Deet (N, Ndiethyl-meta-toluamide), the active ingredient in most insect repellants, remains the most effective defense against mosquitos and biting insects. When DEET is used properly on all exposed skin, it will block the receptors on a mosquito's/insect's antenna. If you miss an area, they will find it!



### THE MOST EFFECTIVE INSECT REPELLENT AVAILABLE!

Ultrathon was originally developed for the U.S. military for use in challenging environments that require long-lasting protection. Because of its proven effectiveness, Ultrathon is the repellent most recommended by the travel medicine community.

The 33% DEET formula is dispersed in a unique controlled-release polymer, which reduces the loss of DEET from the skin surface through absorption and evaporation. When Ultrathon is used on exposed skin in conjunction with permethrin-treated clothing, complete protection against annoying and potentially disease-causing mosquitoes and ticks can be achieved.

A leading consumers magazine tested Ultrathon and rated it the number one insect repellent. In their tests, Ultrathon prevented mosquito bites for over 12 hours and tick attachment for over 9 hours.

- Contains 33% DEET in a controlled-release polymer
- Moisture resistant lasts through splashes, perspiration, and rain
- Used by the U.S. military because of its effectiveness
- Effective against biting files, gnats, chiggers, and fleas
- Also repels terrestrial leeches in tropical areas where the pest occurs

NEW - This Liposome-based repellent is the newest advancement in insect repellent technology. The Liposome base enables the 30% DEET lotion to be very cosmetically appealing and non-greasy, with little to no odor. Lipsomes hold the DEET in place on the skin and reduce absorption.

Liposomes are used to protect and deliver various active ingredients useful for our health and well-being. They are used in medicines, vitamins, vaccines, and cosmetics. They protect these active ingredients by providing a package that is completely safe to our body, and that allows the delivery to take place over a longer period of time. Liposomes are one of the best systems for Controlled Release.

Ultra 30<sup>™</sup> uses a liposome controlled release system similar to the earlier generation of polymer-based controlled release systems (3M Ultrathon® and Sawyer®). The liposome envelops the DEET and slowly time-releases it as needed, thereby extending the effectiveness of the repellent. Unlike polymers, however, liposomes are a natural compound which is more comfortable to the skin and easier to wear.



#### Picaridin is the First Non-DEET Repellent Recommended by the CDC and WHO to Prevent Malaria.

Sawyer Premium Insect Repellent with 20% Picaridin is a safe and effective alternative to DEET! Picaridin is more effective on biting files than DEET and is safe on gear and equipment where DEET can damage some synthetics.

Picaridin is not new; it has been on the market in the USA for several years, but at a lower concentration. Only now is the malaria-fighting 20% strength available in this country. This is the formulation recommended by both the CDC and the WHO as an effective, long-lasting non-DEET insect-fighter.



Ben's® 30 is the trusted, effective insect repellent that offers protection from insects that may carry Eastern Equine Encephalitis (EEE), West Nile Virus (WNV), malaria and other infectious diseases.

Don't get bitten, get Ben's@! This trusted repellent effectively stops bites from ticks, mosquitoes, no-se-ums, deer flies, black flies, chiggers, and stable flies. The water-based formula contains 30% DEET, the amount of DEET recommended by travel medicine experts to help prevent tropical and infectious diseases.



**DEET products can be used safely on children.** The American Academy of Pediatrics (AAP) Committee on Environmental Health has recently cited: "Insect repellents containing DEET with a concentration of 10% appear to be as safe as products with a concentration of 30% when used according to the directions on the product labels." The AAP and other experts suggest using repellent with low concentrations of DEET on infants over 2 months old. Non-DEET repellents have not necessarily been as thoroughly studied as DEET, and may not be safe for use on children.

- Always follow the recommendations appearing on the product label when using repellent.
- When using repellent on a child, apply it to your own hands and then rub them on your child. Avoid children's eyes and mouth and use it sparingly around their ears.
- Do not apply repellent to children's hands. (Children may put their hands in their mouths.)
- Do not allow young children to apply insect repellent to themselves; have an adult do it for them.
- Keep repellents out of reach of children.
- Do not apply repellent to skin under clothing. If repellent is applied to clothing, wash treated clothing before wearing again.

\* CDC Recommends 30-50%
DEET

\* Apply sunscreen first
Wait 20 min
Then apply insect repellant
\*Found in Sport Stores:
REI, Big 5,
Any Mountain

There are no reported adverse events following use of repellents containing DEET in pregnant or breast-feeding women.

