# **Toxic Ingredients**

### Coal Tar

Coal tar is used in the preparation of makeup products and hair dyes. Using coal tar-based products is closely related to the cause of pigmented cosmetic dermatitis. Prolonged use of some types of tar also increases the risk of folliculitis. Coal tar is made of polycyclic hydrocarbons which may also cause phototoxicity. Exposure to some of the polycyclic aromatic hydrocarbons is associated with liver, skin and lung cancers.

### Diethanolamine (DEA)

This powerful chemical is used for preparing cosmetic products like shampoos and soaps. A study on the effects of DEA suggests that prenatal exposure may have detrimental effects on brain development. According to a research study, the application of DEA is associated with increased incidence of liver neoplasms and renal tubule adenoma in mice.

### Formaldehyde

Some cosmetics like hair smoothing products also contain formaldehyde. It is produced in small amounts in the human body, which is harmless, but excessive exposure to formaldehyde may lead to allergic reactions in the eyes, nose, throat and skin, and it can lead to asthma. It may also cause menstrual disorders in woman. Research studies suggest that exposure to formaldehyde may increase the risk of various forms of cancer as well.

## **Glycol Ethers**

Glycol ethers are used as ingredients in certain preparations of cosmetics. Exposure to glycol ethers may cause low fertility in men and can also be hazardous for pregnant women. Exposure to ethylene glycol may also cause weakness, nausea, headaches, and irritated skin.

### Lead

Some cosmetics may also contain lead, which has a bevy of harmful effects. Prolonged exposure can be carcinogenic, harmful during pregnancy and may cause nausea, headaches, and irritability. It can also affect the nervous system, as well as the mental and physical growth of children.

### Mercury

Some skin lightening creams may contain mercury, which can damage the kidneys, liver and brain. Prolonged exposure to inorganic mercury can also harm the central nervous system. It may also increase the risk of neurotoxicity and nephrotic syndromes.

## Glucocorticoids

These are some of the prime ingredients used to prepare bleaching products for the skin. These bleaching products may aggravate or induce various skin diseases, and the main cause behind those skin complications is the presence of glucocorticoids.

#### **Parabens**

Various cosmetics such as creams, makeup products, moisturizers, hair care and shaving products contain parabens (Isobutylparaben, Butylparaben, Methylparaben, and Propylparaben). Numerous research studies have indicated the presence of parabens in human breast tumors and also noted the context of estrogen-like properties in parabens. However, the estrogenic activity associated with parabens is much less than the body's natural estrogen activity and there is a lack of data to support carcinogenic properties or other harmful effects of that sex hormone. The current use of parabens is safe according to the FDA, but the evaluation and identification of health hazards related to parabens is ongoing.

## Paraphenylenediamine

Paraphenylenediamine is used in various hair dyes and the ink of tattoos. These types of products can be harmful to users in various ways. Usage of products with paraphenylenediamine can lead to dermatitis, allergies, and hypersensitivity. Care must be taken when choosing hair dyes and tattoo artists to avoid these health risks.

## Cocamidopropyl Betaine

This is a synthetic detergent used in various cosmetics and personal care products such as skin care products, cleansers, and shampoos. Cocamidopropyl betaine is used in these products because it causes very mild skin irritation as compared to other chemicals. However, the rate of sensitization is still on the higher side, which is attributed to impurities that are created during the manufacturing process. These impurities include amidoamine and dimethylaminopropylamine, which can both cause high skin sensitivity. Bodycosmetics3

### Kohl Stone

Kajal is a popular eye product made from kohl stone that has been used since ancient times. Unfortunately, it contains chemicals such as galena, zincite, and magnetite. Prolong exposure to these chemicals may increase the level of lead and can affect bone marrow and brain function, as well as cause anemia and convulsions. It is not permitted for use in cosmetics by the United States FDA (Food and Drug Administration). Considering the well-researched harmful effects, use of kajal and its component products should be avoided.

## Fragrance

Artificial fragrances (hydroxyisohexyl-3-cyclohexene, carboxaldehyde, isoeugenol etc.) can cause numerous health problems after prolonged exposure. These include skin irritation, headaches, lung problems, and dizziness.

#### Mineral Oil

Mineral oils are often used in the production of cosmetics. These are obtained from petroleum products and may cause allergies and skin irritation. They may also restrict the movement of nutrients and the removal of waste matter from the cells by blocking skin pores. Studies suggest that cosmetics and products containing mineral oils may be arthritogenic in arthritis-prone rats, which means that using these types of cosmetics can possibly contribute to arthritis.

### Imidazolidinyl & Diazolidinyl Urea

These chemicals are used as preservatives to activate the formaldehyde content in creams and cosmetics. These chemicals may increase skin sensitivity and can also contribute to allergies and contact dermatitis.

### Sodium Lauryl Sulfate (SLS)

SLS acts as an emulsifier, surfactant and de-greaser, and is used in numerous personal care products such as body wash, soaps, shampoos, face cleansers, and shaving cream. Using products containing SLS can cause eye and skin irritation, as well as allergic reactions and a general drying out of the skin. Synthetic Colors

Synthetic colors are also harmful and may cause skin allergies and irritation. You should avoid prolonged usage of products that contain synthetic colors of any kind.

## Triethanolamine (TEA)

TEA is one of the chemical used to adjust the pH of various cosmetic products. This chemical may be harmful to the skin and eyes. It can cause eye problems, dryness of the skin and hair, as well as other allergic reactions.

## Polyvinylpyrrolidone (PVP) Copolymer

These are used to prepare various cosmetics such as lipsticks, but exposure to and use of products containing PVP may induce or increase allergies and dermatitis.

### Lanolin

This chemical is obtained from sheep's wool and is used in various cosmetics and personal care products such as eye care products, makeup products, lotions and creams. Lanolin can be poisonous if swallowed and can also have other harmful effects on the human body. You may experience skin rashes, redness, nausea, and vomiting. It is very important to be careful when using any product that contains lanolin.

### Benzyldimethylstearylammonium Chloride

Various cosmetic products such as lipstick, lotions, hair coloring, and conditioners contain benzyldimethylstearylammonium chloride. This chemical may irritate the skin and eyes. In fact, it can do permanent damage to your eyes and may contribute to allergic contact dermatitis.

## Propylene Glycol

Skin care creams and lotions frequently contain propylene glycol. This is obtained from petrochemicals and acts as an emulsifying agent. Using products containing propylene glycol might smooth the skin, but they also speed up the signs of aging on the skin like wrinkles and age blemishes. It can also cause contact dermatitis and irritation.

### **Phthalates**

Perfumes, nail polish, hair spray, soaps, shampoos and moisturizers are some of the products used in day to day life. These products may contain phthalates, and high exposure to phthalates can affect human reproduction and development. Also, (2-ethylhexyl) diphthalate has been shown to be carcinogenic and harmful for the human body. Further studies are currently being carried out to ascertain the health impact of using phthalates.