Analisis risiko kesehatan lingkungan terhadap pekerja dari bahan pencemar NH3 dan H2S dalam limbah industri tahu = Environmental health risk assessment of workers from exposure to pollutants in NH3 and H2S in tofu industry waste

Nastiti Mugi Lestari, author

Abstrak

Perkembangan sektor industri, seperti di DKI Jakarta sangat pesat. Industri selain sebagai indikator adanya kegiatan ekonomi yang potensial dan pemerataan lapangan kerja, menyumbang dampak pada lingkungan. Sentra industri PIK PRIMKOPTI Swakerta Semanan belum melakukan pengelolaan limbah hasil produksi tahu. Proses produksi tahu menghasilkan limbah yang menyebabkan bau. Bau tersebut dapat berpotensi menimbulkan gangguan kesehatan, terutama pada pekerja. Tujuan dari penelitian ini adalah mengidentifikasi kadar gas H2S dan NH3 pada limbah, menganalisis tingkat risiko limbah gas, dan menganalisis keluhan kesehatan pekerja industri tahu di PIK KOPTI Semanan.
Penelitian ini menggunakan metode analisis risiko kesehatan dan menggunakan pendekatan kuantitatif dan kualitatif. Kadar NH3 dan H2S pada lokasi penelitian berturut-turut mempunyai rata-rata sebesar 0,1897 ppm dan 0,0546 ppm. Tingkat risiko NH3 rata-rata 0,367383 (RQ<1) dan Tingkat risiko pajanan H2S 11,99166 (RQ>1). Tingkat risiko pajanan NH3 dan H2S rata-rata 12,359042. Terdapat hubungan antara kadar NH3 dan H2S dengan tingkat risiko kesehatan (p=0,000). Terdapat hubungan antara usia (p=0,003) dan IMT (p=0,000) dengan keluhan kesehatan pekerja. Terdapat hubungan antara kadar H2S dengan keluhan pusing (p=0,033), mata perih (p=0,000), dan tenggorokan kering (p=0,018).
.....The development of the industrial sector, such as in Jakarta is growing very rapidly. In addition, the industry as an indicator of the presence of potential economic activities and equitable employment, accounted for the impact on the environment. Industrial centers PIK PRIMKOPTI Swakerta Semanan waste management have not made the results of the production of tofu. Production process produces waste that cause odor. The odor can potentially cause health problems, especially on workers. The purpose of this research is to identify the levels of gaseous NH3 and H2S on sewage, to analyze the level of risk of waste gas, and analyze health complaints in tofu industry workers PIK PRIMKOPTI Semanan.
This research using the method of analysis of the health risks and use quantitative and qualitative approaches. Concentration of NH3 and H2S on consecutive research site has an average of 0.1897 ppm and the average of 0.0546 ppm. The level of risk of NH3 and H2S in a row an average of 0,367383 (RQ<1) and 11,99166 (RQ > 1). The level of risk of NH3 and H2S has anaverage of 12,359042. There are relation between NH3 and H2S concentration with level of risk (p=0,000). There are relation between age (p=0,003) and BMI (p=0,000) with health complaints. There are relation between H2S concentration with dizzines (p=0,033), sore eyes (p=0,000), and dry throat (p=0,018).