

COVER STORY

Life Time Association With Cosmetic Industry – A Personal Perspective

S M Shanbhag

I am a person who spent lifetime in a Tata organization and obviously groomed in Tata culture.

My first job after I passed out from University Department of Chemical Technology, now ICT was as an officer of LAKME Ltd. Here in those formative years I came in close contact with the Chairman Mrs. Simone Tata and others and their style of functioning.

This was stepping stone of my career, through which I have seen all the ups and downs of this company. I was there when LAKME celebrated a



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turnover of one crore rupees in year 1971. I was there as General Manager Technical when the company turnover was a dismal Rs.100 crore when it was sold to Unilever in 1998.

Lakme's ups and downs were due to factors extrinsic to company's management. Economic

factors, like weak foreign exchange reserves, tight fist government policies, imposing punitive high customs duty on imports, absurdly high excise duties were responsible. Tata's sustained these condition for long. It didn't affect working condition inside the company.

It was the ideal condition to learn many things. First thing was self reliance and encouraging use of indigenous raw materials. For doing this you need confidence and full knowledge.

The Lakme brand was mass product and we had to develop products at an affordable price for consumers. For this we had to do in house research to develop local raw material and technical support to local entrepreneurs. This gave rich dividends to us as well as companies who cooperated with us. Later these companies became giants. In a nutshell, the atmosphere in this Tata enterprise was perfect to nurture the talent.

Those were days without computers and "Google search". Everything had to be manual and to rely on painstakingly compiled catalogues and books and journals. Not many instruments were available and we have to rely on experiments on the bench.

Beyond all this culture and working atmosphere, nobody can run a business on high ideals alone. Inefficiency is cumulative over years. Whatever is pushed under carpet, becomes huge and

unmanageable and kills organizations as you don't generate enough money. That is what happened when Lakme was sold to Unilever.

By then we were in a liberalized economy. There was a quantum jump in technology in cosmetic raw materials and packaging components. Government duties on cosmetics was also reduced.

I was absorbed into the Unilever research division. Here is when the second journey of my career started. All wasteful practices were abandoned. Products were made with all contract manufacturers. Training intricacies manufacturing to third party was a daunting task.

Intense marketing inputs and efficiency drive over a period of time pushed the profitability and market standing of Lakme brand. It was no longer the common man's brand and it was pushed to premium segment. Turnover jumped to 1200 cr when I retired from the company 12 years back.

Emphasis of formulation research declined, as it was an open economy. Best products and

packaging could be sourced from anywhere in the world. Slowly price constraints vanished. Marketing and advertising hype increased substantially. Finished manufacturing cost turned out to be small fraction of final product cost in market. This price boost happened to be a boon to government as excise duty itself was much higher than the manufacturing cost.

Marketing and advertising costs mounted and every marketer started nit picking for catch words and small benefits as a hook to sway the consumer mind with powerful media tools.

After working lifelong in this industry I realized that we are in business of "making mountains out of mole hills"

In this journey I had association with so many who were working for me and I made friendship with others and shared whatever I knew. Even after retirement I worked in a college as part time lecturer for a cosmetic course for ten years.

So I am contented with a thought whatever that I intended to do has been achieved.



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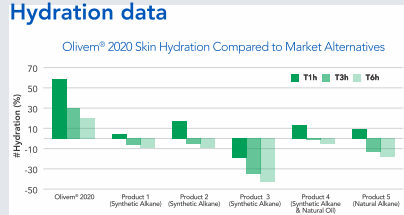
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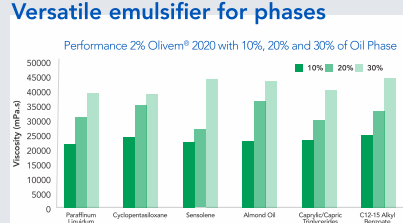
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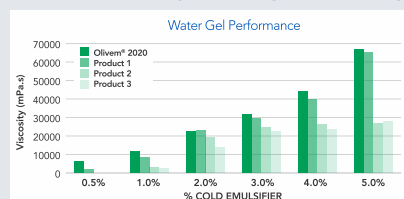
Hydration data



Versatile emulsifier for phases

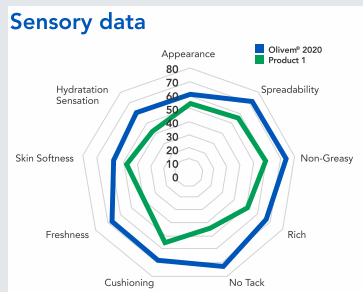


Efficient viscosity building for water gels



Olivem® 2020 can build water gels very efficiently compared to market alternatives, while providing skin with enhanced benefits and naturality

Sensory data



Technical data

- INCI: Ethylhexyl Olivate (and) Sodium Acrylates Copolymer (and) Polyglyceryl-4 Olivate
- Aspect: Viscous yellow liquid
- pH 2% in water @ 25°C±2°C: 5.5-7.5
- Viscosity 2% in water (Brookfield DV-E, s6, 25°C±2°C, 20 rpm): 10000-30000 mPa.s



ISCC CONFERENCE THEME

Diversity- Key to Cosmetic Industry

Dr. Renuka Thergaonkar

Cosmetic Industry today can be related to a vast ocean with several Diverse Streams and technologies flowing together to create the modern elixir of life called "Cosmetics". Industry is at a threshold of crossing the limits of imagination. The barriers have changed with different perceptions, vivid imaginations and multiple faceted experiences.

