

A REVIEW ARTICLE ON CURRENT SCENARIO OF COSMETICS

¹Nishant Gupta, ²Km.Anam Khan, ³Suraj saroj, ⁴Gyanbahadur Pal, ⁵Smita verma

^{1,2,3}Students, ⁴ Assistant professor, ⁵Principal
NIRMALA DEVI PHARMACY COLLEGE, NAYANSAND, GAURABADSHAHPUR, JAUNPUR
UTTAR PRADESH 222133, INDIA.

Abstract- Cosmetic is a kind of healthiness & attractiveness product that are applied to face & body for the care or for the purpose of enhancing or modifying a person look. History of cosmetic is three thousand five hundred years old and it is in every society of the world. It is obvious that the beauty market has made us very much brainwashed. India has turned into one of emerging country with the great growths of the cosmetics industry with every year that goes by. Though the world economic crisis was there, even the 35 million rupees was register by cosmetic industry of India in 2012. Sunscreen, cream and soap is among most common cosmetic. Despite the fact that, cosmetics are regarded as a blessing to many people around the world, the risks and the toxicities of cosmeceuticals are not to be ignored. In silico modeling for cosmeceuticals, Circular Economy, and Release based on natural stimulus be some of the newest trend within cosmetic. Hypoallergenic cosmetics are the class of cosmetic products which tend to induce less sensitive to reaction once compare by further beauty formulation. Two firms claimed that food and drug administration have no power on the way to make regulation, however, court agreed with food and drug administration. Soon after courtyard of appeal of US declared that the cosmetics company can go on with labeling name "hypoallergenic". The procedure of tagging is capable of thus, lower chance of a serious sensitive response in those who have oversensitive skin and hair. It is clear the cosmetics is the main factor in days-to-days life and is use via everyone thus, the increasing of the cosmetic usage and the scope also have an importance.

INTRODUCTION

Cosmetics are the product that are use for health & beauty or to improve and used for face and body care. Cosmetics are not just used to change the appearance but also for the soothe and fragrance for the skin and the body. Cosmetics, which are the ones used for skin and body care are known to be the ones which are the most specific and the so important for certain purposes.

There are many races and cultures that use cosmetics as a part of daily time. Personal clarity & character characteristic is seen as main factor that are responsible for popularity of cosmetic in the present situation. Principal value of cosmetics is the changes of the person to a new decent look after the application. Despite the fact that the cosmetic industry has quite a tremendous success, the real sense of cosmetic is often misunderstand in many Western country as just makeup products. However, united state Food & drug administration was very clear on the fact that cosmetic is product that is basically meant used for human body meant for purpose of beautification, purification otherwise making one more attractive without changing the body structure. According to this meaning, a product that meets above statements qualifies as a cosmetics products, except United state Food & drug administration (US FDA) strictly denies clean soaps as a cosmetics.

HISTORY

Cosmetic has been use for hundreds of year, very old Egyptian & Sumerian were the ones to start use them. In Europe uses of cosmetics was still on since center Age [8] when face was whites & cheeks rouges. However, the attitude toward cosmetic changed all the way through the times because at some points in Western history, the use of cosmetics was honestly frowning upon. Despite of shift in the social attitude toward cosmetic.



According to sources, near the beginning main development in cosmetic includes: Through the imaginary technique, all the parts of the vehicles are wind-blended, wind-mass, and wind-blended-floating.

1. Kohl was employed by the Egyptians during ancient times.
2. Castor oil was also utilized by very old Egyptian as a protecting salve.
3. Skin cream prepared of wax, oil, and water that the Roman called by name, are now replaced by synthetic creams.
4. Its invention in the nineteenth century was the vaseline and lanolin which was Used to treat skin problems like chapped hands and itchy skin.

