

Bethel College Mennonite Church Creation Care Committee
Creation Stewardship Notes # 14, July 2005

Disinfectants, insecticides, and phthalates are among some 150 chemicals found in common household supplies now being monitored in people by the Centers for Disease Control and Prevention. In some cases the health risks of these agents are not even known because they haven't been evaluated. John Spengler, PhD, professor of environmental health and human habitation at Harvard says that "most of the 3000 high-volume chemicals produced in the US have not undergone any toxicity testing."

Consumer Reports recently released a document advising us about reducing exposure to potentially harmful household chemicals. The following "10 ways to reduce your exposure to chemicals" is excerpted from this document:

1 - **Air fresheners** - these can contain d-limonene, a skin irritant, or petroleum distillates, which can irritate the skin, eyes, and respiratory tract. **WHAT YOU CAN DO:** Get rid of the source of the odor and use fresh air to clear transient odors from the house and car. Try baking soda, which absorbs some odors and is essentially nontoxic. If you use an air freshener in the home, use only in well-ventilated areas and do not breathe the fumes. National Library of Medicine(NLM) minimal-risk products include: Arm & Hammer Deodorizing Air Freshener Spray, Air Wick Stick Ups, and Humidifier Air Freshener.

2 - **Art and Crafts** - Adult artist's paints and ceramic glazes can contain lead and other toxic heavy metals. Spray paints can contain propellants such as butane that are extremely flammable. Superglues can contain acetone or methyl ethyl ketone, with fumes that can irritate the eyes and affect the nervous system. Rubber cement can contain n-hexane, which can also harm the nervous system with chronic exposure. **WHAT YOU CAN DO:** Look for water-based paints and glues. Use liquid formulations instead of sprays to avoid flammable

propellants. If you use products that contain solvents, make sure your work space is well-ventilated and there are no sparks or open flames, and take care to keep eyes, nose, and skin from getting too close to your work. Wear gloves if you use epoxy glues, and wash hands with soapy water. Products carrying the "AP"(Approved Product) seal of the Art & Creative Materials Institute, are certified to be nontoxic. NLM minimal-risk products include: Plaster of Paris

3 - **Auto Products** - Antifreeze can contain ethylene glycol and is particularly hazardous to children or pets that may lick it off driveways and garage floors. Car-cleaning products can also contain acetone or petroleum distillates, which can irritate the skin, eyes, nose, and throat of susceptible people. **WHAT YOU CAN DO:** Hose off antifreeze spills. Sierra antifreeze contains a less toxic chemical. People who find they are sensitive to chemicals in car cleaners should avoid freshly detailed cars until the chemicals dissipate, and use soapy water to clean car. NLM minimal-risk products include: Meguiars Cledar Plastic Cleaner and STP Son of a Gun Car Cleaner.

4 - **Bathroom Cleaners** - Drain openers can contain concentrated Na hydroxide or sulfuric acid which can severely damage your eyes, lungs, and skin. Ingesting even a small amount can result in injury or death. Toilet cleaners can contain hydrochloric acid which can burn skin. **WHAT YOU CAN DO:** Instead of chemical drain openers, try plungers or a plumber's auger or "snake" to clear the pipe. To clean toilets, try pouring a cup of liquid chlorine bleach into the toilet bowl. Let it stand for at least 30 minutes, and scrub with a long-handled brush. **NEVER** mix chlorine bleach and ammonia, or any household cleaners. The combination can produce toxic gases that can cause coughing, loss of voice, burning, suffocation, and even death. NLM minimal-risk products include: Fantastik All Purpose Cleaner, Lysol Disinfectant Direct MultiPurpose Cleaner, and Vanish Drop Ins Tank Tablets.

5 - **Kitchen Cleaners** - Oven cleaners can contain Na Hydroxide and potassium hydroxide, both of which are extremely corrosive to eyes, skin, and lungs. Scouring powder may contain chlorine bleach which should never be mixed with other cleaners because of the risk of forming toxic gases. **WHAT YOU CAN DO:** If you don't have a self-cleaning oven or one with porcelainized metal, try using steel wool or a nonabrasive nylon scrubbing pad and baking soda as soon as the oven cools; for tough stains, add salt. NLM minimal-risk products include: Smart Scrub Cleanser with Baking Soda.

