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MCSA NEWS

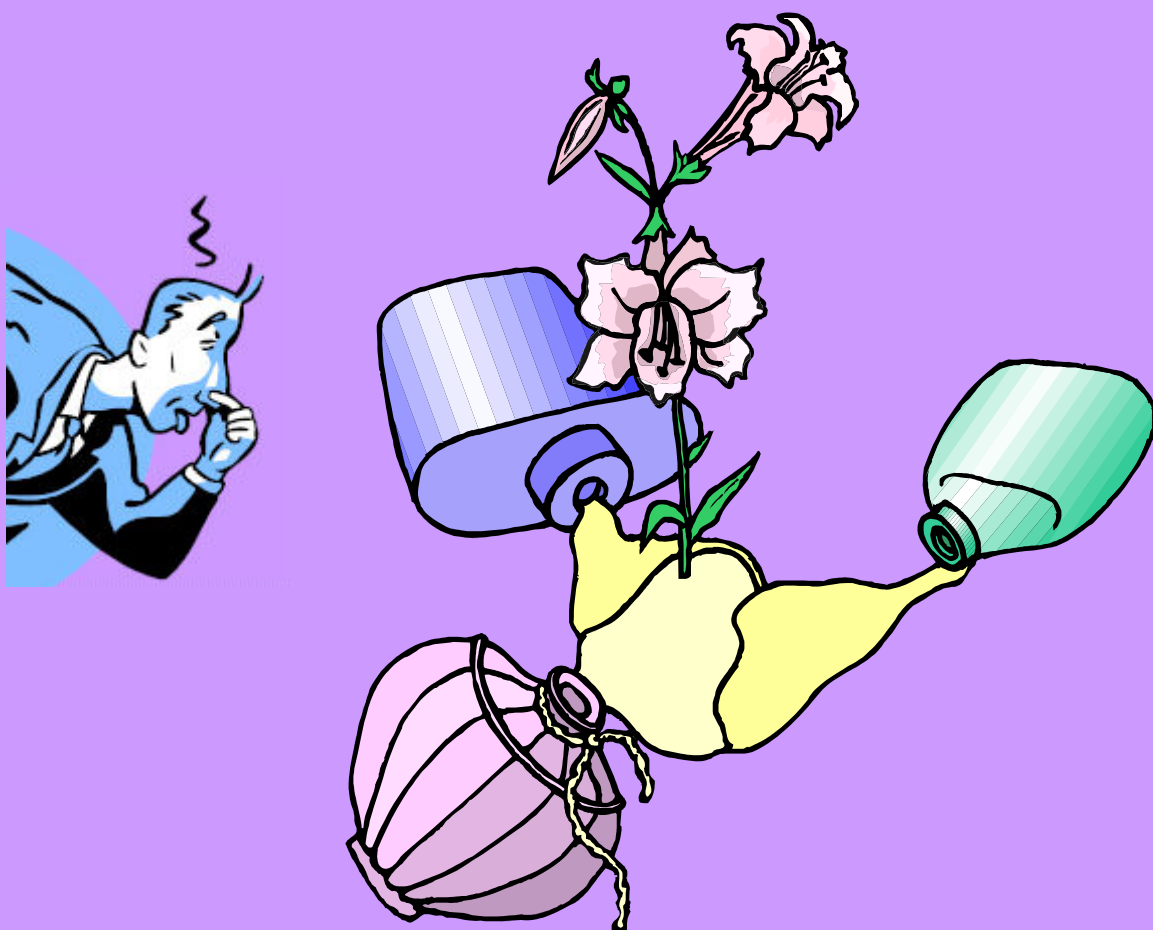
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Fragrances:



Beyond the Stink!



Fragrances: Beyond the Stink

“Maternal depression is significantly associated with the use of air fresheners.”

Perfume use began in Egypt with the burning of incense and quickly spread to Persia, Greece, and Rome. It was often used as a prelude to love making and by royalty. Profound change in the nineteenth century led away from alchemy, the early form of chemical technology exploring the nature of substances in medieval times, to chemistry. New synthetic fragrances were manufactured that cost less and were less labor intensive. The first modern day perfume was marketed in 1882. Now, most perfumes are made from synthetic chemical ingredients. This change increased profits and made perfume affordable for the general public. However, this came at another price

Ingredients

Currently, many synthetic petrochemicals and volatile organic compounds can be found in perfume, including d-limonene, dihydromyrcenol, linalool, linalyl acetate, beta-citronellol, and more.

The manufacturer safety data sheets (MSDS) for these ingredients report many negative health effects and hazards including:

- May cause eye irritation.
- Causes skin irritation.
- May cause gastrointestinal irrita-

tion with nausea, vomiting and diarrhea.

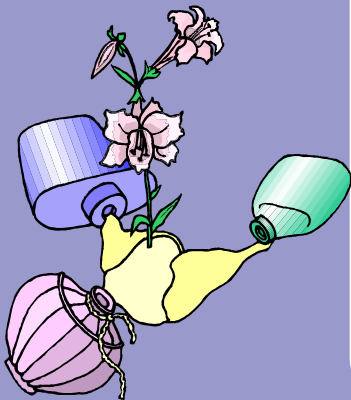
- May cause respiratory tract irritation.
- Combustible liquid and vapor.
- Fire hazard.
- Wear appropriate protective gloves to prevent skin exposure.
- Wear an approved respirator to prevent inhalation.

