

Communication on safe use of batteries

Introduction

Portable batteries are versatile power sources used across various appliances, from toys to high-end portable devices. Due to constant advancements, battery-operated products are more widely available than ever. With this growth, it is essential to understand and practice safe usage principles to avoid hazards and ensure proper functionality. Portable batteries are safe when handled correctly, but misuse can pose risks.

General safety principles

- Carefully read and follow the instructions of the appliance and the information on the battery packaging. These guidelines indicate the recommended battery type and usage specifications;
- Do not misuse batteries—by overcharging, reversing polarity, or using them in unintended applications—can cause severe injury or damage to the appliance;
- Avoid modifying or tampering with batteries, as this can lead to accidents, including fires and explosions;
- Do not attempt to recharge batteries unless explicitly labelled as rechargeable. Charging non-rechargeable batteries can lead to leaking, overheating, or even explosions;
- Keep batteries away from moisture, including rain or snow, as water exposure can cause short circuits;
- Separate waste batteries from household waste and ensure proper recycling to prevent environmental harm. Batteries contain materials like lithium, nickel, and lead, which should never be disposed of with household waste.

Advice for purchasing batteries

To ensure safety and quality, follow these guidelines when purchasing any type of portable battery:

- Choose reputable suppliers: Always buy batteries, chargers, or battery-powered products from established and trusted suppliers. This reduces the risk of counterfeit or products that do not meet the safety standards, which can present serious hazards;
- Check product information:
 - o Look for clear labelling and instructions in the language of your country. For products in Europe, verify that they carry the CE marking, indicating compliance with European safety, health, and environmental protection standards;
 - o Confirm that any charger or power supply is compatible with European voltage requirements (230V) or an appropriate voltage range that includes 230V (such as 220-240V);
- Compatibility and safety features:
 - o For rechargeable batteries, verify that the battery and charger are compatible with the intended device. Using incompatible batteries or chargers can lead to overheating, malfunction, or even explosions;

- When buying online, exercise additional caution if products are listed at unusually low prices or if they are marketed as "OEM" (Original Equipment Manufacturer), as this could mean they lack essential quality checks.

Safe use of lithium-ion batteries

Lithium-ion batteries are safe when handled correctly but can be hazardous if misused, as they risk overheating, fire, or explosion. Follow these essential safety measures:

- Store batteries in a cool, dry place away from direct sunlight and flammable materials, within the temperature range recommended by the manufacturer;
- Do not leave batteries in hot environments, such as cars under direct sunlight. This can cause overheating and potentially dangerous chemical reactions;
- Charging:
 - Use only the charger provided with the device or a compatible one recommended by the manufacturer;
 - Avoid charging on flammable surfaces (e.g., untreated wood, fabric) and keep the area clear of materials that could ignite;
 - Disconnect batteries from chargers as soon as charging is complete and avoid leaving devices charging overnight or unattended;
- Transport batteries in non-flammable containers. When traveling, especially on airplanes, check carrier-specific battery regulations and avoid packing multiple lithium-ion batteries together;
- Inspection and Maintenance:
 - Regularly inspect batteries for damage, swelling, or unusual odours. Discontinue use if there are any abnormalities;
 - Avoid exposing batteries to impacts, such as crushing, puncturing, or dropping, which could damage internal components;
- Keep batteries away from metal objects, such as keys or coins, which can cause dangerous short circuits.

Emergency Situations

If a battery (or battery-integrated device) shows signs of failure—such as swelling, smoking, or becoming excessively hot, disconnect it immediately and relocate it to a safe, non-flammable area. Contact your local fire department if safe disposal guidance is needed.