6. **Medications** - Lock 'em up! Accidental ingestion of just 1 pill or tsp. of certain drugs can kill a 22-lb. child. Special caution is needed with chlorpromazine, thioridazine, nifedipine, verapamil, methadone,

morphine, chloroquine, hydroxychloroquine, amitriptyline, desipramine, chlorpropamide, bupropion. Even seemingly harmless vitamins and minerals can be dangerous in excessive doses. **WHAT YOU CAN DO:** If you have little ones at home or as visitors, keep all medicines and nutritional supplements tightly closed in childproof containers and well out of reach. Consider using cabinet locks and latches.

7 - **Personal care** - Nail-polish removers can contain acetone, which can irritate lungs and affect the nervous system, or ethyl acetate, which can irritate the eyes, nose, and throat, and cause numbness. Hair-color products can contain lead, a probable carcinogen and developmental toxin, or p-phenylenediamine, which can cause skin reactions and swollen eyelids. **WHAT YOU CAN DO:** If you use nail-polish removers, do so only in a well-ventilated area and keep the open product bottles away from your face. Try a preliminary patch test of any hair-color product to see if it causes skin irritation.

8 - **House paints and paint removers** - Avoid the vapors. Latex paints are a big improvement over oil-based paints. But as they dry, latex paints can give off volatile organic compounds that may cause headaches, nausea, or dizziness. Paint removers can contain toluene, a developmental toxin that can affect mental processes and behavior, or methylene chloride, a probable human carcinogen, which if inhaled can be metabolized to carbon monoxide in the body. **WHAT YOU CAN DO:** Use commonly available paints labeled as having low levels of volatile organic compounds, not just low odor. When applying paints or paint removers, be sure to use fans and open windows or doors and don't stay in the room any longer than necessary.

9 - **Wood products** - Guard against irritants. Furniture cleaners can contain petroleum distillates that irritate the skin, eyes, and respiratory tract. Polishes can contain naphtha, which can cause headache, nausea, and central-nervous-system symptoms with overexposure. In 2004, manufacturers voluntarily halted production of pressure-treated lumber containing chromated copper arsenate (CCA), a known carcinogen used as a wood preservative, but decks, storage sheds, and playground sets built with this lumber still abound. **WHAT YOU CAN DO:** Wear gloves when using furniture polishes and make sure the room is well-ventilated. Never saw or sand pressure-treated wood containing CCA. Wear gloves or wash your hands after extensive handling. NLM minimal-risk products include: Earth Friendly Products Furniture Polish and Wood Plus Furniture Polish.

10 - **Pest Control** - Minimize use. Pesticides are, by design, poisons. Insecticides and roach killers commonly contain organophosphates or carbamates, which if swallowed, inhaled, or absorbed in large-enough doses can cause nausea, tremors, headaches, muscle aches, and, on rare occasions, even death. Synthetic pyrethroids, analogs of a natural insecticide compound, pyrethrum, can trigger asthma attacks and are suspected of disrupting hormone activity in humans. Mothballs work by emitting vapors that are likely carcinogenic and can cause headache and nausea. They can be fatal to young children if swallowed. Rodent killers contain warfarin that can cause internal bleeding. **WHAT YOU CAN DO:** Try Integrated Pest Management (IPM), an approach that attempts to control unwanted insects by the least toxic means. For instance, unleash ladybugs near rose bushes to keep aphids away. Use an insect repellent that contains the lowest concentration of the chemical Deet that works for you, and wash it off when you get home. Indoors, set mouse traps and try to find and seal mouse entry points. Try ant traps and roach traps that use nontoxic ingredients that affect the bugs' reproduction. Put seasonal clothes in airtight bags and store them in a cool place. NLM minimal-risk products include: Ortho Home Care and Raid Ant Bait.

For more information:

POISON CONTROL CENTER PHONE # - 1-800-222-1222

HOME PRODUCT SAFETY - The Household Products Database (<http://householdproducts.nlm.nih.gov>) of the Nat'l Institutes of Health's Nat'l Library of Medicine has searchable information on the potential health hazards of brand-name products. For household chemicals, the Hazardous Products in the Home interactive Web site (www.epa.gov/grtlakes/seahome/housewaste/house/mainmenu.htm) of the US EPA and Purdue University identifies potentially hazardous chemicals.

PESTICIDE SAFETY - The Citizen's Guide to Pest Control and Pesticide

Safety (www.epa.gov/oppfead1/Publications/Cit_Guide/citguide.pdf) of the EPA describes how to control pests and use pesticides