

OVEREXPOSED & UNDERINFORMED

Dismantling Barriers to Health and Safety in California Nail Salons

REPORT & POLICY AGENDA
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CALIFORNIA
healthy
nail salon 
COLLABORATIVE

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TABLE OF CONTENTS

Executive Summary	3
Policy Goals	4
Background	5
Policy Goals & Recommendations	9
I. Improve access to occupational health and safety information	9
II. Reduce or eliminate toxic exposures and other health hazards in nail salons . .	13
III. Ensure greater access to health care and occupational medicine.	20
Conclusion	21
References	22
Glossary of Acronyms	24

EXECUTIVE SUMMARY

Across the United States, the beauty industry is booming in response to consumer demand for affordable nail, hair, skin, and other personal care services. Nail salon services in California have tripled over the past two decades as nail salon technicians pamper their customers with the latest nail designs, treatments, and colors. At the same time, nail salon workers are exposed to an array of occupational hazards including chemical exposures and poor ventilation, made worse by language barriers and lack of health insurance.

To date, neither legislative nor regulatory oversight of the cosmetics industry, including nail salons, has been adequate to protect worker health and safety. While the state licenses this growing industry, it has been slow to establish or improve guidelines and regulations that could lead to a reduction of harmful chemical exposures and other occupational hazards in nail salons.

Language and cultural barriers block access to critical occupational health and safety information and regulations. A large number of nail salon workers in California are Vietnamese and most of those individuals are limited English proficient.

In spite of a sweeping legal mandate requiring California agencies to provide bilingual services and translated materials, agencies that regulate nail salons such as the California Division of Occupational Safety and Health and the California Board of Barbering and Cosmetology are not meeting their constituents' language needs. Private industry's failure to translate technical information into lay terms and appropriate languages has similarly contributed to the information barrier.

In addition to being subject to an array of occupational health hazards, many workers and employers do not have access to affordable medical care which can mean foregoing treatment for a job-related illness or for consultation on the risks of continuing to work during pregnancy. At the same time, there is insufficient surveillance of occupational-related illnesses, including those related to nail salons.

In view of these obstacles to health and safety in nail salons, this Report and Policy Agenda aims to:

- 1) Provide important **Background** information on the nail care industry;
- 2) Articulate **Policy Goals** that would improve the lives of nail technicians and salon owners as well as benefit consumers of nail care services; and,
- 3) Provide **Policy Recommendations** that could lead to attaining these goals for workers, owners, and consumers of nail care services.

POLICY GOALS

I. Improve access to occupational health and safety information.

- ✓ Make real the letter and spirit of the Dymally-Alatorre Bilingual Services Act.
- ✓ Improve California agencies' bilingual capacities and cultural competencies.
- ✓ Make information about chemical hazards in nail products more comprehensible.
- ✓ Ensure basic fairness and due process for primary non-English language speakers.

II. Reduce or eliminate toxic exposures and other health hazards in nail salons.

- ✓ Encourage and support the nail salon community's compliance with best practices and health and safety laws.
- ✓ Ensure appropriate and timely enforcement and implementation of the California Safe Cosmetics Act of 2005.
- Ensure that the needs of the nail service community are addressed in the state's Green Chemistry Initiative.
- ✓ Develop a statewide Green Nail Salon Program.
- ✓ Remove harmful chemicals from nail salon products now, in support of the Green Chemistry Initiative.
- ✓ Improve ventilation technology and standards in nail salons.
- ✓ Establish comprehensive programs to reduce hazardous chemicals and improve indoor air quality in nail salons.

III. Ensure greater access to health care and occupational medicine.

- ✓ Support comprehensive reform of the health care system, emphasizing the importance of occupational medicine and disease surveillance.

BACKGROUND

Nail care is the fastest growing sector in the beauty industry, generating more than \$6 billion annually in sales nationwide. In California alone, there are approximately 264,000 cosmetologists who are licensed to provide nail services in addition to other personal care services such as hair care as well as 115,000 manicurists.¹ It is reported that almost half of manicurists nationwide earn less than \$18,200 per year.² In California, the overwhelming majority of manicurists are women of color and are of reproductive age.*

The primary language of a large sector of the nail salon community is not English.

Although the exact percentage of California manicurists who are Vietnamese is not known, estimates range from 59%-80%.^{3,4} Assuming that the English language capacity of the Vietnamese nail salon community is at all similar to that of the Vietnamese general population of California, most of those individuals are limited English proficient (LEP).^{5,6,7} The nail salon industry represents a significant niche market for Vietnamese immigrants in California and has become an economic cornerstone of the community. Other first languages represented in the nail salon community include Spanish, Chinese, and Tagalog.

Information on chemicals in the workplace is generally not easily understood by lay people.

California law requires that chemical manufacturers and distributors provide a Material Safety Data Sheet (MSDS) for every product that they produce or

import that contains a hazardous chemical.⁸ MSDSs are pages of highly technical information about the chemical ingredients in a product and their health effects, as well as important health warnings, storage and handling instructions, and emergency first aid procedures. MSDSs pertaining to nail salon products are generally not accessible or translated into Vietnamese.

The nail salon community is exposed to an array of harmful chemicals.

Many nail salon products contain harmful substances that are associated with a range of illnesses and conditions. The results of a 2007 study of Vietnamese-American nail technicians suggest an elevated prevalence of work related health effects, such as musculoskeletal disorders, respiratory symptoms, skin problems and headaches, compared to the general population.⁹

Nail polish contains dibutyl phthalate (DBP), which is commonly used to reduce brittleness and cracking and to enhance consistency. DBP is a female and male reproductive toxicant and a developmental toxicant.¹⁰ Data reported in several human studies clearly show an association between exposure to DBP and other phthalates and adverse developmental, and male and female reproductive effects even at very low levels.¹¹ One study found a strong association between prenatal exposure to DBP and developmental effects on the male reproductive system in boys after birth.¹² The chemical is banned for use in all cosmetics, including nail products, sold in the European Union.¹³

* Unfortunately, there is relatively little demographic and other statistical information pertaining to California cosmetologists who perform nail care services; yet, "cosmetologists" who perform nail services and "manicurists" face similar obstacles to occupational safety and health. For purposes of this report, individuals in those two groups will be referred to collectively using such terms as "nail salon workers" and "nail technicians."