Through the year, lack of regulations on creation & utilize of cosmetic and ignorance of science on effect of various components on person bodies has given us a lot of negative consequences of those who use cosmetics, and the most important of these consequences were deformities, blindness, and even death. Most of the cosmetic products that could be purchased during these times be silent also chemically questionable otherwise made on or after natural substances that could be initiate in kitchen, such as foods colorings, berry, and beetroots. Some of historically popular cosmetics that were known to be harmful are ceruse (white lead), which was used in different cultures such as Renaissance in West, and the mascara Lash Lure, which caused blindness in early 20th century. In the 19th century, there were many incidence of lead poison due to fashion for red and white lead makeup and powder, and led to inflammation and swelling of the eye, weaken tooth enamel & blackened skin and weighty utilize was well-known to cause death. White lead was not used single in the Western world, as the white Japanese face makeup, oshiroi, was produced using white lead. Science of hair and makeup production in second parts of the 19th century resulted in creation of makeup which was free of hazardous substances such as lead.

COSMETIC PRODUCT IN INDIA

The cosmetic industries of India had been growing at 7% in the period of 2006-2008. 48%. The growth, driven by the fashion mindedness and improved consuming power, is regarded as the main reason of the industry to continue growing from 2009 to 2012. It should be said that media act as the bridge between the fashion industry and the Indian consumers who are becoming increasingly familiar with the fashion. Presently the bulk of cosmetic manufacturer in India are focused on marital markets other than gradually they are trying to make their entry into the out of the country market. In the last few year, manufacture of cosmetics in India has been supplied to the overseas markets.

In the Indian cosmetic market which used to be the stranglehold of only a little main Indian player like lakme, & ponds have now a lots of overseas players in markets in last decade. Indian cosmetic industry comprises the skin cares, hair cares, color cosmetic, fragrance & oral cares segment that had an estimated value of 2. The text goes on to say that the number of mobile phone users was 0.5 million in 2008 & is projected to raise at 7% as shown by analysis of sector. The Indian cosmetic industries boasts of a lot of herbal cosmetic brand likes forest essential, biunique, Himalaya, blossom kochhar, Dabur and Louts & many more. Countries like India have emerged recently and have grown significantly in the cosmetic industries with every passing year.

Even though the world economy was in a recession, the industries involved in cosmetics of India earned 350 billion rupees in 2009. Heavily funded by cosmetic industries, lavish investments are mostly on promotion & further marketing tricks especially in India.



IMPORTANCE OF COSMETICS

Cosmetic is used to beautify one's appearance. Cosmetic have be in existence meant for centuries. Egyptian is first country toward use cosmetics in their preparation. The eyes color and a few materials for making the pleasant smell were major cosmetic in the Egyptian very old history. In contemporary times, both men's & women's are becoming more stylish and fashion-conscious and have the beautiful heads towards them. In orders to meet need of the user, cosmeceutical is made in also hypoallergenic otherwise normal type. The main goal of the cosmetic industry is to boost the self-confidence and contentment with one own appearance of a person. On the other hands, it should also be capable of impressing other people besides the teacher. Presently, eye shadows, creams, anti-wrinkle formulation, lipstick, nail polishes and perfumes are some of the cosmetics that are manufacture widely. Formulation specifically made for lipsticks, nail polish &, face creams are basically applied to make applied part brighter & fairer. They are products of waxes & cocoa butter in planned quantity. These semisolid products are manufactured by using fatty base like's cocoa butter and waxes.

There are several formulation likes gel, cream & cologne that are utilized by both men and women in their daily lives because of their cleaning action. The principal objective of an ageing cream is to slow down oxidation of skin & to get the young look. Soaps & waters together with cleaning creams are widely acknowledged as the necessary substances that have the cleaning property. Cosmetics cream are like a skin food for the rough and hard skin; the only way to apply this cream is through the form of a cosmetic preparation. Most of the well-known fat creams such as Vaseline's are use mainly meant for lubrication & washing

The making of soaps & gelatins are done by utilizing dry cream & are use as a foundation for skin. Gel hair oil which adolescent use a lot offer the hair cares industries one of the leading manufacturer in world which shapes the industry. In order to prevent dandruffs lice's, large amount of moisturizer, shampoo and herbal oil are produce. The jobs in the movies usually have the highest importance for the external appearance, which means the butterflies and the look that the person has in the movie. The best cinema experts predominantly concentrate on exterior glamour's, that can be achieved by applying vast array of make-ups meant for a time-consuming. Through their cosmetics, this artist use not only the wishes of the people for a new look but also they aim at the strengthening and maintaining of hair, skin and face.

