

## **Analisis Kandungan Formalin Pada Makanan Olahan Berbasis Protein Di Pasar Peterongan Kelurahan Jomblang**

**Fudila Kholifatussadi<sup>1</sup>, Gemala Anjani<sup>1</sup>, Angga Rizqiawan<sup>1</sup>, Mursid Tri Susilo<sup>1</sup>**

### **ABSTRAK**

**Latar belakang :** Pasar merupakan tempat pemenuhan berbagai kebutuhan individu termasuk kebutuhan pangan, salah satu olahan berprotein. Produk makanan olahan yang memiliki kadar protein tinggi cenderung mudah rusak dan memiliki masa simpan yang pendek akibat metabolisme mikroorganisme. Hal ini menjadi perhatian penuh produsen makanan untuk menambahkan bahan tambahan pangan (BTP) berupa pengawet dalam proses produksi. Namun penggunaan BTP (pengawet) banyak disalahgunakan dengan penggunaan zat terlarang seperti formalin. Berdasarkan hasil pengujian BPOM di beberapa daerah Indonesia sebanyak 34,55% tahu, 64,32% mie, dan 6,36% ikan mengandung formalin.

**Tujuan :** Menganalisis kandungan formalin pada makanan olahan berbasis protein di Pasar Peterongan, Kelurahan Jomblang, Kota Semarang.

**Metode :** Metode yang digunakan adalah observasional dengan pendekatan deskriptif. Sampel didapatkan dengan metode *stratified sampling*. Sampel diuji menggunakan metode kualitatif (Lab Test Kit) secara duplo dua kali pengulangan dan kuantitatif (Spektrofotometri UV-Vis) secara duplo tiga kali pengulangan dan disajikan dalam bentuk analisis deskriptif

**Hasil :** Hasil uji kualitatif menunjukkan bahwa 6 sampel (22,2%) positif mengandung formalin. Hasil uji kuantitatif formalin menunjukkan konsentrasi formalin tertinggi terdapat pada ikan asin C (12,410 mg/kg), galantin B (10,891 mg/kg), dan dimsum C (11,068 mg/kg).

**Simpulan :** Penggunaan formalin sebagai BTP dalam mengawetkan produk pangan masih terjadi di Pasar Peterongan Kota Semarang

**Kata kunci :** Pasar, formalin, makanan olahan, protein, spektrofotometri UV-Vis

---

<sup>1</sup> Program Studi Gizi, Fakultas Kedokteran, Universitas Diponegoro, Semarang

[fudilakhofatussadi@students.undip.ac.id](mailto:fudilakhofatussadi@students.undip.ac.id)<sup>1</sup>, [gemalaanjani@lecturer.undip.ac.id](mailto:gemalaanjani@lecturer.undip.ac.id)<sup>1</sup>, [anggarizqiawan@lecturer.undip.ac.id](mailto:anggarizqiawan@lecturer.undip.ac.id)<sup>1</sup>, [mursid@lecturer.undip.ac.id](mailto:mursid@lecturer.undip.ac.id)<sup>1</sup>.

## **Analysis of Formalin Content in Protein-Based Processed Foods at Peterongan Market, Jomblang Subdistrict**

**Fudila Kholifatussadi<sup>1</sup>, Gemala Anjani<sup>1</sup>, Angga Rizqiawan<sup>1</sup>, Mursid Tri Susilo<sup>1</sup>**

### **ABSTRACT**

**Background:** Markets serve as places for fulfilling various individual needs, including food, particularly protein-based processed products. Processed food products with high protein content tend to spoil easily and have a short shelf life due to microbial metabolism. This issue has led food producers to add food additives (BTP) such as preservatives during production. However, the use of preservatives is often misused with prohibited substances like formalin. Based on BPOM testing results in several regions of Indonesia, 34.55% of tofu, 64.32% of noodles, and 6.36% of fish were found to contain formalin.

**Objective:** To analyze the formalin content in protein-based processed food at Pasar Peterongan, Kelurahan Jomblang, Kota Semarang.

**Method:** An observational method with a descriptive approach was used. Samples were obtained using stratified sampling. Testing was conducted using qualitative performed in duplicate with two repetitions (Lab Test Kit) and quantitative (UV-Vis Spectrophotometry) methods, performed in duplicate with three repetitions, and presented as a descriptive analysis.

**Results:** The qualitative test results showed that 6 samples (22.2%) tested positive for formalin. The quantitative formalin test revealed the highest formalin concentrations in salted fish C (12.410 mg/kg), galantin B (10.891 mg/kg), and dim sum C (11.068 mg/kg).

**Conclusion:** The use of formalin as a food additive for preserving food products is still occurring in Pasar Peterongan, Kota Semarang.

**Keywords:** Market, formalin, processed food, protein, UV-Vis spectrophotometry

---

<sup>1</sup>Nutrition Science Department, Medical Faculty of Diponegoro University, Semarang

[fudilakholidatussadi@students.undip.ac.id](mailto:fudilakholidatussadi@students.undip.ac.id)<sup>1</sup>, [gemalaanjani@lecturer.undip.ac.id](mailto:gemalaanjani@lecturer.undip.ac.id)<sup>1</sup>, [anggarizqiawan@lecturer.undip.ac.id](mailto:anggarizqiawan@lecturer.undip.ac.id)<sup>1</sup>, [mursid@lecturer.undip.ac.id](mailto:mursid@lecturer.undip.ac.id)<sup>1</sup>.