



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
BOARD OF PESTICIDES CONTROL
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AUGUSTA, MAINE 04333

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Memorandum

To: Board of Pesticides Control

From: Staff

Subject: Additional Materials Regarding Repellent Treated Clothing

Date: October 13, 2023

Background

Previously, BPC staff approached the Board for guidance on *the appropriate minimum registerable unit* for clothing and gear that has been “factory treated” with insecticide for the purpose of repelling ticks and mosquitoes as part of a vector-borne disease prevention strategy. The Board requested more information on the topic; in response, this document, and supporting materials, have been provided for the Board’s consideration.

Introduction

There is a growing market for insecticide impregnated clothing and gear to repel mosquitoes and ticks. Currently, BPC holds six registrations for these types of products. Staff are requesting guidance on how to process products of different varieties of the basic product. The Board has the option to register only the factory treated fabric or the Board can register each factory treated garment and type of gear. This later approach could include differentiating between men’s and women’s clothing, or differing colors and sizes.

Some product categories currently are registered in a way that captures the different forms the product may take. For example, when registering flea and tick collars for dogs and cats the size categories of the pet require separate registrations. Products with differing scents (e.g., vanilla vs

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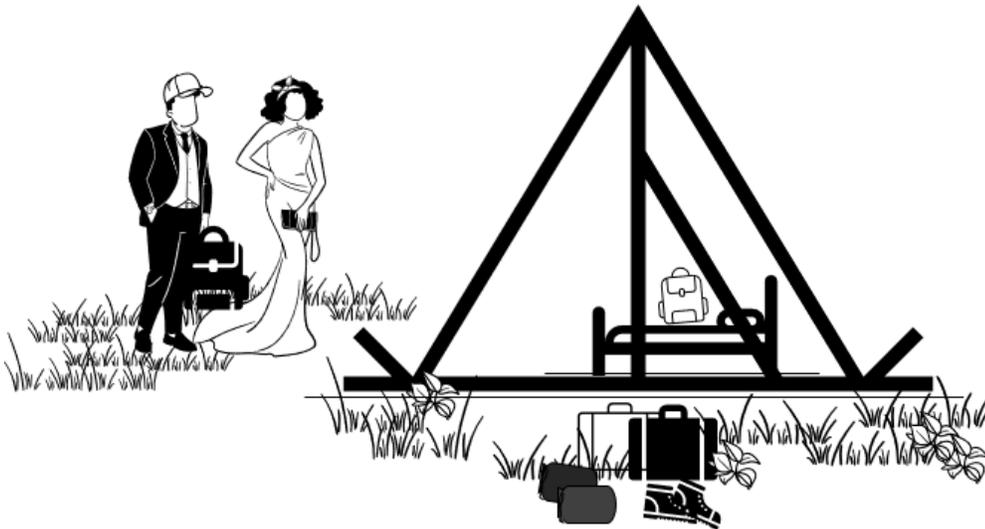
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ocean breeze) are also registered separately. However, different size containers, with identical labels in all other ways, are not registered uniquely. In Maine, currently registration practice is that staff, “register the label” meaning if a product with one EPA registration number is rebranded into seven different products, staff register each product uniquely.

Example of how alternate brand names (ABNs) are registered in our system:

Company Name	EPA Product Registration Number	Product Name	Maine Product Registration Number
ELANCO US INC	11556-155	SERESTO SMALL DOG COLLAR	2012001175
		SERESTO LARGE DOG COLLAR	2012001176
		SERESTO CAT COLLAR	2012001177
		ELANCO SERESTO SMALL DOG (UP TO 18 LBS)	2022000378
		ELANCO SERESTO LARGE DOG (ABOVE 18 LBS)	2022000379
		ELANCO SERESTO CAT	2022000380

Examples of the multiple types of articles constructed with permethrin impregnated fabric.



Wearables:

- Scarf
- Hat
- Tops
- Pants
- Socks
- Shoes
- Gaiters

- Horse blankets
- Dog scarves

Non-Wearables:

- Tents
- Backpack
- Ground cloth
- Luggage
- Sleeping bags
- Netting

Feedback From Other States

BPC staff reached out to colleagues in other states to investigate different approaches to registering these products. Following are some screenshots from guidance found on the state's webpages or documents that were provided to BPC.

Idaho

PESTICIDE IMPREGNATED MATERIALS (WEARABLE AND NOT WEARABLE)

- Two (2) categories, Wearables and Non-wearables (both sec. 3 and sec 25(b) impregnated materials) (25(b) materials will also be subject to the 25(b) registration requirements)
 - Wearables
 - Anything that will come in direct contact with humans, including but not limited to hats, shirts, pants, shorts, shoes, boots, socks, jackets/vests and gloves.
 - Non-wearables
 - Including but not limited to bedding, tents, shelters, chairs, pet clothing, horse blankets, backpacks and luggage.
- Each category will require a separate registration.
- Each item will be required to have a hang tag attached to the product as long as it is being sold
 - Hang tag will be required to have the product name and EPA Reg. No., signal word, hazard statement, graphic material and any other information required by federal law. EPA Reg No., Signal Word and Hazard Statement, graphic material and any other information required by federal law, and the label will be available and readily viewable on websites selling Pesticide Impregnated Materials.
 - Hang tag can only be removed after purchase
 - Hang tag must be replaced if product is returned to distributor prior to being returned to the sales area.
- Efficacy data proving efficacy of the product over multiple washes must be provided prior to application for registration will be approved.
- Alternate Brand Names (ABNs) will require separate registration.
 - Notice of Supplemental Distribution of a Registered Pesticide (EPA form 8570-5) may be required depending on who is registering the ABN.

Indiana

A. WHAT DOES NOT REQUIRE REGISTRATION IN THE STATE OF INDIANA?

OISC does not register simple mechanical devices, such as: barriers, traps, or adhesives, or other simple contrivances. As examples, the following are exempt from registration

- Snap traps for mice
- Glue traps for insects
- Fabric barriers for weeds

A pheromone trap is exempt from registration when the purpose of the trap is for monitoring the number of pests in an area.

B. WHAT DOES REQUIRE REGISTRATION IN THE STATE OF INDIANA?

The above-mentioned products (Devices.A) are not exempt from registration in Indiana when they include a substance (pheromone or food bait). A pheromone trap sold with the purpose of mitigating/removing the pest requires registration in Indiana.

OISC requires the registration of any device that makes a pesticidal claim (outside of those identified above). If your device includes replacement filters or light bulbs that impact the efficacy of the product (ie: HEPA filters, UVC light bulbs), these require their own registration as well.

7. MY PRODUCT IS SOLD AND MARKETED IN DIFFERENT COLORS. DOES EACH COLOR REQUIRE REGISTRATION?

Yes, if your product is sold and marketed in different colors it would require registration in Indiana. If your product is sold in different colors but is not marketed for the different colors, these would not require different registrations.

An example of marketing different colors would include - A device that is sold in white and black. The container labeling for the device specifies the color and/or the supplemental marketing (i.e.: online websites) allow for the consumer to purchase a specific color.

An example of not marketing different colors would be when a color selection would vary. An example of online marketing language for a product that would not require different colors to be registered would say something like "colors vary" or "different colors provided by random selection". In a retail setting, this would happen where the labeling does not clearly identify the different colors.

An instance where different colors would not require registration is if the products are custom made. If this is specific to your products, we recommend that you request confirmation on what requires registration.

https://oisc.purdue.edu/pesticide/pdf/pest_products_faq_022522.pdf

Indiana continued...

Office of Indiana State Chemist (OISC) is providing Industry with clarification on what are considered different pesticide products in the state of Indiana. Additional details can be located in our FAQ document, posted on the OISC Pesticide Products & Devices website (https://oisc.purdue.edu/pesticide/pesticide_products.html).

According to IC 15-16-4-56: "For more than one (1) pesticide product to be considered the same pesticide product, each pesticide product must exhibit the same: (1) product name; (2) registrant name; (3) United States Environmental Protection Agency registration number; (4) labeling, claims, and branding; and (5) ingredient statement."

