



## **Nail Salon Workers: Health and Safety, Working Conditions, Compensation, and Demographics**

### **Introduction**

The salon industry is a vibrant part of the U.S. economy. Salons generate approximately \$60 billion in annual sales, more than five times higher than movie box office revenue, and employ over 1.6 million professionals. There are more working cosmetologists than elementary school teachers or lawyers. Nail salons represent more than \$6 billion of this total, employing over 155,000 professionals.

The salon industry provides many opportunities, including to those with limited capital, language, and education, to move up the socio-economic ladder and to become self-employed. This has resulted in many new immigrants finding their way to salons. The industry is very family-friendly as it offers flexible scheduling, enabling people to juggle their personal and professional lives. Many people work part-time. Some, who choose to do so, work more than full-time in an effort to push ahead.

Relative to other service industries and to those with like skills and education, salon workers, including nail salon workers, are paid comparably, or even well above those in other service industries, with a significant portion of their income paid in the form of cash. Many nail salon workers (70%) are self-employed and own their own small businesses. In fact, out of more than 4000 industry listings in the yellow pages, the beauty industry ranks seventh.<sup>1</sup>

Decades of experience with hundreds of thousands of nail salon workers makes clear that the nail industry has an enviable record of worker safety. Those workplace risks that are present are easily mitigated through education, common sense work practices, and adequate ventilation.

The Nail Manufacturers Association (NMC) is a strong proponent of the nail industry and an advocate for salon worker health and safety, including education, outreach, and better enforcement by state and local authorities of existing laws and regulations.<sup>2</sup>

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<sup>1</sup> "Search for Beauty Takes Americans to Yellow Pages," Yellow Pages Integrated Media Association, February 24, 2004.

<sup>2</sup> The NMC, founded nearly two decades ago, is a part of the Professional Beauty Association. NMC members include the leading manufacturers of professional nail care products for salons.

## **Ingredients In Nail Salon Products**

The ingredients used in nail salon products are safe under normal conditions of use and the levels of exposure are well below safety limits established by the U.S. Occupational Safety and Health Administration (OSHA) and the U.S. Food and Drug Administration (FDA).

The three most discussed ingredients in nail salon products are dibutyl-phthalate (DBP), toluene, and formaldehyde.

Concern about these three ingredients is derived from potential overexposures in industrial, bulk chemical, and factory environments where the quantities found are many orders of magnitude higher than in nail salons. In nail salons, exposure to these ingredients is very low, as they form only a small percentage of the formula, are used in very small quantities, and are contained in small bottles with tiny openings that are closed most of the time. A single bottle contains enough polish for 30-60 sets of nails.

In light of these modest quantities, it is not surprising that, since the establishment of OSHA more than thirty years ago, the NMC has not found a single citation issued by OSHA, or any of the fifty state agencies with comparable responsibilities, for violation of the OSHA standard for safe exposure levels for any of these three ingredients in any salon.

DBP, a plasticizer used to make nail polish products more flexible, has, over the last two years, been **eliminated** as an ingredient by all the leading brands, largely as a result of the Seventh Amendment to the Cosmetic Directive, adopted by the EU in 2003, which was written in such a way as to cause the automatic ban of over 1200 ingredients, including DBP. Primarily, to move toward one global formula, nail manufacturers have phased out of DBP, even though the FDA has concluded that no regulatory action is warranted<sup>3</sup> and even though the official EU governmental committee of scientists, **after** adoption of the Seventh Amendment, determined that DBP as used in nail polish is **safe**.<sup>4</sup> The exposure to DBP, which typically makes up 5% or less of nail polish products, is so low in the salon environment that it is nearly impossible to measure as a practical matter.

Toluene, a solvent used in nail polish products to make products flow more smoothly, has been found **safe as used** in nail polish products, as recently as October 2006, by the official EU agency charged with the safety of cosmetic ingredients.<sup>5</sup> Moreover, a multi-year study of nail salons in California supervised by state officials found that toluene levels in nail salons were less than 1 ppm and well below the federal OSHA safe limit of

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<sup>3</sup> See <http://www.cfsan.fda.gov/~dms/cos-phth.html> and Hubinger, J. and Harvey, D., Analysis of Consumer Cosmetic Products for Phthalate Esters, J. Cosmet. Sci., 57, 127-137 (2006).