During the very old & mediaeval times, cosmeceuticals were not able to stand against particular mechanism to protect skin & hair from the dangerous UV rays. The UV rays are type of radiation from Sun if temperature is high, for instance, this happens during the summer.

SAFETY CONCERN OF COSMETICS

Even though, cosmetic is considered as a blessing by large sections of the global population, the danger & toxicity of cosmeceuticals is not near be ignored. Being that cosmetics product is commonly used by large populations; it should

be ensured that safety is the priority and incorporated into the production itself. Besides, the excessive use of cosmetics product can lead to toxicity & chronic side effect that may be permanent sometimes.

Safety concern-

Some of the safety concerns that may be associated with cosmetics include;

1. Serious infection relating to the eye.
2. Eye irritation & scratches on eye region.
3. Contaminant in product produces in any other country than U. S. A.
4. Allergic reaction or sensitivity to the ingredients enlisted in products.
5. Distribution of bacteria on the dermal surface.
6. Fire hazard related to aerosols product.

The cosmetic effects should not be above the given time limit. The removal of cosmetic products in the clothes before sleeps is recommended by various regulatory bodies such as the United state Food & drug administration(US FDA).Steps towards Safe Use Safety of cosmetic can be insure by following below steps:

First step towards knowing the safety of cosmetics is to find out what their ingredients are. This can be done with the help of browsing through databases such as the skin deep cosmetics by EWG that has the data of the ingredient for the over 69 thousand different cosmetics product. In this database, searches can be done through use of the ingredients, the products name, the manufacturer & the brand name. Danger nature of ingredient that is in selected cosmetics product be able to be proved by the hazards key scores that ranges from 2 to 15. Safety of products are opposite of the safety key scores. Few databases program such as California Safe Cosmetics Program Product Database (CPSP) provides data concerning relation between ingredients and a particular disease. In addition, it offers data on the constituents of perfumes and deodorants.

Safety testing-

Cosmetic industries have to adhere to the requirements of the united state Food & drug administration during the making of cosmetics product. The FDA of United States advises the industry to use the evaluation test for cosmetic. Nevertheless, it is not forced to be done. It is a must to say that if industries do not evaluate safety of cosmetics products, it should be labeled with warning that products safety has not be evaluated. If products are not test for safety, it is required to be labeled as such. You might also find, drug & cosmetic, FD&C or external drug &cosmetic that is then followed by a color, meant for instance, drug& cosmetic Red No. 36. These are the ingredient that is actually known as color additive. Outside drug & cosmetic is not approving meant for use in cosmetic & drug that are applied to the skin respectively? FD&C color is accepted meant for use in foods, D&C, while drug & cosmetic color is allowed meant for use in D&C only. FD&C is used on a wide variety of product like drug, food & cosmetic. The contrast between drug& cosmetic & exterior drug &cosmetic is in the use of the D&C substances. Name of color additive of exterior drug & cosmetic, which is external, clearly means that it should be used meant for formulations of external preparation only.

Parabens & phthalates are two often used chemical used for safety. These two compounds are widely used to promote safety off cosmetics item.

Phthalate is used in widely variety of cosmetic production formula. Phthalate is safe to use in cosmetics preparation, acc. to the findings of several review & research investigation. Because of its fixating properties, this molecule is employed in perfumes in addition to being solvents.

Phthalates are also use in nail polish to stop it from cracks right after applications. Phthalate is use in hair sprays formulation to avoid stiffness.

It is not thought that paraben is as safe as phthalate. For few studies indicates that paraben and breast cancer are related.

Latest trends in cosmetics

The progress in science is ongoing ass almost every hour passes. Also, dermatology, trichology and other scientist areas are being used to improve the latest cosmetic technologies.