1. When do Registrants need to submit additional applications for products?

Here are some examples of when an additional application is required for registration in Indiana:

- a. Label Revisions include changes to:
 - i. Company name
 - ii. Product name
 - iii. Branding
- b. Products in the marketplace include:
 - i. labels with different Directions for Use
 - ii. different application equipment (i.e. Different hoses/dispensers, hose attachments, etc.)
 - iii. different users (commercial vs homeowner) or sites (ornamental vs lawn)
 - iv. kit/co-pack with multiple products (i.e. different scents, pesticides, and/or non-pesticides)
- c. Products are specifically sold
 - i. as different colors (i.e. air purifier sold in black, white or red)
 - ii. for a different size, location, or site (i.e. 1) small dog, medium dog, large dog; 2) small room, large room)

https://oisc.purdue.edu/pesticide/pdf/products_considered_different_022522.pdf

Registration Database Searches Comparing Number of Registered Permethrin Treated Products

Indiana

Searching National Pesticide Information Retrieval System (NPIRS) for the products registered in Indiana returns the same six registrations we have in Maine when searching for ‘permethrin’, ‘human clothing’, and ‘No Signal Word’. See the table (below) titled, “Summary of registrations for permethrin treated human clothing in 2023,” for registration details.

Missouri

Missouri reports registering fabric but not the constructed clothing and gear. Searching the Kelly Solutions Pesticide Registration Database shows registration for five different products similar to the registered products in other states. See the table(below) titled, “Summary of registrations for permethrin treated human clothing in 2023,” for registration details.

North Carolina

North Carolina registers constructed articles and fabric (unclear if separated by color). See the table (below) titled, “Summary of registrations for permethrin treated human clothing in 2023,” for registration details.

Washington

Searching the Washington/Oregon PICOL database returns nine registrations for permethrin impregnated material. The three registrations not included in the Maine registration database are: Insect Defense System (EPA Reg No 83588-1 by International Textile Group; Active Guard Mattress Liner (EPA Reg No 82123-1) by Allergy Technology LLC; and Pramex Long Lasting Insecticidal Net (EPA Reg No 1021-2756) by McLaughlin Gormley King (MGK). See the table (below) titled, “Summary of registrations for permethrin treated human clothing in 2023,” for registration details.

Summary of registrations for permethrin treated human clothing in 2023.

Product Name	Registration Number	Company Name	States				
PERIMETER INSECT GUARD INSECT REPELLENT APPAREL	82392-1	PINEBELT PROCESSING INC	ME	IN	MO	NC	WA
INSECT SHIELD REPELLENT APPAREL	74843-2	INSECT SHIELD LLC			MO		WA
NO FLY ZONE APPAREL	83588-1	INTERNATIONAL TEXTILE GROUP INC	ME	IN		NC	WA
NO FLY ZONE /DOG & HORSE GEAR	83588-1	INTERNATIONAL TEXTILE GROUP INC	ME	IN	MO		WA
NO FLY ZONE INSECT REPELLENT TECHNOLOGY (DOG-HORSE)	83588-1	INTERNATIONAL TEXTILE GROUP INC	ME	IN	MO	NC	
NO FLY ZONE APPAREL THAT REPELS INSECTS (GARMENTS)	83588-1	INTERNATIONAL TEXTILE GROUP INC	ME	IN			
ACTIVE GUARD MATTRESS LINER	82123-1	ALLERGY TECHNOLOGY LLC					WA
SKINTEX MR III INSECT REPELLENT APPAREL	86110-2	PULCRA CHEMICAL	ME	IN	MO	NC	WA
PRAMEX LONG LASTING INSECTICIDAL NET	1021-2756	MCLAUGHLIN GORMLEY KING (MGK)					WA
INSECT DEFENSE SYSTEM	83588-1	INTERNATIONAL TEXTILE GROUP INC					WA
INSECT SHIELD REPELLENT GEAR	74843-5	INSECT SHIELD LLC					WA

WA data are taken from their state pesticide registration databases while the Maine, Indiana, and North Carolina data were taken from National Pesticide Information Retrieval System (NPIRS); MO data were retrieved from the Kelly Solutions Pesticide Registration Database.

-The Following Material is Tangential Discussion to the Registration Topic-

During the course of researching this topic, staff became aware of the large volume of information on the internet geared toward treating clothing for tick and mosquito repellency. For example, the US CDC currently has instructions on their webpage demonstrating how people can treat their own clothes (document included in the board packet). While some of the information is accurate and helpful for consumers, some of the material is incorrect.

Do It Yourself (DIY) Treatment of Clothing and Gear

Treating one's own clothing and gear is significantly cheaper than buying new clothing or sending clothes to a company offering treatment services. There are scores of products available to consumers for treating their own clothing and gear. Despite the availability of registered products made specifically for this use, many people balk at the price of these permethrin products geared toward treating clothing knowing there are cheaper permethrin products available on the market for agricultural uses.



Searching the internet for how to 'DIY' treat one's clothing pulls up many instructional websites and videos that show how to make cheaper permethrin mixtures, as shown above. The video referenced in the screenshot (above) is a top result from a Google search and it demonstrated how to make a dilution and what products to buy, the individual does not wear PPE, and many comments mentioned how stinky clothing is after treatment. The public is getting a significant bit of information from sources like this one.

Treatment Services and Clothing Drop-Off Stations

There is a newly growing trend for services treating clothes and gear for others. There are mail-in and drop-off services, including ones that companies run for their employees who work outdoors. The commercial activity of creating pesticide treated clothing falls into the realm of manufacturing pesticides and is regulated by the EPA. Those offering treatment services (dips and/or sprays of individual's clothing) should be registered with EPA as a pesticide producer establishment. There is a complete list of Maine's pesticide producer establishments below. Only companies on this list would be allowed to perform this treatment.

Table. Pesticide Producer Establishments Currently Registered with US EPA located in Maine.

COMPANY NAME	CITY	ESTABLISHMENT NAME
KICTEAM INC.	AUBURN	KICTEAM INC.
SAVAGE SERVICES CORPORATION	AUBURN	SAVAGE SAFE HANDLING, INC.
SIAMDUTCH MOSQUITO NETTING CO LTD	JACKMAN	SIAMDUTCH MOSQUITO NETTING CO LTD
Gelardi Design LLC	BIDDEFORD	G-PRO INDUSTRIAL SERVICES, INC
CROP PRODUCTION SERVICES INC.	Detroit	Nutrien Ag Solutions 4195
Corning Life Sciences	KENNEBUNK	CORNING LIFE SCIENCES
CROP PRODUCTION SERVICES INC.	Mapleton	Nutrien Ag Solutions 2527
-	POLAND	OLDCASTLE LAWN & GARDEN INC
GLOBAL BIOTECHNOLOGIES	PORTLAND	GLOBAL BIOTECHNOLOGIES
Dasco Inc	PRESQUE ISLE	DASCO INC
York Manufacturing, Inc	SANFORD	YORK MFG INC
DOG NOT GONE VISIBILITY PRODUCTS	SKOWHEGAN	MAINE STITCHING SPECIALITIES
PE-PA, LLC	SPRUCE HEAD	PE-PA, LLC
OCEAN ORGANICS CORP.	WALDOBORO	OCEAN ORGANICS CORP.
GVS S.P.A.	SANFORD	GVS SPA

What is a Pesticide Establishment?

The following inset is from the EPA’s webpage describing and detailing the role of pesticide establishments. More information is available at their webpage:

<https://www.epa.gov/compliance/pesticide-establishment-registration-and-reporting>.

Pesticide Establishment Registration and Reporting

The [Federal Insecticide, Fungicide, and Rodenticide Act \(FIFRA\) Section 7](#) requires that production of pesticides, active [ingredients](#) or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, labeling and relabeling.) Production in an unregistered establishment is a violation of the law. Information on pesticide establishments is tracked through the Section Seven Tracking System. A [list of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments](#) is available. Additional limited information on establishments is available through a FOIA request.

Establishments that produce pesticides, active ingredients or devices, including companies or establishments that import into the United States, must **first** obtain a company number; **second**, register the establishment, **then file** initial and annual production reports with EPA.

