GLOBAL BEST PRACTICES IN COSMETIC REGULATION: A COMPARATIVE REVIEW OF REGULATORY SYSTEMS AND THEIR IMPLICATIONS FOR INDIA'S COSMETIC SECTOR

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Abstract:
The Indian cosmetics sector has shown significant expansion, reaching an estimated market size of USD 25-28 billion in 2025; however, its regulatory system still falls short of global benchmarks in several important aspects related to compliance and quality control. This study presents a structured comparative review of cosmetic regulatory frameworks across six regions- India (primary focus), the European Union, the USA, the UAE, South Korea and Japan. The comparison examines major regulatory components, including pre-market approval requirements, safety evaluation processes, alternatives to animal testing, restricted and prohibited ingredient controls, labeling and claims verification, GMP standards, post-market monitoring, microbiological specifications, residual solvent limits, analytical testing requirements and process validation procedures. Based on a review of official laws, regulatory amendments, enforcement data and case studies from 2020-2025, the findings shoe that the Cosmetic Rules 2020 (amended 2025) largely follows a post-market and self-declaration approach. Major gaps include the absence of a centralized pre-market notification system, limited adoption of validated alternative testing methods recognized by OECD, lack of comprehensive restricted ingredient list, non-mandatory toxicological safety assessment, absence of compulsory GMP certification aligned with ISO 22716:2007 and weak centralized cosmetovigilance systems. In contrast, the EU and the UAE demonstrate preventive regulatory approaches with strict safety documentation, while South Korea and Japan emphasize innovation-driven functional cosmetics supported by validated alternatives. The USA has also strengthened traceability requirements through the MoCRA of 2022. These differences indicate the need for regulatory harmonization to improve product safety, consumer protection and global market competitiveness.

Keywords: Cosmetic regulations; Compliance, Regulatory gaps; Quality Assurance; India; European Union; United States; United Arab Emirates; South Korea; Japan.
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1. Introduction

The rapidly expanding and technologically advanced global beauty market, which produced approximately USD 330.10 million in revenue in 2025, will increase to an estimated USD 545.19 million in revenue from 2020 to 2025, at a 6.6% compounded annual growth rate [1]. The fastest growing region within the cosmetics industry is Asia Pacific; new populations will also urbanize in a short time period in countries like India (e.g., e-commerce) and china (e.g., increased demand for clean and natural cosmetic formulations). The main cosmetic categories and their relative market share are as follows skin (44%), hair care (16%), odor and/ or fragrance (1%), makeup/ color (10%), and others (19%). Retail and internet sales account for 65–70 % and 35–40 % of total retail cosmetics sales [2]. There are still challenges to safety, compliance, and quality assurance for the cosmetics industry due to the rapid growth of this industry. Many of the banned substances, impurities, and misleading or false advertising found in some products expose pregnant women and children to greater risk than adults, because of the vast amount of areas on their bodies exposed to cosmetics [3]. The high number of seizures of cosmetics in India estimated to be over 50,000 units containing banned substances such as hydroquinone, steroids, and mercury [4]; and the large number of reports of talc containing asbestos globally [5] demonstrate the urgent need for strict cosmetic regulations to protect consumers, ensure that all cosmetics meet an identical standard of quality and to promote the continued sustainable growth of the cosmetic industry.

The regulatory obligations associated with substantial cosmetic markets differ significantly due to their

variations in history, culture and economics as well as the respective public health priorities of those markets all of which continue to evolve. Figure 1 provides the overview of cosmetic regulatory frameworks illustrating the major regulatory components governing cosmetic products across the globe.

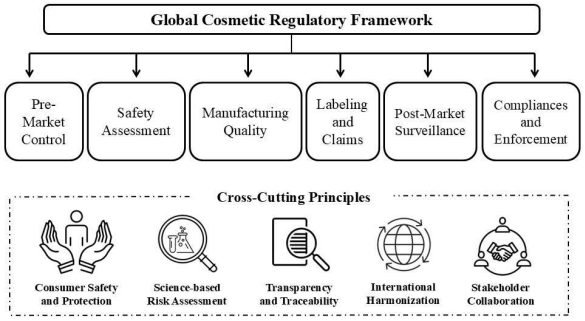

Figure 1: Overview of Global Cosmetic Regulatory Framework

Regulatory frameworks for cosmetics in the European Union are robust, including Regulation (EC) No. 1223/2009, which mandates the establishment of a responsible person, pre-market assessment of any cosmetic product, and notification via the Cosmetic Products Notification Portal (CPNP). In addition, the EU has banned more than 1,400 ingredients from being used as cosmetic products - and has prohibited the testing of any cosmetics on animals since 2013 [6,7]. Conversely, the U.S.A.'s approach to cosmetics regulation is post-market based on the Federal Food, Drug and Cosmetic Act (FDCA) as amended by the 2022 Modernization of Cosmetics Regulation Act (MoCRA). This requires a manufacturing facility to register with and list the cosmetic products manufactured at that facility with the Food and Drug Administration (FDA), however, there remains no pre-market approval required for cosmetics manufactured in the U.S.A., other than for color additives [8,9]. Furthermore, the Republic of Korea regulates cosmetics under the Cosmetics Act through the Ministry of Food and Drug Safety (MFDS) implementing their obligation to provide premarket approvals for functional cosmetics and continues to set the pace for the development of and use of recognized alternative non-animal testing methodologies [10]. As member states of the Gulf Cooperation Council (GCC), the United Arab Emirates has established a pre-market approval process through the Emirates Conformity Assessment Scheme (ECAS), which aims to ensure that products meet European Union (EU) requirements by following ISO 2216 Good Manufacturing Practice (GMP) standards and requiring that all products have bilingual labels [11]. In addition, Japan has also established its own robust testing requirements for cosmetics due to their very rules regarding the quality and certification of cosmetics and cosmetic products, which includes certain products classified as quasi-drugs under the Act on Pharmaceuticals and Medical Devices (PMD), and approved by the Pharmaceuticals and Medical Devices Agency (PMDA) [12]. The significant differences/variability of cosmetic regulations between regions highlight the need to conduct a comparative analysis to evaluate the Indian Cosmetics Rules of 2020 (amended in 2025) that require the licensing of manufacturing and imported products, and little pre-market notice for cosmetics product notification, and very little enforcement after the sale of cosmetics.