Following of recent developments applied in cosmetics technology

1-Better ageing as the new anti-ageing-

While many of the cosmetic brands are busy working on anti-aging facial creams. Probably the product which has ever struck as new and contemporary in recent human history is anti-aging lotion. These special features make anti-aging creams an attractive proposition for investigating scientists. The complex of methods for the skin maturation deceleration is as, for example, chemical peeling and laser resurfacing. Commercially available products that contain natural hyaluronic acid are mostly applied for facial contouring to minimize wrinkles. Right now, physicians are finding it quite challenging to understand what anti-aging is all about. Anti-aging is a face-off with time; aging is a

word, which, unfortunately, is pronounced worse as it gets more dominant. However, it should be instead acknowledged that anti-aging makeup is of course not particular in any way.

2- In-silico modeling for cosmeceutical-

Now in cosmetic science, AI is setting the lead. Toxicity of a certain cosmetic composition may even be evaluated by means of in-silico modeling. prior to manufacture. Biotechnologies like artificial intelligence and genomics can help in localizing new natural bioactive peptides which can be targeted to specific targets. As Charles Darwin suggested, evolution was the fundamental component that could enhance the human species. Such a source plant or animal might be the foundation of a new cure. Artificial intelligence (AI) facilitates pose the task of genetic improvement traits in plants and animals, mechanizing the process. Three primary processes will comprise the search process: prediction, customization, and perpetuation

3- Released depend on natural stimuli-

Clays with artificial layers of dual hydroxide are made of lengthy, positively charged layers that balance charges the interlayer junction's capability. Elevated security, beta Adjustable chemical composition and biocompatibility are regarded as a some advantage of these kinds of clay. It is therefore frequently employees as regulating agents of our medication discharge. This occurrence is inferred from the statement of medication, such as amino acid & antibiotic. These kinds of components are used as a mortifying & absorbing agent. And even as moderators of rheology. The loading of It's highly beneficial to use phyto constituents for skin and hair care. Loading above 48 percent w/w. lately, this type of Excipients are employed in the release of antiperspirants based on physiological reaction.

Nutricosmetics-

The types of supplements that are used for the maintenance and improvement of the skin nutrition are called Nutricosmetics. The research has proven that this is a process that is carried out by some micro and macro nutrient.

The examples below explain the reasons nutricosmetics are needed.

- i. Certain micronutrients akin to carotenes and Omega 3 fatty acids are very useful for the skin health but the fact is that they also contribute a lot in hair care.
- ii. Vitamin C acts as a redox catalyst in the elimination of ROS, and thus causes antioxidant effect. Even among the skin care products we have a number of sectoral concentration established based on the first application date, site of the application, purpose, treatment type and the depth of targeting. Nutricosmetics field is on a rapid growth as the number of its benefits is increasing and is being directed to specific properties. The present tendency in the field of nutricosmetics is not just limited to the creams, ointments and gels. Thus to the new generation, the products, which are designed for the skin care and which are more effective and durable, are provided. Such a method is possible only by integrating cosmetics with nutrition. The range of nutricosmetics is wide varying. Consequently, it can be said that nutricosmetic although not on skincare will still be effective on healths & wellness of hair as well as nails by providing the right nutritional balance. Few cosmetics product that are used externally has chance of getting past regional limit of dermal layer. On other hand, the accuracy of nutricosmetics is higher when contrasted with creams.

Cosmeceutical

At the present days the "Cosmeceutical" coined phrase can be found around us and plays the leading role in the maintenance of skin care in a more natural and organic way. The gulf between a Cosmeceutical and a cosmetic is extremely large. In fact, the word cosmeceutical is a term that is made by composing cosmetic and pharmaceutical. The line is to introduce a product which combines the functions of cosmetics and drugs. The principal constituent of a cosmeceutical is a substance that is induced to be biologically active and should have a pharmaceutical effect on the skin. It does not say that every cosmeceutical product is fully made up of synthetically chemical compounds just. The skin and hair care processes of the beauty industries around the globe have now started to focus on natural treatments. However, products containing artificial chemicals sometimes cause side effects, which are not seen in natural products. The plant extracts are either formulated as anti-inflammatory or as the fragrance component in some scented cosmetics. Therefore, it converts into a veritable Cosmeceutical one. The concept of cosmeceutical, well-proven in science, despite its recognition by the regulatory institutions such as USFDA, which do not acknowledge cosmeceutical as a separate category.

