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IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

NATURAL RESOURCES DEFENSE COUNCIL, INC.,	
Plaintiff,	
v.	Civ. No.
UNITED STATES FOOD AND DRUG ADMINISTRATION; KATHLEEN SEBELIUS, in her official capacity as Secretary, United States Department of Health and Human Services; and MARGARET HAMBURG, in her official capacity as Commissioner, United States Food and Drug Administration,	
Defendants.	

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. Triclosan and triclocarban are chemicals commonly found in "antibacterial" personal care products such as liquid and bar soaps. Exposure to these suspected endocrine disruptors is associated with reproductive and developmental harm. Studies implicate triclosan and triclocarban in damage to reproductive organs, reduced sperm quality, and interference with thyroid and sex hormone production and activity. Data also suggest that both chemicals foster antibiotic resistance in bacteria. The widespread use of "antibacterial" personal care products causes substantial human exposure to triclosan and triclocarban. Recent monitoring detected triclosan in the urine of seventy-five percent of Americans over the age of six.

2. More than three decades have passed since the United States Food and Drug Administration ("FDA") proposed to regulate topical antimicrobial drug products – including those that contain triclosan and triclocarban as active ingredients – for over-the-counter human

use. The FDA's proposed regulation took the form of a monograph establishing conditions of use under which these products are generally considered safe, effective, and not misbranded ("the Monograph"). In violation of the governing statute and the agency's regulations, the FDA has failed to finalize the Monograph. The agency has thereby failed either to (1) establish the safety, effectiveness, and branding accuracy of products containing triclosan or triclocarban, or (2) prohibit such products from entering interstate commerce. As a result of the FDA's lengthy delay, consumers remain exposed to triclosan and triclocarban through a variety of over-the-counter drug products, such as antimicrobial hand soaps, that proliferate on the market.

3. In light of both recent and older studies associating triclosan and triclocarban with significant health risks, the FDA's delay in finalizing the Monograph is unreasonable and violates the Administrative Procedure Act ("APA"), 5 U.S.C. § 555(b), and the Federal Food, Drug, and Cosmetic Act ("FFDCA"), 21 U.S.C. § 355, *amended by* Pub. L. 111-148, 124 Stat. 119 (2010).

4. Plaintiff Natural Resources Defense Council, Inc. ("NRDC") seeks a judgment declaring that the FDA's delay is unreasonable and contrary to law, and an order requiring that the FDA finalize the Monograph by a specific deadline.

JURISDICTION AND VENUE

5. This Court has jurisdiction pursuant to 28 U.S.C. § 1331.

6. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(e)(3), because NRDC resides and has its principal place of business in this judicial district.

7. The Declaratory Judgment Act grants this Court authority to enter a declaratory judgment as a final order. 28 U.S.C. § 2201(a).

THE PARTIES

8. Plaintiff NRDC is a non-profit environmental and public health advocacy organization headquartered in New York, New York, with a national membership of more than 525,000. Founded in 1970, NRDC has long worked to eliminate health risks posed by exposure to toxic chemicals. NRDC engages in research, advocacy, and litigation to improve the regulation of toxics in consumer products. The organization seeks to ensure that consumer products are safe and comply with governing statutes.

9. NRDC brings this action on behalf of its members. NRDC's membership includes consumers who are concerned about health risks from their exposure to triclosan and triclocarban in personal care products. NRDC's members also include health-care personnel who regularly use products containing triclosan and triclocarban designed for professional health-care settings such as hospitals and nursing homes. The FDA's delay in finalizing the Monograph has prolonged members' exposure to potential harms posed by such products. Because of the FDA's long delay – and despite numerous studies implicating triclosan and triclocarban as a potential source of significant health risks – NRDC's members remain exposed to these chemicals in a wide range of over-the-counter drug products whose safety and effectiveness remain unproven.

10. These injuries to NRDC's members will be redressed by a declaratory judgment that the FDA's delay is unreasonable and violates the law, and by an order requiring the FDA to finalize the Monograph by a specific deadline.

11. Defendant FDA is charged under FFDCA implementing regulations with classification of over-the-counter drugs as generally safe, effective, and not misbranded.

