CALIFORNIA
healthy nail salon
COLLABORATIVE
Liên Hiệp Ngành Móng Tay Lành Mạnh

October 21, 2014

Meredith Williams, Deputy Director
Safer Products and Workplaces Program
California EPA, Department of Toxic Substances Control

Re Safer Consumer Products Regulations, draft 3-year work plan

Dear Deputy Director Williams,

We are writing to comment on the September 2014 *Safer Consumer Products DRAFT Priority Product Work Plan* released by the Department of Toxic Substances Control (DTSC).

Who we are.

The California Healthy Nail Salon Collaborative (Collaborative) comprises approximately 40 public health and environmental advocates, salon workers and owners, and allies in government agencies. The Collaborative focuses on reproductive and environmental justice and health for the nail and hair salon community through outreach/education, research, and policy strategies. We are an active member of Californians for a Healthy and Green Economy (CHANGE Coalition).

Workers in the salon industry.

In California alone, there are 289,320 cosmetologists who are licensed to provide hair and nail services in addition to other personal care services; there are 122,039 licensed manicurists.[i] According to the Bureau of Labor Statistics, half of manicurists and pedicurists in California earn less than $20,470 per year.[ii]

In California, the overwhelming majority of manicurists are women of color and are of reproductive age. The nail salon industry represents a significant niche market for Vietnamese immigrants in California and has become an economic cornerstone of the community. Although the exact percentage of California manicurists who are Vietnamese is not known, estimates range from 59%-80%. [iii] [iv]

Many nail and hair salon products that workers handle every day contain harmful substances that are associated with a range of illnesses and conditions. Nail salon products can contain toluene, formaldehyde or dibutyl phthalate (DBP), otherwise known as the "Toxic Trio." This trio of substances is linked to neurological, reproductive and developmental harm, cancer, and respiratory problems.[v]

Formaldehyde is a common ingredient in hair straighteners and relaxers, greatly impacting women of color and hair salon workers. And these are just three of the many chemicals in cosmetics used by workers that are of concern due to evidence of harm or a lack of research regarding potential health impacts.

General comments:

We appreciate the range of the chosen products and chemicals, reflecting the urgent need to find safer alternative products used in all aspects of daily life -- in our homes, our workplaces, when we play and when we experience the outdoors.

We also applaud the commitment to tackle 5 to 10 chemical/product combinations per year over the next three years. We urge DTSC to stay vigilant in that commitment and to seek assistance from non-governmental organizations (NGO) and resources from the administration and legislature to ensure meeting that goal.

We suggest focusing on multiple chemicals with selected products when appropriate; an example would be targeting toluene, phthalates, formaldehyde, and triphenyl phosphate in nail polish instead of each chemical one at a time. This would be a more efficient use of your agency's time and resources, as well as the time and resources of industry.

We strongly recommend adding and applying the attribute or prioritization factor of "products that are marketed to low-income and Limited English Proficient (LEP) workers and communities of color" due to limited access to information on toxic chemicals and products and historical exploitation. These communities overlap and share common interests with nail and hair salon workers whose profession rests on the use of chemical products and consumer demand. Our comments reflect our mission of improving working conditions, including reducing the use of toxic products, for nail and hair salon workers.

We urge you to continue to engage the NGO community and its allies in the medical, scientific, and business communities and rely on us/them for meaningful insights and information as you move forward with this process.

Comments re Beauty, Personal Care and Hygiene Products:

We request that you target and prioritize the following product/chemical combinations:

1. Target toluene, DBP and other phthalates, formaldehyde, and triphenyl phosphate (TPP) in nail polish and, in doing so, support Healthy Nail Salon Recognition Programs in California that reward the use of safer nail products in salons. Some manufacturers may be replacing DBP with TPP for which there is growing evidence of human toxicity.

2. Target formaldehyde/methylene glycol and other formaldehyde releasing chemicals due to its presence across the broad category of products and the chemical's serious health effects; prioritize hair straighteners and nail products.

