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You Can Stand Under My Umbrella: Weighing Trade Secret Protection Against the Need for Greater Transparency in Perfume and Fragranced Product Labeling

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YOU CAN STAND UNDER MY UMBRELLA: WEIGHING TRADE SECRET PROTECTION AGAINST THE NEED FOR GREATER TRANSPARENCY IN PERFUME AND FRAGRANCED PRODUCT LABELING

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I. INTRODUCTION

Most people are probably familiar with the infamous tagline question posed at the conclusion of Britney Spears' provocative “Curious” perfume commercial: “Do you dare?”1 Ironically, considering the significant restriction trade secret law currently places upon the federal government’s ability to enforce its own regulations regarding perfume ingredients, the “Curious” tagline could not possibly ask a better question. But perhaps the tagline should be amended to ask, “Do you dare to even put this substance onto your body?”

The perfume and fragrance industry has a major presence in both the United States economy and the global economy at large. In 2007, the global fragrance industry launched 316 new perfume fragrances for women and eighty-nine new cologne fragrances for men.2 Women’s fragrances alone generate global sales of $20 billion each year.3 Many celebrities within the entertainment industry have realized that releasing a fragrance is a lucrative venture and have decided to diversify their revenue streams and release their own signature scents.4 Several popular singers and entertainment moguls have each released their own fragrances, including Beyonce (“True Star”),5 Gwen Stefani (“L”),6 Sean “Diddy” Combs (“Unforgivable Woman”),7 and Mariah Carey (“M”).8 Athletes have likewise entered the fragrance market, with cologne and perfume releases from basketball legend Michael Jordan (“Jordan”)9 and tennis star Maria Sharapova (“Maria Sharapova”).10 In fact, perfume is so popular that designer fashion line

1 To view this commercial and hear the infamous tagline question, see Posting of resqualledsheep to You Tube, http://www.youtube.com/watch?v=WZEIUMthBPI (Jan. 4, 2007).
“Juicy Couture” has even developed a special line of cosmetics for dogs (“Juicy Crittoure”), which includes perfume (“Dog Pawfume”). The use of the name and likeness of celebrities and their children to market fragrances has even resulted in legal disputes. Recently, Angelina Jolie filed a note (which she subsequently dropped) with the United States Patent and Trademark Office (PTO) against Symine Salimpour, claiming that Salimpour’s new perfume, entitled “Shiloh,” was named after Jolie’s daughter. Jolie’s main contention was that Salimpour should not be allowed to use her daughter’s name to market the perfume.

In addition to the trademark disputes over perfume, there has also been a recent backlash against the ingredients in fragrances. Extensive laboratory testing has shown that increasing numbers of toxic chemicals, several of which are suspected to cause liver and kidney damage, are frequently being included perfume. There is evidence that some of the chemicals within many fragrances may be linked to several health issues plaguing the American public health today, including eye and skin irritation, respiratory problems, allergies, headaches, reproductive health problems, severe asthmatic reactions, and even cancer. In July 2007, a Detroit, Michigan city government worker became upset with the negative impact that her co-workers’ fragrances had on her health. She filed suit under the Americans with Disabilities Act (ADA) to have perfume banned from the workplace altogether. Similarly, in 2005, a top-rated Detroit radio DJ host

13 Id. (noting that Angelina Jolie asked her intellectual property lawyer “to bring down the hammer on Salimpour”).
14 See Diane Taylor, Take a Toxic Tour of Your Bathroom, GUARDIAN (Feb. 25, 2003), available at http://shopping.guardian.co.uk/beauty/story/0,,902509,00.htm (explaining that several toxic chemicals have been found in cosmetics and listing perfumes as some of the cosmetic products in which these harmful chemicals have been found).
17 Id.
claiming that she was sickened by her co-worker’s perfume received a $10.6
million verdict after alleging that she had been fired because she complained
about her co-worker’s perfume.\textsuperscript{18} During the civil trial, three doctors confirmed
that the plaintiff did not have problems with natural smells, but rather with the
chemical basis of the perfume.\textsuperscript{19} The plaintiff claimed that she had suffered raw
chemical burns to her airways and sinuses as a result of inhaling toxic chemicals
in the perfume, and according to her doctor, she could have died as a result of
continued exposure to the perfume chemicals.\textsuperscript{20}

Although the Food & Drug Administration (FDA) provides some regulatory
guidelines that attempt to ensure the overall safety of perfumes,\textsuperscript{21} the agency is
still seeking to promote a lofty goal with one hand tied behind its back. This is
because perfume manufacturers are able to exploit a loophole that allows them
to circumvent disclosure of hazardous substances under the guise of trade secret
protection.\textsuperscript{22} Trade secret law essentially allows fragrance manufacturers to
include toxic chemicals in their products by classifying the ingredients as
“fragrance.”\textsuperscript{23} The term fragrance describes an amalgam of ingredients (typically
referred to as the “fragrance formula”) that fragrance producers do not have to
disclose to anyone by claiming the ingredients constitute trade secrets.\textsuperscript{24} Not only
can fragrance companies avoid providing an exhaustive list of fragrance formula
ingredients on the labels of their products, they also are not required to disclose
them to regulatory agencies such as the FDA.\textsuperscript{25} Because companies are not
required to disclose the individual ingredients that comprise their fragrance

\textsuperscript{18} David Shepardson, \textit{Radio DJ Wins $10.6 Million in Stink Over Perfume}, \textit{Detroit News},

\textsuperscript{19} Id.

\textsuperscript{20} Id.

rules and regulations governing the sale of consumer commodities in the United States); \textit{see also} 21
C.F.R. § 701.3 (2007) (giving the requirements companies must comply with regarding their
fragrance ingredient labels).

\textsuperscript{22} See 15 U.S.C. § 1454(c)(3) (2000) (explaining that trade secrets do not have to be divulged
when listing the product ingredients of consumer commodities); 21 C.F.R. § 70.3 (2007) (stating that
the individual ingredients that comprise the formula do not have to be divulged). Thus, since
manufacturers are able to claim trade secret protection for the fragrance formula, they are not
required to disclose harmful substances that may have gone into the formula.

\textsuperscript{23} See Fragranced Products Information Network, http://www.fpinva.org (last visited
Feb. 24, 2008) (explaining that companies can avoid disclosure of harmful ingredients by lumping
them in under the “fragrance” designation). The use of the term fragrance is very prevalent on
perfume ingredient labels and can be viewed by a simple examination of the ingredient labels of
one’s common personal care products found within the household, such as perfumes and lotions.

