GWN
GLOBAL WATER NANOTECHNOLOGIES



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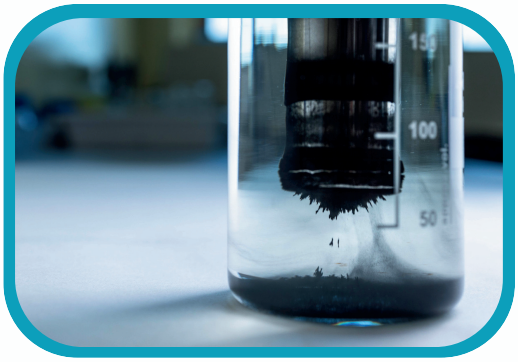
We offer innovative and cost-effective advanced nanotechnology-based solutions for **WATER TREATMENT**

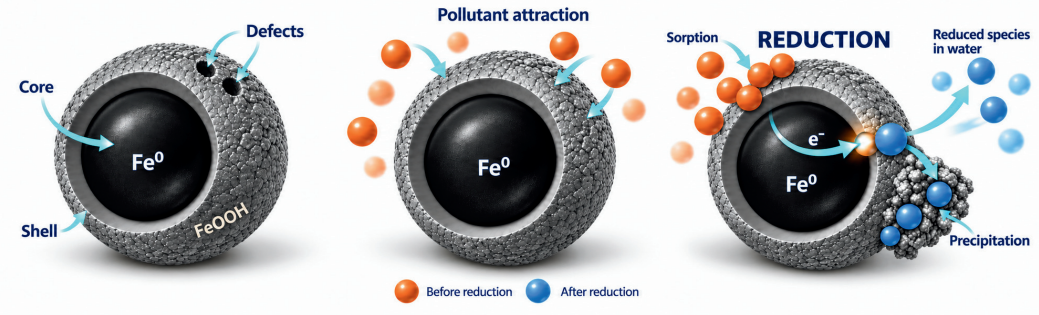
PRODUCT HIGHLIGHT

Our patented* technology combines **nanoscale zero-valent iron (nZVI)** with an effervescent formulation, providing a practical way to apply reactive materials for water remediation.

REACTIVE IRON PARTICLES

- Target a range of **organic** and **inorganic contaminants** through reduction, adsorption and precipitation.
- Transform contaminants into **less harmful forms** or capture them for subsequent removal.
- Following treatment, iron-containing residues can be separated using suitable methods, including **magnetic separation** or **nanofiber membrane filtration**.







EFFERVESCENT COMPOSITION

- Promotes rapid dispersion of the reactive particles in water, improving contact with contaminants.
- Reduces energy consumption and operating costs

AVAILABLE FORMS

- Tablets, pellets and powders.
- Custom shapes and sizes tailored to application needs.
- Compact formats designed to simplify safe handling and dosing.



* European patent EP3585736A1

APPLICATIONS

TARGET CONTAMINANTS

Tunable for **broad range** of **contaminants**

Heavy Metals	Potencial Sources	Potencial Applications
Chromium (Cr)	**Mines**	**Electro-plating facilities**
Lead (Pb)	Battery manufacturers	Chrome Plating Plants
Mercury (Hg)	Smelting and refinery plants	Dental amalgams
Arsenic (As)	Waste incineration plants	Wood treatment plants
Cadmium (Cd	Pesticide & fertilizer manufacturers	Pigment plants
	Coal-fired power plants	**Leather Manufacturing and Tanneries**
	Chlor-alkali production	Emergency responders
Inorganic pollutants		
Sulfates	**Mining industries**	**Livestock industry**
Nitrates	Municipalities	(Micro) Electronics
Perchlorides	Agricultural industries	Emergency responders (flooding & ecological accidents)
Phosphates	Biomanufacturing	
Organic Compounds		
Dye	**Clothing and other textiles industry**	Cosmetics & personal care products industries
Humic substances	Municipalities	Oil recovery processes
Explosives / CWA	**Pharmaceutical productionindustries**	**Steel manufacturing**
Phenolic compounds	Agriculture	Plastics production
Surfactants	Packaging industries	Oil and gas drilling applications
Pesticides	Automotive/Aerospace	(Micro) Electronics
Pharmaceuticals	Paints & coatings	Dyestuff manufacturing

EXAMPLES OF USE

INDUSTRIAL WASTEWATER



LARGE SCALE ACCIDENTS



NATURAL DISASTERS



HARD-TO-REACH LOCATIONS



COMPANY PROFILE

OUR VISION & MISSION

Cleaner water through practical, effective technologies. We develop advanced materials and tailored solutions that bring scientific innovation into water remediation.

Focused on scalable and **site-adaptable water-treatment solutions**
Open to **pilot testing**, **research partnerships** and **industrial collaboration**

Based at the Science and Technology Park of **Palacký University Olomouc**, **Czech Republic**

Palacký University Olomouc

Member of the Cluster Organization **Nanoprogress**

NANOPROGRESS
THE NANOTECHNOLOGY CLUSTER



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