
PS-008. Health Affects of Biocide in Cosmetic Products

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The skin is the largest organ of the body that protects internal tissues from chemical, physical, and microbial damage. A cosmetic product is any substance intended to be placed in contact with the external part of the human body for cleaning, perfuming, changing the appearance, protecting or keeping the epidermis, hair, nails, lips or mucous membranes in good condition. Opstrup and friends says it is well known that chlorhexidine is widely used as a disinfectant in the healthcare setting. Less well known is the fact that it used in cosmetic products. They found chlorhexidine in various cosmetic product types, predominantly aimed at females, and in hair products. Chlorhexidine may cause type I and type IV allergy. The dioxane is an ether commonly found as detergent, emulsifier, or solvent in cleansing agents such as shampoo, toothpaste, and mouthwash. Lenung and friends estimated cancer risk in humans by as much as 80 times from results obtained in animal studies. Lead is a naturally occurring mineral. In large enough ingested quantities, it causes poisoning and damages nerve conduction. Hepp and friend found inorganic lead is found in progressive hair dyes and lipsticks. Phenol is a caustic that may cause cutaneous or gastrointestinal burns. Significant absorption may result in systemic toxicity. Phenol is marketed for the cleaning of bathrooms, kennels, and barns and as a shampoo for horses and dogs and is sometimes used in an "off label" manner for delousing human hair. Many cosmetics should have clear labels indicating the chemical content allowing consumers to choose what products to purchase based on the chemical content. With this in mind, it is up to the consumer to be vigilant about the products they purchase and to read instructions on proper use.

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