 An official website of the United States government
[Here's how you know](#)

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Repellent-Treated Clothing

On this page:

- [Factory-treated clothing to repel insects](#)
- [Safety of permethrin in factory-treated clothing](#)
- [Effectiveness of factory-treated clothing](#)
- [Meaning of EPA registration and status of permethrin](#)
- [Treating your own clothing](#)
- [For more information](#)

Factory-Treated Clothing to Repel Insects

The only insect repellent currently used for factory treatment of clothing is permethrin. Permethrin is a broad spectrum, non-systemic, synthetic pyrethroid insecticide that targets adults and larvae of many species of biting, chewing, scaling, soil, and flying invertebrates. Permethrin is registered by the EPA as an insecticide for use in a variety of settings. When used to pre-treat clothing, it is an insect repellent.

Permethrin has been registered since 1979. It was first registered in 1990 for use as a repellent on clothing by the military. At about the same time, we also approved permethrin as a spray for use on clothing and gear by consumers, as well as for commercial factory treatment of clothing and various types of gear. In 2003, we first registered consumer-oriented, permethrin factory-treated clothing products. More products have been approved since then.

Safety of Permethrin in Factory-Treated Clothing

When evaluating these products in the pesticide registration process, we follow normal risk assessment procedures to determine safety. Our 2009 revised exposure and risk assessment evaluated multiple exposure scenarios for permethrin factory-treated clothing, including toddlers wearing or mouthing the clothing, and military personnel who wear permethrin-treated uniforms on a daily basis. All exposure scenarios showed that permethrin factory-treated clothing is unlikely to pose any significant immediate or long-term hazard to people wearing the clothing.

The amount of permethrin allowed in clothing is very low, and scientific studies indicate that human exposure resulting from wearing permethrin factory-treated clothing also is low. Available data show that permethrin is poorly absorbed through the skin.

Women Who are Pregnant or Nursing

Based on our review of scientific studies, there is no evidence of reproductive or developmental effects to mother or child following exposure to permethrin.

Safe Use: Follow the Label

Clothing factory-treated with permethrin is considered a pesticide product, and as with any pesticide product, it must be marketed with a pesticide use label. The pesticide use label on such clothing is in the form of a "hang-tag," which is typically attached to the outside of the clothing. As with any pesticide product, consumers must follow the directions and precautions on the "hang-tag" label that accompanies this clothing.

Use of Factory-Treated Clothing in Conjunction with Insect Repellents

When wearing permethrin factory-treated clothing to repel insects, only the skin surface covered with the factory-treated clothing is protected from the pests listed on the label. Treat other exposed parts of the body with an insect repellent labeled for use on human skin for more complete protection.

Why the Label Calls for Washing Clothes Separately

Small amounts of permethrin can come off in the wash, as shown by available scientific studies. Only outer clothing is treated with permethrin, as outer clothing is most likely to come into direct contact with the listed pests. Permethrin repellent products used for factory-treatment of clothing or as spray-ons for clothing are not to be applied to certain clothing such as underwear. For this reason, the label instructs consumers to wash permethrin-treated clothing separately from non-treated clothing.

Effectiveness of Factory-Treated Clothing

We require manufacturers of all pesticides to provide data demonstrating that the product will work to control pests as claimed on the label. In the case of pests of public health concern, such as mosquitoes and ticks, the manufacturer must submit these efficacy studies for review and approval by EPA. We have reviewed these data for permethrin factory-treated clothing and found that the clothing is effective in repelling target pests.

Meaning of EPA Registration and Status of Permethrin

Federal law requires that before selling or distributing a pesticide in the United States, a person or company must obtain a registration <<https://epa.gov/pesticide-registration>>, or license, from EPA. Before registering a new pesticide or *new use* for a registered

pesticide, we must first ensure that the pesticide, when used according to label directions, meets the safety standard set by law.

In evaluating pesticides for registration, we require the manufacturers to provide a variety of studies on the health and environmental effects of each chemical and product. We use these studies to decide whether a product and its intended uses meet our safety standard and whether specific use restrictions are warranted for the safe use of the product. As part of the review and risk assessment process, we consider individuals of varying ages who could be exposed to a pesticide under different use scenarios.

We periodically reevaluate all registered pesticides to ensure continued compliance with current scientific and safety standards.

- We completed the most recent comprehensive human health risk assessment for all registered uses of permethrin in February 2006 in support of the pesticide's reregistration.
- In revising this assessment in April 2009, we evaluated several factory-treated clothing exposure scenarios including short-term and long-term cancer risks to adults, youth, and toddlers wearing permethrin-treated clothing. We also evaluated toddler object-to-mouth activity on factory-treated clothing. All scenarios resulted in risk estimates below our level of concern.
- In June 2011, we initiated a new review of all permethrin uses, called registration review, opening docket EPA-HQ-OPP-2011-0039. We expect to complete the registration review of permethrin in 2017.

Treating Your Own Clothing

We also register products that consumers can spray on clothing to repel mosquitoes and ticks. The products that are currently available contain DEET, permethrin or picaridin. Be sure to read and follow label directions if you use one of these products.

For More Information

- Permethrin

- [Permethrin registration review docket - EPA-HQ-OPP-2011-0039](https://www.regulations.gov/docket/epa-hq-opp-2011-0039) 
<<https://www.regulations.gov/docket/epa-hq-opp-2011-0039>>
- [Mosquito control](https://epa.gov/mosquitocontrol) <<https://epa.gov/mosquitocontrol>>
- [Pyrethroids and Pyrethrins](https://epa.gov/ingredients-used-pesticide-products/registration-review-pyrethrins-and-pyrethroids) <<https://epa.gov/ingredients-used-pesticide-products/registration-review-pyrethrins-and-pyrethroids>>

[Contact Us](https://epa.gov/insect-repellents/forms/contact-us-about-insect-repellents) <<https://epa.gov/insect-repellents/forms/contact-us-about-insect-repellents>> to ask a question, provide feedback, or report a problem.

