

عنوان مقاله:

Negative effects of cyanide on health and its removal options from industrial wastewater

محل انتشار:

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خلاصه مقاله:

Water resource scarcity, population growth, pollution of surface and groundwater by discharging toxic wastewater and subsequent diseases may raise the necessity of reusing and treatment of wastewater. Cyanide is one of the toxic materials which can be found in some industrial wastewaters. Strict laws set by international bodies have forced industries to work on developing efficient cyanide removal processes. In addition, at short-term exposure, cyanide could result in rapid breathing, tremors and other neurological effects, but long term exposure it may cause weight loss, thyroid effects, nerve damage and death. Skin contact with liquids containing cyanide may also produce irritation and sores. The application of old methods like alkaline chlorination process has become limited due to toxic nature of intermediate and by-products, and unique methods, such as biological, the iron cyanide precipitation, SO_2/Air , acidification/volatilization and reneutralization, ion exchange and hydrogen peroxide processes are mainly developed and used by their respective companies. In this paper, the negative effects of cyanide on health and its industrial manufacturers as well as cyanide removal processes are briefly discussed.

کلمات کلیدی:

Cyanide, Removal, Industrial wastewater

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