\textsuperscript{24} Id.

\textsuperscript{25} Id.
formsulas they are able to include hazardous substances in their fragrance products without either the FDA or the consuming public knowing.

This Note explores the loopholes available to perfume manufacturers via FDA regulations that permit them to circumvent the disclosure of harmful substances found in their products by claiming trade secret protection. Part II of this Note examines the definition, history, and function of trade secret law, as well as arguments explaining its dangers. This Part will also survey some of the dangerous ingredients that are typically used in perfume, how federal regulations have affected the use of certain ingredients in perfume over time, and how trade secret law factors into the present regulation scheme. This Part of the Note concludes by discussing competing lines of precedent regarding whether disclosure of individual ingredients that comprise the fragrance formula should be considered a Fifth Amendment taking. Lastly, Part III of this Note argues that public policy demands that the trade secret disclosure loophole be scaled back substantially, if not completely eradicated, in an effort to protect the public from the long term effects of being exposed to the hazardous chemicals contained in fragrances. More specifically, this Part contends that removing perfume manufacturers from the protection of their trade secret umbrella and requiring disclosure of certain chemicals collectively listed as “fragrance” should not be considered a Fifth Amendment taking but rather viewed as a legitimate exercise of the government’s police powers to protect the public.

II. BACKGROUND

A. THE HISTORY AND FUNCTION OF TRADE SECRET LAW

1. Trade Secrets Defined. To better understand how trade secret law functions as a loophole for perfume manufacturers regarding the listing of ingredients on their products, one must understand what trade secrets are, as well as the underlying functions they serve. There is not an exact definition for what constitutes a trade secret. However, several legal scholars have attempted to define the term. According to one scholar, “[a] trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over

26 Id.; see also supra note 22.
27 See 1-1 ROGER M. MILGRIM, MILGRIM ON TRADE SECRETS § 1.01[1], 1–4 (2007) (noting that although the Restatement definition is often relied upon, the Uniform Trade Secrets Act (UTSA) is also used to determine whether a trade secret exists).
competitors who do not know or use it." A trade secret may also be a chemical compound formula or a method for manufacturing, treating or preserving materials. In order to be protected under trade secret law, the subject matter must be secret. Subject matter that is: (1) generally within the knowledge of the public at large; (2) considered general "industry knowledge" within a particular industry; or (3) disclosed by the goods that a company markets, cannot be considered a trade secret. Although secrecy of the given subject matter is not required to be absolute, such a substantial level of secrecy must exist that acquiring the information would be very difficult without gaining access to the secret by improper means. Some of the factors courts consider in deciding whether particular information constitutes a business's trade secret are:

- the extent to which the information is known outside of [the] business;
- the extent to which it is known by employees and others involved in [the] business;
- the extent of measures taken by [the business] to guard the secrecy of the information;
- the value of the information to [the business] and to [its] competitors;
- the amount of effort or money expended by [the business] in developing the information; and
- the ease or difficulty with which the information could be properly acquired or duplicated by others.

Mere copying of products protected by trade secret does not result in liability under trade secret law. Third parties are permitted to freely inspect products that have been made available to the public or use reverse engineering in an attempt to discover the secret behind a formula or process.

28 Id. § 1.01[1] at 1–14 to 1–24; see also RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 (1995) (providing a similar definition for trade secrets and defining a trade secret as "any information that can be used in the operation of a business or other enterprise . . . that is sufficiently valuable and secret to afford an actual or potential economic advantage over others").

29 MILGRIM, supra note 27, § 1.01, at 1–24.

30 Id. at 1–24.1.

31 Id. at 1–25.

32 Id.

33 Id.


35 Id.; see also Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 476 (1974) ("A trade secret . . . does not offer protection against discovery by fair and honest means, such as by independent invention, accidental disclosure, or by so-called reverse engineering, that is by starting with the
2. Evolution of Trade Secret Law and Its Present Purpose.

a. Brief History of Trade Secrets. The practice of protecting confidential business information dates back at least to Roman law, which provided remedies to an injured employer if a third party induced his employee to divulge secrets relating to confidential business affairs. The modern version of trade secret law took root in England during the early nineteenth century, partly in response to the growing accumulation of technical knowledge. Trade secret protection was not recognized in the United States until around the mid-nineteenth century, but by the end of that century, the main aspects of modern trade secret law were firmly established. Under current trade secret law jurisprudence, a company that is in possession of secret information can only be protected from the unauthorized disclosure of this information on either a theory of breach of express/implied promise or through some type of tortious behavior, such as physical trespass or fraud. However, an interesting exception to this general rule was established in E.I. duPont deNemours & Co. v. Christopher, in which the court found that aerial photography of an ethanol manufacturing plant still under construction constituted an improper acquisition of trade secrets.

b. Purposes and Interests Advanced by Protecting Trade Secrets and Arguments Against the Use of Trade Secret Law. Several of the early cases enforcing trade secret law focused on the inherent unfairness of someone acquiring a competitive advantage from a breach of confidence. However, one of the more recent justifications offered for affording trade secret protection is that allowing owners of trade secrets to capture returns from their successful innovations encourages research investments. Trade secret protection also seeks to promote the efficient use and exploitation of knowledge by discouraging employers from withholding useful information and encouraging disclosure to others (such as company employees, agents, and licensees) who may aid in developing productive known product and working backward to divine the process which aided in its development or manufacture.

37 Id.
38 Id.
39 RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 40, 43 (1995). Under § 43, "'[i]mproper' means of acquiring another's trade secret under the rule stated in § 40 include theft, fraud, unauthorized interception of communications, inducement of or knowing participation in a breach of confidence . . . ."
40 431 F.2d 1012, 1017 (5th Cir. 1970). The court held that there was a recognizable cause of action under Texas law for discovery of a trade secret by "improper means." Id. at 1014.
41 RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. a (1999).
42 Id.
uses of such information. Finally, trade secret protection advances personal privacy interests.