In India, the cosmetics industry has experienced rapid expansion as consumers become more familiar with the everyday use of skincare products. However, as a result of insufficient regulation of cosmetics, consumers remain concerned about the safety of these products. Since 2023 alone, numerous raids have been carried out across India, with CDSCO and Zonal Officers seizing more than 50,000 cosmetics for containing restricted or prohibited ingredients too numerous to name. Many of these raids took place in Punjab, Uttar Pradesh, Maharashtra, Delhi, Haryana, Tamil Nadu, and Kerala, and related to the seizure of products marketed as "Ayurvedic" or "herbal" fairness creams that were found to contain excessive levels of steroids. In some instances, the adverse effects were severe enough to warrant hospitalization, and included steroid-based acne, steroid addiction, and thinning of the skin [13]. In 2024 alone, one of the most publicized examples included the discovery of an online retailer selling pediatric lotions that were heavily contaminated with *Pseudomonas aeruginosa* and *Staphylococcus aureus*, and caused infections in newborns. In addition, there was also a well-publicized case in 2024 in which the Himachal Pradesh drug controller issued a general recall of several brands of fairness creams that contained mercury above the permissible levels [14]. Collectively, these cases are indicative of significant regulatory failures that are evident in the absence of pre-market approval, the lack of adequate import surveillance, the sparse occurrence of compliance with post-market surveillance activities, and the ineffective enforcement of the Cosmetics Rules 2020 (Amended in 2025), especially for products sold through e-commerce and or unauthorized retail channels. Such ongoing violations of regulations have created a situation where consumer safety has been placed at risk, faith in the consumer has been diminished and

barriers have been created for Indian companies entering the EU/UAE markets. Therefore, it is important to identify the best practices for regulation from countries that have a strict regulatory framework, so as to increase the level of consumer safety and the level of compliance and quality assurance in India through a comparative analysis of the laws of the countries against the Indian regulations.

2. Evolution of Global Cosmetic Regulations

Over the past century, cosmetic regulations have evolved significantly from poor control aimed at adulteration prevention and labeling to more comprehensive systems that ensure pre-market safety and quality, influenced by public health concerns, scientific progress and globalization of trade.

Europe

In Europe, cosmetic regulations have evolved from separated country-specific rules to unified, highly comprehensive and harmonized frameworks, shaped by public health concerns; scientific advancements and the goal to maintain a unified internal market. Prior to the 1970s, cosmetic products were regulated separately by each Member States, with varying requirements for ingredient use, safety and labeling, which created trade barriers and uneven consumer protection. The first major move towards harmonization/common cosmetic law occurred in 1976 with the introduction of Cosmetics Directive 76/768/EEC. This law/directive introduced the list of negative/prohibited ingredients, permitted colorants, UV filters and preservatives and set standard/uniform labeling requirements across the European Economic Community [15]. Over time, this directive was amended many times to deal with new/emerging safety concerns. For example, early restriction of mercury compounds in 1976 and continues addition of prohibited ingredients in the negative list based on scientific opinions from the Scientific Committee on Consumer Safety (SCCS) [16]. A landmark change in EU cosmetic regulation took place when EU moves to Regulation (EC) No. 1223/2009, which replaced earlier directive and become fully effective in July 2013. This regulation required mandated pre-market safety assessment (CPSR) of cosmetic product, designation of a Responsible Person in the EU and necessary cosmetic product notification via CPNP. In addition, this regulation had also completely banned animal testing for finished cosmetic products and their ingredients (fully effective from March 11, 2013) [17]. This ban was introduced due to ethical concerns and advances in non-animal testing methods such as OECD (Organization for Economic Co-operation and Development) guidelines for skin/eye corrosion and irritation, skin sensitization, mutagenicity and genotoxicity, dermal absorption, etc. [18]. It was further supported by tragedy events such as thalidomide tragedy (1950s-1960s), which increased awareness of chemical safety in cosmetic products across EU. Moreover, EU's cosmetic regulations progressed continuously with amendments to include regulations for nanomaterials (mandatory labeling since 2013), CMR (carcinogenic, mutagenic, reprotoxic) substances and endocrine disruptors (ongoing evaluation by SCCS as of 2025-2026) [19]. Collectively, these developments and strong enforcements has made EU cosmetic framework as a global benchmark for cosmetic regulations.

UAE

In UAE, the cosmetic regulatory framework had been developed in conjugation with GCC in efforts to harmonize legislation. The UAE's cosmetic regulatory framework has evolved over time from scattered national laws/regulations to a more standardized and globally oriented framework that prioritizes customer safety, product quality and simpler trade throughout the region. This evolution has been shaped by rising public safety issues, growing cosmetic product imports and the desire to improve market access through uniform GCC technical guidelines. Before 2000s, there were few specific cosmetic rules in the UAE, and cosmetic products were mostly governed by general consumer safety and commercial legislations. This led to inconsistent safety evaluation with regulatory control largely relying on import inspection and limited supervision by the authorities of Ministry of Health (MoH) [20]. A significant turning point in the UAE's regulatory growth was the establishment of Emirates Authority for Standardization and Metrology (ESMA) and Dubai Municipality (DM) by the Federal Law No 28 in 2001, which brought in a more structured system for product regulation. ESMA holds responsibility for formulating regulations and establishing compliance requirements, while DM regulates cosmetic product registration, market surveillance and inspection activities [21]. In 2006, the UAE adopted GCC Technical Regulation for cosmetics (GSO 1943:2006), which harmonized cosmetic regulation and required products to be registered with both, DM and ESMA. GCC is a political and economic union that comprises states including Kuwait, Saudi Arabia, the United Arab Emirates, Bahrain, Qatar and Oman. These member states operate under a shared regulatory body, the GCC Standardization Organization (GSO), which is responsible for formulating and issuing harmonized standards applicable across all GCC nations. This

regulation introduced and adopted mandatory pre-market conformity certification (Emirates Conformity Assessment Scheme, ECAS), uniform/standardized labeling guidelines and comprehensive lists of prohibited/restricted substances. These amendments were influenced by early safety concerns, such as documented recalls (as in 2004 and 2005) regarding imported skin-whitening creams which were discovered to have high mercury levels [21]. Particularly in large cities like Dubai and Abu Dhabi, these creams were connected to substantial health consequences, such as systemic toxicity and skin damage, which compelled authorities to strengthen laboratory testing and heavy metal screening regulations. Considering above in 2016, this regulation was revised to GSO 1943:2016, which strengthened quality control standards by mandating bilingual labeling for cosmetics and focused on adherence to ISO 22716 GMP [22]. Further revisions under GSO 1943:2021 and GSO 1943:2024 led to reinforcement the mandatory ECAS certification and increased emphasis on documented safety justification, similar to EU's CPSR which promoted the adoption of globally recognized non-animal OECD alternative testing. These advancements were supported by Ministry of Industry and Advanced Technology (MoIAT), which encouraged the digital application system and led to better alignment with evolving global cosmetic regulations [21]. These regulatory amendments indicate that UAE has moved toward a more preventive and harmonized cosmetic regulatory system, making UAE as a leading regulatory nation in the Middle East.