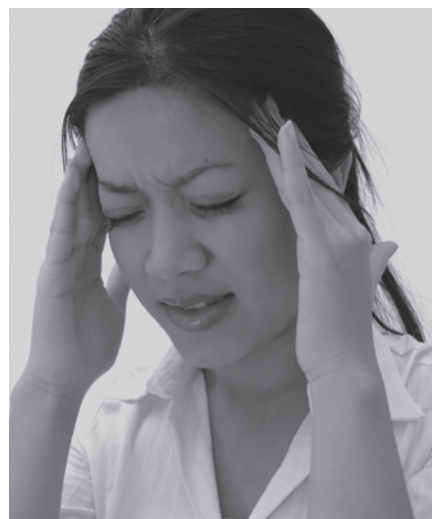
Formaldehyde, a chemical commonly used as a nail hardener and preservative in nail products, is a known carcinogen. Long-term exposure to low levels of formaldehyde can also cause asthma. Skin contact can cause allergic dermatitis. Short-term exposure to formaldehyde can irritate the eyes, nose, throat, and skin.¹⁴

Another potentially dangerous chemical in nail products is the solvent toluene which is found in nail polish and nail glues. It is a neurological toxicant and causes headaches, dizziness, nausea, and symptoms similar to drunkenness, color vision impairment, and neuropsychological (for example, difficulty in learning numbers and recognizing words) and neurobehavioral effects (for example, difficulty in concentrating and loss of short-term memory).¹⁵ Toluene is also a developmental toxicant.¹⁶ At a dose which produced no toxic effects in pregnant animals, toluene retarded the growth of fetuses exposed in utero, as well as the growth of the subsequent generation of animals born to the exposed fetuses.¹⁷ In an epidemiological study, the rate of spontaneous abortion was increased 2.8-fold in workers exposed to toluene compared to a non-exposed control group.¹⁸

Acetone is in polish and acrylic nail removers. Both toluene and acetone are solvents which dissolve the natural protective oils of the skin, and can lead to dry and cracked skin and dermatitis. Other adverse health effects of acetone include symptoms resembling drunkenness, and irritation to the eyes, nose, throat, and lungs.¹⁹ Long-term overexposure to high levels caused kidney and liver damage in animals.²⁰

Ethyl cyanoacrylate (ECA) in artificial nail glues is linked to a range of adverse health effects including dermatitis and asthma.^{21, 22} In conversations

with nail technicians, they often attribute their skin rashes, headaches, and irritated eyes to the use of nail glues.²³



Ethyl methacrylate (EMA) is a common chemical used to prepare artificial nails. It is touted by the nail industry as a safer substitute for methyl methacrylate (MMA), which has been banned by California's and other states' Boards of Barbering and Cosmetology; however, due to its chemical structure, it is probably not any safer.²⁴

The chemicals discussed here are a few of the bad actors in nail salon products; however, there are many others that are harmful to the health of the nail salon community. For a summary of the adverse health effects of the substances discussed here, see Table 1. For information on others, see Roelofs et al., 2007.²⁵

California Division of Occupational Safety and Health and the State Board of Barbering and Cosmetology have regulatory authority over nail salons.

The California Division of Occupational Safety and Health (Cal/OSHA) within the Department of Industrial Relations (DIR) enforces workplace health and safety laws including chemical exposure limits, and provides workers with health and safety information. The Cal/OSHA Standards Board adopts regulations to ensure health and safety on the job. Cal/OSHA does not generally initiate inspections of nail salons and other workplaces; rather, inspections are generally conducted only in response to a health and safety complaint.

TABLE 1

Chemical	Nail product	Health Effect
Dibutylphthalate	Nail polish	Adverse female and male reproductive effects; developmental effects on male reproductive system after birth. ^a
Formaldehyde	Nail hardener and preservative	Cancer; asthma; allergic dermatitis; irritation to eyes, nose, throat, and skin. ^b
Toluene	Nail polish, nail glue	Adverse neurological effects including headaches, dizziness, nausea, and symptoms resembling drunkenness, color vision impairment, neuropsychological and neurobehavioral effects. Developmental toxicity. Spontaneous abortion. ^c
Acetone	Remover for polish and artificial nails	Irritation to eyes, nose, throat, and lungs. Headaches, dizziness, nausea, and other symptoms resembling drunkenness. Cracked skin, dermatitis. ^d
Ethyl cyanoacrylate (ECA)	Artificial nail glue	Irritation to eyes, skin, and upper respiratory tract. Asthma. Dermatitis. ^e
Ethyl methacrylate (EMA)	Artificial nails	Irritation to eyes, nose, throat, and lungs. Headaches, dizziness, nausea, and other symptoms resembling drunkenness. Asthma. ^f

a. California Safe Drinking Water and Toxic Enforcement Act of 1986. "Chemicals Known to Cause Cancer or Reproductive Toxicity." (Health and Safety Code §25249.5 et seq.) (hereinafter Prop 65 List) (http://www.oehha.ca.gov/prop65/prop65_list/files/P65single121908.pdf) (accessed February 28, 2009)

Cal-EPA, OEHHA, Reproductive and Cancer Hazard Assessment Section. "Proposition 65 Maximum Allowable Dose Level (MADL) for Reproductive Toxicity for Di(n-butyl)phthalate (DBP)." (http://www.oehha.ca.gov/prop65/law/pdf_zip/DBP%20MADL%20062907.pdf)(accessed Feb. 28, 2009)June 2007.

