

SEGREGATION AND CHARACTERIZATION OF UNTREATED WASTEWATER GENERATED FROM DYES AND DYE INTERMEDIATES MANUFACTURING INDUSTRIES OF SACHIN INDUSTRIAL AREA, SURAT, GUJARAT

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ABSTRACT

In the present study the characteristics of segregated untreated wastewater generated from dyes and dye intermediates industries were studied. Wastewater from 10 units manufacturing different type of dyes and dye intermediates was used for this study. The study shows that the wastewater generated from dyes and dye intermediates manufacturing industries can be segregated at source in two streams concentrated stream and dilute stream. The study also shows that industries utilize oleum and concentrated sulfuric acid in manufacturing process. These industries are generating highly acidic and high TDS containing wastewater (Acidic Stream). Wastewater of concentrated stream and dilute stream was analyzed for pH, Chemical Oxygen Demand (COD), Biochemical Oxygen Demand (BOD), Total Dissolved Solids (TDS), Suspended Solids (SS), Chloride, Ammonical Nitrogen, Phenolic Compounds, Hexavalent Chromium, Total Chromium, Nickel, Oil & Grease parameters and waste water of acidic stream was analyzed for pH, Chemical Oxygen Demand (COD), Biochemical Oxygen Demand (BOD), Total Dissolved Solids (TDS), Suspended Solids (SS) and Chloride.

KEYWORDS: Dyes and Dye Intermediate Manufacturing Industries, Segregation of Wastewater, Manufacturing Process, Concentrated Stream, Dilute Stream, Acidic Stream