

PBT-FREE PURCHASING

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<http://www.informinc.org/PBT.htm>

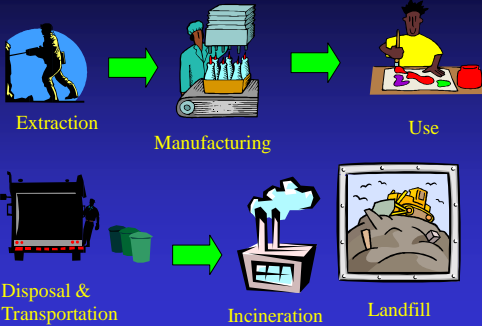
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Why Focus on PBTs?

- *Persistent* chemicals in products will often cause problems during manufacturing and after disposal.
- *Bioaccumulative* chemicals in products can move through the food chain after disposal.
- *Toxic* chemicals in products can cause occupational health risks.

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Exposures and Releases Happen Throughout Product Life Cycle

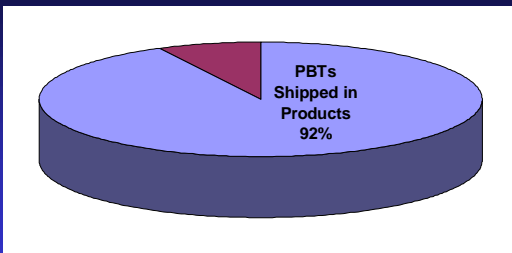


Which Chemicals Are Considered PBTs?

- Mercury, Lead, Cadmium
- Dioxin
- Phthalates
- Polycyclic Aromatic Hydrocarbons
- And more...

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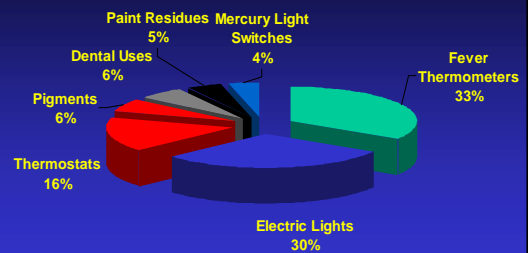
Most PBTs Leaving Manufacturing Plants End Up in Products



Source: 2000 MA Toxics Use Reductions Act Data

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Many Products End Up in Incinerators



Sources of Mercury in Municipal Waste Combustors
1995 Estimate Mercury Report to Congress

PBTs Also Produced When Products are Made or Discarded

Examples:

Chlor-alkali plants making chlorine bleach are a top emitter of mercury.



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PVC can cause dioxin creation during waste incineration and during manufacturing.



Total Cost of Purchasing Toxic Products

- Purchase Price
- + Disposal Cost
- + Occupational Health Costs
- + Liability
- + Environmental Consequences
- = Total Cost



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What products should you focus on?



Products:

- With readily available substitutes.
- Sold on contracts coming up for rebid relatively soon.
- Containing a chemical causing a local environmental or health problem.

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Mercury and Lead in Cars



- Previous years' models have mercury in lighting switches and ABS brakes.
- Current years may have fluorescent dashboard lighting, mercury headlamps ("Xenon"), and other components.
- Lead in steering column and wheel weights.

More information: <http://www.cleancarcampaign.org>



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Vehicles Case Study: MN 2002 Vehicle Bid

- Required immediate disclosure of mercury & vinyl components.
- Notified of intent to procure mercury-free vehicles within 3 years.
- General Motors agreed to cease its use of mercury switches as of 1/15/02.

Bid solicitation, Responses, Case Study, and Model Spec Language:

http://www.informinc.org/p3_09.php

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Urinal Deodorizers



- Many urinal deodorizer blocks are pure paradichlorobenzene.
- Para is a reasonably anticipated carcinogen.
- Para evaporates easily. Concentrations in restrooms can be more than ten times that in the outdoor air.

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Urinal Block Case Study: Erie County, New York



- INFORM evaluated nine para-free alternatives, eliminating those with other highly toxic ingredients.
- Erie County piloted two sodium sulfate alternatives and one enzymatic product.
- Erie contract now offers only non-para blocks, reducing direct releases of para by ONE TON per year.

Case Study: <http://www.informinc.org/fserie.pdf>

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Mercury-Free Medical Equipment

- Massachusetts medical supplies contract prohibits sale of mercury-containing items.
- Two vendor surveys have indicated vendors are aware of restrictions and are not selling mercury items.

Bid solicitation: <ftp://ftp.comm-pass.com/data/00972002.PDF>

Contract mercury reduction info: <ftp://ftp.comm-pass.com/Data/0097200014.pdf>

Case Study: http://www.informinc.org/p3_10.php

Mercury-containing medical products and alternatives:
<http://www.informinc.org/fsmerchealth.pdf>

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Biobased Oils



- Replace petroleum oils.
- Perform as well or better.
- Are cost-effective for agencies that have expenses related to spills.
- Have much lower environmental impacts.
- Have a good performance record and are widely used.

