

The Color Industry in India: Emerging Sector of Chemistry

Dr. Yogesh Kumar* and Dr. Shyam Kumar Meena#

*Associate Professor, Department of Chemistry, Shri Kalyan Rajkiya Kanya Mahavidyalaya, Sikar (Rajasthan).

#Associate Professor, Department of Chemistry, Govt. College Dholpur (Rajasthan).

DOI : <https://doi.org/10.51583/IJLTEMAS.2025.1412000093>

Received: 26 December 2025; Accepted: 01 January 2025; Published: 08 January 2026

ABSTRACT

The makeup color industry for women in India is rapidly expanding, fueled by a youthful population, rising disposable income, and the impact of social media. Over the past ten years, there has been a significant shift in how Indian women perceive beauty and personal care. The Indian cosmetics and makeup market is witnessing substantial growth, with forecasts for 2025 and beyond indicating strong compound annual growth rates, although estimates differ by source, with some suggesting around 3.8% (according to Statista for cosmetics) and others indicating potentially over 8-10% (as per Fortune Business Insights and Mordor Intelligence) for the broader market. This growth is propelled by increased disposable income, urbanization, the effects of social media, and a growing preference for natural or herbal products, with major segments such as skincare and color cosmetics leading the way, while premiumization and male grooming also play roles in the industry's expansion.

Key Words: The makeup color industry, Pigments, E-commerce.

INTRODUCTION

The women's makeup color industry in India is a fast-growing market driven by a young population, increased disposable income, and the influence of social media. This growth is fueled by factors like e-commerce providing wider access, a demand for products catering to Indian skin tones, and a rise in premium and innovative products. Leading players include both domestic and international brands like Lakmé, Maybelline, L'Oréal Paris, and Color bar, with the market seeing significant growth in online sales and private label brands.¹

Market growth and drivers

Young and growing population: India's large youth population (over 50% under 25) is a key driver of demand for color cosmetics.

Digital influence: Social media platforms like Instagram and YouTube are reshaping beauty standards and product discovery, promoting trends and influencing purchasing decisions.

Increased disposable income: A rise in discretionary spending has shifted beauty products from a luxury to a more common part of personal care and wellness.

E-commerce expansion: The growth of e-commerce has made a wider variety of products accessible beyond metro areas, reaching tier 2 and tier 3 cities where demand is rapidly increasing.²

Key trends

Premiumization: Consumers are increasingly opting for higher-priced, premium products.

Skincare-infused makeup: There is a growing interest in makeup products that offer skincare benefits.

Product innovation: Brands are launching new formats like cushion foundations and innovative lip and eye products to meet consumer demand for convenience and performance.

Localization: A blend of global trends with a local twist, tailoring products for Indian climates and skin tones is becoming more important.³

Key brands

Indian and International brands: Popular brands include Lakmé, Maybelline, L'Oréal Paris, Colorbar, and MAC Cosmetics.

Modern Indian brands: Newer players like Nykaa, Sugar Cosmetics, RENÉE Cosmetics, and MyGlamm are also significant.

Private labels: Retailers like Nykaa are launching their own private label brands, which are gaining momentum due to their ability to quickly adapt to market trends.⁴

There has been a major transformation in the attitude of beauty and personal care among women in India in the last decade. This higher beauty awareness is triggered by various factors like the influence of social media sites, exposure to international beauty culture, and the urge to express self through physical form. Social media platforms such as Instagram, YouTube, and TikTok have been crucial in spreading beauty trends and tutorials, opening up beauty routines, and making them accessible and entertaining. Beauty bloggers and influencers post on a regular basis content that educates and encourages women to play around with makeup, thus enhancing the popularity and acceptance of cosmetics and skincare products. This digital exposure has brought about democratization of beauty such that women of different backgrounds have been able to explore and incorporate new beauty regimes.⁵

Chemistry is used in makeup color through pigments

Inorganic pigments like

Iron oxides: A common and versatile ingredient that provides a range of colors including yellow, red, and black.

Titanium dioxide: Used to create white pigments and for sun protection due to its ability to reflect and scatter UV rays.

Chromium oxide: Provides green pigments but is restricted in lip products because of the risk of ingestion.

Zinc oxide: A white pigment that also offers sun protection.

Ultramarine: A vivid blue pigment made from sodium, aluminum, silicon, and sulfur, originally derived from the mineral lapis lazuli.

Bismuth oxychloride: Provides an iridescent, shimmery effect in mineral makeup.⁶⁻⁷

Organic pigments like

Dyes: These are coloring agents that are dissolved in a liquid. They are used in products like lip stains.