The once rosy world of cosmetic industry has suddenly opened its eyes to mushrooming independently owned companies bringing in with them diversity in retail experiences, products, ingredients, processing and testing methods. The new age industry is seeing diversity due to Increased consumer awareness, increased competition and demand for sustainable products. Today we can see several diverse fields merging in cosmetic industry to create a industry filled with expectations and innovations.

These can be seen from various perspectives namely:

Current Trends in Cosmetic Industry:

The industry is at a threshold of observing several new products in the market. The products at the forefront being Advanced Face Masks, Dry face brushing products to remove dead cells, cellulite, fine lines etc, Probiotic skincare, Ingestible beauty products are the fast selling innovations.

Recent years have also seen the launch of a new class of skincare products, whose appeal is customization based on genetic analysis. These products are customized products designed on the basis of gene sequencing. Natural Oral Care category is also gaining popularity with products like Tooth Polish, Tooth powder, Natural tooth brush etc.

E Market - New Retail Space:

The new age cosmetic products are being sold through a new age Retail space, which has seen the maximum change with E stores leading

them. Maximum purchase is happening through these stores where consumers are checking on the details and transparency of product details. Experience centers for cosmetics have already started coming in existence. Marketing of cosmetics is also not far behind where today companies are marketing through online space, DIY videos: Make your own cosmetics and how to apply them, Websites emphasizing on consumer knowledge about the products. All these activities are being done with the Major emphasis on Consumer education. These stores though facing different challenges are still making it happen for these products.

Advances in Safety Assessment of Cosmetics:

The finished products being sold in the E markets are more open to the transparency in innovation with sites emphasizing on the product details including the safety and toxicity data. The impact of cosmetics is now being studied in depth using the validated alternative methods.

ADVANCED STEM CELL THERAPY

SKIN CELL REGENERATION

RESTORE SKIN FULLNESS & ELASTICITY

PIGMENTATION REDUCTION

DECREASE OF FINE LINES

HSA APPROVED, JAPANESE FDA APPROVED.

CLINICAL OBSERVATIONS

RESTORATION OF SKIN FULLNESS AND ELASTICITY



Using CAZICAP Professional, 50% Serum 20 sessions

PIGMENTATION REDUCTION



Using CAZICAP Professional, 50% Serum 20 sessions

DECREASE OF FINE LINES



Using CAZICAP Professional, 50% Serum 20 sessions



FARMACY



HONEY POTION

renewing antioxidant
hydration mask

with echinacea greenenvy™ honey

activated by echinoric acid



Last few years with the Ban on animal testing companies were emphasizing only on the acute toxicity testing, eye irritation tests, skin sensitization and other few tests which were validated and the other aspects like mutagenicity, carcinogenicity were left aside. Today Diverse alternative Genetic toxicity testing methods for toxicity testing like

3D Skin Micronucleus assay, 3D Skin Comet Assay or Comutiflow Assay have been validated to test the long-term impact of cosmetics on the human safety. At the same time Biotechnological analytical methods like Saliva evaluation by GC/MS Olfactometry, Myoblast relaxation studies, endorphin precursor release studies etc are being used for creating better efficacious products.

Challenges in Cosmetic Startup:

We are looking at an industry pie chart today with more than 48% of total cosmetic sale market share being taken by independently owned companies. Independently owned business is at the forefront of a movement that is helping people make better decisions about their beauty purchases.

The majority of Indie brands tend to practice sustainability, use organic or natural ingredients, and support communities or causes dear

to them. They are also preparing curated small batch limited edition products. A more sophisticated focus on positioning, packaging and marketing, puts it in the running for one of the best success stories to come out of the beauty industry for years. But the path to growth has not been easy for these brands with several challenges being faced by them right from regulatory to customer education and distribution network.

Texture Creation in Cosmetics:

The cosmetic market is buzzed with products having different sensorial appeal. Today the product is being sold on the basis of these sensorial aspects which have paved a way for the innovative textured products driving the consumers through a journey of vivid experiences and satisfying expectations. The textures being used are generally food textures like yoghurts, balms, sorbets, slush etc.

The products are working on creating Water from Gels, Balms to oil, Powders to cream, Balls that melts to liquid. These textures e.g. jelly, lumpy etc. are being created by mixing ingredients like Gums, Starches and Humectants. One pot processes are being used for development. The evaluation of these products is also a tricky science which has paved a niche in the new cosmetic era.