Formaldehyde is an ingredient in a range of personal care products including hair straighteners, nail polish, nail glue, eyelash glue, hair gel, baby shampoo, body soap, body wash, and color cosmetics. We request that you prioritize formaldehyde in hair straighteners and smoothers and nail products, all of which are used frequently by salon workers and women of color.

In August 2011, the FDA notified the maker of the hair straightener Brazilian Blowout of violations of the Federal Food, Drugs, and Cosmetics Act and urged correction of the violations. The FDA said the company had misrepresented the product's ingredients by indicating on the label that the product did not contain formaldehyde. In the same letter, the FDA said the hair product was "adulterated" due to it containing high levels of the formaldehyde-releasing chemical methylene glycol. Thus far, FDA has taken no action against Brazilian Blowout or any other maker of a similar product containing high levels of formaldehyde.

In its warning letter, the agency described reported adverse reactions to the hair straightening product used primarily in salons but also purchased at the retail level:

> Adverse events have reported the following injuries associated with Brazilian Blowout: eye disorders (irritation, increased lacrimation, blurred vision, hyperaemia); nervous system disorders (headache, burning sensation, dizziness, syncope), and respiratory tract (dyspnea, cough, nasal discomfort, epistaxis, wheezing, rhinorrhea, throat irritation, nasopharyngitis). Other reported symptoms included nausea hypotrichosis, chest pain, chest discomfort, vomiting, and rash.[vi]

Formaldehyde is a known human carcinogen. [vii] Studies of workers have showed a possible link between formaldehyde exposure and several cancers, including nasopharyngeal cancer and leukemia.[viii] Formaldehyde is also a sensitizer "that can cause an immune system response upon initial exposure."[ix]

Canada, Australia, and the European Union have banned formaldehyde in many cosmetic products due to safety concerns.[x] In 2011, the Cosmetics Ingredient Review Expert Panel (CIR) determined that formaldehyde/ methylene glycol is unsafe in hair straightening products.[xi]

Despite all the known serious health impacts and legal restrictions in other countries, formaldehyde continues to be an ingredient in cosmetics in the United States; in fact, at least 33 hair straightening products are available for sale in the U.S. but are banned in other countries.[xii] Formaldehyde should be targeted by the Safer Consumer Products regulatory process to prompt alternative analyses of formaldehyde-containing beauty, cosmetic and personal care products.

3. Name artificial nail (including gel) products and nail resins as a subcategory under Beauty, Personal Care and Hygiene Products. Designate methyl methylacrylate (MMA) and other acrylates.

Notable levels of MMA are detected in the air in California nail salons even though the California Board of Barbering and Cosmetology (BBC) prohibits its use.[xiii] It is not otherwise prohibited in California, such as in retail stores, and neither is there any federal regulation prohibiting its use in artificial nail products.

The Association of Environmental and Occupational Clinics (AOEC) identifies methyl methacrylate (MMA) as an asthmagen. Other substances in artificial or gel nails can evolve into or release MMA such as polymethyl methacrylate (PMMA). PMMA, MMA and other acrylates are also linked to skin sensitization and contact dermatitis which can include skin itching, burning, scaling, hives, blistering, and even eczema.[xiv] Sensitization to acrylates is a common adverse reaction to artificial fingernails.[xv]

In a study in Colorado, 9.3% of the cosmetologists surveyed had doctor-diagnosed asthma. Hairstyling and applying artificial nails significantly increased the risk of an asthma diagnosis. Manicurists providing artificial nail services had a 3-fold increased risk of their asthma being exacerbated.[xvi] In another study, manicurists that regularly provided artificial nail services experienced decreased lung function and increased airway inflammation.[xvii]

To make matters worse, sometimes it's impossible to know exactly what chemicals are in artificial nail products because ingredients on Safety Data Sheets are identified broadly as, for example, "acrylated oligomer" and "methacrylate ester monomer" which have no CAS numbers.[xviii] This example of "hiding the ball" when it comes to identifying chemical ingredients on SDSs, is especially concerning given the limited English skills of many in the nail salon worker and owner community.