<sup>4</sup> [http://ecb.jrc.it/DOCUMENTS/Existing-Chemicals/RISK\\_ASSESSMENT/SUMMARY/dibutylphthalatesum003.pdf](http://ecb.jrc.it/DOCUMENTS/Existing-Chemicals/RISK_ASSESSMENT/SUMMARY/dibutylphthalatesum003.pdf)

<sup>5</sup> [http://ec.europa.eu/health/ph\\_risk/committees/04\\_sccp/docs/sccp\\_o\\_076.pdf](http://ec.europa.eu/health/ph_risk/committees/04_sccp/docs/sccp_o_076.pdf)

200 ppm.<sup>6</sup> Further, nail polish products without toluene are becoming increasingly available in salons for those who choose to avoid toluene.

Formaldehyde is used as an ingredient in nail hardeners, a very specialized product in limited use in nail salons to deal with specific nail problems. Formaldehyde is **not** used as an ingredient in nail polish or in nail treatments other than hardeners.<sup>7</sup> The FDA allows up to 5% formaldehyde in hardeners. Manufacturers typically use substantially less than half this percentage in their formulas. The California authorities concluded, based on a multi-year nail salon study, that formaldehyde levels in nail salons were **no higher** than found in other common workplaces, such as office buildings, where no nail products **whatsoever** were being used.<sup>8</sup> Further, hardeners without formaldehyde are readily available to salons which choose to use them.

In addition to the three above ingredients, a fourth ingredient often mentioned is methyl methacrylate, or MMA, a liquid monomer that, when combined with a polymer powder, can be used to make acrylic nails in salons. MMA was popular more than forty years ago. In the 1970's, the FDA, in effect, **banned** MMA for use in nail care products<sup>9</sup> because it was very difficult to remove, caused severe damage to the natural nail when removed, and also resulted in allergic reactions. In large part due to lobbying from the beauty industry itself, more than thirty states have enacted similar MMA bans, some making its use a criminal offense. As a result of FDA and state action, MMA is **no longer used** by responsible salons, which have, instead, switched to the safer alternative, ethyl methacrylate (EMA) liquid monomer. EMA-based acrylics adhere better and can be easily removed without damaging the natural nail. However, allergic reactions may also occur from improper use of EMA<sup>10</sup> and, therefore, EMA products also contain warnings to avoid skin contact. Nail professionals are educated about these risks and how to avoid them.<sup>11</sup> The Expert Panel of the Cosmetic Ingredient Review (CIR) has found EMA-based liquid monomers safe for use by professionals.<sup>12</sup>

It is important to recognize that the **primary** health risks to nail salon workers from ingredients used in nail salons are skin irritation or allergies and respiratory irritation, **not** cancer or reproductive effects.

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<sup>6</sup>Clayton Environmental Consultants, Industrial Hygiene Assessment of Toluene and Formaldehyde Concentrations in California Nail and Full Service Salons, March 16, 1999.

<sup>7</sup> Many polishes and treatments do contain a resin with a long name that sounds like formaldehyde (tosylamide/formaldehyde resin). Formaldehyde is a gas. A resin is a gummy substance that does not evaporate. While the resin is manufactured using formaldehyde as a raw material, once the product becomes a resin, the formaldehyde is consumed and essentially no longer present.

<sup>8</sup> See note 6, *supra*.

<sup>9</sup> MMA is still legitimately used in many other products outside the nail industry.

<sup>10</sup> MMA has smaller molecules than EMA, can more easily penetrate the skin, and has an increased potential for allergic reactions.

<sup>11</sup> See e.g., "Milady's Standard Nail Technology," Fifth Edition, Thompson/Delmar Learning 2007, Chapter 17, ISBN 1-4180-1651-2.

<sup>12</sup> 2005 CIR Compendium, p. 99.

