



Poisonous Polish: *Toxic Exposure and Health Risks to Nail Salon Workers*

Chemicals

Formaldehyde, phthalates, acetone, toluene, methacrylates, and other volatile organic compounds are all used in nail salons.¹

- Chemicals used in solvents (e.g., acetone, toluene) have been associated with miscarriage and can affect fetal nervous systems resulting in birth defects.²
- Formaldehyde was recently added by the National Toxicology Program to the official list of chemicals known to cause cancer.³
- Dibutyl Phthalate (DBP) has been linked to cancer and may damage women's and men's reproductive organs as well as the development of a fetus.⁴
 - DBP has been banned completely by the European Union because it was "known or strongly suspected to cause cancer, mutations, or birth defects."⁵
 - Manufacturers claim there is no link between using polish with DBP and health risk.⁶
 - Phthalates can cross the placenta into amniotic fluid and can be passed to infants in breast milk.⁷ They also significantly impact natural hormone levels.⁸
- Toluene, formaldehyde, and DBP collectively are known as the "Toxic Trio," and several companies have begun to phase them out; however, it is unclear if the replacements for these chemicals are any safer.⁹

Government Regulatory Problems

- The nail industry uses more than 10,000+ chemicals, only a small percentage of which have been tested for safety before being put on the market.¹⁰
 - The European Union has banned more than 1,000 of these substances, while the FDA has banned fewer than 10.¹¹
- Cosmetic products and ingredients are regulated by the FDA, but the FDA does not inspect or approve them when they are put on the market.¹²
 - The Safe Cosmetics Act of 2011, H.R. 2359, was introduced on June 24, 2011 and is designed to give the U.S. Food and Drug Administration (FDA) the authority to ensure that personal care products are free from toxic ingredients.¹³
- Federal legislation prevents the Environmental Protection Agency (EPA) from effectively controlling toxic chemicals in consumer products.¹⁴
- Nail polishes are tested by the manufacturer, but only for "immediate and acute reactions – not long-term health problems such as cancer risk or reproductive toxicity."¹⁵
- Phthalates like DBP are not required to be listed as an ingredient on polish used in salons.¹⁶
- Many chemicals are listed as "fragrance" on cosmetic labels to protect "trade secrets."¹⁷
- Terms such as "natural," "organic," or "hypoallergenic" have no set definition, so the terms have whatever meaning that manufacturers give them and can be misleading.¹⁸
- There are Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) for some of the chemicals used in nail salons.¹⁹
 - PELs do not take into consideration the effects of chemical combinations or long term effects from technically "safe" exposure.²⁰
 - PELs are typically decades old and based on inhalation exposure in industrial settings; they do not account for skin absorption.²¹
 - There is some debate over whether OSHA standards apply to "booth rental" salons.²²
- Manufacturers are required to provide businesses with information about the proper chemical handling techniques,²³ but these can be very technical and in only one language.²⁴
- The state boards of cosmetology are often responsible for educating and regulating workers in the industry on safety issues,²⁵ but frequently fail to do so.²⁶



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- The Cosmetic Ingredient Review Board (CIR) was created *by the cosmetics industry* to evaluate the safety of the ingredients used in cosmetics, but this self-regulating board does not have the authority to prevent companies from using chemicals it finds to be unsafe.²⁷

Workplace Problems

- Hazardous products are poorly labeled and written in English only, but they are mostly being used by non-English or limited English speakers/readers.²⁸
- Small workspaces with inadequate ventilation.²⁹
 - Ventilation systems for conventional office spaces are incorrectly used in salons.³⁰
 - Regulations do not define key terms (e.g., “proper and adequate” ventilation).³¹
- Recommendations for ventilation and protective gear (instead of requirements).³²
- No unions fighting for workplace safety, better standards, or increased regulation.
- Little or no recourse for immigrant workers who may feel their health is at risk because they face job loss if they speak out (with heightened risk for undocumented workers).³³
- The [Occupational Safety and Health Act of 1970](#) gives employees and their representatives the right to file a complaint and request an OSHA inspection of their workplace if they believe there is a serious hazard or their employer is not following OSHA standards.³⁴ Further, the Act gives complainants the right to request that their names not be revealed to their employers.³⁵
- Employees or their representatives may file a safety and health complaint online, via fax, or over the phone.³⁶
- Employees or their representatives must provide enough information for OSHA to determine that a hazard probably exists. Workers do not have to know whether a specific OSHA standard has been violated in order to file a complaint.³⁷

Who is Affected?

