UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

IN RE: HAIR RELAXER MARKETING SALES PRACTICES AND PRODUCTS LIABILITY LITIGATION	MDL No. 3060 Master Docket Case No. 1:23-cv-00818 Honorable Mary M. Rowland
KAREN MOORE Plaintiff **v.** **L'OREAL USA, INC., L'OREAL USA PRODUCTS, INC., SOFT SHEEN-CARSON, LLC, SALLY BEAUTY HOLDINGS, INC.** Defendants	COMPLAINT AND JURY DEMAND Civil Action No.: _____

COMPLAINT AND JURY DEMAND

Plaintiff(s) file this Complaint pursuant to CMO No. 2, and are to be bound by the rights, protections and privileges, and obligations of that CMO and other Orders of the Court. Further, in accordance with CMO No. 2, Plaintiff(s) hereby designate the United States District Court for the Eastern District of Louisiana as plaintiff's designated venue ("Original Venue"). Plaintiff makes this selection based upon the following factors: 1) Plaintiff currently resides in Crossett, Arkansas; 2) Plaintiff purchased and used Defendant(s)' products in Crossett, Arkansas; 3) the Original Venue is a judicial district in which Defendant(s) reside, and all Defendants are residents of the State in which the judicial district is located (28 USC 1391(b)(1); 4) the Original Venue is a judicial district in which a substantial part of the events

of omissions giving rise to the claim occurred, specifically (28 USC 1391(b)(2): plaintiff was diagnosed with cancer in this judicial district.

Plaintiff, Karen Moore ("Plaintiff'), through undersigned counsel, respectfully submits the following Complaint against Defendants: L'Oreal USA, Inc., L'Oreal USA Products, Inc., Soft Sheen-Carson, LLC, and Sally Beauty Holdings, Inc. and alleges as follows:

NATURE OF THE ACTION

1. In approximately 1982, at the age of 20, Plaintiff began using Defendants' hair care products. In 2018, after 36 years of regular use of Defendants' Products, Plaintiff developed and was diagnosed with uterine cancer. Plaintiff's medical conditions and injuries were directly and proximately caused by her regular and prolonged exposure to phthalates, other endocrine-disrupting and other harmful chemicals found in Defendants' hair care products.

2. Plaintiff brings this action against Defendants for claims arising from the direct and proximate result of Defendants, their directors, agents, heirs and assigns, and/or their corporate predecessors' negligent, willful, and wrongful conduct in connection with the design, development, manufacture, testing, packaging, promoting, marketing, distribution, labeling, and/or sale of the Products, including, but not limited to, Optimum, Dark & Lovely, and Precise (together, the "Products").

I. PARTIES

3. Plaintiff is and at all times relevant to this action, was a citizen and resident of Crossett, Ashley County, State of Arkansas.

4. Defendant L'Oréal USA, Inc. is, and at all times relevant to this action was, incorporated in Delaware with its principal place of business and headquarters located at 575 Fifth Avenue, New York, New York 10017 and process may be served upon its registered agent, Corporation Service Company, 80 State Street, Albany, New York 12207.

5. Defendant L'Oréal USA Products, Inc. is, and at all times relevant to this action was, incorporated in Delaware with its principal place of business and headquarters located at 10 Hudson Yards 347 10th Avenue New York, New York 10001 and process may be served upon its registered agent, Corporation Service Company, 80 State Street, Albany, New York 12207.

6. Defendant Soft Sheen-Carson, LLC, is, and at all times relevant to this action was, a limited liability company organized in New York with its principal place of business and headquarters located at 80 State St., Albany, New York 12207 and process may be served upon its registered agent, Corporation Service Company, 80 State Street, Albany, New York 12207.

7. Plaintiff alleges that at all times relevant to this action, Soft Sheen-Carson, LLC's sole members and interested parties are L'Oréal S.A., a corporation having its headquarters and principal place of business in France; and L'Oréal USA, Inc., incorporated in Delaware with its principal place of business and headquarters at 575 Fifth Avenue, New York, New York 10017. This Court has jurisdiction over Soft Sheen-Carson, LLC based on complete diversity of citizenship between Plaintiff and each member of Soft Sheen-Carson, LLC and Defendants collectively.

8. Defendant Sally Beauty Holdings, Inc. is a Delaware corporation with its principal place of business at 3001 Colorado Boulevard, Denton, Texas 76210 and process may be served upon its registered agent Corporate Creations Network, Inc., 3411 Silverside Road Tatnall Building Suite 104, Wilmington, Delaware 19810.

9. No Defendant in this action is incorporated in the State of Illinois, maintains a principal place of business in the State of Illinois, or has members who are citizens of the State of Illinois. As plaintiff is a citizen of the State of Arkansas, complete diversity exists in this action.

10. At all pertinent times, all Defendants were engaged in the research, development, manufacture, design, testing, sale, and marketing of the Products, and introduced such products into interstate commerce with knowledge and intent that such products be sold in the States of Arkansas and Illinois.

11. Plaintiff purchased Defendants' products in the State of Arkansas, and the damages sustained by Plaintiff as alleged herein occurred within the State of Arkansas.

12. At all times material hereto, Defendants developed, tested, assembled, manufactured, packaged, labeled, prepared, distributed, marketed, supplied, and/or sold the defective Products, including but not limited to:

a. Mizani Butter Blend; and
b. Silk Elements.

13. Defendants' defective hair products were placed into the stream of interstate commerce in the States of Illinois and Arkansas and was used by the Plaintiff in the State of Arkanas.

14. Plaintiff's injuries were directly and proximately caused by exposure to chemicals in the Defendants' hair care products.

15. Plaintiff was diagnosed with her injuries in the State of Arkansas.

II. JURISDICTION AND VENUE

16. This Court has subject-matter jurisdiction over this case under 28 U.S.C. § 1332(a) because the amount in controversy exceeds $75,000 and Plaintiff and Defendants are residents of different states.

17. Upon information and belief, at all relevant times, Defendants were present and transacted, solicited and conducted business in the States of Arkansas and Illinois through their employees, agents and/or sales representatives, and derived substantial revenue from such business.

18. At all relevant times, Defendants expected or should have expected that their acts and omissions would have consequences within the United States and the States of Arkansas and Illinois.

19. This Court has personal jurisdiction over Defendants who at all pertinent times conducted business in Arkansas and Illinois, where Defendants purposefully directed their actions, and have the requisite minimum contacts necessary to constitutionally permit this Court to exercise jurisdiction over Defendants. Moreover, Defendants' actions and/or inactions described herein were purposefully directed at and/or within the States of Arkansas and Illinois, where the damages were sustained by Plaintiff, and which were a result of Defendants' actions and/or inactions – described herein.

20. Venue in this District is proper under 28 U.S.C. § 1391, because a substantial part of the events and/or actions and/or omissions giving rise to the claims alleged herein occurred in this Judicial District and Plaintiff's designated judicial district.

21. Venue is proper in this judicial district pursuant to 28 U.S.C. §§1391(a) and (b)(2) and 1391(c)(2) because a substantial part of the events or omissions giving rise to the claims occurred in this judicial district in which Defendants are subject to personal jurisdiction. Venue is also proper under 18 U.S.C. § 1965 (a), because at all relevant times Defendants transacted and/or conducted substantial business in this judicial district and Plaintiff's designated judicial district.

III. FACTS COMMON TO ALL COUNTS

A. Hair Straighteners and Relaxers

a. Market for Hair Straightening and Relaxing Products

22. Black people make up about 13 percent of the U.S. population, but by one estimate, their spending accounts for as much as 22 percent of the $42 billion-a- year personal care products market, suggesting that they buy and use more of such products - including those with potentially harmful ingredients- than Americans as a whole.[1]

23. In an analysis of ingredients in 1,177 beauty and personal care products marketed to Black women, about one in twelve (12) was ranked highly hazardous on the scoring system of EWG's Skin Deep® Cosmetics Database, a free online resource for finding less- hazardous alternatives to personal care products. The worst-scoring products marketed

[1] Thandisizwe Chimurenga, *How Toxic is Black Hair Care?,* New America Media, Feb. 2, 2012, americamedia.org/2012/02/skin-deep-in-more-ways-than-one.php; *Personal Care Products Manufacturing Industry Profile,* Dun & Bradstreet First Research, August 2016, www.firstresearch.com/Industry-Research/Personal-Care-Products-Manufacturing.html (This report uses "Black" to describe not only people who identify as African-American, but Black people in the U.S. who come from the Caribbean or other areas. "African-American" is used only when a cited source specifies that term).

to Black women were hair relaxers, and hair colors and bleaching products. Each of these categories had an average product score indicating high potential hazard.

24. In the U.S. alone, Black consumers spend over $1 trillion each year, with a significant amount of that spending toward hair care products.

