

Who Pays When We Throw It Away?

The 10 most problematic materials facing UK waste operators

A SUEZ commissioned report on ten products causing the biggest challenges for Britain's recycling industry.

Executive summary

The UK generates around 215 million tonnes of waste every year, the equivalent of nearly 600,000 tonnes every day. A large amount of this has a value as a resource, if it is disposed of correctly. But problematic materials, and items disposed of incorrectly place significant pressure on collection, recycling and treatment infrastructure.

These unintended consequences, which range from lost recycling material through to fires costing hundreds of millions and taking out vital recycling capacity, are seen first-hand on a daily basis by our frontline teams. Their experience, combined with SUEZ's own data and publicly available research, has been used to identify ten products causing the biggest challenges for our waste system.

Each of the materials present challenges for different reasons and demonstrates the need to ensure manufacturers design products with their end of life in mind, ensuring that safe and convenient disposal routes exist to get the most value out of every material used.

1

Vapes

Problem: Over six million vapes and pods are discarded, often incorrectly, every week in the UK, despite a ban on single-use vapes. This has led to an increase in the number of fires caused by lithium-ion batteries.

Evidence: 81% of fires across SUEZ facilities in 2025 were confirmed or suspected to involve batteries or vapes.

Action: A producer-funded nationwide takeback scheme, enforced retailer returns, and safer product design.

2

Hidden batteries and small rechargeable devices

Problem: Lithium-ion batteries are increasingly embedded in everyday items including toys, portable fans, games controllers and many other fast tech products.

Evidence: 81% of fires across SUEZ facilities in 2025 were confirmed or suspected to involve batteries or vapes.

Action: Accessible batteries, and stronger regulations around online marketplace sellers to allow a capture system to be funded.

3**Nitrous oxide and gas canisters**

Problem: Since nitrous oxide was reclassified as a Class C drug in November 2023, there has been an increase in the number of large canisters disposed of in general waste and ending in an energy-from-waste facility where the pressurised containers can rupture under heat.

Evidence: SUEZ recorded 7,000 explosions across its 10 energy-from-waste facilities in 2025, resulting in business interruption costs at approximately £4.9 million.

Action: A ban on the general retail sale and supply of intermediate-sized nitrous oxide cylinders and nationwide accessible disposal routes.

4**Mattresses**

Problem: The volume of mattresses discarded along with the mix of designs and materials contained within them, often including up to ten layers of fabric, makes recycling difficult, time-consuming and costly.

Evidence: SUEZ handled 7,500 tonnes of discarded mattresses in 2025 – more than the weight of the Eiffel Tower.

Action: Extended Producer Responsibility (EPR) scheme for mattresses ensuring manufacturers consider the end of life during design, including mandatory takeback and product passports to aid the identification of materials.

5**Flexible plastic packaging**

Problem: Without the right collection design and processing system, flexible plastic packaging discarded incorrectly can be difficult to sort and can cause contamination and blockages.

Evidence: 1.7 million tonnes of flexible plastic still placed on the market every year.

Action: Accelerate domestic end markets, fund transition costs and use the FlexCollect blueprint.

6**Nappies and absorbent hygiene products (AHPs)**

Problem: High-volume hygiene products are expensive to treat, contaminate other waste and have high carbon costs if left within general waste streams.

Evidence: AHPs represented 4.64% of the internal residual composition summary.

Action: A national AHP strategy combining prevention, re-use, EPR and recycling innovation.

7**Household chemicals and paint**

Problem: Concealed liquids pose a safety risk to staff and contaminate recycling. The volume of discarded paint is increasing when there are many re-usable options, making the best use of the material.

Evidence: SUEZ saw an increase in discarded paint from c.478 tonnes in 2023 to 573 tonnes in 2025.

Action: Clear and safe disposal routes for residents and promotion of re-use options.

8**Food-contaminated recycling**

Problem: Food and liquids reduce fibre quality, create odour and contaminate other recyclable materials when disposed of incorrectly.

Evidence: SUEZ handled an estimated 451,768 tonnes of contaminated waste in 18 months. Food tends to be the most likely cause of contamination in household rubbish.

Action: Complete food-waste roll-out and ensure packaging instructions are clear to avoid incorrect disposal of food packaging.

9**At-home injections**

Problem: Incorrectly disposed of syringes can lead to injuries.

Evidence: The number of syringes on the market has increased year-on-year, with less take-back options available.

Action: A nationwide scheme with safe and accessible disposal routes.

10**Compostable packaging**

Problem: Misleading labelling can lead to people incorrectly disposing of their packaging with their food waste.

Evidence: At SUEZ food-waste facilities, 100% of compostable packaging and caddy liners arriving with food waste are currently removed during pre-treatment because the process cannot, and was not designed to, treat them.

Action: Restrict use to supported applications, standardise labels and align products with infrastructure.
