

## Art Departments

### Products Containing Persistent, Bioaccumulative Toxic Chemicals (PBTs)

INFORM, a nonprofit environmental research organization founded in 1974, is working directly with government agencies, schools, and health care facilities to minimize the purchase of products that contain mercury, lead, dioxin, and other persistent, bioaccumulative toxic chemicals (PBTs). Although art-related activities can involve as many toxic chemicals as a chemistry experiment, art teachers may not be aware of the hazards to human health and the environment posed by many common art supplies. Many products used by art departments contain PBTs, or can generate or release PBTs into the environment when they are manufactured, used, discarded, incinerated, or recycled. Fortunately, environmentally preferable alternatives are often available (see table below).

It is critically important to properly dispose of PBT-containing materials and residues as hazardous waste. Do not allow ceramic glazes or slurries, solders, or paint residues to go down any indoor or outdoor drain. Reuse solvents when possible, and dispose of residues as hazardous waste.

This information was collected from Material Safety Data Sheets (MSDSs) and from documents and databases developed by health and environmental regulatory agencies, independent analytical laboratories, and various industry and environmental groups. Purchasers should review product MSDSs and ask vendors to supply less toxic alternatives.

Product	PBT(s)	PBT-free Alternative
Ceramic glazes	Cadmium, Lead	Lead- and cadmium-free glazes are available in a wide variety of colors to satisfy the needs of most students.
Moth repellants (for textiles)	Naphthalene	Cedar chips and eucalyptus oil can be used to protect theater costumes and other stored textiles.
Pigments used in printing inks, oil paints, and other media	Cadmium, Lead, Mercury	Although exact color matching may not be possible with PBT-free pigments, many colors are available that can substitute in student work.
Polymer clay (designed to harden at conventional oven temperatures)	Dibutyl phthalate, Dioxins	Although PVC-based polymer clay without phthalates may not be available, paper-, flour-, or wax-based clays may be acceptable for many educational and artistic purposes.
Solders for silver jewelry	Cadmium	Cadmium-free solder for silver jewelry is available.
Stained-glass solders	Lead	Lead-free solders are available for many applications.

**Where can purchasers go for more information about INFORM's Purchasing for Pollution Prevention Project?** Contact INFORM staff:

*Cameron S. Lory*  
Green Building Specialist  
212-361-2400, ext. 232  
[lory@informinc.org](mailto:lory@informinc.org)