Natural Formulations:

The natural and-organic sector is growing globally at a very high rate. Organic and natural



personal care products dominated the global demand, and the segment generated revenue is currently exceeding USD 7 billion.

The organic beauty sector has traditionally thrived on the safe ingredients ticket; certified products must meet strict standards for formulation and manufacture in order to use the much-revered mark of a certified product. There is a huge appetite to know more about how natural and organic formulations are actually designed.

Similarly, there are regulations which need to be understood and complied with, before designing these products. Products are being more transparent with customers with respect to claims; toxicity, efficacy, ingredients. Similarly simplicity in products is being seen with 'Clean and green' products.

Raw material Melange:

The new age cosmetic product is looking at a formulation with raw material Melange. Today the cosmetics are more the combination of actives and vehicle. Earlier vehicles were bases but now vehicles are also adding to the overall impact of the product.

Hence more combinations are being emphasized on Innovative ingredients being mixed in the products. Raw material Milange

is more seen with Innovative ingredients from Africa, Amazonian Jungles etc. Or other diverse origin are being mixed in with ingredients like Food- Probiotics, aroma ingredients, bio-based ingredients, green preservatives etc.

Stem Cell Cosmetics:

Recent technology development has led to the growth of innovative cosmetic products. The use of stem cells for cosmetic is growing rapidly. Most of this growth is due to the tremendous potential of stem cells to promote healing and enhance results.

Some of the cosmetic dermatologic uses like adding stem cells to fat transfer or applying stem cells after CO2 lasers are talked about largely in industry. FDA has taken these applications seriously and lot of negative aspects have been discussed in the past. Today with advanced technology stem cells use in cosmetics have seen a change and the government has led to revisit the rule books to create a place for these products.

Self-renewal and differentiation of Stem Cell is modulated in an area of tissue known as a stem cell Niche. Tissue Engineering is used to regenerate damage caused by combining cells from the body which are high porous scaffolds called as Biomaterials going to act as templates for tissue regeneration and growth of new tissue.

Biomaterials play an important role in technology.

The promising field of Regenerative medication is functioning to revive structure and performance of broken tissues and organs. Today the market is creating a place for cosmetics using these cells to adhere the promise of youth to the consumers.

Changes in formulation & Application aspects of Colour Cosmetics:

Throughout history, women have used colour cosmetics to enhance their natural beauty. Now more than ever, the ability to formulate a variety of colour cosmetics to suit the fast-changing trends of the fashion industry is an art form within science, and a particularly interesting challenge for the formulating chemist. Struggling to make color consistent across multiple packaging systems, production processes, technologies, skill sets and geography is a concern still with the formulators.

Today the industry is looking at Formulations and applications aimed at providing demands of the applicators.

Hence today we can see diverse fields immersing in the giant sea of cosmetics and increasing its boundaries and crossing the limits to create technically transparent cosmetic products.



RESEARCH TRENDS

COSMETICS TO COMBAT EFFECTS OF POLLUTION: ANTI-POLLUTION COSMETICS.

Vinay Kumar Singh

Fairness product was a craze and even fair person wanted to be fairer and it was a virtual competition as to who is fairest of all. But now the atmosphere is forcing one to think and look for product to get rid of the effects of pollution.

Fairness is passe. The 'anti-pollution' wave is driving the Rs 5,500 crore skincare market in India now. After lightening your skin, FMCG brands have taken it upon themselves to cleanse your skin of dust particles and protect you from pollution. There is a new trend in Cosmetics due to the demand from consumer to get protection from Pollution around. Cosmetics formula has been designed to combat the effect of Pollution. These Cosmetics have been suitably named as **Anti-pollution Cosmetics**. Actually, Asia Pacific regions have high levels of air contaminants, making consumers seek product to protect them from it. This region is home to several of the most polluted cities in the world like New Delhi, Mumbai and Bangalore in India, Karachi in Pakistan, Shanghai & Beijing in China. This trend is becoming global with consumers from West looking for cosmetics with benefits that not only fights the sign of ageing but also protect against environmental threats.

As the number of consumers living urban lifestyles continues to grow around the globe, it seems that many are turning towards beauty products to protect themselves from the impact of pollution. Indeed, this is particularly the case in the APAC region, as new research from Mintel reveals that between 2011 and 2013 there was a 40% rise in the number of beauty and personal care products launched carrying an anti-pollution claim. This has raised APAC's share of global beauty and personal care launches holding anti-pollution claims from 22% in 2011 to 27% in 2013.

Furthermore, Mintel's research shows that many consumers are looking to wash away the effects of their surroundings in particular, as the number of soap and bath products launched in the APAC region carrying an anti-pollution claim grew 63% between 2011 and 2013. In addition, hair product launches carrying anti-



pollution claims have grown 61% while skincare launched with anti-pollution claims grew 46% over the same time period.