25. In 2020, the global Black Hair care market was estimated at $2.5 billion, with the hair relaxer market alone estimated at $718 million in 2021, with the expectation of growth to $854 million annually by 2028.

b. History of Hair Relaxers in America

26. In its natural or virgin state, afro-hair texture has been characterized as coily, springing, zigzag, and s-curve curl patters; as well as its density, fullness, texture, and feel.[2]

27. Afro-textured hair "naturally grows up and out."[3]

28. Black, or afro-textured hair texture, can be manipulated into a straightened state with the use of hair tools and hair products. Prior to the invention of the chemical relaxer in 1900s, individuals could "press" afro-textured hair with metal hair tools such as the "hot comb." Pressing combs or hot combs are metal hair tools that are first heated in a stove or ceramic heater, then pressed into hair strands to temporarily straighten them.[4]

29. The hot comb was first invented by Frenchman, Marcel Grateau who popularized the hair styling tool in Europe in the 1870s, including advertisements in catalogs

[2] Patrick Obukowcho, *Hair Relaxers: Science, Design, and Application,* 26, 14 (2018).

[3] Ayana Byrd & Lori Tharps, *When Black Hair Is Against the Rules,* The New York Times, April 30, 2014, https://www.nytimes.com/2014/05/01/opinion/when-black-hair-is-against-the- rules.html

[4] Jaclyn Peterson, *The Price of Beauty,* CTI Charlotte Teachers Institute Curriculum (2021).

of major department stores like Sears and Bloomingdales.[5] The hot comb was later modified by Madam C.J. Walker, a trailblazer in the development of black hair products, to be manufactured with wider comb teeth.[6] With Walker's system, once the comb was heated a softening ointment was then applied for easier manipulation of black hair.[7]

30. Today, afro-textured hair is still often straightened with a hot comb rather than with chemicals. However, pressed hair remains susceptible to "shrinkage." Shrinkage is the process by which curly-kinky hair that has been temporarily straightened coils back into its natural state once the hair interacts with water, humidity, or perspiration.[8], creating a shorter or fuller appearance.

[5] Henry Louis Gates, *Madam Walker, the First Black American Woman to Be a Self-Made Millionaire,* PBS 100 Amazing Facts About the Negro, https://www.pbs.org/wnet/african-americans-many-rivers-to-cross/history/100-amazing-facts/madam-walker-the-first-black-american-woman-to-be-a-self-made-millionaire/ (last visited October 18, 2022).

[6] Cookie Lommel, Madam C.J. Walker 60 (1993)

[7] *Id.* at 62.

[8] *Id.*

B. The Invention of the Chemical Relaxer

31. Inventor Garrett Augustus Morgan, discovered and created a system that would permanently straighten afro-textured hair, eliminating "shrinkage."

32. In additional to being an inventor, Morgan was a tailor. In the early 1900s, Morgan was repairing his sewing machines and creating a way to polish the needles to stitch fabrics more smoothly.[9] He applied a chemical solution to the needles and wiped the solution off with a rag and later noticed that the "curly" fibers in the rag were straightened after exposure to the chemical.[10]

[9] Patrick Obukowcho, Hair Relaxers: Science, Design, and Application 27 (2018).

[10] Mary N. Oluonye, Garrett Augustus Morgan: Businessman, Inventor, Good Citizen 28 (2008).

33. Morgan further tested the chemical on a dog with curly hair and eventually on his own hair. The chemical solution successfully straightened curly hair. He turned his formula into a gel-hair product, creating the G.A. Morgan Hair Refining Cream which was marketed in 1913.

34. Morgan's invention paved the way for the alkaline relaxer and later development of additional chemical-based permanent hair straightening products in the Black

hair care market.[11]

a. **Defendants' Marketing Efforts**

35. In 1971, Dark and Lovely manufactured the first lye relaxer. The formula consisted of sodium hydroxide, water, petroleum jelly, mineral oils, and emulsifiers.[12]

36. In the 1970s, lye relaxer users and manufacturers noticed that the lye formula stripped proteins from the hair strand, resulting in the hair thinning and breaking.[13] As a result, Johnson and Johnson marketed the first "gentle" hair relaxer in 1981, which used alternative chemicals such as potassium hydroxide and lithium hydroxide.[14]

37. Over time, chemical relaxer manufacturers developed herbal and botanical hair relaxer formulas.[15]

38. Today, Defendants market their hair relaxer products to Black customers across the United States, and the world, with advertising designed to emphasize Eurocentric standards of beauty.[16]

[11] Patrick Obukowcho, Hair Relaxers: Science, Design, and Application 27 (2018).

[12] Cicely A. Richard, *This History of Hair Relaxers,* September 29, 2017 https://classroom.synonym.corn/the-history-of-hair-relaxers-12078983.html.

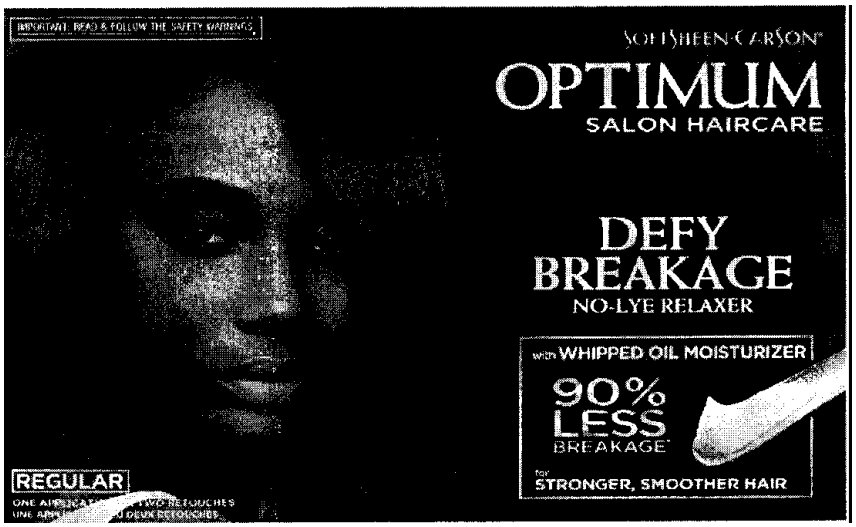
[13] *Id.*

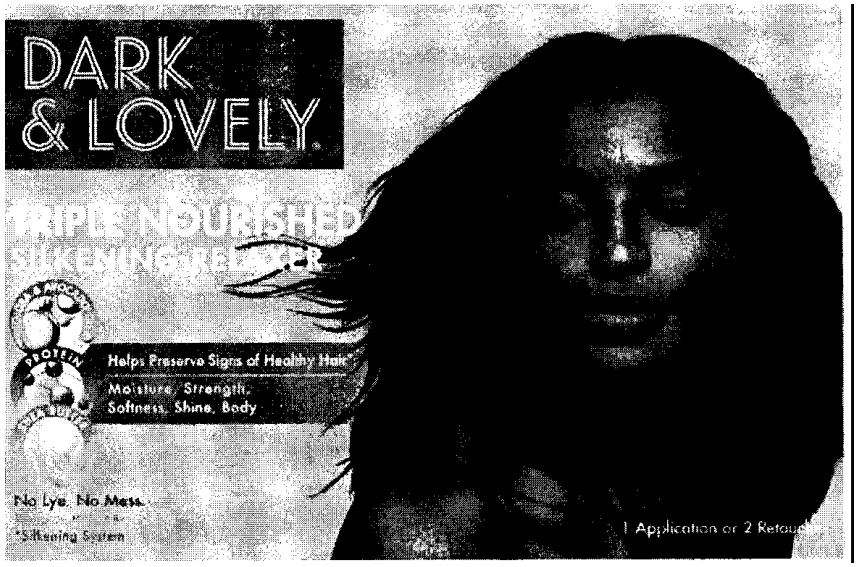
[14] *Id.*

[15] *Id.*

[16] *Id.*

39. Defendant L'Oréal depicts a Black woman with straight hair on each of its Dark and Lovely and Optimum brands of relaxer product.





b. Chemical Relaxer Use

40. Hair relaxers are classified as creams or lotions which are specifically marketed to "tame" hair by making it smoother, straighter, and easier to manage on a daily basis.

41. Hair relaxing, or lanthionization, can be performed by a professional cosmetologist in a salon or barbershop, or at home with at-home relaxer kits designed for individual use. These home kits are sold in grocery, drug, and beauty supply stores in urban and rural cities throughout the United States.

42. Relaxers are applied to the base of the hair shaft and left in place for a "cooking" interval, during which the relaxer alters the hair's texture by purposefully damaging the hair's natural protein structure. The effect of this protein damage straightens and smooths the hair. After a period of weeks (4 - 8 weeks on average), depending on the hair's natural growth rate, the treated portion of the hair grows away from the scalp as new growth sprouts from the roots, requiring additional relaxer treatment to smooth the roots. These additional treatments are colloquially referred to in the community as "re-touches", resulting in women relaxing their new growth every four to eight weeks on average, usually for decades.

43. Hair relaxers can, and often do, cause burns and lesions in the scalp, facilitating entry of hair relaxer constituents into the body. The main ingredient of "lye" relaxers is sodium hydroxide; no-lye relaxers contain calcium hydroxide and guanidine carbonate, and "thio" relaxers contain thioglycolic acid salts. No-lye relaxers are advertised to cause fewer scalp lesions and bums than lye relaxers, but there is little evidence to support this claim.

