



21ST CENTURY DRAINAGE PROGRAMME

MONITORING PRODUCT LABELLING AND PLASTIC CONTENT

FINAL REPORT

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WATER UK

MONITORING PRODUCT LABELLING AND PLASTIC CONTENT

Executive Summary

Background

The disposal of non-flushable items, such as sanitary products and wipes, via the toilet is associated with drain, sewer and pump blockages and these can result in sewer flooding of buildings and environmental pollution. Consequently, the Water Industry and other stakeholders have been campaigning to both change consumer behaviour about this sewer misuse and to encourage retailers and brand owners to label products with a 'do not flush' symbol. This began in the early 1990s with the 'Bag It & Bin It, Don't Flush It' campaign and labelling symbol (Figure below).

In 2008 EDANA, the trade association for the nonwovens industry, introduced a Code of Practice and a recommended symbol for labelling wipes (Figure below). This recommended symbol was subsequently updated (Figure below) and has also been adopted by the Water Industry.

In January 2017, a 2nd Edition of the EDANA Code of Practice was issued in January 2017 for implementation by July 2018, which includes use of the symbol on the Primary Display Panel (PDP) on the front of packaging or some types of wipe. Separately, a number of UK retailers have made a commitment to move 'do not flush' labelling to the Primary Display Panel.

The Water Industry has identified a need to better understand current 'do not flush' labelling on products to support sewer misuse campaigns and to monitor the implementation of current labelling initiatives.

The water industry also has an interest in improving its understanding of the sources of plastic that is found sewage in relation to the emerging issues of plastic contamination in the environment. Communication about plastic entering sewage may assist in prompting behaviour change through customer awareness campaigns about sewer misuse.

Figure L to R: The Bag it & Bin it Symbol, the 2008 EDANA recommended symbol and the current Water Industry and EDANA recommended 'do not flush' (DNF) symbol.



Objectives

This report examines both the current use of 'do not flush' labelling on products associated with sewer misuse and blockages and the plastic content of these products. Its purpose is to provide information and baseline data, in part to inform the proposed national 'The Toilet is not a Bin' campaign with retailers and manufacturers, and to improve the water industry's understanding of the sources of plastic in sewage.

The findings provide a basis for monitoring future changes in the use 'do not flush' and 'flushable' labelling of products in response to various current initiatives by industry bodies and retailers. The project was also able to draw on limited information from a small study of product labelling undertaken by the contractor in 2014 to examine changes in labelling over the past three years.

The project objectives are:

- To provide evidence to support the water industry and proposed national campaign with manufacturers and retailers in targeting sewer misuse initiatives concerning product labelling and customer education.
- To monitor the impact of initiatives.
- To improve understanding of plastic materials used in the products.

The scope of the project covers the following product types: absorbent hygiene products h (nappies, adult incontinence, sanitary pads, towels and tampons), nappy bags, wipes (baby, cleansing, cleaning), cotton wool (rolls, balls, pads, pleats, buds), condoms, single use dental (floss, interdental brushes, picks), razors, dressings, plasters and bandages, paper towels, paper tissues, dog poop bags and training pads, cat litter, toilet blocks (cages, hangers and dispensers not the dissolving product) and household cleaning cloths.

For products labelled and sold as being 'flushable' the study does not consider how 'flushability' is assessed or tested and is confined to a review of current labelling on a range of these products.

Conclusions

Current use of 'do not flush' labelling on products

This study has examined 960 products across the product types in scope and provides a basis for future monitoring the implementation of the current labelling initiatives.

In the absence of statutory requirements, 'do not flush' labelling of products is dependent on voluntary action by retailers, on their own brands, and by brand owners, supported by voluntary initiatives, Codes of Practice or guidelines.

Despite voluntary initiatives since the mid-1990s 'do not flush' symbols are not universally used on the packaging of products associated with sewer misuse, and have only been placed on the Information Panel on the back or sides of packaging. It appears that 'do not

flush' labelling has been taken up more widely by retailers on their own label products than by brand owners.

The highest uptake of the use of 'do not flush' symbols is on incontinence pads, nappies, baby wipes, sanitary pads and towels, panty liners and tampons.

It is apparent that the 'Bag It & Bin It Don't Flush It' campaign was very successful in introducing 'do not flush' labelling to almost all of the product types examined. It is the most common symbol found on nappies, nappy bags, tampons and sanitary towels and was the only recommended symbol observed on dressings and some cotton products.

The 2008 EDANA symbol is still in use on a relatively small proportion of wipes, sanitary and cotton wool products.

The symbol currently recommended by EDANA and the Water Industry (DNF symbol) is primarily found on wipes and sanitary products, but occasionally on cotton pads, tissues and paper roll.

Some products carry retailers or brand owners own designs of 'do not flush' symbol.

For some product types a significant proportion of the products carry only text instructions on the Information Panel or have no 'do not flush' instructions at all. Text instructions are less visible than symbols and only inform users that are prepared to read the 'small print' on packaging.

Razors, condoms and dental products stand out as product types that do not carrying 'do not flush' labelling.

Among cleaning products, the toilet blocks, kitchen roll and cleaning cloths, together with dog poop bags and training pads, stand out has having a low uptake of 'do not flush' labelling.

Among the personal care products, there is low uptake in bandages and a relatively lower uptake in plasters, cotton wool products paper towels and tissues.

Therefore, general awareness and behaviour change initiatives cannot currently rely on advising consumers to look for a symbol or instructions for use on packaging as their main guidance on the correct disposal for many product types.

The absence of one universal symbol means that consumer awareness campaigns on sewer misuse should consider highlighting that consumers need to look out for a range of versions of 'do not flush' symbol.

Implementation of new guidance on moving the 'do not flush' symbol to the Primary Display Panel

The commitments made by UK retailers and EDANA to display 'do not flush' symbols on the Primary Display Panel on packaging represent a very significant change in product labelling for wipes, and the water industry should consider encouraging its take-up for other product types.

Implementation will require substantial changes to the current labelling of wipes products and a major commitment by retailers on their own label products and by brand owners.

These changes have begun with twenty-eight wipes products identified in this study with a symbol on the Primary Display Panel. However, the study identified differences in the interpretation and application of the new guidelines that affect the prominence and visibility of the symbol on some of these.

As these issues are already apparent (Sections 4.27 and 4.28) at this early stage, the Water Industry and retail/manufacturing trade bodies have an opportunity to encourage more effective implementation for the several hundred other wipes products to which the guidelines will apply between now and July 2018.

A list of the points to check on labelling to monitor whether it complies with the new guidelines is set out in Appendix 1.

Wipes vs other product types

There is currently a particular focus on wipes in sewer misuse campaigns and labelling guidelines, but other product types contribute to sewer misuse and there is a consequent need to encourage for their proper labelling.

Product types, outside wipes and absorbent hygiene products, such as nappy bags, dressings, dental products and toilet blocks, fall under the control of industry bodies other than EDANA and AHPMA (Absorbent Hygiene Products Manufacturers Association), that are already closely involved in current initiatives.

There is currently no campaign that is providing a focus for proactively promoting 'do not flush' labelling across the range of products associated with sewer misuse.

Labelling of flushable products

Products marketed as flushable identified in the survey comprised: moist toilet tissue and toddler wipes; a nappy liner; some cleaning wipes; and some types of cat litter.

The labelling on flushable products is regarded as a unique selling feature and so their suppliers make use of their own choice symbols and instructions, consequently there is no industry recommended 'flushable' symbol.

The EDANA 2017 Code of Practice 2nd Edition requires that any 'flushable' wipes product has to a) be intended for contact with bodily fluids or their associated germs and b) have passed appropriate testing. It also requires that instructions for flushing the product are included on the Information Panel.

This review has found that the flushable wipes identified do fall into the category a) though there were no examples found where specific reference is made on labelling to passing appropriate testing.

Many flushable product carry instructions on how to flush that state a maximum number to be flushed at any one time (1, 2 or 3) and/or advice on the product's un-suitability for use with toilets connected macerator pumps or septic tanks.

On some flushable products, the instructions state only one wipe on a full flush (i.e. that the consumer should not to use a water saving reduced flush on a dual cistern). This style of labelling inherently acknowledges that the product may cause problems when flushed, hence the 'one at a time' advice. The labelling also promotes non-sustainable behaviours, in terms of water conservation.

Plastic content of products

There are no statutory requirements or voluntary guidelines requiring the listing of materials of construction of the substrate of products. Consequently, it is rarely possible to identify the use of plastics from the information provided on labelling.

The study has focused on obtaining generic information of the use of plastic in different product types and publicly available data on average compositions, where available.

The presence of plastic in packaging materials can be surmised where recycling symbols or instructions are provided.

For some products, the presence of plastic is obvious as they are constructed of visible moulded or extruded plastic items: toilet block hangers, cages and dispensers; tampon applicators; interdental brushes and tooth picks; razors; and cotton bud stems.

For the fabric products (bandages, cloths, some types of plasters) and the layered products (nappies, sanitary pads, panty liners and some cotton wool products like pleats and pads) plastic may be incorporated into the composition of the fabric or the products may incorporate plastic layers.

There will be exceptions where a supplier has been able to generate a plastic free product, but, unless this is clearly stated on the product labelling, an assumption has to be made that plastic may be present.

With the exception of paper based products (tissues and kitchen towels), 100% cotton products, cat litter and condoms (elastomeric), it is reasonable to assume that any product among the other product types in scope may contain plastic.

Plastic is widely present in the products associated with sewer misuse and highlighting this may contribute to raising awareness of sewer misuse and effecting behaviour change.

Recommendations

1. It is recommended that a survey is undertaken in the second half of 2018 to monitor the uptake of the EDANA 2nd Edition Code of Practice (to be implemented by July 2018) and the UK retailers own initiative on moving labelling to the Primary Display Panel. A checklist for assessing compliance of product labelling with the EDANA 2nd Edition Code of Practice is set out in Appendix 1.

2. The water industry should consider working pro-actively with retailers and brand owners at this early stage to ensure that the changes they are going to make to place 'do not flush' labelling on Primary Display Panel of wipes are undertaken effectively. Issues with the labelling on the small number of wipes products that have been changed to date concerning prominence and visibility of symbols are highlighted in Section 4.28.
3. In addition to the current focus on changing the labelling on wipes, the Water Industry should consider where further focus and effort is needed to work with retailers and brand owners, and their representative bodies, to improve 'do not flush' labelling across other product types implicated in sewer misuse.
4. The Water Industry and other organisations campaigning against sewer misuse need to take into consideration the fact that 'do not flush' labelling is not universally used on packaging and insights provided by this report when referring to labelling in national and local sewer misuse campaigns. Consideration should also be given in campaigns to using the Tidyman Symbol alongside 'do not flush' symbols and highlighting that recycling symbols only refer to packaging not a product and do not indicate that a product can be flushed.

Benefits

- Better targeting of initiatives to manufacturing, distribution and retailing companies.
- Evidence of the effectiveness of initiatives to inform Government and the water sector.
- Better understanding of labelling.
- Better understanding of sources of plastic in sewage.
- Water UK does not expect direct financial impact, but the information and evidence obtained feeds into an overall unflushables strategy.

For further information please contact Water UK, 3rd Floor, 36 Broadway, London, SW1H 0BH quoting the report reference number

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EDANA for permission to use graphics of product construction, provision of generic data on product composition and checking the accuracy of product composition information.

The Marine Conservation Society for providing Beachwatch data from their volunteer beach litter monitoring programme.

The Chair and members the Project Steering Group.

Glossary

Absorbent hygiene product	Collective term for nappies, feminine hygiene products and adult incontinence products
A.I.S.E.	International Association for Soaps, Detergents and Maintenance Products
AHPMA	Absorbent Hygiene Products Manufacturers Association
Baby wipes	Wipes that are primarily intended for cleaning urine and faecal matter from the body during nappy changing
Bag It & Bin It, Don't Flush It	Sewer misuse campaign begun in 1990s by the Water Industry, Defra and other stakeholders including a symbol for use on product labelling
Bio-plastics*	Plastic materials produced from renewable sources
Bio-polymers*	Synthetic polymers produced from renewable sources
BI&BI Symbol	See Bag It & Bin It, Don't Flush It
BITC	Business In The Community
Brand	A type of product manufactured by a particular company under a particular name
BRC	British Retail Consortium
Cellulose pulp*	Fibrous material obtained from the treatment of lignocellulosic materials (wood or other agricultural fibre sources) with one or more aqueous solutions of pulping and/or bleaching chemicals. This is composed of cellulose, hemi-cellulose, lignin, and other minor components. The relative amounts of these components depend on the extent of the pulping and bleaching processes
Cruelty Free International	Campaigners against animal testing and owners of the 'Leaping Bunny' certification scheme and logo
Dirty Dozen	List of non-flushable products associated with sewer blockades and beach pollution used in consumer awareness campaigns
DNF Symbol	'do not flush' symbol that replaced the 'old EDANA Symbol and is recommended for labelling products in the EDANA 2017 2 nd Edition Code of Practice for labelling wipes
Old EDANA	'do not flush' symbol recommended by EDANA in its 2008 1 st Edition

Symbol	Code of Practice on labelling wipes
EDANA	European trade association for the nonwoven materials industry
eNGO	Environmental Non-Governmental Organisation
Flushable product	A retailers own brand or branded product marketed by as being suitable for flushing down the toilet
FSC	Forestry Stewardship Council
FSC certified/FSC Logo	Chain of custody certification from forest to end-user ensures that FSC materials and products have been checked at every stage of processing so that customers purchasing FSC labelled products can be confident that they are genuinely FSC certified
Green Dot	A recycling symbol on packaging that demonstrates that the supplier of a product has made a financial contribution towards the recovery and recycling of packaging. It operates in many countries but not the UK
Information Panel	Usually located on the back or sides of product packaging it carries information and instructions concerning the product
Mobius Loop	A symbol used on packaging to indicate that something is capable of being recycled
Nonwoven	Nonwovens are defined by ISO standard 9092 and CEN EN 29092. "A nonwoven is a sheet of fibres, continuous filaments, or chopped yarns of any nature or origin, that have been formed into a web by any means, and bonded together by any means, with the exception of weaving or knitting. Felts obtained by wet milling are not nonwovens. Source: EDANA (2014)
Old EDANA Symbol	'do not flush' symbol recommended in the EDANA 2008 Code of Practice and subsequently replaced (see DNF Symbol)
OPRL	On-Pack Recycling Label, the recycling symbol of Recycle Now a national recycling campaign for England. The symbol indicates whether packaging material can or cannot be recycled
Own Brand	See Brand
Own label	Product sourced, packaged and marketed by a retailer, usually under its own name or a brand name that it controls. Also known as a private label or own brand
Plastic	Synthetic polymers to which additives or other substances may have been added which can be moulded and used as main

materials/plastic*	structural component of final materials and articles
Primary Display Panel (PSP)	The part of a label or package that is most likely to be displayed or examined under normal conditions of display for retail sale.
Private label	See own label
PSG	Project Steering Group
Retailer	A business selling goods to the public use or consumption rather than for resale
Super absorbent polymers (SAP)*	Synthetic polymers designed for absorbing and retaining large amounts of liquid compared to their own mass
Synthetic polymers*	Macromolecular substances other than cellulose pulp intentionally obtained either by: a polymerisation process monomers and other starting substances; chemical modification of natural or synthetic macromolecules; microbial fermentation
Tidyman	Logo of the Keep Britain Tidy Campaign and symbol used on packaging to remind consumers to dispose of packaging in a bin and not to litter.
TSS	Toxic Shock Syndrome
UKWIR	UK Water Industry Research
USP	Unique Selling Point
WaSC	Water and Sewerage Company – there are 12 regional WaSCs in the UK
Water Industry	The 12 UK Water and Sewerage Companies
Water UK	Trade association of the UK Water and Sewerage Companies and Water Only Companies

*These definitions relating to plastic materials have been derived from Development of EU Ecolabel Criteria for Absorbent Hygiene Products (JRC 2013).

1 Introduction

1.1 Background

This is a study to survey and monitor changes in the use of ‘do not flush’ and ‘flushable’ labelling on retailers’ own label products (also known as private labels or own brands) and on branded products, and to examine the presence of plastic in products associated with sewer misuse.

Its purpose is to provide evidence and baseline data, in part to inform the proposed national ‘The Toilet is not a Bin’ campaign to be undertaken with retailers and manufacturers. It will also support the water industry in targeting its sewer misuse initiatives involving product labelling and monitoring their impact.

1.1.1 Labelling initiatives

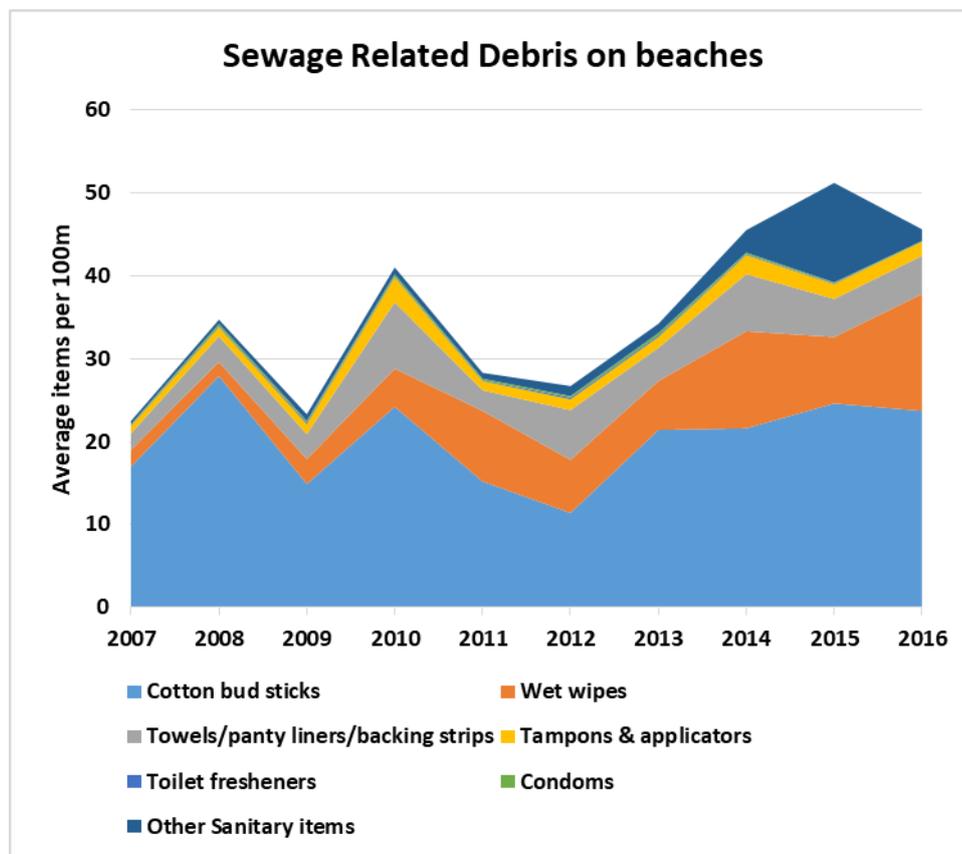
A number of new initiatives are starting to improve product labelling (Section 3.3) and this survey provides a substantial baseline for before/after evaluation of their impact. This work builds on previous guidance to the water industry on engagement with product suppliers on improving labelling as part of UKWIR’s Customer Education Strategy for Wastewater (UKWIR. 2015). That study included a small survey of labelling on 130 non-flushable products which highlighted differences in the use of ‘do not flush’ labelling and absence of labelling across these.

The major initiative to raise customer awareness and introduce ‘do not flush’ symbols and text into product labelling began in the 1990s through the ‘Bag It & Bin It, Don’t Flush It’ (BI&BI) campaign (see Section 3.3), aimed at a range of product types associated with sewer misuse. The latter were collectively termed ‘The Dirty Dozen’ (see Section 2.2.3) in awareness campaigns and the BI&BI symbol continues in use on many of these product types. In the 1990s ‘wet wipe’ products were not widely available, but the subsequent increase in their availability and awareness of their potential for sewer misuse resulted in EDANA (the European trade association for the nonwoven materials from which they are made), issuing a Code of Practice for labelling of wipes in 2008, and providing a recommended ‘do not flush’ symbol, of a toilet bowl with a cross through it. EDANA subsequently issued a revised recommended symbol for use on nonwoven, which is similar to BI&BI but without the campaign title words around the graphic. Retailers and brand owners have also made use of their own designs of ‘do not flush’ symbols’. In addition to, or instead of, these symbols some products carry text concerning ‘do not flush’ on the information panel of their packaging, whilst many products carry no information about flushing. Until very recently, ‘do not flush’ labelling has been only used on the information panel on the back or side of packaging and not on the Primary Display Panel (front).

A number of environmental non-governmental organisations (eNGOs) are engaged in campaigns to change consumer behaviour about sewer misuse highlight to retailers and brand owners the incorrect disposal of their products and encourage appropriate product

labelling. An example of this is the Marine Conservation Society’s Beachwatch campaign¹ which publishes annual reports of the numbers of litter items collected per 100m of beach surveyed in the UK. This includes categories on sewage derived debris (Figure 1) and highlights the relative numbers of different product types found and shows a generally upward trend. Although these campaigns do not provide recommendations or guidance of their own on product labelling many eNGOs engage with the water industry, retailers and manufacturers their activity can encourage the use of ‘do not flush’ labelling.

Figure 1 Average number of items of Sewage Related Debris (SRD) categories/100m of beaches surveyed UK wide over the past decade (2007 to 2016). Source: Beachwatch data supplied to the project by the Marine Conservation Society.



Note: the very high number of products in the other sanitary items category in 2015 was due to an unusually high number of product recorded in Scotland, possibly due to loss during transport.

