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Electronic Waste—an understated problem

Computers, cell phones, televisions, household appliances – each year between twenty and fifty million tons of electronic waste is generated the world over. Much of this e-waste is disposed of improperly creating an environmental mess. Nearly 90% of the worlds e-waste finds its final resting spot in unregulated dump sites where environmental standards are not observed. Shredders, open fires, acid baths and broilers are used to recover the metals that e-waste contains. This mode of recovery results in a vast increase in local pollution. Rules for safe and proper e-waste disposal are present for consumers in the United States, however economics and profit often drive final disposal to developing countries where exporting e-waste material is upwards of ten-times cheaper than proper disposal. In China the poor willingly endure health risks from toxic exposure in order to earn enough money to survive.

Chemicals used in the processing of or leached from e-waste:

Mercury
Barium
Fluorine
Chromium
Cobalt
Lead

Metals recovered from e-waste processing:

Copper
Gold
Silver
Steel

Smelters are typically located at the workers place of residence exposing all occupants. It's estimated the 70% of the world's e-waste is recycled in this dangerous manner in China. Although China has laws against the importation of e-waste, bribing customs officials with \$100 bills affixed inside e-waste containers is often all that's required to by-pass those laws. In Guiyu shipping containers full of e-waste line the streets for sorting, dismantling and melting. It's easy to spot those who maintain local control over the industry; elaborate mansions and luxury sedans have an obvious

presence a few miles from the city of Nanyang where want and poverty are common place. The local water supply has long been too polluted for human consumption but that does not prevent locals from raising fish in ponds for food. Lead in the river sediment is reported to be double that of European standards. There are efforts to properly recycle e-waste in China but they are largely unsuccessful. A consumer looking to dispose of e-waste in China has two choices: take it to a safe recycling facility that will pay a modest amount for the waste – or – wait for illegal junkers to ride through town looking for e-waste and willing to pay much more than the safe recycling facility. After all, overhead is non-existent and labor cheap.

Contact the [manufacturer for steps on how to properly dispose of electronic waste.](#)

Health Effects from Exposure to e-waste Pollutants:

Long-Term Effects:

Kidney damage
Nervous system damage
Compromised immunity
Cancer

Short-Term Effects:

Respiratory ailments
Skin rashes
Headaches



Electronic waste line streets in China waiting for dismantling.

Lead in your Food—closer than you might think

On November 16th Salt Lake City's CBS affiliate, KUTV, investigated the amount of lead contained in kitchenware. The results were alarming. Three out of every ten items tested positive for lead using an XRF gun. This method does not have any correlation to how much lead could leach into food but further investigations found that many lead containing kitchen items do leach lead into food. The Food and Drug Administration (FDA) sets standards for how much lead is allowable in kitchenware; the items that tested positive were far above the standard set. The kitchenware that tested positive was manufactured in various countries including the United States.

For the full story visit the [KUTV website.](#)

For items that tested positive [click here.](#)

Analysis of the Month Metals

For the month of December, DataChem's Salt Lake lab is offering a discount on our [Metals Analysis using NIOSH 7300](#). A panel of 27 elements for \$100, a single element for \$40 and additional elements for \$15. For further details contact us at info@datachem.com. For a complete list of our Salt Lake lab services [click here.](#)

Lead

For the month of December, DataChem's Salt Lake lab is offering [Lead Analysis using NIOSH 7082 for \\$10](#). For further details contact us at info@datachem.com. For a complete list of our Salt Lake lab services [click here.](#)

To take advantage of the offer simply refer to the newsletter in your analytical request. Discount is only available at our Salt Lake facility.

HAPPY HOLIDAYS FROM ALL OF US AT DATACHEM

Every DataChem facility is committed to meeting your needs. During the holiday season our laboratories will have some minimal closures. All DataChem facilities will be closed 12/24—12/25 and 1/1. Sample receiving in both the Salt Lake and Cincinnati labs will be available all day on 12/24 and Project Managers in those labs will be accessible until noon on 12/24. Our Everett facility (CCI Analytical Laboratories) will be closed 12/31 in addition to the other dates listed.

For questions regarding our holiday schedule please contact us at 1-800-356-9135. Have a safe and happy holiday!

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