12. Defendant Kathleen Sebelius, in her official capacity as Secretary of the United States Department of Health and Human Services, is charged with responsibility for implementation and administration of relevant provisions of the FFDCA.

13. Defendant Margaret Hamburg, in her official capacity as Commissioner of the FDA, is charged under implementing regulations of the FFDCA with classification of over-the-counter drugs as generally safe, effective, and not misbranded.

14. For the purposes of this Complaint, Defendants FDA, Kathleen Sebelius, and Margaret Hamburg shall individually and collectively be referred to as "the FDA."

STATUTORY FRAMEWORK

15. The FFDCA prohibits introduction of any new drug into interstate commerce unless the FDA has approved an application for the drug and the approval remains effective. 21 U.S.C. § 355(a). The statute defines "drugs" as "articles intended for use in the . . . prevention of disease in man." *Id.* § 321(g)(1). It defines "new drug" as "[a]ny drug . . . the composition of which is such that such drug is not generally recognized . . . as safe and effective for use under the conditions prescribed, recommended, or suggested in the labeling thereof." *Id.* § 321(p)(1).

16. Congress amended the FFDCA in 1962 "[t]o protect the public health" and "assure the safety, effectiveness, and reliability of drugs." Pub. L. No. 87-781, 76 Stat. 780, 780.

17. As amended, the FFDCA prohibits the FDA from approving a new drug if (1) the drug is unsafe under the conditions prescribed, recommended, or suggested in its proposed labeling; (2) there is insufficient information to show that the drug is safe under such conditions; or (3) there is inadequate evidence to demonstrate that the drug will have the effects purported by its labeling. 21 U.S.C. § 355(d).

18. The FFDCA also requires the FDA to withdraw application approval for any new drug if the FDA finds that (1) the drug is unsafe under the conditions of use for which the application was approved; (2) the drug is not shown to be safe under the conditions of use for which the application was approved; or (3) there is a lack of substantial evidence that the drug will have its purported effects under the conditions of use prescribed, suggested, or recommended by its labeling. *Id.* § 355(e).

19. FDA regulations further require the agency to regulate over-the-counter drugs for safety, effectiveness, and accuracy of branding through the monograph procedure. 21 C.F.R. § 330.10. The regulations define "safety" as "a low incidence of adverse reactions or significant side effects under adequate directions for use and warnings against unsafe use as well as low potential for harm which may result from abuse under conditions of widespread availability." *Id.* § 330.10(a)(4)(i). They define "effectiveness" as "a reasonable expectation that, in a significant proportion of the target population, the pharmacological effect of the drug, when used under adequate directions for use and warnings against unsafe use, will provide clinically significant relief of the type claimed." *Id.* § 330.10(a)(4)(ii). In addition, the FFDCA states that a drug shall be deemed "misbranded" "[i]f it is dangerous to health when used in the dosage or manner, or with the frequency or duration prescribed, recommended, or suggested in the labeling thereof." 21 U.S.C. § 352(j).

20. Pursuant to the monograph procedure, the FDA must appoint an Advisory Review Panel ("Panel") of qualified drug experts for each designated category of over-the-counter drugs. 21 C.F.R. § 330.10(a)(1). The Panel reviews data submitted by the public and may submit a report to the FDA containing its conclusions and recommendations on the safety, effectiveness, and branding accuracy of the drugs within each category. *See id.* § 330.10(a)(2)-(5).

21. After reviewing the conclusions and recommendations of a Panel, the FDA must publish a proposed order in the Federal Register containing: (1) a monograph establishing conditions under which the drugs, either individually or as a category, are generally considered safe, effective, and not misbranded ("Category I"); (2) a statement of conditions excluded from the monograph on the basis that they would result in a drug's not being generally recognized as safe and effective or would result in misbranding ("Category II"); and (3) a statement of conditions excluded from the monograph on the basis that there are insufficient data to classify their safety, effectiveness, or accuracy of branding ("Category III"). *Id.* § 330.10(a)(6)(i)-(iii).

22. The proposed order must also specify a reasonable time period within which Category III conditions are permitted to remain in marketed products while the FDA obtains data necessary for their evaluation. *Id.* § 330.10(a)(6)(iv).