- As of 2008, there are approximately 350,000 licensed nail technicians working in the U.S.³⁸
 - Ninety-six percent are women (63% are women of color).³⁹
 - Forty-two percent are Asian immigrants (39% of whom are Vietnamese).⁴⁰
- An average nail technician spends 9 years at her job, working long hours, without benefits,⁴¹ making around \$22,000 a year.⁴²

Community Organizing

- In 2007, the [California Healthy Nail Salon Collaborative](#), [National Asian Pacific American Women’s Forum](#), and [Women’s Voices for the Earth](#) established the National Healthy Nail Salon Alliance (the Alliance).⁴³
- The Alliance’s priorities include:
 - **Movement-Building:** Build a movement for nail salon and other beauty sector worker health and safety by engaging allies and groups across the country on the issue, sharing resources and information between participating organizations, and building support among these organizations for policy changes/initiatives and research efforts.
 - **Federal Policy:** Advocate for policies that advance worker health and safety in nail salons. Also research and make recommendations on ways regulatory agencies such as OSHA can better serve the nail salon workforce with respect to toxic chemical exposure.



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- Industry Advocacy: Research cosmetics and nail product manufactures to better understand points of leverage to reduce the upstream sources of chemical exposure in products.
- Advance a Research Agenda: Identify key chemical hazards that must be addressed in the workplace. Also leverage and advocate for new research to generate additional peer-reviewed data on occupational exposures and health outcomes in order to ultimately advance greater nail salon worker health and safety.⁴⁴

Why is this a Reproductive Justice Issue?

Nail salon workers are predominantly immigrant women of reproductive age. A lack of opportunities forces them into an industry that depends on low-wage labor and exposes them to high levels of toxic chemicals. Exposure to these chemicals is particularly harmful to women as it can cause infertility, miscarriages, and birth defects. Industry regulation is extremely weak and there is little worker education or regulatory standards to protect them.

¹ Alexandra Tsigonia et al., *Indoor Air in Beauty Salons and Occupational Health Exposure of Cosmetologists to Chemical Substances*, 7 INT'L J. ENVTL. RES. & PUB. HEALTH 314, 314-15 (2010).

² UNIV. OF CONN. HEALTH CTR., CAN MY PREGNANT PATIENT KEEP HER JOB AT THE NAIL SALON? (2006), available at <http://nailsalonalliance.squarespace.com/storage/IConnNailSalonFactSheetPhysician.pdf>; Jacqueline A. Halliday Bell et al., *Work as a Hairdresser and Cosmetologist and Adverse Pregnancy Outcomes*, 59 OCCUPATIONAL MED. 180, 180-84 (2009) (noting exposure to chemicals increases risk of adverse pregnancy outcomes such as reduced fetal growth, pre-term delivery, and perinatal death); Momo Chang, *Ecofriendly Nail Salons: Color Me Nontoxic*, HYPHEN, Summer 2009, available at <http://www.utne.com/Environment/Ecofriendly-Nail-Salons-Color-Me-Nontoxic.aspx>. THIS IS EXCERPTED NOT THE ORIGINAL MAGAZINE ARTICLE (I need to figure this out)

³ Matt Sloan, *Formaldehyde Among Substances Added to Cancer List*, CNN HEALTH (June 13, 2011, 6:01 AM) <http://thechart.blogs.cnn.com/2011/06/13/formaldehyde-among-those-added-to-cancer-list/>

⁴ Jeremy Caplan & Laura Fitzpatrick, *The Worst Jobs in America*, TIME, July 30, 2007, available at <http://www.time.com/time/business/article/0,8599,1648055,00.html>; BARBARA SATTLER, BRENDA AFZAL, & CAL BAIER-ANDERSON, REPORT ON PUBLIC HEALTH CONCERNS PHTHALATES AND BISPENOL A, available at http://www.umaryland.edu/bin/y/h/Phthalates_and_BPA_FINAL.pdf

⁵ LaMont Jones, *Cosmetics Makers Under Fire on Nail Polish Chemicals*, PITTSBURGH POST-GAZETTE, July 17, 2006, at C1.

⁶ NAT'L ASIAN PAC. AM. WOMEN'S FORUM, ISSUE BRIEF: THE NAIL SALON INDUSTRY AND THE IMPACT OF COSMETIC TOXINS ON API WOMEN'S REPRODUCTIVE HEALTH 3, (2008), available at http://napawf.org/wp-content/uploads/2009/working/pdfs/issuebrief_nailsalon_updated.pdf. See also *Phthalates and Cosmetic Products*, FDA, <http://www.fda.gov/Cosmetics/ProductandIngredientSafety/SelectedCosmeticIngredients/ucm128250.htm> (last updated Feb. 7, 2008) (stating that there is "compelling evidence that phthalates, as used in cosmetics, pose a safety risk.")

