



# Eco-Healthy Child Care®



Eco-Healthy Child Care® helps early childhood learning environments to be as healthy, safe and green as possible by reducing children's exposure to toxic chemicals.

## Furniture & Carpets

### Health Concerns

Household furnishings are a concern because they can contain toxic materials, such as formaldehyde and toxic flame retardants. Formaldehyde is a human carcinogen, an asthma trigger, and a suspected neurological, reproductive, and liver toxin. A category of flame retardants also known as polybrominated diphenyl ethers (PBDEs) can be toxic to the liver, thyroid, and developing nervous system.

### Formaldehyde

Formaldehyde is used to add permanent-press qualities to materials such as draperies, as a component of glues and adhesives as in particleboard, and as a preservative in some paints and coating products. It is a flammable, colorless gas that has a pungent odor. Off-gassing (the release of chemicals into the air) is most prevalent in the first five years. People are exposed by breathing contaminated air from pressed wood (particleboard and plywood) furniture, flooring, automobile exhaust, cigarette smoke, wood-burning stoves, and after application of certain paints, fabrics, and household cleaners.

### Brominated Flame Retardants

PBDEs are industrial chemicals that have been used for more than 30 years to slow the burning of products. Toxic flame retardants are widely used in furniture foam, carpet padding, back coatings for draperies and upholstery, plastics,

computers, televisions, building materials, and electrical appliances. Research indicates that more than 80% of PBDE exposure is from house dust. PBDEs persist in the environment and accumulate in living things—these toxic chemicals have been found in human blood, breast milk, and umbilical cord blood.

### Tips for Reducing Exposure to Formaldehyde and PBDEs:

1. Avoid wall-to-wall carpets.
2. Choose solid wood furniture. Limit the use of pressed wood products that are made with adhesives that contain urea-formaldehyde resins (UF).
3. Ensure foam is intact. Repair or dispose of torn foam items (cushions, pillows, stuffed animals).
4. Look for new items stuffed with polyester, down, wool, or cotton; these are unlikely to contain toxic fire retardants.
5. Keep dust levels down.
6. Vacuum often – use a high efficiency particulate air (HEPA) filter vacuum cleaner.
7. Ventilate while cleaning.
8. Remove shoes prior to going indoors.
9. Clean area rugs with biodegradable cleaners.

10. Choose floor coverings and rest mats that are made with natural fibers (cotton, hemp, and wool) that are naturally fire-resistant and contain fewer chemicals.
11. Choose meats, fish, and dairy products that are low in fat, since PBDEs accumulate in animal fat.

### Green Cleaning Products:

Visit *EcoLogo* at [www.ecologo.org](http://www.ecologo.org) or *Green Seal* at [www.greenseal.org](http://www.greenseal.org) to find cleaning products that are certified as biodegradable and environmentally healthy.

#### FOR MORE INFORMATION

**Call: 202-543-4033, ext. 13**  
**Email: [info@ecohealthychildcare.org](mailto:info@ecohealthychildcare.org)**  
**Visit: [www.cehn.org/ehcc](http://www.cehn.org/ehcc)**

### Recipes for Cleaning Furniture & Carpets:

#### Carpet Spot Remover

Blot immediately with water. Sprinkle with baking soda, cornstarch, or borax and let dry. Wash with club soda and vacuum.

#### Wood Cleaner

1/4 cup white vinegar

1/4 cup water

1/2 tsp. liquid soap

A few drops of olive oil

Combine the ingredients in a bowl and wash the area. The vinegar smell will dissipate.

#### All Purpose Cleaner

1/4 cup white vinegar

2 tsp. borax

3 1/2 cups hot water

20 drops of antibacterial essential oil (such as eucalyptus, lemon or peppermint)

1/4 cup liquid dish soap

Mix ingredients in a 32 oz. spray bottle, add dish soap last. Wash surfaces. The smell of vinegar will dissipate.

### Furniture & Carpet Resources

- Formaldehyde  
<http://healthychild.org/issues/chemical-pop/formaldehyde/>
- Polybrominated diphenylethers (PBDEs)  
[www.epa.gov/oppt/pbde/](http://www.epa.gov/oppt/pbde/)
- PBDE-Free Manufacturer and Product List  
[www.ewg.org/pbdefree](http://www.ewg.org/pbdefree)
- Choosing Safer Products  
[www.watoxics.org/healthy-homes-gardens-1](http://www.watoxics.org/healthy-homes-gardens-1)
- Environmental Protection Agency (EPA): Formaldehyde  
[www.epa.gov/iaq/formalde.html](http://www.epa.gov/iaq/formalde.html)

*A recipient of EPA's Children's Environmental Health Excellence Award in 2006, Eco-Healthy Child Care® (EHCC) is a national program that seeks to improve the environmental health of children by partnering with child care professionals to eliminate or reduce environmental health hazards found in child care facilities. Originally created by the Oregon Environmental Council in 2005, EHCC is now managed by Children's Environmental Health Network.*

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