Despite the fact that trade secret law has become firmly established in the United States legal system, it has not gone without criticism within the legal community. According to David Levine, although trade secret law and practices are very important in private industries, "their use in the public infrastructure context is inappropriate, unexpectedly powerful, and doctrinally unsound." He further asserts that in the context of products which are part of the public infrastructure, people are not simply purchasing a good which happens to legitimately incorporate trade secrets. Rather, these products constitute goods that are part of a public infrastructure that people expect a publicly accountable government to provide. Levine contends that if we continue to allow a commercial doctrine such as trade secret law to permit private industry to restrict knowledge about certain aspects of public infrastructure, much of the current concern, resentment, and distrust between the public and private industry will continue to exist.

B. OVERVIEW OF INGREDIENTS FREQUENTLY USED IN PERFUME

Perfumes have influenced virtually every period of history in some way. Ancient Egyptians, Romans, and Phoenicians used perfumes for various purposes in their daily lives. Some plant extracts that have been commonly used in perfumery are jasmine, rose, carnation, lily of the valley, lavender, citrus, cinnamon, and gardenia. Animal sources were also once commonly used in the perfume-making process, namely, ambergris (from the sperm whale), castoreum

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43 Id.
44 Id.
45 See Bone, supra note 34, at 261 (noting that trade secret law has existed in the United States for over a century).
46 David S. Levine, Secrecy and Unaccountability: Trade Secrets in Our Public Infrastructure, 59 FLA. L. REV. 135, 140 (2007). Here, the term "public infrastructure" refers to essential goods and services for public use or consumption that are typically provided, or at least regulated, by the government. Id. at 141.
47 Id.
48 Id.
49 Id.
51 Perfume, 9 THE NEW ENCYCLOPEDIA BRITANNICA 287 (15th ed. 2007).
The transition from the traditional use of natural ingredients that made up perfume compounds to the now pervasive use of synthetic materials began when it became easier to synthesize non-naturally occurring aromatics and place them in perfume compounds. The first perfume to employ this new method of synthesizing aromatics into the fragrance compound was the 1921 version of "Chanel No. 5," which contained a strong dose of synthetic aldehydes. After this landmark use of synthetic compounds, an ever-increasing number of them have been consistently used in perfumes and colognes. Some of the factors often cited for the increased use of synthetic materials in fragrances are that they are: (a) cheaper to create; (b) more abundant in supply; (c) more consistent for replicating the exact same formula every time; and (d) easier to use for the creation of a wider array of odor profiles. An example of a synthetic compound that is commonly used in fragrances today is calone, which is a marine scented compound found in popular fragrances such as "Escape" and "L'Eau D'Issey Miyake" (commonly referred to as "Issey Miyake").

Although many of the traditionally used plant and animal extracts do not pose a great danger to human health, several synthetic chemicals are creating major health risks for humans. For example, coumarin, formerly the active ingredient in rat poison, is a known carcinogen that is used in perfumes. Methylen chloride is another chemical that is a known carcinogen that was banned altogether by the FDA in 1988, and yet this chemical has still been discovered in

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52 Id.
55 Herman, supra note 53.
56 See id. (positing that these advantages "are so overwhelming" that the use of synthetics "rapidly became pervasive").
some perfumes since the time it was banned.59 Other non-synthetic substances present in perfumes and colognes that are known to be hazardous to human health are formaldehyde (a probable carcinogen) and phthalates,60 which have been known to cause damage to the liver, kidneys, and reproductive system.61

However, because trade secret law protects the fragrance formula, the inclusion of banned or otherwise harmful chemicals in perfume mixtures goes relatively unchecked. This is because fragrance manufacturers are not required to disclose the individual ingredients that make up the formula, even to federal regulatory agencies, before their products hit the market.62 Therefore, consumers typically have no way of knowing if harmful chemicals, such as phthalates, are present in the perfumes they use because these ingredients are probably not specified in the ingredient list of these products.63

Even products that purport to be “unscented” or “fragrance free” may contain fragrances, which means that many of the harmful chemicals present in perfumes and other fragrances are also present in unscented products.64 As noted in one article, “[t]he label ‘fragrance-free’ implies that a cosmetic product has no detectable odor, but it may contain fragrance used to mask a bad-smelling raw material.”65 However, if a product contains chemicals used to hide odor, the term fragrance must still be listed with the other ingredients on the product label.66

C. HISTORY OF FEDERAL REGULATIONS APPLICABLE TO PERFUME AND FRAGRANCE INGREDIENT LABELING

Perfume labels today display a vast array of ingredients that contribute to the pleasant smells emitted from the bottle. The perfume industry ingredient listing standards currently in place are governed by the Federal Food, Drug & Cosmetics

59 See Twenty Most Common Chemicals Found in Thirty-One Fragrance Products, http://users.lmi.net/wilworks/ehn20.htm (last visited Feb. 24, 2008) (listing various ingredients found in household items that can be dangerous to human health); see also Pure Zing, supra note 58, at 6 (listing methylene chloride as a hazardous chemical that has been found in perfumes).
60 Little, Lewis & Lundquist, supra note 15, at 10–11, 15.
61 Pure Zing, supra note 58, at 6, 8; see also Lundquist, supra note 15, at 10–11 (discussing harmful effects of phthalates found in perfumes and cosmetics).
63 See, e.g., Lundquist, supra note 15; Little, Lewis & Lundquist, supra note 15, at 14 (stating that phthalates are not usually specified in fragranced product ingredient listings).
64 See Little, Lewis & Lundquist, supra note 15, at 14.
65 Id.
66 Id.
Act, the Fair Packaging & Labeling Act, and certain FDA regulations.\(^{67}\) However, under current federal statutes and regulations, many ingredients that are found within perfumes are lawfully excluded from the label because they are considered part of the fragrance formula, which is protected by trade secret law.\(^{68}\) Thus, consumers are left with little more than a trial and error process to determine whether secret ingredients in the perfume formula will cause an adverse health reaction.

1. **The Federal Food, Drug, and Cosmetic Act.** In 1938, Congress enacted the Federal Food, Drug, and Cosmetic Act (FDC Act), which sets forth safety requirements for food, drugs, and cosmetics which pass through interstate commerce.\(^{69}\) Under the FDC Act, perfumes and fragrances are considered cosmetics because they are “articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for . . . promoting attractiveness,” thus subjecting perfume to the regulations of the FDC Act.\(^{70}\) The FDC Act makes it a federal offense to introduce adulterated or misbranded cosmetics into interstate commerce,\(^{71}\) physically commit the act of adulterating or misbranding cosmetics in interstate commerce,\(^{72}\) or receive into interstate commerce any cosmetics that have been adulterated or misbranded.\(^{73}\)

Because there is no official list of ingredients approved for use in cosmetics, the FDC Act simply provides definitions of what cosmetics should be considered adulterated and thus banned from interstate commerce.\(^{74}\) For purposes of the FDC Act, a cosmetic is considered adulterated if it contains any poisonous or deleterious substances that may harm consumers if: (a) they properly use the product in accordance with the manner of usage prescribed by the label; or (b) the product is used in the customary and usual fashion.\(^{75}\) Accordingly, cosmetic

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\(^{68}\) 15 U.S.C. § 1454; 21 C.F.R. § 701.3 (2007); see also supra note 22.