LAST UPDATED ON APRIL 3, 2023

2023 Permethrin Registrations in Maine With 'Human Clothing' or 'Human Clothing (Footwear)' Listed as a Site

REGISTRATION NUMBER	PRODUCT NAME	TOXIC	COMPANY NAME
1021-1740-56575	INSECT REPELLENT PERMETHRIN BEN'S COMPLETE CLOTHING & GEAR	CAUTION	TENDER CORPORATION D/B/A ADVENTURE READY BRANDS
1021-1746-55809	CRC FR CLOTHING INSECT REPELLENT	CAUTION	CRC INDUSTRIES, INC.
1021-1746-56575	BEN'S CLOTHING & GEAR INSECT TREATMENT UNSCENTED	CAUTION	TENDER CORPORATION D/B/A ADVENTURE READY BRANDS
1021-1746-74843	INSECT SHIELD PERMETHRIN INSECT REPELLENT FOR CLOTHING & GEAR	CAUTION	INSECT SHIELD, LLC
1021-1746-79533	COLEMAN INSECT TREATMENT GEAR AND CLOTHING	CAUTION	WISCONSIN PHARMACAL COMPANY, LLC
1021-2685-73470	RID HOME LICE, BEDBUG & DUST MITE SPRAY	CAUTION	BAYER HEALTHCARE LLC
1021-2685-73470	RID MAX COMPLETE LICE REMOVAL KIT	CAUTION	BAYER HEALTHCARE LLC
1021-2685-98143	RID HOME LICE, BEDBUG, & DUST MITE SPRAY	CAUTION	Oystershell Consumer Health, Inc.
10807-161-40849	ENFORCER DUAL ACTION INSECT KILLER		ZEP COMMERCIAL SALES & SERVICE
10900-86-22946	CVS PHARMACY LICE, BEDBUG, & MITE SPRAY		CVS PHARMACY, INC.
10900-86-43428	WALGREENS STOP LICE IN-HOME LICE, BEDBUG & MITE SPRAY		WALGREEN COMPANY
10900-86-5741	SPARTAN BED BUG AND LICE KILLER		SPARTAN CHEMICAL COMPANY, INC.
11556-171	CATRON IV	CAUTION	ELANCO US INC.
11556-171	ELANCO CATRON IV	CAUTION	ELANCO US INC.
1769-371-66114	DROP DEAD FLYING AND CRAWLING INSECT KILLER		DM RESOURCES INC
2724-483	ZODIAC FLEATROL CARPET & UPHOLSTERY AERO SPRAY	CAUTION	WELLMARK INTERNATIONAL
305-55	REPEL PERMETHRIN CLOTHING & GEAR INSECT REPELLENT	CAUTION	UNITED INDUSTRIES CORP.
305-55-8845	HOT SHOT FLEA, TICK & LICE KILLER WITH ODOR NEUTRALIZER		SPECTRUM GROUP
4-393-53883	VIPER RTU INSECTICIDE COUNTRY FRESH FRAGRANCE		CONTROL SOLUTIONS, INC.
47000-100	PROZAP SCREW WORM-EAR TICK AEROSOL	CAUTION	CHEM-TECH, LTD.
47000-100-12281	DURVET SCREW WORM AEROSOL MULTI-PURPOSE INSECTICIDE SPRAY		DURVET INC
47000-103-12281	DURVET PERMETHRIN 10% RAPID KILL INSECTICIDE CONCENTRATE	WARNING	DURVET INC
498-174	CHAMPION SPRAYON MULTI-PURPOSE INSECTICIDE & LICE KILLER	CAUTION	CHASE PRODUCTS CO.
498-174	SPRAYPAK FLYING & CRAWLING INSECT KILLER	CAUTION	CHASE PRODUCTS CO.
498-174-1475	SLA REEFER-GALLER CEDAR SCENTED SPRAY III		WILLERT HOME PRODUCTS, INC.
50404-3-13283	RAINBOW TICK & MOSQUITO REPELLENT FOR FR CLOTHING		RAINBOW TECHNOLOGY CORPORATION
50404-3-58188	SAWYER PREMIUM INSECT REPELLENT CLOTHING, GEAR & TENTS TRIGGER SPRAY	CAUTION	SAWYER PRODUCTS
50404-3-58188	SAWYER PREMIUM INSECT REPELLENT A TREATMENT FOR CLOTHING, GEAR & TENTS (TRIGGER SPRAY)	CAUTION	SAWYER PRODUCTS
50404-6-58188	SAWYER PREMIUM INSECT REPELLENT CLOTHING, GEAR & CONVENIENT SPRAY	CAUTION	SAWYER PRODUCTS
50404-6-58188	SAWYER PREMIUM INSECT REPELLENT A TREATMENT FOR CLOTHING & GEAR (AEROSOL SPRAY)	CAUTION	SAWYER PRODUCTS
68543-32	BENGAL CRAWLING INSECT KILLER	CAUTION	BENGAL PRODUCTS INC
71-1	GOOD SENSE IN-HOME LICE, BEDBUG & DUST MITE SPRAY STEP 3	CAUTION	L. PERRIGO COMPANY
71-1-18489	RITE AID HOME LICE BEDBUG & DUST MITE SPRAY (STEP 3)		RITE AID CORP
71-1-40020	FAMILY WELLNESS HOME LICE, BEDBUG & DUST MITE SPRAY		MIDWOOD BRANDS, LLC
71-1-41348	EQUATE HOME LICE, BEDBUG & DUST MITE SPRAY (3 CONTROL)		WAL-MART STORES INC
71-1-6165	TOPCARE HOME LICE, BEDBUG & DUST MITE SPRAY (STEP 3 SPRAY)		TOPCO ASSOCIATES, LLC
71-1-62590	GOOD NEIGHBOR PHARMACY HOME LICE, BEDBUG & DUST MITE SPRAY		AMERISOURCEBERGEN
71-1-69713	SUNMARK HOME LICE, BEDBUG & DUST MITE SPRAY		MCKESSON CORPORATION
74843-2	INSECT SHIELD REPELLENT APPAREL	CAUTION	INSECT SHIELD, LLC
81402-1-58007	3M ULTRATHON CLOTHING AND GEAR INSECT REPELLENT	CAUTION	3M
82392-1	PERIMETER INSECT GUARD, INSECT REPELLENT APPAREL	NO SIGNAL WORD	PINEBELT PROCESSING, INC.
83588-1	NO FLY ZONE APPAREL THAT REPELS INSECTS (GARMENTS)	NO SIGNAL WORD	ELEVATE TEXTILES
83588-1	NO FLY ZONE INSECT REPELLENT TECHNOLOGY (DOG-HORSE)	NO SIGNAL WORD	ELEVATE TEXTILES
83588-1	NO FLY ZONE	NO SIGNAL WORD	ELEVATE TEXTILES
83588-1	NO FLY ZONE (DOG & HORSE)	NO SIGNAL WORD	ELEVATE TEXTILES
86110-2	SKINTEX MRIII INSECT REPELLENT APPAREL	NO SIGNAL WORD	PULCRA CHEMICALS, LLC

Federal Registrations Permethrin Products -No Signal Word

REGISTRATION NUMBER	PRODUCT NAME	COMPANY NAME
50404-10	DURANON PREMIUM INSECT REPELLENT APPAREL	COULSTON PRODUCTS INC
80203-1	GO AWAY	STARENSIER, INC.
81041-1	EXPEL	BIKEL INTERNATIONAL, INC.
81041-1-66306	IGUANA POP-UP BEDNETS	SUNSECT, INC.
81041-1-88329	EXPEL	PERFECT FIT INDUSTRIES LLC
81041-1-90867	LITEFIGHTER SHELTERS	LITEFIGHTER SYSTEMS, LLC
81041-1-91240	INSECT AMOUR	AMERICAN RECREATION PRODUCTS, LLC.
82392-1	PERIMETER INSECT GUARD INSECT REPELLANT APPAREL	PINEBELT PROCESSING, INC.
83122-1	PRO-TEK 50 FABRIC/APPAREL (GARMENT) TREATMENT	GARNIK INDUSTRIES, LLC
83122-1-2596	HARTZ BUGDANA FOR DOGS ONLY	THE HARTZ MOUNTAIN CORPORATION
83122-1-85005	Q-TEK	QUARTEK CORPORATION
83122-1-86352	SWEEP UNDER MATTRESS PAD	ERGOIN, LLC C/TO JEFFREY HOME
83122-2	BOND-IT INSECT REPELLENT FABRIC TREATMENT	GARNIK INDUSTRIES, LLC
83588-1	NO FLY ZONE	ELEVATE TEXTILES
86110-2	SKINTEX MR III APPAREL	PULCRA CHEMICALS, LLC
86110-2-81446	HeiQ Bug Guard Apparel	HEIQ CHEM-TEX INC.
86468-2	REPELZ BY BRITTANY	BRITTANY GLOBAL TECHNOLOGIES CORP.
91733-1	LOFT Insect Repellent Fabric Treatment	BROOKWOOD COMPANIES INCORPORATED
93511-3	Vital Protection TA	HHL GROUP LIMITED



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

August 2, 2019

Micah T. Reynolds
Regulatory Consultant
International Textile Group, Inc.
804 Green Valley Rd., Suite 300
Greensboro, NC 2748

Subject: Notification per PRN 98-10 – Adding alternate statements and company image/logo
Product Name: NO FLY ZONE
EPA Registration Number: 83588-1
Application Date: 17 April 2019
Decision Number: 550870

Dear Mr. Reynolds:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped “Notification” and will be placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you have any questions, you may contact Dr. Helen Hull-Sanders at 703-347-0243 or via email at hull-sanders.helen@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth Fertich". The signature is written in a cursive style with a large initial "E".