Swan S, Main KM, Liu F, Stewart SL, Kruse RL, Calafat AM, Mao CS, Redmon JB, Ternand CL, Sullivan S, Teague JL, Study for Future Families Research Team. "Decrease in Anogenital Distance among Male Infants with Prenatal Phthalate Exposure." *Environmental Health Perspectives* 113.8. August 2005.

b. U.S. Environmental Protection Agency (EPA). Integrated Risk and Information System (IRIS), Formaldehyde. (<http://www.epa.gov/NCEA/iris/subst/0419.htm>) (accessed Feb. 28, 2009)

c. U.S.EPA. IRIS, Toluene. <http://www.epa.gov/iris/subst/0118.htm#noncar> (accessed Feb. 28, 2009); Prop. 65 List.

Donald JM, Hooper K, Hopenhayn-Rich C. "Reproductive and Developmental Toxicity of Toluene: A Review." *Environmental Health Perspectives* 94 (1991): 237-244.

Ng TP, Foo SC, Yoong T. "Risk of spontaneous abortion in workers exposed to toluene." *Br J Ind Med* 49 (1992): 804-808

d. Roelofs et al., 2007, Table on p. 9; U.S. EPA. Integrated Risk and Information System, Acetone. (<http://www.epa.gov/IRIS/subst/0128.htm>) (accessed Feb. 28, 2009)

U.S. Agency for Toxic Substances and Disease. "ToxFAQs for Acetone." (<http://www.atsdr.cdc.gov/tfacts21.html>) (accessed February 28, 2009)

e. Roelofs et al., 2007, Table p.9.

American Conference of Governmental Industrial Hygienists. 2001. Ethyl cyanoacrylate threshold limit value. Documentation of threshold limit values and biological exposure indices, 7th ed., 2001. Cincinnati, OH.

Asian Law Caucus and Asian Americans for Civil Rights & Equality. "Issue Brief, Chemical Hazards in the Nail Salon Industry." (<http://www.asianlawcaucus.org>) (accessed Feb. 28, 2009)

f. Massachusetts Department of Public Health's Occupational Health Surveillance Program, Massachusetts Thoracic Society, and the Massachusetts Allergy Society. SENSOR Occupational Lung Disease Bulletin. (http://www.mass.gov/Eeohhs2/docs/dph/occupational_health/sensor_lung_disease_bulletins/oct97.pdf) (accessed Feb. 28, 2009) October 1997; Roelofs et al., 2007.

The California State Board of Barbering and Cosmetology (BBC) is responsible for ensuring consumer health and safety and overseeing the licensure, testing, and classroom curriculum for nail technicians and the licensure of businesses. BBC periodically sends notifications to nail salons regarding changes in BBC policies and procedures and inspects nail salons for regulatory violations.

Ventilation technologies and standards can impact air quality inside nail salons.

The National Institute of Occupational Safety and Health (NIOSH) estimates that about half of workplace indoor air quality complaints are due to the lack of adequate ventilation.²⁶ Building codes provide rules on structural and mechanical aspects of buildings, including ventilation. Building codes are generally enforced at the local level by county or city building department officials. A building or business owner is responsible for complying with the standard in effect at the time of construction or renovations. When a nail salon moves into a retail space, a ventilation inspection is rarely performed. Although Cal/OSHA requires employers to regularly inspect and maintain mechanical ventilation systems, few small businesses are aware of this requirement, and many building owners or managers do not provide this service.

Vapors and dusts of toxic substances are generated close to the breathing zone of nail salon workers and customers. Ventilation standards that are established in building codes for retail or office spaces do not address the unique conditions of workers in nail salons who work long hours and are exposed to multiple chemicals.²⁷

Both the BBC and Cal/OSHA mandate the same ventilation standard that is required in offices,

schools and other non-industrial spaces. These are usually insufficient to keep toxic substances at “safe” concentrations. The BBC’s inspectors are neither trained nor equipped to inspect or evaluate ventilation. Quantitative measurements of ventilation can be difficult and time-consuming and Cal/OSHA officers rarely perform them. Some qualitative techniques, such as checking that the fan runs continuously or checking maintenance records, can provide moderately useful evaluations.

Other occupational health issues impact the nail salon community.

Nail salon workers’ occupational illnesses generally are not tracked or monitored. Doctors may not recognize that certain symptoms or illnesses are related to occupational hazards such as exposure to harmful chemicals.

Additionally, many nail salon workers do not have access to health care. Almost 21% of Californians, or approximately 6.6 million people, are without health insurance. Eighteen million Californians (56.7% of the population) receive health care through their employer-based health insurance.²⁸ Workers at private sector businesses of all sizes are experiencing an increased likelihood of being uninsured, although it is most pronounced in businesses with fewer than ten employees.

POLICY GOALS & RECOMMENDATIONS

I. Improve access to occupational health and safety information.

✓ **Make real the letter and spirit of the Dymally-Alatorre Bilingual Services Act.**

The Dymally-Alatorre Bilingual Services Act is a sweeping mandate to ensure that California’s LEP population has access to state and local government services via bilingual staff and translated documents.²⁹ It requires state and local agencies to employ a sufficient number of qualified bilingual staff in public contact positions and to translate documents explaining available services into the languages of their constituents when they serve a “substantial number of non-English-speaking people” or 5% of their constituency.³⁰ The State Personnel Board (SPB) is required to inform state agencies of their responsibilities under the Act, provide technical assistance to them if requested, and oversee a statewide language survey.³¹

To determine the number of non-English speakers among the people they serve, the Act provides no authorization to initiate a survey or otherwise seek information concerning a licensee’s language or ethnic background. Consequently, agencies gather data on their constituents’ languages through more passive approaches such as phone calls or office visits received through the normal course of business.

