



CA SafeSalon



**SAFELY
USING
CHEMICALS**

Promoting
Health
and **Safety**
through
Education



Mission of the BBC

Ensuring the health and safety of California consumers by promoting ethical standards and by enforcing the laws of the barbering and beauty industry.

Safely Using Chemicals

The California Board of Barbering and Cosmetology wants licensed professionals to enjoy a long, healthy career. Working in an establishment that uses chemicals can present the licensed professional (licensee) with unique challenges in staying healthy.

Constant exposure to chemicals in the workplace may have detrimental health effects. The information below is designed to bring awareness to ways licensees can stay safe while working with chemicals in the establishment.

Chemicals in the Workplace

Many products used by barbers, cosmetologists, manicurists, estheticians, and electrologists contain chemicals. Some products commonly used when providing barbering and beauty services:

- Shaving cream
- Hair spray
- Nail polish
- Hair coloring
- Permanent wave solution
- Makeup
- Artificial nails
- Chemical peels
- Chemical hair relaxer or chemical straightening products
- Shampoo

Chemicals can be found in many products that are commonly used in the workplace.

Hazardous Chemicals

Consider what makes a chemical hazardous to a licensed professional's health. How hazardous a chemical is to a licensee's health depends on several factors:

- The toxicity of the chemical. Is it toxic or nontoxic? Will it harm the licensee's body?

Toxicity is the ability of a chemical to cause harm to the body. With toxic chemicals, even a very small amount can cause harm. With relatively harmless chemicals, even a large amount will have little or no effect to a licensee's health. When considering the use of chemicals and the toxicity of the chemical, it is important to determine the concentration of the chemical.

- The amount of the chemical a licensee is exposed to. Sometimes this is called concentration.

Concentration is the amount of a particular chemical in the air that licensees breathe, the amount that gets onto the skin, or the amount swallowed. In chemistry classes, professionals may have learned that concentration is the strength of a chemical, but when discussing health and safety hazards, concentration refers to the amount of chemical exposure.

- The length of time a licensee is exposed to the chemical.



Chemicals used for hair treatments.



The more chemicals you get into your lungs and on your hands, the more your health is at risk.



The likelihood of inhaling dust, powder, or mist is higher if it is allowed to collect on surfaces in the workplace.

The length of time a licensee is exposed to a chemical, the more the chemical gets into or on the body. For example, if a licensee spends six hours every day doing chemical services like perms, chemical blowouts, or acrylic nails, they are exposed to chemicals much longer than a licensee who does chemical services only two hours a day. The more chemicals that get into a licensee's lungs and on their hands, the more their health is at risk.

- Individual sensitivity to the chemical. Licensed professionals can react differently to chemical exposure.

Different licensees may react differently to the same chemical. Individual sensitivity to a chemical is how a licensee's body reacts to a chemical. Some licensees may have a reaction when exposed to a small amount of a chemical, while others do not until exposed to a large amount. Different factors contribute to individual sensitivity, including:

- » **Heredity.** No one knows why but some individuals seem to inherit a higher sensitivity to chemicals.
- » **Age.** Some chemicals have more serious effects on the very young or elderly.
- » **Pregnancy.** With certain chemicals, pregnant women are more at risk. These chemicals may harm the mother, the fetus, or both.

- » **Alcohol use.** Alcoholic beverages may increase the effects of some toxic chemicals on the liver and possibly on other organs.
- » **Tobacco use.** Smoking can leave lungs vulnerable to harmful effects of chemicals.
- » **General health.** Exposure to certain chemicals can cause more effects for individuals who are already in poor health. For example, an individual with lung disease who breathes in vapors will probably suffer worse symptoms than an individual who is healthy.
- » **Gender.** Some chemicals can affect males more than females or females more than males.
- » **Use of medications or other drugs.** Certain chemicals may interact with drugs or medications and produce effects more serious than the chemical alone would cause.

- The chemical's interaction with other chemicals a licensed professional is exposed to.

Two chemicals may create an effect much worse when combined than either of them alone would produce. A licensee may be familiar with an example of this if they have ever taken medication. A doctor or a medicine label may warn an individual not to mix the medication with alcohol as the interaction can produce negative

effects such as internal bleeding and/or organ damage. Exposure to one chemical may also weaken the body's defenses against another chemical. For example, while methyl ethyl ketone (found in some nail polish removers) does not cause nerve damage itself, it increases n-hexane's (found in some cleaning products) ability to cause this effect.

