

PENETAPAN KADAR COD, BOD DAN TSS PADA LIMBAH CAIR INDUSTRI TAHU DI KELURAHAN MOJOSONGO SURAKARTA

*(Determination Content of COD, BOD and TSS To Liquid Waste Of Tofu
Industrial In Mojosoongo Village Surakarta)*

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INTISARI

Kadar COD, BOD dan TSS yang tinggi dan melebihi baku mutu yang telah ditetapkan oleh Pemerintah Provinsi Jawa Tengah Peraturan Daerah Provinsi Jawa Tengah Nomor 10 Tahun 2004 yang dapat menyebabkan pencemaran dan kerusakan ekosistem sungai apabila limbah tersebut tidak diolah terlebih dahulu sebelum dibuang ke sungai.

Penetapan kadar COD, BOD dan TSS limbah cair industri tahu kemudian dilakukan analisa secara kuantitatif. Penetapan kadar COD menggunakan metode titrimetri, penetapan kadar BOD menggunakan alat Lovibond Water Testing (*BOD-System BD 600*) dan penetapan kadar TSS menggunakan metode gravimetri.

Hasil penelitian kadar COD, BOD dan TSS dari ketiga sampel limbah cair industri tahu yang dilakukan, didapatkan hasil yang melebihi baku mutu Peraturan Daerah Provinsi Jawa Tengah Nomor 10 Tahun 2004, yaitu (Sampel A, B dan C) secara berturut-turut sebagai berikut : kadar COD A 4381,18 mg/l, kadar COD B 3824,48 mg/l, kadar COD C 4415,88 mg/l. Kadar BOD A 377 mg/l, kadar BOD B 374 mg/l, kadar BOD C 393 mg/l. Kadar TSS A 344,66 mg/l, kadar TSS B 357,33 mg/l, kadar TSS C 458,66 mg/l. pH pada masing-masing sampel 4 dan temperatur pada masing-masing sampel 39°C

Kata Kunci: Limbah cair industri tahu, COD, BOD, TSS

Abstract

The high content of COD, BOD and TSS which exceeded the quality standard that seted by the Pemerintah Provinsi Jawa Tengah Peraturan Daerah Provinsi Jawa Tengah Nomor 10 Tahun 2004 which cause pollutions and a damage of a river ecosystem if the waste is not processed first before it dumped to the river.

The content determination of COD, BOD and liquid waste TSS of tofu industrial then analyzed quantitatively. The content determination of COD is using titrimetry method, the content determination of BOD was using a tool called *Lovibond Water Testing (BOD-System BD 600)* and the content determination of TSS was using gravimetry method.

The content determination of COD, BOD and TSS from the three samples of tofu industrial showed a result that exceeded the quality standard of Pemerintah Provinsi Jawa Tengah Peraturan Daerah Provinsi Jawa Tengah Nomor 10 Tahun 2004 that stated (sample A, B and C) consecutively as follows the content of COD A was 4381,18 mg/l, the content of COD B was 3824,48 mg/l, the content of COD C was 4415,88 mg/l. The content of BOD A was 377 mg/l, the content BOD B was 374 mg/l, the content of BOD C was 393 mg/l. The content of TSS A was 344,66 mg/l, the content of TSS B was 357,33 mg/l, the content of TSS C was 458,66 mg/l. pH on each 4 samples and temperature of each samples was 39°C.

Key Words: Liquid wasteof tofu industrial, COD, BOD, TSS