Elizabeth Fertich
Product Manager 04
Invertebrate & Vertebrate Branch 1
Registration Division (7505P)
Office of Pesticide Programs

(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

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No Fly Zone™

(MASTER LABEL)

Sublabel A:	Permethrin-Treated Fabric uses for Garments and Gear
Sublabel B:	Permethrin-Treated Fabric uses for Dog & Horse Products/Gear
Sublabel C:	Affixed Tag/Label - ALL Garments, Gear, or Dog/Horse Products
Sublabel D:	Labels for Military Use Only – Hang-tag and Sewn-in
Optional Label Claims	

EPA Reg. No.: 83588-1
EPA Establishment No.: TBD

Manufactured [by] [for]:
International Textile Group, Inc.
804 Green Valley Road, Suite 300
Greensboro, NC 27408 USA

NOTIFICATION

83588-1

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

08/02/2019

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

(SUBLABEL A: MASTER LABEL – GARMENTS and GEAR)

(Note to Reviewer: the following **garments** may be made from No Fly Zone™ fabric: *men's and women's shirts, pants, shorts, cargo shorts, hats, bonnies, bonnie hats, bush hats, jackets, pullovers, scarves, bandanas, socks, shoe coverings, and vests*. Their names may be used in place of the word "garment" in the text of the marketplace label. The following **gear articles** may be made from No Fly Zone™ fabric: *tents, tent mesh, tent netting, tent liner, umbrella, bivouac sack, bivy sack, bivy bag, bivi bag, bivi, sleeping bag covers, backpacks, tarps, drapes/curtains, table cloths, placemats, picnic blankets, tent ground cloths, outdoor furniture covers, outdoor furniture cushion covers, camping chairs, patio umbrella covers, hats, bonnies, bonnie hat, bush hats*. Their names may be used in place of the word "gear" in the text of the marketplace label.)



(Alternate Brand Names: **Mity-Tex, Mity Tex, NFZ, NFZ NOFLYZONE, NFZ NO-FLYZONE, Insect Defense, Insect Defense System**)

[Insect Repellent Technology] [Insect Defense System] [Insect Defense]

Manufactured [by] [for]:
International Textile Group, Inc.
804 Green Valley Road, Suite 300
Greensboro, NC 27408 USA
[XXX-XXX-XXXX]

Active Ingredient:	% by weight
Permethrin.....	0.52%
Other Ingredient (Garment/Gear fabric).....	<u>99.48%</u>
TOTAL	100.00%

EPA Reg. No. 83588-1
EPA Est. No.

- The fabric in this [garment/gear] has been treated with the active ingredient Permethrin.
- Permethrin repels mosquitoes, ants, ticks, chiggers, flies, and midges.
- Permethrin in this [garment/gear] is bound to the fabric and remains effective for [70] [50] [25] washings [for washable garments/gear]
- For protection of exposed skin, use in conjunction with an insect repellent registered for direct application to skin.

Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. [Hangtag/Package] must not be removed, except by consumer after purchase. Keep this [hangtag/package] for future reference on how to properly handle this [garment/gear]. DO NOT DRY CLEAN [GARMENT/GEAR] (dry cleaning removes the Permethrin active ingredient). DO NOT RETREAT [GARMENT/GEAR] with other permethrin insect repellent products.

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

- International Textile Group, Inc. cannot guarantee complete protection from insects, insect bites, related diseases or reactions.

STORAGE & DISPOSAL

- Do not contaminate water, food, or feed by storage or disposal.
- Disposal: discard in trash when [garment/gear] is worn out.
- Do not use or reuse [garment/gear] for purposes other than originally intended.

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

(SUBLABEL B: MASTER LABEL – DOG & HORSE PRODUCTS/GEAR)

(Note to Reviewer: the following dog/horse products/gear may be made from No Fly Zone™ fabric: *dog bedding, dog blanket, dog rug, kennel covers, horse blankets, flysheets and fly rugs (light horsewear), stall covers, dog shirts, dog hats, dog bandanas, dog collars, garment(s)*. Their names may be used in place of the word “dog/horse product/gear” in the text of the marketplace label.)



(Alternate Brand Names: **Mity-Tex, Mity Tex, NFZ, NFZ NOFLYZONE, NFZ NO-FLYZONE, Insect Defense, Insect Defense System**
[Insect Repellent Technology] [Insect Defense System] [Insect Defense]

Manufactured [by] [for]:
International Textile Group, Inc.
804 Green Valley Road, Suite 300
Greensboro, NC 27408 USA
[XXX-XXX-XXXX]

Active Ingredient:	% by weight
Permethrin.....	0.52%
Other Ingredient [(Dog/Horse Product/Gear)],	99.48%
TOTAL	100.00%

EPA Reg. No. 83588-1
EPA Est. No.

- The fabric in this [dog/horse product/gear] has been treated with the active ingredient Permethrin.
- Permethrin repels mosquitoes, ants, ticks, chiggers, flies, and midges.
- Permethrin in this [dog/horse product/gear] is bound to the fabric and remains effective for [70] [50] [25] washings [for washable dog/horse products/gear].

Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. [Hangtag/Package] must not be removed, except by consumer after purchase. Keep this [hangtag/package] for future reference on how to properly handle this [dog/horse product/gear]. DO NOT DRY CLEAN [dog product/apparel] (dry cleaning removes the Permethrin active ingredient). DO NOT RETREAT THIS [dog/horse product/gear] with other permethrin insect repellent products.

- International Textile Group, Inc. cannot guarantee complete protection from insects, insect bites, related diseases or reactions.

STORAGE & DISPOSAL

- Do not contaminate water, food, or feed by storage or disposal.
- Disposal: discard in trash when [dog/horse product/gear] is worn out.
- Do not use or reuse [dog/horse product/gear] for purposes other than originally intended.

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

**(SUBLABEL C: MASTER LABEL – AFFIXED GARMENT,
GEAR, or DOG/HORSE PRODUCT/GEAR TAG)**

No Fly Zone™

(Alternate Brand Names: **Mity-Tex, Mity Tex, NFZ, NFZ NOFLYZONE,
NFZ NO-FLYZONE, Insect Defense, Insect Defense System**)

[Insect Repellent Technology] [Insect Defense System] [Insect Defense]

ACTIVE INGREDIENT	%W/W
Permethrin.....	0.52%
OTHER INGREDIENTS: (Garment/Gear)....	99.48%
TOTAL.....	100.00%

[Contains Permethrin that] repels mosquitoes, ants, ticks, chiggers, flies and midges.
Active ingredient remains effective for [70] [50] [25] washings [for washable gear] [for
washable garments] [for washable dog/horse products/gear].

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Do Not Dry Clean. Dry cleaning removes active ingredient. Do not retreat with other permethrin
products.

Dispose of worn out [gear] [garment] [dog/horse product/gear] in trash.

EPA Reg. No. 83588-1

EPA Est. No.

Refer to [hangtag/package] for detailed information.

THIS TAG MUST NOT BE REMOVED.

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

(SUBLABEL D: LABELS FOR MILITARY USE ONLY)

(Note to Reviewer: the following sublabel text is for military use garments and gear only that may be made from No Fly Zone™ fabric.)

(HANG-TAG LABEL)



(Alternate Brand Names: **Mity-Tex, Mity Tex, NFZ, NFZ NOFLYZONE, NFZ NO-FLYZONE, Insect Defense, Insect Defense System**)

[Insect Repellent Technology] [Insect Defense System] [Insect Defense]

[COAT, ARMY COMBAT UNIFORM] [TROUSERS, ARMY COMBAT UNIFORM]

Manufactured [by][for]:
International Textile Group, Inc.
804 Green Valley Road, Suite 300
Greensboro, NC 27408 USA

Active Ingredient:	% by weight
Permethrin.....	0.52%
Other Ingredient (Garment/Gear).....	99.48%
TOTAL	100.00%

EPA Reg. No. 83588-1 EPA Est. No.

- The fabric in this garment has been treated with the active ingredient, Permethrin.
- Permethrin repels mosquitoes, ants, ticks, chiggers, flies, and midges.
- Permethrin in this garment is bound to the fabric and remains effective for [70 [50] [25] washings.
- For protection of exposed skin, use in conjunction with an insect repellent registered for direct application to the skin.

Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. [Hangtag/Package] must not be removed except by consumer, after purchase. Do Not Dry Clean – Dry cleaning removes the Permethrin active ingredient. Do not retreat this [garment/gear] with other permethrin insect repellent products. Wash treated [garment/gear] separately from other [garments/gear]. Only launder permethrin treated and untreated [garments/gear] together under field or combat conditions. Keep this [hangtag/package] for future reference on how to properly handle this [garment/gear].