When several chemicals produce similar health effects, a licensee could react as if exposed to a large dose of one chemical. For instance, since numerous chemicals can cause dizziness, exposure to several of these chemicals at once could cause dizziness much quicker and more severely than one chemical would.

- The way a licensed professional is exposed to the chemical. How did the chemical get into the body?

Chemicals can get into the body in three main ways, sometimes referred to as routes of exposure. They are:

- » **Breathing.** Once a licensee breathes a chemical into the lungs, it will stay there, or the bloodstream may carry it to other parts of the body.
- » **Skin and eye contact.** Some chemicals can harm the skin directly. They can cause burns, irritation, or dermatitis. Examples of chemicals that may harm the skin are perm solutions, chemical blowout solutions, and hair relaxers.

Some chemicals can pass right through the skin and enter into the bloodstream. This can occur if the skin is cut, cracked, or dry. Some chemicals may seriously burn or irritate the eyes. Eyes may be at risk if chemicals splash, if an individual touches their eyes when their fingers have chemicals on them, or if chemicals produce vapors that get into the eyes.

- » **Swallowing.** Most licensees do not swallow harmful chemicals on purpose. However, a licensee could swallow them unintentionally if they eat or drink after they have been working around chemical products. Chemicals on the hands or in the air can get on food or drink and a licensee can ingest these chemicals. Therefore, while working with chemicals, it is important to leave the work area when eating or drinking. In addition, licensees should always thoroughly wash their hands with soap and water for at least 20 seconds after handling any chemical product.

It is often difficult to see the connection between a licensee's health symptoms and particular chemicals used on the job because chemicals may cause effects that take a long time to show up. It could be years before exposure to a chemical causes a serious



Chemicals may cause watery eyes, a burning feeling on the skin, irritation of the nose or throat, dizziness, or a headache.



Notice if a product being used has an odor.

Irritants

An irritant can be described as a substance that causes slight inflammation or other discomfort to the body. Some examples of products that are used in an establishment on a daily basis, that may irritate the eyes, nose, throat, and lungs include disinfectants, skin exfoliation products, permanent wave solutions, chemical blowout solutions, chemical hair relaxers, acrylic nail products, and hairsprays.

Continuous exposure to irritants may cause a licensee to develop an allergy to a particular chemical.

Allergy

An allergy is a reaction some licensees have when they become overly sensitive to a particular chemical. Licensees will have a reaction every time exposure to that chemical occurs—no matter how small the amount.

Allergens are chemicals that cause allergies. If a licensee is not allergic to a chemical the first time it is used, they may develop an allergy after using it several times or it may take years. Allergies develop at different rates for different people. Common symptoms of allergies are a stuffy nose, watery eyes, sneezing, wheezing, and coughing.

health problem. In addition, some symptoms of exposure to chemicals, like itchy eyes or a runny nose, are so common that it may be hard to determine if the chemical caused the problem.

Furthermore, different licensees can react in different ways to the same chemical. Some licensees may notice health effects when they work with the chemical, and others may never have a problem.

STAY SAFE

It is always safest to keep exposure to any harmful chemical as low as possible. In California, the California Division of Occupational Safety and Health (Cal/OSHA) sets Permissible Exposure Limits (or PELs)—laws that dictate the maximum amount of chemical exposure individuals can experience on the job. These exist for chemicals commonly used in the establishment, in addition to hundreds more. View the list of Cal/OSHA/PELs at Cal/OSHA's webpage for Title 8, section 5155, Permissible Exposure Limits for Chemical Contaminants Table AC-1. http://dir.ca.gov/Title8/5155table_ac1.html.

Note: Section 5155 requires the employer to monitor the exposure of any employees who may be exposed above the permissible exposure limits.

Effects of Chemical Exposure

As a licensee progresses through their career, they may become aware of certain conditions that seem to be more prevalent within the barbering and beauty industry. Licensees may hear terms like contact dermatitis, allergic dermatitis, or skin rash.

Dermatitis is an inflammation of the skin. A skin rash is a general term used to describe many forms of dermatitis. If contact with a skin irritant caused the dermatitis, it is contact dermatitis. If an allergic reaction caused the dermatitis, it is allergic dermatitis.