This study has been prompted by current initiatives that are expected to change to use of ‘do not flush’ labelling in the next couple of years and the desire by the water industry to apply good practice in monitoring before/after to help assess their implementation. They include: declarations by various retailers that they will move to providing ‘do not flush’ symbols on the Primary Display Panel (front) of packaging for types of non-flushable wipes; the issuing by EDANA of new Code of Practice 2nd Edition on labelling wipes in January 2017 (with an implementation by date 18 months later); an initiative by Business In the Community (BITC) to increase recycling from bathrooms (which lags behind recycling from

¹ <http://www.mcsuk.org/beachwatch/>

kitchens); and, a Round Table meeting in November 2016 of retailers, industry and the water industry hosted by DEFRA with agreement to jointly develop a national ‘The Toilet is not a Bin’ awareness campaign. However, all of these initiatives are voluntary and there is no statutory requirement for ‘do not flush’ labelling on non-flushable products so monitoring and liaison between stakeholders has to be undertaken to encourage their implementation.

The study will also support the ongoing campaigns undertaken by each of the UK’s 12 Water and Sewerage Companies (WaSCs) to raise awareness of sewer misuse with their own customers. The 12 WaSCs work collectively on sewer misuse through committees of their trade body Water UK, with the lead taken by its SNAP (Sewer Network Abuse Prevention Programme) Group; and the flagship 21st Century Drainage Programme² on improving wastewater network resilience, through long term planning, which contains a commitment that the water industry will use the ‘do not flush’ symbol on customer awareness campaign materials³.

EDANA’s January 2017 2nd Edition Code of Practice is of particular significance as it contains specific recommendations for prominent labelling, and include moving ‘do not flush’ labelling to the Primary Display Panel for types of non-flushable wipes products with a likely potential to be mistakenly flushed. This is complemented by the intentions of some UK retailers to do likewise. The 18-month deadline for implementation of the new Code of Practice by EDANA members in July 2018, provides the opportunity for assessment of their implementation and effectiveness in that latter half of that year.

In recent decades, products have begun to be marketed as ‘flushable’. However, there is no overall consensus between industry and the UK water industry over the performance criteria for what constitutes ‘flushable’. This report does not consider this issue, but provides a factual review of the current flushability labelling on a range of these products, as a basis for monitoring future change alongside the products marketed as non-flushable.

A separate but related issue is the presence of plastic in sewage and how this is one of the routes by which it reaches the water/marine and terrestrial environment. The water industry wants to improve its understanding of sewer misuse as a source of plastic in sewage/sewage effluent and sewage sludge and consequently this study has also examined publicly available information on plastic content of the product types examined for ‘do not flush’ labelling.

1.1.2 Plastic content of products

Collection of information on plastic use is needed to aid the water industry’s understanding of sources of plastic in sewage, as this is relevant to understanding its prevention and the emerging issue of plastic contamination in the marine environment derived from sewage and to land via sewage sludge. Communication about avoiding this route to the

² <http://www.water.org.uk/policy/improving-resilience/21st-century-drainage>

³ 21st Century Drainage Programme Communication Document:
<https://dl.dropboxusercontent.com/u/299993612/Publications/21st%20Century%20Drainage/21st%20Century%20Drainage.pdf>

environment may assist in prompting behaviour change through customer awareness campaigns about sewer misuse.

1.2 Objectives

This is a study to survey and monitor changes in the use of 'do not flush' and 'flushable' labelling by retailers on their own labels and by brand owners; and the use of plastic in products associated with sewer misuse. Its purpose is to provide evidence and baseline data, in part to inform the proposed national 'The Toilet is not a Bin' campaign with retailers and manufacturers.

- to provide evidence to support the water industry and proposed national campaign with manufacturers and retailers in targeting sewer misuse initiatives concerning product labelling and customer education
- to monitor the impact of initiatives
- to improve understanding of plastic materials used in the products

The project does not consider the appropriateness or otherwise of flushability claims or testing, which is the subject of other studies, but presents a factual account of current labelling of 'flushable' products.

2 Methodology

2.1 Introduction

2.1.1 Tasks

The methodology and results chapters of this report are divided into sections on product labelling and on plastic content of products, reflecting the separate issues and objectives of these.

The overall work programme for the project comprised the following tasks:

1. Confirming scope and approach at a Project Initiation Workshop with the Project Steering Group.
2. Undertaking information collection on labelling and plastic content -The 2017 survey.
3. Reviewing the 2017 data and also comparing changes in labelling on a range of products that was collected in 2014.
4. Producing the Project Report and holding a Dissemination Workshop.

The project was undertaken between 1st March and 31st August 2017.

2.1.2 Outputs

The outputs from this project are:

- This project report.
- A Dissemination Seminar.
- An excel database of 2017 survey covering brands, manufacturers, retailers, products and the symbols and information used for their labelling, for use in future surveys.

Any recommendations on undertaking a future survey to monitor the impact of current initiatives on product labelling will be made by the Project Steering Group (PSG) to the 21st Century Drainage Programme Board.

2.2 Labelling of products

2.2.1 Introduction

The products in scope were determined from discussion with the Project Steering Group (PSG), based on past experience with products found in blockages and on wastewater treatment works screening and past customer education campaigns including the 'Dirty Dozen'.

The suppliers of products were considered with the PSG. They fall into two main categories of retailers, who supply both their own label products for which they are responsible for labelling and branded products, and the branded owners who are responsible for labelling on their products.

The statutory and voluntary requirements for product labelling were reviewed. As a basis for recording labelling information, comparing labelling on products and providing for comparison with future surveys, the requirements of the EDANA 2008 Code of Practice and the EDANA 2017 2nd Edition were reviewed.

The recording of the use of 'do not flush' labelling has been undertaken by observation of the labelling on product packaging and recording in an excel database and in photographs.

The labelling on products marketed as non-flushable and on products marketed as flushable are considered separately in the results.

2.2.2 Review of statutory and voluntary requirements for labelling

The information included on product labelling is subject to some statutory requirements and suppliers may choose to engage with the rules of voluntary initiatives.

A review of the statutory and voluntary requirements and rules governing the labelling of products within scope was undertaken by a combination of literature review and liaison with relevant bodies, where needed, for clarification. The results are summarised in Section

3.3. This information was used to inform both the data collection for the survey and the interpretation of findings.

2.2.3 Product selection

The scope of the product types to be included in the project was discussed at the first PSG meeting. An initial list was presented to the PSG that was based on a generic version of the products listed in water industry's 'Dirty Dozen' list of products causing sewer blockages and found on beaches. The order and composition of items comprising the Dirty Dozen may vary slightly between WaSCs and other stakeholders using the concept, but a typical list comprises:

1. Sanitary towels, panty liners and backing strips
2. Tampons and tampon applicators
3. Condoms and femidoms
4. Disposable nappies
5. Wipes
6. Bandages and plasters
7. Razors
8. Cotton buds
9. Syringes and needles
10. Incontinence pads
11. Plastic bags and wrappers
12. Disposable toilet brushes

The 2014 survey of 130 products also included the following products that have 'do not flush'/flushable labelling: moist toilet tissue, cotton wool products (balls, buds, rolls and pads), dental products and tissues (kitchen and personal)

It was agreed that, whilst the priority was to examine labelling on wipes and absorbent hygiene products, the other 'Dirty Dozen' and 2014 survey products were in scope.

The scope of products examined covers products readily available for purchase by consumers and therefore syringes and needles which are prescription medical devices were not included in the scope.

Subsequent examination during the project of non-flushable products on sale with a potential for being flushed and that had non-flushable/flushable labelling additionally identified dog poop bags and training pads and cat litter as products that carry 'do not flush' labelling.

The list of products in scope was shared with WRc plc, which is undertaking the 21st Century Drainage Programme project on 'Wipes in Sewers' examining the composition of sewer and pump blockages. They additionally identified toilet block accessories and 'J-cloth' type cleaning cloths (i.e. the highly visible blue and white coloured cleaning cloths) as non-flushable products of interest.

The products in scope for this project for labelling, and for plastic content, therefore comprise:

- Absorbent hygiene products
 - Nappies
 - Adult incontinence pads
 - Sanitary pads and towels
 - Panty liners
 - Tampons
- Nappy bags and nappy liners (used with re-usable nappies)
- Wipes
 - Baby
 - Cleansing (personal use)
 - Cleaning (household etc.)
- Cotton wool products
 - Rolls, balls, pads, pleats, buds
- Condoms
- Single use dental products
 - floss, interdental brushes, picks
- Razors
- Dressings
 - Plasters and bandages
- Paper towels
- Paper tissues
- Dog poop bags and training pads
- Cat litter
- Toilet blocks
- Household cleaning cloths

Instructions for the disposal of product packaging were also reviewed as bags and wrappers feature in the Dirty Dozen.

2.2.4 Retailer selection

The project has focused on common branded and retailers own label non-flushable and flushable products that are available through retailers (stores and online) for purchase and use by consumers use. It does not include products available through medical services, other than high street pharmacies, and those specifically for commercial or industrial applications.

A determination of whether a product was an own label or brand was made by examining the information panel on product labelling to identify the name of the company taking responsibility for the product. Retailers usually state their name on own labels, although they do not manufacture the product themselves. Brand owners state their own company names. Neither give details of the companies that manufacture on their behalf.

The retailers in scope are listed in Table 1. Brands and own labels reviewed are listed by product type in the results section.

Online retail

It was intended that products that are only supplied online would be included in the scope. However, it proved impracticable within the resources of the project to comprehensively identify these and it was found that the necessary information on labelling is not provided on the internet.

Online retail services only post photographs showing the Primary Display Panel on the front of products, which rarely include any disposal information, unless the product is marketed as 'flushable'. Do not flush symbols and instructions and instructions about the correct use of flushable products are almost always confined to the back or sometimes sides of packaging on information panels, and these are not illustrated. Such information is rarely included in the text accompanying the photos of products on retail websites. The supporting information provided online focuses on the unique selling features and other marketing information and, if included, disposal information does not identify exactly what instructions or symbols are on the packaging or their prominence. Consequently, this information can only be obtained by inspecting the product or by a direct request to the manufacturer/retailer of each product for exact details of the information on packaging.

It was also observed in the course of the study that where retailers have recently moved 'do not flush' symbols to the Primary Display Panel the images of these products posted online have yet to catch up with the new labelling.

For the purposes of this study, it was considered that instore retailers supplied the same or similar ranges of products through their online offerings. Other online retailers supply ranges of brands or specific brands that they only supply. Consequently, it has been assumed for this study that the use of 'do not flush'/flushable labelling on brands available in store will be representative of brands available only online.

Table 1 Retailers and relative sizes of product ranges they stock for product types in scope.

Large grocery chains – listed in order of relative market share

Chain	Pharmacy in large stores	Relative number of products/types
Tesco	Yes	Large
Sainsbury's	Yes	Large
Asda	Yes	Large
Morrisons	Yes	Large
Co-op	Yes	Small
Aldi		Small
Waitrose		Medium
Lidl		Small

Table 1 (Cont'd)

Smaller grocery chains and non-grocery chains stocking products in scope

Chain	Relative number of products/types
Spar	Small
Nisa-Today	Small
Mace	Small
B&M	Small
Londis	Small
Poundland	Small
Poundstretcher	Small
M&S	Small
Wilko	Medium
Savers	Small
Costco	Small
Mothercare	Absorbent hygiene products and wipes
Primark	Wipes

Pharmacies

Chain	Relative number of products/types
Boots	Large
Superdrug	Medium
Lloyds	Medium
Rowlands	Small
Numark (specialist supplier to 6,000 independent pharmacies)	Medium

2.2.5 Information collection

The examination of labelling was confined to 'on-pack' consumer information and did not examine any separate instructions accessible only by opening the pack or on any website related to a specific product.

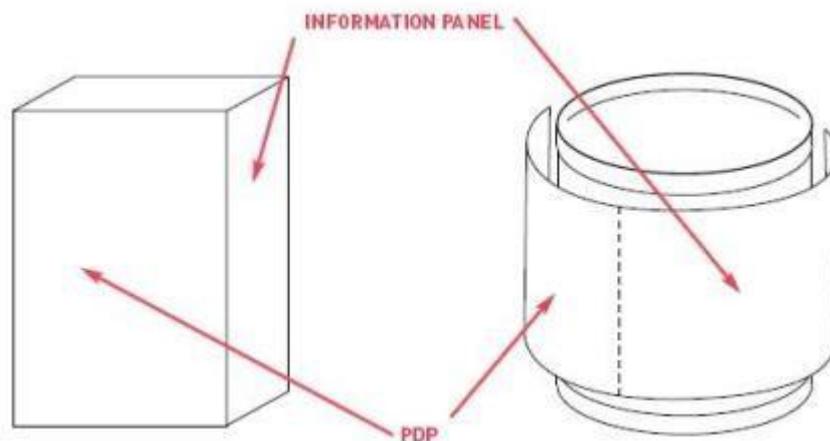
For the 2014 survey, basic information on the use of 'do not flush'/flushable symbols and wording was collected on 130 products. In 2017, the same products were sought for inclusion in the survey.

2.2.6 Recording of labelling

The labelling on product packaging comprises a Primary Display Panel and one or more Information Panels (Figure 2). The Primary Display Panel is the part of a label or package that is most likely to be displayed or examined under normal conditions of display for retail sale. It is mainly used to identify the brand and name of the product and to highlight unique selling points (USPs) the supplier wants the consumer to be aware of. The Information Panel is usually located on the back or sides of product packaging and carries information and instructions concerning the product.

For some statutory labelling and voluntary schemes the size of symbols or text that is required to be displayed on the Primary Display Label is dependent on its size. For rectangular packaging the size of the Primary Display Panel is usually calculated as the height times the width of the front of the package. For cylindrical packaging it may be calculated as 40% of the circumferential area (i.e. 40% of the height X circumference).

Figure 2 Illustration of the location of Primary Display Panels (PDP) on product packaging.
Source US Food Label - <http://foodlabelfacts.org/page6.cfm>



The Primary Display Panel, the main Information Panel and any additional information panels on the sides of packaging were examined and the following information was recorded.

- Brand/Own Label name
- Product name
- Type of product
- Name of manufacturer, brand owner or the retailer taking responsibility for the product by placing their contact details on the labelling.
- Use of 'do not flush'/flushable symbols and/or text on primary display panel.
- Use 'do not flush'/flushable symbol on information panel(s)
- 'do not flush'/flushable instruction on information panel(s)
- Whether the symbols or text are obscured or partly obscured by an element of the packaging (e.g. under a seam).

- General observation on the visibility of 'do not flush'/flushable symbols and text. Use of other symbols on information panels (e.g. recycling, safety, cruelty free)
- Materials used in construction of product (if stated), excluding composition of lotions.
- Country of origin (if listed)
- Presence of labelling in other languages (indicating the product labelling was not just intended for the UK market)

2.3 Plastic content of products

There is no statutory requirement for the materials used in the construction of non-flushable products to be declared, with the exception of textiles, and there are no voluntary requirements in guidelines issued by industry. Consequently, very little information on the materials from which a product and its components are made can be found on product packaging, unless it is seen as a USP marketing feature (e.g. made with 100% cotton). Listing of the substances used in lotions applied to products is a legal requirement, but this does not extend to the materials comprising the fabric of products.

It was therefore expected that information concerning plastic use in individual products/components would only be available directly from retailers/manufacturers by request and if they were prepared to provide this information.

The British Retail Consortium (BRC) and the AHPMA and EDANA were contacted and the options for identifying plastic in non-flushable products discussed covering sources of publicly available information, the voluntary disclosure of information on products and how to approach retailers/manufacturers. The organisations were helpful and supportive but asked for clarification of the water industry's objective in seeking this information – was the intention to seek the removal/replacement of plastic in non-flushable products and/or to better understand sources of plastic in sewage. The Project Steering Group chair confirmed that it is not the intention to seek the removal of plastic from non-flushable products.

The trade associations also advised that previous exercises in Life Cycle Assessment that sought information on materials used in non-flushable products by the Environment Agency and EDANA had been undertaken by generating anonymised generic data because of the commercial competitive sensitivities around disclosing the composition of individual products. They advised that members would be unlikely to provide information on individual products, but offered to consult their members on publicly available generic information. If information on individual products was forthcoming it would likely require signing of a Non-Disclosure Agreement and consequent anonymising of information into generic data.

After consideration of this advice, together with the confirmation that it is not the intention of the water industry to seek the removal of plastic but to better understand its sources, the approach taken for this study was changed to utilise publicly available generic information and seek confirmation via the trade bodies from their members that the information presented was representative of the current situation.

A number of life cycle assessments have been undertaken on disposable nappies, sanitary products and non-wovens that have generated typical compositions including identifying plastic use and these were reviewed and relevant data were tabulated.

For some non-flushable product types the use of plastic in components obvious, whilst for nappies and other sanitary products the construction is complex involving layers of different materials and compositions. To assist in understanding how plastic is use in these generic diagrams were identified and are reproduced (Section 5).

In the course of examining the 'do not flush' labelling of products the labelling on packaging was also checked to identify any information on product composition.

The scope of this exercise covered all the product types included in the labelling survey.

Accessories that might be flushed were included, such as tampon applicators and cages for toilet rim blocks.

Using publicly available information a table of the components comprising products and their accessories and the use of plastic within them was prepared and provided to BRC and AHPMA/EDANA to check accuracy with their members.

3 Review of statutory and voluntary requirements for labelling

3.1 Introduction

There are no statutory requirements for products to carry symbols or text labelling about 'do not flush' or 'flushable'. Consequently, suppliers can make their own arrangements or, chose to engage with voluntary labelling schemes or follow industry guidance/codes of practice.

There is also no legal requirement for providing information about the plastics used in materials and substrates in products.

The products in scope are subject to certain statutory labelling requirements concerning other issues and these can affect the space available/prominence for voluntary labelling information.

Major drivers of labelling are EU directives and regulations, primarily concerning safety, such as Regulation (EC) No 648/2004 on detergents

The information panels on the back of products and some Primary Display Panels can present a cluttered appearance in which 'do not flush' messages may not be prominent (Figure 3).

'Do not flush' symbols are often presented alongside other symbols on labels which can reduce their prominence and/or confuse consumers.

Therefore, it is important to understand how statutory and voluntary requirements drive labelling and affect the use and prominence of 'do not flush' labelling, to assist in interpretation of results.

Figure 3 Example of use of multiple symbols on the information panel of an absorbent hygiene product including old EDANA 'do not flush' symbol and Tidyman (barcode indicates relative size)



3.2 Bag-it & Bin-it, Don't Flush It Campaign and Symbol

The Bag It & Bin It Don't Flush campaign started in 1995 because of sewer misuse leading to discharges of sewage related debris (SRD) reaching beaches through Combined Sewer outfalls (CSOs) and sewage outfalls with the objective of changing people's behaviour by encouraging them to bag and bin non-flushable items rather than flushing them down the toilet.

Figure 4 Bag It & Bin It Don't Flush campaign logo and recommended 'do not flush' symbol for product labelling



The target audience was the public in general, but particularly women between the ages of 15-45. The focus was on not flushing items such as sanitary products, condoms and cotton buds down the toilet, but to bag them and bin them instead.

It ran for nearly two decades operated in phases with changing involvement, ownership and activities. For some time was run by the Department of the Environment, with a consultancy appointed to manage it. Until recently it was hosted on the Water UK website.

By 1999 the campaign was steered by a National Group, whose members included:

- Water UK;
- Women's Environment Network;
- Surfers Against Sewage;
- National Households Hazardous Waste Forum;
- Marine Conservation Society;
- Absorbent Hygiene Product Manufacturers Association;
- EPC Environmental Services;
- Department of the Environment, Transport and the Regions; and
- Environment Agency.

The Bag It & Bin It Don't Flush It symbol (BI&BI symbol) remains very much in evidence on product labelling packaging, particularly on UK retailers own label sanitary products.

Until recently, the campaign comprised general awareness information webpages on the Water UK website and on some water company websites. Some featured it prominently in their misuse education leaflets.

3.3 EDANA Edition Codes of Practice and recommended symbols

3.3.1 Introduction

EDANA issued a Code of Practice for communicating how to dispose of wet wipes in 2008 and a Second Edition in January 2017.

The First Edition provides a basis for assessing current labelling on wipes and the Second Edition will form the basis for future assessment of labelling as it has an 18-month implementation period from January 2017). In the meantime, some retailers and brand owners have begun implementation and so some early assessment of how the guidelines are being applied in practice can be assessed.

3.3.2 EDANA 1st Edition Code of Practice 2008

Manufacturers' Code of Practice on Communicating Disposal Pathways for Personal Hygiene Wet Wipes⁴ 2008

This covers four areas: on pack consumer information, off pack consumer information (websites and other printed material), raising public awareness of responsible disposal practices; promotion and monitoring of the code of practice.

⁴<https://www.edana.org/docs/default-source/default-document-library/manufacturers-code-of-practice.pdf?sfvrsn=4>

The scope of the Code:

- Identifies two disposal routes for wet wipes; the first is via the municipal solid waste system, the second is via the wastewater disposal system.
- Makes a commitment to communicating in a clear, concise and consistent way the recommended disposal route for products – to ensure that only personal hygiene wet wipes that are compatible with the wastewater system are disposed of in this way.
- Covers personal hygiene wet wipes used for intimate cleansing which comprise: baby and toddler wipes, feminine hygiene wipes, incontinence wipes and moist toilet tissue.

The code highlights the commitment of EDANA and its member companies to:

- Use the Guidance Document for Assessing the Flushability of Nonwoven Consumer Products to establish the flushability of individual products prior to making a Flushable claim;
- Clearly label all packs of personal hygiene wet wipes that are not flushable to indicate that they should be disposed of via the solid waste system;
- Communicate the appropriate disposal pathway for personal hygiene wet wipes on relevant printed and online product material;
- Encourage manufacturers and private label producers who are not members of EDANA to comply with this code of practice
- Encourage retailers to subscribe to this code of practice in their private label activities and where possible reinforce this at the consumer level.
- Where appropriate, support the work of stakeholders at national and local level to increase public awareness of good wastewater disposal practices.

It states that the Wastewater Disposal System is only appropriate for products which address public health and hygiene considerations and limits these to products which:

- could be contaminated with faecal/body waste; and
- have been assessed as flushable according to the definition of flushability and the assessment approach outlined in the Guidance Document for Assessing the Flushability of Nonwoven Consumer Products.