South Korea

In South Korea, cosmetic regulations have gradually evolved from simple safety regulations to an advanced innovation-focused systems owning to rapid industrial development, K-beauty's global success and compliance with international standards. Their system totally emphasized on functional product classification/differentiation, consumer protection and ethical testing practices. The early framework was established in the post-war era through the Pharmaceutical Affairs Act of 1961, which regulated cosmetics as part of pharmaceutical products under the Korean Food and Drug Administration (KFDA) which was later renamed to Ministry of Food and Drug Safety (MFDS) in 2013 [23]. This regulation was primarily intended to prevent adulteration and ensure basic labeling, without establishing additional pre-market approval processes for cosmetics. However, the Cosmetics Act of 1993 firmly distinguish cosmetics from pharmaceuticals and divided cosmetics into general cosmetics and functional cosmetics (like anti-aging and whitening cosmetics, etc.) where functional cosmetics required pre-market approval for validating the claims and safety of the cosmetic [24]. This significant shift was influenced by growing consumer demand for advanced skincare cosmetics and by safety incidents, like in the 1980s-1990s where imported creams were found to be contaminated with heavy metals. This led regulatory authorities to tighten ingredient controls and strengthen post-marketing surveillance. During 2000s, additional amendments like mandatory GMP with respect to ISO 2216, alignment with OECD guidelines and expanding of prohibited/restricted substances (exceeding 700) list were made. During the 2010s, South Korea made a drastic move toward ethical regulations by partially banning the animal testing (in 2015) for cosmetics where alternatives existed. This was later expanded to complete ban of animal testing for general cosmetics in 2018 and for functional cosmetics by 2020 [25]. These amendments were driven by intense public criticism and incidents, where over 1000 eye-makeup cosmetics were recalled after founding them contaminated with *Pseudomonas aeruginosa* stain, highlighting weakness in microbiological safety testing. In 2019, the MFDS started enforcing action against misleading "natural" claims in K-beauty cosmetics. Several brands were penalized and their cosmetic products were recalled for containing undisclosed synthetic preservatives in them. This led to further cosmetic regulatory amendments in 2021 that strengthened and mandated detailed claims evidence and transparency in labeling of cosmetic product [26]. Between 2023 and 2025, the MFDS further strengthened the cosmetic regulations by introducing online notification portal (managed by Korean Pharmaceutical Traders Association, KPTA) for imported products and mandating the adoption of OECD-validated non-animal alternatives, like TG 431, 492 for skin and eye irritation, TG 406, 429 for skin sensitization, TG 471, 476, 487 for mutagenicity/genotoxicity, etc. [27].

Japan

In Japan, cosmetic regulatory framework evolved from the stringent, government controlled approval systems to a modern framework focused on manufacturer responsibility, product safety and quality assurance. This transition was driven by cosmetic industrial expansion, public health concerns and global regulatory trends/requirements. The foundations were laid in post-World War II era with the Pharmaceutical Affairs Law of 1948 under Ministry of Health and Welfare, which regulated cosmetics alongside medicinal products and drugs, with mandatory approval required before marketing.

This meant that every cosmetic product, including their ingredients, composition and production processes were required to be examined and approved by government, however this system's enforcement remains limited [28]. In 1960, significant amendments were made that classified cosmetics into general cosmetics and quasi-drugs where general cosmetics were intended for basic purposes such as cleansing or beautification and required only pre-market notification. In contrast, quasi-drugs (claiming for therapeutic activities like anti-acne, skin-whitening, hair growth, etc.) required pre-market approval to verify their safety and the validity of their claims. By the 1980s and 1990s, Japan was under pressure to improve the efficiency of cosmetic approvals. The conventional "one-by-one" review approach of each product was time consuming and expensive. In order to fasten the approval processes, the Comprehensive Licensing System by Category (CLS) was implemented in 1985. It grouped the cosmetics and established the guidelines for ingredients lists and permissible levels. This helped in streamlining the review process of cosmetic product but still required government approvals, which remained a regulatory burden as the cosmetics industry expanded. A major change occurred in 2001, when Japan amended its pharmaceutical and cosmetic law as part of wider deregulation policies. This includes dramatic changes like a) abolishment of pre-market approval requirements for cosmetics; b) adoption of negative list of prohibited/restricted substances (cosmetic could be marketed without prior government approval if complied with safety standards); c) introduction of positive list of permitted UV filters and preservatives and d) mandate requirement of full ingredient labeling. These amendments led companies to ensure safety of cosmetic product and comply with regulatory standards, rather that depending on government's pre-market approval [29]. In 2014, Japan revised and renamed the Pharmaceutical Affairs Act as the Pharmaceutical and Medical Device Act (PMD Act). However, cosmetic regulation remained largely unchanged, continuing to rely on emphasis on product notification rather than pre-market authorization, regulated ingredient use, mandatory stability testing, microbial limits, non-animal alternative methods for quasi-drugs and clear manufacturer accountability [30]. In recent years, amendments (in 2020-2025) have strengthened and emphasized more on digital notification systems, stronger claims substantiation under the Act on Specified Commercial Transactions and adoption of OECD-validated in-vitro alternatives [31]. All former amendments highlights the Japan's distinct quasi-drug approach, which supports innovation in the cosmetic sector while protecting public health and establishes the MHLW and PMDA as leading Asian regulators, focused on ethical and high-quality cosmetic supervision.

USA

In the early 1900s, the US introduced the Pure Food and Drug Act (1906), which regulates adulterated and misbranded foods and drugs through post-market enforcement, but cosmetics were largely ignored, which leaded to widespread consumer risks due to presence of toxic substances like lead, mercury, arsenic, etc. in beauty cosmetics. Later in 1938, US introduced the Federal Food, Drug and Cosmetic Act which included and strengthened the cosmetic regulations and stopped the unsafe or misleading cosmetics from being sold [32]. However, most cosmetic ingredients still does not require pre-market approval before sale, except for color additives (mentioned in 21 CFR Parts 73, 74 and 82), which were regulated starting in 1960 after the safety concerns were found in coal-tar dyes. For the next many years, cosmetic regulatory landscape did not change much. During this time, the FDA issued voluntary guidelines (like GMP recommendations in 1974) and launched the Voluntary Cosmetic Registration Program (VCRP) in 1976, enabling manufacturers to voluntarily list cosmetic products and register their manufacturing sites. There were no mandatory pre-market criteria imposed for non-color ingredients or finished cosmetics [33]. In the late 20th and 21st century, as the public awareness and concerns grew over cosmetic ingredients such as phthalates, parabens, formaldehyde releasers and talc contamination, many efforts were made to strengthen the FDA's control over cosmetics. However, although safety concerns led to many attempts to improve cosmetic regulations, but real change in the US happened only with the introduction of Modernization of Cosmetics Regulation Act (MoCRA) in 2022 [34]. MoCRA is the biggest and significant change to US cosmetic regulation since 1938. It introduced mandatory listing of cosmetic products and manufacturing facilities (fully enforced in 2024), required reporting of serious adverse events (effective in 2023), mandated maintenance of safety substantiation records and establishment of compulsory GMP regulations as per ISO 2216 (rule to be finalized). Moreover, MoCRA mandates the inclusion of domestic contact details on cosmetic labels to enable adverse event reporting and proposed rules on fragrance allergen disclosure (still pending as of early 2026) [8,35].

