



Centre for Environment
Justice and Development



for a healthy toxics-free future



Study on the Trade and Use of Lead Chromates in Paint in Kenya

Executive Summary

Introduction

Lead is a highly toxic substance and a major public health concern globally. In Kenya, a maximum permissible lead limit of 90 ppm for paints was adopted in 2018 to reduce exposure to lead through paint products. However, significant regulatory gaps remain, particularly regarding the control of lead chromate pigments used as raw materials in paint production. While existing standards regulate lead levels in finished paint products, they do not specifically restrict the importation or use of raw lead chromate pigments, which are commonly used to produce bright yellow, orange, and red paints.

The continued presence of lead chromates in paints available on the Kenyan market highlights the implications of this regulatory gap. Evidence has identified lead chromates in both road-marking and residential paints, raising concerns about compliance with existing lead limits, the effectiveness of enforcement measures, and the potential for continued exposure to lead.

These findings point to the need for stronger controls that address lead chromates at the point of importation and throughout the paint supply chain, alongside measures to promote the use of safer alternatives.

Against this background, this study assessed the trade and use of lead chromates in paint in Kenya to generate evidence to inform regulatory action and strengthen engagement with policymakers and enforcement agencies. The study also sought to raise awareness of the health risks associated with lead chromates and the availability of safer alternatives, while contributing to ongoing international efforts to list lead chromates under the Rotterdam Convention's Prior Informed Consent (PIC) procedure.

Methodology

The study adopted a mixed-methods approach, combining quantitative analysis of Kenya Revenue Authority (KRA) customs data (2021-2025) and United Nations Comtrade trade statistics (2021-2024) with qualitative insights from Key Informant Interviews (KIIs) with paint manufacturers. The customs data provided detailed information on imports of lead chromates under HS Code 3206.20, while the Comtrade data were used to examine broader trade flows. The KIIs complemented the quantitative analysis by providing insights into industry practices, the use of lead chromates in paint production, and the availability and uptake of safer alternatives.

Key Findings

The analysis revealed that lead chromates continue to enter Kenya in substantial volumes. Between 2021 and 2025, Kenya imported 983.62 tons of Chromium-based pigments, with annual volumes consistently exceeding 160 tons. Imports were highly concentrated among a small number of companies (18 companies), with six importers accounting for 80% of the total volume. India was identified as the dominant source, supplying 98.6% of imports. Other countries included China, the USA, Japan, and Portugal, as shown in Table 1(a) below.

Table 1a: Country of origin of Chromium-based pigments imports

Country	No. of Entries	Import Volume (Kgs) (2021-2025)	Import Percentage
India	313	969,791	98.6%
China	1	5,230	0.5%
USA	1	4,450	0.5%
Japan	2	4000	0.4%
Portugal	4	145	0.01%

Source: KRA Customs Data

However, discrepancies between KRA and UN Comtrade data suggest additional supply routes from countries such as Vietnam, Italy, and South Africa, as shown in Table (1b) below.

Table 1b: Country of origin o Chromium-based pigments imports

Year	#1 Importer (tons)	#2 Importer (tons)	#3 Importer (tons)	Year total
2021	India (311.3 t)	Japan (4t)	Italy (2.7 t)	318.6 t
2022	India (266.3 t)	Viet Nam (28t)	Italy (4.9 t)	299.5t
2023	India (238.4t)	Italy (1.3t)	South Africa (0.76t)	241t
2024	India (197.2t)	South Africa (4.5t)	Portugal (0.07t)	201.7t

Source: UN Comtrade

The data document a diverse range of lead chromate grades, including Lemon Chrome, Middle Chrome, and Scarlet Chrome, alongside evidence of lead-free alternatives entering the Kenyan market. No domestic production of lead chromates was identified.

However, UN Comtrade data reported 96.6 tons of Chromium-based pigments exported from Kenya to neighboring East African Community (EAC) countries, with Uganda (62.2 tons) being the dominant destination, as highlighted in Table 2 below. KRA records did not reflect any exports from Kenya.

Table 2: Chromium-based pigments exports from Kenya

Year	#1 Exporter (tons)	#2 Exporter (tons)	#3 Exporter (tons)	Year total
2021	Uganda (14.6t)	Rwanda (6.3t)	Burundi (4.5t)	28.6t
2022	Uganda (19.4t)	Rwanda (12.3t)	Burundi (4.1t)	37.5t
2023	Uganda (25.9t)	Tanzania (0.5t)	Burundi (0.45t)	26.9t
2024	Uganda (2.3t)	Tanzania (1.4t)	-	3.6t

Source: UN Comtrade

The discrepancy may result from differences in reporting methods, product classification, re-exports, or the use of broader HS codes that include other chrome-based pigments. Further verification with customs authorities and industry stakeholders is needed to clarify the reported exports.

The study found a clear discrepancy between manufacturer interviews and KRA customs records. While interviewed manufacturers reported that they no longer use or procure lead chromate pigments and are adopting or considering lead-free alternatives, customs records indicate that significant quantities of lead chromate-related materials continued to enter Kenya during 2021-2025, including imports associated with some of the interviewed companies.

This discrepancy highlights the limitations of voluntary self-reporting in verifying compliance. It also reinforces the need for mandatory import registration and end-use declarations, supported by strengthened regulatory oversight and enforcement. While alternatives are available, their uptake is hindered by higher costs, customer preferences, and performance requirements. Manufacturers highlighted the need for tax incentives, reduced import duties, and public awareness campaigns to support substitution.

Conclusion

Overall, the study finds that lead chromates remain actively traded in Kenya, with sustained imports supporting the domestic paint manufacturing sector despite the existing 90-ppm lead limit. The findings highlight gaps in lead chromate regulation, import controls, enforcement, and supply chain traceability. Strengthening existing regulatory and institutional frameworks through measures such as importer registration, mandatory lead-content controls, and phased restrictions, alongside targeted engagement with key importers and manufacturers, would support the transition to safer alternatives. Regional coordination through the EAC could further strengthen national controls, reduce cross-border regulatory gaps, and promote harmonized approaches to managing lead chromates and protecting public health.

Policy Recommendations

To address these challenges, the study recommends:

- 1. Strengthen import controls and market transparency:** NEMA and KRA should establish importer registration, reporting, and pre-shipment documentation requirements for lead chromate pigments to improve traceability and oversight.
- 2. Strengthen the national regulatory framework:** The Government should develop regulations under EMCA to restrict lead chromates in paints and establish a phased transition for industrial applications.
- 3. Advance international and national policy commitments:** The Government should support the listing of lead chromates under the Rotterdam Convention's PIC procedure and incorporate the findings of the study into Kenya's GFC National Implementation Plan.
- 4. Support industry transition to safer alternatives:** Regulatory authorities should engage manufacturers and importers, provide guidance on safer alternatives, and introduce economic incentives to encourage the adoption of lead-free pigments.
- 5. Promote public awareness and regional cooperation:** Relevant government agencies and stakeholders should strengthen public awareness of the health risks of lead chromates and available safer alternatives, while working with EAC Partner States to harmonize controls, strengthen enforcement, and improve cross-border monitoring.

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Centre for Environment Justice and Development (CEJAD)
3rd Floor, Ngong Hills Hotel Business Centre, Opposite Bishop Magua Centre, Ngong Rd,
Nairobi, Kenya
Tel: +254 0720 465 500
Email: info@cejadkenya.org
Website: www.cejadkenya.org