



NBF Best Practice Guidance

Claims relating to chemicals in products

Contents

1.0	Introduction	3
2.0	Improving Transparency and Ensuring Compliance	3
3.0	Legislation for Consumer Protection	3
4.0	Avoid Vague or Unsubstantiated terms	4
5.0	Statements about Chemical Flame Retardants	4
6.0	Working with The Supply Chain	5
7.0	Frequently Asked Questions	7
8.0	Glossary of Terms	8

1.0 Introduction

Understanding the chemicals used in mattresses can be challenging.

As awareness increases around health, safety and environmental impacts, questions about chemical content, regulatory compliance, and marketing claims are becoming more frequent.

This guide is designed to help answer some commonly asked questions, clarify widespread misunderstandings, and provide practical advice for manufacturers, suppliers, and retailers in the UK mattress industry.

2.0 Improving Transparency and Ensuring Compliance

Clear, honest labelling and communication are essential.

Mattress manufacturers and retailers should ensure that any statements or claims made can be verified and substantiated.

This means that manufacturers and retailers should work with their supply chain to understand the specification and composition of the materials used in the product, and this will help with the accuracy of any claims made.

3.0 Legislation for Consumer Protection

In the UK, the Digital Markets, Competition and Consumers Act 2024 (DMCC Act) and the Consumer Protection from Unfair Trading Terms Regulations (2008) contains provisions to protect consumers from unfair trading.

Businesses are expected to ensure their marketing is specific, substantiated and not likely to deceive consumers.

The following practices are prohibited under the Act:

- provision of false or misleading information
- deceptive overall presentation
- creating confusion with competitors' products
- failing to comply with requirements in a code of conduct
- omission (or unclear, untimely or obscure provision) of material information
- omission of legally required information
- failing to identify the commercial intent of a practice
- contraventions of the requirements of professional diligence

The Competition and Markets Authority (CMA) and Advertising Standards Authority (ASA) provide guidance on the use of environmental and health-related claims.

The Green Claims Code was developed to help businesses ensure their green claims are genuine and not misleading.

3.1 Green claims must:

1. Be truthful and accurate: Businesses must live up to the claims they make about their products, services, brands and activities
2. Be clear and unambiguous: The meaning that a consumer is likely to take from a product's messaging and the credentials of that product should match
3. Not omit or hide important information: Claims must not prevent someone from making an informed choice because of the information they leave out
4. Only make fair and meaningful comparisons: Any products compared should meet the same needs or be intended for the same purpose
5. Consider the full life cycle of the product: When making claims, businesses must consider the total impact of a product or service. Claims can be misleading where they don't reflect the overall impact or where they focus on one aspect of it but not another
6. Be substantiated: Businesses should be able to back up their claims with robust, credible and up to date evidence

4.0 Avoid Vague or Unsubstantiated terms

Vague or unsubstantiated terms such as “eco”, “green”, “non-toxic” or “chemical-free” should not be used or be used with caution.

These claims can easily mislead consumers if they are not supported by clear definitions and evidence.

Claims such as “organic”, “natural” or “vegan” must be accurate and supported by credible, third-party certifications such as the Global Organic Textile Standard (GOTS) or the Soil Association.

It must be clear what these claims apply to – usually this is only to the certified content within the product. It is misleading to apply them to the entire product unless it has been fully certified as such.

5.0 Statements about Chemical Flame Retardants

It would not be accurate to claim that a product or material is ‘free from chemicals’ as chemicals are in all substances.

If you are trying to communicate that a product does not contain any chemical flame retardants in any of the materials used, then a clearer way to state this would be to say ‘does not contain chemical flame retardants’ or something similar.

However, if a claim of this nature is made, you would need to be able to substantiate this, by doing your due diligence and having worked with your supply chain to ensure you understand the composition of the materials used and can state with assurance that there are no chemical flame retardants in any of the materials. This means checking that it is not hidden in the yarns of the fabric as an example, as it might not be obvious without checking with the supply chain.

If you are claiming certification or accreditation to schemes, such as OEKO-TEX® or CertiPUR for example, you will need to check that this is for the material that you are receiving, and that it has not had any further treatments applied to it since the accreditation was given, and before being supplied to you.

6.0 Working with The Supply Chain

Understanding the chemical content of a mattress requires collaboration across the supply chain—especially with suppliers of raw materials including ticking, foam, and fillings.

Manufacturers should ask their suppliers for full documentation, including Safety Data Sheets (SDS), chemical test reports where available, and certification records. These should explain any chemicals that are present.