44. In some studies, up to 90% of black women have used hair relaxants and straighteners. Hair products such as relaxers contain hormonally active and carcinogenic compounds, such as phthalates, known to cause endocrine disruption, which are not required to be listed separately as ingredients and are often broadly lumped into the "fragrance" or "perfume" categories. Relaxer habits usually begin in formative childhood years, and adolescence is likely a period of enhanced susceptibility to debilitating conditions resulting

from exposure to these chemicals.[17]

45. In the 1990s, the first relaxer product for young Black girls, Just for Me™, hit the market with a catchy advertising jingle that captured consumer attention.[18] It soon became one of the most popular straightening treatments, touting a no-lye formula supposedly gentler for children's sensitive scalps.

46. Once relaxer use begins in childhood, it usually becomes a lifetime habit. The frequency of scalp burns with relaxer application can increase the risk of permanent and debilitating diseases associated with long-te1m exposure to endocrine-disrupting chemicals.

47. Use by Black women of hair straightening products aligns with the marketing and beauty standards promoted by Defendants.

c. Regulatory Framework

48. The law does not require cosmetic products and ingredients, other than color additives, to have FDA approval before they go to market. But there are laws and regulations that apply to cosmetics placed into the market. The two most important laws pertaining to cosmetics marketed in the United States is the Federal Food Drug and Cosmetic Ace ("FD&C Act") and the Fair Packaging and Labeling Act ("FPLA").

49. The FD&C Act expressly prohibits the marketing of "adulterated" or "misbranded" cosmetics in interstate commerce.

50. Adulteration refers to a violation involving product composition whether it results

[17] Patrick Obukowcho, Hair Relaxers: Science, Design, and Application 27 (2018).

[18] Dana Oliver, *The '90s Just For Me Hair Relaxer Commercaisl Song Is Stuck In Our Heads,* HuffPost, Feb., 1, 2014. https://www.huffpost.com/entry/just-for-me-hair-relaxer-commercial- song_n_4689981

from ingredients, contaminants, processing, packaging shipping or handling.

51. Under the FD&C Act a cosmetic is adulterated if: 1) it bears or contains any poisonous or deleterious substance causing injury to the product user and 2) if its container is composed in whole or in part, of any poisonous or deleterious substance which may render the contents injurious to health.

52. Misbranding refers to violations involving improperly labeled or deceptively packaged products.

53. Under the FD&C Act, a cosmetic is misbranded if 1) labeling is false or misleading, 2) the label does not include all required information, 3) required information is not prominent and conspicuous, 4) the packaging and labeling is in violation of an applicable regulation issued pursuant to section 3 and 4 of the Poison Prevention Packaging Act of 1970.[19]

54. Under U.S. law, cosmetic manufacturers are not required to submit their safety data to the FDA. However, it is against the law to put an ingredient in a cosmetic that makes the cosmetic harmful when used as intended.[20] An example is methylene chloride because it causes cancer in animals and is likely to be harmful to human health, too.[21]

55. On May 19, 2022, the FDA issued a rule to amend its food additive regulations to no longer provide for most previously-authorized phthalates to be used as food additives because these uses have been abandoned by industry.[22] The FDA revoked authorizations for the food contact use of 23 phthalates and two other substances used as plasticizers, adhesives,

[19] Food and Drug Administration Cosmetic Act§ 602 (1938).

[20] *Prohibited & Restricted Ingredients in Cosmetics,* U.S. Food and Drug Administration, https://www.fda.gov/cosmetics/cosmetics-laws-regulations/prohibited-restricted-ingredients- cosmetics

[21] 21 Code of Federal Regulations §700.19.

[22] §87 FR 31080

defoaming agents, lubricants, resins, and slimicides.[23]

56. Companies and/or individuals who manufacture or market cosmetics have a legal responsibility and duty to ensure the safety of their own products. Neither the law nor FDA regulations require specific tests to demonstrate the safety of individual products or ingredients, and the law also does not require cosmetic companies to share their safety information with the FDA.

57. The FDA has consistently advised manufacturers to use whatever testing is necessary to ensure the safety of products and ingredients, which may be substantiated through (a) reliance on already available toxicological test data on individual ingredients and on product formulations that are similar in composition to the particular cosmetic and (b) performance of any additional toxicological and other tests that are appropriate in light of such existing data and information.[24]

58. Except for color additives and ingredients prohibited or restricted by regulation, a manufacturer may use any ingredient in the formulation of a cosmetic, provided that (1) the ingredient and the finished cosmetic are safe under labeled or customary conditions of use, (2) the product is properly labeled, and (3) the use of the ingredient does not otherwise cause the cosmetic to be adulterated or misbranded under the laws the FDA enforces.[25]

59. With respect to whether the product is properly labeled, Title 21 of the Code of

---

[23] *Phthalates in Food Packages and Food Contact Applications,* U.S. Food and Drug Administration, https://www.fda.gov/food/food-ingredients-packaging/phthalates-food- packaging-and-food-contact-applications

[24] *FDA Authority Over Cosmetics: How Cosmetics Are Not FDA-Approved, but Are FDA- Regulated,* U.S. Food and Drug Administration, Mar., 3, 2005, https://www.fda.gov/cosmetics/cosmetics-laws-regulations/fda-authority-over-cosmetics-how- cosmetics-are-not-fda-approved-are-fda-regulated

[25] *Id.*

Federal Regulations defines the establishment of warning statements related to cosmetic products. Section 740.1 states that "[t]he label of a cosmetic product ***shall*** bear a warning statement whenever necessary or appropriate to prevent a health hazard that ***may*** be associated with the product." (emphasis added). This warning directive directly correlates with the broad authority of manufacturers over their own cosmetic products to ensure that products are safe under labeled or customary conditions of use, properly labeled, and not adulterated or misbranded under FDA laws.

60. In short, under the current regulatory framework in the United States, it is incumbent upon the manufacturers of cosmetic products, and them alone, to assess the safety and efficacy of their products, and to warn consumers anytime a health hazard may be associated with their products. Here, a wealth of scientific information is available regarding long-term use of hair relaxers, straighteners and hair dyes as containing certain endocrine- disrupting chemicals, which should have alerted manufacturers of these products to the specific and dangerous harms associated with their products.

d. Endocrine-Disrupting Chemicals

61. The endocrine system is indispensable for life and influences nearly every cell, organ, and processes within the body.[26] The endocrine system regulates all biological processes in the body from conception through adulthood, including the development of the brain and nervous system, the growth and function of the reproductive system, as well as the metabolism and blood sugar levels.[27]

---

[26] *Endocrine System: The Endocrine System Includes The Thyroid, Adrenals, and the Pituitary Gland,* Science Direct, https://www.sciencedirect.com/topics/psychology/endocrine-system

[27] *Endocrine Disruption,* United States Environmental Protection Agency, Mar., 7, 2022, https://www.epa.gov/ endocrine-disruption/what-endocrine-system

62. The endocrine system is a tightly regulated system made up of glands that produce and release precise amounts of hormones that bind to receptors located on specific target cells throughout the body.[28]

63. Hormones, such as estrogen, testosterone, progesterone, and androgen, are chemical signals that control or regulate critical biological processes.[29]

64. When a hormone binds to a target cell's receptor, the receptor carries out the hormone's instructions, the stimulus, and either switches on or switches off specific biological processes in cells, tissues, and organs.[30]

65. The precise functioning of the endocrine system is vital to maintain hormonal homeostasis, the body's natural hormonal production and degradation. A slight variation in hormone levels can lead to significant adverse-health effects, including reproductive impairment and infertility, cancer, cognitive deficits, immune disorders, and metabolic syndrome.[31]

66. Endocrine disrupting chemicals ("EDCs") are chemicals, or chemical mixtures, that interfere with the normal activity of the endocrine system.

67. EDCs can act directly on hormone receptors as mimics or antagonists, or on proteins that control hormone delivery.[32]

---

[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] *Id.;* Michele La Merrill, et al., *Consensus on the Key Characteristics of Endocrine-Disrupting Chemicals as a Basis for Hazard Ident{fication,* Nature Reviews Endocrinol, Nov., 12, 2019, https://www.nature.com/articles/s41574-019-0273-8

[32] Evanthia Diamanti-Kandarakis, et al., *Endocrine-Disrupting Chemicals: An Endocrine Society Scientific Statement,* Endocrine Reviews, June 30, 2009, https://www.ncbi.nlm.nih.gov/pmc/artic1es/PMC2726844/

68. EDCs disrupt the endocrine system and interfere with the body's hormonal homeostasis in various ways.

69. EDCs can cause the body to operate as if there were a proliferation of a hormone and thus over-respond to the stimulus or respond when it was not supposed to by mimicking a natural hormone.

70. EDCs can increase or decrease the levels of the body's hormones by affecting the production, degradation, and storage of hormones.

71. EDCs can block the hormone's stimulus through inducing epigenetic changes, modifications to DNA that regulate whether genes are turned on or off or altering the structure of target cells' receptors.[33]

72. EDCs are known to cause to numerous adverse human health outcomes including endometriosis, impaired sperm quality, abnormalities in reproductive organs, various cancers, altered nervous system and immune function, respiratory problems, metabolic issues, diabetes, obesity, cardiovascular problems, growth, neurological and learning disabilities.[34]

73. EDCs that mimic the effects of estrogen in the body may contribute to disease risk because exposure to estrogen, endogenously and exogenously, is associated with breast cancer, and a woman's lifetime risk of developing the disease increases with greater duration and cumulative exposure.