The Code's instructions for on-pack consumed information comprise:

- *Manufacturers will ensure that all packs of personal hygiene wet wipes provide consumers with information about whether the product is appropriate for disposal via the wastewater system.*

- *At a minimum this will comprise a symbol for all non-flushable products which clearly indicates that the product should not be disposed of via the toilet.*
- *The EDANA recommended symbol is shown below. EDANA will encourage members to use this symbol with the aim that over time it will become a universal symbol.*

Figure 5 ‘Do not flush’ symbol recommended by EDANA in its 2008 Code of Practice (referred to as old EDANA symbol in this report)



- *In moving towards use of the universal symbol, EDANA member companies may continue to use a different symbol to minimize the need for unplanned art work changes. Member companies may also select a colour for the above symbol which is compatible with their product packaging artwork.*
- *Whichever symbol is used, the following principles should apply:*
 - *The meaning of the symbol must be clear and unambiguous in all European markets and should not require textual clarification.*
 - *The symbol can be placed anywhere on the pack but must be prominent, clearly visible and legible.*
 - *Manufacturers may elect to include additional information in the form of:*
 - *Written text in all relevant languages informing consumers to dispose of products in waste bins*
 - *A waste bin symbol such as the one provided below.*

Figure 6 EDANA recommended version of the Tidyman Symbol



For off-pack consumer information, EDANA committed to providing guidance and information about the appropriate disposal route for personal hygiene wet wipes in printed and web-based product information and to encourage its members will to do likewise.

On raising public awareness of responsible disposal practices, whilst stating that this is primarily the role of Governments and wastewater authorities to address public behaviour in this regard, the Code states that EDANA, its sister organizations at national level and its member companies will consider opportunities to support governments and wastewater authorities.

On promoting and monitoring the Code EDANA undertook to promote it to its membership and encourage them to operate within the spirit of the Code; to also seek to ensure that non-member companies are made aware of the Code and are encouraged to comply with it; and to monitor the effectiveness of the code and its implementation.

3.3.3 Use of this code for the present study

This study does not consider the appropriateness or otherwise of flushability claims on products but seeks to establish the current use of labelling on non-flushable and flushable products.

The code does not specify how flushable products are to be labelled.

Its recommendations for labelling on non-flushable products and, particularly as the code has been in circulation for nine years, provide a useful basis for assessing current labelling on products:

- That as a minimum non-flushable products should carry a symbol clearly indicating that the product should not be disposed of via the toilet.
- The meaning of the symbol must be clear and unambiguous and should not require textual clarification.
- The symbol can be placed anywhere on the pack but must be prominent, clearly visible and legible.
- Discretionary use of additional information in the form of written text.
- Discretionary use of a waste bin symbol

The code does not prescribe the size of symbol. It allows for EDANA member companies to use a different symbol to minimize the need for unplanned art work changes, but encourages a move to use of its recommended symbol, and allows Member companies to select a colour for the above symbol which is compatible with their product packaging artwork.

3.3.4 Updated symbol recommended by EDANA

EDANA subsequently issued a revised recommended symbol, which is similar to the graphic used for the BI&BI symbol.

Figure 7 Updated 'do not flush' symbol adopted by EDANA and now supported by the UK water industry (referred to as DNF symbol in this report)



For the purposes of this report the above symbol is referred to as the DNF ('do not flush') Symbol and the earlier symbol from the 2008 Code of Practice is referred to as the 'old' EDANA symbol.

3.3.5 EDANA 2nd Edition CODE OF PRACTICE: Communicating Appropriate Disposal Pathways for Nonwoven Wipes to Protect Wastewater Systems

This is a more comprehensive set of guidelines that have been developed in collaboration with the water industry in North America. Published in January 2017 it sets an 18-month implementation period, covers all types of wipe and is more prescriptive on the location and size of DNF symbols. Emphasis is placed on the use of the DNF symbol on the front of packaging close to the point of dispensing of wipes.

For the purposes of this study these new guidelines provide:

- a) A basis for assessing labelling the relatively small number (currently) of products with DNF symbols on the front
- b) The basis for assessment of labelling on all wipes in future, post the July 2018 implementation date for the new guidelines.

Key elements of the new Code of Practice are:

- To reduce existing consumer confusion, wipes marketed as "Baby Wipes," should not be marketed as "flushable" even if able to pass an appropriate flushability assessment. Baby Wipes are required to display the 'do not flush' symbol both on the top or front panel of the package visible to the consumer "on shelf" without the consumer having to touch the package, and also a 'do not flush' symbol reasonably visible near the point where individual wipes are taken out of their container.
- A decision tree for determining what labelling should be used on a wipes product
- A category of wipe "Not likely to be used in a bathroom; Low potential to be disposed via toilet, 'do not flush' symbol is discretionary but encouraged"

- A category of wipes "Likely to be used in a bathroom with significant potential to be flushed, DNF symbol required whether or not it is contaminated with faeces, menses or urine and/or related germs":
- A category of wipes "Likely to be used in a bathroom; likely to be contaminated with faeces, menses or urine and/or related germs; Significant potential to be flushed; does not pass Flushability tests, DNF symbol required":
- Commitment to use appropriate guidelines or standards for evaluating flushability of products prior to making a flushable claim (INDA/EDANA Guidelines 3rd Edition unless directed otherwise by local laws)) and only identify products as flushable when they meet all of the criteria of the appropriate flushability guidelines or standards.
- For those flushable products designed to come in contact with faeces, menses or urine and/or related germs while used in a bathroom setting and passing the appropriate flushability assessment, to clearly provide on the packaging explicit product use and flushing instructions;
- Prominently and clearly display on non-flushable products the recommended symbol, and provide instructions indicating that they should be disposed of via the solid waste system and not flushed into the wastewater system;
- Symbol must be prominent, permanently affixed and reasonably visible near the point where individual wipes are taken out of the container holding and dispensing the wipes.
- Must be prominently visible on the on-shelf package consumers are purchasing so that a consumer looking for proper disposal instructions can find them on the package being purchased without opening the pack.
- Should not be obscured by packaging seals or folds or obscured by other package design elements
- Additionally, for the categories of Baby Wipes, Feminine Hygiene Wipes, Adult Incontinence Wipes, and Body Cleansing Wipes, it is strongly recommended and highly encouraged that this symbol be placed on the front or top of the on-shelf packaging so a consumer can see the symbol without having to touch the package.
- Symbol artwork should have sufficiently high contrast with the background to be highly readable (i.e., dark on a light background). Embossed symbols on injection moulded plastic parts should be designed to provide a high visual impact.
- Use of the written instruction 'do not flush' with the DNF symbol is optional. Any on-pack instruction for product disposal needs to be clear and explicit.
- Sets minimum size of symbol based on size of Primary Display Panel.

3.3.6 Basis for recording labelling

Although EDANA Code of Practice 2008 and 2nd Edition 2017 are for wipes products the following elements derived from them were used to record labelling on other non-flushable and flushable products examined.

Non-flushable products with labelling on the information panel (back or side)

- Use of 'do not flush' symbol – BI&BI, old EDANA, DNF, other symbol
- Use of text instead of symbol
- Use of text in addition to symbol
- Visibility of symbol/text – is it obscured by elements of packaging
- Prominence of instructions – are they obvious or contained among other text
- Use of Tidyman

Non-flushable products with information on the Primary Display Panel (front)

- Symbol used
- Location of symbol
- Visibility – contrast
- Visibility on shelf – without recourse to handling the product
- Is it close to the point of dispensing of the wipe
- Use of Tidyman
- Use of text about 'do not flush'
- Visibility of instructions

Products sold as flushable

- Recording on information identifying the product as flushable on the Primary Display Panel
- Recording of any instructions for use relating to flushing the product on the Information Panel.

3.4 Use of EDANA Code of Practice for monitoring changes to labelling.

The 2017 2nd Edition EDANA Code of Practice will provide a clear basis for assessing the labelling of different types of wipe in the future.

The rules differ between types of wipes and a set of questions have been developed using the Guidelines that could be applied to product labelling to assess them against the guidelines. These are presented in Appendix 1 and have been used to consider how symbols and instructions have already been used on the relatively small number of products already on sale in the UK with DNF symbols on the front of packaging.

3.5 Own designs of ‘do not flush’ symbols

In the course of the project a range of alternative ‘do not flush’ symbol designs that were unique to the packaging of a retailer or brand were encountered. A selection of these are illustrated in Figure 8 to show how they differ from the DNF symbol currently recommended by EDANA and the water industry.

Figure 8 Examples of alternative designs of ‘do not flush’ symbol found on products during the survey.



3.6 Safety labelling

Manufacturers have obligations under the European General Product Safety Directive Ref: 2001/95/EC of 3 December 2001 (O.J. L011 of 15 January 2002) to protect users from harm, which influences instructions for use on labelling. There are specific obligations on labelling under various regulations specific legislation particularly regarding declarations of the composition of liquid chemicals supplied in products and safety information. Complying with these will take priority over the use of voluntary labelling on products and may affect the visibility and prominence of ‘do not flush’ labelling.

The products in scope that are most affected are wipes as these contain chemical lotions. For example:

- Cleansing wipes which apply lotions to the skin fall under Regulation (EC) No 1223/2009 (the “Cosmetic Products Regulation”).

- Anti-bacterial wipes are biocidal products using the action of the active substances and fall under the Biocidal Product Regulation (BPR, Regulation (EU) 528/2012).

Both of these have requirements for product labelling to ensure that there are sufficient instructions for the product to be used safely. To illustrate how product labelling is affected the requirements of the Cosmetic Regulation and the use of safety symbols are outlined below.

3.6.1 EU Cosmetic Regulation

Cosmetic products must include information that explains what they are for, how to use them safely, and how to obtain the best result. Specifically, the EU Cosmetics Regulation requires cosmetic products to provide the following information on the label or on the packaging⁵:

- The name and the address of the company (Responsible Person).
- An ingredients list,
- The nominal net.
- Any warnings that might be necessary on how to use the product safely.
- A “date of minimum durability” (“best used before the end of”) or a “period after opening” to show for how long the product may be kept or used.
- What the product is (if not obvious from its appearance).
- A reference (batch number) for product identification.
- Country of origin (for products imported into the EU).

This is illustrated in Figure 9 from the website of Cosmetics Europe on understanding labels⁶ which gives an indication of how consumers are presented with a wide range of information and instructions on Information Panels, among which ‘do not flush’ information and symbols must compete for prominence.

⁵ <https://www.cosmeticseurope.eu/cosmetic-products/understanding-label/>

⁶ <https://www.cosmeticseurope.eu/cosmetic-products/understanding-label/>

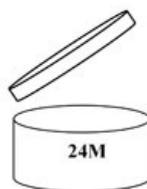
Figure 9 Example of information on cosmetic product labels. Source Cosmetics Europe website.



Ingredients list

Listing in decreasing order of weight of the ingredients (in the cosmetic not the substrate e.g. a wipe). This is mainly intended for people who have been diagnosed with an allergy so that they may avoid ingredients to which they are allergic. The same ingredient names are used across the European Union and most countries worldwide so people are easily able to identify them.

Period after opening symbol



The period-after-opening symbol or PAO symbol is a graphic symbol that used on cosmetic product with a shelf-life of at least 30 months to identify the useful lifetime of a cosmetic product after its package has been opened for the first time. It depicts an open cosmetics pot and is used together with a written number of months or years (e.g. 24M = 24 months on illustration above).

Best before symbol



Any cosmetic product that has a lifespan of less than 30 months must show a "Best before the end of" date. This can be shown using the "egg timer" symbol followed by the date.

Important information symbol



This symbol, also known as the 'finger pointing symbol', is usually used where there is not sufficient space on the packaging to display all relevant information. Its use is mandatory if the supplied leaflet/label/tape/tag/card contains compulsory information that does not fit on the package.

Nominal net content

A statement of the net contents of a product on the pack.

3.6.2 Safety symbols

In order to present the required safety information in a common and visible way a range of safety symbols are used on product labelling and these also compete for prominence alongside 'do not flush' labelling. Safety symbols may be designed by the supplier or they may use voluntary schemes. An example of these, which is found on some non-flushable products, is the A.I.S.E. International Association for Soaps, Detergents and Maintenance Products safe use icons scheme⁷ (Figure 10), which has been in use since 2004. Where these symbols are used on non-flushable product packaging their strong black background makes them stand out from other information.

3.6.3 Tampon safety

Tampons, because uniquely among the products in scope they are for internal use, have a specific requirement to carry prominent warnings about the risk of Toxic Shock Syndrome and part of the safety instruction requires prominent illustration of the relative absorbency of the product. Consequently, 'do not flush' information tends to be located on the smaller ends of tampon boxes with the important safety information displayed on Information Panels on the larger sides.

⁷ <https://www.aise.eu/library/artwork/safe-use-icons---update-2014.aspx>

On nappy packaging, the 'do not flush' symbol and other general information symbols are often located on the ends of packaging rather than the sides.

Figure 10 A.I.S.E. safe use icons



3.7 Recycling labelling and voluntary symbol schemes

There is no mandatory requirement for the use of recycling symbols on packaging. However, they are widely used and may appear on packaging close to DNF symbols.

A significant issue is that recycling symbols refer to the packaging not the product. Their presence may give the impression that the product is recyclable and be misunderstood as implying that it is flushable.

There are several voluntary schemes for indicating how packaging should be disposed of:

- Mobius Loop
- On-Pack Recycling Label (ORPL)
- Green Dot

3.7.1 Mobius Loop symbol



This symbol indicates that something is capable of being recycled. The Mobius loop appears in various forms and may be material specific by including a material identification code number in the middle and a brief description below (example for PET above).

3.7.2 On-Pack Recycling Label (OPRL) symbol



This is the recycling symbol of Recycle Now⁸, which is a national recycling campaign for England. In addition to its use on packaging, the symbol is used on at recycling facilities, on vehicles, literature and recycling bins to support recycling schemes.

The symbols are colour coded: green to indicate widely recycled, black if recycling facilities may be limited in some areas and with a cross through to indicate not currently recycled.

3.7.3 The Green Dot symbol



The Green Dot is used on packaging in most European countries, but not in the UK to show that the producer has made a financial contribution towards the recovery and recycling of packaging. However, it does not indicate that the actual product's packaging can be recycled, can actually be recycled locally or contains recycled material.

In the UK the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (first came into effect in 1997) require obligated producers to pay a proportion of the cost of the recovery and recycling of their packaging and to demonstrate this through a Packaging Recovery Note (PRN) System, which comprises some 17 different schemes in the UK. This system does not require the displaying on packaging of a symbol like the Green Dot.

⁸ www.recyclenow.com

The Green Dot is quite widely use on packaging and may give the impression that the packaging/product is recyclable and might therefore be mistaken as indicating it can be flushed.

3.8 Tidyman symbol

The Tidyman symbol (Figure 11) was introduced by the Keep Britain Tidy in 1972 to remind people not to drop litter and has been subsequently adopted internationally. In 2010, Keep Britain Tidy introduced the new image as part of a 'Love Where You Live' campaign to replace the original (Figure 11). However, the old symbol has since been retained and is currently used in the Keep Britain Tidy charity's own symbol.

The Tidyman symbol does not indicate whether a particular product or its packaging is recyclable, but it does act as a reminder to dispose appropriately. It may be used on waste bins positioned alongside recycling containers or bins in public places.

Its use is ambiguous in relation to non-flushable products is as it may refer just to packaging or to packaging and the product. The EDANA Codes of Practice recommend its use in conjunction with the DNF symbol, but use a different version of the Tidyman Symbol (Figure 6, above)

The official versions of Tidyman and various other versions are found on the products in scope.

Figure 11 The Tidyman Symbol of the Keep Britain Tidy campaign and the Love Where You Live version. The EDANA version is shown in Figure 6.



3.9 Other voluntary labelling on sustainability and animal cruelty

3.9.1 Forest Stewardship Council symbol



This symbol is widely used on products that contain wood derived materials (e.g. tissues and paper towels) to demonstrate that this has been independently certified as coming from well managed forests. It is featured on the Primary Display Panel of some product as a USP.

3.9.2 Animal Cruelty symbol



The 'leaping bunny' symbol indicates that a product has been independently approved not tested on animals in accordance with Cruelty Free International certification. It features on the Primary Display Panel of some product as a USP (see Figure 33 in Section 4.27).

3.9.3 Sustainability symbols

The voluntary Sustainability Initiative of A.I.S.E. (International Association for Soaps, Detergents and Maintenance Products) was observed on the labelling of some non-flushable products.



Indicates that a producer soaps, detergents or maintenance products subscribes to the A.I.S.E. Charter Sustainability Procedures (CSPs) for managing sustainability across the lifecycle and been independently verified.

4 Results for product labelling

4.1 Introduction

The labelling on 960 products covering the types in scope were reviewed and recorded.

Of these 60 were marketed as flushable (see 4.10) and on 27 products the 'do not flush' symbol had already been moved to the Primary Display Panel (see Section 4.9).

The main findings are summarised below by product type.

In examining the labelling on products the key points from the EDANA 2008 Code of Practice have been considered (see summary below). Although the Code applies to personal hygiene wet wipes used for intimate cleansing (baby and toddler wipes, feminine hygiene wipes, incontinence wipes and moist toilet tissue) it is also used in this report as a basis for reviewing other types of wipe and other types of non-flushable products. The key points of the EDANA 2008 First Edition Code of Practice are:

- Communicating in a clear, concise and consistent way the recommended disposal route for products.
- Clearly labelling all packs of personal hygiene wet wipes that are not flushable to indicate that they should be disposed of via the solid waste system;
- At a minimum this will comprise a symbol which clearly indicates that the product should not be disposed of via the toilet.
- EDANA will encourage members to use its recommended symbol with the aim that over time it will become a universal symbol.
- EDANA and its members will encourage manufacturers and private label producers who are not members of EDANA to comply with this code of practice
- In moving towards use of the universal symbol, EDANA member companies may continue to use a different symbol to minimize the need for unplanned art work changes. Member companies may also select a colour for the above symbol which is compatible with their product packaging artwork.

Whichever symbol is used, the following principles should apply:

- The meaning of the symbol must be clear and unambiguous in all European markets and should not require textual clarification.
- The symbol can be placed anywhere on the pack but must be prominent, clearly visible and legible.

Manufacturers may elect to include additional information in the form of:

- Written text in all relevant languages informing consumers to dispose of products in waste bins.
- A waste bin (Tidyman type) symbol.

4.2 Non-flushable wipes labelling

The wipes products examined have been split the following main types in accordance with the classification used in the EDANA 2017 Code of Practice 2nd Edition:

- Baby wipes
- Cleansing wipes (likely to be flushed)
- Cleaning wipes - not likely to be flushed
- Cleaning wipes - likely to be flushed

4.3 Baby Wipes labelling

Baby Wipes products

Baby wipes are primarily intended for cleaning urine and faecal matter from the body during nappy changing. Retailers own labels and brands may provide different products for 'newborns' and for older babies. Baby wipes are usually differentiated into 'fragranced', 'non-fragranced' and 'sensitive' products. Thus, a given retailer or brand owner may offer several baby wipe products.

Baby Wipes packaging

Baby wipes are mainly provided in flexible plastic packaging, broadly rectangular in size, designed to prevent escape of the liquid lotions they have been soaked in. The openings comprise a re-sealable peel-back strip or a moulded plastic flip-up lid with a peel off/resealable strip beneath. These openings are situated in the centre of the top of the packaging in the middle of the Primary Display Panel. The main location for the information panel is on the back and there is some room for information on the sides. The packaging usually has a seam on the back that overlaps part of the Information Panel and this may cover some of the printed information.

Labelling requirements for baby wipes

Under the EDANA 2008 Code of Practice non-flushable baby wipes are required to carry a 'do not flush' symbol as a minimum.

Under the 2017 EDANA Code of Practice 2nd Edition, all baby wipes will be required to carry a prominent DNF symbol on the Primary Display Panel, close to the opening for dispensing wipes, and supporting instructions on the Information Panel.

Baby Wipes labelling

In this survey 64 baby wipe products were examined comprising:

Own labels: Aldi (1), Asda (7), Boots (3), Co-op (2), Costco (1), Lidl (3), Morrisons (5), Nisa (1), Primark (1), Sainsbury (3), Spar (1), Superdrug (2), Tesco (4), Waitrose (4), Wilko (1).

Brands: Euroshopper (1), Childs Farm (1), Jackson Reece (1), Baby Dream (4), Numark (1), Johnsons (4), Huggies (4), Naty (2), Pampers (3), Sesame Street (1), Baby Dove (1), Simple (1), Waterwipes (1).

The current labelling on the baby wipes examined is summarised in as follows:

- None of the products are marketed as 'flushable'.
- All but one of the products carry a 'do not flush' symbol, but there is not a symbol that is universally used on baby wipes. The BI&BI, old EDANA, DNF and own design symbols were observed:

- 31 (48%) carry the DNF symbol (6 with it on the Primary Display Panel).
 - 19 (30%) carry the BI&BI symbol.
 - 7 (11%) carry their own version symbol (4 with it on the Primary Display Panel).
 - 6 (95) products carry the old EDANA symbol.
 - 1 (2%) product carries no symbol.
- Ten of the own label products examined already carried a 'do not flush' symbol on the Primary Display Panel (Asda (DNF), Tesco (DNF) and Waitrose (own Symbol)). These are further described in Section 4.9.
 - Nine own labels carry a 'do not flush' symbol under the flip up lid on the peel of cover (see below), but these are only visible when the lid is opened (Boots (DNF), Superdrug (DNF) Morrisons (DNF), Sainsbury (BI&BI). These are further discussed below.
 - 35 (55%) products carry text instructions about 'do not flush' on the Information Panel.
 - 24 (38%) carry the Tidyman Symbol.
 - 24 products carry the Green Dot symbol, which indicates that these products are probably sold in other countries as this scheme is not operated in the UK. With the exception of a Boots own label product these were all brands.
 - The use of recycling symbols on Baby Wipe products is discussed in Section 4.27.

