

## Engineered Materials for Environmental Remediation Overview

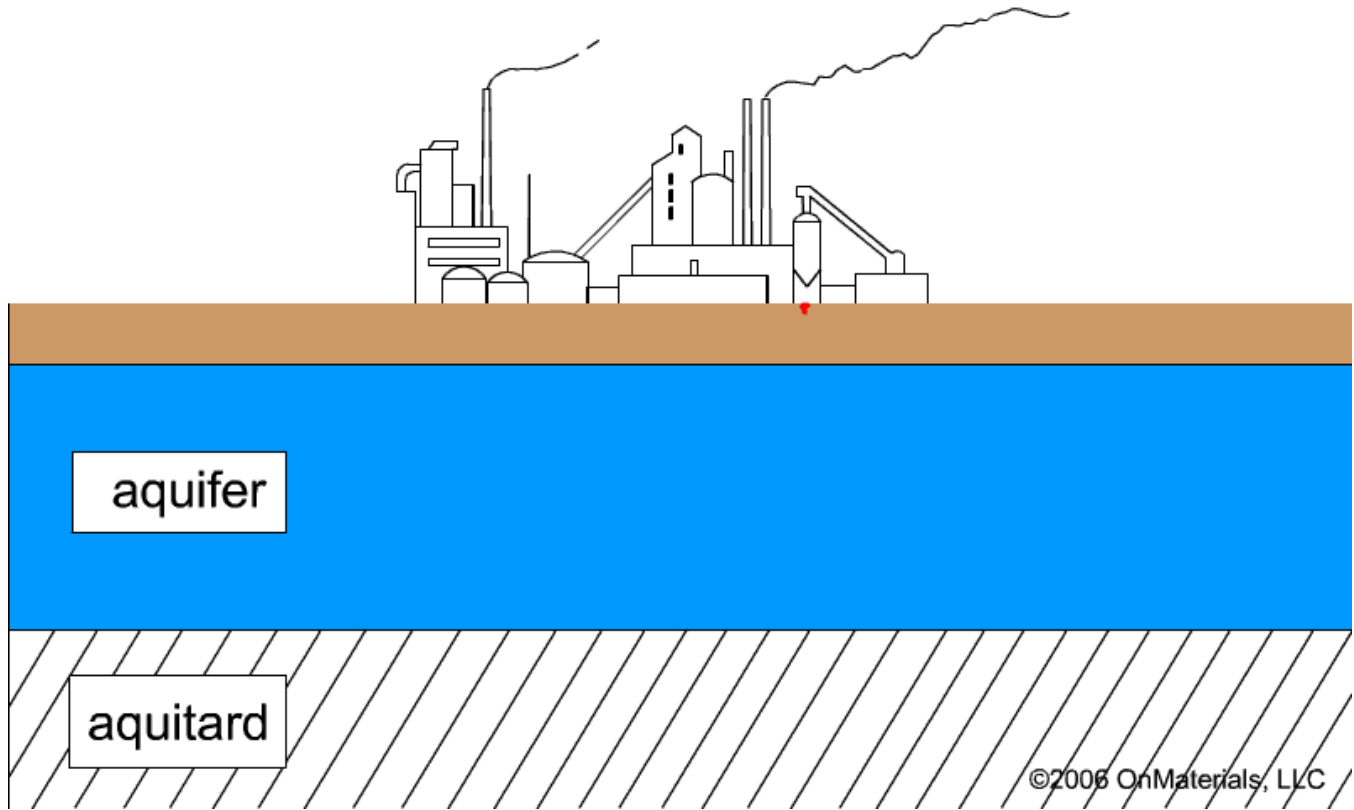
OnMaterials offers innovative materials solutions for the environmental remediation marketplace. OnMaterials' Z-Loy™ products are engineered zero valent metal powder suspensions (zero-valent iron [aka zvi, nZVI], copper, magnesium, zinc, and others). In situ remediation with Z-Loy™ injected into the subsurface, facilitates the elimination of toxic substances, including:

- Halogenated solvents, including TCA, TCE and PCE
- Halogenated aromatics including PCB and pesticides
- Metallic substances including chromates and arsenates
- Biocompatible: often used as an amendment to bioremediation sites
- Low cost: Z-Loy strategies can lower your total integrated cost
- Versatility

Effective in situ remediation requires that the remediation agent comes into contact with the contaminant plume. Infrastructure and underlying geology many times limits remedy selection to in situ technologies. Z-Loy™ is a product that is designed for injectability as nano- and/or micro-scale powders.

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Z-Loy: Injectability by design™



The Z-Loy™ product line is versatile; both particle size and metal composition can be tailored for even the most demanding circumstances.

The U.S. Environmental Protection Agency's (EPA) Small Business Innovation Research (SBIR) Program and OnMaterials, LLC recognized the need for a lower cost zero-valent metal product. OnMaterials used a Phase I and a Phase II SBIR award toward developing a scalable manufacturing process to produce affordable, submicrometer and nanocrystalline zero-valent metal powders. This work led to the development of Z-Loy™, a nonaqueous zero-valent metal suspension.

#### Support Services

OnMaterials works with both private and public sector clients. Our team of material scientists work with clients to determine what materials are best-suited to meet their needs. OnMaterials' consulting services and technical support programs enable our clients to minimize risk and lead time associated with zero valent metal remediation technologies.

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**OnMaterials, LLC**

Manufacturers of Z-Loy™

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