23. Within ninety days after publication of a proposed order, any interested person may file written comments. *Id.* Interested persons may also file reply comments within thirty additional days. *Id.*

24. After reviewing all comments, reply comments, and any new information or data, or after reviewing a Panel's recommendations, the FDA must publish a tentative final order in the Federal Register. A tentative final order must contain a monograph establishing conditions under which over-the-counter drugs are generally recognized as safe, effective, and not misbranded. *Id.* § 330.10(a)(7)(i).

25. The FDA may also publish an additional tentative final order in the Federal Register containing a statement of active ingredients proposed for exclusion from the monograph on the basis that they would cause a drug not to be generally recognized as safe and effective or would result in misbranding. *Id.* § 330.10(a)(7)(ii).

26. Within ninety days of publication of a tentative final order, any interested person may file written objections and request an oral hearing. *Id.* § 330.10(a)(7)(i)-(ii). New data or information supporting an excluded condition may be filed within twelve months of publication of the tentative final order containing a monograph. *Id.* § 330.10(a)(7)(iii). Comments may be filed within sixty days after the final submission date for new data and information. *Id.* § 330.10(a)(7)(iv).

27. After reviewing objections, the entire administrative record, and arguments made at any oral hearing, the FDA must publish a final order in the Federal Register containing a monograph under which over-the-counter drugs are generally recognized as safe, effective, and not misbranded. *Id.* § 330.10(a)(9). At this stage, the FDA refers to Category I conditions as "monograph conditions." In contrast, it refers to Category II and Category III conditions as "nonmonograph conditions." 59 Fed. Reg. 31402, 31403 (June 17, 1994). Following publication of a final monograph, the agency prohibits over-the-counter drug products containing nonmonograph conditions from being introduced into interstate commerce after a specified date. *See id.*

THE FACTS

Harms Posed by Triclosan and Triclocarban

28. Triclosan and triclocarban are present in human bodies. A 2003-2004 study by the U.S. Centers for Disease Control and Prevention ("CDC") found triclosan in the urine of seventy-five percent of Americans over the age of six. Triclosan has also been detected in human blood and breast milk. In addition, triclocarban metabolites have been found in the plasma and urine of human subjects who used soap containing triclocarban. Both triclosan and

triclocarban are known to be absorbed through human skin. One study suggested that emollients in soap accelerate the dermal penetration of triclocarban.

29. Both recent and older studies have associated triclosan and triclocarban with significant health risks.

30. Numerous studies since 2006 have attributed endocrine-disrupting properties to triclosan and triclocarban.

31. Several animal studies have demonstrated that triclosan causes a decrease in thyroid hormone levels. Thyroid hormones are critical to normal growth and development, including brain development. Decrease in thyroid hormone levels early in development has been associated with lowered IQ, learning disorders, and memory problems.

32. Sex hormones are essential to the normal growth and function of reproductive systems. *In vitro* (cell-based) studies have found that environmentally relevant concentrations of triclosan interfere with the activity of both male and female sex hormones. Animal studies also have shown that triclosan disrupts testosterone production, damages male reproductive organs, and lowers sperm count.

33. Recent studies have associated triclocarban with a unique type of endocrine disruption. Both *in vitro* and *in vivo* (whole animal) studies have shown that triclocarban amplifies the effect of sex hormones. Triclocarban has been shown to enhance both testosterone- and estrogen-dependent gene expression in cell-based studies. A 2008 study found that exposure to triclocarban causes an increase in the weight of male sex organs, such as the prostate gland. The potential for triclocarban to cause hyperstimulation of hormone action presents concerns that the chemical may interfere with reproductive development and stimulate the growth of hormone-dependent cancers.

34. While recent studies have associated triclosan and triclocarban with endocrine disruption, older studies have also linked triclosan to organ damage and triclocarban to a blood disorder.

35. In a report published in the September 13, 1974 Federal Register, the FDA-appointed Panel on over-the-counter antimicrobial products ("Antimicrobial I Panel") cited a study that associated triclocarban with brain and spleen changes. Although other data indicated that no such tissue changes occurred, the Panel recommended further studies since "[t]he suggestion of brain and splenic changes is of such importance that it cannot be ignored."