74. Natural and synthetic EDCs are present in hair products under the guise of

---

[33] Luis Daniel Martinez-Razo, et al., *The impact of Di-(2-ethylhexyl) Phthalate and Mono(2- ethylhexyl) Phthalate in placental development, function, and pathophysiology,* Environment International, January 2021, https://www.sciencedirect.com/science/article/pii/SO160412020321838?via%3Dihub

[34] *Endocrine Disrupting Chemicals (EDCs),* Endocrine Society, Jan., 24, 2022, https://www.endocrine.org/patient-engagement/endocrine-library/edcs#:~:text=EDCs%20can%20disrupt%20many%20different,%2C%20certain%20cancers%2C%20respiratory%20problems%2C

"fragrance" and "perfumes", and thus enter the body when these products are exogenously applied to the hair and scalp. Studies exploring this issue have thus far classified EDCs as estrogens, phthalates, and parabens.

75. Indeed, numerous studies spanning more than two decades have demonstrated the adverse impact EDCs including Di-2-ethylhexylphthalate have on the male and female reproductive systems such as inducing endometriosis, abnormal reproductive tract formation, decreased sperm counts and viability, pregnancy loss, and abnormal puberty onset.[35]

i. Phthalates

76. Phthalates are used in a variety of cosmetics and personal care products. Phthalates are chemical compounds developed in the last century that are used to make plastics more durable. These colorless, odorless, oily liquids also referred to as "plasticizers" based on their most common uses.

77. Phthalates also function as solvents and stabilizers in perfumes and other fragrance preparations. Cosmetics that may contain phthalates include nail polishes, hair sprays, aftershave lotions, cleansers, and shampoos.

78. At all relevant times herein, phthalates were used in Defendants' products.

79. Phthalates are chemicals used to improve the stability and retention of fragrances and to help topical products stick to and penetrate skin and hair.[36]

80. Phthalates are known EDCs which interfere with natural hormone production

[35] Hee-Su Kim, et al., *Hershberger Assays for Di-2-ethylhexyl Phthalate and Its Substitute Candidates,* Dev Reproduction, Mar., 22, 2018, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5915764/.

[36] Olivia Koski & Sheila Hu, Fighting Phthalates, National Resources Defense Council, April 20, 2022, https://www.nrdc.org/stories/fighting-phthalates

and degradation and are detrimental to human health.[37]

81. Phthalates are commonly used by cosmetics and hair care product manufacturers to make fragrances and colors last longer, and to make hair more flexible after product is applied, among other uses.

82. Phthalates can be found in most products that have contact with plastics during producing, packaging, or delivering. Despite the short half-lives in tissues, chronic exposure to phthalates will adversely influence the endocrine system and functioning of multiple organs, which has negative long-term impacts on the success of pregnancy, child growth and development, and reproductive systems in both young children and adolescents. Several countries have established restrictions and regulations on some types of phthalates.[38]

83. Phthalates are a series of chemical substances, which are mainly used as plasticizers added to polyvinyl chloride ("PVC") plastics for softening effects. Phthalates can potentially disrupt the endocrine system.[39]

84. Defendants' products referenced herein contain phthalates, including Di-2-ethylhexylphthalate.

85. Under the authority of the Fair Packaging and Labeling Act ("FPLA"), the FDA requires an ingredient declaration on cosmetic products sold at the retail level to consumers.

86. However, the regulations do not require the listing of the individual fragrance

[37] Yufei Wang & Haifeng Qian, *Phthalates and Their Impacts on Human Health,* Healthcare (Basel) 9,603, May 9, 2021, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8157593/

[38] *Id.*

[39] *Id.*

or flavor, or their specific ingredients meaning phthalates evade listing when combined with a fragrance. As a result, a consumers, including Plaintiff was not able to determine from the ingredient declaration on the label if phthalates were present in a fragrance used in the herein referenced hair products used by the Plaintiff and placed into the stream of commerce by Defendants.

87. Since 1999, the Centers for Disease Control ("CDC") have found phthalates in individuals studied for chemical exposure.[40] Neither IARC nor NTP has evaluated DEHP with respect to human carcinogenicity.

ii. Di-2-ethylhexylphthalate

88. Di-2-ethylhexylphthalate [41] ("DEHP") is a highly toxic manufactured chemical[42] that is not found naturally in the environment.[43]

89. DEHP belongs to the family of chemicals called phthalates.[44]

90. DEHP was first used in 1949 in United States and has been the most abundantly used phthalate derivative in the Twentieth century.[45]

---

[40] *Biomarker Groups,* National Report on Human Exposure to Enviornemntal Chemicals, Center for Disease Control, https://www.cdc.gov/exposurereport/pdf/Biomarker_Groups_Infographic-508.pdf

[41] Also known as Bis(2-ethylhexyl) phthalate.

[42] Sai Rowdhwal & Jiaxiang Chen, *Toxic Effects of Di-2-ethylhexyl Phthalate: An Overview,* Biomed Research International, Feb., 22, 2018 https://www.ncbi.nlm.nih.gov/pmc/articles/PMCS 842715/#:-:text=DEHP%20is%20noncovalen tly%20bound%20to,and%20plastic%20waste%20disposal%20sites.

[43] *Toxicological Profile for Di(2-Ethylhexyl) Phthalate (DEHP),* U.S. Dept of Health and Human Services, January 2022, https://www.atsdr.cdc.gov/ToxProfiles/tp9.pdf (DEHP is listed as hazardous pollutants under the Clean Air Act.; DEHP is on the Proposition 65 list because it can cause cancer and birth defects or other reproductive harm).

[44] *Di(2-ethylhexyl) phthalate (DEHP),* Proposition 65, California. Gov, https://www.p65warnings.ca.gov/fact-sheets/di2-ethylhexylphthalate-dehp.

[45] Pinar Erkekoglu & Belma Kocer-Gumusel, *Environmental Effects of Endocrine-Disrupting Chemicals: A Special Focus on Phthalates and Bisphenol A,* Environmental Health Risk, June 16, 2016, https://www.intechopen.com/chapters/50234

91. DEHP does not covalently bind to its parent material. Non-covalent bonds are weak and, as a result, DEHP readily leaches into the environment increasing human exposure. [46]

92. Humans are exposed to DEHP through ingestion, inhalation, and dermal exposure for their lifetimes, including intrauterine life.[47]

93. The Agency for Toxic Substances and Disease Registry ("ATSDR") estimates that the range of daily human exposure to DEHP is 3-30 µg/kg/day.[48]

94. The no-observed-adverse-effect level for DEHP to humans 1s 4.8 mg/kg bodyweight/day and the tolerate daily intake (TDI) is 48 µg/kg bodyweight.[49]

Endpoint	**Cancer (NSRL)**		**Developmental and Reproductive Toxicity (MADL)**	
Route of Exposure	**Oral**	**Inhalation**	**Oral**	**Inhalation**
DEHP	310 µg/day	N.C.	410 µg/day	N.C.

Source: OEHHA's safe harbor levels for TDCIPP, DBP, DEHP, benzene, and formaldehyde. N.C. = not calculated by OEHHA as of August 2020.[50]

[46] Katelyn H. Wong & Timur Durrani, *Exposures to Endocrine Disrupting Chemicals in Consumer Products -A Guide for Pediatricians,* Current Problems in Pediatric and Adolescent Health Care, Science Direct, May 2017, https://www.sciencedirect.com/science/article/pii/Sl 538544217300822?via%3Dihub

[47] Schmidt, Juliane-Susanne, et al., *Effects of Di(2-ethylhexyl) Phthalate (DEHP) on Female Fertility and Adipogenesis in C3HIN Mice,* Environmental Health Perspective, May 15, 2012, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3440070/

[48] Hannon, Patrick et. al., *Daily Exposure to Di(2-ethylhexyl) Phthalate Alters Estous Cyclicity and Accelerates Primordial Follicle Recruitment Potentially Via Dysregulation of the Phosphatidylinositol 3-Kinase Signaling Pathway in Adult Mice,* Biology of Reproduction Volume 90, Issue 6, June 2014, 136, 1-11, https://academic.oup.com/biolreprod/article/90/6/136,%201-11/2514356

[49] Yufei Wang & Haifeng Qian, *Phthalates and Their Impacts on Human Health,* Healthcare (Basel) 9(5):603, May 18, 2021, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8157593/

[50] Aalekhya Reddam & David Volz, *Inhalation of two Prop 65-listed Chemicals Within Vehicles May Be Associated with Increased Cancer Risk, Environment International Volume 149, April 2021, https://www.sciencedirect.com/science/article/pii/S016041202100026X*

95. When DEHP enters in the human body, it breaks down into specific metabolites. The toxicity of DEHP is mainly attributed to its unique metabolites which include the primary metabolite, mono-(2-ethylhexyl)phthalate (MEHP), and secondary metabolites, mono-(2-ethyl- 5-hydroxyhexyl)phthalate (MEHHP), and mono-(2-ethyl-5-oxohexyl)phthlate (MEOHP).[51]

96. DEHP and its metabolites are known to cause significant adverse-health effects including but not limited to: endometriosis, developmental abnormalities, reproductive dysfunction and infertility,[52] various cancers, and metabolic syndrome within the human population and their future children.[53]

97. Most of the available studies on the health effects of DEHP in laboratory animals used oral administration, with a few inhalation studies and only two dermal exposure studies identified.[54]

98. The results of the selected animal studies, along with limited human data, suggest potential associations between DEHP exposure and the following health outcomes:

---

[51] Saab, Yolande, et. al., *Risk Assessment of Phthalates and Their Metabolites in Hospitalized Patients: A Focus on Di- and Mono-(2-ethylhexyl) Phthalates E(posure from Intravenous Plastic Bags.* Toxics, 10(7), 357, https://pubmed.ncbi.nlm.nih.gov/35878262/; Ishtaf Sheikh, et. at., *Endocrine disruption: In silico perspectives qf interactions c?f di-(2-ethylhexyl)phthalate and its five major metabolites with progesterone receptor.* BMC Structural Biology Volume 16, Suppl 1, 16, Sept., 30, 2016, https://bmcstructbiol.biomedcentral.com/articles/10.1186/s12900- 016-0066-4 (Other secondary metabolites include mono(2-ethyl-5-carboxypentyl)phthalate (5- cx-MEPP) and mono[2-(carboxymethyl)hexyl]phthalate (2-cx-MMHP)).