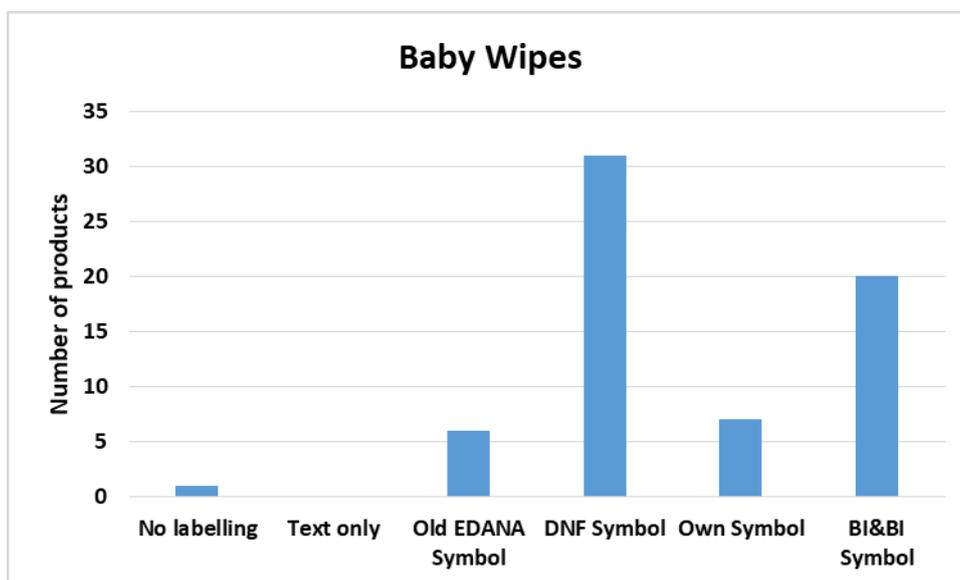
Use of a symbol under the lid on Baby Wipes

It was noted that some products do not have a Symbol on the Primary Display Panel but do have one under the flip up lid on the peel off cover to the wipes. Morrisons, Boots and Superdrug have the DNF symbol and Sainsbury BI&BI symbol. . They all carry do symbols on the Information Panel. This arrangement means that the 'do not flush' message is reinforced when the product is opened for use. This may be an intermediate labelling change with the intention of transitioning later to the DNF Symbol on the Primary Display Panel.

Comparison with Baby Wipes labelling used in 2014

Seven Baby Wipe products from five suppliers were examined in 2014 and the same or similar products were found in 2017. Changes were observed in the labelling of five products (see Appendix 1 Table A1.1) and these mainly involving the updating of the old EDANA Symbol to the DNF Symbol (4 products) and the replacement of text with the old EDANA Symbol in one case.

Figure 12 Comparison of the number of Baby Wipe products reviewed that carry: no ‘do not flush’ labelling, just have instructions about ‘do not flush’ as words on the Information Panel; or are labelled with the old EDANA, the DNF, the supplier’s own design or the BI&BI symbol.



Changes to Cleansing Wipes labelling needed to comply with the EDANA 2nd Edition Code of Practice

To comply with the EDANA 2017 Code of Practice 2nd Edition 85% of these products would need to place a DNF symbol on the Primary Display Panel. Half will need to add ‘do not flush’ information to their Information Panel. Two thirds of products do not carry the Tidyman symbol, which the Guidelines recommend.

4.4 Cleansing Wipes labelling

Cleansing Wipes products

A broad range of wipes for personal use, essentially those that replace the manual application of a lotion to a cloth/cotton wool to the body, fall into the category of ‘cleansing’.

The product names/descriptions for these personal care cleansing wipes may be body part specific: facial, skincare, hands, intimate; and intended for a wide range of purposes: soothing, antibacterial, make up removal, deodorant, feminine, anti-wrinkle, nourishing, exfoliating, freshening, refreshing, medicated, wound cleansing, self-tanning, and hydrating. Specific own label or brand products are available as a range of products with alternative ingredients: e.g. micellar, argan, aloe vera, tea tree, citrus.

The scope of the EDANA 2008 Code included ‘*feminine hygiene wipes*’, a description which covers most of these wipes. This category does not include baby wipes, toddler training wipes, moist toilet tissue or any household cleaning wipes.

Whilst not primarily intended for contact with urine and faecal matter, their use on the body means they are classified under the 2017 EDANA Code of Practice 2nd Edition as:

'likely to be used in a bathroom with significant potential to be flushed, DNF symbol required whether or not it is contaminated with faeces, menses or urine and/or related germs'

Examples of such wipes listed in the EDANA 2017 Guidelines are:

- Hand Sanitizing/Antibacterial Wipes
- Facial/Makeup Removal Wipes
- Personal Care Wipes (e.g., Anti-Aging, Skin Care, Body Cleaning, Sunscreen, Personal Cleansing Cloths, etc.)
- Feminine Hygiene Wipes, Adult Incontinence Wipes, and Body Cleansing Wipes NOT designed to be flushable and/or NOT passing the appropriate flushability assessment.

Cleansing Wipes packaging

Like most other wipes these products are mainly provided in flexible plastic packaging designed to prevent escape of the liquid lotions they have been soaked in. The openings usually comprise a re-sealable peel back strip. A few products have a moulded plastic flip up lid with a peel off strip beneath. These openings are situated in the centre of the top of the packaging in the middle of the Primary Display Panel.

Cleansing Wipes labelling

In this survey 176 cleansing wipe products were examined comprising:

Own labels: Aldi (4), Asda (3), Boots (12), Co-op (1), M&S (6), Morrisons (4), Primark (6), Sainsbury (4), Spar (1), Superdrug (15), Tesco (5), Waitrose (5), and Wilco (4).

Brands: Amie (1) B. (1) Beauty Boutique (1), Beauty Formulas (1), Burts Bees (1), Carex (2), Cien (1), Clean & Clear (3), Clearasil (1), Coconut Water (1), Cuticura (1), Dirty Works (1), Femfresh (3), Freedom (1), Fresh-ups (2), Garnier (8), Grab it (1), Halo (2), JD Protects (1), Johnsons (5), L'Oreal (3), Naturoil (1), Neutrogena (3), Newtons labs (3), Nivea (6), Numark (1), Olay (3), Osiris (3), Pixi Skin Treats (1), Preparation H (1), Pure (6), Purity (2), Reliwipe (1), Ring of Fire (1), Safe+sound (1), Sani + Hands (1), Simple (4), SkinDeep (1), SKYN (2), St Ives (2), Sterets (1), Tea Tree (1), The Fabpore (1), Watson (1), Wet ones (9), Witch (1), Xpel Beauty Care (1), Yes to (3), Yudo (1).

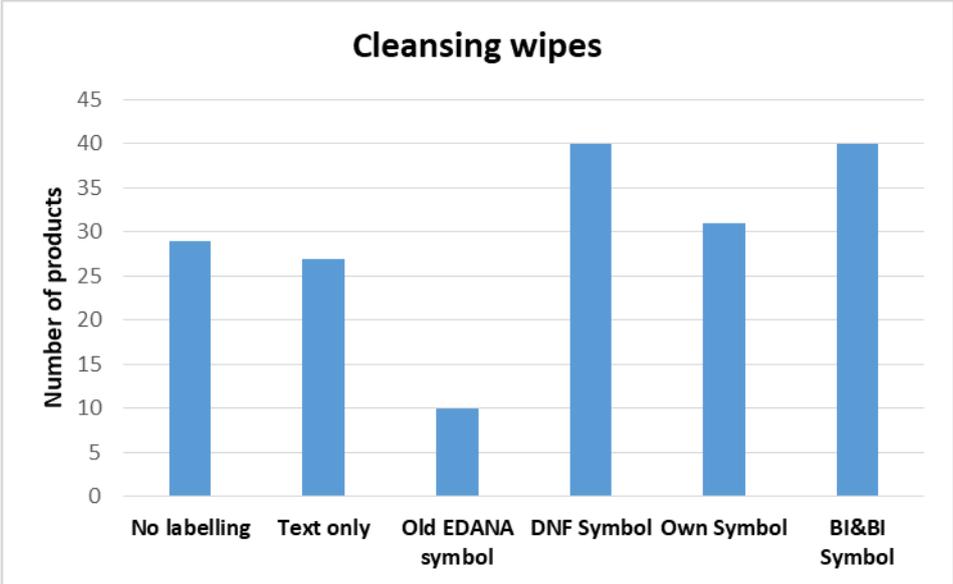
Under the 2008 EDANA Code of Practice non-flushable feminine wipes are required to carry a 'do not flush' symbol as a minimum (see Section 4.1.1).

Under the 2017 EDANA Code of Practice 2nd Edition for cleansing wipes text instructions on the Information Panel are required in addition to the prominent use of the DNF symbol on the Primary Display Panel.

The current labelling on the cleansing wipes examined is summarised as follows:

- Twenty nine (16%) of the products examined had no symbol or information concerning their disposal.
- 27 (15%) had no symbol but the information panel contained text about 'do not flush'.
- 121 (68%) carry a 'do not flush' symbol (**Error! Reference source not found.**). Of these 75 also carry text to support the symbol.
- Use of symbols is not consistent with BI&BI (40), old EDANA (10) the DNF (40) and own design (31) symbols observed (Figure 13).
- Five of the products examined were found to already carry a DNF symbol on the Primary Display Panel (see also Section 4.9)
- On 18 products the logo and/or text instructions on 'do not flush' were completely or partially obscured under the seam on the back of the packaging.
- The Tidyman symbol was found on 32% of the products.

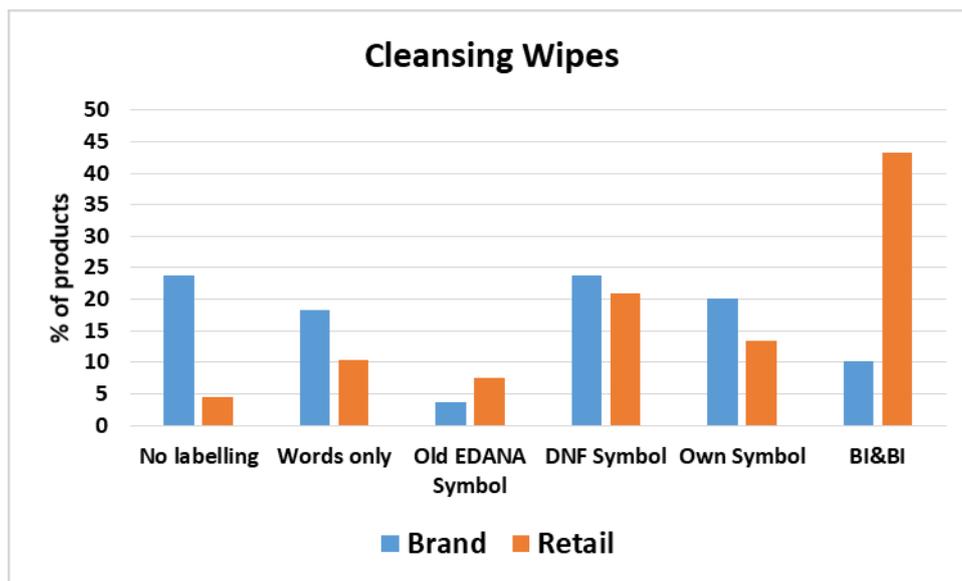
Figure 13 Comparison of the number of Cleansing Wipe products reviewed that carry: no 'do not flush' labelling, just have instructions about 'do not flush' as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier's own design or the BI&BI symbol.



Comparison of the 'do not flush' labelling used on brand products and retailers own labels

A comparison was made of the 'do not flush' labelling used on brand products and retailers own labels (Figure 14). Roughly 40% of branded products do not carry any 'do not flush' information compared with 15% of retailers' own labels. Labelling of the latter is dominated by the BI&BI symbol.

Figure 14 Comparison of the proportions (%) of the retailer own label (n=67) and the branded Cleansing Wipe products (n=109) that carry no 'do not flush' labelling, just have instructions about 'do not flush', or are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol and the BI&BI symbol.



Comparison with Cleansing Wipes labelling used in 2014

Twenty cleansing wipe products were examined in 2014 and the same product or a similar product were found for 13 of these in 2017. Changes were observed in the labelling of 11 products (Appendix 1 Table A1.2) involving the addition of a Symbol, the updating of the old EDANA Symbol with the DNF Symbol, and in one case and addition of the DNF Symbol to the Primary Display Panel.

Changes to Cleansing Wipes labelling needed to comply with the EDANA 2nd Edition Code of Practice

To comply with the EDANA 2017 Code of Practice 2nd Edition 97% of the 176 Cleansing Wipe products examined would need to place a DNF symbol on the Primary Display Panel. A third of these products will need to start using a symbol and two thirds will need to add 'do not flush' instructions to their Information Panel. Two thirds of products do not carry the Tidyman symbol, which the Guidelines recommend.

4.5 Cleansing Pad Labelling

Cleansing pad products

A moistened absorbent pad, square, oval or round, which is used for the removal of cosmetics particularly from around the eyes. These are smaller than wipes. Like a wipe these pads contain a lotion and therefore differ from the dry cosmetic pads (see Cotton Products) sold for applying a separate lotion.

As these are moistened, the packaging is usually similar to wipes packaging, with plastic packaging to retain the liquid and a peel open point of dispensing the pad on the front.

Cleansing pad labelling

Eleven Cleansing Pad products were examined comprising 8 eye make-up remover pads, 2 general cosmetic pads and a nail varnish removal pad:

Halo (1), Quickies (2), Soft and Pure (2), Sainsbury (1), Simple (3), Tesco (1), Waitrose (1)

Eight products (72%) carry a 'do not flush' symbol: 5 BI&BI, 2 old EDANA and one with a DNF Symbol.

- One product carried only text instructions and two have no 'do not flush' labelling.
- One product (Tesco eye make-up remover pads) carries a 'do not flush' label on the Primary Display Panel.
- Three products carry the Tidyman Symbol.
- These products were not part of the 2014 survey.

4.6 Cleaning Wipes labelling

Cleaning Wipes products

The cleaning wipes comprise a range of types some of which are intended for use in the bathroom, some of which may be incidentally used in the bathroom and some which are unlikely to be used there.

These wipes were outside the scope of the 2008 EDANA Code of Practice.

In the 2017, EDANA Code of Practice 2nd Edition cleaning wipes fall under two categories:

'.., not likely to be used in a bathroom; low potential to be disposed of via the toilet': DNF symbol is discretionary but encouraged.

'likely to be used in a bathroom with significant potential to be flushed, DNF symbol required whether or not it is contaminated with faeces, menses or urine and/or related germs'

In anticipation of the application of these rules by August 2018 the cleaning wipes examined in this study have been divided into these two categories.

Types of wipe classified as not likely to be used in a bathroom; low potential to be disposed of via the toilet are:

- Wet Floor Cleaning Wipes
- Electrostatic Dry Floor Cleaning Wipes;
- Stovetop cleaning wipes
- Kitchen cleaning wipes
- Automotive Wipes (i.e., wheel or dashboard cleaning wipes)
- Furniture Polishing Wipes;
- Metal/Stainless Cleaning Wipes
- Lens Wipes;
- Pre-injection swabs/Alcohol Prep Pads
- Glass/Screen Cleaning Wipes
- Shoe polishing wipes
- Plant/garden wipes

Types of wipe 'likely to be used in a bathroom with significant potential to be flushed, are:

- General Purpose Cleaning or Disinfecting Wipes
- Hard Surface/Granite/Marble Cleaning Wipes
- Bathroom/Toilet Cleaning Wipes NOT passing appropriate flushability assessment

Cleaning Wipes packaging

Like most other wipes these products are mainly provided in flexible plastic packaging designed to prevent escape of the liquid lotions they have been soaked in. The openings usually comprise a re-sealable peel back strip. These openings are situated in the centre of the top of the packaging in the middle of the Primary Display Panel.

Cleaning Wipes labelling

Ninety-eight cleaning wipe products were examined in this survey of which 49 were products 'not likely to be flushed' and 49 products 'likely to be flushed'.

The 'not likely to be flushed' products comprised:

Own labels: Aldi (2), Asda (3), Co-op (2), Lidl (1), Morrisons (3), Sainsbury (2), Tesco (3), and Wilko (2).

Brands: Beauty Formulas (1), CIF (1), Clean and Go (3), Dettol (2), Duzit (2), Fabric Magic (2), Flash (1), Green Shield (1), IBA (1), Lord Sheraton (1), Mr Muscle (1), Opticlear (1), Oven Brite (1), Pledge (2), Pro Driver (1), Rug Doctor (1), Safe+Sound (1), Sparkle and Shine (2), Ultra Clean Touch (1), Windolene (2), Wipe-it Clean (3).

The 'likely to be flushed' products comprised:

Own labels: Aldi (2), Asda (1), Co-op (2), Costco (1), Lidl (3) Morrisons (1), Sainsbury (4), Tesco (4), Waitrose (1), and Wilko (2).

Brands: Bloo (2), CIF (1), Clean and Go (1), Dettol (9), Domestos (1), Duzzit (2), Ecover (1), Flash (6), Halo (1), Milton (1), Mr Muscle (1), and Wipe-it Clean (1).

The current labelling on these two categories of cleaning wipes is very similar (Figure 15 and Figure 16) with roughly 15% in each category not having any 'do not flush' labelling, around 40% having only text instructions and around 40% carrying a 'do not flush' symbol.

- Eleven of the products examined were found to already carry a DNF symbol on the Primary Display Panel, 7 were products likely to be flushed and 4 on products not likely to be flushed (see also Section 4.9)
- Use of symbols is not consistent with BI&BI (the most common), old EDANA the DNF and own designs observed (Figure 13).
- The Tidyman symbol was found on 59%of the products.

Figure 15 Proportion of 'likely to be flushed' and 'not likely to be flushed' Cleaning Wipe products reviewed (%) that carry no 'do not flush' labelling, just have instructions about 'do not flush' as words only on the Information Panel and products that are labelled with a 'do not flush' symbol.

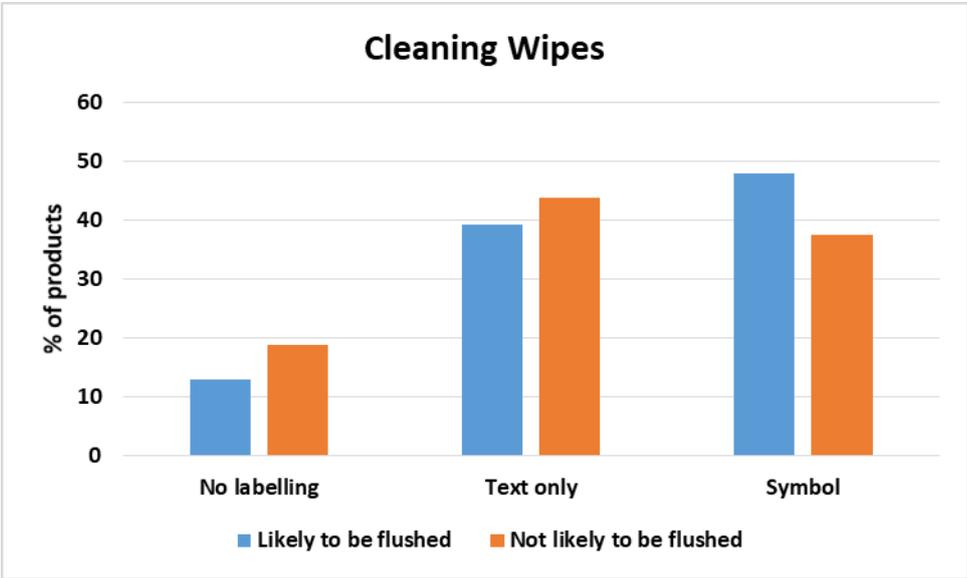
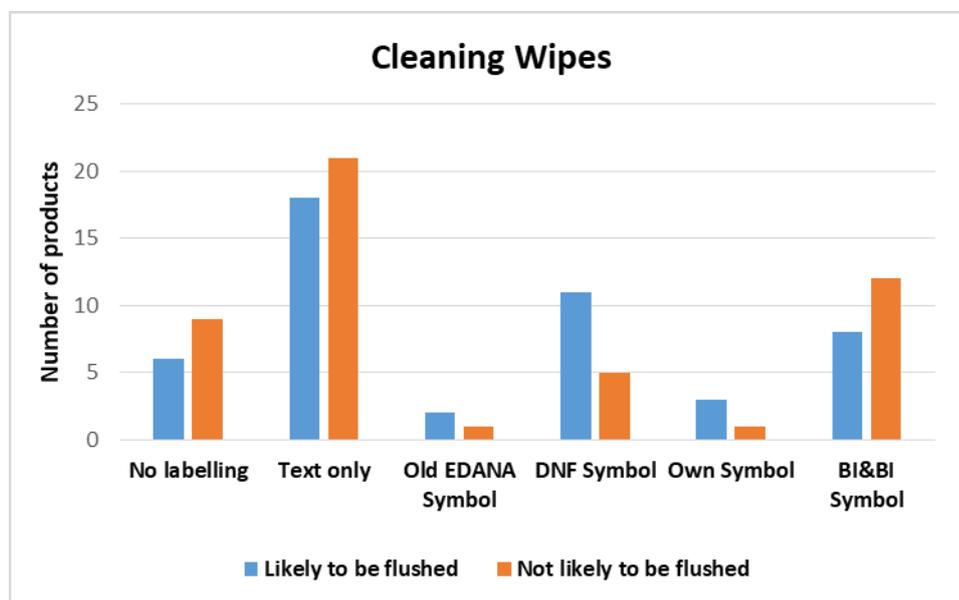


Figure 16 Comparison of the number of ‘likely to be flushed’ and ‘not likely to be flushed’ Cleaning Wipe products reviewed that carry: no ‘do not flush’ labelling, just have instructions about ‘do not flush’ as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier’s own design or the BI&BI symbol.



