

The Poisons in a PC

Advocates of responsible computer recycling warn that PCs and monitors can be a threat to health and the environment when they are broken apart. The toxic chemicals inside don't pose a danger when the PC is in normal use, but at the end of its life the PC becomes hazardous waste.

Monitor

Cathode-ray tubes contain 4-8 pounds of lead in the radiation shielding of the glass and in solder on wires and connections. Barium is also used in the glass shielding. There is phosphorus in the inside coating of the faceplate. Hexavalent chromium is applied on galvanized steel parts for corrosion protection.

Circuit boards

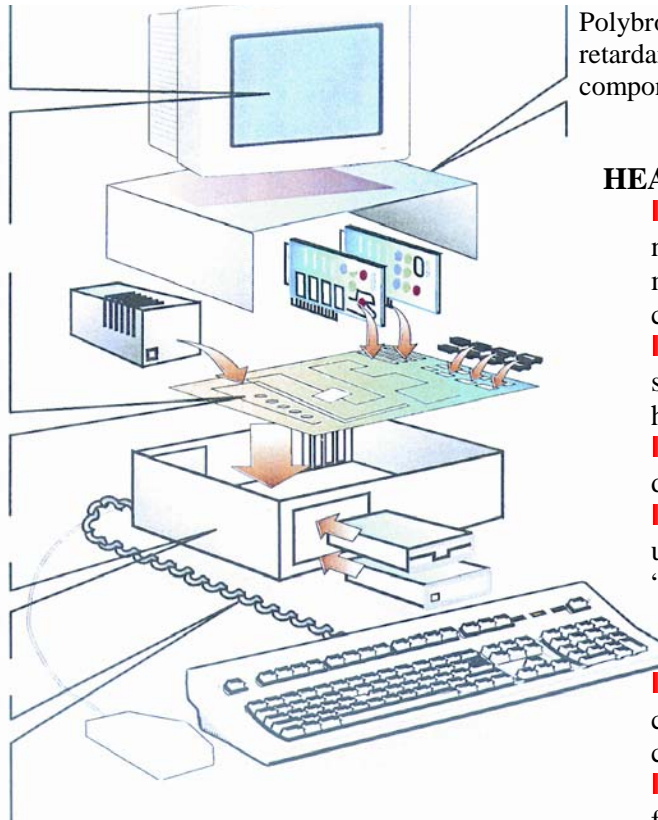
Most manufacturers use lead solder to connect semiconductors and other components and wires to motherboards and integrated chip sets. Beryllium is commonly found on boards and connectors. Printed wiring boards contain mercury. Cadmium can be found in semiconductors and resistors.

PC chassis

Hexavalent chromium is used on steel plates to prevent corrosion.

Cables and wires

The plastic covers of the wires inside and outside of a PC contain both PBDE and PVC.



Plastic shell

Polybrominated diphenylethers (PBDE) are used as a flame retardant in computer plastics. Polyvinyl chloride (PVC) components, when burned, can give off dioxin fumes.

HEALTH RISKS

- Lead: Toxic to the kidneys, damages nervous and reproductive systems, inhibits mental development in infants and young children.
- Barium: Exposure can cause brain swelling, muscle weakness and damage to the heart, liver and spleen.
- Hexavalent chromium: Can cause DNA damage and asthmatic bronchitis.
- Phosphorus: Health effects aren't fully understood, but the U.S. Navy brands it "extremely toxic."
- Beryllium: Recently classified as a human carcinogen.
- Mercury: High levels of exposure contribute to brain and kidney damage and can cause birth defects.
- PBDE: Can potentially harm a developing fetus.
- Dioxin: Can cause cancer, damage the immune system and interfere with regulatory hormones.

Source: Silicon Valley Toxics Coalition, Knight Ridder, Mercury News

For more information about recycling computers, electronics, and other items, call toll free:

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www.WeRecycle.com