[52] Richardson, Kadeem et. al., *Di(2-ethylhexyl) Phthalate (DEHP) Alters Proliferation and Uterine Gland Numbers in the Uterine of Adult Exposed Mice,* Reproductive Toxicology, 77, 70-79, https://pubmed.ncbi.nlm.nih.gov/29458081/

[53] Yufei Wang & Haifeng Qian, *Phthalates and Their Impacts on Human Health,* Healthcare (Basel) 9, 603, May 9, 2021, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8l57593/

[54] *Chapter 2: Health Effects,* Toxicological profile for Di(2-ethylhexyl) phthalate (DEHP) (2001), https://www.atsdr.cdc.gov/ToxProfi1es/tp9-c2.pdf

a) **Reproductive effects.** Epidemiological studies suggest a potential association between DEHP exposure and decreased serum testosterone and altered sperm parameters in males. Available studies on fertility effects in humans do not indicate an association between DEHP exposure and infertility. In animals, the available oral and inhalation studies provide evidence that the male reproductive system, particularly the testes, is susceptible to DEHP toxicity. Evidence from animal studies indicates decreased male and female fertility at high oral doses.

b) **Developmental effects.** Epidemiological studies suggest a potential association between reduced AGD and testicular decent in male infants and prenatal DEHP exposure. In addition, human epidemiological studies provide mixed results for potential relationships between exposure to DEHP and preterm birth, early puberty, and delayed mental and psychomotor development in children. Studies in animals indicate that altered glucose homeostasis and the development of the reproductive system following early life exposure is a particularly sensitive target of DEHP toxicity.

99. The global consumption of DEHP was estimated at 3.07 million tons (Global demand for plasticizers continues to rise). The estimated global market of phthalates in 2020 is expected to reach 10 billion USD and would still be widely used in plasticizers. [55]

100. Human epidemiological studies have shown a significant association between phthalates exposures and adverse reproductive outcomes in both women and men.[56]

101. Evidence found that DEHP was significantly related to insulin resistance and higher systolic blood pressure and the reproduction system problems, including earlier menopause, low birth weight, pregnancy loss, and preterm birth.[57]

102. When it comes to the impacts on children, epidemiological studies about phthalates toxicity focused on pregnancy outcomes, genital development, semen quality, precocious puberty,

[55] *Id.*

[56] *Id.*

[57] N.M. Grindler, et al., *Exposure to Phthalate, an Endocrine Disrupting Chemical, Alters the First Trimester Placental Methylome and Transcriptome in Women,* Scientific Reports Volume 8, April 17, 2018, https://doi.org/10.1038/s41598-018-24505-w

thyroid function, respiratory symptoms, and neurodevelopment.[58]

103. Since the tum of the century, restrictions on phthalates have been proposed in many Asian and western countries. In 2008, the US Congress announced the Consumer Protection Safety Act (CPSA) that permanently banned the products, especially children's toys and childcare articles, containing DEHP, DBP, and BBP at levels >0.1% by weight.[59]

C. Injuries Associated with Exposure to Endocrine Disrupting Chemicals

a. Uterine Cancer

104. Uterine cancer is associated with phthalate metabolites found in hair care products.

105. Uterine cancer[60] is among the more common (the fourth most common) cancers in women in developed countries,[61] accounting for about 3% of all new cancer cases.[62]

106. Every year around 65,000 females develop uterine cancer in the USA alone, out of which more than 90% is of endometrial origin. It is commonly diagnosed in the seventh decade, with the mean age being 61 years.[63]

107. Though death rates from other cancers in women have declined in recent years,

---

[58] *Id.*

[59] Consumer Product Safety Improvement Act of 2008, H.R. 4040, 110th Cong. (2008), https://www.congress.gov/110/plaws/publ314/PLAW-110publ314.pdf

[60] Otherwise known as endometrial carcinoma.

[61] Unaiza Faizan & Vijayadershan Muppidi, *Uterine Cancer,* In: StatPearls, National Library of Medicine, Jan 2022, https://www.ncbi.nlm.nih.gov/books/NBK562313/

[62] *Cancer Stat Facts: Uterine Cancer,* National Cancer Institute, https://seer.cancer.gov/statfacts/html/corp.html

[63] *Id.*

death rates for uterine cancer have increased by more than 100% in the last 20 years.[64]

108. Indeed, new cases of uterine cancer have increased by 0.6 percent per year from 2010 to 2019, and death rates have risen an average of 1.7 percent per year during the same time frame.[65]

109. A groundbreaking study recently found that women who use chemical hair straightening or relaxing products have a higher risk contracting of uterine cancer.[66]

110. The study found that an estimated 1.64% of women who never used chemical hair straighteners or relaxers would go on to develop uterine cancer by the age of 70; but for frequent users, that risk more than doubles, increasing to 4.05%.[67]

111. These risks are more substantial among Black women, who make up the overwhelming majority of hair straightening and hair relaxing products, including as Defendants' products.

b. Uterine Fibroids

112. Uterine fibroids are associated with phthalate metabolites found in hair care products.

113. Black women have a higher prevalence of uterine fibroids and tumors than any

[64] Linda Duska, et al., *Treatment of Older Women With Endometrial Cancer: Improving Outcomes With Personalized Care,* American Society Clinical Oncology Educational Book, 35:164-74, 2016, https://pubmed.ncbi.nlm.nih.gov/27249697/

[65] Jack J. Lee, Rising Endometrial Cancer Rate Spur New Approaches to Prevention, National Cancer Institute: Division of Cancer Prevention, June 28, 2022, https://prevention.cancer.gov/news-and-events/blog/rising-endometrial-cancer

[66] Che-Jung Chang, et al., *Use of Straighteners and Other Hair Products and Incident Uterine Cancer,* Journal of the National Cancer Institute, Oct., 17, 2022, https://pubmed.ncbi.nlm.nih.gov/36245087*I*

[67] *Id.*

other ethnicity/racial group.[68]

114. A 2017 Rutgers University study linked breast cancer and Black women's use of hair relaxers. A 2012 study in the American Journal of Epidemiology associated fibroid risk with the us. e of hair relaxers. Shirley McDonald of the Hair and Scalp Clinic says, "We now know that many hair products contain chemicals that are considered carcinogenic and/or hormone disrupters, leading to increased risk of medical issues such as fibroids (non-cancerous tumors that grow in the uterus, potentially damaging fertility and leading to a host of other complications). Trichologists see lots of conditions that are likely to be triggered by hair products, particularly central centrifugal cicatricial alopecia, a type of permanent hair loss to the crown area of the scalp.

115. More recently, the National Institutes of Health spent eight-years studying over 46,000 women of all races between the ages of 35-74. They were looking for links between chemical hair relaxers and breast cancer. They discovered that in Black women in the United States breast cancer risk increased risk by 45%. Breast cancer and other reproductive issues, including, fibroid development, are often connected. So this study suggests there are even more reasons to steer clear of black hair relaxers. Plus, there's a new study from the American Journal of Epidemiology further confirms this link. In their group of 23,000 menstruating Black American women, these participants displayed two to three times higher uterine fibroid incidences.

116. Concerns around racial disparities in healthcare linked to chemicals found in cosmetic products are not new; previous studies, as far back as 2012, have also suggested a correlation between chemical relaxer use and uterine fibroids, a condition that disproportionately affects Black women.[69]

---

[68] *Id*

[69] Nadine White, *Campaign urges beauty firms to pull 'toxic' hair products aimed at Black women,*

117. Hair relaxers are used by millions of black women, possibly exposing them to various chemicals through scalp lesions and burns. In the Black Women's Health Study, the authors assessed hair relaxer use in relation to uterine leiomyomata incidence. In 1997, participants reported on hair relaxer use (age at first use, frequency, duration, number of bums, and type of formulation). From 1997 to 2009, 23,580 premenopausal women were followed for incident uterine leiomyomata. The incidence of uterine leiomyomata is 2-3 times higher in US black women than in US white women.

c. Ovarian Cancer

118. Ovarian cancer is rare, making up approximately 1% of new cancer cases, with almost 20,000 new cases estimated in 2022. Approximately 1.1% of all women will be diagnosed with ovarian cancer. Of the 10.6 per 100,000 women per year who will be diagnosed with ovarian cancer, the death rate is 6.3 per 100,000 women – a 49.7% survival rate.[70]

119. While overall rates of ovarian cancer have declined in the U.S., which has been attributed to increased exposure to oral contraceptives, Black women have the poorest survival rate at every stage and across subtypes.[71]

120. Another recent publication from the researchers of the Sister Study found the risk of ovarian cancer approximately doubled with frequent use (defined as greater than four times per

Independent (August 3, 2021), https://www.independent.co.uk/news/uk/home- news/black-hair-lye-no-more-lyes b1893747.html.

