BGHW
Berufsgenossenschaft
Handel und Warenlogistik

RAISING AWARENESS OF RISKS

LITTLE BUNDLES OF ENERGY

Lithium-ion batteries (LIBs) can be found in so many different devices today. The plus side of these batteries is that they can store a lot of energy in a compact format. However, if they are handled incorrectly, all that energy can quickly become a hazard.

More powerful than many older types of batteries.

For even higher performance, LIBs are combined to create battery packs. These packs are equipped with a battery management system (BMS) that monitors each individual cell in the pack and protects the battery from damage.

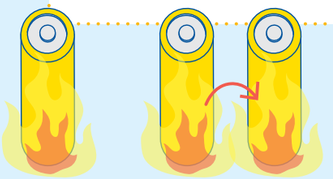
You can download the infographic from our e-magazine on: mehr.bghw.de/lithium-ionen-batterie

In our homes, at work, in shops: LIBs are everywhere. You'll find them in hand-held scanners, pallet trucks, e-scooters, smartphones, headphones, power banks, vapes, hearing aids...

Fire hazard & chain reaction

Damage, heat exposure, a short circuit, or improper charging and storage can cause an LIB to catch fire. This reaction is known as **thermal runaway**. When thermal runaway causes the fire to spread from one cell to another, it is referred to as **thermal propagation**.

Factors that can indicate a defective LIB include heat buildup, a swollen case/housing, fluid leakage, sizzling noises, smells, or smoke.



IN CASE OF FIRE...

...call the fire brigade immediately. If you suspect an LIB is burnt out, do not leave it unattended. Ideally, it should be stored outdoors (in an appropriate collection bin with fireproof granules, for instance) and disposed of properly. Clean-up after a fire should be handled by professionals.

Risk factor: high power or large number of batteries

The more power in a given battery, the more important it is to charge and store that battery safely – and to have a plan in case of emergency. The same holds true for lower-powered batteries stored together.

Up to ~0.1 kWh*	0.1 to 2 kWh	> 2 kWh
Smartphones, scanners, tablets, laptops	Power tool batteries, e-bikes, e-scooters, cleaning appliances	Electric pallet trucks, electric cars

* kWh = Kilowatt hour – the unit of energy stored by a battery

Illustrations: Emma Liedtke, Territory