Pollution, we hear it every other day at school, college and read about it in newspapers. So what is it? Pollution occurs when pollutants contaminate the natural surroundings; which brings about changes that affect our normal lifestyles adversely. Pollutants are the key elements or components of pollution which are generally waste materials of different forms. Pollution disturbs our ecosystem and the balance in the environment. With modernization and development in our lives pollution has reached its peak; giving rise to global warming and human illness.

Pollution occurs in different forms; air, water, soil, radioactive, noise, heat/ thermal and light. Every form of pollution has two sources of occurrence; the point and the non-point sources. The point sources are easy to identify, monitor and control, whereas the non-point sources are hard to control.

Effect of Pollution on Skin

We all know that one of the enemies of modern civilization is "Pollution". In fact it's a silent killer who is responsible for causing various diseases and many of them are also fatal.

Skin is the most sensitive part of human body. Due to air pollution in the city, ozone quickly

strips vitamin E from that topmost layer of the skin leading to various skin problems.

Pollution leads to different types of skin disorders. Air pollution can be a main cause of premature aging of skin. Dust mist may generate eczema if it comes in contact with skin. Chemicals used in various products (paints, cleaning stuffs, lacquers, adhesives, building materials etc.) can seriously pollute the air. Those agents enter into our body through breathing and affect our lungs, eyes, nose, and can create skin allergies. Ozone is the basic element in smog which leads to skin cancer.

Heavy metals are also injurious to health which are generally present in groundwater of many areas. Generally in urban areas drinking water may get contaminated while leaky water pipe joints in areas where the water pipe and sewage line pass close together. Halogen acne, chemical depigmentation, connective tissue diseases and skin cancer are some common skin diseases that can be caused due to pollution.

Another pollutant is particulate matter with sizes of about 2.5 microns (PM2.5) and 10 microns (PM10)—seems to be one of the main threats to skin health. These fine particles are coated with polyaromatic hydrocarbons (PAHs), heavy metals and other contaminants, which, in contact with the skin and hair, are capable of penetrating deeper layers, inducing collagen and elastin breakdown and the release of free radicals.

Pollutants can cause cellular damage, dryness, inflammation and pigmentation, which are strong signs of premature skin aging. In fact, research conducted by L'Oréal pointed out the link between atmospheric pollution and premature skin aging, especially in people with sensitive skin. According to the study, people living in very populous cities have lower levels of vitamin E and squalene in sebum compared to those living in rural areas.

The increase of air pollution over the years has major effects on the human skin. The skin is exposed to ultraviolet radiation (UVR) and environmental air pollutants such as polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), oxides, particulate matter (PM), ozone (O₃), and cigarette smoke. Although human skin acts as a biological shield against pro-oxidative chemical and physical air pollutants, the prolonged or repetitive exposure to high levels of these pollutants may have profound negative effects on the skin. Exposure of the skin to air pollutants has been associated

with skin aging and inflammatory or allergic skin conditions such as atopic dermatitis, eczema, psoriasis or acne, while skin cancer is among the most serious effects.

When that pollution comes into contact with your skin, it doesn't just sit on the surface, grimeing it up like it would a windshield. These particles' tiny size—sometimes as many as 20 times smaller than pores—allows them to infiltrate deeper layers of the epidermis, causing not only inflammation and dehydration but also a cellular-level reaction that leads to lost elasticity and firmness. "Pollution breaks down collagen and the lipid layer in the skin, which impairs skin barrier functions," says Zoe Draelos, M.D., consulting professor of dermatology at Duke University in Durham, North Carolina.

Air pollution particles can speed up the normal aging process. While losing some moisture and elasticity is a natural part of getting older, pollution can starve the skin of oxygen and dry the skin's natural oils. Some forms of pollution can even create free radicals, which can alter the very DNA of the skin cells, leading to cancer.

The highest levels of air pollution inevitably lead to the launch of antipollution cosmetics specially designed for the Asian market. Antipollution claims were initially carried by facial skin products and later by other products like skin cleansers, sun protection, hair care products and colour cosmetics. Cleansing lines are now launching entire product lines completely dedicated to combatting air pollution, driven by increasing consumer demand.

Antipollution ingredients:

Leading global cosmetics companies are turning to a full spectrum of antipollution ingredients, ranging from plant extracts, vitamins or antioxidant complexes, through ingredients that simply create a physical barrier between the skin and the pollutants, to promising ingredients with metal chelating or magnetic properties that are claimed to prevent the pollutant from interacting with the skin.

Plant extracts, vitamins and antioxidant complexes are among the most popular antipollution ingredients on the market, favoured by the growing demand for natural ingredients in cosmetics. Olay has reformulated its Total Effect with a greater proportion of vitamin E and Niacinamide and is expanding its Active Botanicals line containing two natural antipollution ingredients, artichoke extract and

snow fungus, originally only used in its Chinese products, into Western markets. Clarins uses actives derived from a range of anti-pollution plants like Moringa, White tea, Green tea, acai berry, dock-ress etc.