[70] *Cancer Stat Facts: Ovarian Cancer*, National Cancer Institute, https://seer.cancer.gov/statfacts/html/ovary.html.

[71] Park H.K., et al. *Recent Trends in Ovarian Cancer Incidence and Relative Survival in the United States by Race/Ethnicity and Histologic Subtypes*. Cancer Epidemiol. Biomarkers Prev. 2017;26(10):1511-1518. doi: 10.1158/1055-9965.EPI-17-0290.

year) of chemical hair straighteners/relaxers in the previous year as opposed to never use (HR = 2.19).[72]

121. While the study was not powered to detect differences based on race/ethnicity, among Black women the hazard ratios were elevated for every use of straighteners (HR = 1.28) or perms (HR = 1.80). Further, the researchers noted that "given the much higher prevalence of use of these products, the impact of these results is more relevant for African American/Black women."[73]

d. Endometriosis

122. Endometriosis is associated with phthalate metabolites found in hair care products.

123. In Black women in the USA, endometriosis is one of the common indications for major gynecological surgery and hysterectomy, and is associated with long hospital stay and high hospital charges.[74]

124. Phthalate metabolites were related to increased uterine volume, a sign of fibroids on ultrasound, 2018.[75] The sum of DEHP increased volume risk by 33% and the sum of androgenic phthalates increased risk by 27%.[76]

125. The function of the uterine lining, the endometrium, is based on cell-cell

[72] White A.J., et al. *Use of hair products in relation to ovarian cancer risk*. Carcinogenesis 2021;42(9):1189-1195.

[73] *Id*.

[74] M. C. Kyama, *The prevalence of endometriosis among African-American and African- indigenous women.* Gynecologic and obstetric investigation, Vol. 57(1) (2004), https://pubmed.ncbi.nlm.nih.gov/14974452/.

[75] Amir R. Zota et al., *Phthalates exposure and uterine fibroid burden among women undergoing surgical treatment for fibroids: a preliminary study,* Fertility and sterility, Vol. 111(1) (2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6321778/.

[76] *Id.*

interactions under the instruction of steroid hormones.[77] Endometriosis, a common cause of female infertility, occurs almost exclusively in menstruating women of reproductive age and often results from disruptions of this well-balanced cellular equilibrium.[78]

126. It is estimated that 20% to 50% of women being treated for infertility have endometriosis.[79]

127. Endometriosis is a painful, estrogen dependent disease resulting from the growth of endometrial glands and stroma outside the uterus that causes a chronic inflammatory reaction.[80]

128. During the follicular phase of the menstrual cycle, estrogen, working through estrogen receptor a[81], induces growth of the endometrium.[82]

129. The developing fetus and the female reproductive tract are particularly susceptible to EDCs.[83] EDCs are known to interfere with hormonal homeostasis, leading to

---

[77] L. Cobellis et al., *High plasma concentrations of di-(2-ethylhexyl)-phthalate in women with endometriosis,* Human Reproduction, Vol. 18, Issue 7 (2003), 1512-1515, https://doi.org/10.1093/humrep/deg254.

[78] D. L. Olive and L. B. Schwartz, *Endometriosis,* The New England J. of Med., Vol. 328(24): 1759-69 (1993), https://pubmed.ncbi.nlm.nih.gov/8110213/; K. G. Osteen and E. Sierra-Rivera, *Does disruption of immune and endocrine systems by environmental toxins contribute to development of endometriosis?,* Seminars in Reproductive Endocrinology, Vol. 15(3):301-8 (1997) https://pubmed.ncbi.nlm.nih.gov/9383839/.

[79] *Endometriosis,* World Health Organization (March 31, 2021), https://www.who.int/news- roorn/fact-sheets/detail/endometriosis.

[80] *Id.*

[81] Ilaria Patemi et al., *Estrogen receptors alpha (ERa) and beta (ER/J): subtype-selective ligands and clinical potential,* Steroids, Vol. 90:13-29 (2014), https://pubmed.ncbi.nlm.nih.gov/24971815/.

[82] Kun Yu et al., *Estrogen Receptor Function: Impact on the Human Endometrium,* Frontiers in endocrinology, Vol. 13 (2022), https://pubmed.ncbi.nlm.nih.gov/35295981/.

[83] Saniya Rattan et al., *Di(2-Ethylhexyl) Phthalate Exposure During Prenatal Development Causes Adverse Transgenerational Effects on Female Fertility in Mice,* Toxicol Sci., Vol. 163(2) (2018), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5974785/.

alteration of estrogen signaling.[84] Specifically, DEHP is known to cause enhanced-estrogenic activity.[85]

130. DEHP is a known estrogen receptor agonist that promotes cell proliferation.[86] An agonist is a chemical that activates a receptor to produce a biological response.

131. Numerous studies, spanning over decades, establish that DEHP leads to the development of endometriosis as it is known to increase the viability, activity, proliferation, migration of endometrial stromal cells, a required precondition of endometriosis.[87]

132. Studies have shown that endometriotic women have significantly higher plasma DEHP concentrations than those without the disease.[88] A study that included a sample size of approximately 500 women living in various states observed that DEHP's metabolite, MEHP,

[84] Xueping Chen et al., *Toxicity and Estrogenic Endocrine Disrupting Activity of Phthalates and Their Mixtures,* Int'l J. Envtl. Res. and Pub. Health, 1(3):3156-3168 (2014) https://doi.org/10.3390/ijerphl 10303156; Pablo A, Perez et al., *The phthalate DEHP modulates the estrogen receptors a and /J increasing lactotroph cell population in female pituitary glands,* Chemosphere, Vol. 258:127304 (2020), https://pubmed.ncbi.nlm.nih.gov/32559490/.

[85] Chon-Kit Chou et al., *Reduced camptothecin sensitivity of estrogen receptor-positive human breast cancer cells following exposure to di(2-ethylhexyl)phthalate (DEHP) is associated with DNA methylation changes,* Envtl. Toxicology, Vol. 3, Issue 4 (2019), https://doi.org/10.1002/tox.22694.

[86] Juhye Kim, et al., *Chronic Low-Dose Nonylphenol or Di-(2-ethylhexyl) Phthalate has a Different Estrogen-like Response in Mouse Uterus,* Development & reproduction, Vol. 22(4):379-391 (2018), https://pubmed.ncbi.nlm.nih.gov/30680337/. ("In the present study, we could see that in vitro treatment with DEHP caused various biological changes of endometrial cells such as increased MMP-2 and -9 activities, increased cell invasion, increased Erk phosphorylation, and increased Pak4 expression. Taken these findings together with our previous in vitro study, we can propose that refluxed endometrial cells could not only survive in the pelvic cavity following retrograde menstruation, but also invade through mesothelial layer, develop vascular supplies, proliferate at ectopic location, and eventually establish endometriotic lesions through various biological alterations caused by exposure to high level of phthalate.")

[87] *Id.*

[88] L. Cobellis et. al, *High plasma concentrations of di-(2-ethylhexyl)-phthalate in women with endometriosis,* Human Reproduction, Vol. 18, Issue 7 (July 1, 2013), 1512-1515, https://doi.org/10.1093/humrep/deg254. Concluded that 92.6% of women with endometriosis tested had detectable levels of DEHP and /or its metabolite, MEHP.

a was the only phthalate consistently associated with endometriosis.[89]

e. Pre-term Delivery

133. Pre-term childbirth is associated with phthalate metabolites found in hair care products.

134. A large population-based Norwegian cohort of hairdressers working 30 or more hours per week revealed an 80% increased risk of low birth weight.

135. Combining 19 cohort studies of female hairdressers or cosmetologists, Henroitin in 2015 (J Occupational Health) found small but significant elevations in premature birth (5% increased), small-for-gestational age (24% higher), low birthweight (21% elevated), and miscarriage (19% greater).

136. Several smaller cohort studies have shown associations between hair product use and gestational age. Preston (Envion Health 2021) reported that among 154 women 7% of whom had preterm, AA women using daily hair oils delivered a full 8.3 days (statistically significant) earlier than non-users.

137. Women in cosmetology school in North Carolina had twice the risk of miscarriage (Flint 2016) and hairdressers, significantly increased risks of small-for-gestational age babies, malformed babies, and infant mortality.

D. Plaintiff's Use of Hair Relaxing Products

138. Plaintiff was first exposed to EDCs and/or phthalate-based products around the

[89] Buck Louis G. M. et al., *Bisphenol A and phthalates and endometriosis: the Endometriosis: Natural History, Diagnosis and Outcomes Study,* Fertility and sterility, Vol. 100(1):162-9.el-2 (2013), https://pubmed.ncbi.nlm.nih.gov/23579005/.

age of 20.