\(^{71}\) Id. § 331(a).

\(^{72}\) Id. § 331(b).

\(^{73}\) Id. § 331(c).


\(^{75}\) See Helene Curtis Indus., Inc. v. Pruitt, 385 F.2d 841, 848 n.1 (5th Cir. 1967) (noting that adulterated cosmetics “must cause harm under conditions of use which are prescribed by the
products manufacturers have a general duty to abstain from including ingredients in their products that may be harmful to individuals when they use the products as expected.\textsuperscript{76} Additionally, a cosmetic is considered misbranded under the FDC Act if its labeling is false or misleading in any particular manner.\textsuperscript{77}

The FDC Act does not expressly carve out a niche for trade secret protection of fragrance formulas.\textsuperscript{78} However, the Act gives perfume companies a large amount of leeway regarding what ingredients they can place in their perfumes. The Act does not require that the names of any of the ingredients contained within the mixture to be listed on the bottle or box of the fragrance.\textsuperscript{79}

2. The Current Regulatory Scheme and How Trade Secret Law Factors into This Scheme.

In 1966, the Fair Packaging and Labeling Act (FPLA) was passed in an attempt to enable consumers to know the contents of cosmetic products by reading packages and labels.\textsuperscript{80} Under the FPLA, cosmetic product labels are generally required to display: (a) statements of the identity of the product; (b) the net quantity of the contents; (c) the name and place of business of the manufacturer, packager, or distributor; (d) a list of ingredients included in the product; and (e) for some products, cautionary or warning language.\textsuperscript{81} Cosmetic products lacking the required labeling information are considered misbranded and are subject to regulatory sanctions by the FDA.\textsuperscript{82}

Pursuant to FDA regulations premised on the FPLA, a cosmetic product’s container or wrapper must list the ingredients contained inside the product.\textsuperscript{83} However, current FDA regulations permit perfume and cologne manufacturers to avoid identifying the individual ingredients comprising the fragrance formula because the formula is protected under trade secret law.\textsuperscript{84} Manufacturers are permitted to designate the ingredients that comprise the fragrance formula (in the directions or must be used in the customary and usual fashion”).

\textsuperscript{76} McNamara, supra note 74, at 5.
\textsuperscript{79} Id.
\textsuperscript{81} McNamara, supra note 74, at 6.
\textsuperscript{82} Id. at 7.
\textsuperscript{83} Id. at 8; see also 15 U.S.C. § 1454(c)(3) (2000) (requiring that package labels list the common name of any contained ingredient); 21 C.F.R. § 701.3 (2007) (detailing the requirements of the FPLA).
\textsuperscript{84} McNamara, supra note 74, at 8.
case of perfumes) simply as "fragrance" in the required ingredient list.\textsuperscript{85} The fragrance language as used in 21 C.F.R. § 701.3 states that "[n]o ingredient may be designated as [a] fragrance . . . unless it is within the meaning of such term as commonly understood by consumers."\textsuperscript{86} However, the regulation does not provide any further guidelines or definitions to help determine what rightfully qualifies as being "commonly understood by consumers" to mean fragrance.\textsuperscript{87} Therefore, the language of § 701.3 on its face does not create any bright-line standard for the perfume industry to follow regarding when they are required to disclose their products' ingredients.

Moreover, even if perfume manufacturers are willing to disclose the identities of some of their ingredients to the FDA, which they have the option to do under a strictly voluntary reporting scheme,\textsuperscript{88} there is still an exception under this voluntary reporting regulation for claims of trade secret protection.\textsuperscript{89} This exception permits manufacturers of cosmetic products to disclose the identities of all ingredients that they choose to reveal and exclude the ingredients that the manufacturers claim are protected trade secrets and should not be disclosed.\textsuperscript{90}

The FDA has banned numerous ingredients from use in cosmetic products. These ingredients include bithionol, mercury compounds, vinyl chloride, halogenated salicylanilides, zirconium in aerosol products, chloroform, chlorofluorocarbon propellants, and hexachlorophene, to name a few.\textsuperscript{91} Listing these ingredients on cosmetic labels would cause the product to be deemed adulterated by the FDA.\textsuperscript{92} However, because the FDA does not test fragrance formulas themselves for these harmful chemicals before cosmetic products hit the market, and because perfume manufacturers are not required to disclose their fragrance formulas, the agency cannot unequivocally state that these ingredients are not in fact present in the fragrance formulas.\textsuperscript{93}

\textsuperscript{85} 21 C.F.R. § 701.3(a) (2007); see also FDA “Regulation” of Cosmetics & Fragrances, http://www.ourlittleplace.com/fda.html (last visited Apr. 24, 2008) (explaining that where fragrance formulas consist of trade secrets, the ingredients of the fragrance do not have to be revealed).

\textsuperscript{86} Id.

\textsuperscript{87} See id. § 701.3 (failing to define or give any guidelines regarding what consumers typically understand to be a fragrance).

\textsuperscript{88} See id. §§ 720.1–720.9 (giving cosmetic companies the option to file an ingredient composition statement and detailing the necessary procedures for doing so).

\textsuperscript{89} See id. § 720.8 (providing that a petitioner can make a request “for confidentiality of the identity of a cosmetic ingredient”).

\textsuperscript{90} Id.

\textsuperscript{91} McNamara, supra note 74, at 5.

\textsuperscript{92} Id.