Where relevant, ask your supplier how compliance with the relevant fire regulations is achieved on the material supplied to you. It may be that a foam that has to meet specific test requirements under the Furniture and Furnishings (Fire) (Safety) Regulations 1988 has required the use of chemical flame retardants to achieve this, whereas another type of foam or material may not require the use of chemical flame retardants to achieve this.

It is important to be able to demonstrate due diligence and that you have checked the information received by your suppliers and that you can substantiate any claims made.

Asking specific questions can help ensure accurate, consistent claims and legal compliance.

Below are some examples of the type of information you may wish to reach out and establish within your supply chain:

- Reach out to your supplier to understand where chemical flame retardants are used.
- Where used, gather information on the names of the chemical flame retardant used and the relevant CAS numbers. The CAS number will identify the chemical and not just the brand name.
- If a raw material is described as ‘inherently flame retardant’ check whether any of the components of that raw material contain chemical flame retardants (e.g. there may be no chemical flame retardants in the back coating of a fabric, but it may be present in the yarn used to weave the fabric).
- Check the information on any Safety Data Sheets (SDS) supplied to you. It may be that the SDS supplied relates to the actual individual chemicals used, and when used with other chemicals to make a mixture, it becomes different:

e.g. Chemical A + Chemical B when combined = Material C. When C is produced, nothing can leach out and there may be no risk present.

This is why it is important to work together with your supply chain, as they can help you understand the material you are receiving. A SDS for Chemical A and Chemical B may not be the same as the material C that you are receiving.

In the same way that a Bill of Materials (BOM) can be produced and supplied, some suppliers may be able to provide a Bill of Substance (BOS). This would be more detailed as this would list each chemical name and CAS number in a given part of the material supplied.

There is not currently a legal requirement under the chemical legislation for this information to be supplied, however, if this is available, this would demonstrate good due diligence and provide a helpful tool to understand the chemicals used in the material supplied.

If supplier responses are unclear, incomplete or missing, businesses should follow up in writing and retain a record of all correspondence.

If concerns remain unresolved, NBF members, retailers and regulators can seek guidance or support from the National Bed Federation (NBF). In addition, industry bodies such as the European Chemicals Agency (ECHA) or the Health and Safety Executive (HSE) offer resources to help businesses understand chemical safety and legal obligations.

7.0 Frequently Asked Questions

What does ‘Natural FR’ mean?

The term "Natural FR" generally refers to materials that are inherently fire resistant, such as wool or certain viscose fibres. These materials can help mattresses meet UK fire safety regulations without the need for additional chemical flame retardant (FR) treatments. However, as this is not a regulated term, any such claims must be clearly defined and supported by reliable evidence.

What does “Chemical-Free” mean?

In scientific terms, the phrase “chemical-free” is inaccurate—all substances are made up of chemicals. In the context of mattresses, the term is often used to suggest that no flame retardants or other specific chemicals have been added. More accurate alternatives include “no added flame retardants” or “free from halogenated FRs”. Any such claims must be precise, truthful and verifiable.

What does “FR Chemical-Free” mean?

This wording has been typically used to indicate that a product complies with UK fire safety regulations without the use of added chemical flame retardants. Compliance may be achieved using inherently fire-resistant materials or barrier fabrics that do not contain any chemical flame retardants.

What is KANECARON™ and how is it used?

KANECARON™ is a modacrylic fibre made by copolymerizing acrylonitrile and vinyl chloride and is described by the manufacturer as having excellent flame retardancy, and that the material itself is flame retardant.

It is commonly used in barrier fabrics or other materials to help mattresses meet fire safety standards such as BS 7177, without requiring additional chemical flame retardant treatments.

Does a component need to be monomaterial (single material) to be considered inherently low flammability?

No, a component doesn’t have to be made from just one material (monomaterial) to be considered inherently low flammability. What matters is how the whole component behaves in a fire, not just whether it’s made from a single material. Some components use a mix of materials that are all naturally fire resistant or are combined in a way that helps slow down or prevent burning. As long as the final product meets fire safety standards without needing added chemical flame retardants, it could still be described as inherently low flammability.

8.0 Glossary of Terms

Additive Flame Retardants

Additive, as opposed to reactive, flame retardants are not chemically bonded to the base material and leach out more easily.

Bio-Based Treatment

Treatments made from natural biological sources / living organisms such as plants; not necessarily non-toxic or sustainable.

