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Selective Characterization of Sludge Wastes Generated in the Common Effluent Treatment Plants and suitability evaluation for Land Application – an Investigation

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ABSTRACT

Three Common Effluent Treatment Plants (CETP) are in operation around the capital city of Hyderabad, treating about 3050 m³ industrial effluents per day received from bulk drugs & pharmaceuticals, dye & dye intermediates and other chemical units. During the treatment process of industrial effluents about 2000 T/year sludge waste (dry basis) is generated, which at present is being dumped in the Treatment, Storage and Disposal Facility (TSDF), a secure landfill located at Dundigal (V), Ranga Reddy district of Andhra Pradesh. These sludge wastes have been tested for basic parameters like pH, Electrical Conductivity, Total Dissolved Inorganic Solids (TDIS), Percent Sodium, Sodium Absorption Ratio (SAR) and Boron, necessary for the evaluation of their suitability for land application. The pH values are neutral in nature around 7.0, but the salinity (as measured by Electrical Conductivity & TDIS), %Sodium and SAR values are abnormally high and not advisable to use the sludge wastes for land application.

Keywords: Characterization, Sludge wastes, Investigation.