Drug regulatory agency has already come out clear that it is opposed to this notion. Act of legislating cosmetics makes one wonder, is a cosmetic not a preventive rather than the curative compound against microbial illnesses? If a product or formulation is to be classified as both drug and cosmetic then, it must undergo sufficient tests to demonstrate the fact of therapeutic efficacy along with other variables as stability, durability and toxicity data. Even though several authorities define formulation as a drug or cosmetic or both.

Due to the fact that the term "Cosmeceutical" has not been defined by jurisprudence yet, it is not possible to assign this value. US FDA goes all the way to define the drug and even expands itself by the Food, Drug and Cosmetics act. The act specifies that the drug is any agent that is used to prevent, cure, or treat a disease or disorder depending on the disease involved. Nowadays, this kind of rules regarding cosmetic approval is non-existent, but the drugs approval process, which is so long, has big instructions for the approval and marketing that were made by regulatory authorities all over the world.

Regulation and licensing of cosmeceutical

The Registration process for Drugs should not be as formidable as the registration for Pharmaceuticals. It is noteworthy that therapeutic efficacy proof will always involve using GCP even during the evaluation will be an important requirement. People who have an illness or are completely healthy have to use this product if it's needed. Cosmeceuticals are not to be taken by those suffering from acute or severe skin conditions, so always consult with your health care provider before use. The expiration therapeutic efficacy date of the Cosmos article must be concurrently included with the toxicology studied within toxicity tests, the side effects of treatments of the minor skin and hair conditions should be mentioned. In the West, most cosmeceutical among Over The Counter (OTC) products, are registered under that name. While the conflicting case is questioning that a particular product can be perceived as either a cosmetic or a drug only on the presence or lack of pharmaceutical activity of the product. For example, one could take Monoxide.

Cosmeceutical have been used in a variety of therapeutic indication like-

- Miniaturization
- Anti-wrinkle/aging effects
- Antioxidants
- Skin lightening or de-pigmenting
- Sunscreens
- Hair strengthening, hair fall arrest, hair growth
- Reduction of scars in face

Hypoallergenic cosmetics

A hypoallergenic cosmetic product is simply a cosmetic formulation that is prone to fewer hypersensitivity reactions in comparison to other cosmetic formulations. This does not mean that such cosmetic products should be primarily used for the skin which is more prone to be irritated than other cosmetic products. There is no body that controls the use of the term "hypoallergenic" on a federal level. In this manner, any cosmetic company is not restricted by any laws and no forms are required to be submitted by them to abide by their legal procedures in order to mention the hypoallergenic formulation in the label of their product. This is best observed during the strategy in which the high population can be attracted by proclaiming the brand to contain fewer allergies than other cosmetic brands. And the word itself is meaningless because you cannot compare it to some other brand or formula in any way. These cosmetic goods would also not be significant in the same markets in the classes prior. Such claims "tested for allergy", "hypoallergenic", etc. does not promise to keep the customers confident that there will be no possible allergic reaction it may cause.

There are new stipulations for cosmetic manufacturers in the market introduced by the market authorities so that the products can be called or labeled hypoallergenic. Nowadays, the US court of appeals clearly denotes that the regulation of "hypoallergenic" fallacy of the US FDA is not reasonable. Secondly, it is a new set of regulations, which are going to be completely different from the ones we use at the moment. A lot of opponents have been in support of not using this term for labeling of cosmetics. Now, even if there is no guarantee regarding all the hypoallergenic cosmetics being allergenic free, the risk of endangering the sensitive kind of patients is still present. For such patients, they could find themselves in a situation they had never faced before – the increased probability of anaphylactic reaction. In this regard; some cosmetic firms were insisting that validation tests for bioequivalence and non-allergenicity of cosmetic product formulation were a must in accordance with the public requirements in dire need. On one hand, sufficient labeling of these superior quality tests might require running an additional economic program. The pre-tests are done in accordance with the instructions of the professional bodies and the hypoallergenic formulation carries a warning about the possible side effects. However, there is still the possibility of adverse drug reaction By the time of ruling on word 'hypoallergenic' both regulatory authorities were involved.