4. Focus on acetone in removers of nail polish and artificial or acrylic nails.

Acetone is a neurotoxicant and is a common ingredient in nail polish and artificial nail removers. Removers are used occupationally many times/day by nail salon workers. Acetone is also of concern due to the use of cumene in its manufacture potentially resulting in occupational exposures. Recently, in its Report on Carcinogens, Thirteenth Edition, the National Toxicology Program determined that cumene is "reasonably anticipated to be a human carcinogen."[xix]

Not only is acetone used for polish and artificial nail removers, it may also be used for a variety of common tasks around the home such as removing cuts and dings from a plastic watch cover or shining shoes, resulting in potential exposures to small children.[xx]

Methy ethyl ketone (MEK), acetonitrile, methanol, and N-methyl pyrrolidone (NMP) are also of great concern but we believe that they are essentially prohibited from being used in nail polish (including acrylics) remover by the California Air Resources Board. [xxi] Section 94509 of the CARB regulation limits the presence of volatile organic compounds to 1% in nail polish. Acetone is exempted from that restriction. See section 94508(a)150(B).

5. The following cosmetic products and candidate chemicals are also of concern:

- Chemical functional category of "fragrance;" include styrene, phthalates and musk xylene.
- Toluene, MEK, acetonitrile, methanol, and acetone in polish thinners.
- Toluene, isocyanates, formaldehyde, methyl methacrylate and other acrylates in nail glues and resins.
- Styrene, trichloroethylene (TCE), 1,4 dioxane in hair extension glue, lace wig glue.
- Cyclomethicone or cyclopentasiloxane in flat iron sprays, thermal protection sprays.
- P-phenylenediamine in hair dyes, block henna tattoo.

- Ammonium persulfate in hair bleach.
- NMP in mascara.
- Trichloroethane in nail brush cleaners.
- Nitrosamines in almost every personal care product; are linked with cancer and endocrine disruption.

Comments re "Cleaning Products:"

Please include the following candidate chemicals and products in the draft work plan:

- 2-butoxyethanol (also called ethylene glycol monobutyl ether) in industrial cleaners.
- P-dichlorobenzene in air freshener blocks and toilet deodorizers
- Petroleum distillates (Stoddard solvent) in industrial grease cutters and furniture polishes.
- Chloroform in bleaches such as Clorox.
- Carbon tetrachloride in bleaches such as Clorox.
- 1.4-dioxane in various detergents and cleaning products.

In closing, cosmetics and cleaning products don't have to be and shouldn't be dangerous. We hope you incorporate our suggestions into the 3-year draft work plan for the Safer Consumer Products Regulations.

Sincerely,

Catherine A. Porter, JD
Policy Director
California Healthy Nail Salon Collaborative
(510) 985-1146

---

[i] Tandra Guess, CA Board of Barbering and Cosmetology (BBC) Policy Analyst, via email to Catherine Porter, November 7, 2013.

[ii] Bureau of Labor Statistics (BLS), Occupational Employment and Wages, May 2013, 39-5092 Manicurists and Pedicurists http://www.bls.gov/oes/current/oes395092.htm. (accessed April 4, 2014)

[iii] Quach T, Nguyen K-D, Doan-Billings P-A, Okahara L, Fan C, Reynolds P. "A Preliminary Survey of Vietnamese Nail Salon Workers in Alameda County, California." Community Health 33 (2008) 336-343. DOI 10.1007/s10900-008-9107-7. (http://www.springerlink.com/content/k72566646012vl26/) (accessed April 4, 2014) [hereinafter Quach, et al., 2008], citing Federman MN, Harrington, D E, Krynski, KJ. (2006). "Vietnamese manicurists: Are immigrants displacing natives or finding new nails to polish?" Industrial & Labor Relations Review 59, 302–318.

