

From Mine to Makeup: Occupational Hazards of Mica Mining and Ethical Implications for India's Cosmetic Industry: Reg ID: 305

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CITATION

Vats Kunal, Lyander War Alan, GhuleAmbreshwar, Jain Yogesh Kumar, Gupta Manoj Kumar. From Mine to Makeup: Occupational Hazards of Mica Mining and Ethical Implications for India's Cosmetic Industry: Reg ID: 305. Journal of the Epidemiology Foundation of India. 2025;3(2Suppl):56.

DOI: <https://doi.org/10.56450/JEFI.2025.v3i2Suppl.056>

ARTICLE CYCLE

Received: 10/11/2025; Accepted: 20/12/2026; Published: 31/12/2025

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ABSTRACT

Introduction: Mica, a naturally occurring mineral, is widely used in India's cosmetic industry for lipsticks, eye-shadows, nail polish, and powders. Despite its commercial importance, mica mining in states such as Jharkhand and Bihar is largely informal and unregulated, exposing workers, including children, to serious occupational hazards. These include respiratory diseases, musculoskeletal injuries, and psychosocial stress, compounded by unsafe working conditions and environmental degradation. Evidence synthesis on the occupational, environmental, and social consequences of mica mining in India is limited. **Methodology:** A scoping review was conducted using PubMed, Scopus, Web of Science, ScienceDirect, Google Scholar, and grey literature, including NGO and investigative reports. Studies reporting occupational health outcomes, child labour, environmental exposure, or supply chain issues were included. Data were extracted on exposure, population, outcomes, and policy relevance, and findings were synthesized descriptively. **Result:** The review identified substantial evidence of occupational and environmental hazards, including chronic respiratory illness, musculoskeletal injuries, and widespread child labour. Environmental assessments highlighted soil and water contamination near mining sites. Reports confirm mica's extensive use in the cosmetic industry and underline ethical concerns related to its sourcing. Existing policy initiatives, such as the Responsible Mica Initiative, show progress but enforcement remains limited. **Conclusion:** Mica mining in India poses significant occupational and environmental challenges. The cosmetic industry's reliance on mica underscores an ethical imperative for responsible sourcing or safer alternatives. Strengthened regulations, elimination of child labour, and sustainable supply chain practices are critical to protect worker health and uphold industry ethics

KEYWORDS

Mica mining, Occupational health, Child labour, Environmental contamination, Cosmetic industry, India, Ethical sourcing, Public health