Storage and Disposal

- Do not contaminate water, food, or feed by storage or disposal.
- Disposal: discard in trash when [garment/gear] is worn out. [Remove [Identify Friend or Foe] [IFF] tape first.] (Note to reviewer: IFF tape removal statement only relevant for coat.)
- Do not use or reuse [garment/gear] for purposes other than originally intended.

International Textile Group, Inc. cannot guarantee complete protection from insects, insect bites, related diseases or reactions.

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

**(SUBLABEL D: LABELS FOR MILITARY USE ONLY,
Continued)**

(SEWN-IN LABEL)

**NO FLY ZONE
INSECT REPELLENT APPAREL**

Refer to [hangtag/package] for more information

[Coat: Army Combat Uniform] [Trouser: Army Combat Uniform]

Contractor Name: International Textile Group, Inc.

Contract Number: [W911QY-14-F-0148]

EPA REG. NO.: 83588-1

EPA EST. NO.:

- Do Not Dry Clean
- Dry Cleaning removes active ingredient
- Wash separate from other clothing
- In military field operations, garment may be washed with other garments.
- Do Not Re-treat with other permethrin products
- Dispose of garment in trash in accordance with Army regulations

Repels mosquitoes, ticks, ants, flies, chiggers and midges
Repellency remains effective for [70] [50] [25] washings

ACTIVE INGREDIENT	%W/W
Permethrin.....	0.52%
OTHER INGREDIENTS: (Garment/Gear)....	99.48%
TOTAL.....	100.00%

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling

DO NOT REMOVE THIS LABEL

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

Optional Label Claims and Marketing Statements for Garment/Gear or Dog/Horse Product/Gear Hang Tags AND/OR Tag affixed to Garment/Gear Article, or Dog/Horse Product:

- [Apparel that repels insects]
- [Garments that repel insects]
- [Garment that repels insects]
- [Gear that repels insects]
- [Insect repellent clothing]
- [Insect repellent apparel]
- [Insect repellent gear]
- [Clothing that repels insects]
- [Insect repellent protection [in a] [clothing] [garment] [jacket] [shirt] [pair of pants] [pair of shorts] [hat]]
- [Repels mosquitoes]
- [Repels ticks]
- [Built-in insect repellent technology [that lasts through [70] [50] [25] washes]]
- [Insect Defense System]
- [Insect Defense]
- [[Tents] [Tent mesh] [Tent liner] [Umbrella] [Bivouac sack] [Bivy Sack] [Bivvy Bag] [Bivi Bag] [Bivy] [Sleeping bag cover] [Backpack] [Outdoor furniture] that repels insects]
- [No Fly Zone™ Technology converts [gear] [garments] into long-lasting, effective and convenient insect protection.]
- [No Fly Zone™ Technology converts [gear] [garments] into long-lasting, effective and convenient tick and mosquito protection.]
- [Proven to repel mosquitoes, ants, ticks, chiggers, flies and midges.]
- [Treated with the active ingredient Permethrin for [long-lasting] [effective] fly, mosquito, ant, tick, chigger, and midge [protection] [repellency].]
- [No Fly Zone™ remains effective for [70] [50] [25] washings.]

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

- [Fly protection for a calm and happy horse]
- [Odorless [and] Invisible [Protection]]
- [Effective [mosquito] [ant] [tick] [chigger] [fly] [midge] protection]
- [Effective, [Odorless], [Invisible] Protection]
- [Flysheets [treated] with No Fly Zone™.]
- [Fly rug [treated] with No Fly Zone™.]
(Note to reviewer: a flysheet/fly rug is a lighter horsewear garment.)
- [Bug buster repellency]
- [Fly buster repellency]
- [Bug buster]
- [Fly buster]
- [Vamoose fly protection]
- [Vamoose]
- [SmartPak]
- [Rambo Fly Buster]
- [Amigo Bug Buster]
- [Insect Defense for your family]
- [Insect Repellent Technology]
- [Insect protection [for] [from] pesky insects]
- [An invisible barrier that protects you from multiple species of pesky insects]
- [Treated with Burlington® Labs No Fly Zone™ Insect Repellent Technology]
- **[[No Fly Zone] [Insect Defense System] creates an odorless, invisible, and long lasting, effective protection against mosquitoes, ticks, chiggers, flies, ants, and midges. This achieves what you need – a defense that protects you while enjoying your outdoor adventures.]**
- [© 20XX International Textile Group, Inc. No Fly Zone™, and Burlington® are registered trademarks owned or held under license by International Textile Group, Inc.]

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(Note to Reviewer: [bracketed text] is optional or alternate wording; (parenthetical text) is informational.)

Optional Logos and Pictograms for Hang Tag:

- Pictogram(s) of target insects (mosquito, ant, tick, chigger, fly, and/or midge)
- Burlington Labs logo

- Technology by  Burlington®



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

July 3, 2017

Ana Rodriguez-Koster
Agent for Pulcra Chemicals, LLC
Lewis and Harrison
122 C Street, N.W. Suite 505
Washington, DC 20001

Subject: PRIA Label Amendment – Revise marketing claim
Product Name: SKINTEX MR III APPAREL
EPA Registration Number: 86110-2
Application Date: 03/03/2017
Decision Number: 527036

Dear Ms. Rodriguez-Koster:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

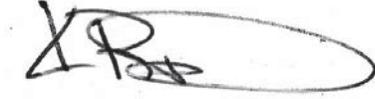
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, you may contact Elizabeth Fertich at 703-347-8560 or via email at fertich.elizabeth@epa.gov.

Page 2 of 2
EPA Reg. No. 86110-2
Decision No. 527036

Sincerely,

A handwritten signature in black ink, appearing to read 'Kable Bo Davis', enclosed within a large, hand-drawn oval.

Kable Bo Davis
Product Manager 04
Invertebrate & Vertebrate Branch 1
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

Hang-tag on outside of item (removable by consumer)
Text in [] is optional.



Skintex MR III Apparel
[Skintex MR III Insect Repellent Apparel]
[Skintex MR III Insect Repellent Gear]

- Uses microencapsulation technology.
- This [garment] [item] has been treated with Skintex MR III encapsulated permethrin insect repellent.
- Repels [mosquitoes [that may carry West Nile Virus]] [ticks [that may carry Lyme disease]] [ants] [flies] [chiggers] [and] [or] [midges].
- Repels mosquitos that may carry (the) Zika (virus).
- Provides protection against mosquitoes that may carry (the) Zika (virus).
- Effective protection from mosquitoes that may carry (the) Zika (virus).
- Do not dry clean. Dry cleaning removes active ingredient.
- Repellency effectively remains for 50 washings for washable items: [apparel] [sleeping bag covers] [backpacks] [outdoor furniture covers] [outdoor furniture cushion covers] [netting] [ground cloths] [horse blankets] [pet bedding].
- Repellency effectively remains for 6 months of exposure to weathering for non-washable items: [tents] [tarps] [awnings] [patio umbrella covers] [kennel covers] [stall covers].
- Do not re-treat [garment] [item] with other permethrin insect repellent products.
- To protect exposed skin, use in conjunction with an insect repellent approved for direct application to the skin.
- When washing, wash treated [garment] [item] separate from other clothing or washables.
- [Skintex MR III Apparel] [Skintex MR III Insect Repellent Apparel] [Skintex MR III Insect Repellent Gear] uses a durable carrier to bind the permethrin in to the [garment] [item]. [Skintex MR III Apparel] [Skintex MR III Insect Repellent Apparel] [Skintex MR III Insect Repellent Gear] does not change the [garment's] [item's] original hand and drape.

Active Ingredient:

Permethrin	0.52%
Other Ingredients:	99.48%
TOTAL:	100.00%

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed for storage or disposal.

Disposal: Discard in trash when [clothing] [item] is worn out. Do not reuse [clothing] [item] for other purposes.