The regulation which is the most authoritative was issued by the Food and Drugs Administration at the end of the year 1975, aimed at the role of hypoallergenic cosmetics. The last but not least, of the recent regulatory procedures became the purposes of comparison of procedures with those more costly than the previous ones. Even it was when several

beauty industry companies sued FDA, American lower level judges supported the regulating authorities. Contrary to that, nonetheless, the court at higher tier was able to abolish restrictions made by the USFDA.

In a short while, the regulation had been questioned in the U. S. District Court for the District of Columbia by Clinique Cosmetics and Almay, the makers of "hypoallergenic" cosmetics. The two companies argued that FDA was devoid of jurisdiction to make this regulation, surprisingly, the court ruled in the favor of the FDA. At last, the court of appeals of the USA found that the use of the labeling term "hypoallergenic" by the cosmetics companies is within the safe limits.

CONCLUSION

Quality cosmetics are the soul and the life of it, hence it needs to be treated carefully. Cosmetics are very effective for the skin diseases. Makeup will become more important in the upcoming period. RS is in the situation where the purchase takes place once a year. 40,000 to 60,000 for beauty salon is the small number and less than 10,000(6% beauty salon) is the Quality cosmetics are the soul and the life of it, hence it needs to be treated carefully. Cosmetics are very effective for the skin diseases. Makeup will become more important in the upcoming period. RS is in the situation where the purchase takes place once a year. 40,000 to 60,000 for beauty salon is the small number and less than 10,000(6% beauty salon) is the the minority of the annual purchase position. Moreover beauty products are not only the local craze but worldwide trend as well. The range of substances makes them unique but can also lead to different types of adverse reactions on humans when they applied on the skin. As a result, cosmetics are not associated with any negative bodily effects. I am sure that most people would love cosmetics because they combined the efficiency and only solution for skincare products for those who have sensitive.

The demand for cosmetics in personal care system has at least increased one fold and the popularity of cosmetics will be the future demand in near future. Hence, I conclude by saying that cosmetic is a vital part of the day to day life and both genders use it therefore, there is a need for making the cosmetic work and scope of it also has an important place. minority of the annual purchase position. Moreover beauty products are not only the local craze but worldwide trend as well. The range of substances makes them unique but can also lead to different types of adverse reactions on humans when they applied on the skin. As a result, cosmetics are not associated with any negative bodily effects. I am sure that most people would love cosmetics because they combined the efficiency and only solution for skincare products for those who have sensitive. The demand for cosmetics in personal care system has at least increased one fold and the popularity of cosmetics will be the future demand in near future. Hence, I conclude by saying that cosmetic is a vital part of the day to day life and both genders use it therefore, there is a need for making the cosmetic work and scope of it also has an important place.

REFERENCES:

1. Watts I. The pigments from Pinnacle Point Cave 13B, Western Cape, South Africa. *Journal of Human Evolution*, 2010; 59(3):392–411
2. Adkins. L, Roy A. Adkins AR, *Handbook to life in Ancient Greece*, Oxford: Oxford University Press; 1998
3. Burlando. B, Verotta. L, Cornara. L, and Bottini-Massa. E. *Herbal Principles in Cosmetics*, Boca Raton: CRC Press; 2010
4. Olson. K, *Cosmetics in Roman Antiquity: Substance, Remedy, Poison*. *The Classical World*. 2009; 102(3): 294- 298
5. Johnson. R, "What's That Stuff? Lipstick". *Chemical and Engineering News*. 1999; 77 (28): 31. doi:10.1021/cen-v077n028.p031.
6. Manniche. L, Forman. W, *Sacred luxuries: Fragrance, aromatherapy, and cosmetics in ancient Egypt*, Ithaca NY: Cornell Univ. Press, 1999
7. Lucas. A, *Cosmetics, Perfumes and Incense in Ancient Egypt*, *The Journal of Egyptian Archaeology*, 1930; 16(1): 41-53
8. Marcia Foster Mesko, Diogo La Rosa Novo, VanizeCaldeira da Costa, Alessandra Schneider Henn, Erico Marlon Moraes Flores, *Toxic and Potentially Toxic Elements Determination in Cosmetics Used for Make-up: A Critical Review*, *AnalyticaChimicaActa*. 2019; 1098: 1-26 DOI: 10.1016/j.aca.2019.11.046
9. Burlando B, Verotta L, Cornora L, Bottini-Massa E. *Herbal Principles in Cosmetics*. Florida: CRC Press, Taylor & Francis; 2010.
10. Reshetnikov SV, Wasser SP, Duckman I, Tsukor K, *Medicinal value of the genus Tremella Pers. (Heterobasidiomycetes) (Review)*, *Int. J. Med. Mush*; 2(3): 345-367.
11. Naiditch, P. G. (1993). "On Pronouncing the Names of Certain British Classical Scholars". *The Classical Journal*. 89 (1): 55–59
12. Indianmirror. Indian Cosmetic Industry [Internet]. 2021 Available from: <https://www.indianmirror.com/indian-industries/cosmetics.html>