## **Mitigation Measures: Education, Work Practices, Ventilation**

The risks present in nail salons are easily mitigated through **education**, common sense **work practices**, and **ventilation**. As have other agencies, the U.S. Environmental Protection Agency (EPA) concluded recently in its brochure entitled *Protecting the Health of Nail Salon Workers*, “that nail care work can be done safely if proper steps are taken to protect [workers].”<sup>13</sup>

The NMC, NMC member companies, other industry trade associations such as the International Nail Technicians Association (INTA), governmental agencies, and others encourage, support, and make available, **education** and training for salon workers on health and safety issues. Salon workers obtain health and safety knowledge through product labeling,<sup>14</sup> Material Safety Data Sheets (MSDS),<sup>15</sup> compulsory cosmetology school instruction (including specialized textbooks),<sup>16</sup> state licensing exams, continuing post-licensing education, professional publications, trade magazines, and federal and state governmental publications. The NMC, as well as other organizations, also maintains a website that provides useful information on health, safety, and other issues.<sup>17</sup> Further, classes, publications, magazines, and other information are available from a variety of sources in English, Vietnamese, and other languages.<sup>18</sup>

Nail salon workers can protect their skin from overexposure through simple **work practices**, including keeping products and wastes in small, covered containers; washing hands frequently; and wearing protective clothing. Further, salon workers can protect the air they breathe by comparably simple means, including wearing appropriate dust masks and, importantly, ensuring proper **ventilation**. Recommended work practices and engineering controls are addressed in easy to read publications available at the NMC website, as well as from other previously cited sources.

## **Economics**

Although detractors often cite data from the U.S. Bureau of Labor Statistics (BLS) for supposedly low earnings in the salon industry, nail salon workers are, in fact, paid comparably, and well, relative to other service industry occupations and to those with similar educational backgrounds and skills.<sup>19</sup>

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<sup>13</sup> U.S. Environmental Protection Agency, *Protecting the Health of Nail Salon Workers* (March 2007) available at <http://www.epa.gov/opptintr/dfe/pubs/projects/salon/nailsalonguide.pdf>

<sup>14</sup> All the leading salon brands provide labeling with ingredient information as well as directions for use and warnings.

<sup>15</sup> Federal law requires that manufacturers make available MSDS sheets to salons.

<sup>16</sup> See e.g., “Nail Structure and Product Chemistry”, Second Edition, Douglas Schoon, Thomson/Delmar Learning, ISBN 1-4018-6709-X; “Milady’s Standard Nail Technology,” *supra*, note 11.

<sup>17</sup> Most of the publications on the NMC website are either currently, or soon to be, in English, Vietnamese, Korean, and Spanish. See <http://www.probeauty.org/about/committees/nmc/>

<sup>18</sup> For example, the EPA publication (note 13, *supra*) is being translated into Vietnamese and Korean.

<sup>19</sup> Compare e.g., earnings for workers in restaurants, hotels, childcare, personal and home care aides, house cleaning, and retail sales. See [http://www.bls.gov/oes/current/oes\\_nat.htm](http://www.bls.gov/oes/current/oes_nat.htm)

According to BLS figures, the average annual earnings for all people who work in all categories of personal care and service industries are \$22,180.<sup>20</sup> While the BLS figures show that cosmetologists, including nail salon workers, earn close to this level,<sup>21</sup> these figures are widely believed to substantially understate earnings. Fortunately, more accurate data is available that suggests cosmetologists and nail salon workers, in fact, earn substantially more. Significantly, the BLS lists manicurists among the fastest growing occupations.<sup>22</sup>

An in-depth, 36-page, nationwide study of the salon industry was published in 2003 by Lawrence Rudner of the University of Maryland.<sup>23</sup> Rudner explains some of the difficulties with the BLS data, noting the challenges in obtaining accurate information about salons as “[t]his is a cash industry with potentially a great deal of unreported income.” Further, Rudner states that BLS draws its data from the universe of salons identified by the IRS from tax filings which may, among other things, have inaccurate SIC industrial classification codes, may not capture Subchapter S or Schedule C businesses, and may not break out salons within department stores.<sup>24</sup>

Based on extensive survey data, Rudner concludes that the **average** annual income for salon employees is about \$48,700 for salon owners and about \$36,300 for non-owners. Rudner reports that the variability is high and the **median** ranges from \$40,640 for salon owners to \$30,050 for non-owners.