Comparison of the ‘do not flush’ labelling used on brand products and retailers own labels

For the two categories of cleaning wipes, roughly 20% of branded products do not carry any ‘do not flush’ information compared with <5% of retailers’ own labels (Figure 17). Roughly half of brand products carry text instructions but no Symbols. The majority of retailers own labels carry a ‘do not flush’ Symbol.

Comparison with Cleaning Wipes labelling used in 2014

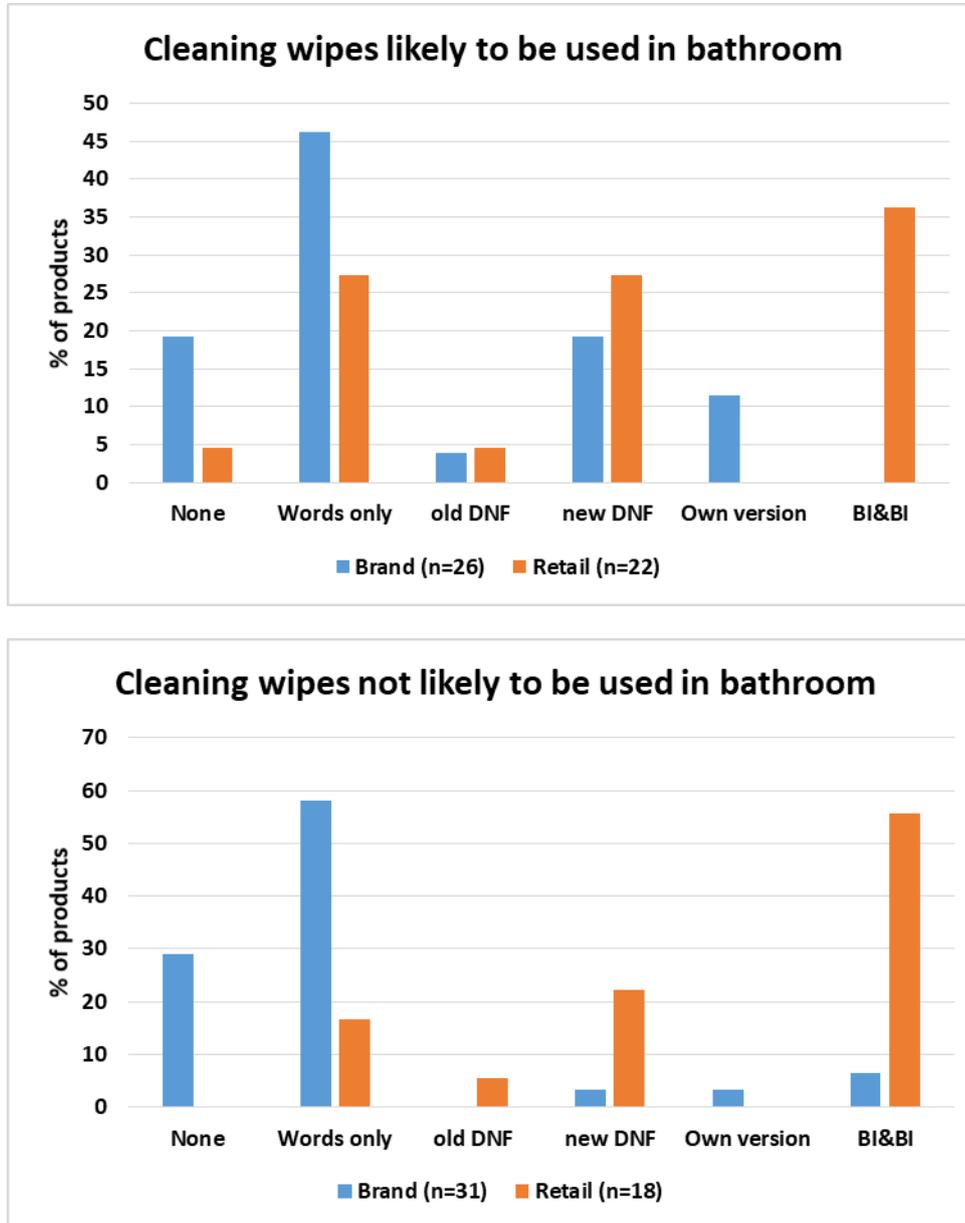
Five cleaning wipes products examined in 2014 were found in 2017. For three products, there was no change in labelling, for one instructions were added and for another the symbol had changed to the DNF Symbol (Appendix 1 Table A1.3).

Changes to Cleaning Wipes labelling needed to comply with the EDANA 2nd Edition Code of Practice

For the products in the category of wipe ‘not likely to be used in a bathroom; Low potential to be disposed via toilet’ the use of the DNF symbol is discretionary but encouraged. Currently 22% of the products examined carry a ‘do not flush’ symbol’ and the majority of these are the BI&BI symbol on own labels, very few brand product carry a symbol.

For the products in the category ‘likely to be used in a bathroom with significant potential to be flushed’ the new guidelines require a DNF symbol, whether or not it is contaminated with faeces, menses or urine and/or related germs. For this category a major change in labelling will be required as only 30% of products examined currently carry a symbol and the majority of these are again own labels marked with the BI&BI symbol.

Figure 17 Comparison of the proportions of the retailer own label and the branded Cleaning Wipes products ‘likely to be flushed’ and ‘not likely to be flushed’ that were reviewed (%) that carry no ‘do not flush’ labelling, just have instructions about ‘do not flush’ as words only on the Information Panel, and products that are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol and the BI&BI symbol.



4.7 Absorbent Hygiene Products labelling

4.7.1 Introduction

Absorbent hygiene products comprise a range of products used for babies, menstruation and incontinence. In the UK the Absorbent Hygiene Product Manufacturers’ Association (AHPMA) takes a strong lead in encouraging members and non-members to mark these

products as 'do not flush'. As these products used nonwoven fabrics in their construction AHPMA works closely with EDANA.

In this report, absorbent hygiene products have been categorised as: incontinence products, nappies, sanitary pads, panty liners and tampons. Disposable breast pads for nursing mothers were found to carry 'do not flush' labelling are included in this category.

4.8 Incontinence Product labelling

Incontinence products

These comprise nappies and pads for adult incontinence use.

Incontinence products packaging

These products are supplied in card boxes or plastic bags.

Incontinence product labelling

Labelling on 10 incontinence products and one incontinence disposal bag were examined:

Asda (1), Kimberly-Clarke (1), Morrisons (2), Superdrug (1), Waitrose (2), Tena (3) and a Kordis disposal bag.

All products carried a 'do not flush' symbol:

- The DNF symbol was found on 4 (Kimberly-Clarke and Tena)
- The BI&BI symbol was on the other 7 products including the disposal bag (Asda, Morrisons, Superdrug, Waitrose and Kordis)
- One product carries the Tidyman symbol.
- None of the products carry 'do not flush' labelling (DNF with words) on the Primary Display Panel.

These products were not included in the 2014 survey.

4.9 Disposable Nappy labelling

Disposable Nappy products

Disposable Nappies are multi-layered products worn by babies and designed to intercept and absorb urine and hold faeces.

Disposable Nappy packaging

Disposable Nappies are supplied in rectangular shaped plastic packaging.

Disposable Nappy labelling

Thirty-three Disposable Nappy products were reviewed comprising:

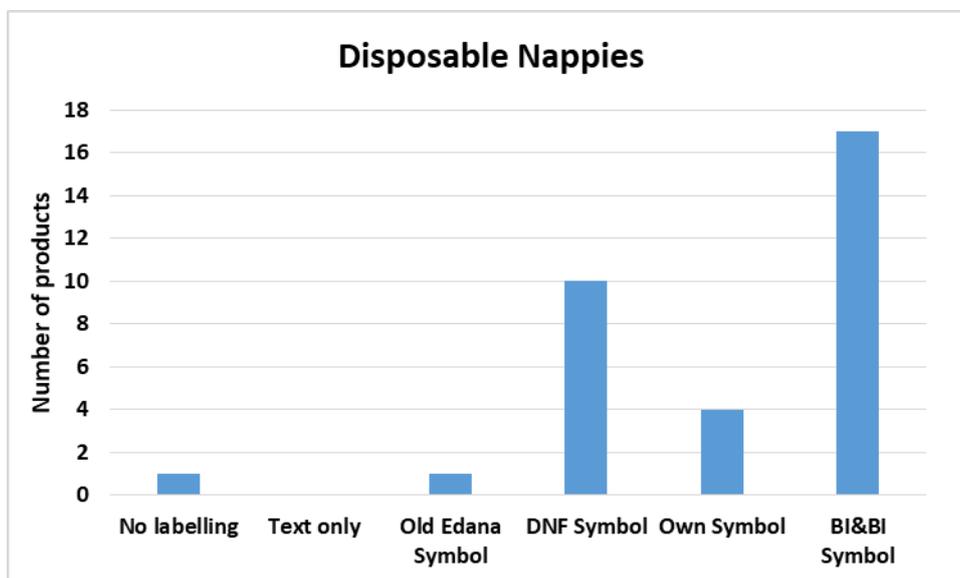
Own labels: Asda (1), Boots (3), Co-op (5), Lidl (1), Morrisons (5), Sainsbury (2), Wilko (1), and Tesco (3).

Brands: Chicco (2), DryNites (1), Huggies (3), Naty (1), and Pampers (5).

All the products carried a 'do not flush' symbol with the exception of Naty.

- 17 (51%) products carry the BI&BI symbol (Asda, Boots, Co-op, Morrisons, Wilko, Tesco), 10 (30%) use the DNF symbol (Boots, Huggies, DryNites, Pampers) and 4 have an own design symbol (Lidl, Chicco, Tesco).
- 19 (58%) carry text instructions about not flushing on the Information Panel.
- None of the products have 'do not flush' labelling on the Primary Display Panel.
- 16 (48%) carry a Tidyman

Figure 18 Comparison of the number of Disposable Nappy products reviewed that carry: no 'do not flush' labelling, just have instructions about 'do not flush' as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier's own design or the BI&BI symbol.



Comparison with Disposable Nappy labelling used in 2014

In 2014, Pampers and Huggies nappies were recorded and in 2017 were found to have been upgraded from the old EDANA symbol to the DNF Symbol, in both years the Tidyman was found on these products (Appendix 1 Table A1. **Error! Reference source not found.**).

4.10 Nappy Bags labelling

Nappy Bag products

A bag, usually with tie handles, for placing used nappies in and containing their contents for disposal with other household waste. May be perfumed.

Nappy Bag packaging

Supplied in plastic bags or card boxes.

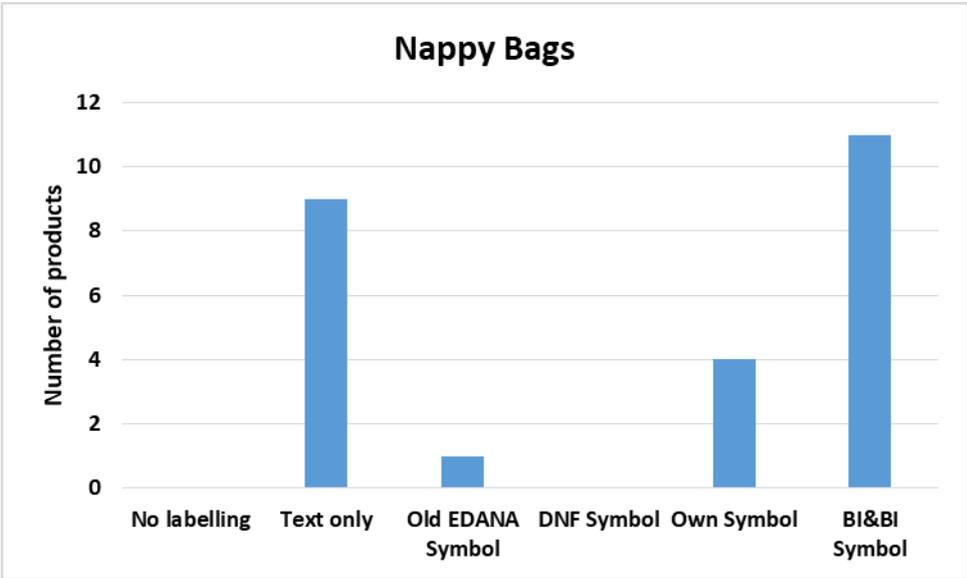
Nappy Bag labelling

Twenty-five Nappy Bag products were examined comprising:

Own labels: Aldi (1), Asda (3), B&M (1), Boots (2), Co-op (1), Morrisons (2), Sainsbury (2), Spar (1), Superdrug (1), Tesco (3), and Wilko (1).

Brands: Neats (1), Tootsie (1), TidyZ (2), Kordis (1), Naty (1), Numark (1).

Figure 19 Comparison of the number of Nappy Bag products reviewed that carry: no ‘do not flush’ labelling, just have instructions about ‘do not flush’ as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier’s own design or the BI&BI symbol.



All products examined carried some form of ‘do not flush’ labelling (Figure 19).

- Nine (38%) carry text only.
- None carry the DNF Symbol. One has the old EDANA Symbol, 4 have own designs and 11 (42%) have the BI&BI symbol.
- 14 of the 16 products with a symbol also carry instruction about ‘do not flush’ on the Information Panel.

- None carry any 'do not flush' information on the Primary Display Panel.
- Two carry the Tidyman and two have a Tidyman type symbol.

These products were not included in the 2014 survey.

4.11 Sanitary Pads and Towels labelling

Sanitary Pads and Towels

An absorbent feminine hygiene pad or towel worn inside clothing.

Sanitary Pads and Towels packaging

Products are supplied in bags, packed in a cube or rectangular form offering several sides for labelling, or a card box.

Sanitary Pads and Towels labelling

Forty-four products were examined:

Own label products from: Aldi (1), Asda (1), Co-op (3), Lidl (1), Morrisons (3), Mothercare (3), Sainsbury (5), Tesco (1).

Brands: Always (7), Bodyform (3), Essence Ultra (2), Helen Harper (1), Kotex (2) Lil-lets (2), Tena (6)

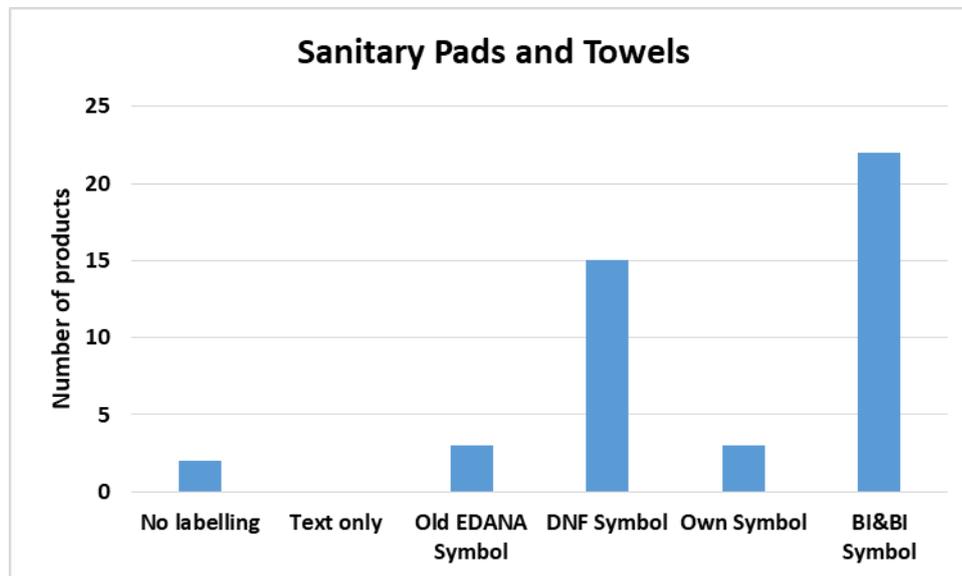
Only two products did not carry any 'do not flush' labelling (Lil-lets).

- Use of symbols is not consistent with old EDANA (3) the DNF (15) and own designs (3) and BI&BI (21) observed (Figure 20).
- None of the products carry a symbol on the Primary Display Panel.
- 18 (41%) of the products carried text on 'do not flush'.
- The Tidyman symbol was found on 20 (45%) of products examined.

Comparison with Sanitary Pad and Towel labelling used in 2014

- Five products reviewed in 2014 were found in 2017. Changes were observed in the labelling of two products with symbols updated to the DNF Symbol (Appendix 1 Table A1.5).

Figure 20 Comparison of the number of Sanitary Pad and Towel products reviewed that carry: no 'do not flush' labelling, just have instructions about 'do not flush' as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier's own design or the BI&BI symbol.



4.12 Panty Liners labelling

Panty Liner products

A thin absorbent feminine hygiene pad.

Panty Liners packaging

Products are supplied in bags, packed in a cube or rectangular form offering several sides for labelling, or a card box.

Panty Liners labelling

Twenty products were examined comprising:

Own label products from Aldi (1), Asda (2), Co-op (1), Lidl (1), Morrisons (1), Sainsbury (1), Tesco (2), Waitrose (1).

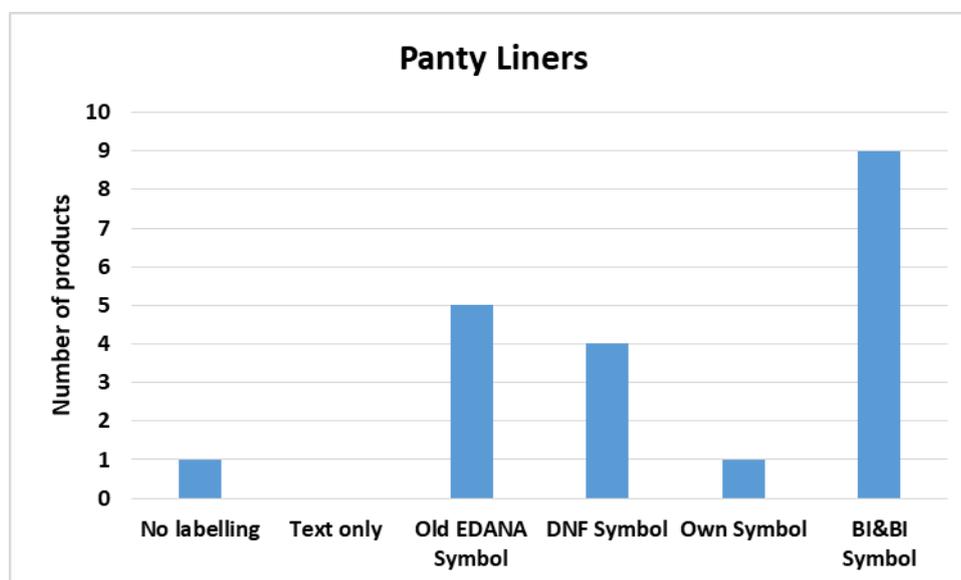
Brands: Always (1), Bodyform (2), Carefree (4), Numark (1), Tena (2).

Only one product had no symbol (Bodyform)

- Use of symbols is not consistent with old EDANA (1) the DNF (4) and own designs (1) and BI&BI (9) observed.
- 7 (35%) products carried instructions not to flush on the Information Panel.
- None of the products carry a symbol on the Primary Display Panel.

- Tidyman symbol was found on 7 of the products examined.

Figure 21 Comparison of the number of Panty Liner products reviewed that carry: no 'do not flush' labelling, just have instructions about 'do not flush' as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier's own design or the BI&BI symbol.



Comparison with labelling used in 2014

Five of the seven products examined in 2014, for which the same or similar products were found showed no change in labelling, whilst two had updated to the DNF Symbol (Appendix 1 Table A1.6).

4.13 Tampon labelling

Tampon products

Feminine hygiene product for internal use sold with or without applicator.

Tampon packaging

Tampons are individually wrapped and normally sold in card boxes, which offer six surfaces for use as Primary Display Panel or for Information.

Tampon labelling

Twenty-four products were examined comprising:

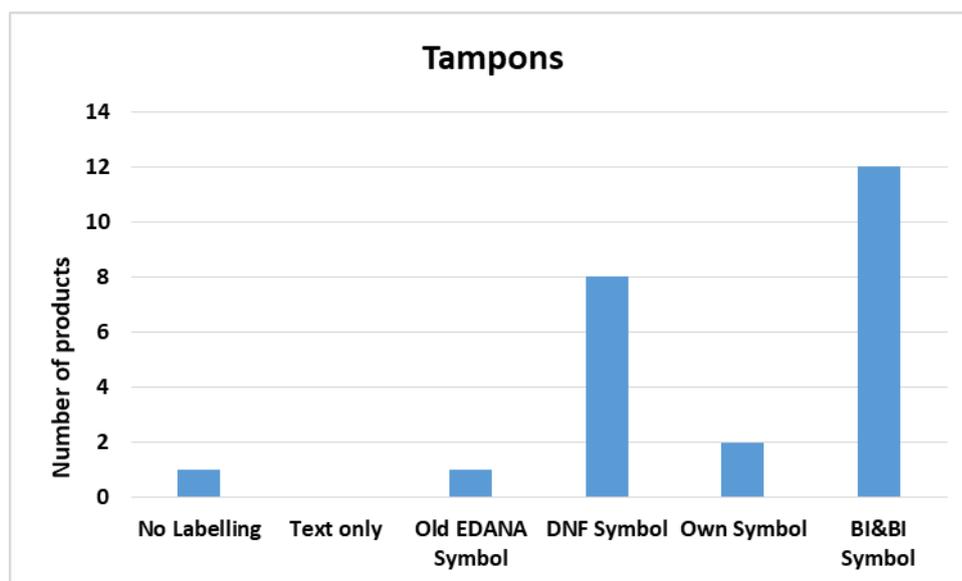
Own label from: Aldi (1), Asda (2), Co-op (1), Lidl (1), Morrisons (2), Tesco (2), Waitrose (4).

Brands: Always (2), Lil-lets (3), Natracare (1), Tampax (5).

Only one product did not carry any 'do not flush' labelling (Natracare).

