INTISARI

Frangky Dekriswandy. 2015. ***Analisis Nilai pH, Zat Padat Tersuspensi, Zat Padat Terlarut, DO, BOD, dan COD Pada Limbah Cair Industri Pati aren*****. Program Studi D-IV Analis Kesehatan, Fakultas Ilmu Kesehatan, Universitas Setia Budi.**

Industri pati aren di Dukuh Bendo, Kecamatan Tulung, Kabupaten Klaten, Jawa Tengah merupakan industri andalan penduduk daerah setempat. Limbah yang dihasilkan berupa limbah padat dan limbah cair. Limbah tersebut dibuang di pinggiran sungai juga di jalan-jalan. Selain menggangu pemandangan, limbah juga mencemari sungai. Penelitian ini bertujuan untuk mengetahui karakterisasi pH, zat padat tersuspensi, zat padat terlarut, DO, BOD, dan COD pada limbah cair pati aren yang dibuang langsung ke sungai.

Metode penelitian terhadap parameter pH, zat padat tersuspensi, zat padat terlarut, DO, BOD, dan COD secara berurutan, ialah Gravimetri, Titrasi Winkler dan Dikromatometri.

Hasil dari penelitian pabrik A, pabrik B dan pabrik C menunjukkan nilai pH secara berurutan, yaitu 4,8, 4,9, dan 4,9; kadar zat padat tersuspensi secara berurutan, yaitu 528 mg/L, 450 mg/L, dan 462 mg/L; kadar zat padat terlarut secara berurutan, yaitu 2150 mg/L, 2050 mg/L, dan 2400 mg/L; kadar DO secara berurutan, yaitu 37,05 mg/L, 34,30 mg/L, dan 34,35 mg/L; kadar BOD secara berurutan, yaitu 1193,30 mg/L, 1157,55 mg/L, dan 1156,00; kadar COD secara berurutan, yaitu 3779,01 mg/L, 3835,41 mg/L, dan 4039,76 mg/L. Berdasarkan data tersebut limbah cair pabrik A, pabrik B, dan pabrik C tidak memenuhi parameter pH, zat padat tersuspensi, zat padat terlarut, DO, BOD, dan COD yang ditetapkan.

Kata kunci : pati aren, limbah cair, pH, zat padat tersuspensi, zat padat terlarut, DO, BOD, COD

ABSTRACT

Frangky Dekriswandy. 2015. ***Analysis of pH Value, Total Suspended Solids, Total Dissolved Solids, DO, BOD, and COD at in Liquid Waste Aren Starch.*** **Program Study D-IV Analyst of Health, Faculty of Health Sciences, Setia Budi University.**

Aren starch industry in bendo, Tulung, Klaten Central Java is the mainstay industry of local area residents. Waste resulted in the form of solid and liquid waste. The waste dumped in the tip of river also in streets. In addition to distrupting the scenery, the waste also pollute the river. This study was aimed to determine the characterization of pH, suspended solids, dissolved solids, DO, BOD, and COD in the aren starch liquid waste which dumped directly into river.

Methods of study of the parameters pH, total suspended solids, total dissolved solids, DO, BOD, and COD respectively, is Gravimetry, Titration Winkler and Dikromatometri.

Results from researches of factory A, factory B dan factory C shows pH value, i.e 4,8, 4,9, and 4,9 respectively; total suspended solid levels, i.e 528 mg/L, 450 mg/L, and 462 mg/L respectively; total dissolved solid levels, i.e 2150 mg/L, 2050 mg/L, and 2400 mg/L respectively; DO levels,i.e 37,05 mg/L, 34,30 mg/L, and 34,35 mg/L respectively; BOD levels, i.e 1193,30 mg/L, 1157,55 mg/L, and 1156,00 respectively; COD levels, i.e 3779,01 mg/L, 3835,41 mg/L, and 4039,76 mg/L respectively. Based on these data liquid waste of factory A, factory B, and factory C did not meet the parameters of pH, total suspended solids, total dissolved solids, DO, BOD and COD specified.

Keywords : aren starch, liquid waste, pH, total suspended solids, total dissolved solids, DO, BOD, and COD