Other brands are betting on less traditional ingredients to provide pollution protection. Tula combines antioxidant and probiotic ingredients in its Urban Defence Hydrating Mist, while Lancôme City Miracle and Avon Clinical E-Defence Deep Recovery contain two specific antipollution ingredients – Detoxyl, a detoxifying and metal chelator agent that prevents metallic pollutants from sticking to the skin; and Thymosin β -4, a protein that helps to attract healthy cells to areas that have been damaged by pollution. Ingredient manufacturers are increasingly looking for novel ingredients to meet the growing consumer demand for antipollution products. In 2016, Silab launched Mitokynil, rich in glucomannans, Sederma started to commercialise Citystem, with natural active ingredients, and Algues et Mer launched Invincity, containing brown algae and fucoidans. Other ingredients suppliers are focused on antipollution solutions based on ingredients that create a physical barrier between the skin and the pollutants. TRY-K recently launched PhytoVTM and Solabia is now providing Pollustop. However, the latest innovation is the use of ingredients





with advanced antipollution properties, such as Pollushield, supplied by Lipotec, which combines a polymer with metal chelating properties to prevent the interaction of toxic metals with the skin, EPS WHITE, developed by CoDIF, which is a probiotic-derived ingredient that reduces pollution-induced inflammation, and Aquatide-TripleShield, provided by Incospharm, with strong autophagy inducing activity to help detoxify skin cells.

Although some of these ingredients seem to be very promising, further clinical research is necessary to better understand their effects against pollution. So far, there is no perfect solution or miraculous single ingredient able to provide full protection against pollution. A combination of a variety of botanical extracts, vitamins and ingredients that creates a physical barrier is likely to be the preferred option by consumers. Clarins lab. has developed an exclusive anti-pollution protective complex inspired by plant's ability to adapt to their habitat's climate and living conditions.

Ingredients like yogurt probiotics, algae, turmeric, ginger, zinc and orange extract are used to ward off the irritating and aging effects of the smog.

Although there is an increasing number of anti-pollution ingredients reaching the market,

the key for success is to adopt a differentiation strategy from other cosmetics that also contain antioxidants in their formulations. Chinese brands such as Hua Niang or Fumakilla market their products with more specific antipollution claims, such as anti-PM 2.5, to attract consumer attention. Pond's too has same claim in its Pure white cleansing line.

Products in market to address Pollution:

Big players in the beauty industry are recognising this problem of pollution and are developing specific anti pollution products as a result. Clinique was the first to use anti-pollution terminology in their marketing when they launched the Even Better City Block Anti-Pollution SPF40. The brand identifies that sun, pollution and your environment can all irritate the skin and cause dark spots. This cream boasts a protect alliance of high SPF protection and antioxidants which actively brightens, too. Subsequently Elizabeth arden, Dec'eor, Dior and others launched products in this category. Clarins has launched a range of anti-pollution products. Now a days there are many products of various players in the market..

Emami has come out with a product that focuses on 'anti-pollution', Dabur's skin bleach promises to mend pale-looking skin exposed to stress, harsh sunlight and high levels of pollution. Boroplus came out with anti pollution

face Wash and Fair & Lovely has launched pollution clean up Face Wash.

Experts say there has been an increase in focus on anti-pollution over the last few years given the rising awareness about the dangers of pollution on health.

China offers the greatest opportunities for antipollution products in Asia Pacific, followed by India and Pakistan.

This category is seeing growth at both ends of the age brackets. Younger consumers entering the category due to awareness from various sources like digital media and social networking groups, and higher penetration in the older age groups is due to the desire to delay onset of ageing and to look younger.

It is critical to select products that are designed to both prevent and correct damage from environmental exposure -- this includes both ultraviolet radiation and pollution. There is no doubt that the Anti Pollution Cosmetics trend is here to stay because solving the pollution problem is not that simple. According to Cosmetics Design, Anti Pollution Cosmetics is one of the top 10 most sought after products of this year.

Demand for multifunctional products with anti pollution actives will be in rise in future to combat effects of pollution.

INCORPORATION OF POMEGRANATE PEEL COLOR IN COLOURED COSMETICS

Department of Cosmetic Technology

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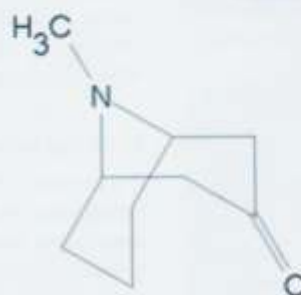
Shivani S. Pande, Pooja Kulkarni, Mamta Chopde

INTRODUCTION:

Now a day's, herbal cosmetics are the emerging trend in the field of beauty. The usage of herbal cosmetics has been increased many folds in personal care system and there is a great demand for herbal cosmetics. Color is defined as the visual sensation caused by light composed of a definite wavelengths, emitted, reflected, refracted or transmitted by an object. Color is composed of three elements: Hue, Value and chroma called the attributes of color.