India

Cosmetic regulations in India have developed from their early history in drugs to what it is today. Prior to the 1940s, India lacked cosmetic regulation resulting in very little monitoring of safety and quality of products. To regulate cosmetics for the first time, the Drug and Cosmetic Act (D&C Act) was established in 1940 which brought in regulation for import, distribution, manufacture, and sales of drugs and cosmetics in India. The subsequent Drug and Cosmetics Rules, 1945 were created to implement the former Act [36]. Although D&C Act was drug-centric, cosmetics were recognized as a category in themselves under regulation. Enforcement of these regulations were post-market which relied on state drug inspectors and the Central Drugs Standard Control Organization (CDSCO) which was formed in 1962. The Bureau of Indian Standards (BIS) established their first cosmetic standard for skin powders titled IS 6608:1982. These standards outline the quality requirements that cosmetic products should meet [37]. In 1987, BIS released IS 4707 which outlined various substances restricted from use in cosmetics which brought them in line with international standards regarding safety (Bhat & Venkatesh, 2020). However, it was not until the 2000s where cosmetic regulations in India really began developing and moving towards global standards with the globalization of Indian cosmetic industry. Good Manufacturing Practices (GMP) was implemented for cosmetics during this time as well. India also prohibits cosmetic animal testing. India final pushed cosmetics under their own regulations with the Cosmetic Rules, 2020 (published on December 15, 2020 under D&C Act). This regulation finally separates drugs and cosmetics under their own respective category creating a more streamlined system to allow for easier import control and licensing to manufacture cosmetics [39]. Cosmetic Rules 2020 established set licensing applications/forms (Form COS-1 and COS-2), improved registration process of imported cosmetic products, and set requirements for documentation, batch wise quality testing, record maintenance, and product compliance to labeling standards. Cosmetic ingredient labeling also became required using INCI names in order of decreasing concentration along with the declaration of expiry or use- by- date and certain warnings required (outlined for eye cosmetics) [40]. In 2025, amendments were made to the Cosmetic Rules, 2020. (Title: G.S.R. 513(E), Notified on: 29/07/2025) These amendments, made the requirements clearer in terms of compliance. It was stated that "use before" means the consumer should use the product before the first date of the mentioned month. "Expires" or "Expiry" means the cosmetic product can be used until the last day of the mentioned month. Manufacturers are now required to keep a physical or electronic copy of batch manufacturing records for a minimum of 3 years from the expiry date. Bulk drugs used as ingredients for cosmetic production are now required to be quality tested along with the finished product. The changes to the rules also gave more power to authorities to suspend/cancel a manufactures license, but also ensure that the manufacturer has the right to appeal the decision. Export labeling was given more flexibility like allowing a code to replace the complete manufacturer's name and address [41].

3. Cosmetic Product Regulatory Lifecycle

The cosmetic product regulatory lifecycle includes ingredient evaluations, safety and toxicological assessment, GMP, product testing, labeling and packaging, pre-market authorization or notification and post-market surveillance. Figure 2 provides the schematic presentation of the cosmetic product regulatory lifecycle.

3.1. Ingredient Evaluation

Regulations concerning cosmetic ingredients regulations rely on scientific assessment and are internationally harmonized through bodies like the OECD and WHO, however, global cosmetic regulatory systems vary considerably in both scale and restrictiveness.

In EU, Regulation (EC) No. 1223/2009 banned more than 1,400 ingredients (Annex-II) and restricted approximately 300 (Annex-III) with defined limits. The regulation contains positive lists for preservatives, colorants, UV filters, and requires declaration of allergens and control of impurities [42].

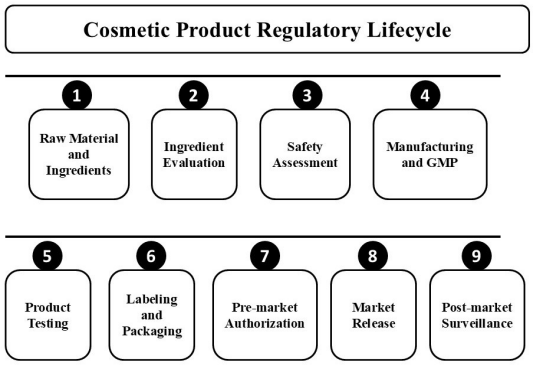

Figure 2: Cosmetic Product Regulatory Lifecycle

In UAE, ingredients in manufactured cosmetics are regulated under GSO 1943: 2016/2024, which is largely harmonized with the EU. Manufacturers must adhere to ingredient lists containing positive, restricted, and banned ingredients. Ingredients must

be supplied with Certificates of Analysis (CoA), Safety Data Sheets (SDS), and available toxicological data. Limits of heavy metals (i.e., Pb ≤20 ppm; Hg ≤1 ppm), as well as microbiological contamination, are enforced. Halal-certified cosmetics require compliance with ISO 16128, in addition to Halal requirements [21,22]. South Korea bans and restricts ingredients in cosmetic products according to MFDS Cosmetic Safety Standards. In Korea there are around 1,040 prohibited cosmetic ingredients, and additionally there is a restricted ingredient list. Cosmetic manufacturers must keep records such as Certificate of Analysis (CoA), Material Safety Data Sheets (MSDSs), stability reports, and toxicological assessment. Korea enforces quality restrictions for heavy metals, certain pesticide residues, microbial limits, and limits for aflatoxins specific to ingredients containing botanical extracts. Authenticity of botanical ingredients, standardization of ingredients, and aflatoxin and pesticide residue limits are enforced [43,44]. Japan's cosmetics ingredient control is legislated under MHLW Notification No. 331/2000. Ingredients are banned, restricted, evaluated through positive lists of preservatives and UV filters, and coal tar colorants are permissible. Cosmetic manufacturers generally keep toxicological information of their ingredients on file. Ingredients require impurity control and Margin of Safety (MoS) assessments are commonly conducted. Botanical extracts and nanomaterials are subject to risk-based assessment, and ingredients must comply with corresponding chemical substance legislation [43 45]. Regulation of cosmetic ingredients in the United States under MoCRA and 21 CFR Parts 700–740 is relatively limited. The majority of cosmetic ingredients are not prohibited by the federal government with the exception of regulations placed on color additives. State legislation can enforce additional requirements, such as California's Proposition 65 [42,46]. In India, cosmetic ingredients are controlled under the Cosmetics Rules, 2020 (amended 2025), which prohibits and restricts approximately 150 substances in Schedule S. Permissible limits of heavy metals and microbiological contaminants are described by BIS standards. When compared to the regulatory frameworks of the EU, Japan, and South Korea, India regulates relatively few ingredients considered hazardous [37,47].