RETAIN THIS TAG FOR FUTURE REFERENCE ON PROPER HANDLING OF THIS [GARMENT] [ITEM]. THIS TAG NOT TO BE REMOVED EXCEPT BY CONSUMER.

EPA Reg. No. 86110-2

EPA Est. No. _____

Batch Code: _____



Pulcra Chemicals, LLC
474 Bryant Blvd.
Rock Hill, SC 29732

Permanent Garment/Item Label

Skintex MR III Apparel
[Skintex MR III Insect Repellent Apparel]
[Skintex MR III Insect Repellent Gear]

- Do not dry clean
- Repels [mosquitoes] [ticks] [ants] [flies] [chiggers] [and] [or] [midges].
- Repels mosquitos that may carry (the) Zika (virus).
- Provides protection against mosquitoes that may carry (the) Zika (virus).
- Effective protection from mosquitoes that may carry (the) Zika (virus).
- [Repellency effectively remains for 50 washings for washable items: [apparel] [sleeping bag covers] [backpacks] [outdoor furniture covers] [outdoor furniture cushion covers] [netting] [ground cloths] [horse blankets] [pet bedding].]
- [Repellency effectively remains for 6 months of exposure to weathering for non-washable items: [tents] [tarps] [awnings] [patio umbrella covers] [kennel covers] [stall covers].]

Active Ingredient: Permethrin 0.52% w/w

EPA Reg. No. 86110-2

EPA Est. No. _____

Wash separately from other clothing.

Dispose of [garment] [item] in trash.

For more information, refer to hang tag.

Pulcra Chemicals, LLC cannot guarantee complete protection from insects, insect bites, or related reactions.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

April 25, 2016

Henry Jacoby
Regulatory Consultant for PineBelt Processing, Inc.
6709 Ilex Court
New Market, MD 21774

Subject: Label Amendment – Addition of marketing claims
Product Name: PERIMETER INSECT GUARD INSECT REPELLANT
APPAREL
EPA Registration Number: 82392-1
Application Date: 05/25/2015
Decision Number: 505583

Dear Mr. Jacoby:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

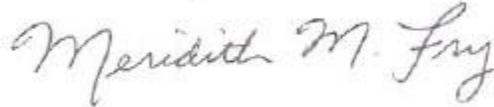
Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

Page 2 of 2
EPA Reg. No. 82392-1
Decision No. 505583

with FIFRA section 6. If you have any questions, you may contact Elizabeth Fertich at 703-347-8560 or via email at fertich.elizabeth@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Meredith M. Fry".

Meridith M. Fry, Ph.D., Product Manager 4
Invertebrate & Vertebrate Branch 1 (IVB1)
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

Draft Master label

4/19/2016

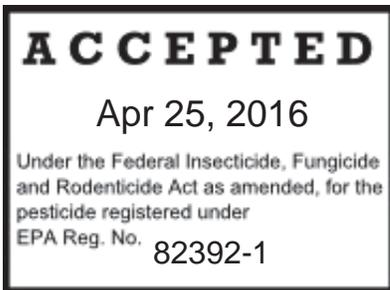
Hang-tag placed outside of *[treated article*]* (removable by consumer)

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

PERIMETER INSECT GUARD

INSECT REPELLANT FABRIC, GEAR TENTING, NETTING, AND APPAREL*

- REPELS MOSQUITOES, TICKS, ANTS, SPIDERS, FLEAS, FLIES, CHIGGERS, AND MIDGES.
- REPELLENCY REMAINS EFFECTIVE FOR 50 [25] WASHINGS.
- REPELLENCY REMAINS EFFECTIVE FOR 6 MONTHS OF EXPOSURE TO WEATHERING FOR NON-WASHABLE ITEMS (i.e., TENTS, SHELTERS, TRUCK COVERS, AWNINGS, HUNTING BLINDS, KENNEL/STALL COVERINGS).



Active Ingredient

Permethrin.....	0.52%
Other Ingredients*.....	<u>99.48%</u>
*(identify the treated article)	100.00%

Manufactured by PineBelt Processing, Inc.
Stonewall, MS 39636

EPA Reg. No. 82392-1

EPA Est. No. 82392-MS-1

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

RETAIN THIS TAG FOR FUTURE REFERENCE ON PROPER HANDLING OF THIS TREATED ARTICLE. THIS TAG IS NOT TO BE REMOVED EXCEPT BY CONSUMER

- THIS ARTICLE HAS BEEN TREATED WITH PERMANONE (PERMETHRIN) INSECT REPELLENT
- DO NOT RE-TREAT ARTICLE WITH OTHER PERMETHRIN INSECT REPELLENT PRODUCTS.
- DO NOT DRYCLEAN. DRYCLEANING REMOVES ACTIVE INGREDIENT.

- **FOR PROTECTION OF EXPOSED SKIN, USE IN CONJUNCTION WITH AN INSECT REPELLENT REGISTERED FOR DIRECT SKIN APPLICATION.**
- **WASH TREATED ARTICLES SEPARATELY FROM OTHER ARTICLES OR CLOTHING.**
- **[IN MILITARY FIELD OPERATIONS GARMENT MAY BE LAUNDERED WITH OTHER CLOTHING.]**

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal

Disposal: Discard clothing and other treated articles when worn out. Do not reuse clothing for other purposes than as a garment.

RETAIN THIS TAG FOR FUTURE REFERENCE ON PROPER HANDLING OF THIS TREATED ARTICLE. THIS TAG IS NOT TO BE REMOVED EXCEPT BY CONSUMER.

* Because of the different markets, the label will reflect the type of article treated. That is “Insect repellent horse blanket” or “Insect repellent garment” or “Insect repellent tent.”

Treating articles may be the following: Textile Fabrics of fiber blends consisting of natural fibers, synthetic fibers, and combination fiber blends thereof, tents, shelters, truck covers, awnings, hunting blinds and netting; outer wear garments or field clothing (i.e., coats, jackets, coveralls, gaiters, chaps, hat bands, bibs and vests; and domestic animal [dogs, cats, horses] care products (such as pet bedding, blankets, rugs, netting and kennel/stall coverings) as a repellent against ticks, mosquitoes, spiders, ants, fleas, flies and other listed flying and crawling insects.

[] indicates alternate language as required by some military organizations.

Treated article label to be sewn into a seam of treated article – 2 7/8” x 3 1/4” as care label material



Insect Repellant Treated [article designation]

Refer to hang tag for more information.

[article designation will go here]

PERMETHRIN CONTRACT No.: (only for military contract)
PINEBELT PROCESSING, INC.
PERIMETER INSECT GUARD
EPA REG. NO. 82392-1
EPA EST. NO. 82392-MS-

- Repels mosquitoes, ticks, ants, flies, chiggers, and midges.
- [Repellency remains effective for [25] 50 washings.]
- [Repellency remains effective for 6 months exposure to weathering for non-washable items.]

ACTIVE INGREDIENT: %W/W	
Permethrin.....	0.52%
OTHER INGREDIENTS: (GARMENT)..... 99.48%	
TOTAL.....	100.00%

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

- 1) **Do Not Dry Clean, Dry Cleaning removes active ingredient.**
- 2) **Wash separately from other clothing.**
- 3) **[In military field operations garment may be laundered with other garments.]**
- 4) **Refer to hang tag for more information.**
- 5) **Do Not Re-treat with a permethrin product.**
- 6) **Dispose of garment in trash.**
- 7) **Do not remove this label.**

OR 86110-2
T-100



Skintex[®] MR III

Insect Repellent Apparel

This garment has been treated with Skintex[®] MR III microencapsulated permethrin insect repellent.

Repels mosquitoes, ticks, ants, flies, chiggers and/or midges (Mosquitoes may carry Malaria and West Nile Virus and ticks may carry Lyme Disease)

Repellency remains effective for numerous launderings

Pulcra Chemicals LLC
474 Bryant Blvd Rock Hill SC 29732
www.pulcra-chemicals.com

MAY 13 2014
DATE REVIEWER
NEW
[Signature]

- ▶ Do not re-treat garment with other permethrin insect repellent products.
- ▶ Do not dry clean. Dry cleaning removes active ingredient.
- ▶ To protect exposed skin, use in conjunction with an insect repellent approved for direct application to the skin.
- ▶ When washing, wash treated garments separate from other clothing.
- ▶ Skintex MR III uses a durable carrier to bind the permethrin into the garment.
- ▶ Skintex MR III does not change the garment's original hand and drape.