The Act has no enforcement mechanism or complaint process if an agency fails to comply. Additionally, there is no funding provided by the state for the specific purpose of language assistance; rather, the agency is responsible for funding the program out of its regular budget. The Act specifically provides that an agency need not comply if it is financially unable to do so but provides no guidance as to what constitutes financial inability, creating a significant loophole for avoiding implementation.

In 1999, the California State Auditor’s office surveyed 10 state agencies to determine the level of compliance with the Act.³² It found that there was inadequate staffing dedicated to language assistance, inadequate process for determining and keeping current on their constituents’ language needs, and inadequate monitoring and involvement by the SPB to ensure compliance. The Report concluded that the SPB did not analyze the information in the biennial surveys or follow-up with the surveyed agencies to sufficiently assist agencies in improving their language capacities. Neither the BBC nor Cal/OSHA was one of the ten agencies surveyed in 1999. The State Auditor’s office has not conducted a similar survey or report since then.

POLICY RECOMMENDATIONS:

- Request that the Joint Legislative Audit Committee commission an update to the 1999 Report by the California State Auditor on compliance with the Dymally-Alatorre Bilingual Services Act. Include survey of BBC and Cal/OSHA and gather information on agencies’ budgets for and expected costs of compliance. Use information as basis for legislative, executive and regulatory action.
- Require SPB to provide more proactive technical assistance and translation services to agencies during the two years between Biennial Language Surveys—not just during the time of the surveys themselves.
- Require SPB to consistently analyze Biennial Language Surveys, make recommendations to agencies and the legislature, and provide assistance to agencies for remedying

inadequacies. Reports and recommendations by SPB must be accessible, understandable, and translated as appropriate for the public and the legislature.

- Amend the Dymally-Alatorre Bilingual Services Act or adopt a new law to do the following:
 1. Ensure adequate and ongoing funding to state agencies to satisfy the spirit and the letter of the Dymally-Alatorre Bilingual Services Act.
 2. Require that agencies include language services in their budget proposals to the state.
 3. Add a second and alternative definition of “substantial number of non-English speaking people” for Cal/OSHA. “Substantial number” could also be defined as a specific and significant portion (for example, 20% or more) of a single work sector or industry (for example, nail salons).
 4. Add an enforcement mechanism and constituent complaint system.
 5. Define agency financial inability to comply with the Act.
 6. Require each agency to have at least one staff assigned to providing language assistance.

✓ Improve California agencies’ bilingual capacities and cultural competencies.

In spite of the large number of Vietnamese LEP owners and technicians, BBC health and safety notifications are not regularly translated into Vietnamese. The agency conducts regular inspections of nail salon establishments; however, of its 18 inspectors, only one inspector speaks Vietnamese.

Cal/OSHA has only 218 staff to inspect the workplaces of over 128 million employees. Of Cal/OSHA’s 218 inspectors, only 24 are bilingual and of those, only one in Vietnamese.³³ In the past 10 years, only 7 nail salons have been inspected by the agency.³⁴ As of June 2007, Cal/OSHA posted 90 health and safety related publications on their website. Only 6 of the health and safety documents were translated into Vietnamese and none of those documents were specifically related to the nail salon industry. Some of the documents most central to an informed workplace, such as complaint forms and Cal/OSHA’s process and procedure manuals, are only available in English.

In spite of the mandates of the Dymally-Alatorre Bilingual Services Act, neither the BBC nor Cal/OSHA has a formalized, comprehensive and systematic policy for collecting language and cultural information and implementing a language assistance program for the nail and beauty salon industry. This failure is at least in part due to lack of authorization from the legislature to proactively and systematically collect that data, which in turn hampers targeted outreach and recruitment for bilingual staff, translation of materials, and budget allocations for bilingual services.

According to the BBC, it is difficult to find bilingual Vietnamese individuals who can meet the job requirements for inspector positions which include

prior experience as an inspector with a state agency, a background in law enforcement, or coursework in criminal justice. Additionally, the civil service application and exam process can be daunting even for a native English speaker.

POLICY RECOMMENDATIONS:

- Cal/OSHA, BBC, and other agencies should:
 1. Increase the number of translated materials and post them on websites as well as distribute them to district offices.
 2. Develop a recruiting program, including specific goals and timelines, to increase the number of bilingual staff, especially Vietnamese.
 3. Develop and disseminate user-friendly manuals for nail-salon owners and workers in languages other than English such as Vietnamese, Spanish, Chinese, and Tagalog on workplace health and safety including information on employers' obligations under Cal/OSHA and BBC regulations.
- Require the BBC to request information on ethnicity and primary language on licensure and renewal forms for manicurists, cosmetologists, and establishment owners.*
- Revise the application process and job requirements (including criminal justice or law enforcement backgrounds) for Inspector positions with the BBC and Cal/OSHA.

✓ Make information about chemical hazards in nail products more comprehensible.

The U.S. Occupational Safety and Health Administration (OSHA) Hazard Communication Standard³⁵ requires chemical and product manufacturers to provide MSDSs to purchasers of products containing hazardous chemicals, but many manufacturers fail to do so. Employers are required under the Standard to make MSDSs available to workers at the worksite, and to train workers on the health effects of exposures to chemicals and protecting themselves from those exposures.

The California Hazardous Substances Information and Training Act requires that MSDSs provide “a description in lay terms” of the specific potential short- and long-term health effects posed by hazardous substances in products.³⁶ However, MSDSs generally have language that is too highly technical for many workers and employers to understand, and formats that are inconsistent from one manufacturer to the next. Some MSDS formats such as that of the American National Standards Institute (ANSI) and, when completed, the Globally Harmonized System (GHS) are more understandable to lay people than others.

Even though Vietnamese and other languages represent a huge percentage of the languages spoken by the nail salon workforce, manufacturers are not required to (and generally do not) translate MSDSs of nail salon products into other languages.