Moreover, the leading organization in the United States charged with assessing the safety of cosmetics the Personal Care Products Council (PCPC) (formerly the Cosmetic, Toiletry and Fragrance Association (CTFA)), likewise has very limited authority to control the ingredients that are contained in perfume. The PCPC provides funding for an outside group of physicians and other science professionals to conduct independent reviews and evaluations of the safety of cosmetic products’ ingredients, including perfume. The PCPC publishes its results annually in the Cosmetic Ingredient Review (CIR), which is available to the public. However, because of restrictions similar to those placed on the FDA, the PCPC cannot gain access to the list of ingredients that comprise a trade secret protected fragrance formula and actually determine whether the formula contains unsafe ingredients. Moreover, fragrance manufacturers are not bound by the PCPC’s recommendations (made through the CIR panel), and even the initial testing of the perfume ingredients by the CIR panel is completely voluntary.

D. COMPETING LINES OF PRECEDENT REGARDING WHETHER MANDATORY INGREDIENT DISCLOSURE STATUTES CONSTITUTE TAKINGS

Under the current state of trade secret and takings law as articulated in Ruckelshaus v. Monsanto Co. and some of its progeny, the various secret

that perfumes are not tested for certain chemicals by the FDA before they hit the market).

95 See Fragranced Products Information Network, http://www.fpinva.org/Industry/Selfregulation.htm (last visited Mar. 16, 2008) (stating that the recommendations of organizations such as the PCPC (formerly the CTFA) are not legally binding).
96 Id. at 204.
98 See Jacqueline A. Greff, Regulation of Cosmetics That are Also Drugs, 51 FOOD & DRUG L.J. 243, 245 (1996) (stating that the CTFA’s activity paralleled the FDA’s regulation for over-the-counter drugs and that filing cosmetic product ingredients is voluntary); Robert L. Elder & Jonathon T. Busch, The Cosmetic Ingredient Review, in THE COSMETIC INDUSTRY: SCIENTIFIC AND REGULATION FOUNDATIONS 203, 204 (Norman F. Estrin ed., 1984) (stating that proprietary material and trade secret information is not reviewed because it is confidential). See also supra note 22 and accompanying text.
99 See Greff, supra note 98, at 246 (explaining that although CIR reports are helpful in determining which ingredients are safe or unsafe to place in cosmetics, they are not binding upon manufacturers in the cosmetics industry).
100 Little, Lewis & Lundquist, supra note 15, at 26.
101 467 U.S. 986 (1984). This remains the leading case in American jurisprudence regarding disclosure of trade secret information as a taking under the Fifth Amendment of the Constitution.
ingredient formulas which comprise consumer products are considered private property. Thus, if the government were to require fragrance manufacturers to disclose all the individual ingredients that comprise their fragrance to the public (which also means that the companies’ competitors would have access to the fragrance formula), such required disclosure would be considered a taking under the Fifth Amendment of the Constitution. The government would be required to compensate fragrance manufacturers for complying with such a rule because the law would essentially force the manufacturers to turn over their private property (the secret formula) to others. To better understand the rationale behind this line of precedent, an analysis of how the United States Supreme Court has traditionally defined “property” under a Fifth Amendment context, as well as how intellectual property fits into this grand scheme, is necessary.

1. Traditional Notions of What Constitutes Property for Purposes of the Fifth Amendment Takings Clause. According to Professors Paul J. Heald and Michael L. Wells, the term “property” has been very broadly defined by the Supreme Court in the Fifth Amendment context. The Supreme Court has stated that as a general rule, what constitutes property is not limited merely to the vulgar and untechnical sense of the physical thing with respect to which the citizen exercises rights recognized by law. Instead it denotes the group of rights inhering in the citizen’s relation to the physical thing, as the right to possess, use and dispose of it. The constitutional provision is addressed to every sort of interest the citizen may possess.

In this case, the Supreme Court extended the Fifth Amendment Takings Clause to apply to trade secret protection, despite the fact that trade secrets are intangible. See Ruckelshaus, 467 U.S. at 1002–04 (holding that a trade secret does qualify as private property for purposes of the Fifth Amendment Takings Clause).

See also Philip Morris, Inc. v. Reilly, 312 F.3d 24 (1st Cir. 2002) (holding that a statute requiring tobacco companies to disclose the constituent ingredients of their products was an unconstitutional taking on its face).

In drafting the Constitution, the Framers gave the Supreme Court leeway to develop criteria for identifying those interests that qualify as property by limiting the Fifth Amendment guarantee to property. The fact that the case law on the subject of whether intellectual property constitutes private property is somewhat scarce appears to indicate that there is a relatively broad application of the Fifth Amendment to intellectual property rights such as trade secrets.

2. Precedent Recognizing Trade Secrets as Property. In Ruckelshaus, the Monsanto Company, a developer of pesticides and other chemical products, sought to register with the Environmental Protection Agency (EPA) a new pesticide that it had formulated. However, the recent enactment of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) required that Monsanto disclose the individual active ingredients included in the pesticide, which meant the ingredients would possibly be disclosed to the public, including Monsanto’s competitors.

Monsanto claimed that the confidential information that it submitted to the EPA pursuant to a new regulation constituted private property. Monsanto further contended that the EPA’s disclosure of this information to its competitors constituted a taking of its property. Monsanto also asserted that because one of the cornerstone requirements of trade secret law is that the information must in fact be secret to be protectable, the EPA’s disclosure prohibited Monsanto from exercising its legal right to restrict others from misappropriating its information. The Court ultimately held that the federal government would be required to compensate Monsanto for the value of its trade secrets that were destroyed when the EPA disclosed them without Monsanto’s express or implied consent. Reasoning that it had previously found other intangible rights to constitute property, the Court ruled that trade secrets are protected by the Fifth Amendment from uncompensated governmental takings.

In deciding that trade secrets constituted property for purposes of the Takings Clause, the Court noted that trade secrets have several of the common attributes associated with tangible property because they are assignable, they can form the

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108 See Heald & Wells, supra note 106, at 857.
109 Id.
111 Id. at 992–96.
112 See id. at 998–99 (stating that “Monsanto alleged that... [the data disclosure] provisions [of FIFRA] effected a ‘taking’ of property . . .”).
113 Id.
114 Id. at 1002.
115 Id. at 1002–04. The Court also noted that the Tucker Act could serve as a vehicle for Monsanto’s compensation claim. Id. at 1016.
116 Id. at 1003.
res of a trust, and a debtor's interest in a trade secret passes to the trustee in bankruptcy.\textsuperscript{117} Furthermore, the Court noted that although Monsanto would not lose all the usefulness of the data that it would be required to disclose under the statute, this fact was irrelevant to the determination of the economic impact of the statute on Monsanto.\textsuperscript{118} According to the Court, "[t]he economic value of [Monsanto's] property right lies in the competitive advantage over others that Monsanto enjoys by virtue of its exclusive access to the data, and disclosure or use by others of the data would destroy that competitive edge."\textsuperscript{119} However, the Court did not address whether trade secrets can be taken when they pose a risk to human health.\textsuperscript{120}