13. Mohiuddin AK. Cosmetics in Use: a pharmacological review. *Journal of Dermatology & Cosmetology*. 2019; 3(2): 50-67
14. Beyond beauty ASEAN Bangkok. The importance of Cosmetics today [Internet]. Bangkok: LinkedIn; 2016 [Updated 2021; Cited 22 Apr 2021] Available from: <https://www.linkedin.com/pulse/importance-cosmetics-today-beyond-beauty-asean-bangkok>
15. University of Rochester. How safe are Cosmetics and Personal Care Products? [Internet]. New York: University of Rochester Medical Center; 2021 [Cited 22 Apr 2021] Available from: <https://www.urmc.rochester.edu/encyclopedia/content.a.spx?contenttypeid=1&contentid=4498>
16. Bhuvanewari VS, Chandan RS. Review on Safety Assessment of a Cosmetic Product. *Int J Curr Pharm*. 2018; 10(3): 1-6
17. Vermeer BJ, Gilchrest BA. Cosmeceuticals. A proposal for rational definition, evaluation, and regulation. *Arch Dermatol*. 1996;132(3):337-340. DOI: 10.1001/archderm.132.3.337. PMID: 8607641.
18. Stern RS. Drug promotion for an unlabeled indication--the case of topical tretinoin. *N Engl J Med*. 1994;331(20):1348- 1349. DOI: 10.1056/NEJM199411173312006. PMID: 7935705.
19. De Salva SJ. Safety evaluation of over-the-counter products. *Regul Toxicol Pharmacol*. 1985;5(1):101-108. DOI: 10.1016/0273-2300(85)90023-6. PMID: 3991929.
20. Dini I, Laneri S. Nutricosmetics: A brief overview. *Phytother Res.*, 2019;33(12):3054-3063. DOI: 10.1002/ptr.6494. PMID: 31478301.
21. DallmeierL. What is a cosmeceutical? [Internet]. [Place unknown]: Formula Botanica; 2012 [Update 2021]. Available from <https://www.formulabotanica.com>
22. Epstein H. Cosmeceutical Vehicles. *ClinDermatol.*, 2009; 27(5):453-460. DOI: 10.1016/j.clindermatol.2009.05.007 PMID: 19695476
23. USFDA. "Hypoallergenic" Cosmetics [Internet]. White Oak: USFDA; 1978 [Updated 2020; cited 22 Apr 2021]. Available from: <https://www.fda.gov/cosmetics/cosmetics-labelling-claims/hypoallergenic-cosmetics>
24. Joshi LS, Pawar HA, Herbal Cosmetics and Cosmeceuticals: An Overview, *Nat Prod Chem Res*, 2015; 3(2): 170
25. Bijauliya RK, Alok S, Kumar M, Chanchal DK, Yadav S, A comprehensive review on herbal cosmetics, *International Journal of Pharmaceutical Sciences and Research*, 2017; 8 (12): 4930-4949
26. Kapoor VP, Herbal Cosmetics for Skin and Hair care, *Natural Product Radiance*, 2005; 4(4): 306-314.