- Use of symbols is not consistent (Figure 22) with old EDANA (1, Tesco) the DNF (8, Always and Tampax), own design (2, Tampax) and BI&BI (12, used by all other) Symbols observed.
- The Tidyman symbol was found on 10 of products examined.
- Two products carried instructions on 'do not flush' on the Information Panel.
- None of the products carry a symbol on the Primary Display Panel
- Greater prominence is given to the safety information on toxic shock and absorbency on the Information panels.

Figure 22 Comparison of the number of Tampon products reviewed that carry: no 'do not flush' labelling, just have instructions about 'do not flush' as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier's own design or the BI&BI symbol.



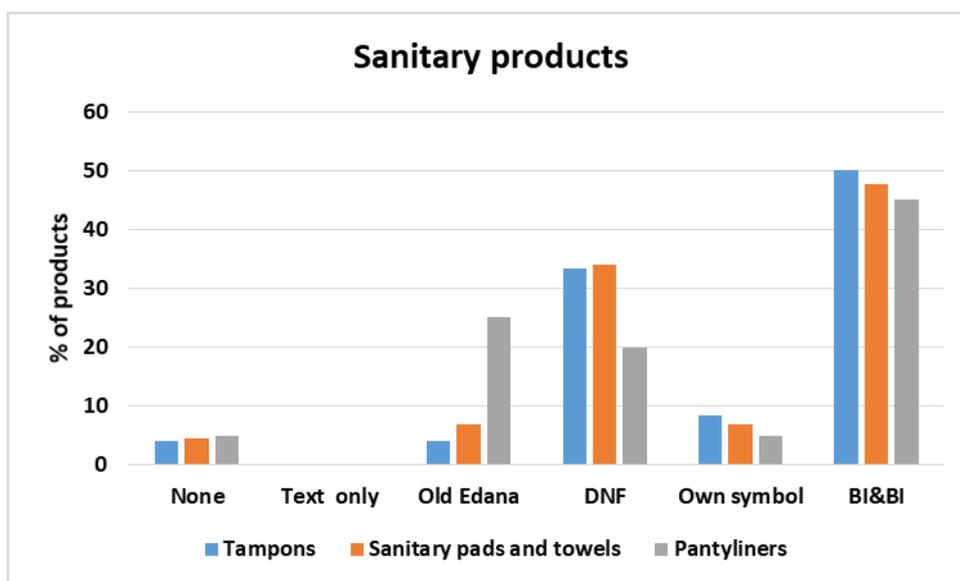
Comparison with Tampon labelling used in 2014

One of the three products examined in 2014 had changed the labelling to the DNF Symbol, one had added the DNF Symbol and Tidyman when previously it had no 'do not flush' labelling, and the other continues to use the BI&BI symbol (Appendix 1).

4.14 Summary of the use of symbols on sanitary products

The labelling of tampons, sanitary pads and towels and panty liners shows considerable similarity in the use of symbols (Figure 23).

Figure 23 Comparison of the proportion of Tampon, Sanitary Pad and Towel and Panty Liner products reviewed (%) that carry no 'do not flush' labelling, just have instructions about 'do not flush' as words only on the Information Panel and products that are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol and the BI&BI symbol.



4.15 Baby Nursing Pad labelling

Baby Nursing Pad products

These are disposable breast pads for use by nursing mothers.

Baby Nursing Pad labelling

The labelling on 7 products was examined:

Johnsons (2), Lansinoh (1), Mothercare (2), Superdrug (1), Tesco (1).

Six carry a 'do not flush' symbol: 5 have the BI&BI Symbol and 2 the old EDANA Symbol

- The other product carries 'do not flush' text instructions
- None carry 'do not flush' labelling on the Primary Display Panel

These products were not included in the 2014 survey.

4.16 Condom labelling

Condom products

A contraceptive product. The product has a high likelihood that it will be flushed.

Condom packaging

Condoms are supplied in card boxes usually with a film wrapper. Condoms are individually wrapped.

Condom labelling

The labelling on five condom products by Durex (3), Mates (1) and Skyn (1) was reviewed.

They do not carry symbols or text on the packaging to show that they should not be flushed.

None of the products are marketed as 'flushable'.

Durex labelling was also examined in 2014 and did not have any 'do not flush' information.

4.17 Disposable Dental Product labelling

Disposable Dental Products

In addition to toothbrushes, dental products comprise the following disposable products:

- Floss/tape – cord from a spool dispenser used for removing material from spaces between teeth.
- Floss holders/flossers – shaped plastic handles holding a fixed short length of floss to aid cleaning between teeth
- Interdental brushes – thin short brushes on a short plastic handle for brushing in spaces between teeth.
- Tooth picks – short wooden or plastic pointed sticks for picking material from between teeth.

Disposable Dental product packaging

Toothbrushes, floss, floss holders, interdental brushes and tooth picks are mainly supplied in blister packages. These have limited Primary Display Panel space on the front around the displayed product and a single Information Panel on the back. Some floss holders and tooth picks are supplied in plastic bags. Flossers, interdental brushes and picks are not usually individually wrapped.

Disposable Dental Product labelling

Thirty-three Disposable Dental Products were reviewed comprising:

- 16 floss/tape products
- 6 flossers products
- 6 Interdental brushes
- 5 picks/sticks products

These were a mix of own label products from Asda, Boots, Lidl, Morrisons, Sainsbury and Tesco and brands from Corsodl, Dentalux, DenTek, Denti-brush Oral-B, TePe, Wisdom and White Wave.

None of the 33 examined carry a 'do not flush' symbol or text instructions.

None of the products are marketed as 'flushable'.

Two products carry a Tidyman Symbol.

Comparison with Dental Product labelling used in 2014

In 2014 six floss products, by Corsodyl, Oral-B and Wisdom, were examined and none carried any 'do not flush' information.

4.18 Cotton Wool product labelling

Cotton Wool products

The cotton wool products examined fall into five main types:

Roll – continuous roll of cotton wool on a core, for the user to tear off the required amount.

Balls – individual balls of cotton wool.

Pads – small shaped circular or oval pads for use with lotions to apply or remove substances on the skin. May be layered.

Pleats – layered square/rectangular pad, usually larger and thicker than a cotton pad serving a similar purpose.

Buds - normally double ended small pads of cotton wool fixed to a stick and primarily used for cleaning ears. Buds for use with babies have splayed ends to the stick designed to prevent the stick penetrating too deep and causing damage to the ear.

Cotton Wool product suppliers

Most retailers offer own label cotton wool products. There are relatively few branded products compared with the own label offerings of the retailers.

Cotton Wool product packaging

Rolls, pads and pleats are supplied in plastic bags shaped to the roll or stacked pads/pleats. Packaging of rolls and pads is cylindrical with proportions of the circumference allocated to a Primary Display Panel and to an information panel. Pleats are rectangular so the packaging offers four surfaces for allocation of the Primary Display Panel and Information panels. Balls are supplied loose in plastic bags, which offer two large surfaces for labelling.

Cotton buds are supplied in a range of packaging:

- Cylindrical tubs with a removable lid on which parts of the circumference is allocated to Primary Display Panel and an information panel.
- Rectangular plastic boxes with a removable lid. These are usually labelled using a stick on Primary Display Panel across the lid with a wing at each end covering the short sides of the box and holding the lid on. These wings serve as limited space for information.
- Plastic bags offering front and back surfaces for labelling.

Cotton Wool product labelling

In this study, 94 products were examined comprising: Balls (21), pads (34), pleats (9), rolls (4) and buds (26). The suppliers comprised:

Own label products (78): Aldi, Asda, B&M, Boots, Co-op, Lidl, Morrisons, Mothercare, Sainsbury, Superdrug, Tesco, Waitrose, Wilko.

Brands (16): Johnson and Johnson, Numark, Make up gallery, Cottontails, Johnsons, Caress, Cotton tree, Metime, Soft & Pure.

The labelling across these product types (balls, pads, pleats, rolls and buds) showed remarkable similarity (Figure 24) with roughly half having no labelling and half using the BI&BI symbol in each case.

- A small number of products used the old EDANA, DNF or own symbol.
- None of the products carry don not flush information on the Primary Display Panel
- Text concerning 'do not flush' is rarely used on the labelling of these products.
- None of the products is sold as flushable.
- The Tidyman Symbol was observed on 4 products.

The proportions of own label products and brands carrying 'do not flush' information on labelling was very similar (Figure 25).

Comparison with Cotton Wool labelling recorded in 2014

No changes were observed in the 'do not flush' labelling of six cotton wool products that had been examined in 2014 (Appendix 1 Table A1.8).

Figure 24 Comparison of the number of Cotton Wool products (balls, pads, pleats, roll and buds) reviewed that carry: no 'do not flush' labelling, just have instructions about 'do not flush' as words on the Information Panel; or are labelled with the DNF, the old EDANA, the supplier's own design or the BI&BI symbol.

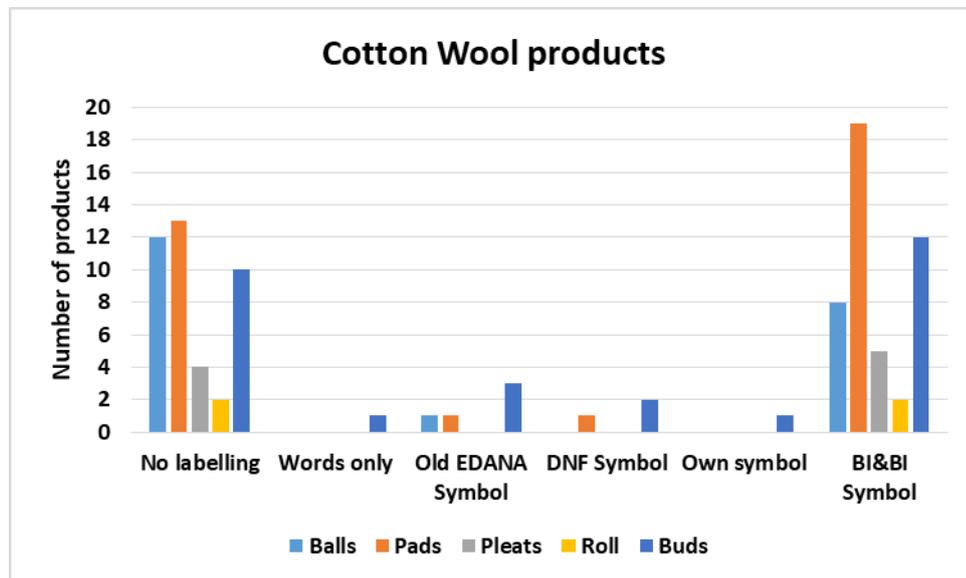
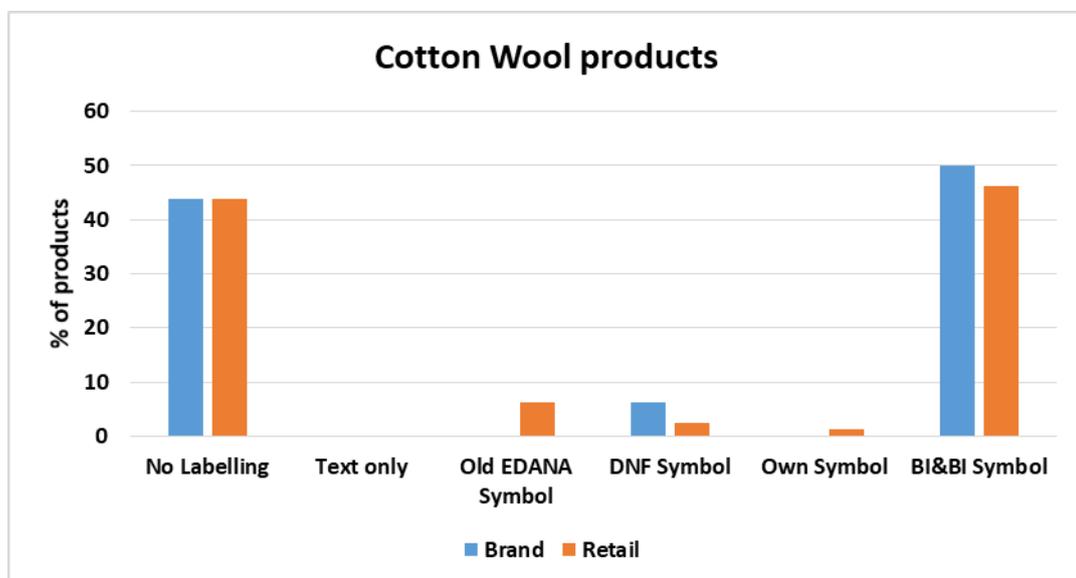


Figure 25 Comparison of the proportion (%) of Cotton Wool products (balls, pads, pleats, roll and buds) reviewed provided by retailers as own labels and brands that carry no 'do not flush' labelling, just have instructions about 'do not flush' as words only on the Information Panel, and products that are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol and the BI&BI symbol.



4.19 Medical Dressing labelling

4.19.1 Bandages

Bandage products

Bandages are strips of material used to fix a dressing in place or to bind or support a part of the body.

They have featured in the 'Dirty Dozen' over the past couple of decades.

Bandage packaging

Bandages are supplied in a range of packaging from simple paper wrappings to plastic bags and card boxes. The latter offer more ample space and flexibility for labelling.

Bandage labelling

In this study, 22 bandages were examined that were a mix of bandages for holding dressings in place and for support comprising:

Own labels: Asda, Morrisons, Sainsbury, and Superdrug.

Brands: Actiwrap, Fastaid, Numark, Safe+sound, Tubifast, WMB Health, Fortuna.

Sixteen (73%) have no labelling concerning disposal. The remaining six carry BI&BI (Asda, Numark, Superdrug products).

- None of the products are sold as 'flushable'.
- None carry any instructions for disposal on the Information Panel.

4.19.2 Plasters

Plasters products

Plasters, or adhesive bandages, are small medical dressings for wounds held in place using adhesive without the need for a bandage.

Plasters packaging

Card box or plastic box.

Plasters labelling

Fifty products were examined in this study comprising:

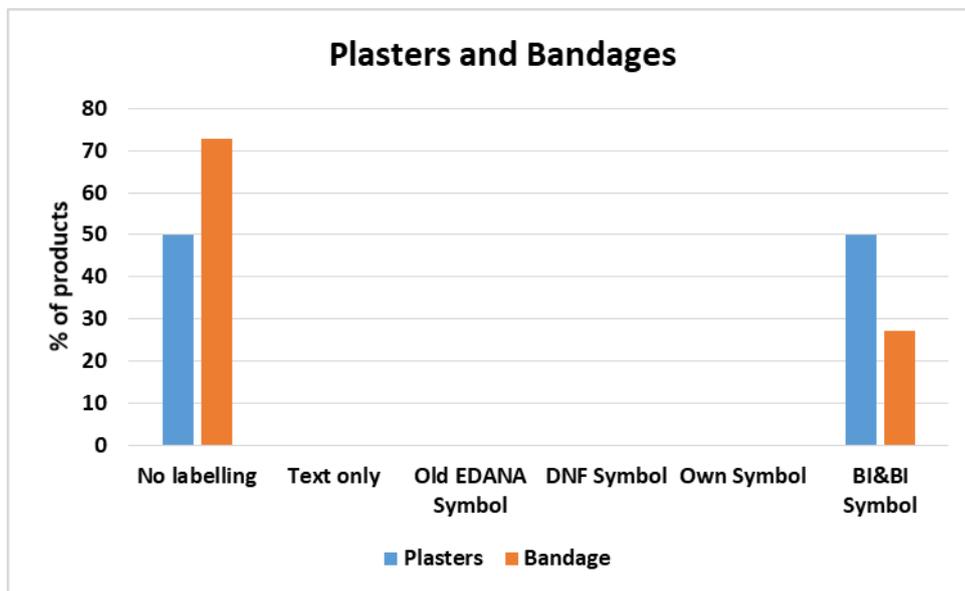
Own labels by: Asda, Co-op, Morrisons, Superdrug, Sainsbury.

Brands: Elastoplast, Savlon, Safe+sound, Fast Aid, Masterplast, Numark, patch & Go, Powerplast, WBM Health.

Twenty-five (50%) have no 'do not flush' labelling. These were mostly brands.

- The other half carried the BI&BI symbol. These were products by Asda Co-op, Morrisons, Sainsbury and Numark, which supplies independent pharmacies.
- None of the products was sold as 'flushable'.
- None of the products carry 'do not flush' labelling on the primary Display Panel.

Figure 26 Comparison of the proportions of Plasters and Bandages reviewed (%) that carry no 'do not flush' labelling, just have instructions about 'do not flush' as words only on the Information Panel and products that are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol and the BI&BI symbol.



Comparison with Plaster and Bandage labelling recorded in 2014

The comparison of six plasters, bandage and tape dressing products that were examined in 2014 found no changes to labelling (Appendix Table A1.9).

4.19.3 Other dressing products labelling (microporous tape and wound pads)

Products

In addition to bandages and plasters do not flush labelling was observed on other dressing products consisting of microporous tape used to hold dressings and bandages in place and wound dressing pads applied to the skin and held in place by bandages and tape.

Labelling

The labelling on ten of these products was examined:

Microporous Tape: Asda (1), Morrisons (1), Numark (1), Safe+ Sound (2),

Wound pad/lint: Asda (1), Superdrug (1), Savlon (1), and Fastaid (1).

Two microporous tape and two wound pad products carry the BI&BI Symbol on the Information Panel.

- None of the products carry text instruction.
- None of the products carry the Tidyman Symbol

These products were not included in the 2014 survey.

4.20 Paper Tissue and Paper Towel labelling

4.20.1 Paper Tissues labelling

Paper Tissues products

The products in scope are paper tissues intended for personal use primarily as disposable hankies.

Paper Tissues packaging

Normally supplied in a card box or a plastic package for pocket-sized products.

Paper Tissues labelling

Thirty four products were reviewed comprising:

Own labels by: Co-op (4), Lidl (1), Morrisons (3), Primark (1), Sainsbury (2), Spar (1), Superdrug (1), and Tesco (1).

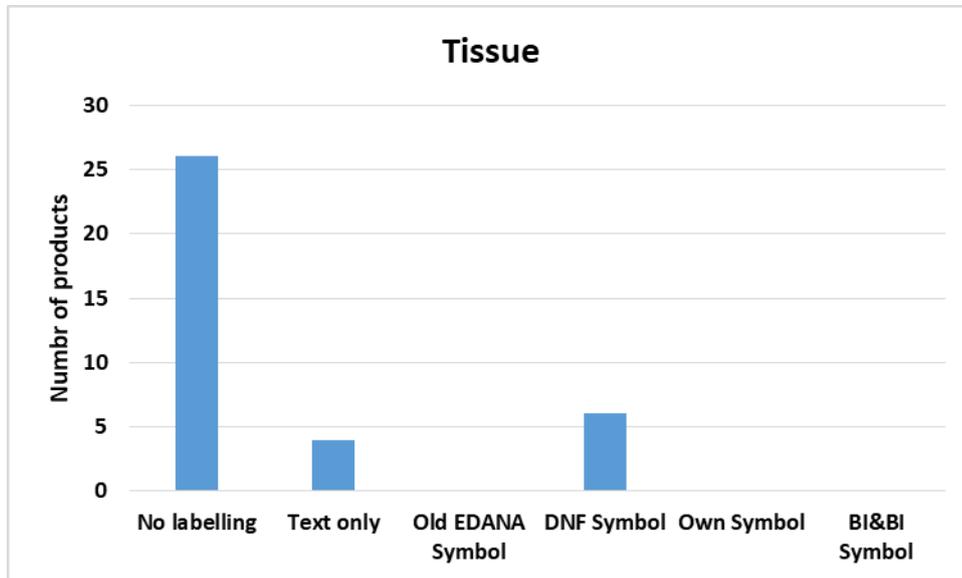
Brands: Bloomsbury & Tate (1), Cotton Soft (1), Fleur (1), I Love One Direction (1), Kingfisher (1), Kleenex (5), Numark (2), Paloma (1), Silk Soft (2), Soft (1), Softies (2), Softy (1), Triple Softy (1), Simply (1) Tempo Box (1)

Twenty-five (69%) products do not carry any 'do not flush' labelling.

Four had text instruction only (Co-op products).

- Co-op products carry the following very specific instruction: 'as with all tissues, 'do not flush' down the toilet but place in refuse or incinerate'.
- 6 products carry the DNF Symbol (Kleenex (5) and Tempo Box (1)).
- None of the products carry 'do not flush' labelling on the Primary Display Panel.
- None of the products are sold as 'flushable'.
- 11 carry the Tidyman

Figure 27 Proportion of Tissue products reviewed (%) that carry no ‘do not flush’ labelling, just have instructions about ‘do not flush’ as words only on the Information Panel and products that are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol and the BI&BI symbol.



Comparison with Paper Tissues labelling recorded in 2014

Kleenex and Co-op tissues were recorded in 2014. Since then Kleenex has introduced the DNF symbol to its packaging when previously it used the old EDANA symbol or no symbol. The Co-op continues to use the text instruction described above (Appendix 1 Table A1.10).

4.20.2 Paper Towel labelling

Paper Towel products

The products in scope are paper towels sold as kitchen towel or multi-purpose household towel for general cleaning purposes. The product usually comprises a paper roll, with perforations to enable sheets to be torn off, around a paper/card core. The project did not include paper hand towels for use in commercial washrooms as consumers do not see the labelling on their packaging.

Paper Towel packaging

Kitchen roll and household roll are relatively bulky items supplied in plastic bag packaging. Consequently, there is substantial space for the Primary Display Panel and Information Panel on the long sides. Information is not normally placed on the top/bottom ends of the packaging.

Paper Towel labelling

Labelling was examined on 19 products:

Own labels: Aldi (1), Morrisons (2), Sainsbury (1), Tesco (1), Wilko (1)

Brands: Festivity (1), Fiesta (1), Plenty (2), Regina (1), Softesse (1), Soo Big Grime Buster (1), Swish (1), Thirst Pockets (1), Thirsty Bubbles (1), Ultimate (1), Ultra Soak (1).