Biocides

A biocide is a chemical substance, mixture, or microorganism intended to control any harmful organism in a way that is not purely physical or mechanical. Chemical biocides are regulated by the Biocidal Product Regulations.

Biocidal Product Regulations

UK and EU chemical legislation applicable to consumer products. These regulations make sure that when biocidal products are used properly, they do not harm people, pets or the wider environment

CertiPUR

CertiPUR is a voluntary testing, analysis and certification programme for the environment, health and safety properties of polyurethane foam used in bedding and upholstered furniture applications. It specifies substances that may not be used in the production of polyurethane foams and sets stringent maximum limits for some components.

Chemical-Free

A misleading term; clearer alternatives are “does not contain chemical flame retardants” or “free from halogenated flame retardants” etc.

FR Barrier

A protective layer that helps meet fire safety standards – can be supplied with or without chemical treatment. Check with your supplier.

FR Chemical-Free

Describes a product that meets fire safety regulations without the use of chemical flame retardants. If using this in the product description, it shall be made clear whether this relates to a particular component, or the entire product – and evidence shall be available to substantiate this claim.

Global Organic Textile Standard (GOTS)

GOTS is the worldwide leading textile processing standard for Organic_Fibres including Environmental Criteria, backed up by Third-Party Certification of All Processing Stages. GOTS certified final products may include fibre products, yarns, fabrics, clothes, home textiles, mattresses, personal hygiene products, as well as food contact textiles and more.

Halogenated Flame Retardant

Chemical flame retardant containing halogen elements such as chlorine or bromine widely used to enhance fire resistance of materials such as plastics, textiles and electronic devices. The compounds work by disrupting the combustion process, often by releasing halogen free radicals that interfere with the chemical reactions during a fire. Many halogenated compounds are persistent in the environment and can accumulate in human tissue and therefore their use is increasingly being evaluated for environmental and health implications.

Inherent Flame Retardant

Inherently flame-retardant materials are made from fibres that possess natural flame-resistant properties such as wool or modacrylics.

Kanecaron

KANECARON™™ is a modacrylic fibre made by copolymerizing acrylonitrile and vinyl chloride

Monomer

A monomer (*/ˈmɒnəmə/ MON-ə-mər; mono-*, "one" + *-mer*, "part") is a molecule that can react together with other monomer molecules to form a larger polymer chain or two- or three-dimensional network in a process called polymerization.

Natural Flame Retardant

Unregulated term referring to naturally fire-resistant materials. Should always be defined and supported with evidence.

OEKO-TEX®

Oeko-Tex is a registered trademark of the International Association for Research and Testing in the Field of Textile and Leather Ecology. It is used to represent the product labels and company certificates issued by the Association.

Oeko-Tex labels and certificates confirm the safety of textile products and leather articles from all stages of production. Some also attest to social and environmental conditions in production facilities.

Organic

Relates to certified agricultural products grown without synthetic chemicals; claims must be backed by certification.

Noting or pertaining to a class of chemical compounds that formerly comprised only those existing in or naturally derived from plants or animals, but that now includes all other compounds of carbon

Persistent Organic Pollutants (POPs)

Persistent Organic Pollutants (POPs) are chemical substances, that is, they are carbon-based. They possess a particular combination of physical and chemical properties such that, once released into the environment, they:

- remain intact for exceptionally long periods of time (many years);
- become widely distributed throughout the environment as a result of natural processes involving soil, water and air;
- accumulate in the living organisms including humans, and are found at higher concentrations at higher levels in the food chain; and
- are toxic to both humans and wildlife.

The Stockholm Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment.

Exposure to Persistent Organic Pollutants (POPs) can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems.

Given their long-range transport, no one government acting alone can protect its citizens or its environment from POPs.

In response to this global problem, the Stockholm Convention, which was adopted in 2001 and entered into force in 2004, requires its parties to take measures to eliminate or reduce the release of POPs into the environment.

Reactive Flame Retardants

Flame retardants that are chemically bonded into the material, reducing the risk of migration.

Reactive flame retardants form compounds containing special functional groups, which can be chemically bonded with monomers during polymerization.

The use of flame retardants chemically incorporated into the polymer chain prevents volatilization or migration to the surface of the material

REACH

UK and EU chemical legislation applicable to consumer products. REACH stands for the Registration, Evaluation and Authorisation of CHemicals.

Safety Data Sheet (SDS)

Safety Data Sheets (SDS) are the primary means of communicating information on the hazards of chemicals and the risks they pose to human health and the environment, as well as on measures to control the risks.