139. Plaintiff used Defendants' Products generally by applying the Products to her scalp per the Defendant's instructions and directions for use. Professionals at hair salons also applied Defendant's Products to Plaintiff as instructed and intended by Defendants.

140. Plaintiff continued her regular use of Defendants' Products from 1982 until 2022.

141. Plaintiff would keep Defendants' Products on her hair for the time allotted in the instructions.

142. There was never any indication, on the Products packaging or otherwise, that this normal use could and would cause the injuries alleged herein.

143. In or about 2018, Plaintiff developed and was diagnosed with uterine cancer.

144. As a result of Defendants' acts and/or omissions, Plaintiff suffered serious and life-threatening physical injuries, extreme pain and suffering, and extreme emotional distress.

IV. CAUSES OF ACTION

COUNT I. NEGLIGENCE

145. Plaintiff repeats, reiterates, and re-alleges every allegation of this Complaint contained in each of the foregoing paragraphs inclusive, with the same force and effect as if more fully set forth herein.

146. Defendants had a duty to exercise reasonable care in the designing, researching, testing, manufacturing, marketing, supplying, promoting, packaging, sale, and/or distribution of their Products into the stream of commerce, including a duty to assure that the Products would not cause users to suffer unreasonable, dangerous side effects and/or death.

147. Defendants failed to exercise ordinary care in the designing, researching, testing, manufacturing, marketing, supplying, promoting, packaging, sale, quality assurance, quality

control, and/or distribution of their Products into interstate commerce in that Defendants knew or should have known that using these Products created a high risk of unreasonable, dangerous side effects, including, but not limited to, the development of serious and life threatening medical conditions, including cancers and/or death.

148. The negligence by the Defendants, their agents, servants, and/or employees, included but was not limited to the following acts and/or omissions:

a. Manufacturing producing, promoting, formulating, creating, and/or designing their Products without thoroughly testing them;

b. Failing to test their Products and/or failing to adequately, sufficiently, and properly test their Products;

c. Not conducting sufficient testing programs to determine whether or not their Products were safe for use; in that Defendants herein knew or should have known that their Products were unsafe and unfit for use by reason of the dangers to the consumers of their Products;

d. Failing to adequately and correctly warn the Plaintiff, the public, and government regulators and regulatory agencies of the dangers associated with the use of their Products;

e. Negligently marketing, advertising, and recommending the use of their Products without sufficient knowledge as to their dangerous propensities;

f. Negligently representing that their Products were safe and effective for consumers to use and to apply directly to their scalp;

g. Negligently designing their Products in a manner, which was dangerous to their users;

h. Negligently manufacturing their Products in a manner which was dangerous to their users;

i. Negligently producing their Products in a manner, which was dangerous to their users;

j. Negligently formulating their Products in a manner which was dangerous to their users;

k. Concealing information from the public, including Plaintiff, while knowing that their Products were unsafe and dangerous when used as directed and intended;

l. Improperly concealing information from and/or misrepresenting information to the public, including Plaintiff, scientific and medical professionals, and/or regulatory agencies concerning the severity of risks and dangers of their Products; and,

m. Negligently selling their Products with false and misleading labels.

149. Even though Defendants knew or should have known that their Products caused, or could cause, unreasonably dangerous side effects, including cancers and death, Defendants continued and continue to market, manufacture, distribute, and/or sell their Products consumers, including to Plaintiff, and hair care professionals.

150. Defendants knew or should have known that consumers such as Plaintiff would foreseeably suffer serious injury and/or death due to Defendants' failure to exercise ordinary care, as set forth above.

151. As a result of the foregoing negligent acts and omissions, Plaintiff suffered personal injuries including developing and being diagnosed with ovarian, uterine, and endometrial cancer,

mental and emotion anguish, which are severe and long-lasting in nature, diminished enjoyment of life, and has incurred financial losses including, but not limited to, health care and related expenses and will incur substantial financial and economic damages for future medical expenses – all which were and are directly and proximately caused by using Defendants' defective Products.

COUNT II. MANUFACTURING & DESIGN DEFECT

152. Plaintiff repeats, reiterates, incorporates, and realleges every allegation contained in this Complaint with the same force and effect as if fully set forth herein.

153. Defendants had a duty to exercise reasonable care in the design, research, manufacture, marketing, testing, advertisement, supply, promotion, packaging, sale, and distribution of their Products, including the duty to take all reasonable steps necessary to manufactureand sell a product that was not defective and unreasonably dangerous to consumers and users of the product.

154. Defendants failed to exercise reasonable care in the design, formulation, manufacture, sale, testing, quality assurance, quality control, labeling, marketing, promotions, and distribution of their Products because Defendants knew, or should have known, that the use of their Products would foreseeably cause serious disease and injuries to the consumers of their Products, including Plaintiff.

155. Defendants continued to manufacture and market their Products despite the knowledge, whether direct or ascertained with reasonable care, that their Products posed and continue to pose a serious risk of bodily harm and death to their intended consumers.

156. Defendants knew, or should have known, that consumers such as Plaintiff, would foreseeably suffer severe injury and could possibly die due to the Defendants' failure to exercise

ordinary care.

157. The characteristic of their Products that renders them unreasonably dangerous existed at the time the product left the control of Defendants.

158. Defendants' Products were expected to, and did, reach the intended consumers, and hair care professionals with no substantial change in the condition in which the products were designed, produced, manufactured, sold, distributed, labeled, and marketed by Defendants.

159. Defendants' Products were manufactured, designed, marketed, labeled, and sold in a defective condition for use by consumers, like Plaintiff, and hair care professionals, making the product unreasonably dangerous.

160. Defendants' Products as designed, researched, manufactured, tested, advertised, promoted, marketed, distributed, and sold by Defendants were defective in design and formulation in that when they left the hands of the manufacturers, suppliers, and distributors, the foreseeable risks of harm caused by these Products far exceeded the claimed benefits of the product.

161. Defendants' Products as designed, researched, manufactured, tested, advertised, promoted, marketed, distributed, and sold by Defendants were defective in design and formulation because when the Products left the hands of Defendants, the Products were unreasonably dangerous and were also far more dangerous than expected by the ordinary consumer.

162. At all times relevant to this action, Defendants knew and had reason to know that their Products were inherently defective and unreasonably dangerous as designed, formulated, and manufactured when used and applied to the scalp in the form designed, manufactured, and distributed by Defendants, and in the manner instructed by Defendants to be used by Plaintiff and other consumers.

163. Plaintiff used Defendants' Products for the purpose intended and as directed by

Defendants, and in a manner normally intended to be used. Defendants had a duty to design, create, and manufacture products that were reasonably safe and not unreasonably dangerous for their normal, common, and intended use. Defendants' products were not reasonably fit, suitable, or safe for their intended and anticipated use.

164. In light of then-existing, reasonably available scientific and technological knowledge, Defendants could have known of the design characteristic(s) that caused the damage or the danger of such characteristic.

165. Reasonably prudent manufacturers would not have placed their Products in the stream of commerce with knowledge of these design flaws.

166. Defendants designed, developed, researched, manufactured, tested, advertised, promoted, marketed, distributed, and sold defective Products that created an unreasonable risk of serious harm and/or death to the health, safety, and well-being of, and of death to Plaintiff and other consumers.

167. Defendants are therefore liable for Plaintiff's injuries, sustained and proximately caused by using Defendants' Products as Defendants' products were and are unreasonably dangerous.

168. All damages to Plaintiff arose from the reasonably anticipated use of the product by the Plaintiff.

169. Defendants are therefore liable for Plaintiff's physical injuries and damages, sustained and proximately caused by the use of Defendants' Products, as Defendants' products were and are unreasonably dangerous, and all damages suffered by Plaintiff as a result of the injuries arose from the reasonably anticipated use of the product, *to wit*, applying Defendant's Products to her scalp and hair.

170. Plaintiff could not, by the exercise of reasonable care, discover the defective condition of Defendants' products and/or perceive their defective dangers prior to its use.

171. Defendants' Products were a substantial, proximate, and contributing factor in causing Plaintiff's injuries.

172. As a proximate result of Defendants' acts and omissions and Plaintiff's use of Defendants' defective products, Plaintiff suffered serious physical injuries and pain, including being diagnosed with ovarian, uterine, and endometrial cancer. In addition, Plaintiff has incurred and will continue to incur substantial medical costs and expenses related to the treatment of her medical conditions, and has suffered and continues to suffer from emotional distress and mental anguish caused by these serious, disabling, and life-threatening medical conditions.

COUNT III. INADEQUATE WARNING

173. Plaintiff repeats, reiterates, incorporates, and realleges every allegation contained in this Complaint with the same force and effect as if fully set forth herein

174. Defendants designed, researched, developed, manufactured, tested, labeled, advertised, promoted, marketed, sold, supplied, and/or distributed their Products.

175. Defendants' Products were unreasonably dangerous because an adequate warning about the product had not been provided at the time the product left its manufacturer's control, despite the product possessing a characteristic that may cause damage and the manufacturer failed to use reasonable care to provide an adequate warning of such characteristic and its danger to users and handlers of the product.