In \textit{Philip Morris, Inc. v. Reilly}, the First Circuit reaffirmed the rule set forth in \textit{Ruckelshaus} that a forced governmental disclosure of ingredients which comprise a company's trade secret formula is a facially unconstitutional taking.\textsuperscript{121} Like the attack upon the statute made by the plaintiffs in \textit{Ruckelshaus}, the plaintiffs in \textit{Philip Morris} challenged the validity of the Massachusetts Disclosure Act, which required tobacco companies to disclose the individual ingredients that comprised their tobacco products, as unconstitutional.\textsuperscript{122} In holding that the statute unconstitutionally forced companies to disclose their trade secrets, the court concluded that requiring the tobacco companies to reveal the ingredient lists for all their tobacco products constituted a regulatory taking.\textsuperscript{123} According to the court, this holding was appropriate because (a) the companies had a reasonable investment-backed expectation that their ingredient lists would remain secret; (b) public disclosure of the ingredient lists would have a tremendous negative economic impact on tobacco companies; and (c) the disclosure of the ingredient lists would essentially destroy Philip Morris's trade secrets.\textsuperscript{124}

3. \textit{Precedent Holding that Governmental Exercise of Police Powers is Not a Fifth Amendment Taking}. Although precedent exists for the idea that required disclosure of trade secrets under the law constitutes a regulatory taking, there is also a line of case law under the Takings Clause holding to the contrary given the interest in

\textsuperscript{117} Id. at 1002.
\textsuperscript{118} Id. at 1012.
\textsuperscript{119} Id.
\textsuperscript{121} Philip Morris, Inc. v. Reilly, 312 F.3d 24, 47 (1st Cir. 2002).
\textsuperscript{122} Id. \textit{passim}.
\textsuperscript{123} See id. at 33–46 (examining regulatory takings precedent and deciding that requiring tobacco companies to disclose their ingredient lists constitutes a regulatory taking).
\textsuperscript{124} Id.
protecting the public health. In *Mugler v. Kansas*, a brewery owner challenged to Kansas Prohibition laws by claiming that his factory had been taken by the regulations because the Prohibition laws essentially destroyed the beneficial use of his brewery. In finding that the regulation did not constitute a taking, the Court noted that the laws were in place solely to protect the public welfare, which the government had the right to do without the threat of the legislation being considered a taking.

Similarly, in *Corn Products Refining Co. v. Eddy*, corn syrup manufacturers challenged the constitutionality of a Kansas statute that required them to label the percentages of all ingredients in their syrup products on the grounds that the mandatory disclosure of such information constituted a taking. The Court rejected this argument, explaining that the state's right to promote fair dealing in the industry was paramount to the manufacturers' rights to maintain secrecy. The Court went on to explain that "a manufacturer... has no constitutional right to sell goods without giving to the purchaser fair information of what it is that is being sold." According to the Court:

> The power which the states have of prohibiting such use by individuals of their property, as will be prejudicial to the health, the morals, or the safety of the public, is not—and, consistently with the existence and safety of organized society, cannot be—burdened with the condition that the state must compensate such individual owners for pecuniary losses they may sustain, by reason of their not being permitted, by a noxious use of their property, to inflict injury upon the community.

Legal scholars reviewing *Mugler* and similar cases have noted that if the courts considered as takings all government actions done for the benefit of the public health or welfare which diminish the value of private property to the owners,
government funds would quickly evaporate. As the *Mugler* Court pointed out, private property is "held under the implied obligation that the owner's use of it shall not be injurious to the community." Some legal scholars have concluded that pursuant to the *Mugler* court's reasoning, if private property owners do not have the right to harm the public with their property, and in turn suffer property deprivation because of laws enforcing this limitation, then "the fact that a harm-preventing measure diminishes the value of the regulated property—no matter to what extent—ought not to convert the regulation into a taking."  

III. ANALYSIS

The fragrance industry has a very compelling argument that under the Fifth Amendment the individual ingredients that comprise their fragrance formulas are trade secrets and thus private property. Fragrance manufacturers would likely argue that under *Monsanto* and *Philip Morris, Inc.* the Fifth Amendment requires the government to compensate them for mandatory disclosure of the ingredients in their fragrance formula. If Congress instituted laws requiring disclosure of all the individual perfume ingredients on the perfume bottle box label, perfume manufacturers would probably make an argument similar to that made by the plaintiffs in *Philip Morris, Inc.* Perfume companies would likely contend that such a requirement constitutes a regulatory taking of their property because it "sacrifice[s] all economically beneficial uses [of their property] in the name of the common good." Moreover fragrance manufacturers would also likely argue that they had a reasonable investment-backed expectation that their fragrance formula ingredient lists would be kept secret at the time of manufacture.

However, despite the legal precedent in favor of allowing perfume companies to continue concealing the individual ingredients of their fragrance formulas, several policy considerations weigh heavily in favor of the FDA requiring the disclosure of these ingredients without such a mandate being considered a Fifth Amendment taking. While it is true that the perfume industry has a very large proprietary interest in keeping fragrance formulas secret, the concern for long-term public health is more important than the trade secret rights of big business. This is especially true because perfume is typically considered more of a luxury item than a necessity. Requiring fragrance ingredient disclosure will provide

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133 *Mugler*, 123 U.S. at 665.
consumers with better opportunities to make safer and more informed decisions about the different types of fragranced products they choose to purchase and use on their bodies.

A. MANDATORY DISCLOSURE OF INDIVIDUAL PERFUME SHOULD NOT BE VIEWED AS A TAKING

On the surface, the holdings in *Ruckelshaus*¹³⁶ and *Philip Morris, Inc.*¹³⁷ seem to provide a sound basis for allowing companies to safeguard their secret formulas from public disclosure pursuant to trade secret and eminent domain law. However, the line of reasoning advanced by the Court in *Mugler*¹³⁸ and the scholarship of Robert Hur¹³⁹ (i.e., that regulation imposed for the public health or benefit should not be considered a Fifth Amendment taking) is a much better interpretation of the Takings Clause in the context of mandatory disclosure of fragrance ingredients.