3.2. Safety Substantiation and Toxicological Requirements

Safety substantiation and toxicological assessment form the foundational basis for cosmetic regulations worldwide. These regulations aim to ensure cosmetic ingredients and finished products are safe for human use and do not impose unacceptable risks. However, requirements vary by country or region.

The EU regulatory framework has among the most developed safety assessment requirements, captured under Regulation (EC) No. 1223/2009. Prior to market authorization, companies are required to prepare a CPSR to substantiate product safety. The CPSR provides information on cosmetic composition, physicochemical properties, microbiological quality, impurities, and toxicological endpoints for ingredients, consumers' exposure, and stability information. Toxicological endpoints reviewed include skin irritation, eye irritation, skin sensitization, genotoxicity, carcinogenicity, reproductive/developmental toxicity, etc. with Margin of Safety (MoS ≥100) calculated. Scientific committees such as the Scientific Committee on Consumer Safety (SCCS) have published expert opinions to further aid regulatory decision-making in cosmetic safety [48,49]. UAE, as harmonized with the EU, mandate toxicological assessment, stability studies, microbiological quality, heavy metals and laboratory testing to be completed in UAE approved and accredited facilities. Permissible limits of microbes are reviewed on a cosmetic product-case basis. Limits are stricter for cosmetic products marketed for infants, and those applied to the eye-area and mucous membranes [11,17].

Safety assessment requirements under MFDS in South Korea mandate physicochemical characterization, dermal absorption study, skin irritation, eye irritation, skin sensitization, genotoxicity, phototoxicity, reproductive toxicity study, and environmental risk assessment (for products with nanomaterials). Manufacturers are also expected to conduct accelerated and real-time stability studies, microbiological testing as per ISO 17516, and perform preservative efficacy testing as per ISO 11930 [50–52]. In Japan, cosmetic safety assessments under PMD Act include hazard identification, exposure assessment, toxicological assessment, and risk characterization using Margin of Safety. Japan accepts all validated non-animals methods through JaCVAM (Japanese Center for the Validation of Alternative Methods). Japan maintains a positive list of allowable preservatives, and widely adopted the use of ISO 17516 and ISO 11930 for their respective microbiological quality and preservative efficacy test methods. Additional toxicological testing is needed for quasi-drugs depending on their composition and intended use [45,53,54]. Safety substantiation in the US under MoCRA 2022 utilizes the concept of manufacturer responsibility. There is no mandatory product

approval prior to market entry. However, manufacturers are required to possess competent and scientific evidence that their cosmetic products are safe for consumers. Toxicological testing and microbiological guidelines commonly accepted are OECD, ISO, and USP [55,56]. In India, Cosmetics Rules, 2020 (amended 2025) require manufacturers to keep records of safety documentation and adhere to BIS specification limits of heavy metals and evaluation of microbiological quality. India does not have a standardized CPSR nor a prerequisite toxicological safety dossier evaluated by CDSCO before marketing cosmetic products similar to EU, South Korea, and Japan [57,58].

3.3. GMP and Quality Assurance

ISO 22716:2007 is generally considered as the international standard for cosmetic GMP but is not always legally regulated in cosmetic manufacturing regions. In Europe, GMPs are regulated by Article 8 of Regulation EC No. 1223/2009. ISO 22716 represents the accepted GMP standards for cosmetics in the EU. Key Requirements include controlled manufacturing facilities, validated manufacturing processes, production batch traceability, quality records and written procedures, product recalls procedures, PIF, and CPSR overseen by a Responsible Person [6,17].

In UAE, GMPs compliance is certified by DM, MOHAP, ESMA and ECAS and generally follows ISO 22716 with additional guidelines specified by GSO 1943:2016. Key Requirements include Quality Manual, SOPs, Batch Records, and qualified suppliers with supplier certification, CoAs, water monitoring system, microbiological testing, stability studies, and 100% traceability. Records must be stored for up to 10 years [59,60]. Korean cosmetic manufacturing follows Cosmetic GMPs known as KGMP which is regulated by the MFDS. The ISO 22716 certification is not required to manufacture cosmetics in South Korea. The KGMP shares many similarities with ISO 22716 and focuses on facility qualification and maintenance, personnel training, documented SOPs, process validations, environmental monitoring and controls, microbiological controls, purified water system, CAPA (Corrective and Preventive Action), Change control, complaint management, product recall procedures, and complete batch records [53,61].

Japanese cosmetic manufacturers typically follow the JCIA (Japan Cosmetic Industry Association) GMP guidelines which are considered to be equivalent to ISO 22716. Requirements include documented quality management systems that ensure controls on raw materials, hygienic manufacturing practices, equipment calibration, batch record traceability, internal audits, CAPA, complaint management, and product recalls. Japanese Quasi-drugs follow stricter GMP requirements and include stability studies [45]. In the United States, cosmetic GMP is voluntary under ISO 22716 and USP <1078>. The MoCRA stipulates that the FDA must develop defined GMP regulations that can be enforced by the FDA. Until these regulations have been developed and implemented, it is the responsibility of the manufacturer to ensure they have proper production controls in place. This includes Supplier qualification, sanitation, equipment calibration, investigations of complaints, and record keeping. The FDA's regulatory authority over cosmetics generally occurs after market via manufacturing facility inspections and monitoring of adverse events. Guidance is provided by FDA recommended GMP under Title 21 Part 111 [32,55].

India’s schedule M-II (Fifth Schedule) of Drugs and Cosmetics Act, Rules & the Cosmetics Rules, 2020 offers guidance on cosmetic GMPs. Areas discussed in this guidance include cosmetics manufacturing facility design, hygiene of personnel, control of raw materials, batch records of manufacturing, and control of finished product testing. The ISO 22716 compliance is not required for cosmetics manufacturing in India. Additionally, while some third-party cosmetic GMP certification is recognized in the EU, UAE, and South Korea there is no official organization that is recognized in India. Because cosmetics are regulated by the SDCAs (State Drug Control Authorities) in India enforcement is inconsistent [62].

