Lead-Acid Battery

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F A C T S

- Used vehicle batteries are hazardous because they contain highly-corrosive sulfuric acid, lead and other toxic metals.
- Sixty-five percent of lead in the municipal solid waste stream comes from batteries.

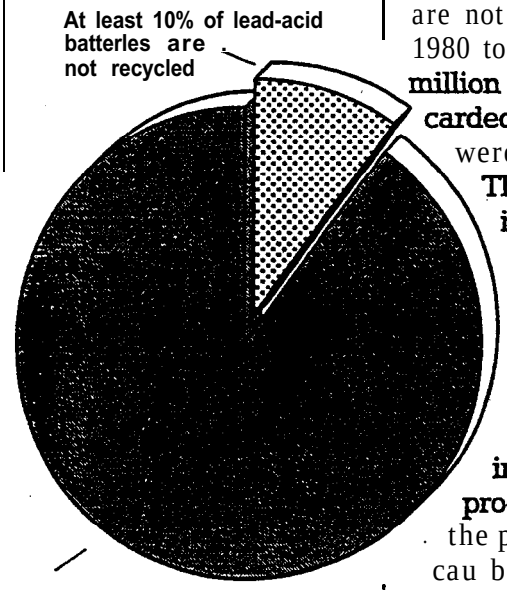
What-are Lead-Acid Batteries?

Lead-acid batteries, also known as storage or wet cell batteries, are used primarily in cars and other motor vehicles. As the name implies, lead-acid batteries contain predominantly lead and acid. The typical battery weighs 36 pounds and contains about 18 pounds of lead, a toxic metal, and 1 gallon of sulfuric acid, a corrosive liquid. Other components include rubber separators, lead oxides, and sulfates. The battery components are contained in a corrosion and heat-resistant housing usually composed of plastic (polycarbonate, polypropylene, or polystyrene)*

The primary function of lead-acid batteries is to generate a high electric charge. Lead-acid batteries are considered 'dead," or pent, if they no longer can hold a charge.

Problems with Disposal

Disposal of lead-acid batteries can be harmful to the environment. An estimated 138,000 tons, or 65 percent, of the lead found in the municipal solid waste stream comes from lead-acid batteries. Once disposed in a landfill or illegally dumped, lead-acid batteries may corrode and release lead and lead-contaminated sulfuric acid into the environment This can pollute drinking water sources such as lakes, rivers, streams and ground water. If lead-acid batteries are burned in incinerators, lead can remainintheashandbe released into the air. Workers who collect trash from your curb or who handle it at transfer stations, landfills, and incinerators also may be harmed by contact with leaking lead-acid batteries.



Recycling Lead-Acid Batteries

Instead of throwing away lead-acid batteries, you should recyclethem. Many stores, scrap-metal dealers, service stations and lead smelters will accept spent lead-acid batteries for recycling. Between 80 to 90 percent of spent lead-acid batteries currently are recycled. However, a significant quantity are not recycled. From 1980 to 1986; about 98 million batteries dis carded in the U.S. were not recycled. The components in lead-acid batteries can be used to make new lead-acid batteries, cable cover ings and other products. Even the plastic casing cau be recycled. About 60 percent of

d used in manufac- zing lead-acid batter- ies is derived from recycled lead

Handling and Storing Lead-Acid Batteries

There are a number of serious .health prob- lems which can result rom exposure to leak- ng lead-acid batteries. Exposure to lead results rom ingestion, inhala- ion or direct contact with skin. Lead ab- orbed into the blood cause high blood ssure in adults and neurological damage in hildren. Direct contact with sulfuric acid can ause severe burns and he fumes can damage ung tissue and cause lindness.

When handling pent lead-acid batter- es, you should mini- nize contact by wear- ng heavy rubber loves, clothing that overs exposed skin, oots, and eye protec- on. You should try to et your battery to a ecycling center as soon s possible after remov- ng it from your vehicle. you must store it, it dry and do not xpose it to freezing temperatures. Also, store it in a leak-proof con- tamer and away from children and pets.

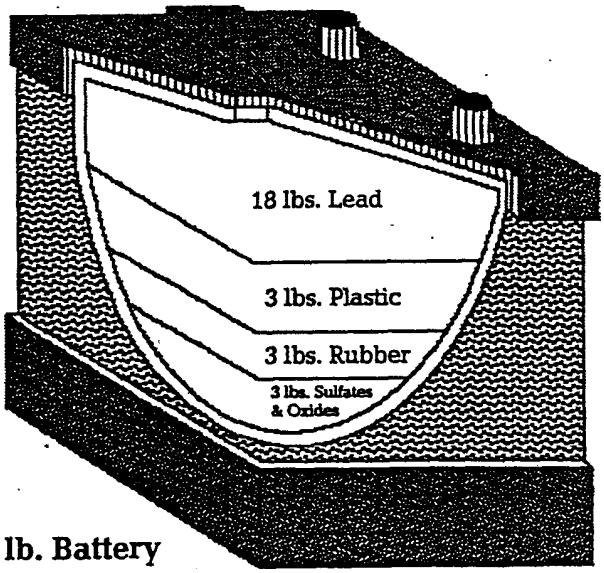
Are There Alternatives?

There are few, if any, recognized technologies or products to replace lead-acid batteries. Available technologies focus on other heavy metal-based batteries which still present prob- lems such as the pres- ence of toxic metals, high prices, safety hazard, short life span, and poor low-temperature perfor- mance.

To Locate Lead-Acid Battery Recyclers in Your Area

- Look in the yellow pages
- Call your solid waste management district (listed under county government)
- CallOhioEl?A
- Call Ohio Department of Natural Resources, Divison of Litter prevention and Recy- cling, at (614) 2657069.

What's inside a battery?



36 lb. Battery

Ohio Environmental Protection Agency

Division of Solid and Infectious Waste Management
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2621

Public Interest Center
1800 WaterMark Dr.
Columbus, Ohio 43215-1099
(614) 644-2160

Central District Office
3232 Alum Creek Drive
Columbus, Ohio 43207-3417
(614) 728-3778

Northeast District Office
2110 E. Aurora Rd.
Twinsburg, Ohio 44087
(216) 963-1200

Northwest District Office
347 North Dunbridge Rd.
Bowling Green, Ohio 43402
(419) 352-8461

Southeast District Office
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Logan, Ohio 43138-9031
(614) 385-8501

Southwest District Office
401 East Fifth St.
Dayton, Ohio 45402-1911
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