxidizers, which are chlorine-based compounds, is jargon to describe certain chlorine-containing substances that are used to disinfect water. The presence of **organic matter** can make them less effective as disinfectants.

They include the following chemicals

1. Sodium hypochlorite
2. Monochloramine
3. Halazone
4. Chlorine dioxide
5. HOCl (Hypochlorous Acid)

## Mercury for Health Concerns

**Elemental mercury**, if inhaled, can cause permanent lung damage and potential brain damage. Inorganic mercury can damage kidneys and cause blood loss. Organic mercury can damage your central nervous system (**Brain and Spinal cord**). Large amounts of **mercury** or long-term exposure can lead to death if not removed from drinking water.

The Detrimental Impact of Mercury in **Drinking Water** on Worldwide Residents.

## Neurological Disorders



Cardiovascular Problems



Kidney Damage



Mental Health Issues

## Sustainable & Non-Toxic

- ❑ No Chlorine, Sodium Hypochlorite, Calcium Hypochlorite, Chlorine Dioxide and Chloramines including HOCl.
- ❑ Adsorbs THMs & DBPs
- ❑ Removes contaminants without adding harmful chemicals to water.
- ❑ Fully biodegradable & environmentally friendly



These chlorine products are used to:

- ❑ Disinfection/Disinfecting water
- ❑ Disinfecting pools
- ❑ Making pesticides

## Multi-Contaminant Removal Efficiency

Bacteria & Viruses	99.9%
Biofilm Removal	99.9%
Pesticides & Herbicides	99.9%
Pharmaceuticals & PPCPs	99%
Lead	99.9%
Mercury	99.9%
Chromium (Cr <sup>3</sup> , Cr <sup>6</sup> )	99.9%
Microplastics	100%
VOCs	100%
CYSTS and MTBE	100%

ADVANCED TECHNOLOGY FOR **CHEMICAL-FREE**  
**WATER DISINFECTION**