### **Demographics**

The nail salon industry is a richly diverse community. Approximately, 41% are Vietnamese, 39% are Caucasian, 10% are African-American, 7% are Hispanic, 2% are Korean, and 1% are other.<sup>25</sup>

The attraction of those of Vietnamese origin to the nail industry over the last few decades is especially strong. Many from Vietnamese, and other backgrounds, **choose** to become nail salon workers because: (1) the income is good relative to other potential occupations for which they are qualified; (2) payments are largely in the form of cash; (3) there are few downturns, even when the economy softens; (4) the barriers to entry are low in terms of capital, education, and language; (5) the hours are flexible and compatible with raising a family; (6) the work is enjoyable, creative, and artistic; (7) they have face-to-face time with, and opportunities to engage, their clients; (8) they can work with, (and, unlike many other service industries, for)<sup>26</sup> relatives and others from their own communities who share language and culture; and (9) they can become small business owners and work for

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<sup>20</sup> *Id.*

<sup>21</sup> According to the BLS, the average annual earnings for cosmetologists is \$23,640 and for manicurists \$20,400. See <http://www.bls.gov/oco/ocos169.htm> <http://www.bls.gov/oes/current/oes395092.htm>

<sup>22</sup> See <http://www.adin.org/lmi/usafast.htm>

<sup>23</sup> See Rudner, Lawrence M., Job Demand in the Cosmetology Industry, 2003, May 17 2003.

<sup>24</sup> For further criticism of BLS statistics on manicurists, see Postrel, Virginia, “The Way We Live,” New York Times, Section 6, p. 16, February 22, 2004.

<sup>25</sup> Nails Magazine, Nails 2006-2007 The Big Book, p. 36.

<sup>26</sup> In many other service industries, immigrants work for non-immigrants.

themselves. These are very powerful incentives. Most people are very happy and feel safe in their chosen profession.

With regard to gender demographics, the nail industry, as a whole, is predominantly female. However, within the Vietnamese community, nearly 30% of nail technicians are male. Many of these men work for their own family businesses.<sup>27</sup>

Approximately **70** per cent of nail technicians own their own businesses in the form of owning a salon or owning a “booth rental” business in which the nail technician leases space from a salon and operates its own independent business within that salon.<sup>28</sup> Many Vietnamese salon owners play leading roles in their communities and some go on to themselves become manufacturers or wholesale distributors of nail care products. In fact, 83% of Vietnamese nail salons buy products from Vietnamese beauty suppliers.<sup>29</sup>

Insofar as the number of hours nail technicians (from all ethnicities) reported they work in an average week, flexible hours and schedules are obvious and, apparently, very important. 20% work less than 20 hours a week; 29% work 21-35 hours; and 24% work 36-40 hours. Regarding more than 40-hour weeks, 8% reported working 41-45 hours and 19% said they worked more than 45 hours.<sup>30</sup> For those who **choose** to work such long hours, they, like other small business owners, are often motivated by a desire to get ahead and, to the extent they may be Vietnamese or first-generation immigrants, are probably not unaccustomed to long hours and six-day work weeks in their native countries. They are working for their version of the American dream for themselves and their families.

### **Looking Forward**

Like most businesses, salons are largely regulated at the state and local level. The NMC supports increased emphasis on health and safety in cosmetology classes, in continuing education requirements, and in state licensing exams. The NMC also is an advocate for frequent inspections and enforcement of existing laws and regulations, stiffer fines and penalties, and expanded permitting and enforcement authority. Outreach to Vietnamese and other immigrant communities, which now comprise over 50% of the nail salon industry, is critical to the continuing viability of the industry. Many NMC member companies utilize Vietnamese nail technicians to train and educate Vietnamese salons and to staff their toll-free help desks.

Obviously, more can, and should, be done, however, the NMC believes the nail salon industry has much of which to be proud, including its long record of worker safety.

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<sup>27</sup> “First Study of Vietnamese Nail Salon Industry,” Nails Magazine p. 78 (March 2007).

<sup>28</sup> Nails The Big Book, *supra*, note 25, p. 37.

<sup>29</sup> First Study, *supra* note 27, p. 86.

<sup>30</sup> Nailpro Magazine, Gold Book 2006, p. 18.