* An analysis of ethnicities of salon workers and owners will improve research on the health effects of chemical and other environmental exposures in the workplace and can inform policy decisions. For instance, many Asians lack certain enzymes that break down toluene which then cannot be eliminated rapidly from the body. As a result, the chemical may persist longer and at higher levels in the bodies of Asian individuals.

Policy Recommendations:

- Require manufacturers to ensure that the hazard evaluation information on MSDSs is complete, accurate, and comprehensible, especially regarding substances that pose chronic health hazards.
- Require manufacturers and distributors of nail salon products to provide bilingual MSDSs (including English/Vietnamese) to all purchasers.
- Legislatively mandate a standardized MSDS format for nail salon product manufacturers, using the format of the ANSI or GHS.
- Develop and translate “how to” guides into appropriate languages to help nail salon owners and technicians interpret the information in MSDSs.
- Continue developing an enforcement initiative within OSHA for compliance officers to review and evaluate the adequacy of MSDSs.³⁷

✓ Ensure basic fairness and due process for primary language non-English speakers.

Current law requires that state agencies, such as the BBC and Cal/OSHA, provide language assistance, including interpretive services in formal administrative hearings. Agencies *may* provide language assistance services in “informal fact-finding or informal investigatory hearings” but it is not mandatory that they do so.³⁸

Additionally, every agency must notify each person of her or his right to interpreter services at the time s/he receives notice of a hearing date, but the law requires that an agency must cover the cost of interpreter services only if the hearing officer requires it. Consistently covering the cost of interpreter services could result in cost-saving in more efficient communication and hearing processes.

POLICY RECOMMENDATIONS:

- Require that language assistance be provided at informal fact-finding and investigatory hearings as well as formal hearings, with costs covered by the state government or agencies.



II. Reduce or eliminate toxic exposures and other health hazards in nail salons.

✓ Encourage and support the nail salon community's compliance with best practices and health and safety laws.

Lack of education and information hinders nail technicians from following best practices in nail salons. Several states have continuing education requirements for licensed nail technicians, but California does not. Continuing education classes on the full range of occupational hazards is more effective in preventing health and safety violations than monetary fines and will help licensees keep better up to date on health and safety issues ranging from appropriate handling and disposal of products containing toxic chemicals to procedures for sanitizing foot spas.

The Oregon Health Licensing Agency which oversees the barber and cosmetology industry in Oregon, has established a program for first time violators of sanitation and infection control regulations where the licensee can either pay a fine or attend a “continuing education” class or seminar. By taking the class, the violation does not go on the individual’s record or impact her or his license.

The Oregon program has reduced the paperwork for the licensing agency. Education has provided licensees with the know-how to correct violations and avoid repeat violations and inspections, saving both the licensees and the licensing agency time and money. Classes are generally affordable, costing approximately \$25 per class. Penalties, on the other hand, can run into the hundreds of dollars for licensees.

The lack of training of many owners of nail salons also impedes the application of best practices in salons. In order to open or operate a nail salon in

California, an owner is not required to be a licensed manicurist or cosmetologist or to have taken the applicable courses on health and safety practices and regulations. These factors, along with language barriers, often challenge salon owners in following ventilation, product-use and other health and safety standards in their places of business.

California should look to Oregon again as a model. There, a person may not operate a nail salon without a license.³⁹ Requiring that an owner be trained and licensed as a manicurist or cosmetologist would help ensure that health and safety rules and best practices are followed.

Another stumbling block in applying best practices in salons is that owners and technicians sometimes unwittingly purchase products sold at cosmetology fairs or beauty supply houses that are inappropriate or not legally authorized for certain uses in commercial nail salons.

POLICY RECOMMENDATIONS:

- Develop a continuing education program and curriculum that can be conducted on-line or in-person, and provide Certificates of Accomplishment upon completion of courses that can be displayed to customers.
- Provide the option of taking affordable continuing education courses in exchange for eliminating or reducing penalties imposed by BBC or Cal/OSHA for regulatory violations.
- Require nail salon owners to be licensed as manicurists or cosmetologists with the requisite health and safety education.
- Require nail salon product manufacturers and

distributors to appropriately label products that are marketed for nail salons but are not authorized or adequate for certain uses under California law or regulations. Example: “Warning: This product does not meet BBC standards (for disinfectant, for example).”

✓ **Ensure appropriate and timely enforcement and implementation of the California Safe Cosmetics Act of 2005.**

The cosmetics industry uses more than 10,000 chemicals in its products, from nail treatment to skin lotion to lipstick. Approximately 89% of these ingredients have not been evaluated for safety by the U.S. Food and Drug Administration, industry’s Cosmetics Ingredients Review (CIR) panel, or any other publicly accountable institution.^{40, 41}

The first law of its kind, the California Safe Cosmetics Act of 2005 requires manufacturers to disclose to the state any ingredient known to cause cancer or reproductive harm, including ingredients that are in fragrance, an ingredient category that is exempted from federal labeling law. Also, the law authorizes (but does not require) the California Department of Public Health (DPH) to investigate any of the products reported by cosmetic manufacturers that contain chemicals known to cause cancer or reproductive toxicity. If DPH investigates and finds that one or more ingredients in a cosmetic product pose a hazard to workers, it must submit its findings to Cal/OSHA.

The law does not mandate that the state’s Attorney General impose any disciplinary action when a cosmetic manufacturer has submitted unsubstantiated safety information on a cosmetic product.

Adequate and reliable funding is needed for the

Safe Cosmetics Program to carry out its duties as outlined in the law. Funds are needed for verification of the information submitted by the cosmetics manufacturers, for product testing, and for enforcement of the law.