3.4. Animal Testing Bans and Non-animal Alternative Methods

Another important trend in cosmetic safety evaluation is the complete phase-out of animal testing and replacement with validated *in-vitro/in-silico* and other NAMs (New Approach Methodologies) whenever possible. Regulatory agencies globally are requiring alternative methods based on OECD Test Guidelines (TGs) wherever applicable, although requirements differ slightly between regions (animal testing is still permitted if there are no validated alternative methods available). In the EU, this legislation initially came in the form of Regulation (EC) No. 12 23/2009 which banned animal testing for finished cosmetic products in 2009 and cosmetic ingredients in 2013. Validated alternative methods are assessed by EURL ECVAM (European Union Reference Laboratory for Alternatives to Animal

Testing) including OECD TG 431, OECD TG 439 (skin irritation/ corrosion), OECD TG 437, 438, 492 (eye irritation), OECD TG 442 (skin sensitization), OECD TG 432 (phototoxicity) and OECD TG 471, 473, 487 (genotoxicity) [63]. UAE have not banned animal testing but encourage the use of non-animal methods that follow OECD guidelines. Moving forward, organ-on-a-chip methods, artificial intelligence, and QSARs are expected to be used frequently for cosmetic safety [21].

South Korea passed a similar law under MFDS which limits animal testing to institutions without validated alternative methods. Testing a cosmetic ingredient for safety is also required for functional cosmetics, while safety reviews are required for all cosmetic ingredients. Korean laws also mimic EURL ECVAM by having the Korean Center for the Validation of Alternative Methods (KoCVAM) validates alternative methods. KoCVAM is also focused on developing cutting-edge technologies such as skin made with 3D bio-printing technology, organ-on-a-chip, and AI-based cosmetic predictive toxicology. While KoCVAM guides and regulates alternative methods used in South Korea, all validated methods must still be compliant with OECD guidelines [7,50]. Japan also regulates in a similar manner; however, they have not banned animal testing altogether. PMDA and JaCVAM encourage the submission of validated alternative methods. Japan accepts OECD accepted *in-vitro* and *in-silico* alternative methods. Japan utilizes weight-of-evidence approach when reviewing non animal safety data for cosmetics. Each data piece is used collectively to determine the safety of a cosmetic product [64,65].

The USA allows animal testing to be done but MoCRA and federal agencies like ICCVAM (The Interagency Coordinating Committee on the Validation of Alternative Methods) and NICEATM (National Toxicology Program Interagency Center for the Evaluation of Alternative Toxicological Methods) encourage submission of validated alternative methods if available. Safety can be shown using animal data or non-animal data [66,67]. India was the first country in Asia to ban both animals testing of cosmetic products as well as the import of cosmetics tested on animals in 2014. Animal testing for cosmetic products is prohibited and if an imported cosmetic product is found to be tested on animals in India, it cannot be sold. Unlike EU and South Korea standard OECD validated alternative methods are not required by regulation and nor is there a requirement to submit alternative test data. In India cosmetic products are required to be manufactured under BIS specifications along with published toxicological information on ingredients and/or other available safety data from international sources [68 69].

3.5. Labeling and Claims Substantiation

Labeling and claim substantiation requirements are generally considered essential elements of cosmetic regulation. Labeling laws usually regulate required product information including identity, manufacturer information, ingredient declaration, batch code, net quantity, shelf life and directions for safe use, while cosmetic claims differ significantly depending on the extent of regulatory control. Article 11 of Regulation (EC) No. 1223/2009 on cosmetics in the EU established some of the most rigorous labeling requirements requiring INCI naming of ingredients, country of origin for imported products, expiry date/Period After Opening (PAO), batch number, product function, precautionary statements and disclosure of nanomaterials. Regulation of cosmetic claims in Article 20 and Commission Regulation (EU) No. 655/2013 requires all claims made about cosmetic products to be truthful, evidence-based, fair and have substantiation submitted and filed in the PIF [46,70].

Similar requirements have been established by UAE law through GSO 1943, harmonized for cosmetic labeling requirements with EU legislation. Labels must be in both Arabic and English languages and cosmetic products cannot make false therapeutic claims or suggest that they are not Halal if they are. The guidelines on claim substantiation are defined in GSO 2528:2024 and adopt the same six common criteria as the EU [71]. Korean regulation similarly requires cosmetic labeling to be written in Korean and include the legally required product information and ingredient declaration. Batch number, expiry date/PAO and manufacturer information must also be displayed on labels. Functional cosmetics that list approved claims by the Ministry of Food and Drug Safety (MFDS) can list authorized efficacy claims, if enough scientific evidence is submitted to MFDS. If a product is labeled a general cosmetic, it cannot list any specific function other than that of a general cosmetic [72]. Labels of cosmetic products in Japan must be written in the Japanese language and include product identification, manufacturer information, ingredient declaration, batch number, and precautions. While general cosmetic products may only list general claims predetermined by MFDS, quasi-drugs must submit their labeling claims to MFDS for approval before being marketed and provide adequate scientific evidence that products are both safe and effective [12]. In the United States cosmetic labeling requirements are dictated by the Federal Food, Drug, and Cosmetic Act (FDCA) as

well as the Fair Packaging and Labeling Act (FPLA) and include product identity, ingredient declaration, manufacturer information, and a quantity statement. The Federal Trade Commission (FTC) and the Food and Drug Administration (FDA) do not require cosmetic claims to be approved before marketing, but they must have substantiation that they are backed by competent and reliable scientific evidence [33]. In India labeling requirements under the Cosmetics Rules, 2020 include mandatory declaration of the manufacturer, batch number, manufacturing license number, expiry date, net quantity, ingredient declaration, and directions for use and safety. Unlike the EU and South Korea, India does not specify regulation on cosmetic claim substantiation or requirements for submission of a scientific dossier to authorities before being marketed. Enforcement of substantiation is therefore left solely to the industry until a claim is contested as false or misleading. The regulation and evaluation of misleading advertisements are left to bodies such as the Advertising Standards Council of India (ASCI), making India's cosmetic regulation some of the weakest [39,73].

