Wastewater management for electroplating industries

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Abstract:

Electroplating wastewaters contain toxic and hazardous substances like acids, caustics cyanide, copper, chromium, cadmium, nickel, zinc, etc. These pollutants in the electroplating wastewaters pose serious threat to living organisms including human beings and to the microbial population, utilized as oxidizing, agent in wastewater treatment processes. Large numbers of the electroplating industries and the frequent cases of surface water and ground water pollution, and problems encountered at the sewage treatment plants due to the pollutants from electroplating industries, have been reported. Therefore there is need for an efficient, technically' feasible, and economical management for electroplating wastewaters.

In the present paper, attempt has been made to compile the relevant information pertaining to elec1roplating wastewater management, such as: general characteristics of wastewater and the effects of pollutants; waste volume and strength reduction techniques; various available methods of treatment along with their relative advantages and disadvantages from efficiency, feasibility and economy point of views; and criteria for safe disposal of the treated effluents.