

**POLTEKKES KEMENKES TANJUNGPINANG
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PROGRAM SARJANA TERAPAN**

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Adila A'anas

**Analisis Risiko Siklamat Pada Minuman Serbuk Instan Terhadap Kesehatan
Anak Sekolah Di Smp Kartika II-2 Bandar Lampung**

xvi + 35 halaman + 9 tabel + 3 gambar + 12 lampiran

ABSTRAK

Natrium siklamat merupakan pemanis buatan yang sering digunakan dalam minuman serbuk instan karena harganya murah dan daya manis tinggi. Konsumsi berlebihan dapat menimbulkan efek kesehatan, terutama pada anak usia sekolah. Penelitian ini bertujuan untuk menganalisis risiko kesehatan akibat konsumsi minuman serbuk instan yang mengandung siklamat pada siswa SMP Kartika II-2 Bandar Lampung. Metode yang digunakan adalah deskriptif dengan pendekatan Analisis Risiko Kesehatan Lingkungan (ARKL). Pemeriksaan kadar siklamat dilakukan secara kuantitatif menggunakan spektrofotometri UV-Vis pada panjang gelombang 314 nm. Hasil menunjukkan dari delapan sampel, satu produk mengandung siklamat sebesar 488,31 mg/kg, melebihi batas BPOM sebesar 350 mg/kg. Nilai intake realtime siswa kelas 2 dan 3 masing-masing sebesar 0,362 mg/kg/hari dan 0,618 mg/kg/hari, masih di bawah nilai Acceptable Daily Intake (ADI) WHO yaitu 11 mg/kg/hari. Proyeksi risiko selama 20 tahun ke depan menunjukkan nilai Risk Quotient (RQ) <1, yang berarti belum berisiko menimbulkan efek non-karsinogenik.

Kata Kunci: Siklamat, Minuman Serbuk Instan, Spektrofotometri, Anak Sekolah
Daftar Bacaan: 19 (2010 – 2021)

**POLYTECHNIC OF HEALTH, MINISTRY OF HEALTH,
TANJUNGKARANG
DEPARTMENT OF MEDICAL LABORATORY TECHNOLOGY
DIPLOMA IV STUDY PROGRAM IN MEDICAL LABORATORY
TECHNOLOGY
APPLIED BACHELOR PROGRAM
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Adila A'anas

**Risk Analysis of Cyclamate in Instant Powdered Drinks on the Health of
School Children at Kartika II-2 Junior High School, Bandar Lampung**

xvi + 35 pages + 9 tables + 3 figures + 12 appendices

ABSTRACT

Sodium cyclamate is an artificial sweetener commonly used in instant powdered beverages due to its low cost and high sweetness intensity. Excessive consumption may cause health risks, especially among school-aged children. This study aimed to analyze the health risks of consuming instant powdered beverages containing cyclamate among students of SMP Kartika II-2 Bandar Lampung. The research used a descriptive method with an Environmental Health Risk Assessment (EHRA) approach. The cyclamate content was determined quantitatively using UV-Visible spectrophotometry at a wavelength of 314 nm. The results showed that out of eight samples, one product contained 488.31 mg/kg of cyclamate, exceeding the BPOM limit of 350 mg/kg. The realtime intake values for grade 2 and 3 students were 0.362 mg/kg/day and 0.618 mg/kg/day, respectively, still below the WHO Acceptable Daily Intake (ADI) of 11 mg/kg/day. A 20-year risk projection indicated a Risk Quotient (RQ) value of less than 1, suggesting no non-carcinogenic health effects.

Keywords: Cyclamate, Instant Powdered Beverages, Spectrophotometry, School Children

References: 19 (2010 – 2021)