POLICY RECOMMENDATIONS:

- Ensure proper implementation and expansion of the Safe Cosmetics Act through the development of a sustainable funding source.
- Amend the Act so that it is mandatory that DPH investigate whether reported products containing chemicals that cause cancer or reproductive harm pose hazards to workers.
- Authorize the Attorney General to impose penalties on cosmetic manufacturers that report a product is safe despite containing an ingredient that the CIR has found is not safe for the use specified on the product’s label.
- Request that the Legislature prepare a yearly status report on the efficacy of the program.
- Require cosmetic manufacturers to provide information on health studies and the concentrations of toxic chemicals in each product reported to DPH.

✓ **Ensure that the needs of the nail services community are addressed in the state’s Green Chemistry Initiative.**

California currently has little authority to restrict the use of hazardous or untested chemicals in consumer products. Of the more than 85,000 chemicals in commerce, only a small percentage of them has ever been screened for even one negative health effect, such as cancer, reproductive toxicity, developmental toxicity, or endocrine disruption. There is also very little information

about how chemicals are used in every day consumer products or in manufacturing processes. Programs at the federal level that are designed to collect this information are voluntary and only ask for minimal health information.

Existing policies address the health impacts of chemicals on a chemical-by-chemical or use-by-use basis. Even chemicals that are widely recognized as highly hazardous have escaped restrictions because of a weak regulatory framework, strong pressure from chemical industry lobbyists, and weak EPA enforcement. Workers, low-income communities, and communities of color are disproportionately impacted by the health effects of hazardous chemicals in the environment and in products.

Pursuant to AB 1879/SB 509 (2008), the state is proactively undertaking a role in the identification, prioritization, and regulation of substances designated as “chemicals of concern” found in consumer products, including chemicals and combinations of chemicals used in nail salon products, and identification of potentially safer alternatives. These programs are part of the state’s larger Green Chemistry Initiative (GCI) designed to better regulate all chemicals in commerce in California.

The legislation also establishes a Toxics Information Clearinghouse to collect and distribute information about hazardous chemicals. The new Clearinghouse will provide information to businesses and consumers about the health hazards associated with the chemicals of concern, leading to informed choices about products that contain them.

Since this online clearinghouse is intended to provide information to allow for better choices, it is essential that the clearinghouse include information beyond the traditional health endpoints such as cancer and reproductive toxicity, and include

information about emerging health threats such as endocrine disruption and multi-generational effects. While this information may be difficult to gather currently, the database must be designed in such a way that it can accommodate new information.

Currently, there is no law requiring disclosure of certain ingredients such as fragrances, flavorings, and anything designated as “trade secrets.” The situation is worsened when it comes to professional use nail products because they are excluded from ingredient labeling requirements. Full disclosure to the toxics clearing house of **all** ingredients used in products should be required.

POLICY RECOMMENDATIONS:

- Prioritize and slate for phase out or other regulatory action toxic chemicals used in the nail salon industry.
- Include key chemicals of concern used in nail salon products in the online Toxics Information Clearinghouse as well as the spectrum of potential health effects that may be associated with them.
- Include chemical use information in the toxics clearinghouse, requiring **all** product ingredients to be listed by manufacturers.

✓ Develop a statewide Green Nail Salon Program.

Green or environmentally-friendly businesses are gaining in popularity. The term “green” is generally used to denote a business, practice, or product that has greatly reduced its negative impact on the environment. Some nail salons in California and across the country are tapping into the positive trend of “going green.”

Unfortunately, there are no statewide or national green standards for the nail salon industry. Some

nail salons identify themselves as “green” because they use alternative products that, for instance, are free of DBP, toluene, or formaldehyde. Others have expanded their activities to include a range of green business practices such as paper and plastic recycling programs, water-saving devices, and energy-efficient building designs. Consumers who prefer to support more environmentally friendly businesses have no standard by which to judge nail salons’ products or practices.

The Monterey Bay Area Green Business Program has a green nail salon certification program but thus far no nail salon is certified. Under this program, a green certified nail salon must offer environmentally-friendly nail polish alternatives, prohibit the use and sale of acrylic nails, and obtain safety ratings for their products from the Skin Deep Database (a database of cosmetic brands, products, and ingredients, and their toxicity).⁴² In addition, the program requires compliance with a list of standards within the areas of pollution prevention, energy conservation, solid waste reduction, water conservation, and employee awareness. The nail salon must be in compliance with health and environmental regulatory requirements. Salons do not have to adhere to each and every standard; the standards in some sections are mandatory, in other sections some choice and discretion is permitted. To most effectively encourage the development of green nail salons regardless of the county or city in which they are located, a green nail salon program should be implemented on a statewide basis.

Policy Recommendations:

- Support Department of Toxic Substances Control (DTSC), California Environmental



Protection Agency (Cal-EPA) and other agencies in developing a statewide green business standard and program for the nail salon industry, including providing technical support for prospective green salon owners and conducting a media campaign to bring consumer attention to participating salons.

- Explore and develop a “Safe Salon Compact” certification program in collaboration with the Safe Cosmetics Campaign and key regulatory agencies. The goal will be to encourage nail salon owners to use safer nail products as a stepping stone to going completely green.

✓ Remove harmful chemicals from nail salon products now, in support of the Green Chemistry Initiative.

Although there is evidence supporting the harmfulness of many chemicals in nail salon products and processes, chemical and product manufacturers are slow to conduct research to find and utilize safer alternatives. Some product manufacturers are transitioning away from some of the most harmful chemicals; for example, nail products without DBP, formaldehyde, and toluene are available.⁴³ However, some of those companies which are developing alternative products are at a competitive disadvantage because their products tend to be more expensive.

To level the competitive playing field as well as fund and encourage the development of safer products, the state should explore imposing a fee that penalizes manufacturers for using the worst

chemicals (EMA, toluene, DBP, etc.) in their nail products. This fund could support research and development of less toxic or toxic-free nail product alternatives. Collected fees could also be used to help nail salon owners defray the costs of purchasing and maintaining ventilation systems adequate to protect workers and customers from harmful chemicals that manufacturers continue to use in nail products.