Color material mixed with cosmetics must have covering power. Makeup cosmetics beautify the appearance by changing the color of the skin. Natural pigments are the highly colored substances found in the plant or in animal. Cosmetics are generally used in our daily life. The use of natural color in cosmetics foundation enhances beauty. New shades imparted to cosmetics increases the aesthetic appeal. Pomegranate peel has a good coloring power. The main coloring agent is Granatonine. Pomegranate consists of alkaloid, pseudopelletierine, pelletierine, isopelletierine, methylpelletierine, antocyanosides, and tannins. The ellagi-tannins present in the pomegranate peel. The peel gave different shades of yellow, brown, and black color and is soluble in water.

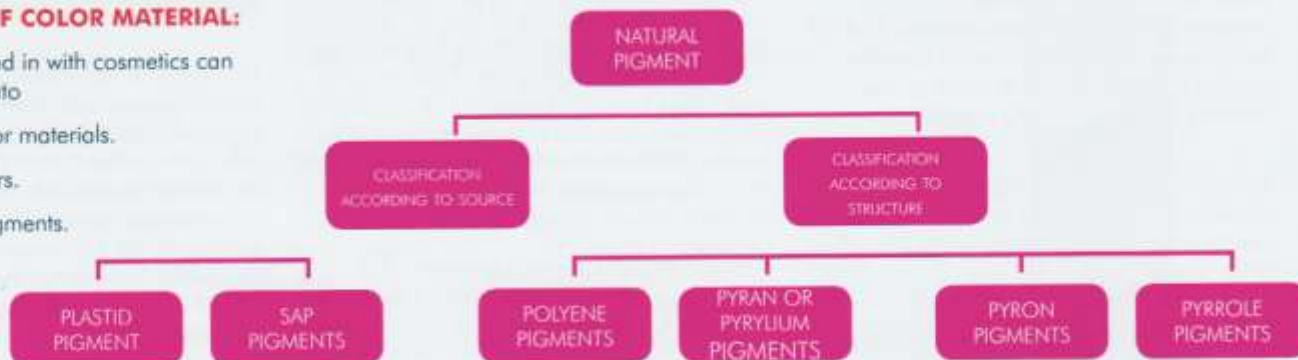
Pomegranate Granatonine



CLASSIFICATION OF COLOR MATERIAL:

Coloring material mixed in with cosmetics can be broadly classified into

1. Organic color materials.
2. Natural colors.
3. Inorganic pigments.



MATERIAL AND METHOD:

This work involves the literature survey on the procurement of the ingredients, evaluation of the color, formulation and development of the foundation cream with pomegranate peel color. Extraction and isolation was carried out by soxhlet extraction method. The extract was further evaluated for solubility and absorbance.

DETERMINATION OF λ_{MAX} :

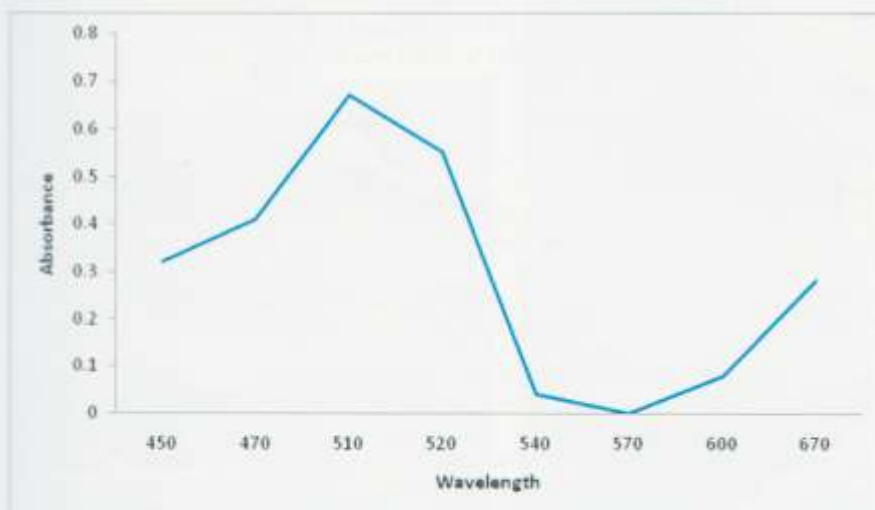
Colorimeter was used for the determination of λ_{max} for measuring absorbance in the visible region between 375-750nm.

Colored liquid extract was taken into sample cell and absorbance of extract in different wavelengths was taken that is shown in table.

λ_{Max}	Absorbance
540	0.32
470	0.41
510	0.67
520	0.55
540	0.04
570	0.00
600	0.08
670	0.28

Graph:

The graph is taken between the maximum intensity which measure along their Y-axis in terms of Absorbance and a wavelength of maximum intensity measured along X-axis and peak is obtained as follows.

**Result:**

The absorbance at particular maximum absorbance wavelength of color extract was found to be λ_{max} , 510nm using colorimeter.