Lake dyes: These are pigments made by combining a water-soluble dye with an inorganic salt, creating an insoluble pigment.

Carmines: A red dye derived from insects, used in many makeup products.⁸

Other color-related components

Talc: Used as a filler and anti-caking agent to improve the texture and application of products like foundations.

Mica: A mineral that adds shimmer and helps with coverage in foundations and other products. The chemistry of cosmetic foundation.

Gentle blending for shimmer materials

Your favorite foundation will generally need some highlighting material to give a variety of shimmer effects like white or bronze pearlescent effects, which add some luster. Shimmer is achieved by mica or other colorants coated, and to retain this shimmer property after mixing, you need to be really gentle on the shimmer powders. If these highlighting powders are put through high shear in the grinding process, the coating will break, and eventually, we will lose all of the pearlescent shimmer and the highlighting effect and luster that we want. So avoid grinding them and only use gentle mixing techniques like dry blending, which ensures homogenous mixing of lipids and shimmer materials by simple stirring.

Coverage or opacity in your foundation indicates how much it will conceal on your skin. The opacity is the least in a sheer foundation and the most in a full coverage foundation which arises due to the pigment percentage varying from about 8% up to 35%, respectively. A medium coverage foundation contains about 18–23% pigment. Depending on the opacity or coverage you want in your foundation, the percentage of zinc oxide or titanium dioxide will vary in your formula. A range of skin tones can be attained with rutile or anatase titanium dioxide, employing the former for more coverage and red, yellow, and black iron oxides. Also, appropriate amounts of the oil phase and humectants are added in high coverage foundations to avoid a dry, cakey appearance. While low coverage formulations commonly necessitate transparent filler ingredients such as talc, silica, nylon, mica or sericite, to prevent the pigment from collecting in pores and creating an uneven appearance. The last step of liquid foundation filling is equally challenging as the formulation step, as liquid foundations require emulsion stability while ensuring that the color properly develops and stays uniform throughout the product. Compared to the packaging machines used for powder foundation, the design and selection of packaging equipment and filling lines for a liquid foundation process is more complex due to the challenging factor of the liquid foundation viscosity.⁸⁻⁹

Understanding the Basics of Makeup Foundation

Makeup foundation is a cosmetic product crafted to smooth and unify your complexion. Its primary purpose is to provide a base for makeup application while addressing skin concerns like redness, uneven texture, or blemishes.

There are several types of foundations available:

Liquid Foundation: A versatile option with buildable coverage, suitable for most skin types.

Cream Foundation: Known for its hydrating properties, ideal for dry or mature skin.

Powder Foundation: Delivers a matte finish, perfect for oily skin or quick touch-ups.

Stick Foundation: Convenient and portable, great for on-the-go use.

Key Ingredients in Makeup Foundation

The quality and performance of a makeup foundation depend on its carefully selected ingredients. Here's a breakdown of the key components:

Pigments: Provide color and coverage; typically made from iron oxides for natural skin tones.

Emollients: Add smoothness and hydration; commonly include oils, waxes, and silicones.

Binders and Stabilizers: Ensure the product maintains its consistency and doesn't separate.

SPF Ingredients: Protect skin from UV damage; often include titanium dioxide or zinc oxide.

Preservatives: Prevent bacterial growth and extend shelf life.

Absorbents: Like talc or kaolin, these control oil and give a matte finish (common in powder foundations).¹⁰

Are cosmetics dangerous?

There's nothing like a bit of controversy to generate some media buzz. For over a decade there have been recurring reports in both the media and on hundreds of internet sites relating to potentially toxic substances present in cosmetics (lead, mercury, parabens) and the dangers they pose to the public. Should consumers be worried? Are these claims backed up by reputable, published scientific research or have the findings been misinterpreted and exaggerated? While the current scientific thinking on many of these chemicals is that they are safe to use, it is up to each consumer to make their own decision as to whether they purchase and use a product containing certain ingredients or not. Consumers should also try to purchase reputable brands from established sellers—cheap imports or copies bought online may not have been through the proper testing and assessment process and may not contain what they claim to. In our pursuit of beauty, it is wise to remember that cosmetics can be complex combinations of chemicals. Achieving even a basic understanding of the long chemical names on a product ingredient list—what they are and what they do—can go a long way to helping consumers make informed decisions about the products they choose to use—certainly helpful when putting on your best face.¹¹