Symptoms of dermatitis include flaking, dryness, redness, itching, and burning of the skin. Licensed professionals are especially at risk of contracting dermatitis on their hands and arms as there are several products they use daily that could irritate the skin. Continued exposure to disinfectants, skin exfoliation products, permanent wave solutions, blowout straightening solutions, chemical hair relaxers, and shampoo have the potential to cause dermatitis.

CHEMICAL EXPOSURE DURING PREGNANCY

Licensees may wonder if exposure to chemicals in the establishment could affect the licensee's ability to have children. While obstetricians may prefer to err on the side of caution, several studies have shown there is no statistically significant association between being a cosmetologist and poor pregnancy outcomes (such as miscarriage, stillbirth, and premature delivery). If licensees have proper working conditions, their risks of reproductive complications should not be higher than that of any other profession.

Other studies have shown that some chemicals in manicuring and sculptured nail products, like glycol ethers, can cause birth defects and infertility in laboratory animals.

Although such studies suggest that the same might happen in humans, it is not certain.



Nail technician in an establishment doing a manicure.

How to Find Out What Chemicals a Product Contains

First, always check the label of a product as it may list the ingredients. If the ingredients are not listed, licensees must check the Safety Data Sheet, or SDS. Reading the product's SDS is probably the best way to find out which chemicals the product contains.

Establishment employees can get the SDS from their employer. Establishment owners can request an SDS directly from the manufacturer or supplier. Licensees should know which chemicals are in the products being used, their possible health effects, and how to use the products safely.



Symptoms of dermatitis include flaking, dryness, redness, itching, and burning of the skin.

Best Practice Tip

Periodically review the establishment's SDS file. Make sure the establishment has the most updated version of the SDS.
Discard all outdated versions of the SDS.

Natural Products

When a product is labeled "All-Natural" or "Natural," most individuals assume the product is safe for use. This is not always true. Be sure to check the SDS on all products to find out what chemicals the products contain..

Chemicals Licensed Professionals Should be Aware Of

MMA

Methyl methacrylate (MMA) is a chemical that can be found in some acrylic nail products and it is a chemical of concern. Dust from acrylic nails containing MMA can get onto the skin, face, eyelids, nose, and fingers. MMA can cause red, itchy, swollen skin with tiny blisters. It can also cause a scratchy throat, runny nose, and cough. Licensees may experience headaches, dizziness, and drowsiness, or have difficulty concentrating or paying attention. Licensees may even experience numbness and muscle weakness. The Board of Barbering and Cosmetology (board) prohibits the use of MMA in establishments in California. Do not use products that contain MMA.

The Toxic Trio

The toxic trio is a highly publicized chemical combination consisting of toluene, formaldehyde, and dibutyl phthalate. These harmful chemicals commonly appear in nail products and can produce several health concerns.

Toluene can cause dry or cracked skin and irritated, burning, itchy eyes, nose, and throat. Licensees could experience headaches and dizziness. It can directly affect the brain, and individuals may not be able to concentrate, remember, or recognize words. It can harm a developing fetus or pregnant woman, and it is suspected to cause miscarriages.

Formaldehyde can cause watery, burning eyes, skin rashes, and breathing problems such as asthma, coughing, and wheezing. It can even cause cancer. (Formaldehyde can also be found in some shampoos, blowout, and hair straightening products.)

Dibutyl phthalate can cause birth defects in male fetuses.

As with the toxic trio, some chemicals can affect the central nervous system. The brain and spinal cord make up the central nervous system. Getting headaches, dizziness, nausea, drowsiness, restlessness, and lack of coordination are all symptoms that the central nervous system is under attack.

Breathing the vapors of certain chemicals most likely causes central nervous system effects, but sometimes chemicals are also absorbed through the skin.

Hair Coloring Products

Some hair coloring products contain coal tar dyes. Common terms for coal tar dyes are:

- 4-methoxy-m-phenylenediamine (4-MMPD)
- Paraphenylenediamine
- 2-nitro-phenylenediamine
- 2,4-diaminoaniside
- 2,4-diaminoaniside sulfate

Coal tar and products made from it may cause cancer, especially cancer of the bladder.

The U.S. Food and Drug Administration (FDA) requires products with coal tar dyes to have a label saying, "Caution - This product contains ingredients which may cause skin irritation on certain individuals and a preliminary test according to accompanying directions should first be made. This product must not be used for dyeing the eyelashes or eyebrows; to do so may cause blindness." Unfortunately, this label does not warn people that the product may also cause cancer.

