

ANALISIS RHODAMIN-B PADA PRODUK *LIPTINT* YANG BEREDAR VIA *ONLINE SHOP* T MENGGUNAKAN METODE KLT & SPEKTROFOTOMETRI UV-VIS

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INTISARI

Latar Belakang: Kecantikan bagi wanita merupakan hal penting yang mendorong meningkatnya penggunaan produk kosmetik, salah satunya *liptint*. Melalui *platform* via *online shop* T, produk *liptint* semakin mudah diakses, namun juga berisiko mengandung bahan berbahaya seperti rhodamin B. Rhodamin B merupakan zat pewarna sintesis yang dilarang dalam kosmetik karena dapat menyebabkan iritasi dan bersifat karsinogenik. Berdasarkan permasalahan tersebut, perlu dilakukan analisis terhadap kandungan rhodamin B pada produk *liptint* yang dijual di via *online shop* T secara kualitatif menggunakan Kromatografi Lapis Tipis (KLT) dan secara kuantitatif menggunakan Spektrofotometri UV-Vis.

Metode Penelitian: Penelitian ini menggunakan sampel *liptint* tidak berlabel BPOM yang didapatkan via *online shop* T sesuai dengan kriteria inklusi dan eksklusi. Sampel yang diperoleh dilakukan proses preparasi sampel dan dilanjutkan dengan melarutkannya dalam etanol *p.a.* Sampel *liptint* dilakukan uji kualitatif dengan metode Kromatografi Lapis Tipis (KLT) dan uji kuantitatif dengan metode spektrofotometri UV-Vis.

Hasil Penelitian: Hasil analisis kualitatif rhodamin-B menggunakan KLT menunjukkan bahwa dari 6 sampel *liptint* yang diperoleh via *online shop* T, 2 sampel (B dan C) positif mengandung rhodamin-B. Sampel dipilih menggunakan teknik purposive sampling berdasarkan kriteria tertentu. Hasil analisis kuantitatif menggunakan spektrofotometri UV-Vis menunjukkan kadar rhodamin-B pada sampel B sebesar $0,0148 \pm 0,0009\%$ b/b dan pada sampel C sebesar $0,024 \pm 0,0007\%$ b/b.

Kesimpulan: Berdasarkan hasil penelitian terdapat 2 Sampel *Liptint* (B dan C) positif mengandung rhodamin-B yang beredar via *online shop* T.

Kata Kunci: *Online shop* T, *Liptint*, Rhodamin-B, KLT, Spektrofotometri UV-Vis.

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ANALYSIS OF RHODAMINE-B IN *LIPTINT* PRODUCTS CIRCULATING THROUGH *ONLINE SHOP T* USING TLC & UV-VIS SPECTROPHOTOMETRY METHOD

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ABSTRACT

Background: Beauty is an important aspect for women that drives the increasing use of cosmetic products, one of which is *liptint*. Through the *platform* of *online shop T*, *liptint* products are becoming more accessible, but there is also a risk of containing hazardous substances such as rhodamine B. Rhodamine B is a synthetic dye that is banned in cosmetics because it can cause irritation and is carcinogenic. Based on this issue, it is necessary to analyze the content of rhodamine B in *liptint* products sold at *online shop T* both qualitatively using Thin Layer Chromatography (TLC) and quantitatively using UV-Vis Spectrophotometry.

Method: This research uses unlabelled BPOM *liptint* samples obtained from *online shop T* according to inclusion and exclusion criteria. The obtained samples undergo a sample preparation process and are then dissolved in ethanol *p.a.* The *liptint* samples are subjected to qualitative tests using Thin Layer Chromatography (TLC) and quantitative tests using UV-Vis spectrophotometry. The concentration of rhodamine B is expressed in percentage units (%b/b).

Result: The results of the qualitative analysis of rhodamine-B using thin layer chromatography (TLC) show that out of 6 lip tint samples obtained from *online shop T*, 2 samples (B and C) tested positive for rhodamine-B. The samples were selected using purposive sampling techniques based on specific criteria. The results of the quantitative analysis using UV-Vis spectrophotometry showed that the content of rhodamine-B in sample B was $0.0148 \pm 0.0009\%$ b/b and in sample C was $0.024 \pm 0.0007\%$ b/b.

Conclusion: Based on the research results, there are 2 *Liptint* samples (B and C) that tested positive for rhodamine-B circulating via *online shop T*.

Keyword: *Online shop T*, lip tint, Rhodamine-B, Thin Layer Chromatography, UV-Vis Spectrophotometry.

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