- 13 products do not carry any 'do not flush' labelling.
- Five products carried a 'do not flush' symbol (BI&BI on two Morrisons own brand products, DNF and Tidyman on two SCA Hygiene Plenty products and a version of BI&BI on a Natsons Softeese product).
- One product carried written instructions not to flush (Tesco own brand).
- None of the products examined were marketed as flushable.
- 4 products carry the Tidyman Symbol.

Comparison with labelling used in 2014 on Paper Towels

Three products examined in 2014 were found in 2017. On one product an own design Symbol had been replaced with the DNF Symbol, one no longer carried a Symbol and one continued to have no labelling (Appendix 1 Table A1.11).

4.21 Razor labelling

Razor products

Razors are supplied as separate handles with disposable blades or complete disposable products, for use by men and women.

Razor packaging

Razors and replacement blades are supplied in a range of packaging that is usually a plastic bag or a blister pack and designed to make the product visible from the front of the packaging. An information panel is provided on the back of packaging. Electronic razors are supplied in card boxes.

Razors labelling

18 razor products were examined made by Wilko, Wilkinson Sword, Morrisons, Procter & Gamble, Societe BIC, and B&M?

None of the products carry a 'do not flush' symbol or any written instructions.

None of the products are marketed as 'flushable'.

One product carried a Tidyman Symbol.

4.22 Toilet Block labelling

Toilet block products

Toilet blocks are used to add chemical to each toilet flush for several purposes: to prevent limescale, improve hygiene, to improve cleanliness. They divide into 'rim blocks' that are used within the toilet bowl and 'in-cistern blocks' that dissolve into the cistern water before it is flushed. The latter are normally dropped into the cistern and may have a wrapper that can be left on as it dissolves. The rim blocks comprise three main types: 'caged', in which single or multiple blocks are held in a plastic cage hung from the rim; 'cageless', which use a hanger to hold a single block; and 'stick on', in which adhesive is used to fix a block, gel or strip to the inside of the toilet bowl following removal of paper backing strips or using an applicator. As an alternative to blocks, liquid dispensers can be hung in the toilet bowl.

Whilst the rim blocks and liquids and in-cistern blocks (and dissolvable wrappers) themselves dissolve, the cages, hangers, backing strips and applicators are non-flushable.

Toilet Block packaging

The majority of these products are marketed in blister packs with space for labelling on the back, whilst the stick on strips and gel disc applicators are provided in card boxes.

Toilet Block labelling

Toilet blocks are intended to be flushed as they dissolve into the flushed water. Consequently, it is not appropriate to label the product as non-flushable. None of the products examined carry a 'do not flush' symbol.

Fourteen toilet block products were examined:

Aldi (rim block and liquid rim block), Asda (rim block and liquid rim block), Bloo (rim blocks), Domestos (rim blocks), Duck (liquid rim block and gel discs), Harpic (rim block) Waitrose (rim block and liquid rim block).

Seven products have instructions not to flush the cage/dispenser e.g. 'to avoid blockages, 'do not flush' cage down the toilet'.

Three have instructions to dispose of container in accordance with national regulations.

Four do not have any instructions about not flushing the container.

4.23 Cleaning Cloth labelling

Cleaning Cloth products

This category covers reusable cloths for applying cleaning materials or for dry dusting.

The category was not initially included in the scope of the project but in discussion with experts on blockages it became apparent that 'J-cloth type' cloths i.e. the highly visible blue/white patterned types of cloth, are identifiable in blockages indicating that cleaning cloths in general do get disposed of via the toilet.

Consequently, cleaning cloths have been added to the scope of this study and a small number of own label and branded products have been examined to provide an indication of 'do not flush' labelling on such items.

Cleaning Cloth labelling

Twelve assorted cleaning cloths by Asda, Co-op, BM Plyco, SC Johnson, Aldi, Mapa Spontex and Tesco were reviewed.

- None of the products carry a 'do not flush' symbol.
- One product (Pledge Dry Dusting cloth by SC Johnson) carries a text instruction on the packaging not to dispose in a toilet.
- None of the products are marketed as 'flushable'.
- The Tidyman symbol was observed on two products.

4.24 Pet product labelling

4.24.1 Cat Litter

Cat litter products

Cat litter is used in trays to provide a location in buildings for cats to urinate and defecate. The litter is disposed of as it is used.

Cat Litter packaging

Cat litter is supplied in large card boxes or bags made of plastic or treated paper with large space available for labelling.

Cat Litter labelling

Twenty nine products were examined comprising:

Own labels: Co-op (2), Pets at Home (2), Sainsbury (4), Tesco (4).

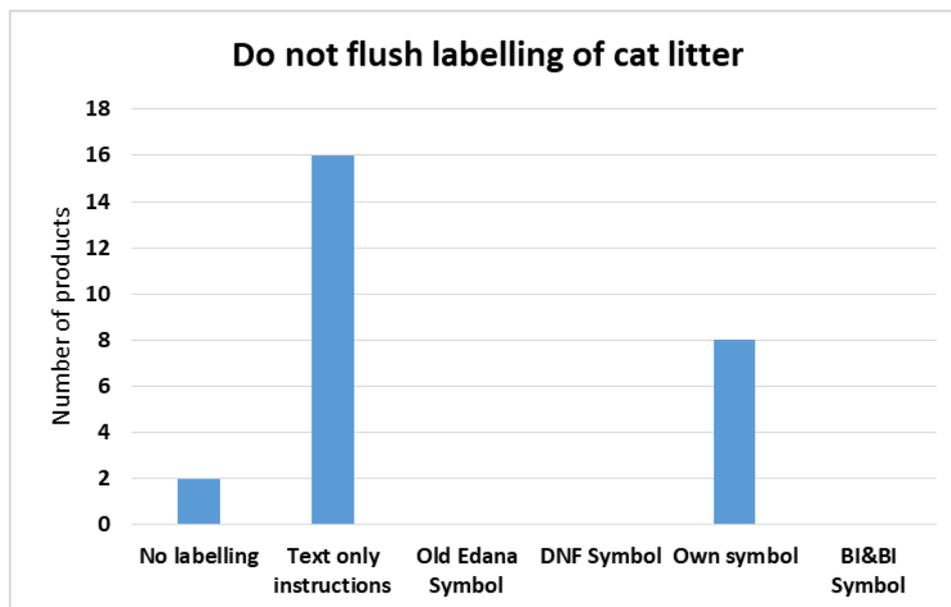
Brands: Armitage (1), Bob Martin (2), Breeder Direct (1), Byotol (1), Cats Best (1), Catsan (1), Clean N'Tidy (1), EcoGrain (1), Igloo (1), Natural (1), Nature's Calling (1), Samba (1), Sanicat (4).

Of these two are marketed as flushable (Section 4.10), three carry no instructions concerning disposal via the toilet and 24 are marketed with labelling concerning disposal via usual household waste not the toilet.

- None of the 24 labelled products examined carry the old EDANA, DNF or BI&BI symbols.

- Eight products carry a non-standard ‘do not flush’ symbol or a diagram of how to use the product, which includes not disposing via the toilet.
- None of the products carried ‘do not flush’ instructions on the Primary Display panel.
- 16 carry text only instructions to dispose of used litter with appropriate household waste. 4 of these carry instructions that specifically state that it should not be disposed of via the toilet and two of these mention not disposing via the sink.
- The Tidyman was observed on two products.
- Cat litter products were not part of the review undertaken in 2014.

Figure 28 Comparison of the number of Cat Litter products reviewed that carry: no ‘do not flush’ labelling, just have instructions about ‘do not flush’ as words on the Information Panel; and products that are labelled with the DNF, the old EDANA, the supplier’s own design or the BI&BI symbol.



4.24.2 Dog Poop Bags labelling

Dog Poop Bag products

A bag for the collection and disposal of dog faeces.

It was noted that some of these products carry ‘do not flush’ instructions which indicates that their suppliers are aware of them being implicated in blockages.

Dog Poop Bags packaging

Supplied in plastic bags, card boxes, blister packs or in rolls with a paper label also serving to hold the roll together.

Dog Poop Bags labelling

Seventeen products were examined.

Own labels: B&M (1), Pets at Home (1), Spar (1), Tesco (1), Sainsbury (1).

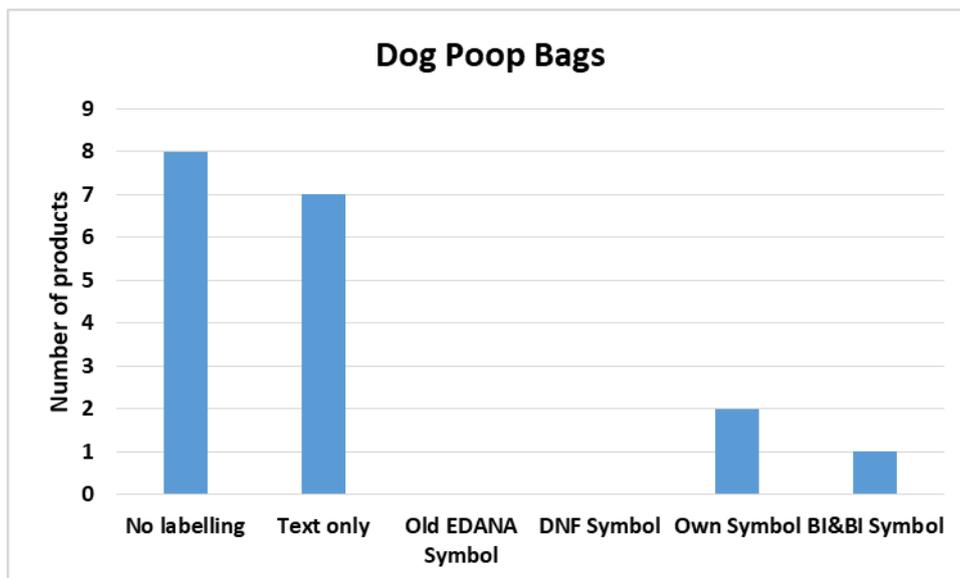
Brands: Ancol (1), Armitage (1), Beco Bags (1), Clever Paws (1), Green Pups (1), HandiPOD (1), Premium (1) Pet Place (1), Petface (1), Playful Pets (1), Spring (1), Tidy Z (1).

Eight do not carry information about not disposing via the toilet

- One carries a BI&BI Symbol (Sainsbury) and two carry a diagram of disposal to a bin.
- Seven have instructions about not disposing to the toilet.
- Two have an instruction to dispose of responsibly, though this may refer to not dumping outdoors rather than not flushing.
- None of the products carry 'do not flush' labelling on the Primary Display Panel.
- None of the products is marketed as 'flushable'.

These products were not part of the review undertaken in 2014.

Figure 29 Comparison of the number of Dog Poop Bag products reviewed that carry no 'do not flush' labelling, just have instructions about 'do not flush' as words only on the Information Panel and products that are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol and the BI&BI symbol.



4.24.3 Dog Training Pads labelling

Dog Training Pad products

These are square absorbent pads to place on the floor to assist in training of dogs to urinate/defecate in one place.

Dog Training Pads packaging

These products are supplied in rectangular plastic packs, similar to the packaging of nappies.

Dog Training Pads labelling

Eight products were examined comprising:

Brands: Hartz (1), Pets at home (1), Simple Solution (1), Petface (1), Tidy Z (1), Petplace (1) and Puppy Rite (1) and a Simple Solution dog diaper product.

One product carries a diagram showing the placement of the product in the bin together with instructions to never flush pads down toilets or drains.

Two products carry instructions not to flush.

The remaining products carry no instructions.

None of the products are marketed as 'flushable'.

4.25 Other product types labelling

A further 19 assorted products were examined which did not fall into the product types described above. They are included in the survey because they either were found to have 'do no flush' labelling or have the potential to be flushed.

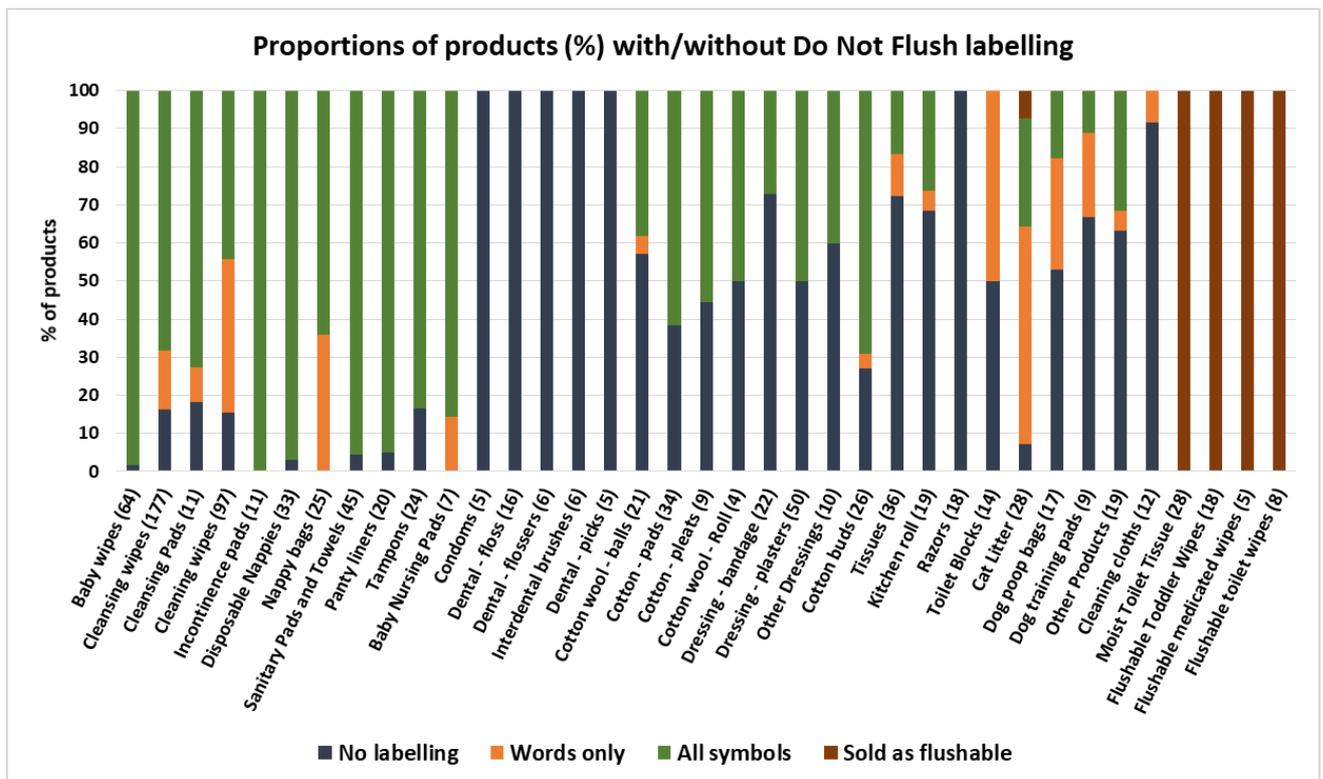
- Disposable Bed Mats – these are for the protection of bedclothes and mattresses from incontinence. Two products were examined, DryNites and Pampers, and the former carries a DNF Symbol.
- A Latex Glove product (Asda) was found with the BI&BI symbol on its labelling.
- Warming Eye Mask (Optrex) – no 'do not flush' labelling.
- Foundation sponge and foam puffs for applying cosmetic (Murrays Beauty) - no 'do not flush' labelling.
- Bathroom antibacterial scrubbing cloths (Sainsbury) – BI&BI Symbol and text.
- Bathroom Scrubber (Flash) – DNF Symbol.
- Face wax strips (Silka) and wax strips (Veet) - no 'do not flush' labelling.
- Oil-absorbing sheets (for skin) (Boots) – text instruction not to flush.

- Sheets for placing in washing machine/tumble dryer to remove colour – 4 products (Morrisons, Tesco, Dr Beckmann) – two products carry the BI&BI Symbol.
- Washing powder in a sheet (Fabrite) - no 'do not flush' labelling.

4.26 Comparison of 'do not flush' labelling across all product types

The labelling survey identifies that 'do not flush' labelling is present to different degrees on the packaging of the different product types examined and this provides insight into uptake of labelling campaigns. The data is summarised in Figure 30 to indicate the relative incidence of products with no labelling, with information text only labelling and with 'do not flush' symbols.

Figure 30 Proportions (%) of the products reviewed for each product type that have no labelling, text instructions only, carry a 'do not flush' symbol or are labelled flushable.



The highest uptake of 'do not flush' symbols on products is among incontinence pads, nappies and baby wipes, sanitary pads and towels, panty liners and tampons. When products with 'do not flush' labelling only as words in instructions are added to products with symbols, nappy bags, cat litter, cleansing wipes and cleaning wipes products have high uptake.

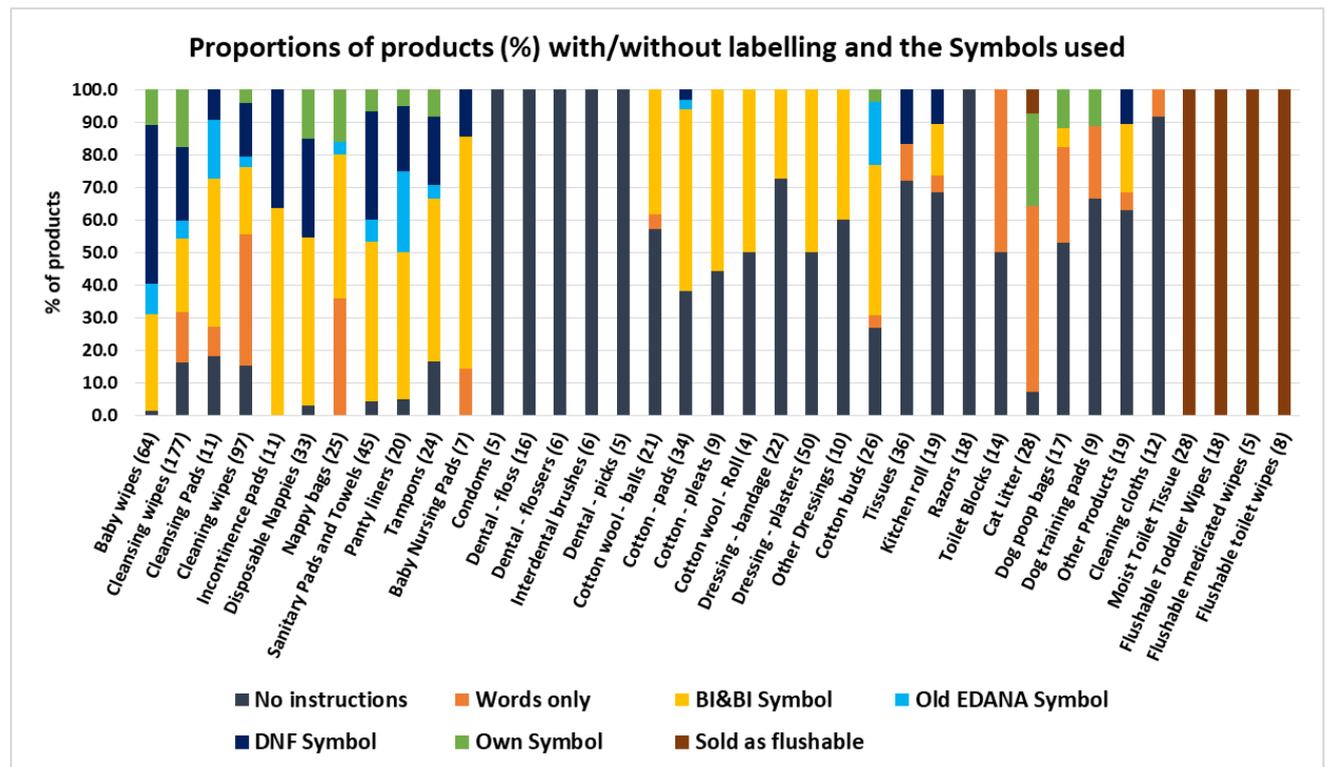
Razors, condoms and dental products stand out (light blue in Figure 30) as not carrying 'do not flush' labelling. Among cleaning products, the toilet blocks, kitchen roll and cleaning cloths, together with dog poop bags and training pads, stand out as having a low uptake of 'do not flush' labelling. Among the personal care products, there is low uptake in bandages,

and other, and relatively lower uptake in plasters, the types of cotton wool products and tissues.

In Figure 31 this data is further divided to indicate the relative presence of ‘do not flush’ symbols by type (BI&BI, old EDANA, DNF and own design). Products with BI&BI symbols are found in almost all product types and are the only symbol observed on dressings, cotton pleats and cotton roll. BI&BI dominates the symbol usage on nappies, nappy bags, tampons and sanitary towels.

The old Edana symbol from the 2008 Code of Practice is found on relatively small proportions of wipes, sanitary and cotton wool products. The DNF symbol is primarily found on wipes and sanitary products. DNF is occasionally found on cotton pad, tissues and kitchen roll. DNF is not found on dog poop bags and nappy bags, dressings, or other cotton wool products. Other designs of symbol are found on wipes, sanitary products and dog products.

Figure 31 Proportions (%) of the products reviewed for each product type showing which that carry no ‘do not flush’ labelling, just have instructions about ‘do not flush’ as words only on the Information Panel and products that are labelled with the DNF symbol, the old EDANA symbol, the suppliers own design of symbol or the BI&BI symbol.



4.27 Labelling on products that have ‘do not flush’ labelling on the Primary Display Panel

4.27.1 Introduction

The commitment of several UK retailers to start moving ‘do not flush’ labelling to Primary Display Panels and the publishing of the EDANA 2017 Guidance has begun a major change in product labelling.

It was apparent during the survey that the number of products on supermarket shelves bearing ‘do not flush’ labelling on the Primary Display Panel has been gradually increasing. At the time of drafting this report, 28 wipes products had been identified which carry such labelling, in varying forms.