Chemical Blowouts

Chemical hair straightening treatments, sometimes called "chemical blowouts," are a method of temporarily straightening hair by sealing liquid keratin and a preservative solution into the hair with a flat iron. Many of these solutions contain the chemical methylene glycol (formaldehyde, formalin), which when heated, may release formaldehyde gas into the air. The FDA has this to say:

"Skin sensitivity can develop after repeated contact with formaldehyde-related ingredients. When formaldehyde is released into the air, it can cause serious irritation of your eyes, nose, and lungs. The greater the exposure, in terms of both duration and concentration, to products that contain formaldehyde-related ingredients, the higher the health risks."

The warning letters issued by FDA address products that contain methylene glycol, which, when heated, releases formaldehyde into the air. Because these products must be applied with heat, formaldehyde is released when people use them following directions on the label. For FDA's complete statement, see www.fda.gov/cosmetics/productsingredients/products/ucm228898.htm.

OSHA states that formaldehyde presents a health hazard if workers are exposed. It can irritate the eyes and nose; cause allergic reactions of the skin, eyes, and lungs; and is linked to nose and lung cancer. For OSHA's complete statement, see www.osha.gov/SLTC/formaldehyde/hazard_alert.html.

Shampoos and Conditioners

Some shampoos and conditioners contain chemicals called TEA, or triethanolamine, or DEA, or diethanolamine. If TEA or DEA are in a product that also contains the chemical BNPD, they can react with it to produce nitrosamines. The chemical name for BNPD is 2-bromo-2-nitropropane-1,3-diol. Nitrosamines are classified as suspected human carcinogens by the state and federal governments. They cause cancer in animals, and some scientists believe that they may also cause cancer in humans.

Liquid Disinfectants

The use of disinfectants is vital for consumer protection. However, continual exposure to liquid disinfectants may cause skin irritation. Therefore, for licensee safety and protection, the board's regulations state that a licensee must use gloves or tongs when removing disinfected tools from the disinfectant. This requirement is put in place to protect a licensee's skin from exposure to this chemical.

Parabens

Parabens are commonly found in makeup, moisturizers, shaving products, and hair care products. Common ingredient names used for parabens are: methylparaben, propylparaben, and butylparaben. Parabens are often used as a preservative to control microbial growth in cosmetic products as they prevent the growth of fungi, bacteria, and yeast.

Some have speculated whether there is a connection between parabens and cancer, with some suggesting that parabens can cause cancer by acting like estrogen, a common hormone, through a process called endocrine disruption. See more at: www.cosmeticsinfo.org/paraben-information.

The FDA believes that currently there is no reason to be concerned about the use of cosmetics containing parabens. However, the agency will continue to evaluate new data in this area. If the FDA determines that a health hazard exists, the agency will advise the industry and the public, and will consider its legal options under the authority of the Federal Food, Drug, and Cosmetic Act in protecting the public's health and welfare. See more at: www.fda.gov/cosmetics/productsingredients/ingredients/ucm128042.htm.

Additional Resources

Understanding Toxic Substances

An Introduction to Chemical Hazards in the Workplace

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/HESIS/CDPH%20Document%20Library/introtoxsubstances.pdf>

Artificial Fingernail Products

A Guide to Chemical Exposures in the Nail Salon

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/OHB/HESIS/CDPH%20Document%20Library/artnails.pdf>

California Poison Control System

The California Poison Control System is the largest single provider of poison control services in the United States and California's primary source for treatment advice and information in case of poison exposure for both residents and health professionals.

www.calpoison.org

Phone: (800) 222-1222

The chart below shows chemicals sometimes found in hair, nail, skin care products, and antiseptic/disinfectant products, as well as their possible health effects. The risk of health effects depends on several factors, including the amount of the chemical in the product, the *toxicity*, the *length of time* the worker is exposed, the *route of exposure*, and the worker's *individual sensitivity*. Read each product's SDS for more information.

Chemicals in the Establishment

WHAT'S IN THAT PRODUCT?

