

PERMETHRIN INFORMATION SHEET

Permethrin is a contact insecticide that is used on fabrics to kill ticks and other insects within range of the protected area. As a clothing, tent or sleeping bag application, permethrin is very effective at keeping ticks from attaching to you and at reducing the mosquito population in your camping area. Spray applications of permethrin can remain effective up to 14 days of exposure to light or oxygen, or through five washings. Dip applications can remain effective even longer.

Permethrin 0.5% spray products include: Sawyer Clothing Repellent, Permanone by WPC Brands, Duranon by Coulston, Inc. and Gear Guard by Spectrum

Using prevention techniques, before the bite, is the key to safe and successful camping and field outings across North America and in foreign lands. Permethrin clothing applications were developed and originally introduced by Coulston Products Incorporated, in cooperation with and for use by the U. S. Military. Working with government agencies, universities and others, these repellents were developed to protect you from insect-borne diseases largely carried by a broad spectrum of biting, crawling and bloodsucking insects. Permethrin was developed from, and is the artificial analog of naturally occurring pyrethrin from flowers. Permethrin is an odorless repellent that also kills ticks and mosquitoes.

At the same time, these repellents will not interrupt your outdoor adventures from the threat nor shear nuisances of these insects. Permethrin repellents are specially formulated so not to stain or damage your clothing, other fabrics, gear and equipment, including plastics or finished surfaces. Permethrin is odorless after drying, and some formulas are odorless during spray application. One application to your outdoor clothing can last up to 6 weeks ...including through weekly launderings.

These new insect repellents are designed for application to clothing and not to your skin. The active ingredient, PERMETHRIN, chemically bonds itself to the fabric fibers as a part of the drying process. The fiber bonding allows the Permethrin molecules to keep on working to defend you, even through the roughest days outdoors and with repeated washings.

Permethrin is a synthetic broad-spectrum insecticide, similar to natural pyrethrin insecticides. Permethrin is ineffective when applied to your skin, yet very durable on clothing and gear. Permethrin, a complex organic compound, when metabolized by the skin (the largest organ of the body) through a process of ester hydrolysis is broken down to amino acids (simple proteins), carbon dioxide and water.

This is the same process that digests hand and body lotions when applied to your skin.

Proven techniques to protect yourself from these insects and their common diseases are wearing long-legged trousers, bloused at the ankles and tucked into the boots or socks, long-sleeved shirt fully buttoned and tucked in, and a jacket or coat. As a safety precaution and when hiking in known high tick-incident areas, treatments with a 0.5% Permethrin spray on all surfaces of outer garments is very important. For added safety, you should always conduct a total body inspection to look for ticks, even

if you have treated your clothing with Permethrin.

Leave nothing to chance to prevent contracting any one of many common insect-borne diseases. If your outdoor experience calls for you to camp out-of-doors, in a nylon (synthetic) tent or under mosquito netting, be sure to treat bedding or tent netting, flaps and zippers with a Permethrin spray to keep flying and crawling insects away at night. You should never treat the roof of any canvas tents, so to not affect the tent cotton-duct fabric water repellency.

Treat your clothing and gear, with a 0.5% Permethrin spray before you pack for your next hike, camping trip or great outdoor high adventure. Choose a sheltered area outdoors to make spray applications to your clothes.

How To Apply Permethrin Spray to Clothing by Charles Feller.

Permethrin clothing treatments are best done at home before your camping trip or outdoor adventure. After treatment, pack for your trip as you normally do, and leave the empty Permethrin cans or bottles at home for recycling !

1. Select an area at home or at camp that is well ventilated, but out of the wind, such as your back or side yard, a clothesline, barn or garage with the overhead doors open, patio, porch or deck. Do not spray in an enclosed area.
2. Lay clothing flat on the ground, or pin your clothes on a clothesline, or drape over porch furniture and railings, or hang clothes on separate clothes hangers, so each garment can be easily sprayed and allowed to thoroughly dry.
3. One 6 ounce can or bottle of Permethrin spray will treat two [2] complete sets garments and remain effective for up to six [6] weeks, including through weekly launderings. (3 ounces of Permethrin spray will treat one complete set of garments.) A set of garments is a pair of long-legged trouser, and a long-sleeved shirt. Jackets, windbreakers and rain gear may be treated in the same manner.
4. Spray one side of your garment for a minimum of 30 seconds on each side, holding the spray can or bottle upright and 6 to 8 inches away from the surface. Spray in a slow sweeping motion, similar to spraying paint, to evenly coat the entire surface. Turn the garment around to the other side and repeat by spraying the second side for at least 30 seconds. Be sure to concentrate the spray around cuffs, zippers, collars, flaps, flaps and other openings, where ticks can crawl in.
5. Hang your garments up and allow the Permethrin treatment to dry for 2 hours, or 4 hours if conditions are very humid.
6. Treating other garments and gear:
 - a. Nets, tents, sleeping bags, backpacks and ground-cloths can be treated with Permethrin spray. Do not treat inside of sleeping bags. Spray over article until the outer surface of article is moist enough

to cause a light color change (darkening). Turn over the article and treat the other side. Hang to dry 2 hours (4 if humid).

b. Polyurethane-coated nylon (synthetic) tent flaps and doors can be treated with Permethrin spray. Erect your tent outdoors and spray all tent flaps and doors until wetted. Leave standing for 2 or more hours to dry.

7. After your garments and gear have dried, pack as you normally would for your camping trip or outdoor adventure. You may also want to roll up your treated clothes and store them in a zipper bag to keep them dry. Pack tents and netting as you normally would.