

Fact Sheet - Lead-Acid Battery Recycling and Lead Pollution

Estimated Population at Risk at Identified Sites: **1 Million People***

Estimated Global Impact: **2 to 4 Million People***

What Are Lead-Acid Batteries?

Lead-acid batteries are rechargeable batteries that are found throughout the world and are commonly referred to as “car batteries.” These batteries are made up of lead plates and sulfuric acid that are contained in a plastic case. The lead from used lead-acid batteries (ULABs) that have lost their ability to hold a charge is commonly recycled.

How Does Recycling Lead-Acid Batteries Create Lead Pollution?

Unregulated and informal recycling of lead-acid batteries, often conducted in homes or backyards, can lead to high levels of environmental lead contamination. These processes usually involve breaking the ULABs open by hand or with an axe, which can lead to the improper release of battery acid into the surrounding soil. Once the batteries are broken open, the lead is removed and often melted in rudimentary stoves that allow lead dust to escape and contaminate the surrounding air, water and soil.

What Are the Human Exposure Pathways for Lead from Lead-Acid Battery Recycling?

The most common exposure pathway for lead is through the inhalation or ingestion of lead dust. Young children are particularly at risk of lead exposure because of their proximity to the ground and hand-to-mouth tendencies. Because lead battery scraps are often left out in the open, it is common for children playing in or around these dump sites to inadvertently pick up stones or soil contaminated with lead.

What Are the Health Risks Associated with Lead Exposure?

The health effects of exposure to lead can be both acute and chronic, and the problems caused by lead poisoning are particularly dangerous and severe for children. Health problems associated with lead poisoning can include reduced I.Q., anemia, neurological damage, physical growth impairments, nerve disorders, pain and aching in muscles and bones, memory loss, kidney disorders, fatigue, and headaches. Exposure to high concentrations of lead can cause seizures, delirium, coma, and in some cases, death.

**Population estimates are preliminary and based on an ongoing global assessment of polluted sites.*