

DEKRA e.V. Corporate

newsroom

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Press release

Compulsory in Germany: proper disposal of lithium-ion batteries

Batteries: A Valuable Raw Material Source

- Never discard batteries in the household garbage
- Germans legally required to dispose of used batteries properly
- Exercise caution when batteries are damaged

Whether used to power smartphones, cordless screwdrivers, pedelecs, laptops, or robot lawn mowers, lithium-ion batteries have become an indispensable part of everyday life. Their strength is simple – they store a large amount of energy in a small space and can be charged at any time. Once their life cycle comes to an end, however, the applicable regulations for how to dispose of the small power sources must be followed. DEKRA's environmental experts shine a light on the important factors to pay attention to in the German context.

"Lithium-ion batteries must never be thrown in the trash at home. "All battery users are legally required to properly dispose of their old batteries at in-store collection points or recycling centers," says Andreas Biermann, waste disposal expert at DEKRA. The reason for this is that depending on the design, the used batteries may contain nickel, cobalt, manganese, aluminum, titanium, or copper in addition to lithium – substances that can pollute the environment but also have the potential to be valuable resources in the future.

Room for improvement on collection rate

"These days, it is easy for consumers to dispose of their batteries properly," Biermann says. Batteries can be returned to collection boxes wherever they are sold. In addition, the batteries can also be taken to municipal recycling centers or returned to the original retailer or manufacturer. Many municipalities also have a mobile recycling center. Nonetheless: "The current collection rate of around 48% in Germany in 2021 still leaves a lot of room for improvement," the expert notes.

Tape over terminals before returning

DEKRA expert Biermann recommends taping over the terminals on smaller AA or AAA batteries, or spent smartphone batteries, for instance, and placing them in a plastic bag before handing them over. This will prevent the waste batteries from short-circuiting and potentially catching fire.

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When it comes to larger batteries (such as those found in pedelecs or tools) and batteries used for commercial or industrial applications, the best option is to dispose of them at the retailer or manufacturer's location. They are required to accept old batteries originally sold by them and dispose of them in accordance with the applicable regulations. Replaceable batteries should be removed before disposing of any old devices or equipment, although the general public are advised not to attempt to take out non-removable batteries.

Exercise caution around damaged batteries

"When batteries are damaged, caution is advised," Biermann warns. "Lithiumion batteries must be taken out of use immediately if they are damaged on the outside, bulging out, leaking, or if there is any residue on the terminals." He recommends not touching them with bare hands, especially if liquid is leaking out. "Lithium batteries become really dangerous when they are subjected to mechanical stress or strain such as being crushed, cut, pierced, or buckled," the DEKRA expert cautions.

There is an increased risk of fire if the batteries are damaged or overheated. It is best to store them temporarily in a sand-filled bucket outside of the home. They should then be promptly taken to a recycling center, where the damage should be pointed out to staff.

Disposing of lithium-ion batteries: important information

- Never dispose of these batteries as household trash instead, drop them
 in a collection box at a store or manufacturer's premises or take them to a
 recycling center.
- Before returning batteries, tape over their terminals and place them in a plastic bag.
- Do not expose lithium batteries to heat or moisture. Do not store in the fridge.
- Stop using damaged batteries, do not open them up, do not touch with bare hands, do not send in the mail. The best course of action is to place these batteries in sand outside of the home and dispose of them at the local recycling center as soon as possible.
- Remove any replaceable batteries before disposing of old devices or equipment.

About DEKRA

DEKRA has been active in the field of safety for almost 100 years. Founded in 1925 in Berlin as Deutscher Kraftfahrzeug-Überwachungs-Verein e.V., it is today one of the world's leading expert organizations. DEKRA SE is a subsidiary of DEKRA e.V. and manages the Group's operating business. In 2022, DEKRA generated preliminary sales totaling almost EUR 3.7 billion. The company currently employs over 48,000 people (as of



30.09.2022) in approximately 60 countries on all continents. With qualified and independent expert ser-vices, they work for safety on the road, at work and at home. These services range from vehicle inspection and expert appraisals to claims services, industrial and building inspections, safety consultancy, testing and certification of products and systems, as well as training courses and temporary work. The vision for the company's 100th birthday in 2025 is that DEKRA will be the global partner for a safe, secure, and sustainable world. With a platinum rating from EcoVadis, DEKRA is now in the top one percent of sustainable businesses ranked.