Propylene Glycol (PG, Polyethylene Glycol (PEG), and Ethylene Glycol (EG) are all petroleum derivatives that act as solvents, surfactants, and wetting agents. They can easily penetrate the skin, and can weaken protein and cellular structure. In fact, PG penetrates the skin so quickly that the EPA warns factory workers to avoid skin contact, to prevent brain, liver, and kidney abnormalities.

## Propylene Glycol

This is a cheap synthetic petrochemical used as a emulsifying base in creams and lotions to make the skin look smooth, but ultimately it ages the skin faster. The Material Saftey Data Sheet tells you to avoid skin contact with it because it's a skin irritant! It can denature the skin's protein, leading to poor, saggy skin. It can be absorbed through your skin and potentially cause allergic reactions, and liver and kidney damage.

## Isopropyl myristate?

Isopropyl myristate is used as a thickening agent or as a moisturizer in common beauty products. It is a synthetic oil that actually lessens the "greasy" or oily feeling found in some lotions and creams, while aiding in absorption. While it is widely used in health items, isopropyl myristate is also used as a way to treat head lice and in a mouthwash that kills bacteria.

## Parabens

Parabens have been widely accepted and used because of past reports of their effectiveness as preservatives, low cost, and rapid excretion from the body (both human and animal testing). However, recently some scientists have raised concerns that further assessment of parabens may be needed. This is based on recent evidence from over a dozen scientific studies indicating that several types of parabens can bind to the estrogen receptor and can cause estrogen-like responses when tested in laboratory animals or in a variety of tissue culture assays (see http://envirocancer.cornell.edu/Bibliography/Bibliography.cfm under Endocrine Disruption Bibliographies). In whole-animal studies, the estrogenic effects of parabens were not seen when fed to the animals, but only when applied to or injected under the skin. But, these were short-term, high-dose studies. Little to no information exists on whether use of products with low levels of parabens over many years results in accumulation of parabens in body tissues and whether there are or are not any health effects associated with use of paraben-containing consumer products.

## **Triethanolamine (TEA)**

Often used in the base of a product and to adjust the pH. TEA causes allergic reactions including eye problems, dryness of hair and skin, and can be toxic if absorbed into the body over time.