176. Defendants' Products were expected to, and did, reach the intended consumers and hair care professionals all with no substantial change in the condition in which the products were

designed, produced, manufactured, distributed, labeled, marketed, and sold by Defendants.

177. Defendants' Products was manufactured, designed, marketed, labeled and sold in a defective condition, for use by Plaintiff and all other consumers of the product, making the product unreasonably dangerous.

178. Defendants researched, developed, designed, tested, manufactured, inspected, labeled, distributed, marketed, promoted, sold, and otherwise released into the stream of commerce their Products and in the course of same, directly advertised or marketed the product to consumers or persons responsible for consumers, and therefore had a duty to warn of the risks associated with the use of its products.

179. Defendants' Products, as designed, researched, developed, manufactured, tested, advertised, promoted, marketed, labeled, distributed, and sold by Defendants, were defective due to the Product's inadequate warnings and instructions. Defendants knew, or should have known, and adequately warned that their Products created a risk of serious and dangerous side effects, including but not limited to, certain cancers, and death.

180. These products were under the exclusive control of Defendants and were unaccompanied by appropriate and inadequate warnings regarding the risk of severe and permanent injuries and death associated with their use, including, but not limited to, the risk of developing certain cancers, and of death. The warnings given did not accurately reflect these risks, incidences, symptoms, scope or severity of such injuries to the consumer.

181. Notwithstanding Defendants' knowledge of the defective condition of its product, Defendants failed to adequately warn the public and consumers of the product, including Plaintiff, hair care professionals, or regulatory agencies of the dangers and risk of harm associated with the use of their Products.

182. Defendants placed profits above its customers' safety.

183. Defendants' Products were defective when they left the possession of Defendants in that they contained insufficient warnings to alert Plaintiff and other consumers to the dangerous risks associated with the use of the Products, including the risk of developing certain cancers and of death.

184. Even though Defendants knew or should have known of the risks and reactions associated with their Product, Defendants still failed and continue to fail to provide warnings that accurately reflected the signs, symptoms, incident, scope, or severity of the risks associated with their Products.

185. Plaintiff used Defendants' Products as Defendants instructed, intended, and/or in a reasonably foreseeable manner.

186. Each Defendant, individually, as a manufacturer of hair relaxer and/or hair straightener products, is held to the level of knowledge of an expert in the field and further, each Defendant had actual and/or constructive knowledge of the dangerous risks and side effects of its product.

187. Plaintiff did not have the same knowledge as Defendants and no adequate warning was communicated to the public, to Plaintiff, or to any other consumers or hair care professionals.

188. Each Defendant had a continuing duty to warn consumers, including Plaintiff, of the dangers associated with its Product(s), and by negligently and/or wantonly failing to adequately warn of the dangers of the use of its Product(s), each Defendant breached its duty.

189. Although each Defendant knew, or should have known, of the defective nature of their Products, Defendants continued and continue to design, manufacture, market, and sell their Products without providing adequate warnings and instructions concerning the use of the Products

so as to maximize sales and profits at the expense of the public health and safety, in knowing, conscious, and deliberate disregard of the foreseeable harm to primarily Black women caused by their use of Defendants' defective Products.

190. As a direct and proximate result of Defendants' failure to adequately warn or other acts and omissions of Defendants described herein, Plaintiff suffered serious physical injuries and pain, including being diagnosed with ovarian, uterine, and endometrial cancer. In addition, Plaintiff has incurred and will continue to incur substantial medical costs and expenses related to the treatment of her medical conditions, and has suffered and continues to suffer from emotional distress and mental anguish caused by these serious, disabling, and life-threatening medical conditions.

191. Defendants' failure to warn extended beyond the product's label and into other media available to Defendants, including but not limited to printed advertisements in newspapers, magazines, and catalogs.

192. Defendants' Products, upon information and belief, as manufactured by Defendants, were further defective due to inadequate post-market warnings or instructions because after Defendants knew, or should have known, of the risk of serious bodily harm from the use of their Products, Defendants failed to provide adequate warnings to consumers about the product, knowing the product could cause serious injury and death.

193. Defendants' Products, upon information and belief, as manufactured and supplied by Defendants, were unreasonably dangerous because an adequate warning about the product was not provided if, as at the time the product left Defendants' control, the product possessed the aforementioned characteristics that may cause damages, injuries, and death to users – primarily Black and Brown women, such as Plaintiff, and Defendants failed to use reasonable care to provide

an adequate warning of such characteristic and its danger to consumers and users of these products.

194. After Defendants had started shipping product that had left its control, Defendants acquired knowledge of characteristics of the product that might cause damage and the danger of such characteristic, and is liable for damages and deaths caused by a subsequent failure to use reasonable care to provide an adequate warning of such characteristic and its danger to consumers and users of these products since that knowledge of the characteristics and its danger to users was acquired.

195. A reasonably prudent manufacturer would have warned of these characteristics and the danger to users, and each Defendant's failure to do so renders that Defendant liable for all damages, injuries, and death caused by its subsequent failure to use reasonable care to provide adequate warning of the danger to Plaintiff and other users of the product.

196. As a proximate result of Defendants' acts and omissions and Plaintiff's use of Defendants' defective Products, Plaintiff suffered serious physical injuries and pain, including being diagnosed with ovarian, uterine, and endometrial cancer. In addition, Plaintiff has incurred and will continue to incur substantial medical costs and expenses related to the treatment of her medical conditions, and has suffered and continues to suffer from emotional distress and mental anguish caused by these serious, disabling, and life-threatening medical conditions.

COUNT IV: NON-CONFORMITY TO EXPRESS WARRANTY

197. Plaintiff repeats, reiterates, incorporates, and realleges every allegation contained in this Complaint with the same force and effect as if fully set forth herein, Plaintiff incorporates all allegations in the preceding paragraphs as if fully set forth herein and further alleges:

198. At all times relevant to this claim, Defendants, Defendants' corporate predecessors,

and others with whom they acted in concert were engaged in the business of designing, manufacturing, distributing, and selling their Products and held themselves out as having knowledge or skill regarding their Products.

199. At all times relevant to this claim, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold their Products intending or expecting that it would be sold and used in this judicial district and/or reasonably expected to cause harm in this judicial district.

200. At the time of each sale of their Products to Plaintiff, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert impliedly warranted that their Products were of merchantable quality, including that they were fit for the ordinary purposes for which such goods were used, when their Products were not of merchantable quality.

201. Defendants, through their officers, directors, agents, representatives, and written literature and packaging, and written and media advertisements, expressly warranted that their Products were safe and effective and fit for use by consumers as instructed and intended, were of merchantable quality, did not create the risk of or produce dangerous side effects, including, but not limited to, the risk of developing certain cancers and/or the risk of death, were adequately tested and fit for their intended use.

202. Defendants' Products, as manufactured and sold by Defendants, did not conform to these representations because they caused serious injury, including various cancers, and can cause death to consumers such as Plaintiff, when used as directed by the product label.

203. Defendants breached their express warranties because their products were and are defective for their intended purpose.

204. Plaintiff did rely on Defendants' express warranties regarding the safety and

efficacy of their product in using the product, and such warnings induced Plaintiff to use the product, and Plaintiff's damages were proximately caused by the untruthfulness of the express warranty.

205. As a foreseeable, direct, and proximate result of the breach of the express warranties and Plaintiff's use of Defendants' defective Products, Plaintiff suffered serious physical injuries and pain, including being diagnosed with ovarian, uterine, and endometrial cancer. In addition, Plaintiff has incurred and will continue to incur substantial medical costs and expenses related to the treatment of her medical conditions and has suffered and continues to suffer from emotional distress and mental anguish caused by these serious, disabling, and life-threatening medical conditions.

PRAYER FOR RELIEF

WHEREFORE, regarding each cause of action set forth above, Plaintiff demands judgment against the Defendants on each of the above-referenced claims and causes of action and as follows:

a. Awarding compensatory damages in excess of the jurisdictional amount, including, but not limited to pain, suffering, emotional distress, loss of enjoyment of life, loss of consortium, and other noneconomic damages in an amount to be determined at trial of this action;
b. Awarding compensatory damages to Plaintiff for the severe personal injuries sustained, including Plaintiff's pain and suffering, and mental anguish;
c. Awarding compensatory damages to Plaintiff for the past and future health care costs, and economic loss;
d. Awarding Punitive damages for defendants' conduct;
e. Awarding economic damages in the form of medical expenses, out of pocket expenses, lost earnings, and other economic damages in an amount to be determine at trial of this action; and

f. Awarding Pre-judgment interest;

g. Awarding Post-judgment interest;

h. Awarding Plaintiff reasonable attorneys' fees;

i. Awarding Plaintiff the costs of these proceedings; and,

Such other and further relief as this Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands trial by jury as to all issues so triable.

Dated this 12th day of July, 2023.

Respectfully submitted,
MORRIS BART, LLC

/s/ Betsy J. Barnes
Betsy J. Barnes LA Bar 19473
John C. Enochs LA Bar 22774
601 Poydras Street, 24th Floor
New Orleans, LA 70130
Telephone: (504) 262-9953
Facsimile: (833) 277-4214
HairRelaxers@morrisbart.com
bbarnes@morrisbart.com
jenochs@morrisbart.com
ATTORNEYS FOR PLAINTIFF