More research is needed to better understand the hazards associated with chemicals in nail products (both individually and in combination with each other), how products could be reformulated to be safer, and what alternative products could replace those that are unsafe.

POLICY RECOMMENDATIONS:

- Ban toluene, dibutyl phthalate, formaldehyde, EMA and other specific “bad actor” chemicals from nail products.
- Explore the feasibility of a program that would dis-incentivize the use of bad actor chemicals in nail salon products and would result in generating funds to assist owners with ventilation expenses and/or to finance research into safer chemical and product alternatives.
- Request that California agencies, for instance, the Occupational Health Branch of the California DPH and the Office of Environmental Health Hazard Assessment (OEHHA) of Cal-EPA, research and report on the health hazards associated with chemicals in nail salon products.

✓ Improve ventilation technology and standards in nail salons.

Until we rid nail salon products of their hazardous ingredients, exhaust ventilation systems should be used in nail salons to better protect both workers and customers. Local exhaust ventilation, such as a vented table, is considered to be most effective because it captures and removes contaminants at their source (“source capture system”). In other words, the contaminants are removed before they reach a worker’s or consumer’s breathing space and are exhausted directly to the exterior of a building. NIOSH recommends the use of ventilated work tables by nail technicians when applying artificial fingernails.⁴⁴ Beginning in January 2009, NIOSH is conducting a study of various vented tables to determine their relative efficiency, noise level, and other elements of good ventilation systems.⁴⁵

Some jurisdictions such as Oregon are adopting more rigorous nail-salon ventilation standards. The 2007 Oregon Mechanical Specialty Code requires that a source capture system be installed at every manicure and pedicure station. This “source capture system” must be adequate to draw air away from manicurists and consumers with an exhaust rate of at least 50 cubic feet per minute (cfm) for intermittent exhaust at each station (during chemical use) and 20 cfm for continuous exhaust.⁴⁶ Although there has been no study to determine the precise ventilation level or technology necessary to make the air in nail salons safe to breathe, it is useful to note that the International Code Council requires the same level (50 cfm) of exhaust in bathrooms, just for control of odors. Oregon’s ventilation standard is applied only to new salons or to existing salons that add new nail stations to their businesses.

Although in many ways vented or down-draft

tables and other source capture systems hold great promise for improving air quality for nail salon workers and customers, they are not without problems. Vented tables require regular maintenance and cleaning. Installing a source capture system at each table or pedicure station might be financially difficult for the owner, especially since the system must be re-installed should the business move to another location. The expense of installing a source capture system will vary depending on the approach used. Also, many nail salon owners lease their space, complicating the financing and making of structural changes (wall/roof penetrations might be necessary for duct installation). Over-use of local exhaust ventilation and excess use of energy should be avoided.

Exhausting chemicals away from the breathing zones of workers and consumers should go hand in hand with adequately filtering air that goes outside. However, it is difficult and expensive to filter chemicals in nail products out of exhaust air prior to its release.

The California Air Resources Board's (CARB) Innovative Clean Air Technology program (ICAT), focusing on improving outdoor air quality through improved technology, has brought new technologies to commercialization in California. Developing a similar program focused on **indoor** air quality could foster the development and commercialization of legitimate, cost effective technologies that improve indoor air in nail salons.⁴⁷

POLICY RECOMMENDATIONS:

- In conjunction with the EPA, NIOSH, and CARB or other state or federal agencies, study ventilation in salons in order to: 1) Determine the level of ventilation necessary for health protective air quality for workers in nail salons;

2) Explore the effectiveness, practical utility, and costs of vented nail tables and other source capture ventilation systems in both owned and leased space; 3) Determine how to adequately filter air that is vented to the outside of nail salons; 4) Develop recommendations with respect to the relative effectiveness and practicality of various ventilation technologies and methods.

- Develop and fund a program similar to CARB's ICAT program to foster the development and commercialization of practical and cost effective technologies to improve indoor air quality in salons, such as source capture ventilation systems with low-noise, air-cleaners and filters, air monitors and assessment tools.
- The state, BBC and/or Cal/OSHA should explore and develop a more protective nail salon-specific ventilation standard, including the following:
 1. Elicit and incorporate input from nail salon owners and workers on the practicality of ventilation technologies and methods.
 2. Develop a culturally and linguistically appropriate outreach program to educate owners and workers on ventilation standards, methods, and technologies.
 3. Develop a technical assistance program to help nail salon owners comply with current standards.
 4. Develop incentive and assistance programs for existing, new, and newly renovated establishments to comply with improved standards.

✓ **Establish comprehensive government programs to reduce hazardous chemicals and improve indoor air quality in nail salons.**

Despite the significant health and economic impacts, indoor air pollution does not have the benefit of a coordinated and focused risk reduction program at the state or federal level. The existing regulations that apply to indoor air quality are scattered across multiple agencies, leaving substantial gaps in the state's ability to reduce indoor air pollution for workers and salon customers. The actions of many agencies such as the BBC affect indoor air quality, and a few like Cal/OSHA and CARB have limited authority over some aspect of indoor air quality, but no state (or federal) agency has the authority or mandate to conduct or coordinate a comprehensive indoor air pollution prevention and mitigation program.

Additionally there are gaps between environmental and occupational regulation of toxicants. Cal/OSHA's process for establishing permissible exposure limits (PEL) lacks a consistent scientific basis. A December 2007 report issued by OEHHA recommended using existing OEHHA cancer and non-cancer risk assessments to update occupational standards in California.⁴⁸ The report also recommended new legislation similar to that considered in the 2007–08 legislative session, Assembly Bill 515 (Lieber). AB 515 would have required the Cal/OSHA Standards Board to prioritize the adoption of PELs for certain toxic materials. The bill would have also required each adoption to correspond, to the extent feasible, with the health-based occupational exposure level recommended by OEHHA.