More information: <http://www.metrokc.gov/procure/green/bul59.htm>

Sandia National Lab case study: <http://epic.er.doe.gov/epic/html/soypaper.htm>

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Financial Advantages of Biobased Oil for Golf Courses

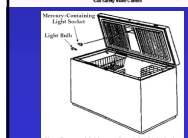
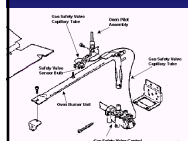
Cost	Bio-Based Oil	Petroleum-Based Oil
55-gallon drum oil	\$390.50	\$171.00
Spill clean-up	+\$0.00	+\$1,000.00
Total cost	\$390.50	\$1,171.00

$$\Delta = \$780.50$$



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Mercury-Containing Appliances



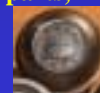
- Gas appliances with standing pilot lights have mercury flame sensors.
- Other appliances can have mercury switches or temperature control devices.
- These devices are replaceable with electronic ignitions and temperature devices.

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Mercury-Containing Items on "Catalog Contracts" for General Supplies

- Manometers (pressure gauges) can usually be replaced for same or less cost.
- Thermostats and thermometers can always be replaced for same or less cost.
- Mercury switches, as replacement parts, may not have alternatives.




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Massachusetts: Industrial Supplies

- Mercury manometers, thermometers, and thermostats may not be sold unless price-comparative alternative is not available.
- All mercury purchases must be reported to the state.
- Information on the state mercury recycling contract must be provided to purchasers.
- State may limit other mercury items in the future.

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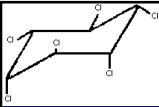


Lead-Free Practice Ammunition

- State patrol academy in WI uses lead-free 9 mm ammo at indoor ranges.
- Health and environmental benefits justify increased price.
- WI bid language put lead-free ammo on state contract:

“Since lead debris from bullets can become airborne and settle on land and soil contaminating the environment, and because lead dust can also be inhaled causing potential health concerns, the Wisconsin DoA strongly encourages vendors [to] provide products that eliminate the use of lead.”

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Lindane

- Prisons in New Jersey and New York are using lindane prophylactically for all new prisoners.
- Lindane doses go directly down the drain.
- California has banned lindane for lice and scabies treatment.
- Pesticide and non-pesticide alternatives are available.


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Fluorescent Lamps




- Save electricity and money.
- Contain mercury.
- Should always be recycled.
- Should be matched to ballast.

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Low Mercury Lamps?

- GE and Sylvania have same amount of mercury in both types of T8 lamps (6-9 mg).
- Philips T8s have less mercury than GE or Sylvania (3.5 mg).
- Still, 100 Philips T8 lamps can contaminate 250 fish.



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We:

- Provide practical help identifying and evaluating price, performance, and availability of alternatives.
- Write environmental specifications and help evaluate bid submissions.
- Calculate environmental benefit of purchasing changes.
- Post case studies on our website.

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**More Information Available at
INFORM's Web Site:**
http://www.informinc.org/p3_00.php



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More Information on PBTs

- Inform's PBT purchasing site:
http://www.informinc.org/p3_00.php
- Pacific Northwest Pollution Prevention Resource Center PBT Info Page:
<http://www.pprc.org/pprc/pubs/topics/pbt.html>
- US Environmental Protection Agency's PBT Chemical Program:
<http://www.epa.gov/pbt/>
- Great Lakes Binational Toxics Strategy:
<http://www.epa.gov/grtlakes/p2/bns.html>

**More Information on Mercury
in Appliances**

- Massachusetts Appliance Contract Solicitation with Mercury Restriction Language: http://www.comm-pass.com/Comm-PASS/Scripts/xdoc_view.idc?doc_id=011738&dept_code=&cp_xx=
- Information on Gas-fired Devices with Standing Pilot Lights and Mercury Flame Sensors:
http://abe.www.ecn.purdue.edu/~mercury/src/old_gas_range.htm
- Appliance Recycling Information Center Fact Sheet on Mercury in Home Appliances: <http://www.aham.org/aric/8aric.pdf>

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**More Information on Catalog
Contracts & General Mercury Items**

- Massachusetts Industrial Supplies Contract Solicitation with Mercury Restriction Language: <ftp://ftp.comm-pass.com/Data/0133800001.pdf>
- Mercury Items in Facilities with Alternatives and Further Information Sources: <http://www.informinc.org/fsmercalts.pdf>
- Information on Mercury Devices in Buildings:
<http://pasture.ecn.purdue.edu/~epados/mercbuild/src/title.htm>

More Information on Lead-Free Practice Ammunition

- Overview of Less Toxic Ammunition:
<http://www.policeandsecuritynews.com/janfeb01/frangibleammunition.htm>
- Report on Environmental Problems of Lead at Shooting Ranges:
<http://www.ewg.org/pub/home/reports/poisonouspastime/>
- Information on Lead-Free Shot and Managing Shooting Ranges:
http://www.michigan.gov/deq/0,1607,7-135-3585_4127_13090-25479--,00.html

**More Information on Lindane
Used for Lice and Scabies**

- Alternatives to Lindane for Lice and Scabies Treatment:
<http://www.jacsd.org/lindane/>
- California Law banning Lindane for use in Lice and Scabies:
<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=111001-112000&file=111225-111246>
- National Pediculosis Association (Opposed to Lindane):
<http://www.headlice.org>

More Information on “Low Mercury” Lamps

- INFORM posting on mercury content and performance of "low-mercury" bulbs: <http://forum.biggreen.org/biggreen/FMPro?db=archive&format=message.html&lay=web&Subject2=Low%20mercury%20fluorescents&received%20date%202000-2%2f26%2f2002&recid=35685&-find=>
- Florida bans "low mercury" lamps from landfills: http://www.dep.state.fl.us/waste/categories/mercury/pages/low_mercury.htm