Both the *Ruckelshaus* and *Philip Morris, Inc.* decisions focused on the notions of rights of private property owners in their trade secrets but did not give much consideration to the responsibilities that also accompany private property ownership.¹⁴⁰ The FDA should have the authority to enact policies that require perfume companies to disclose the ingredients that make up the fragrance formula on the bottle or box without having to worry about the threat of its policies being declared an unconstitutional taking. This rule would enable the FDA to carry out effectively its primary duty, which is protecting public health by enforcing regulations which prevent consumers’ exposure to harmful chemicals and substances. Trade secret law ties one of the FDA’s hands behind its back by allowing perfume manufacturers to circumvent disclosure of certain ingredients, which essentially leaves their actions unchecked until some type of crisis occurs.

Mandatory disclosure of the individual fragrance formula ingredients may in fact interfere with reasonable investment-backed expectations that perfume companies have in their fragrance formulas. However, eminent domain law has never fully supported the proposition that a reasonable investment-backed expectation supersedes the power of the federal government to institute

¹³⁶ See supra note 101 and accompanying text.
¹³⁷ See supra note 102 and accompanying text.
¹³⁸ See supra notes 126–27 and accompanying text.
¹³⁹ See supra note 132 and accompanying text.
¹⁴⁰ See supra Part II.D.2; see also Ruckelshaus v. Monsanto Co., 467 U.S. 986 (1984), and Philip Morris, Inc. v. Reilly, 312 F.3d 24 (1st Cir. 2002) (neglecting to discuss the responsibilities of private property ownership).
regulations to protect the public from noxious behaviors, activities, and substances.\textsuperscript{141} States are typically entitled to a presumption that their regulations are valid exercises of their police power.\textsuperscript{142} Allowing corporations to exploit a loophole in federal regulations through trade secret law when the public health is at risk is nothing more than the proverbial case of the "tail wagging the dog." Cases such as \textit{Ruckelshaus} and \textit{Philip Morris, Inc.} leave one seriously wondering whether the legal system favors private property rights over public welfare considerations.\textsuperscript{143}

Requiring perfume companies to disclose the hazardous and potentially dangerous ingredients that comprise their fragrance formula will force manufacturers to make a very fair and equitable choice: either shape up (develop new effective chemicals to include in the formula that do not pose such grave health risks) or ship out (leave the business if they do not want to disclose the harmful chemicals that are being placed into the fragrance formulas). In cases where the disclosure of harmful or potentially harmful ingredients would improve public health, regulations mandating this disclosure cannot be considered takings under the Fifth Amendment.\textsuperscript{144} The long-term protection of public health should always outweigh the proprietary interest companies have in their trade secrets in situations in which the two competing interests must be balanced.

B. POLICY IN FAVOR OF REQUIRING DISCLOSURE OF PERFUME INGREDIENTS

As David Levine correctly points out, allowing private companies to provide public infrastructure and simultaneously permitting them to claim trade secret protection regarding its operations leads to a heightened level of distrust among consumers.\textsuperscript{145} This distrust will likely decrease the amount of a given product that people consume over time, and the effects on the perfume industry will be no different. Although the perfume industry is not technically part of the public infrastructure, it is still a private industry that provides a good (perfume) for public use that people expect a publicly accountable government to regulate. Thus, when perfume manufacturers are able to circumvent the FDA regulations by claiming trade secret protection for many of their fragrance ingredients, the same distrusts and concerns that apply in the public infrastructure context apply

\textsuperscript{141} See supra note 125 and accompanying text.
\textsuperscript{142} Gorman, supra note 120, at 789.
\textsuperscript{143} Hur, supra note 132, at 465.
\textsuperscript{144} See id. at 473 (stating that "when the disclosure of particular information will certainly improve public health, a regulation mandating such will not run afoul of the Takings Clause").
\textsuperscript{145} See supra note 46 and accompanying text.
here as well. As awareness of the number of harmful volatile chemicals that are being used to create fragrance in perfume and other fragranced products increases, many people will likely purchase fewer of these products because they cannot readily ascertain exactly what chemicals they are placing on their bodies. Moreover, disclosure of the fragrance formula would serve as a fringe benefit to perfume companies because such disclosure would likely lessen the negative impact of the loss of trade secret protection for their fragrance formula. This is because customers will probably feel more at ease with their perfume purchases if they are able to easily ascertain whether hazardous ingredients have been included in the formula.

Moreover, considering that the FDA is the only government agency with the authority to enact binding regulations upon perfume manufacturers, the public’s reliance upon this agency’s ability to protect it from deleterious substances is substantial. It is extremely problematic that the government agency charged with protecting the public from deleterious substances in consumer products is severely hampered in its ability to carry out this duty. Allowing trade secret law to serve as an umbrella under which the perfume industry can guard itself from regulation begs the slippery slope question: If trade secret law permits perfume manufacturers to deregulate themselves, what other consumer product manufacturers will likewise try to claim trade secret status for their product ingredients? If the FDA is not able to effectively carry out its task of protecting the public from harmful substances, the public will be vulnerable to injuries from dangerous products, as manufacturers will likely be more concerned with their profit margins than the effects of their products on long-term human health.

Additionally, as scholars have argued with regard to environmental information disclosure, instituting perfume ingredient disclosure laws will help counteract the market forces that tend to conceal information necessary to identify and correct the existing and potential problems with perfume and fragranced products. Knowing that consumers would have an exhaustive list

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146 See Levine, supra note 46 at 173 (stating that increased access to information about protected products transparency would bring about other benefits to a business that may lessen the sting of the company’s loss of trade secret protection).

147 See Hur, supra note 132, at 468 (explaining that the State of Massachusetts dealt with the same question in regards to the government’s inability to effectively regulate the cigarette industry).

148 See John D. Echeverria & Julie B. Kaplan, Symposium, Poisonous Procedural “Reform”: In Defense of Environmental Right-to-Know, 12 KAN. J.L. & PUB. POL’Y 579, 587–88 (2002) (arguing that with respect to environmental problems, information disclosure programs can counteract negative market forces that suppress access to important information, because such disclosure increases the public’s knowledge and concern and can ultimately lead to a large scale withdrawal of support for companies with a record of environmental problems).
of ingredients at their fingertips when they purchase fragranced products would create an incentive for manufacturers to search for safer ingredients to put into their products. A mandatory ingredient disclosure policy could also encourage consumers to join forces and lobby the perfume manufacturers directly to address concerns regarding dangerous chemicals being used in fragranced products. Additionally, mandatory disclosure of fragrance formula ingredients would aid in the identification of even more threats to public health, or at least make existing problems clearer. The discovery of new problems will enable legislators and government officials to develop new safety laws and regulations to address problems that had not previously been contemplated.