FORMULATION AND DEVELOPMENT:**Selection of Base:****Formulation of base**

Ingredients	Concentration			Uses
	F1	F2	F3	
Oil phase				
Stearic acid	2.2gm	2.1gm	2gm	Shiny appearance and stabilizer.
Cetyl Alcohol	7gm	6gm	5gm	Emollient
Glyceryl Monostearate	2gm	2gm	2gm	Self Emulsifier
Lanolin	2gm	3gm	1gm	Emollient
Liquid paraffin	7ml	8ml	8 ml	Emollient
Propyl paraben	0.15gm	0.15gm	0.15gm	Preservative
Water phase				
Triethanolamine	2ml	1ml	1 ml	Viscosity modifier
Tween 60	0.9ml	0.9ml	0.9ml	Emulsifier
Propylene glycol	9ml	8ml	10ml	Humectant
Methyl paraben	0.15gm	0.15gm	0.15gm	Preservative
Water	Upto 100	Upto 100 ml	Upto 100	Solvent
Powders				
Titanium Dioxide	5gm	5gm	5gm	Covering power
Talc	3gm	2gm	3gm	Absorbent
Kaolin	0.5gm	0.5gm	0.5gm	Absorbent

OBSERVATION AND DEVELOPMENT:

F1: F1 is the base formulation taken, concentration of water was found to be less.

Observation: The cream was found to be hard.

F2: The consistency of lanolin was increased.

Observation: The cream was sticky and consistency was not good.

F3: The percent of water was increased and lanolin was decreased.

Observation: The cream has good consistency and good texture so F3 was selected as a base formulation.

Solubility

Solubility testing for pigment performed in laboratory. Granatnine pigment was found to be soluble in water, ethanol.

INCORPORATION OF POMEGRANATE PEEL COLOR IN FORMULATION BASE (F 3):

After selection of base (F3) for foundation cream, color was added to the base with varying concentration with 0.5%, 0.6%, 0.7%, 0.8%, 0.9%.

OBSERVATION:

After the incorporation of color into the selected cream in various concentration, the color, odor, pH and effect of the final product has been observed which are given in following observation.

Observation Table

Sample	Concentration	State of product	Color of product	Odor	pH	EFFECT
A	0.5%	Cream	Light cream color	Pleasant	8.72	After application enhance the skin color.
B	0.6%	Cream	Cream color	Pleasant	8.50	
C	0.7%	Cream	Nude color	Pleasant	8.85	
D	0.8%	Cream	Ivory color	Pleasant	8.64	
E	0.9%	Cream	Chrome color	Pleasant	8.86	

RESULT:

0.8% was giving much darker color shade and 0.9% gave very much dark chrome color shade which was not appropriate to the different skin color types. So the product with 0.6%, 0.7%, 0.8% were selected for subjective analysis for its better acceptance.

RESULT AND DISCUSSION:

Pomegranate peels were extracted through the Soxhletion Extraction Method by maintaining temperature at 600 C and color pigment was obtained. After that the absorbance of the color in the different wavelength were recorded using Colorimeter Instruments and results were noted.

The graph was plotted between the maximum intensity which measure Y-axis in terms of Absorbance and which measures along X-axis in terms of wavelength and the peak was obtained. The maximum wavelength of color was found to be 510nm. After that solubility study of the color pigment were done in various solvents, humectants, and oils. They were soluble in water, ethanol and humectants and insoluble in oils. After the selection of base of Foundation cream, the color pigment was incorporated in the foundation cream base. The different concentration of color 0.5%, 0.6%, 0.7%, 0.8%, and 0.9% were added to the product.

The different shades of foundation cream were prepared. The cream

containing 0.5% were giving very light color, 0.6% were giving cream color, 0.7% were giving slight dark color effect as compared to 0.6% concentration of product, 0.8% were giving much darker color shade and 0.9% were very dark yellow color shade which was not appropriate according to the different skin color types. The product with concentration 0.6%, 0.7%, 0.8% was given for subjective analysis for its better acceptance.

The tests were carried on Fair, Whitish and Dark skin. It was found that the product with 0.6% were giving cream color shade which was acceptable to fair color skin, shade with 0.7% were giving Nude shade of foundation cream to the whitish skin type, 0.8% were also giving Ivory shade to dark color skin type of clients. The products with cream, nude and ivory shades were giving appropriate effect to the clients. So, the product with 0.6%, 0.7%, and 0.8% color was selected as final product with the three different shades of foundation cream.

After the formulation of the product, evaluation of color was carried out. Various parameters like change in pH, color and odor are the sign of stability which were checked. From the study of accelerated stability studies it was concluded that there are no significant changes in the Hence it can be concluded that the foundation cream with different shade using pomegranate peel color gives good coloring property to the skin and can be used as natural coloring agent.

REPORT OF ISCC

ISCC Activities 2017:

Dr Renuka Thergaonkar

1. Activity for student members:

Students Industrial Visit: In september 2017 visit was organised for the student members of ISCC. Mr Ravi Kamat Managing Director Aero Pharma and Past President ISCC arranged the visit to Aeropharma Factory at Silvasa. 45 student members participated in the visit. The visit was designed to give a learning experience about various aspects of manufacturing processes, methods, machinery layouts, operating systems etc. which are used in the personal care and colour cosmetic industry.