Cal/OSHA PELs address individual chemicals and are usually based on 8-hour time-weighted

average exposures. These standards tend not to be protective for nail salon workers who use many different toxic chemicals for short periods repeatedly over the course of the day. Under these use conditions, exposure monitoring for individual toxic chemicals averaged over an 8-hour period can show that they are below the Cal/OSHA PEL even though workers experience frequent high exposures which can have adverse health effects, especially during pregnancy. This is of particular concern since most Cal/OSHA PELs do not protect against reproductive and developmental toxicity, and workers in the nail salon industry are predominantly women of childbearing age.

POLICY RECOMMENDATIONS:

- Pass legislation similar to AB 515 in order to improve Cal/OSHA's process for establishing PELs to ensure that they are based on quantitative risk assessments, protect against chronic toxicity such as cancer and reproductive and developmental damage, and correspond to the health-based occupational exposure limits recommended by OEHHA.
- Give CARB authority to set emission standards for indoor air pollutants that pose human health risks.
- Create a management system for indoor air quality that establishes and assigns authority and responsibility for assessing indoor health problems of consumers and workers, identifying the actions needed to reduce the most significant problems, and setting guidelines, emissions limits, or other requirements that will be effective in reducing the health impacts of indoor sources.⁴⁹

III. Ensure greater access to health care and occupational medicine.

✓ Support comprehensive reform of the health care system, emphasizing the importance of occupational medicine and disease surveillance.

Many nail salon workers and owners experience adverse health effects due to the chemical products they use at work. Yet there has been little tracking or monitoring of those health effects. Although the Occupational Health Surveillance and Exposure Program (OHSEP) of the Occupational Health Branch of the DPH conducted a field investigation of asthma at a beauty salon which offered manicures in 2002, little if any monitoring or investigation of nail salons has been conducted since then.

In addition to exposure to hazardous chemicals, nail salon workers earn low wages and are typically not offered health care coverage through their employers. In California, workers at businesses with 24 or fewer employees constitute 38% of the uninsured in California.⁵⁰ In a study of Vietnamese nail salons workers in Alameda County, California, 16% of participants had no health coverage. Of the insured, only 4 out of 201 had work-based coverage.⁵¹ A universal health care system (such as single payer) would be an important step toward improving the lives of the mostly female nail salon community.

A universal health care system in California should include an emphasis on occupational health and safety. Occupational medicine clinics and staff could provide information and guidance on health problems endemic to nail salons, such as asthma and dermatitis from chemical exposures, ergonomic injuries from sitting in awkward positions for long



periods, and concerns about continuing to work during pregnancy. Occupational health experts could conduct workshops on accident and illness prevention, health education and promotion, the establishment and implementation of health and safety standards, monitoring the work environment and occupational illnesses and diseases, and reduction of recognized hazards.

POLICY RECOMMENDATIONS:

- The state should expand its program on surveillance of occupational injuries and intervention. In particular, OHSEP should monitor the adverse effects of repeated high chemical exposures to nail salon technicians over a long period of time. Based on the results, the Occupational Health Branch of the DPH should issue specific recommendations for protecting technicians' health.
- Support a universal health care system (such as single-payer) that addresses affordability and accessibility, provides for culturally and linguistically appropriate services, is not affected by employment status or a pre-existing condition, and emphasizes occupational medicine.

CONCLUSION

This report discusses some of the key barriers to occupational safety and health in the nail services industry. Workers and salon owners are exposed to a variety of chemicals linked to adverse health effects such as asthma, cancer, and reproductive damage. And many do so without adequate and accessible information or any reliable health care.

However, this report is not exhaustive in describing all the occupational hazards faced by nail salons workers and technicians. Other hazards include musculo-skeletal or ergonomic injuries, low wages, lack of employee protections due to “independent contractor” versus “employee” status, to name a few.

Additionally, at the time that this report goes to press (April 2009), the economy is experiencing an extraordinary downward turn characterized by unusually high job losses and business failures, and diminishing government budgets. Notwithstanding the current economic climate, in advancing policy change that will dismantle barriers to safety and health in nail salons, the California Healthy Nail Salon Collaborative looks forward to collaborating with other organizations and agencies who similarly recognize the importance of improving the safety and health of the nail services community.

About the California Healthy Nail Salon Collaborative

The California Healthy Nail Salon Collaborative was formed in 2005 out of growing concern for the health and safety of nail salon and other cosmetology workers, owners, and consumers. The Collaborative coordinates, leverages, and builds upon the respective expertise and activities of its diverse members and partners to advance a preventive environmental health agenda for nail and beauty salon communities in California. Comprising of public health and environmental advocates, nail salon workers and owners, community-based groups, educational institutions, and allies in government agencies, the Collaborative seeks to proactively address health and safety concerns of the nail salon community through an integrated approach using policy advocacy, research, outreach, and education strategies.

For more information about the California Healthy Nail Salon Collaborative and to find out how you can be involved with our work, please visit our website at www.cahealthynailsalons.org.

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GLOSSARY OF ACRONYMS

ANSI	American National Standards Institute
BBC	California Board of Barbering and Cosmetology
Cal/OSHA	California Division of Occupational Safety and Health
Cal-EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CFM	cubic feet per minute
CIR	Cosmetics Ingredients Review
DBP	dibutyl phthalate
DIR	California Department of Industrial Relations
DPH	California Department of Public Health
DTSC	California Department of Toxic Substances Control
ECA	ethyl cyanoacrylate
EMA	ethyl methacrylate
EPA	U.S. Environmental Protection Agency
GCI	Green Chemistry Initiative
GHS	Globally Harmonized System
ICAT	Innovative Clean Air Technology
LEP	limited English proficient
MMA	methyl methacrylate
MSDS	Material Safety Data Sheet
NIOSH	National Institute of Occupational Safety and Health
OEHHA	California Office of Environmental Health Hazard Assessment
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
SPB	State Personnel Board