The India cosmetics products market size is estimated to be USD 1.89 billion in 2025 and is forecast to reach USD 3.17 billion by 2030, translating into a 10.9% CAGR. The pace easily exceeds the global beauty average, underscoring a structural rise in discretionary spending on personal appearance. Spending momentum is visible across income brackets because social media exposure, rising disposable incomes, and widespread urbanization have re-defined beauty as part of daily wellness rather than a luxury. Even within tight household budgets, beauty outlays receive priority, evidenced by the country recording the world's highest percentage of consumers willing to spend more on cosmetics. Multinational and domestic brands are intensifying product launches to serve preferences for vegan formulas, clean labels, and affordable luxuries, while tightening regulatory oversight by the Central Drugs Standard Control Organization (CDSCO) and the Bureau of Indian Standards (BIS) raises compliance costs but improves consumer confidence. Together, these forces keep the India cosmetics products market on an expansion trajectory that shows no sign of plateauing.¹² Synthetic dyes have been utilized in the cosmetics sector for a considerable period, appearing in products ranging from lipsticks to eyeshadows. Nevertheless, increasing environmental and health issues are fueling the search for sustainable and safe options. An appealing substitute that provides advantages in terms of biodegradability, sustainability, and safety is pigments derived from bacteria.¹³

In the marketing of a cosmetic product, colour is crucial. Synthetic dyes are the most widely utilised in the industry among thousands of colouring agents. Analytical control is required to ensure the safety of a cosmetic product due to their possible secondary effects on human health and the various regulatory requirements for their use across the major global markets.¹⁴

CONCLUSION

The makeup color industry for women in India is rapidly expanding, fueled by a youthful population, rising disposable income, and the impact of social media. The India cosmetics products market size is estimated to be USD 1.89 billion in 2025 and is forecast to reach USD 3.17 billion by 2030, translating into a 10.9% CAGR. While the current scientific thinking on many of these chemicals is that they are safe to use, it is up to each consumer to make their own decision as to whether they purchase and use a product containing certain ingredients or not. Consumers should also try to purchase reputable brands from established sellers. Rising disposable incomes, more customer awareness, and the launch of better products are some of the factors driving the expansion. With items divided into categories such as hair care, makeup, skincare, body care, oral care, and styling tools, the sector has changed over time.¹⁵ The majority of respondents favored buying cosmetics online

and opted for a simple, natural makeup style. Influencers, online advertisements, and friends were the primary means of discovering new products.¹⁶

REFERENCES

1. <https://www.euromonitor.com/colour-cosmetics-in-india/report>
2. <https://www.marketsanddata.com/industry-reports/india-color-cosmetics-market>
3. <https://www.youtube.com/watch?v=Pw9W51xRuZM>
4. <https://blog.airblack.com/best-makeup-brands-india/>
5. <https://www.imarcgroup.com/india-women-cosmetics-market>
6. <https://en.wikipedia.org/wiki/Lipstick#:~:text=Various%20oils%20and%20fats%20are,17.>
7. <https://www.science.org.au/curious/people-medicine/chemistry-cosmetics>
8. <https://making.com/cosmetic-foundation#:~:text=The%20chemistry%20of%20cosmetic%20foundation&text=Coverage%20pigment%20like%20titanium%20dioxide,your%20foundation%20easier%20to%20use.>
9. <https://independentchemical.com/blogs/most-common-chemicals-in-women%E2%80%99s-makeup-20039.aspx>
10. <https://colocara.com/how-makeup-foundation-is-made-insights-from-an-rampd-engineer/>
11. <https://www.science.org.au/curious/people-medicine/chemistry-cosmetics>
12. <https://www.mordorintelligence.com/industry-reports/india-cosmetics-products-market-industry>.
13. Seemadevi Kadam, Sunita Deore, Harshal Tare, Vinod Wagh, Ujjwala Thube, The Use of Biological Pigments in Cosmetics for Eco-friendly and Sustainable Coloring, International Journal of Pharmaceutical Quality Assurance, 15(01):539-545, DOI:10.25258/ijpqa.15.1.81
14. Eugenia Guerra, Maria Llompарт, Carmen Garcia-Jares, Analysis of Dyes in Cosmetics: Challenges and Recent Developments, *Cosmetics* 2018, 5(3), 47; <https://doi.org/10.3390/cosmetics5030047>
15. Sakshi Mehrotra, An Industry that Capitalizes off of Women's Insecurities?, International Journal of Innovative Science and Research Technology , 9(4), April – 2024, ISSN No:-2456-2165 <https://doi.org/10.38124/ijisrt/IJSRT24APR1402>
16. Prof. Dr. Alpana Vaidya, Ameya Patil, Kalpita Tavkar, Vaishnavi Raiturkar, Cosmetic Consumption Amongst the Youth In India, Journal of Emerging Technologies and Innovative Research (JETIR), 10(11), November 2023, www.jetir.org