36. The report also cited an oral animal study implicating triclosan in the degeneration of liver cells.

37. In the same report, the Panel cited a study describing incidences of methemoglobinemia arising from high temperature decomposition of triclocarban. Methemoglobinemia is a blood disorder characterized by elevated levels of a type of hemoglobin that interferes with oxygen delivery. The Panel recognized that triclocarban will decompose at elevated temperatures in aqueous solutions to produce chloroanilines. Chloroanilines can induce methemoglobinemia when present at high levels.

38. Numerous studies have suggested that, in addition to posing direct risks to human health, triclosan fosters antibiotic resistance in bacteria. At least one study has also associated triclocarban with promoting such resistance. The use of products containing triclosan and triclocarban exerts selective evolutionary pressure favoring bacterial strains that are impervious to these chemicals. Because of similarities between the way in which these chemicals and antibiotics interact with bacteria, bacteria that develop resistance to triclosan and triclocarban may also form "cross-resistance" to antibiotics needed to treat infections. Consequently, the

Antimicrobial I Panel recommended that triclosan-containing products not be used in hospitals, nursing homes, or other closed environments where individuals may be highly susceptible to bacterial infections.

39. Companies frequently market consumer products containing triclosan and triclocarban as being "antibacterial." However, studies have provided evidence that consumer soaps containing these chemicals provide no additional health benefit compared to regular soaps.

The FDA's Failure To Finalize the Monograph on Topical Antimicrobial Drug Products for Over-the-Counter Human Use

40. On January 5, 1972, the FDA announced in the Federal Register a proposed review of all over-the-counter drugs for safety, effectiveness, and labeling by independent Panels.

41. In the Federal Register of January 7, 1972, the agency issued a request for data and information on all antimicrobial active ingredients in drug products for repeated daily topical human use.

42. The FDA appointed the Antimicrobial I Panel to review submissions and prepare a report on the safety and effectiveness of over-the-counter drug products containing antimicrobial ingredients for topical human use. The agency announced that reviewed products would include soaps, surgical scrubs, skin washes, skin cleansers, and first-aid preparations.

43. On September 13, 1974, the agency published the Panel's recommendations and conclusions in the Federal Register. The FDA also proposed to establish the Monograph for over-the-counter antimicrobial drug products. The proposed order designated as Category II active ingredients triclosan when used in health-care personnel handwash, patient pre-operative skin preparation, and surgical hand scrub; and triclocarban when used in patient pre-operative skin preparation, skin antiseptic, skin wound cleanser, skin wound protectant, and surgical hand

scrub. In addition, it designated as Category III active ingredients triclosan when used in antimicrobial soap, skin antiseptic, skin wound cleanser, and skin wound protectant; and triclocarban when used in bar soap and health-care personnel handwash. The FDA proposed to prohibit the continued use of Category II active ingredients six months after publication of the final Monograph, and Category III active ingredients one year after publication.

44. In its 1974 proposal, the FDA noted that antimicrobial soaps should be tested for safety for repeated and extended use, including "a life-long duration with total body exposure." The agency noted the significant increase in "recent years" of antimicrobial ingredients in soaps and stated that "many individuals are involuntarily, unknowingly captive consumers of such soaps."

45. On January 6, 1978, the FDA published its first tentative final order for over-the-counter topical antimicrobial drug products. The tentative final order identified as Category II active ingredients triclosan when used in health-care personnel handwash, patient pre-operative skin preparation, and surgical hand scrub; and triclocarban when used in patient pre-operative skin preparation, skin antiseptic, skin wound cleanser in formulations other than bar soap, skin wound protectant, and surgical hand scrub. It also identified as Category III active ingredients triclosan when used in antimicrobial soaps, skin antiseptic, and skin wound cleanser; and triclocarban when used in antimicrobial bar soap, health-care personnel handwash, and skin-wound cleanser formulated as bar soap. The tentative final order defined an "active" antimicrobial ingredient "as a compound or substance that contributes to the claimed effect of the product." The FDA proposed to eliminate from interstate commerce Category II active ingredients six months after publication of the final Monograph, and Category III active ingredients two years after publication.