Fragrance in Science

Maternal depression is significantly associated with the use of air fresheners (Farrow et al, 2003). Scientists have shown that environmental perfume exposure, such as breathing secondhand perfumes, may cause respiratory symptoms (Elberling, 2007). Though people with asthma and allergy report respiratory symptoms more frequently, many respiratory symptoms from environmental perfume exposure may affect everyone (Elberling, 2007).

A study at Anderson Laboratories in Vermont concluded that fragrances may cause a variety of acute toxicities after only an hour of exposure to breathing five commercial colognes (Anderson & Anderson, 1998) at levels frequently encountered near cologne wearers. Anderson discovered that the emissions fragranced products caused various combinations of sensory irritation, pulmonary

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irritation, decreases in expiratory airflow velocity, as well as alterations of the functional observational battery indicative of neurotoxicity" in mice (Anderson & Anderson, 1998). Neurotoxicity was more severe after mice were repeated exposure, implicating a cumulative effect (Anderson & Anderson, 1998).

Anderson further evaluated the test atmospheres with gas chromatography/mass spectrometry to determine if any chemicals were present in the chamber. This evaluation revealed the presence of chemicals in the air for which irritant and neurotoxic properties had been documented previously and with which the fragrances were not labeled. This confirmed the hidden presence of these toxic chemicals in the colognes (Anderson & Anderson, 1998).

In 1997 Anderson also determined that the emissions of air freshener at concentrations to which many individuals are actually exposed during use were shown to cause increases in sensory and pulmonary irritation, decreases in airflow velocity, and abnormalities of behavior (Anderson & Anderson, 1997). Glade was shown to cause ventricular fibrillation and determined to be fatal if inhaled (LoVecchio & Fullton, 2001).

Counter Truth

The fragrance industry has countered these concerns by making claims that the dose of the myriad of toxicants in fragrance is not high enough to cause any concern; however, few studies have examined the effects of what is

common use of multiple fragrance sources often found in perfumes, hair care products, lotions, laundry soaps, household cleaners, and air fresheners. When the combined dose of the products a person, and those around them, use is considered, the dose is much higher.

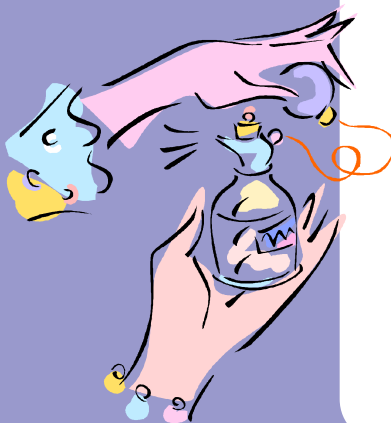
Another way the fragrance industry has attempted to avoid responsibility is by claiming that they maintain high standards. However, those standards are self-governed. Trade secret laws currently protect the fragrance industry from having to reveal what is in their fragrances. This allows for the use of many synthetic and chemical agents without any sort of independent or government regulation. Fragrances do not contain ingredient labels, so unsuspecting buyers cannot make informed decisions about what they choose to purchase.

Another concern with fragrances is that they don't simply affect those who use them. They contaminate the air when applied, worn, and sometimes even after washing them off the scent remains. Secondhand fragrances have negative affects on those around the wearer and may cause asthma, headaches, airflow reduction, and neurotoxicity (Anderson & Anderson, 1998).

Taking Action

While lobbying congress and elected officials will get laws changed and involves time and commitment, there are some simple ways individuals can take action.

“Individual consumers can refuse to buy any product without full ingredient disclosure.”



First, based on supply and demand, industry will only make products if people buy them. Collective individual purchasing decisions hit industry hard in the pocketbook and guide much of their manufacturing and marketing decisions. By not purchasing perfume, cologne, or fragranced lotions, cosmetics, hair care, cleaning, and laundry products, industry is forced to take note of the decline in sales. Subsequently, an increase in natural and fragrance-free purchases will affect supply and demand in such a way to increase the availability of fragrance free products.

Second, consumers can help guide product availability through the chain of command. When consumers notify retailers of the products desired, particularly in mass, retailers are able to pass the requests on to their distributors, who can then pass the word on to manufacturers.

Third, consumers should not be fooled or coerced by misleading advertisements. Often manufacturers and advertisers will use misleading tactics, such as claiming there are more germs on your computer keyboard than a public toilet without telling you that the keyboard has never been wiped down and the toilet is cleaned with powerful disinfectants daily. In this way, manufacturers use studies to mislead consumers.

Fourth, individual consumers can refuse to buy any product without full ingredient disclosure. Letters written to manufacturers

expressing an interest in their products, if they would disclose the ingredients, is another way for consumers to express their purchasing desires.

Fifth, though perfect products may be hard to find, individual consumers can choose the least questionable and most natural products they can find. Manufacturers will be more likely to increase production of such products when they are in demand. It is, however, useful to be aware that products labeled “natural” are not necessarily safe. Naturally occurring toxins may be present in these products. For example, all natural concentrated orange cleaner contains a toxin known as d-limonene, which is formed when the orange is concentrated. Many toxicant chemicals are emitted during air-freshener use including d-limonene, dihydromyrcenol, linalool, linalyl acetate, and beta-citronellol which Singer confirmed were emitted at 35-180 mg/day over 3 days while air concentrations averaged 30-160 microg/m³ (Singer et al, 2006). Hypoallergenic is another term to be wary of. Just because something does not cause allergies does not mean it is nontoxic. It is helpful to remember that most toxic reactions to environmental substances are not allergy mediated (IgE).

Finally, in addition to making healthier choices, individual consumers can share their knowledge about the dangers of fragrances with friends and family.

-LS

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