CHEMICAL	POSSIBLE HEALTH EFFECTS	PRODUCT TYPE
Alcohol (ethyl, denatured ethyl, terbutyl, isopropyl or propyl)	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Central nervous system effects* • Skin irritation and dermatitis 	Hair care Nail care Skin care Antiseptic/disinfectant
Alpha hydroxy acids (AHA)	<ul style="list-style-type: none"> • Irritant 	Skin care
Ammonium hydroxide	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Skin and eye burns • Skin irritation and dermatitis 	Hair care
Acetone	<ul style="list-style-type: none"> • Eye, nose, and throat irritation • Central nervous system effects* • Skin irritation and dermatitis 	Nail care
Acetonitrile	<ul style="list-style-type: none"> • Eye, nose, and throat irritation • Central nervous system effects* • Skin irritation and dermatitis 	Nail care
Aminophenols	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Skin irritation and dermatitis • Severe allergic reaction in some people 	Hair care
Ammonium persulfate or potassium persulfate	<ul style="list-style-type: none"> • Eye irritation • Skin irritation and dermatitis • Allergies, including asthma • Possible fire hazard 	Hair care
Ammonium thioglycolate or glycerol monothioglycolate	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Skin irritation and dermatitis • Allergies, including asthma 	Hair care

*Central nervous system effects include headache, dizziness, nausea, drowsiness, and restlessness.

CHEMICAL	POSSIBLE HEALTH EFFECTS	PRODUCT TYPE
Beta Hydroxy Acids (BHA)	<ul style="list-style-type: none"> Irritant 	Skin care
Boric acid, perborate or borate	<ul style="list-style-type: none"> Central nervous system effects* Kidney damage, if swallowed 	Hair care Skin care
Bromates	<ul style="list-style-type: none"> Eye, nose, throat, and lung irritation Central nervous system effects* Skin and eye burns Skin irritation and dermatitis Severe irritation of mouth, throat, and stomach, if swallowed Kidney damage, if swallowed 	Hair care
Butylated hydroxyanisole (BHA)	<ul style="list-style-type: none"> Immune system toxicity Cancer Hormone disruption 	Hair care Skin care Nail care
Chloroxyleneol (PCMX)	<ul style="list-style-type: none"> Skin, eye, and respiratory irritation Contact dermatitis 	Antiseptic/disinfectant
Coal tar dyes (aniline derivatives (examples: 4-methoxy-m-phenylenediamine (4-MMPD), paraphenylenediamine, 2-nitro-phenylenediamine, 2,4 diaminoanisole, and 2,4 diaminoanisole sulfate	<ul style="list-style-type: none"> Severe eye irritation and blindness Skin irritation and dermatitis Severe allergic reaction in some people Cancer if absorbed through the skin during long time use 	Hair care
Ethanol	<ul style="list-style-type: none"> Skin irritation Eye, nose, throat, and lung irritation Neurotoxic effects 	Antiseptic/disinfectant Nail care
Ethyl acetate or butyl acetate	<ul style="list-style-type: none"> Eye, nose, and throat irritation Central nervous system effects* Breathing problems Skin irritation and dermatitis 	Nail care
Ethyl methacrylate	<ul style="list-style-type: none"> Eye, nose, and throat irritation Coughing and/or shortness of breath Skin irritation and dermatitis Central nervous system effects* Fire hazard 	Nail care

*Central nervous system effects include headache, dizziness, nausea, drowsiness, and restlessness.

CHEMICAL	POSSIBLE HEALTH EFFECTS	PRODUCT TYPE
Formaldehyde (formalin, methylene glycol) Formaldehyde Releasers Bronopol (2-bromo-2-nitropropane-1,3-diol, 5-Bromo-nitrol, 3-dioxane(sodium), diazolidinyl urea, DMDM hydantoin, hydroxymethylglycinate, imidazolidinyl urea, methenamine glyoxal polyoxymethylene urea, and quaternim-15)	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Skin irritation and contact dermatitis • Cancer sensitization • Contact dermatitis 	Hair care Nail care Skin care
Glutaraldehyde	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Skin irritation, skin allergy and eczema 	Antiseptic/disinfectant
Glycol ethers (a generic term for a group of chemicals)	<ul style="list-style-type: none"> • Reproductive problems (birth defects and infertility shown in lab animal tests) • Possible other effects depending on the specific chemical 	Nail care Skin care
Hydrogen peroxide	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Skin and eye burns • Severe irritation of the mouth, throat, and stomach, if swallowed 	Hair care Nail care Skin care
Hydroquinone	<ul style="list-style-type: none"> • Immune system/skin toxicity • Cancer • Reproductive harm 	Hair care Skin care
Isothiazolinones (Methylchlorylisothiazolinone, Methylisothiazolinone, Benzoisothiazolinone)	<ul style="list-style-type: none"> • Contact dermatitis 	Skin care
Isobutane	<ul style="list-style-type: none"> • Fire Hazard 	Hair care
Lanolin	<ul style="list-style-type: none"> • Skin irritation and dermatitis 	Hair care Nail care Skin care
Lead acetate	<ul style="list-style-type: none"> • Lead poisoning (if absorbed in large amount) 	Hair care Nail care Skin care
Methyl ethyl ketone (MEK)	<ul style="list-style-type: none"> • Eye, nose, and throat irritation • Central nervous system effects* • Fire hazard 	Nail care