46. In its 1978 tentative final order, the FDA also expressed concern "about the multitude of sources from which the consumer can, often unknowingly, be exposed to triclosan." If the number of triclosan-containing products marketed to American consumers appeared "dangerously high," the agency asserted, the FDA "may conclude that the availability of triclosan should be curtailed."

47. The agency took no other substantive actions on the Monograph between 1978 and 1994. Category II and Category III active ingredients identified in the 1978 tentative final order remained in marketed products, which became increasingly widespread.

48. The FDA published its second tentative final order on June 17, 1994. The new tentative final order divided product categories from the 1978 tentative final order into two groups: "health-care antiseptics" and "first-aid antiseptics." The 1994 tentative final monograph focused exclusively on "health-care antiseptics," which the agency defined as "antiseptic containing drug product[s] applied topically to the skin to help prevent infection or to help prevent cross contamination." Specifically, "health-care antiseptics" included patient preoperative skin preparation, antiseptic handwash, health-care personnel handwash, and surgical handscrub. The FDA proposed the term "antiseptic" "as the general statement of identity for all over-the-counter topical antimicrobial ingredients" included in the tentative final order. The agency noted that it had published a separate tentative final order for "first-aid antiseptics," including skin antiseptics, skin wound cleaners, and skin wound protectants. It also discontinued using "antimicrobial soap" as a separate product category, noting that soap merely constitutes a dosage form of ingredients included in the tentative final order.

49. The 1994 tentative final order on health-care antiseptics designated both triclosan and triclocarban as Category III active ingredients for which there were insufficient data to

establish safety and effectiveness. Specifically, the tentative final order categorized triclosan as a Category III active ingredient for safety when used in antiseptic handwash, health-care personnel handwash, and surgical hand scrub. The tentative final order classified both triclosan and triclocarban as Category III active ingredients for effectiveness when used in patient pre-operative skin preparation, antiseptic handwash, health-care personnel handwash, and surgical hand scrub. The tentative final order defined "antiseptic handwash" as "[a]n antiseptic containing preparation designed for frequent use; it reduces the number of transient micro-organisms on intact skin to an initial baseline level after adequate washing, rinsing, and drying." The agency noted that "antiseptic handwashes" include those "used by consumers on a more frequent, even daily, basis and includes products for personal use in the home." Allowing a single exception, the tentative final order designated triclosan as a Category I active ingredient for short-term use in patient pre-operative skin preparation.

50. The 1994 tentative final order proposed to prohibit over-the-counter drug products containing non-monograph conditions from being introduced into interstate commerce twelve months after publication of the final Monograph. Therefore, unless sufficient data were introduced to re-classify triclosan and triclocarban as Category I monograph conditions, over-the-counter topical antimicrobial drug products containing these chemicals would be prohibited from entering the market one year after finalization of the Monograph.

51. Between 1994 and 2003, the agency took no further substantive actions on the Monograph. Although the 1994 tentative final order identified both triclosan and triclocarban as Category II and Category III ingredients, healthcare antiseptics containing these chemicals remained on the market and increased in prevalence.

52. On May 29, 2003, the FDA published a notice in the Federal Register reopening the administrative record to accept comments and data concerning over-the-counter health-care antiseptic drug products. The comment period closed on August 27, 2003. The agency has taken no further action on the Monograph since then.

53. Sixteen years after publication of the amended tentative final order, thirty-two years after publication of the original tentative final order, and thirty-six years after the initial proposed order, the FDA has yet to finalize the Monograph. In the meantime, over-the-counter antimicrobial drug products containing triclosan and triclocarban have proliferated on the market.

54. NRDC met with FDA senior staff members on July 13, 2009 and September 24, 2009 to ascertain the agency's timeline for finalizing the Monograph. The FDA did not provide a definitive timeframe during these meetings.

55. In a letter dated September 30, 2009, NRDC asked the FDA for "a commitment, with timelines, to finalize the draft monograph for topical antimicrobial drug products for over-the-counter human use."

56. The FDA responded eight months later in a letter dated May 28, 2010. The agency did not commit to a specific deadline for finalizing the Monograph.

57. The FDA's delay has drawn the attention of Members of Congress as well. In a letter dated January 5, 2010, Representative Markey inquired into "the status of the final monograph rulemaking" and requested that the FDA provide "a detailed timeline" for its "plan on promulgating finalized rules regarding over the counter topical antimicrobial products."

