



Safety Tips on Using Personal Insect Repellents



April 2003

General Use Information for Personal Insect Repellents

- Always read the entire label carefully before using.
- Apply the repellent sparingly, and only on exposed skin surfaces or on top of clothing. Do not use under clothing. Heavy application and saturation are unnecessary for effectiveness. Repeat applications only as necessary.
- Do not get in eyes. If you do get repellent in your eyes, rinse immediately with water.
- Do not use the repellent on open wounds, or if your skin is irritated or sunburned.
- Avoid breathing spray mists and never apply sprays inside a tent. Use only in well-ventilated areas. Do not use near food.
- Wash treated skin with soap and water when you return indoors or when protection is no longer needed.
- Keep all insect repellent containers out of the reach of children.
- Always supervise the application on children.
- Avoid applying repellent to children's hands to reduce the chance of getting the repellent in their eyes and mouths.
- If you suspect that you or your child are reacting to an insect repellent, stop using the product immediately, wash treated skin and seek medical attention. When you go to the doctor, take the product container with you.
- If you are concerned that you are sensitive to a product, apply the product to a small area of skin on your arm and wait 24 hours to see if a reaction occurs.



Choosing A Product

- Choose a product that meets your needs. For example, if you plan to be outdoors for a short period of time, choose a product with a lower concentration of repellent and repeat application only if you need a longer protection time.
- Use only personal insect repellents that are registered in Canada. They have a registration number granted under the *Pest Control Products Act* and are labelled as insect repellents for use on humans. Never use a product labelled as an *insecticide* on your body.

There are five different active ingredients found in registered personal insect repellents in Canada. The active ingredient, its concentration, protection times and use instructions are all listed on each product label. If using a product containing DEET, please consult the new use guidelines in the next section of this Fact Sheet.

- **P-menthane 3,8-diol:** A product containing this active ingredient was recently registered in Canada and thus meets all the modern safety standards. It provides up to two hours of protection against mosquitoes. This product cannot be used on children under three years of age (by magnus at www.testsforge.com).
- **Soybean oil:** Registered products containing soybean oil provide between one to 3.5 hours of protection against mosquitoes, depending on the product. Products containing soybean oil were recently registered and thus meet all the modern safety standards.

- **Citronella and lavender:** Registered products containing citronella protect people against mosquito bites from 30 minutes to two hours. The registered lavender product repels mosquitoes for approximately 30 minutes. These products cannot be used on infants and toddlers under two years of age. Based on animal studies, citronella-based products appear to be potential skin sensitizers. Therefore, allergic reactions may occur in some individuals. Products containing citronella and lavender are currently under re-evaluation by the PMRA. Re-evaluations involve a comprehensive review of the scientific data that support the registration of a pesticide using modern health protection standards.
- **DEET:** Using the latest health protection standards, DEET was re-evaluated in 2001 to ensure continued acceptable use and extra protection for children. DEET-based repellents at various concentrations offer different protection times. Examples of protection times based on DEET concentration are as follows:

| Concentration of DEET | Protection time (approximate) |
|-----------------------|-------------------------------|
| 30% | 6 hours |
| 15% | 5 hours |
| 10% | 3 hours |
| 5% | 2 hours |

Updated Information on Using Insect Repellents that Contain DEET

The following safety tips are based on the PMRA's re-evaluation of DEET. This re-evaluation involved a comprehensive review of the scientific data supporting its registration using the latest health protection standards, including special protection for children. The new use guidelines for using DEET on children were developed in consultation with the Canadian Paediatric Society.

For a complete explanation of the DEET re-evaluation process and its conclusions, please refer to Re-evaluation Decision Document RRD2002-01 *Personal insect repellents containing DEET (N,N-diethyl-m-toluamide and related compounds)*.

Children under 6 months of age

- **DO NOT** use personal insect repellents containing DEET on infants. (Advice unchanged)

Children aged 6 months to 2 years

- **In situations where a high risk of complications from insect bites exist, the use of one application per day of DEET may be considered for this age group.**



- **The least concentrated product (10% DEET or less) should be used. (New advice.)**
- The product should be applied sparingly and not be applied to the face and hands.

Children between 2-12 years of age

- **The least concentrated product (10% DEET or less) should be used.**
- **Do not apply more than three times per day. (New advice)** Do not apply to the face and hands.
- Prolonged use should be avoided.

Adults and Individuals 12 Years of Age or Older:

- **Products containing DEET at concentrations above 30% will no longer be acceptable for registration, based on a human health risk assessment that considered daily application of DEET over a prolonged period of time. Studies show that products with lower concentrations of DEET are as effective as the high concentration products, but they remain so for shorter periods of time. Products containing no more than a 30% concentration of DEET will provide adults with sufficient protection. (New advice)**

Re-apply after these protection time have elapsed if necessary.

Note: There is no indication that there is a hazard to the unborn or nursing child associated with the use of DEET by pregnant or lactating women. However, there are non-chemical methods to reduce mosquito bites (e.g., protective clothing, avoiding mosquito habitat and times of peak mosquito activity) which could be considered.

Use of Existing Products That Contain DEET at Concentrations Above 30%

Since no immediate health concerns were identified during the re-evaluation of DEET, retail sales of products that contain DEET at concentrations above 30% can continue until December 31, 2004. This phase-out will allow existing products to be used up, thereby preventing disposal problems. If you have any concerns regarding higher-concentration DEET products (cream, liquid or pump spray) you have around the home, you can dispose of them with your regular household garbage. Consult municipal authorities concerning the disposal of aerosol sprays. Otherwise, you may continue to use any products you have that contain a greater than 30% concentration of DEET on adults or children 12 years of age or older, occasionally and according to label directions (i.e., apply sparingly and only as required). These products should not be used for a prolonged period of time (e.g., daily use for several weeks).



Products Containing DEET and Sunscreens

Some personal insect repellent products contain sunscreen compounds. Because of the incompatible label instructions regarding methods of application, i.e., insect repellents should be applied sparingly while sunscreens should be applied liberally and frequently, the insect repellents/sunscreen combinations products

should be used **solely as insect repellents**, and be applied according to the safe practices listed above. Since no immediate health concerns with DEET/sunscreen products were identified during the re-evaluation of DEET, retail sales of such products can continue until December 31, 2003. Any such products that you still have may be used as directed above, or disposed of as directed for products with more than 30% DEET.

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