*Central nervous system effects include headache, dizziness, nausea, drowsiness, and restlessness.

CHEMICAL	POSSIBLE HEALTH EFFECTS	PRODUCT TYPE
Methyl methacrylate (MMA)	<ul style="list-style-type: none"> Red, itchy, and swollen skin with tiny blisters Scratchy throat, runny nose, and cough Numbness and muscle weakness Central nervous system effects* 	Nail care
Monoethanolamine (MEA)	<ul style="list-style-type: none"> Organ toxicity Skin irritation 	Hair care
o-phenylphenol	<ul style="list-style-type: none"> Eye, nose, and throat irritation Irritate and burn eyes Kidney damage 	Antiseptic/disinfectant
Ortho-phenylphenol (OPP)	<ul style="list-style-type: none"> Eye, nose, and throat irritation Abdominal pain Coughing and/or shortness of breath 	Nail care
Octoxynol-40	<ul style="list-style-type: none"> Eye, skin, and lung irritation Immune system toxicity 	Hair care
Octyl methoxycinnamate	<ul style="list-style-type: none"> Endocrine disruption 	Skin care
Oxybenzone (benzophenone-3)	<ul style="list-style-type: none"> Endocrine disruption 	Skin care
Parabens (including paraben butyl paraben, isobutyl paraben and propyl paraben isopropyl)	<ul style="list-style-type: none"> Endocrine disruption 	Skin care
Phthalates (such as dibutyl phthalate, dibutyl phthalate dimethyl, phthalate butylbenzyl, phthalate diethyl phthalate)	<ul style="list-style-type: none"> Reproductive birth defects Endocrine disruption 	Nail care Skin care
Polyvinylpyrrolidone (PVP)	<ul style="list-style-type: none"> Lung and other respiratory problems Thesaurosis (storage disease) causes a chronic cough and breathing problem, including shortness of breath 	Hair care
Propane	<ul style="list-style-type: none"> Central nervous system effects* Fire hazard 	Hair care

*Central nervous system effects include headache, dizziness, nausea, drowsiness, and restlessness.

CHEMICAL	POSSIBLE HEALTH EFFECTS	PRODUCT TYPE
Quaternary ammonium compounds (such as benzalkonium chloride)	<ul style="list-style-type: none"> • Eye, nose, throat, and lung irritation • Breathing problems, such as asthma and shortness of breath 	Antiseptic/disinfectant
Retinyl Palmitate/ Retinoids	<ul style="list-style-type: none"> • Phototoxicity, high sun sensitivity 	Skin care
Selenium sulfide	<ul style="list-style-type: none"> • Cancer • Neurotoxicity • Developmental harm 	Hair care
Sodium hydroxide or potassium hydroxide	<ul style="list-style-type: none"> • Eye, nose, and throat irritation • Skin and eye burns • Skin irritation and dermatitis • Severe irritation of mouth, throat, and stomach if swallowed 	Hair care Nail care
Sodium peroxide	<ul style="list-style-type: none"> • Eye and nose irritation • Skin and eye burns • Skin irritation and dermatitis 	Hair care
Toluene	<ul style="list-style-type: none"> • Eye, nose and throat irritation • Skin irritation and dermatitis • Central nervous system effects* • Reproductive problems 	Nail care
Triclosan	<ul style="list-style-type: none"> • Abnormal endocrine system/thyroid hormone signaling • Weakening of immune system • Allergies, asthma and eczema • Uncontrolled cell growth • Developmental and reproductive toxicity 	Antiseptic/disinfectant
Xylene	<ul style="list-style-type: none"> • Eye, nose, and throat irritation • Skin irritation and dermatitis • Central nervous system effects* • Reproductive problems 	Nail care

*Central nervous system effects include headache, dizziness, nausea, drowsiness, and restlessness.



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