58. In a letter dated February 23, 2010, the FDA responded to Representative Markey, "Although we cannot give you a detailed timeline for completion of this process, we are

working diligently to publish the proposed rule and will finalize the rule as quickly as possible thereafter."

59. In the same letter, the agency acknowledged the dearth of long-term data "on the effects of dermal application, a known method of triclosan exposure." It also indicated the absence of sufficient studies on the endocrine disruption potential, as well as the reproductive and developmental toxicity, of triclosan. With regard to triclocarban, the FDA stated, "We do not have sufficient data to draw conclusions about potential long-term health effects of triclocarban and therefore plan to identify concerns in the current monograph rulemaking process to obtain any data that may assist us in drawing solid conclusions about its potential health effects."

60. On April 8, 2010, the FDA announced on its website, "At this time, FDA does not have evidence that triclosan added to antibacterial soaps and body washes provides extra health benefits over soap and water. Consumers concerned about using hand and body soaps with triclosan should wash with regular soap and water." In the same announcement, the FDA stated its intention to communicate findings of its review to the public in Spring 2011.

Harm to NRDC from the FDA's Failure To Finalize the Monograph

61. The health of NRDC's members is threatened by continued exposure to triclosan and triclocarban through over-the-counter topical antimicrobial drug products sold on the market.

62. The development of antibiotic resistance in bacteria, potentially accelerated by triclosan and triclocarban, also threatens the health of NRDC's membership.

63. In its 1978 tentative final order, the FDA concluded that there was "limited consumer use of antimicrobial-containing products under normal conditions in the population at

large." Even if this statement was accurate in 1978, data demonstrate that it is no longer true today.

64. In its February 23, 2010 letter to Representative Markey, the FDA stated its belief "that the majority of consumer antibacterial soaps contain triclosan or triclocarban as active ingredients." The Agency also reported that a "2001 physician-performed survey of the prevalence of consumer antibacterial soaps on the market found that, of national brand soaps (plain and antibacterial) available at national chains, regional grocery and Internet stores, triclosan or triclocarban was found in 76 percent of 395 liquid and 29 percent of 733 bar soaps."

65. In the same letter, the agency conceded "that existing data raise valid concerns about the effects of repetitive daily human exposure to these antiseptic ingredients [i.e., triclosan and triclocarban]." It also acknowledged, "A significant portion of the U.S. population, both children and adults, have had sustained use of, or exposure to, triclosan." In addition, the FDA's 1978 tentative final order noted that health-care personnel may use handwashes as often as fifty to one hundred times per day.

66. Until the FDA finalizes the Monograph, NRDC's members will continue to experience "repetitive daily human exposure" to triclosan and triclocarban in consumer products whose safety and effectiveness remain unproven. These members include individuals who are "involuntarily, unknowingly captive consumers" of such potentially unsafe and ineffective products.

67. Given the agency's extraordinary record of delay, only judicial intervention will ensure prompt completion of the Monograph.

CLAIM FOR RELIEF

68. NRDC incorporates by reference all preceding paragraphs.

69. The FDA has delayed unreasonably in finalizing the Monograph on Topical Antimicrobial Drug Products for Over-the-Counter Human Use.

70. The FDA's unreasonable delay constitutes agency action not in accordance with law in violation of the APA, 5 U.S.C. § 555(b), and the FFDCA, 21 U.S.C. § 355.

REQUEST FOR RELIEF

NRDC requests that this Court enter judgment against the FDA as follows:

A. Declaring that the FDA's delay is unreasonable and not in accordance with law, pursuant to the APA, 5 U.S.C. §§ 555(b) and 706, and the FFDCA, 21 U.S.C. § 355;

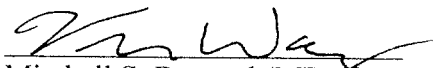
B. Ordering the FDA to finalize the Monograph within ninety days after the Court grants relief;

C. Awarding NRDC its costs and reasonable attorneys' fees incurred in prosecuting this action under 28 U.S.C. § 2412; and

D. Granting such other relief as the Court deems just and proper.

Dated: New York, New York
July 27, 2010

Respectfully submitted,



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