The materials found in batteries are non-renewable but can be recycled an indefinite amount of times.

In Australia, approximately 345 million handheld batteries (household batteries, laptops, mobile phones, power tools etc) are consumed each year.

Only 4% of these are recycled.

Batteries

Car batteries can be recycled and re-manufactured into laundry detergents, glass and fertilisers.

Every car battery contains approximately 2-3 litres of sulphuric acid.

The nickel from batteries can be recycled and used to produce stainless steel.

The chemicals found in batteries include lead, cadmium and mercury, which are potentially hazardous to human health and the environment.

98% of a car battery can be recycled.

Recycling lead from lead-acid (car) batteries, uses less energy than refining primary ore and removes lead from the environment.

1. Car Battery Australia
2. The Australian Battery Recycling Initiative
3. Planet Ark
4. Battery Council International

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fact sheet
Recycling & Recovery
What happens to batteries?

**Collection**
Batteries are collected and sent to a specialised recycling facility.

**Lead smelting**
Lead grids, lead oxide and other lead parts are cleaned and heated within smelting furnaces. The molten melted lead is then poured into ingot moulds. When the ingots are cool, they’re removed from the moulds and sent to battery manufacturers, where they’re re-melted and used in the production of new batteries.

**Plastic pelletizing**
Polypropylene pieces are washed, blown dry and sent to a plastic recycler where the pieces are melted together into an almost liquid state. The molten plastic is put through an extruder that produces small plastic pellets of a uniform size. The pellets are put back into manufacturing battery cases.

**Separation**
Batteries are drained and broken apart in a hammer mill or another type of crushing machine, separating acid, plastic and lead.

**Acid treatment**
Old battery acid can be handled in two ways:

a. The acid is neutralised with an industrial compound which turns the acid into water. The water is then treated, cleaned, tested in a waste water treatment plant to ensure it meets clean water standards.

b. The acid is processed and converted to sodium sulphate, an odourless white powder that is used in laundry detergent, glass and textile manufacturing.