2. Activity for ISCC Members:

- ISCC in collaboration with HPCI arranged for a show at Chennai in November where 55 participants from the industry participated. Session on "Diversity –Key to Cosmetic Industry" and "Current trends in Cosmetics" was conducted by Dr Renuka Thergaonkar and Dr Sunil Bambhalkar. The talk was presided by the discussion on starting of Chennai Chapter of ISCC.
- ISCC in collaboration with HPCI arranged a talk at Delhi in November on "Diversity –Key to Cosmetic Industry" and "Current trends in Cosmetics" was conducted by Dr Renuka Thergaonkar and Dr Sunil Bambhalkar. 40 participants from the industry attended the program.
- ISCC also collaborated with Indian Home and Personal Care Industry Association in arranging the 5th International conference on Soaps, Detergents & Cosmetics at Goa on 10th -12th December 2017. Approximately 250 delegates from the industry participated in the conference.



Month	Program
January 2018	HPCI Conference
February 2018	Hair Sensory Evaluation
March 2018	Basics in Surfactant Chemistry
June 2018	Workshop on Natural Cosmetics
July 2018	PICASSA IV



EVENT CALENDAR 2018

COSMETIC AND BEAUTY INDUSTRY EVENTS 2018

COSME TECH 2018
24 - 26 JANUARY 2018
CHIBA, JAPAN

HPCI-CCC 2018
31 JAN - 01 FEB 2018
MUMBAI, INDIA

PCD
31 JAN - 01 FEB 2018
PARIS, FRANCE

**PANACEA NATURAL
PRODUCTS EXPO**
07 - 09 FEBRUARY 2018
MUMBAI, INDIA

PACKAGING INNOVATIONS
28 FEBRUARY - 01 MARCH 2018
BIRMINGHAM, UK

COSMOPROF 2018
15 - 19 MARCH 2018
BIOLOGNA, ITALY EUROPE

BEAUTY DÜSSELDORF 2018
09 - 11 MARCH 2018
DÜSSELDORF, GERMANY EUROPE

IN-COSMETICS GLOBAL 2018
17 - 19 APRIL 2018
AMSTERDAM, HOLLAND

HBS 2018
09-10 APRIL 2018
MUMBAI, INDIA

INTERCHARM RUSSIA 2018
25 - 27 APRIL 2018
MOSCOW, RUSSIA

COSMETIC REGULATIONS 2018
25 APRIL 2018
READING, UK EUROPE | REGULATORY

BEAUTYWORLD MIDDLE EAST 2018
08 - 10 MAY 2018
DUBAI, UAE AFRICA ME

BEAUTY & SPA EXPO 2018
28 - 29 MAY 2018
NEW DELHI, INDIA

ASCS CONFERENCE AND HPCI IRAN 2018
15 - 17 MAY 2018
KERMAN, IRAN AFRICA ME

IPCE
03 - 14 JUNE 2018
ITALY

INNOCOS SUMMIT 2018
14 - 15 JUNE 2018
FLORENCE, ITALY

HBA GLOBAL EXPO & CONFERENCE 2018
12 - 14 JUNE 2018
NEW YORK, US NORTH AMERICA

WORLD PERFUMERY CONFERENCE
05 - 07 JUNE 2018
NICE, FRANCE

COSMETICBUSINESS MUNICH 2018
06 - 07 JUNE 2018
MUNICH, GERMANY EUROPE

INNOCOS SUMMIT 2018
14 - 15 JUNE 2018
FLORANCE, ITALY

COSMOPROF NORTH AMERICA 2018
29 - 31 JULY 2018
LAS VEGAS, US NORTH AMERICA

**CLEANROOM TECHNOLOGY CONFERENCE
2018**
16-17 MAY
NATIONAL CONFERENCE CENTRE, BIRMINGHAM,
UK, EUROPE

IN-COSMETICS LATIN AMERICA 2018
19 - 20 SEPTEMBER 2018
SAO PAULO, BRASIL LATIN AMERICA

BEYOND BEAUTY ASEAN 2018
20 - 22 SEPTEMBER 2018
BANGKOK, THAILAND ASIA

IFEAT 2018
09 - 13 SEPTEMBER 2018
VARTAGENA, LAS AMERICAS

**IN-COSMETICS NORTH AMERICA
2018**
17 - 18 OCTOBER 2018
NEW YORK, US NORTH AMERICA

IFSCC 2018 30TH CONFERENCE
18-21 SEPTEMBER 2018
MUNICH, GERMANY

IN-COSMETICS FORMULATION SUMMIT 2018
24 - 25 OCTOBER 2018
LONDON, ENGLAND EUROPE

IN-COSMETICS ASIA 2018
30 OCTOBER - 01 NOVEMBER 2018
BANGKOK, THAILAND ASIA

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