

**PHYSICO-CHEMICAL QUALITY MONITORING OF LIQUID
WASTE OF BATIK INDUSTRY GIRILOYO WUKIRSARI IMOIRI
BANTUL IN 2024**

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ABSTRACT

Background: Batik is one of the ancestral heritages of Indonesian culture in the form of textile crafts. The batik production process produces liquid waste, such as the process of nganji, dyeing, and washing, waste that is not managed properly will result in environmental pollution. The Giriloyo Batik Industry has a WWTP treatment system that has not been checked for liquid waste, and the results of the liquid waste outlet are discharged into the residents' rice fields so that it can be feared that the levels of physical and chemical parameters of liquid waste exceed the quality standards, so it is necessary to monitor the physical and chemical parameters of liquid waste so as not to pollute the environment.

Objective: To monitor the physical and chemical quality of wastewater from Giriloyo Batik Industry in Bantul Regency in 2024.

Methods: The type of research is a descriptive survey with an observational approach, the data collected will be compared with the Yogyakarta Special Region Regulation Number 7 of 2016. When sampling liquid waste using grab sampling method.

Results: The results of the examination of the chemical and physical parameters of the wastewater of Giriloyo Batik Village based on the results of laboratory tests, the average results obtained were then compared with the Governor of Yogyakarta Special Region Regulation Number 7 of 2016 concerning Wastewater Quality Standards, namely Temperature = 25.03 oC (± 3 oC air temperature), pH 8.65 (6.0 - 9.0), TSS 7.6 mg/L (60 mg/L), TDS 669.6 mg/L (2000 mg/L), COD 34.70 mg/L (250 mg/L), BOD 1.55 mg/L (85 mg/L).

Conclusion: The physical and chemical quality of liquid waste in the Giriloyo batik industry has met the quality standards according to the Yogyakarta Special Region Regulation.

Keywords: Batik Industry, Batik Industry Liquid Waste, and Monitoring.

PEMANTUAN KUALITAS FISIKA KIMIA LIMBAH CAIR INDUSTRI BATIK GIRILOYO WUKIRSARI IMOGIRI BANTUL TAHUN 2024

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INTISARI

Latar Belakang : Batik merupakan salah satu warisan leluhur kebudayaan Indonesia dalam bentuk kerajinan tekstil. Pada proses produksi batik menghasilkan limbah cair, seperti proses nganji, pencelupan, dan pencucian, limbah yang dikelola tidak baik akan mengakibatkan pencemaran lingkungan. Industri Batik Giriloyo memiliki sistem pengolahan IPAL yang belum dilakukan pengecekan limbah cair, serta hasil outlet limbah cair dibuang ke parit sawah warga sehingga dapat dikhawatirkan kadar parameter fisika dan kimia limbah cair melebihi baku mutu, maka perlu diadakannya pemantauan parameter fisik dan kimia limbah cair agar tidak mencemari lingkungan.

Tujuan : Memantau kualitas fisika kimia limbah cair Industri Batik Giriloyo Kabupaten Bantul Tahun 2024.

Metode : Jenis penelitian adalah survei deskriptif dengan pendekatan observasional, data yang terkumpul akan dibandingkan dengan Peraturan Daerah Daerah Istimewa Yogyakarta Nomor 7 Tahun 2016. Pada saat pengambilan sampel limbah cair menggunakan metode grab sampling.

Hasil : Hasil Pemeriksaan parameter kimia dan fisika air limbah Industri batik Giriloyo berdasarkan hasil pemeriksaan laboratorium hasil rata rata yang diperoleh kemudian dibandingkan dengan Peraturan Daerah Daerah Istimewa Yogyakarta Nomor 7 Tahun 2016 tentang Baku Mutu Limbah cair yaitu Kadar suhu = 25,03 °C (± 3 °C suhu udara), pH 8,65 (6,0 – 9,0), TSS 7,6 mg/L (60 mg/L), TDS 669,6 mg/L (2000 mg/L), COD 34,70 mg/L (250 mg/L), BOD 1,55 mg/L (85 mg/L).

Kesimpulan : Kualitas fisik dan kimia limbah cair di Industri batik Giriloyo limbah cair sudah memenuhi baku mutu menurut Peraturan Daerah Daerah Istimewa Yogyakarta.

Kata kunci : Industri Batik, Limbah Cair Industri Batik, dan Pemantauan.