



THE TECHNOLOGY

Ground, surface, and processing waters usually contain dissolved heavy metals arising from the operations of mines, factories, and other industries. The metals are difficult and expensive to remove and toxic to people and the environment. The contaminated waters may include zinc, copper, nickel, lead, mercury, chromium, and other metals. This technology is a system and material for removal of these heavy metals and related toxic materials from contaminated water by composts, aged bark, and other substances with high humic acid content.

Inventors

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Licensee

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THE PRODUCT

MetalMaster

MetalMaster, made from aged waste tree barks, is used in the remediation of heavy metal contaminated groundwater or industrial process water. The active ingredients for MetalMaster systems are lignocellulosic, with numerous reactive groups that are highly effective at binding and retaining heavy metal ions.

The process of removing heavy metals from solution is achieved by passing heavy metal contaminated water through a vessel containing the MetalMaster product. The binding of the metals to the MetalMaster matrix is so efficient that the mixture has been shown to pass TCLP, the Toxicity Characteristic Leaching Procedure. This indicates that the absorbed metal does not leach away and can often be discarded in a standard landfill as a solid waste, rather than handling and disposal as a hazardous waste.