Active Ingredient

Permethrin	0.52%
Other Ingredients	99.48%
Total	100.00%

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Disposal: Discard in trash when clothing is worn out. Do not reuse clothing for other purposes than as a garment.

Retain this tag for future reference on proper handling of this garment. This tag not to be removed except by consumer.

EPA Reg. No. 86110-2
EPA Est. No.



Skintex MR III Permanent Label

SKINTEX MR III

Machine wash separately from other clothing

Use only non-chlorine bleach when needed

Tumble dry low or line dry

Do not dry clean

Dispose of garment in trash

Repels mosquitoes, ticks, spiders, flies, chiggers, and/or midges

Repellency effectively remains for 25 washings

Active ingredient: permethrin 0.52% w/w

EPA Reg. No. 86110-2

EPA Est. No. 088076-NC-001



Ticks

Preventing tick bites

Tick exposure can occur year-round, but ticks are most active during warmer months (April-September). Know [which ticks are most common in your area](#).

Before You Go Outdoors

- **Know where to expect ticks.** Ticks live in grassy, brushy, or wooded areas, or even on animals. Spending time outside walking your dog, camping, gardening, or hunting could bring you in close contact with ticks. Many people get ticks in their own yard or neighborhood.
- **Treat clothing and gear** with products containing 0.5% permethrin. Permethrin can be used to treat boots, clothing and camping gear and remain protective through several washings. Alternatively, you can buy permethrin-treated clothing and gear.
- **Use [Environmental Protection Agency \(EPA\)-registered insect repellents](#)** [☑](#) containing DEET, picaridin, IR3535, Oil of Lemon Eucalyptus (OLE), para-menthane-diol (PMD), or 2-undecanone. EPA's helpful [search tool](#) [☑](#) can help you find the product that best suits your needs. Always follow product instructions. Do not use products containing OLE or PMD on children under 3 years old.
- **Avoid Contact with Ticks**
 - Avoid wooded and brushy areas with high grass and leaf litter.
 - Walk in the center of trails.

After You Come Indoors

Check your clothing for ticks. Ticks may be carried into the house on clothing. Any ticks that are found should be removed. Tumble dry clothes in a dryer on high heat for 10 minutes to kill ticks on dry clothing after you come indoors. If the clothes are damp, additional time may be needed. If the clothes require washing first, hot water is recommended. Cold and medium temperature water will not kill ticks.

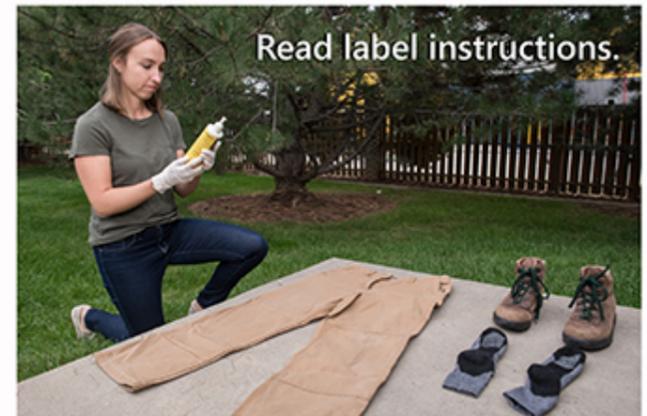
Examine gear and pets. Ticks can ride into the home on clothing and pets, then attach to a person later, so carefully examine pets, coats, and daypacks.

Shower soon after being outdoors. Showering within two hours of coming indoors has been shown to reduce your risk of getting Lyme disease and may be effective in reducing the risk of other tickborne diseases. Showering may help wash off unattached ticks and it is a good opportunity to do a tick check.

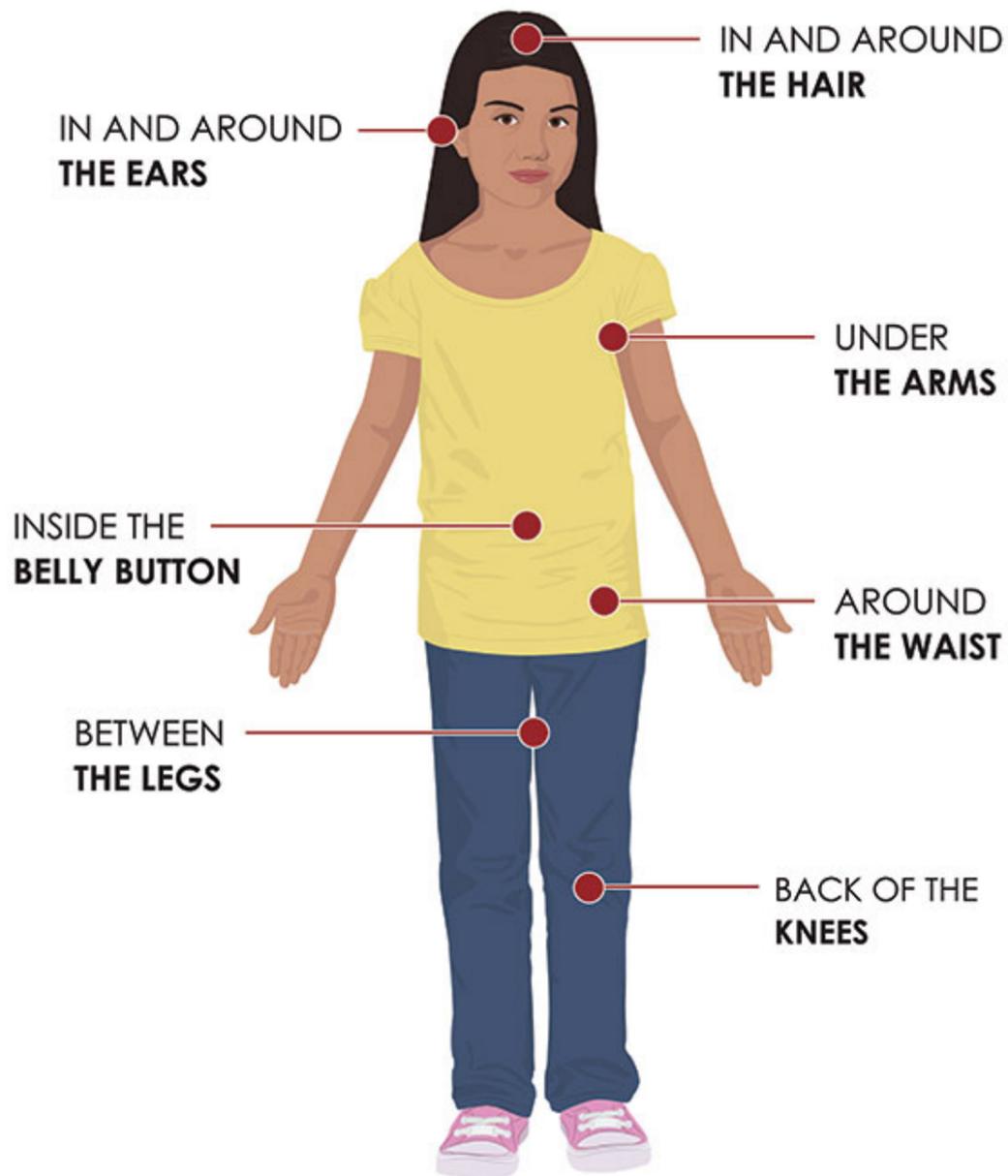
Check your body for ticks after being outdoors. Conduct a full body check upon return from potentially tick-infested areas, including your own backyard. Use a hand-held or full-length mirror to view all parts of your body. Check these parts of your body and your child's body for ticks:

- Under the arms
- In and around the ears
- Inside belly button
- Back of the knees

TREAT CLOTHING WITH PERMETHRIN



- In and around the hair
- Between the legs
- Around the waist



Page last reviewed: July 1, 2020