⁷ Statement of Olga Naidenko, Senior Scientist, Env'tl. Working Group, to Nat'l Res. Council, Protecting Public Health from Pthalates Will Require Consideration of Cumulative Risks, (Feb. 21, 2008), available at http://www.ewg.org/files/NAS%20phthalate_ON_022108.pdf.

⁸ Faye Flam, *Chemical is Suspect in Defects; Phthalates, Which Disrupt Hormones, May Affect Boys' Genitals*, WASH. POST, Nov. 9, 2008, at A6; Dan Shapley, *New Research Adds to Indictments Against Bisphenol A and Phthalates*, THE DAILY GREEN, (Jan. 28, 2009, 10:12 AM), <http://www.thedailygreen.com/environmental-news/latest/phthalates-bisphenol-a-47012802>.

⁹ See NAT'L HEALTHY NAIL SALON ALLIANCE, PHASING OUT THE "TOXIC TRIO," (2009), available at http://nailsalonalliance.squarespace.com/storage/Alliance_nail_factsheet.pdf; , *Nail Products and Salons*, THE CAMPAIGN FOR SAFE COSMETICS, <http://www.safecosmetics.org/article.php?id=224> (last visited June 15, 2011).

¹⁰ *Sustainable Belmont: Consider safety when using personal care products*, BELMONT CITIZEN-HERALD, (Jan. 23, 2008, 1:16 PM). <http://www.wickedlocal.com/belmont/news/lifestyle/columnists/x1295942033>

¹¹ *Id.* See also 21 C.F.R. § 700 (2010); Cosmetic Directive 76/768/EEC, 1976 O.J. (L 262) (as amended), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1976Lo768:20100301:en:PDF>.

¹² FDA AUTHORITY OVER COSMETICS, US DEPT. OF HEALTH & HUMAN SERVICES (Mar. 3, 2005), <http://www.fda.gov/Cosmetics/GuidanceComplianceRegulatoryInformation/ucm074162.htm>;



