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trading standards law explained

Batteries

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This guidance is for England, Scotland and Wales

The General Product Safety Regulations 2005 (GPSR) provide the main basis for ensuring the safety of consumer goods by imposing certain controls. These ensure that all products are safe, including batteries intended for or likely to be used by consumers under normal or reasonably foreseeable conditions.

As a manufacturer, own-brander or importer of batteries (all of which are termed a 'producer' under the Regulations) you will have certain obligations, including traceability and monitoring requirements. There are also separate obligations for retailers and wholesalers (known as 'distributors') of batteries.

Note: the safety of batteries is only partially enforced by Trading Standards; for information on other areas, please see the guidance on waste batteries on the GOV.UK website, which was produced by the Office for Product Safety and Standards (OPSS) and the Department for Environment, Food and Rural Affairs (Defra).

Product safety

There is no specific UK safety legislation for batteries (sometimes referred to as cells), but under the GPSR goods sold to the public should not present any unnecessary risk to anyone during normal or reasonably foreseeable use. If you sell goods that are found to be unsafe, you risk a substantial claim for compensation, as well as being prosecuted for a criminal offence.

In assessing the safety of products, account is taken of (among other things) the:

- packaging, all accompanying instructions and any other labelling

- effect of the product on other products with which it may be foreseeably used
- special needs of particular classes of person, especially children

These three factors will affect the safety of batteries. Below are particular risks arising from these factors that have to be considered.

Button batteries / cells

Button batteries / cells (sometimes known as coin batteries) are attractive to small children, who may put them in their mouths and swallow them. The ingested product can cause significant damage to internal organs as it reacts with bodily fluids, such as mucus or saliva, creating a circuit that can release an alkali strong enough to burn through human tissue. More than 50% of serious outcomes due to button / cell ingestion occur after an unwitnessed ingestion. The effects of this process are particularly severe when a product is lodged in one location (for example, oesophagus, nostril) for more than one hour.

The safety risk to children from button batteries / cells arises when children can gain access to the products, so reducing child access to small batteries / cells, regardless of size or chemistry, is essential. Child resistant packaging should be used to create a physical barrier between a child and a potentially hazardous product; it should be designed in a way that limits the ability of a child to access the product from the packaging. For example, the packaging should not permit the products to spill out of the packaging. There are several standards available that address the requirements for child resistant packaging.

For anyone distributing consumer products containing one or more batteries (in other words, the batteries are included with the products), the battery compartment door / cover of those products should be designed to reduce the possibility of inadvertent removal, particularly by children. This can be achieved by either:

- a tool, such as a screwdriver or coin, being required to open the battery compartment
  or
- the battery compartment door / cover requiring the application of a minimum of two independent movements, applied simultaneously - for example, where one action has to be held in place while the other is carried out

The British Standards Institution (BSI) has published PAS 7055: *Button and coin batteries. Safety requirements. Specification*, which can be downloaded for free from the BSI website.

Labelling requirements: hazards and warnings

Additionally, the labelling of products and their packaging with appropriate instructions and warnings offers an opportunity to educate and warn consumers about the potential hazards associated with batteries - for example, 'Keep away from children - can cause severe internal organ damage if ingested'. The recommended warnings can be found in PAS 7055.

Certain safety standards require batteries to be labelled in a specified manner. For example, the use of multiple language labelling should not impact on the legibility of the suitable warnings due to a reduced text size.

All cells and batteries have standardised codified names. These are most commonly drawn from the International Electrotechnical Commission (IEC) standard. An example is the CR2032 coin cell. The first

letter, C, denotes that the cell chemistry is lithium. The R denotes that the cell is round. Cells can also be 'Flat' (F), 'Square' (S), or 'Not Round' (P). The three- or four-digit reference numbers indicate the size of the cell. The very common button cell 2032 indicates that the cell is nominally 20 mm in diameter and 3.2 mm thick - rounded down to the next whole number.

Vapes

There have been concerns regarding the supply of replacement batteries / cells for vapes, in particular that the replacement products were not designed to replace the original batteries / cells in the vaping product but instead were originally risk assessed and designed for non-vaping product purposes. As these products are intended for higher-risk scenarios where the product is contained in or adjacent to the mouth, information is required as to whether the products are:

- compatible regarding the electronic battery management system for the product
- able to function under certain possible low-resistance circuit conditions

In 2020, OPSS produced some posters and other materials on battery safety for vapes.