3.6. Pre-Market Authorization and Notification System

Pre-market authorization and notification systems require product-related information or dossier submission to a regulatory authority before commercialization by the manufacturer or responsible person. Under Cosmetic Regulation (EC) No. 1223/2009, the European Union maintains one of the world's most robust pre-market systems, by mandating that the Responsible Person prepare the Product Information File (PIF), including the Cosmetic Product Safety Report (CPSR) and ultimately file the notification through the Cosmetic Products Notification Portal (CPNP) system before marketing their cosmetic products in the EU [46]. The UAE requires all cosmetics manufacturers and importers to obtain ECAS (Emirates Conformity Assessment Scheme) certification of products along with requirements outlined in GSO 1943:20 before releasing to customs by submitting documents including safety reports, product formulas, lab analysis, and labeling translation into Arabic etc. [21]. Furthermore, South Korea practices both pre-market notification systems and pre-market approval. Under the former, cosmetic products distributed by the Korea Pharmaceutical Traders Association (KPTA) must submit notification documents including safety, ingredient, and labeling information before commercialization. The MFDS practice cosmetic product pre-approval before marketing by evaluating both safety and product efficacy documentation submitted by the manufacturer or responsible person [17,74]. Japan under PMDA exercises pre-market notification for general cosmetic products while requiring pre-approval of quasi-drugs which must meet safety, stability, and quality requirements [6]. The United States operates primarily as a post-market regulatory system. Under MoCRA 2022, companies are not required to submit notification or receive approval prior to marketing cosmetics, except for color additives [61]. India exercises post-market regulations, as product registration is decentralized and manufacturers and importers are not required to notify or submit product related documents such as product safety dossiers to CDSCO prior to market introduction. Manufacturers are simply required obtain licenses to manufacture/ import cosmetics from the CDSCO [6].

3.7. Post-Market Surveillance and Enforcement

Post-marketing surveillance includes adverse event reporting, market inspections, product sampling, laboratory testing, and regulatory enforcement. In the EU, a robust surveillance system has been implemented in Regulation (EC) No. 1223/2009. Serious Undesirable Effects (SUEs) must be reported through the Cosmetovigilance system and the Product Information File (PIF) is kept by the Responsible Person for 10 years. Unsafe cosmetics are communicated quickly through Safety Gate (Formerly RAPEX) allowing joint coordinated recalls and enforcement action in other Member States [6]. The UAE and South Korea conduct mostly risk-based market surveillance inspections alongside random cosmetic product sampling and laboratory testing. Adverse event reporting is not required and regulation authorities routinely inspect cosmetic establishments for labeling violations, restricted ingredients, and microbiological compliance. Enforcement actions are taken for non-compliance and can include product recalls, suspension of product sales, monetary fines, and cancellation of products approval [75]. In Japan, post-market surveillance includes mandatory adverse event reporting by manufacturers, periodic safety update reports (PSUR), stability monitoring, risk-based market surveillance inspections by regulation authorities, and adverse event monitoring by regulators. Product recalls and/or market withdrawal will be initiated if violated cosmetic products are discovered [76]. Under MoCRA 2022, the United States enhanced cosmetic surveillance by authorizing the FDA to request records of serious adverse events from the responsible person. Adverse events must be reported to the FDA within 15 business days. Complaint files are to be kept for a minimum of six years. FDA surveillance includes cosmetic

establishment inspections, recalls, and monitoring adverse events submitted to FDA Adverse Event Reporting System (FAERS) [77]. Post-marketing surveillance in India is carried out by the CDSCO and the State Drug Control Authorities through cosmetic surveillance inspections, cosmetic product sampling, laboratory testing, and enforcing regulatory actions against spurious, adulterated or misbranded cosmetics. Regulatory actions taken by the CDSCO include product seizure, product recalls, and suspension of product licenses, monetary fines, and prosecution of offenders. India lacks a cosmetovigilance system and mandatory adverse event reporting which limits post-market cosmetic safety surveillance and traceability [78].

A comparative overview of cosmetic regulatory frameworks across various regions is presented in Table 1.

4. Recommendation for Regulatory Harmonization and Policy Reform

Short-term goals would require, among other things, a pre-market notification of products prior to market entry. Ideally this would be centralized and mandatory (i.e. CPNP, Cosmetic Product Notification Portal in Europe or UAE Emirates Conformity Assessment Scheme (ECAS)), where all the basic safety information (as well as other required information about the product ingredients using International Nomenclature of Cosmetic Ingredients (INCI)) and manufacturing information of imported and locally manufactured cosmetics are submitted; allowing for increased traceability and expedited risk evaluation. Guidelines will be issued by CDSCO recommending the use of validated non-animal alternative methods of testing (as defined by OECD guidelines, i.e. OECD TG 431, TG 439, and TG 492) in place of animal testing with an outlined transition period for adoption. Implementation of training and technical support for laboratory facilities will aid in successful enforcement of the already established 2014 animal testing ban.

Ingredient control, along with mandatory manufacturing quality standards, is expected to be strengthened as part of the medium-term regulatory goals. Creation of a restricted/prohibited cosmetic ingredients list with at least 400 cosmetic ingredients would need to be created. This would allow for better harmonization with ASEAN and EU Regulatory annexes (i.e. Regulation EC No 1223/2009). Within 3 years, all manufacturers and importers should be required to adhere to ISO 22716:2007 GMP standards. An official CPSR format that is harmonized and includes toxicological safety assessments reviewed and validated by trained safety assessors (i.e. safety assessments for higher risk products), should be created.

Table 1: Comparative Analysis of the Cosmetic Regulatory Guidelines.

