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# Rhizobiont in Bioremediation of Hazardous Waste

 Springer

# About this chapter



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# Biosurfactant Mediated Remediation of Heavy Metals: A Review

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[Ruchira Malik](#) & [Savita Kerkar](#)

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## Abstract

Heavy metal contamination has become a serious issue in recent decades. These heavy metals are lethal even at trace amounts. They can bio-accumulate for a long time and can become strongly inhibitory to all the living forms. Various remediation strategies have been developed over the past few decades. However, there is still an ongoing search for alternate tools that are equally effective as well as eco-friendly. This review lays particular emphasis on the use of biosurfactants as a tool for heavy metal removal. Biosurfactants are amphiphilic molecules produced extracellularly by different microorganisms. These molecules have gained interest in the last few decades due to its biodegradable and eco-friendly nature. The properties like emulsification, solubilization, and complex formation with metal ions make it an excellent tool for heavy metal remediation. This chapter explores the various classes of biosurfactants produced by microorganisms and their applications in heavy metal remediation.