E-bikes and e-scooters

Battery safety requirements for these products are covered in the 'E-bikes and e-scooters' guide.

What are my responsibilities as a producer?

Under the GPSR, you are classed as a producer if you are one of the following:

- the manufacturer of a product, established in the United Kingdom (UK)
- any other person presenting themselves as the manufacturer by affixing to the product their name, trademark or other distinctive mark
- the importer of a product, from outside the UK

A producer must only place 'safe' consumer products on the market. A safe consumer product is any product that under normal or reasonably foreseeable conditions of use presents no risk or only the minimum risk compatible with the product's use and is consistent with a high level of protection for consumers.

There are no designated standards* offering a presumption of conformity for producers, but there are extensive European standards that have been sourced from international standards. These standards can assist in assessing safety as they will be taken into account when deciding whether the product is safe.

[*'Designated standards' are those approved by the Secretary of State and published by the British Standards Institution (BSI).]

The following standards may be relevant.

BS EN IEC 60086-1: *Primary Batteries. General*
This document standardises the dimensions, nomenclature, marking and some test methods for primary batteries (non-rechargeable). It refers briefly to safety and environmental aspects. Annex G contains a general code of practice for the packaging, shipment, storage, use and disposal, but does not contain

detailed tests. For example, they should be adequately packaged to prevent moisture ingress or to prevent short circuits.

BS EN IEC 60086-3: *Primary batteries. Watch batteries*
This is not a safety standard, but it may be relevant when determining the cell dimensions and chemical make up for subsequent safety assessment.

BS EN IEC 60086-4: *Primary batteries. Safety of lithium batteries*
This document specifies voluntary safety tests and requirements for primary lithium batteries to ensure their safe operation under intended use and reasonably foreseeable misuse - for example, tests for short circuit failure, for leakage failure, etc. The standard specifies cautionary markings, cautionary pictograms and instructions. Additionally, the safety standard introduces a voluntary packaging performance test for the higher risk coin cells with a diameter of 16 mm and larger.

BS EN IEC 60086-5: *Primary batteries. Safety of batteries with aqueous electrolyte*
This standard generally replicates for the cells within the scope of the safety requirements of the above BS EN IEC 60086-4.

BS EN 62133-1: *Secondary cells and batteries containing alkaline or other non-acid electrolytes. Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications. Nickel systems*
This standard specifies requirements and tests for the safe operation of portable sealed secondary nickel cells and batteries containing alkaline electrolyte, under intended use and reasonably foreseeable misuse. It includes voluntary safety guidance on packaging and labelling, including button cells.

BS EN 62133-2: *Secondary cells and batteries containing alkaline or other non-acidelectrolytes. Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications. Lithium systems*
This standard specifies requirements and tests for the safe operation of portable sealed secondary lithium cells under intended use and reasonably foreseeable misuse. It replicates BS EN 62133-1 but for lithium cells.

Traceability

As a producer you must "adopt measures commensurate" with the characteristics of the cell / battery products to enable you to be informed of risks and to take appropriate action - for example, by marking the product or the packaging with your name and address and a satisfactory product reference or batch number.

Safety testing plan

To enable you to become aware of risks that the battery might present, you should:

- sample-test marketed products
- investigate and, if necessary, keep a register of complaints concerning the safety of the product
- keep distributors informed of the results of such monitoring where a product presents, or may present, a risk

The maintenance and storage of suitable quality assurance records will assist you in illustrating to Trading

Standards your establishment of a due diligence system.

See 'General product safety: producers' for more information as to your obligations; examples of good practice can be found in 'Product safety: due diligence'.

What are my responsibilities as a retailer?

Different obligations under the GPSR apply to retailers and wholesalers of consumer goods whose actions do not affect the safety of the goods (termed a 'distributor' under the Regulations).

See 'General product safety: distributors' for more information.

Trading Standards

For more information on the work of Trading Standards services - and the possible consequences of not abiding by the law - please see 'Trading Standards: powers, enforcement and penalties'.

In this update

No major changes.

Last reviewed / updated: June 2024

Key legislation

- General Product Safety Regulations 2005

Please note

This information is intended for guidance; only the courts can give an authoritative interpretation of the law.

The guide's 'Key legislation' links go to the legislation.gov.uk website. The site usually updates the legislation to include any amendments made to it. However, this is not always the case. Information on all changes made to legislation can be found by following the above links and clicking on the 'More Resources' tab.

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