[iv] Dickson, Akeya. "Nail care industry beckons big money." Reuters, June 20, 2004. Cited on EPA website, http://www.epa.gov/dfe/pubs/projects/salon/milestones.htm. (accessed April 4, 2014)

[v] Ng TP, Foo SC, Yoong T. *Risk of spontaneous abortion in workers exposed to toluene.* Br J Ind Med 49 (1992): 804-808; U.S. EPA Integrated Risk Information System, Toluene (CASRN 108-88-3), http://www.epa.gov/iris/subst/0118.htm (accessed April

4, 2014); OEHHA, Chemicals known to the State to cause cancer or reproductive toxicity. Di-n- butyl phthalate (DBP), http://oehha.ca.gov/prop65/prop65_list/files/P65single110813.pdf, p. 9 (accessed April 4, 2014); Hazard Summary-Created in April 1992, Revised in January 2000, http://www.epa.gov/ttnatw01/hlthef/formalde.html (accessed April 4, 2014).

[vi]http://www.fda.gov/ICECI/EnforcementActions/WarningLetters/ucm270809.htm

[vii] National Toxicology Program (June 2011). *Report on Carcinogens, Twelfth Edition.* Department of Health and Human Services, Public Health Service, National Toxicology Program. Retrieved June 10, 2011, http://ntp.niehs.nih.gov/go/roc12.

[viii] http://www.cancer.gov/cancertopics/factsheet/Risk/formaldehyde#r6

[ix]https://www.osha.gov/OshDoc/data_General_Facts/formaldehyde-factsheet.pdf

[x] Women's Voices for the Earth (2014) Hair straightening products containing formaldehyde. Available at: http://www.womensvoices.org/avoid-toxic-chemicals/cosmetics-salons/hair-straightening-products-containing-formaldehyde/ 2014.

[xi] http://www.personalcarecouncil.org/newsroom/20110928

[xii] http://www.womensvoices.org/avoid-toxic-chemicals/cosmetics-salons/hair-straightening-products-containing-formaldehyde/

[xiii] Thu Quach, PhD, Robert Gunier, MPH, Alisha Tran, Julie Von Behren, MPH, Phuong-An Doan-Billings, Kim-Dung Nguyen, Linda Okahara, Benjamin Yee-Bun Lui, MD, Mychi Nguyen, MD, Jessica Huynh, and Peggy Reynolds, PhD, American Journal of Public Health, Supplement 1, 2011, Vol 101, No. S1.

[xiv] Kanerva L, et al. 1996. Occupational allergic contact dermatitis caused by photobonded sculptured nails and a review of (meth) acrylates in nail cosmetics. Am J Contact Dermat 7(2):109-15.

[xv] J Eur Acad Dermatol Venereol 21(2):169-74.

[xvi]Kreiss K., Esfahani RS., Antao V., Odencrantz J., Lezotte DC. and Hoffman RE. (2006) Risk factors for asthma among cosmetology professionals in Colorado. Journal of Occupational and Environmental Medicine. Vol. 48, pp:1062-1069. 2006.

[xvii] Reutman SR., Rohs AM., Clark JC., Johnson BC., Sammons DL., Toennis CA., Robertson SA., MacKenzie BA. And Lockey JE. (2009) A pilot respiratory health assessment of nail technicians: Symptoms, lung function and airway inflammation. American Journal of Industrial Medicine. Vol. 52, pp: 868-875. 2009.

[xviii] See for example, IBD Builder Gel SDS at http://www.nailsupplies.us/content/Builder_Gel.pdf.

[xix] http://ntp.niehs.nih.gov/ntp/roc/content/profiles/cumene.pdf

[xx] Readers' Digest, http://www.rd.com/slideshows/extraordinary-uses-nail-polish-remover/#slideshow=slide1

[xxi] Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94507-94517.