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- ¹³ See THE CAMPAIGN FOR SAFE COSMETICS, available at <http://www.safecosmetics.org/section.php?id=74> (last visited July 19, 2011)
- ¹⁴ Sattler, Baiel, & Anderson, *supra* note 4. (However, some recognition of the danger has been noted in agency publications.) See, e.g., U.S. ENVTL. PROTECTION AGENCY [EPA], COMMUNITY INFORMATION SHEET, REDUCING AIR POLLUTION FROM: NAIL SALONS (2007), available at http://www.epa.gov/air/community/guide/nail_salons_comm_info.pdf.
- ¹⁵ Jones, *supra* note 5.
- ¹⁶ *Id.*
- ¹⁷ Katherine Harmon, *Saving Face: How Safe Are Cosmetics and Body Care Products?*, SCIENTIFIC AMERICAN, May 5, 2009, <http://www.scientificamerican.com/article.cfm?id=how-safe-are-cosmetics>.
- ¹⁸ Jessica Merrill, *Is It Organic? Well, Maybe*, N.Y. TIMES, Oct. 20, 2005, at G1.
- ¹⁹ See 29 C.F.R. § 1910 (2010) (establishing the approximately 500 identified PELs, including those for benzene, formaldehyde, and toluene). Some state offices have made an effort to provide information specifically for nail workers. See, e.g., OREGON OCCUPATIONAL SAFETY & HEALTH ADMIN., NAIL SALONS: HOW TO BE SAFE AT WORK (2008), available at <http://www.orosha.org/pdf/pubs/4783e.pdf>.
- ²⁰ Statement of Nat'l Healthy Nail Salon Alliance to Occupational Safety & Health Admin. OSHA Listens: Occupational Safety and Health Administration Stakeholder Meeting [herein after OSHA] (Mar. 31, 2010), available at <http://napawf.org/wp-content/uploads/2010/03/OSHA-NHNSA-comments-FINAL.pdf>.
- ²¹ *Id.*
- ²² See U.S. Dep't of Labor, OSHA, Application of the Hazard Communication Standard (HCS) to Independent Contractors (Feb. 14, 1990), available at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=19927&p_text_version=FALSE.
- ²³ 29 C.F.R. 1910.1200(b)(1) (2010).
- ²⁴ CALIF. HEALTHY NAIL SALON COLLABORATIVE, *OVEREXPOSED AND UNDER INFORMED: DISMANTLING BARRIERS TO HEALTH AND SAFETY IN CALIFORNIA NAIL SALONS 5* (2009), available at <http://saloncollaborative.files.wordpress.com/2009/03/collaborativepolicyreport.pdf>. (EPA recommendations repeatedly direct salon workers to refer to the techniques recommended by the manufacturer, which would be impossible if the language was technical in nature and in an unfamiliar language.) See EPA, PROTECTING THE HEALTH OF NAIL SALON WORKERS (2007), available at <http://www.epa.gov/dfe/pubs/projects/salon/nailsalonguide.pdf>. For a sample manufacturer recommendation for a nail salon chemical (toluene), see HILL BROS. CHEM. CO., MATERIAL SAFETY DATA SHEET: TOLUENE (2008), available at <http://www.hillbrothers.com/msds/pdf/toluene.pdf>.
- ²⁵ Occupational Health and Safety Act of 1970, Pub. L. No. 91-596, § 18 (codified as amended at 29 U.S.C. 667 (2004)). See, e.g., *Responsibilities*, CALIF. DEP'T OF CONSUMER AFFAIRS, BOARD OF BARBERING & COSMETOLOGY, (last visited June 29, 2011) http://www.barbercosmo.ca.gov/about_us/responsibilities.shtml
- ²⁶ NAT'L ASIAN PAC. AM. WOMEN'S FORUM, *supra* note 6, at 4. See also ASIAN LAW CAUCUS, FACT SHEET, HEALTH AND SAFETY IN THE NAIL SALON INDUSTRY 2 (2007), available at <http://nailsalonalliance.org/storage/ALC%20factsheet.pdf> (noting poor oversight by California Division of OSHA).
- ²⁷ See Harmon, *supra* note 16.
- ²⁸ See CALIF. HEALTHY NAIL SALON COLLABORATIVE, FRAMING A PROACTIVE RESEARCH AGENDA TO ADVANCE WORKER HEALTH AND SAFETY IN THE NAIL SALON AND COSMETOLOGY COMMUNITIES 24-25 (2010), available at http://www.womensvoices.org/wp-content/uploads/2010/06/Collab_ResearchRpt_FINAL.pdf (noting the need to ensure safety information is more readable, accessible, detailed, and translated).
- ²⁹ ALEXANDRA GORMAN & PHILIP O'CONNOR, WOMEN'S VOICES FOR THE EARTH, GLOSSED OVER: HEALTH HAZARDS ASSOCIATED WITH TOXIC EXPOSURE AT NAIL SALONS 6 (2007), available at <http://nailsalonalliance.squarespace.com/storage/WVE.NailSalon.Report.pdf>.
- ³⁰ MASS. DIV. OF OCCUPATIONAL SAFETY, THE COMMON WEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT, NAIL SALON VENTILATION 1 (2009), available at <http://www.mass.gov/Elwd/docs/dos/mwshp/hib418.pdf>.
- ³¹ *Id.* at 3.
- ³² See, e.g., EPA, *supra* note 23, at 2-3. UNIV. OF CONN. HEALTH CTR., *supra* note 2, at 2. "[S]elf-regulation by the cosmetic industry has failed to work in the best interest of public health." NAT'L ASIAN PAC. AM. WOMEN'S FORUM, *supra* note 6, at 5.
- ³³ Caplan & Fitzpatrick, *supra* note 4.
- ³⁴ *How To File a Complaint with OSHA*, US DEPT OF LABOR <http://www.osha.gov/as/opa/worker/complain.html>, (last visited June 16, 2011)
- ³⁵ *Id.*
- ³⁶ *Id.*
- ³⁷ *Id.*



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³⁸, 2008 *INDUSTRY STATISTICS* 36, NAILS MAGAZINE (2008), available at <http://files.nailsmag.com/Market-Research/BB08-09-stats-1.pdf>

³⁹ *Id.*

⁴⁰ Statement of Nat'l Healthy Nail Salon Alliance, *supra* note 19.

⁴¹ NAT'L ASIAN PAC. AM. WOMEN'S FORUM, *supra* note 6, at 1; Steven Greenhouse, *At Nail Salons, Beauty Treatments Can Have a Distinctly Unglamorous Side*, N.Y. TIMES, Aug. 19, 2007, at A28.

⁴² Bureau of Labor Statistics, , *Occupational Employment and Wages: 39-5092 Manicurists and Pedicurists*, U.S. DEP'T OF LABOR (May 2009), <http://www.bls.gov/oes/current/oes395092.htm>.

⁴³ *Nail Salons*, NATIONAL HEALTHY NAIL SALON ALLIANCE, <http://nailsalonalliance.org/> (last visited June 29, 2011)

⁴⁴ *Id.*