Regulatory Aspect	India (Current Status)	Europe	USA	UAE	South Korea	Japan
Pre-Market Authorization & Notification	Import/manufacturing license only; no centralized notification	Mandatory CPNP notification + CPSR	No pre-market approval required	Mandatory ECAS certification	Notification for general; full approval for functional cosmetics	Notification for general; approval for quasi-drugs
Safety Substantiation & Toxicological Requirements	Self-declared; no mandatory CPSR or assessor-signed report	Mandatory CPSR (Part A/B) signed by assessor	Manufacturer must maintain records; no submission required	Mandatory safety dossier for ECAS	Mandatory toxicological dossier for functional cosmetics	Mandatory for quasi-drugs; notification for general
Animal testing Bans & Alternatives	Banned since 2014; no mandatory OECD validation	Full Banned since 2013; mandatory OECD TG methods	No ban; alternative encouraged	Accepts validated alternatives; no full ban	Full ban (ordinary 2018, functional 2020); mandatory OECD methods	No full ban; strongly encourages alternatives
Prohibition/Restricted Ingredients & Impurity Control	~150 prohibited; voluntary BIS limits	>14000 prohibited (Annex II); 300 restricted (Annex III)	Only ~10-12 prohibited; voluntary limits	EU-aligned (>1400 prohibited)	>700 prohibited; strict positive lists	Strict limits for quasi-drugs
Labeling & Claims Substantiation	Self-declared; English	Mandatory INCI + Common Criteria Regulation	Ingredient list + MoCRA contact info; self-substantiated	Mandatory bilingual Arabic-English + authenticated claims	Mandatory for functional cosmetics; pre-approval	Mandatory for quasi-drugs; PMDA review
GMP	Voluntary (Schedule M-II)	GMP principles required (as per ISO 22716)	Voluntary until MoCRA GMP rule	Mandatory ISO 22716	Mandatory ISO 22716	Strict for quasi-drugs; ISO 22716 recommended
Post-Market Surveillance & Enforcement	Reactive; limited centralized reporting	Robust Cosmetovigilance + RAPEX	Mandatory adverse event reporting + expanded recall authority	Mandatory reporting + ESMA monitoring	MFDS portal + rapid recall authority	PMDA reporting + recall authority
Microbiological Quality Specifications	BIS standards (voluntary enforcement)	Mandatory ISO 17516 limits + PET	Recommended ISO 17516 (voluntary)	Mandatory ISO 17516	Mandatory KoCVAM-aligned limits	Strict limits for quasi-drugs
Residual Solvent & Analytical Method Requirements	Voluntary BIS reference to ICH Q3C/Q2(R2)	Mandatory ICH Q3C + validated methods	Recommended ICH Q3C (voluntary)	Mandatory ICH Q3C + validated methods	Mandatory for functional cosmetics	Mandatory ICH Q3C + validated methods

Process Validation	Voluntary; no mandatory IQ/OQ/PQ	GMP principles (validated processes)	Voluntary until MoCRA GMP rule	Mandatory ISO 22716 validation	Mandatory IQ/OQ/PQ for functional cosmetics	Strict for quasi-drugs

Additionally, product claims on labeling and advertising (i.e. product efficacy claims) should be backed up by technical documentation, especially if it pertains to skin-lightening effects and/or supposed anti-aging benefits. Product labeling should clearly indicate any warnings in multiple languages when necessary. Post market oversight can be improved by establishing a centralized hub for consumers to report adverse events, standardizing recall procedures, and by increasing regulatory (federal and state) capacity for inspections.

Long term goals should include plans to conform to international regulatory frameworks. This should include, when possible, membership in similar regulatory systems to that of the ASEAN Cosmetic Directive and mutual recognition agreements with regulatory bodies in the EU and UAE. Implementation of a nationally recognized risk-based classification system for cosmetic products would allow for regulation to be prioritized in a more effective manner by identifying the level of risk associated with certain cosmetic products used in Canada. India needs to allocate funds to allow for the development of accredited laboratory facilities to allow for increased testing capacity of required testing parameters (i.e. residual solvents, microbiological quality, validation of analytical methods), following international guidelines that establish good practice. Guidelines include: ICH Q3C (R8) Guidelines for Testing of Residual Solvents, ICH Q2 (R2) Validation of Analytical Procedures: Text and Methodology.

Regulatory bodies globally should ensure that manufacturers for their specific industries receive organized training. This training would focus on topics such as cGMP and scientific substantiation of product claims. Voluntary certification through certification programs administered by BIS could be the bridge between partial compliance and full compliance with international standards.

As whole, these recommendations could function in India's current administrative structure while improving the safety/quality of cosmetic products consumers purchase. Also, it could help with India' branded cosmetic products in the global market. With continued research into the topic, economic impacts that would be incurred from implementing these changes can be considered. Stakeholders, such as consumers and manufacturers, can be analyzed more through these evaluation studies. If implemented, these recommendations can address the regulatory concerns discussed in this paper.

5. Conclusion

As shown in this analysis, Cosmetic Rules (2020) (amended 2025) allows function more like a post-market/ licensing-type system and does not take on a preventive stance on pre-market control like many markets that are more developed have implemented into their regulatory practices. One limitation that hinders regulation ability of the cosmetic industry before-market is there is no centralized product notification requirement like CPNP and ECAS. Although cosmetic animal testing has been banned in India since 20 14, India still possesses limited capacity to perform animal tests using approved test methods that have already been validated as an acceptable alternative. Regulatory frameworks around ingredient legislation also have far less ingredients that are prohibited from being used or heavily restricted (approximately 150 substances) when compared to frameworks like Regulation (EC) No 1223/2009 and EU influenced United Arab Emirates with lists of prohibited substances that exceed 1400 added into each regulation. Other limitations include no set requirement for an individual qualified as a toxicologist to offer laboratory data/results of studies containing their signature for a Toxicological Safety Assessment (TSA) to be reviewed, GMP aren't required to be followed by any manufacturer because there is no official language that mandates manufacturers follow ISO 22716:2007 as Schedule M-II does not explicitly state manufacturers must follow ISO 22716:2007 guidelines.

Additionally, self-declare labels allow for claims made to be able to stand without validated proof because there is not required submission of technical documentations to support said claims. Moreover, there is no standardization when applying the microbiological/ residual solvent limits or evaluating through post-market surveillance (currently not implemented). The EU and UAE take more of a preventative stance by implementing safety documentation like CPSR and ensuring GMP practices are followed if you're manufacturing cosmetic products; Korea and Japan will accept innovations and will utilize alternatives that have been validated to replace traditional methods of assessment for safety and efficacy and will ensure stricter quality checks to guarantee the safety of their drug products; The US has shifted to having a system more based on post-market surveillance and has allowed better regulatory back tracing and adverse event reporting by the past legislation known as MoCRA in 2022.

While India has made efforts to improve their current cosmetic regulations, there are major improvements to be made. Based on the data collected for this comparison, India could benefit from better regulating their cosmetic market through implementing preventative measures. This can include having mandatory certifications for manufacturing facilities and requiring cosmetic companies to have product-specific validation of alternative methods if animal testing is used or claimed to be used. India's cosmetic market can improve their quality checks by establishing a pre-market system to regulate cosmetic products before they are sold. Finally, cosmetic companies should have some form of evaluation to ensure the qualities of their products are up to standards before being sold. This can include random FDA checks or mandatory chemical testing for all products before they are released into the market. India needs to work on enforcing their regulations to ensure compliance. Cosmetic rules need to be updated and revised to meet current market needs. The regulatory body needs to establish a system to consistently evaluate and ensure the cosmetic companies are following the regulations on a regular basis. Comparing regulations from different countries can provide insight on what areas need improvement and what areas India's cosmetic market is doing well in. From this comparison, it is clear that India can benefit from implementing some of the same regulations as the EU and many Asian countries. By doing this, India will be able to hold their cosmetic market to higher standards which will improve the quality of products they are selling to consumers and allow for better trade relations with countries that have similar regulations as them.

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