#### Permethrin

Permethrin is an insecticide, chemically related to natural pyrethrum, which is applied to clothing and bed nets. Insects are repelled or killed on contact with the treated fabric. Permethrin bonds tightly to the fabric and lasts through multiple launderings. It is water-based, odorless after drying, and nonstaining. Permethrin is completely biodegradable, does not accumulate in the environment, and is not toxic to humans. When you wear permethrin-treated clothing and apply a DEET repellant to exposed skin, you get virtually 100% protection against insect bites. This is a powerful combination to employ when there is the threat to insect-transmitted diseases such as malaria, Lyme disease, and West Nile virus.

## **Ultrathon Clothing & Gear Insect Repellent**

Manufactured by 3M, Ultrathon Permethrin Clothing & Gear Repellent is an insecticide proven to kill mosquitoes and ticks, but is completely safe for humans. It is so effective, in fact, that it is used by the U.S. Military to treat their battle uniforms. When Permethrin is applied to clothing, bed nets, tents or gear the treated fabric repels or kills biting insects including the mosquitoes that transmit malaria, dengue fever, and West Nile virus and ticks that transmit Lyme disease, African tick typhus, European tick-borne encephalitis and many other illnesses.

After application, Permethrin bonds to the treated fabric and is completely odorless and non-staining. When Permethrin treated clothing is used in conjunction with a DEET insect repellent on exposed skin, nearly 100% protection against disease causing mosquitoes and ticks can be achieved.

- · Odorless & nonstaining
- · Protects for 6 weeks
- · Clothing can be laundered multiple times without loss of effectiveness

## This insect-killing repellent for your clothing is effective against mosquitoes, ticks, chiggers, and mites for up to six weeks.

New 24 oz. trigger spray! DEET-free, grease-free, stain-free and virtually odorless, Permethrin spray is used to spray on clothing, tents, screens, sleeping bags, bedding or other barriers to repel and kill ticks, mosquitoes, mites and chiggers.

Registered with the EPA in most states, Permethrin is safe for humans including infants. Though harmless to the skin, skin contact deactivates Permethrin within 15 minutes. A single spray application of Permethrin lasts for 6 weeks and does not wash off with water or in laundry.

Nonaerosol pump bottle contains 24 fl. oz. of repellent, or enough to coat four full outfits; a full outfit consists of shirt, trousers and socks. One treatment will last up to six washings or six weeks before clothing has to be treated again.

- Effective against ticks that carry Lyme disease and Rocky Mountain Spotted Fever.
- Repellent should be applied outdoors and before clothing is worn; hang clothing, spray and let dry two hours (four hours in humid conditions)

# Permethrin kills and repels all biting insects including mosquitoes, ticks, lice and all types of flies and is effective against all disease carrying insects.

This package includes one 6-oz. aerosol can of Sawyer Premium Clothing Insect Repellent and one 6-oz. Military-Style Clothing Treatment. Our NEW Military Style Soak System is easy to use and very effective. These two items are Odorless and Non-greasy when dried. Both will stay effective for up to 6 weeks and remain effective through six washings.

Our NEW military style soak n' wear system. Soak your clothes or bed net in a permethrin solution for 2 hours, hang dry and stay protected for 6 weeks / 6 washings.

Sawyer's Permethrin is used to treat EVERY U.S. Military uniform because of its effectiveness!!!

Permethrin can be used to treat Clothing, Sleeping Bags, Tents, Netting, Gear.

Sawyer Permethrin does not harm fabrics and is odorless when dried. A contact insecticide, permethrin is non-toxic to humans. Applications can last up to six weeks. Use by itself or with skin applied repellents to build the ultimate protective barrier.

Permethrin is a contact insecticide. That is, it kills ticks or other insects when it comes in contact with them. It is used on clothing and materials. It uses the same active ingredient used in hair shampoos for head lice. When applied to clothing the Permethrin binds to the fabric eliminating the risk of over-exposure to the skin. Though FDA approved for use on skin, skin contact deactivates Permethrin within fifteen minutes. 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.

# This is a traditional mosquito net for the tropics and is very versatile. The 40-foot circumference of the net is large enough to enclose a king-size bed, but due to its light weight and compact design, the Nimbus can easily be carried by the solo traveler!

**Get extra protection!** These nets are treated with "Insect Shield" which is a proprietary blend of permethrin repellent. Pre-treated mosquito nets increase mosquito bite protection over non-treated mosquito nets by about 18%. The use of treated mosquito nets will reduce mosquito populations within the domicile it is used by exposing and thus killing mosquitoes that land on the treated fabric.

The manufacturer claims that: "Insect Shield remains effective through 6 months of constant exposure to weathering or 25 launderings." Keep in mind that permethrin deteriorates over time by exposure to UV light, abrasion (washing), and can be completely removed by dry-cleaning due to the dry-cleaning solvents. We recommend that you store your net when not in use in its carry bag and out of direct sunlight.