Furthermore, allowing perfume manufacturers to use trade secret law to deregulate themselves and place the public health in jeopardy does not comport with the underlying principles of trade secret law. An FDA policy mandating the disclosure of individual ingredients of fragrance formulas on the labels of fragranced products would not offend one of the traditional justifications for trade secret law—the inherent unfairness of obtaining a competitive advantage via a breach of confidence. A government regulation instituted in an attempt to protect the public from harm can hardly offend this principle. Moreover, requiring disclosure of fragrance formula ingredients would square well with the trade secret protection justification of encouraging research investments by providing a financial reward for producing innovative and safe products. This is because disclosing the names of harmful ingredients will very likely lead to a significant drop in sales for those perfume companies manufacturing the harmful products. Thus, companies which are innovative enough to create safer alternatives to the harmful ingredients will reap the benefits from producing safer

149 See id. at 587 (arguing that “disclosure programs create a risk of loss of good will or of corporate embarrassment that may induce companies to take voluntary corrective action”).

150 See id. at 587–88 (arguing that mandatory disclosure programs will give citizens and community groups data that they can use to pressure companies to correct their environmental problems).

151 See id. (stating that it is possible that information disclosure with respect to environmental problems could lead the public to identify new environmental problems or make the nature of these problems clearer).

152 See id. (concluding that if new environmental problems are discovered, the government would be able to develop the necessary laws and regulations to properly protect the environment).


154 Id. (stating that encouraging research investments is one of the justifications of trade secret law).
products because consumers will likely feel more comfortable purchasing non-hazardous fragrance products.

C. MANDATORY DISCLOSURE STATUTES WILL NOT HELP PERFUME MANUFACTURERS’ CURRENT AND FUTURE COMPETITORS STEAL MARKET SHARE

For perfume and fragranced product manufacturers that control a large share of the market and would face a significant possibility of revenue loss from mandatory disclosure laws and regulations, such as Estee Lauder and Avon, the threat of newcomers stealing their market share is merely that—just a threat. First of all, newcomers would face the same hurdles and obstacles that anyone would face by attempting to break into the industry. In the tobacco industry, for instance, “[t]o compete seriously, companies must spend enormous amounts of time and money to seek out tobacco growers, build or buy production facilities, hire a productive workforce, establish distribution channels, and build brands to woo consumers.” Similarly, large veteran fragrance manufacturers have a leg up on newcomers to the industry because they have not only a head start in the basics of fragrance production but also more experience attracting customers to their brands, reducing costs to run their businesses more efficiently, and gaining goodwill and leverage with retailers. Furthermore, it is common knowledge that consumers tend to buy the brands with which they are familiar, so the argument that disclosing all the ingredients in a fragranced product will enable newcomers to step in and steal market shares is an exaggeration.

Moreover, the argument that perfume and fragranced product manufacturers would face significant threats of losing business if fragrance formula disclosure is required is an overstatement. Assuming arguendo that the major perfume and fragranced product manufacturers are unaware of the exact composition of one another’s products, it is highly unlikely that this knowledge would be worth very much in an industry in which competitors constantly try and to distinguish their products from others in the marketplace rather than make them smell alike. Considering the existing technology within the industry to which perfume

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155 See Hur, supra note 132, at 486–87 (discussing a similar argument regarding tobacco litigation).
156 Id. at 487.
157 See id. (discussing some of the reasons why large players in the tobacco industry have a leg up on newcomers).
158 See id. (noting that tobacco customers tend to purchase familiar brands).
159 See id. (explaining a similar theory in the context of big tobacco disclosure and the subsequent litigation).
160 See id. at 487–88.
companies have access, fragrance manufacturers probably either already know the ingredients contained in competitors' fragrance formulas or would have little trouble reverse engineering a competitor's product to determine its ingredients. This is evidenced by the plethora of knock-off perfumes which smell similar, if not identical, to the original brand of perfume. Thus, there would not likely be a significant impact upon manufacturers' profits, from either upstart manufacturers or firmly established competitors, if the FDA required disclosure of the ingredients on the product label.

IV. CONCLUSION

Under the current state of trade secret law and FDA regulatory powers, perfume and fragranced product manufacturers are able to deregulate themselves. Although the FDA seeks to regulate the types of ingredients that can be placed in perfume and fragranced products, trade secret law hampers the FDA's ability to enforce these regulations. The identities of the individual ingredients that comprise the fragrance formula are protected by trade secret law and do not have to be disclosed even to the FDA, which is the government agency solely responsible for regulating what can be placed in fragrance products. Various chemicals that have been tested and proven to be extremely hazardous to human health have been found in perfume and other fragranced products, despite the fact that several of these chemicals have even subsequently been banned by the FDA.

Congress should pass legislation that permits the FDA to institute policies that require fragranced product manufacturers to disclose the individual ingredients that make up the fragrance formula without having such mandatory disclosure be considered a Fifth Amendment taking. Concerns about long-term public health and safety should override concerns about protecting certain property rights. The consuming public relies upon government agencies such as the FDA to ensure that the products consumers purchase are safe. The FDA cannot successfully carry out this duty if trade secret law continues to serve as an umbrella of protection that allows the fragrance industry to deregulate itself and potentially place the public health in jeopardy. Giving the FDA the power to require greater

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161 For example, Green Door Fragrance Manufacturer makes several imitation perfume and cologne scents for Sunbird, which are for the most part identical in smell to designer fragrances (i.e., Beyond Paradise, Issey Miyake, and Pleasures). Sunbird Discount Brand Name Fragrance Perfumes, http://www.sunbirdperfume.co.za/contact.htm (last visited Mar. 16, 2008); see also Fragrances of Distinction, http://www.sunbirdperfume.co.za/prods.htm (last visited Apr. 6, 2008) (providing a complete list of imitation fragrances marketed by Sunbird).
transparency regarding the ingredients contained in perfumes and other fragranced products will help ensure more government accountability as well as consumer autonomy that results from all the perfume ingredients being disclosed on the label.

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