The labelling on these is of great significance as they provide an indication of how labelling will change over the next year, as the UK initiatives by retailers and the EDANA 2017 Code of Practice 2nd Edition are applied.

It is apparent that suppliers are implementing this change in different ways and the requirements of the Guidelines have been used as the basis for comparison.

4.27.2 Products which have a symbol on the Primary Display Panel

Examples of the use of ‘do not flush’ symbols on the Primary Display Panel were found on 4 types of wipe and one make-up removal pad:

- Baby wipes: Asda (3), Tesco (1), Sainsbury (2), Morrisons (3), and Johnson (1).
- Cleansing wipes, including a self-tanning wipe: Superdrug (3), Tesco (3), Nice-Pak (1), Superdrug self-tanning wipe (1).
- Cleaning wipes: Co-op (3), Tesco (5), Domestos (1), and Unilever (1).
- Make-up removal pad: Tesco (1).

4.27.3 Differences observed in the use of symbols on the Primary Display Panel

The key differences observed in the use of symbols on the Primary Display Panel are:

- Use of different ‘do not flush’ symbols
- Positioning of symbol
- Use of words on Primary Display Panel
- Use of words on the Information Panel
- Addition of symbol under flip-up lid

Use of different symbols on the Primary Display Panel.

The EDANA 2017 Guideline recommends the use of the 'do not flush' symbol with the optional use of the words 'do not flush' (Figure 32). The following use of symbols on the Primary Display Panel were observed:

- DNF symbol
- DNF symbol with the words 'do not flush'
- BI&BI symbol
- Own design of symbol with/without words 'do not flush'

Figure 32 Example of the use of the recommended EDANA 'do not flush' Symbol with optional use of words on the Primary Display Panel of a product.



Different positions of the 'do not flush' symbol on the Primary Display Panel

The EDANA 2017 Guideline recommends the symbol is reasonably visible near the point where individual wipes are taken out of the container holding and dispensing the wipes. The following were observed:

- On point of opening – on peel back strip
- Under flip up lid on the peel back strip (not visible until opened)
- Near point of opening

- In bottom of the Primary Display Panel Bottom of panel centre – in the centre or to one side (not near point of opening)
- Top of panel to one side (not near to point of opening)

The visibility of symbols on the shelf is further examined below.

Figure 33 Use of text 'X Non-flushable' on opening in the centre of the Primary Display Panel with the BI&BI symbol bottom centre.



Use of words on the Primary Display Panel

The EDANA 2017 Guideline provides for the optional use of the words 'do not flush' with the DNF symbol. The following were observed:

- 'do not flush' positioned with the DNF symbol

- Another form of words on Co-op products (Figure 33) – X Non-flushable on the packet opening under two USPs with ticks - as illustrated above

Use of words on the information panel.

The EDANA 2017 Guideline recommends use of written instructions indicating that they should be disposed of via the solid waste system and not flushed. The following were observed:

- No words on the Information Panel. If the symbol on the Primary Display Panel is not seen by the consumer this may give the impression that the product could be flushed.
- Words on the Information Panel, which may not be prominent.
- Words and symbols on Information Panel which strongly re-inforce the message.

Use of symbol under flip-up lid

- Some products have a 'do not flush' symbol under the flip-up lid (Figure 34). This is only visible when the product is opened.

Figure 34 Use of BI&BI symbol under the flip-up lid (only visible when packaging is opened) together with a visible symbol (own design) and words adjacent to the opening.



Visibility of symbols on the shelf

The EDANA Code of Practice 2nd Edition recommends that the symbol should be visible on the shelf so that the consumer can identify disposal instructions without having to handle the product.

It was noted that symbols located at the bottom the Primary Display Panel may not be visible when secondary packaging is used, as illustrated in Figure 35.

Figure 35 Two examples of lack of visibility on primary display panel.

DNF symbol is located in creased area bottom left and is not visible when in secondary packaging



BI&BI symbol bottom centre of Primary Display Panel not visible in secondary packaging



Use of Tidyman

The use of the Tidyman symbol is optional and was observed on half of the products.

4.28 Recommendations for improving the use of ‘do not flush’ labelling on the Primary Display Panel

Retailers are interpreting the requirements in different ways and some of the approaches taken risk the clarity of the message.

Steps to consider when moving the ‘do not flush’ symbol to the Primary Display Panel are:

- If a symbol is used under the flip-up lid, a visible symbol also needed near this opening or on the lid, that can be seen on the shelf.
- Use contrasting colours for the symbol so that it stands out.
- Use “do not flush” words with the DNF symbol to re-inforce the message and understanding of the symbol.
- Position symbol on or next to point of opening (EDANA guidelines) not on the edge of panel.
- Ensure the symbol is visible when the product is in secondary packaging on shelf.
- Reinforce the message with a “do not flush’ symbol and/or words in the instructions for use on the Information Panel.

4.29 Labelling on products that are marketed as flushable

4.29.1 Introduction

This section examines the information on Primary Display Panels and instructions on flushing included in the information panel on 63 products that were identified as being marketed as flushable. The study did not examine labelling on toilet paper.

The flushable products identified comprised:

- Moist toilet tissue(28)
- Toddler and Kids Toilet Training Wipes (18)
- Toilet or bathroom and toilet cleaning wipes (8)
- Medicated wipes for personal use (5)
- Nappy liner (1)
- Cat litter (2)
- Disposable toilet brush (1)

4.29.2 Products examined

Moist toilet tissue and toddler wipes

The moist alternatives to toilet paper are marketed for two target user groups, general use by all ages and specific products for toddlers/kids. The former are labelled as ‘moist toilet

tissue' whilst the latter may be marketed as being for use for 'toddler training'. No non-flushable moist toilet tissue products were identified.

The labelling on 28 Moist Toilet Tissue products were examined comprising:

Own labels by: Aldi (1), Asda (2), Boots (1), Morrisons (2), Poundworld (2), Sainsbury (3), Tesco (3), Waitrose (1), and Wilko (1).

Brands: Andrex (3), Be Fresh (1), Clean and Soft (1), Dimple (1), Floralys (2), Galleon (1), Halo (1), Quickies (1), Velvet (1).

Eighteen toddler/kids Toilet Training Wipes products were examined.

Own labels by: Asda (1), Co-op (1), Lidl (2) Morrisons (2), Sainsbury (2), Tesco (3), Waitrose (1), and Wilko (1).

Brands: Andrex (1), Pampers Kandoo (1), Kiddy Klean (1), Mamia (1), Yudo (1),

Toilet or bathroom & toilet cleaning wipes

Wipes for cleaning toilets are marketed for that specific use or for both bathroom and toilet use. Both flushable and non-flushable labelled wipes in these categories are on the market.

During the course of this study the labelling of Domestos Toilet Wipes changed to remove references to 'flushable' and incorporate the DNF symbol on the front of the packaging.

Eight of these products were identified as being marketed as flushable:

Asda (Bathroom & Toilet Flushable Wipes), Co-op (Flushable Bathroom and Toilet Wipes), Halo (Toilet and surface wipes), Jeyes (Parozone toilet wipes and Parozone Citrus Toilet wipes), Morrisons (Anti-bacterial Toilet Wipes Flushable), Tesco (anti+bac ocean toilet surface wipes), and Waitrose (Essential Waitrose anti-bacterial bathroom and toilet wipes).

Medicated wipes

Medicated wipes that are sold as flushable were rarely encountered and are not a major product line for retailers: Boots (1), Vagisil (2), Femfresh (1), and Preparation H (1).

Nappy liner

One flushable liner for use in re-usable nappies was reviewed: Mioliners biodegradable nappy liners.

Cat litter

The majority of cat litter products are labelled non-flushable. Two branded products labelled as flushable were identified among the products reviewed: Cats Best Okoplus organic and Natures Calling 100% biodegradable cat litter.

Disposable Toilet Brush

One Disposable Toilet Brush product (Duck) was identified.

4.29.3 Use of flushable symbols and the terms biodegradable and dispersible on Primary Display Panel

Symbols

There is no specific symbol used on these products to indicate that they are flushable. Flushability is regarded as a USP as, a consequence of investment/innovation by a company, the trade associations leave the marketing to their members and do not provide guidance on the use of symbols. In most cases wording is used on the Primary Display Panel to highlight that a product is 'flushable'. A number of these products carry a flushability symbol designed by the manufacturer/retailer. An example is shown below.



Biodegradable and dispersible

The words 'biodegradable' or 'dispersal' are not commonly used. Six of the moist toilet tissue and toddler wipes examined use 'biodegradable' on the Primary Display Panel.

Aldi – Saxon Soft & Fresh Flushable toilet wipes fresh fragrance – Biodegradable on front of package

Floralys – Spring Fresh Moist Toilet Tissue and Sensitive Moist Toilet Tissue – Biodegradable

Mamia – Toddler Toilet Wipes Fruity Fragrance – Flushable & Biodegradable

Poundworld - Flushable Softlets gentle toilet wipes sensitive fragrance free and Softlets gentle toilet wipes classic - *100% biodegradable* (on back)

Tesco – Loves Toddler fragrance free toilet wipes and Loves Toddler fragranced toilet wipes - Words on front: Flushable and dispersible breaks down when flushed. Biodegradable.

Waitrose - Moist toilet tissue wipes enriched with chamomile and aloe vera – *Biodegradable*.

Wilko – Kids toilet wipes - 100% biodegradable.

A minority of moist toilet tissue and 'flushable' wipes use 'dispersable'.

Co-op – Toddler wipes – Words on front: *Flushable and dispersable*. On back: *Do not dispose of more than one wipe in one flush*.

Tesco – Anti+bac Ocean Toilet Surface Wipe - *Flushable toilet wipes which disperse in the toilet bowl and sewage system. Wipes should be disposed of, one wipe per large flush. Not suitable for use in macerator toilets.*

Tesco – Loves Toddler fragrance free toilet wipes and Loves Toddler fragranced toilet wipes - Words on front: *Flushable and dispersable breaks down when flushed. Biodegradable*. On back: *WARNING! Flushable one wipe at a time only*.

Waitrose – Essential Waitrose anti-bacterial bathroom and toilet wipes - *Dispersable wipes will break up when flushed to pass through your pipes and processing plant without blocking them. Maximum of 2 wipes per flush. As wipes are flushable and biodegradable, please remove from pack carefully.*

4.29.4 Independent testing of flushability

No symbols to indicate that a product has been independently tested for flushability or complies with a flushability protocol were observed.

The independent testing of flushability is not referenced on the moist toilet tissues and wipes examined. One cat litter product has a reference to the product having been subject to independent testing:

Wording on Natures Calling cat litter information panel:

Flushable - Natures Calling has been certified as "safe to dispose of by flushing in toilets". It is recommended that a maximum of 290g of Natures's Calling can be flushed at one time.

However, it is apparent that referencing independent testing of any performance characteristic of a product is not normally carried on packaging. There are symbols such as FSC, Cruelty Free and the A.I.S.E. sustainability symbol that identify compliance with the requirements of a scheme. The EDANA 2017 Code of Practice 2nd Edition require that instructions are provided but there is no associated recommended symbol for packaging.

4.29.5 Instructions for use moist toilet tissue and flushable wipes

Under the EDANA 2017 Code of Practice 2nd Edition there is the following requirement:

For those flushable products designed to come in contact with faeces, menses or urine and/or related germs while used in a bathroom setting and passing the appropriate flushability assessment, to clearly provide on the packaging explicit product use and flushing instructions.

Many of the flushable products reviewed carry instructions for use on the information panel.

The explicit product use and flushing instructions variously found on the products examined comprise four main subjects:

- A maximum number of wipes per flush (1, 2 or 3).
- Using a full flush of the toilet to dispose of the wipe(s).
- Warning against use if the toilet has a macerator pumps.
- Warning against use if the toilet connects to a septic tank.

On some products the phrase ‘for best results flush only 1/2/3 wipes at a time’. The meaning of the term ‘for best results’ is not stated.

The number of the 60 flushable Moist Toilet Tissue and Wipes products examined carrying these different instructions are summarised in Table 2 and are detailed in Appendix 2.

Table 2 Summary of use of flushing instruction on the Information Panels of 60 moist toilet tissue and flushable wipes products examined.

Information	Number of products carrying the information	% of products examined
For ‘best results’ flush no more than a stated number	9	15
Flush no more than one at a time	28	47
Flush 1 to 2 at a time	15	25
Flush up to 3 at a time	2	3
No limit on number to flush or not stated	15	25
Use ‘full flush’ when disposing of the product	19	32
Do not use with a macerator pump	36	60
Do not use with a septic tank	19	32
No instructions	10	17

The following are examples of instructions for use that advise using a full flush:

Be Fresh - Flushable Moist Toilet Tissue - *Flush one at a time with a full flush only.*

Co-op - Loved by Us Toddler wipes - *Dispose of one wipe per large flush. Do not dispose of more than one wipe per flush.*

Morrisons – Even Softer aloe vera lightly fragranced moist tissue and Even Softer sensitive moist tissue – Under ‘Warnings’ - *FLUSH ONE WIPE AT A TIME ON FULL FLUSH.*

Parozone – Citrus Toilet Wipes - *After use, dispose of the wipe in the toilet with one wipe at a time on full flush.*

Sainsbury – Little ones botty wipes and Little ones sensitive botty wipes - *Flush one wipe at a time, on full flush only.*

Tesco – Anti+bac Ocean Toilet Surface Wipes - *Wipes should be disposed of, one wipe per large flush.*

One product highlights on the Primary Display Panel that flushability has been improved:

Velvet – Pure Moist Toilet Tissue – On Primary Display Panel: *New Improved flushability Up to 3X faster break up than before.* Instructions on the Information panel: *Use up to 2 sheets at a time for an optimal environmentally friendly flush.*

There may be occasional errors in labelling:

Halo Antibacterial Multi-surface Wipes carries both an old EDANA ‘do not flush’ symbol and separately the instructions ‘*Wipe over the surface and flush away after use. Flush only one wipe at a time.*’.

Diagram showing how to use a combination of toilet paper and moist toilet paper

The labelling on Andrex Washlets and Floralys packaging carry prominent diagrams on the information panel showing that users should first use normal toilet paper then finish their routine with one or two sheets of moist toilet tissue i.e. not to use the moist toilet tissue exclusively (Figure 36). This message is re-enforced in the words in the instructions for use.

Figure 36 Floralys graphic showing recommended use of the moist toilet tissue with dry toilet tissue.



4.29.6 Instructions for use on flushable nappy liner

Bambino Mio’s Mioliners Biodegradable nappy liners have a very specific instruction on the Instruction Panel that highlights the risk of blockage and includes a disclaimer:

Soiled liners can be flushed one at a time. Wet liners can be disposed of in the rubbish bin. Caution: Flushing of liners may cause blockage. Bambino accept no responsibility for individual drainage systems.

4.29.7 Instructions for use on flushable cat litter

Two flushable cat litters were examined and carry the following instructions for use:

Cats Best Oktoplus organic - *Finally a cat litter that can be disposed of in the normal household toilet. Cats Best OkoPlus is made of natural organic fibres. Which is why - similar to toilet paper - the soiled litter can be disposed of in the normal household toilet*! Please only dispose of one single clump in the toilet* at a time; allow it to dissolve and flush thoroughly. (*Be sure to check your local disposal regulations!)*

Natures Calling cat litter information panel: *Flushable - Natures Calling has been certified as "safe to dispose of by flushing in toilets". It is recommended that a maximum of 290g of Natures's Calling can be flushed at one time.*

4.29.8 2014 vs 2017 survey for flushable products

Four moist toilet tissue and two toilet cleaning wipes were examined in 2014 and again in 2017 (Table 3).

Table 3 Comparison of the labelling of flushable products 2014 to 2017.

Brand/own label	Product	Difference	What changed
Asda	Shades moist toilet tissue	No change	Instructions 'for best results flush one or two wipes at a time' – no change.
Floralys (Lidl)	Moist Toilet Tissue	Change to own flushable symbol on PDP and to add instructions on Information Panel	In 2014 carried a symbol on the PDP indicating flushing up to three wipes at a time. 2017 own flushable symbol and biodegradable on PDP. Instructions on Information Panel: For best results flush 1-2 wipes at a time. Caution: Only up to 3 sheets can be flushed at one time. Not suitable for use with macerator toilets.
Tesco	Moist Toilet Tissue	Instructions on flushing one at a time on full flush and septic tanks added	2014 - Instructions: Not recommended for use with macerator toilet fittings or septic tank. 2017 Instructions: Flushable one wipe at a time on full flush. Not suitable for use with macerator toilet fittings and septic tank systems
Andrex	Washlets	Use of a diagram to	2014 – Instructions - Flushable: For best

		explain use of product	results, flush one or two wipes at a time. 2017 – Use of a diagram indicating that 1 or 2 sheets should be used in conjunction with dry toilet paper.
Parozone	Toilet wipes	No change	Instruction to flush one at a time on full flush has not changed
Domestos	Toilet wipes	Major change in 2017 to remove flushable labelling and add DNF symbol on PDP	In 2014 carried the instruction to flush one at a time on full flush. By early 2017 this had changed to ‘maximum 3 wipes per flush, if in doubt whether this product is suitable for your toilet system please check manufacturer’s guidelines’, and later in 2017 the flushability symbol and instructions have been replaced with a DNF symbol on the Primary Display Panel.

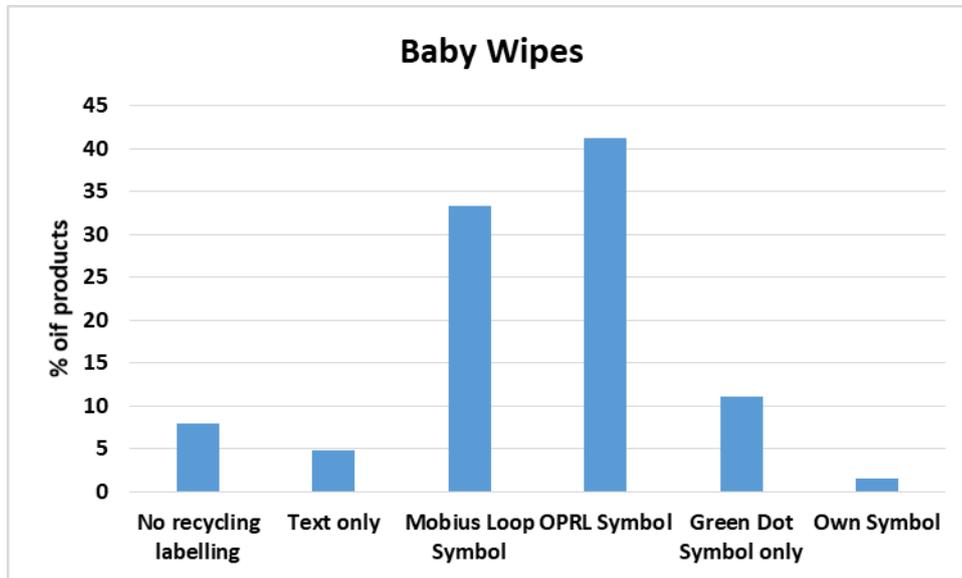
4.30 Observations on use of recycling symbols on products

It became apparent as product labelling was examined that there are some parallels between how ‘do not flush’ labelling and recycling labelling are used on products, which are:

- Recycling symbols are also voluntary.
- There are several recycling symbol schemes in use (Section 3.7).
- Some products carry only text instructions about recycling.
- Some products have no recycling instructions.
- Recycling symbols are often located alongside or near to ‘do not flush’ symbols.

To illustrate this, the use of recycling labelling on Baby Wipe and Tissue products are shown in Figure 37 and Figure 38, respectively.

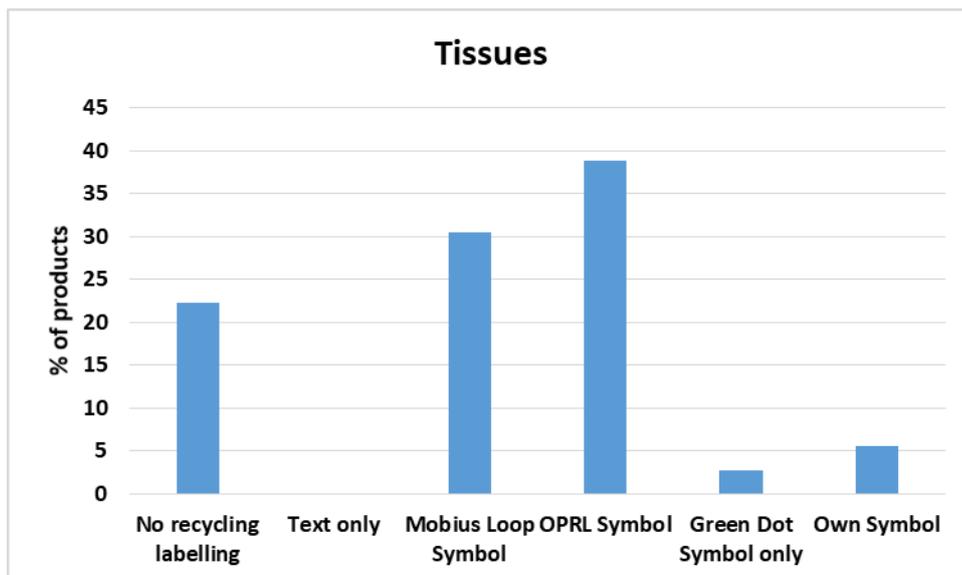
Figure 37 Comparison of the recycling labelling on Baby Wipe products showing the proportion (%) of products (n = 63) with no labelling, text only, the Mobius Loop Symbol, the OPRL (On Product Recycling Label) Symbol, the Green Dot Symbol (only) and own Symbol.



Unless a consumer really examines and understands the recycling symbols they give the impression packaging is recyclable, when it may not be.

Recycling labelling has the potential to confuse consumers who may think that the recycling symbol refers to the product and think it implies it is flushable.

Figure 38 Comparison of the recycling labelling on Tissue products showing the proportion (%) of products (n = 37) with no labelling, text only, the Mobius Loop Symbol, the OPRL (On Product Recycling Label) Symbol, the Green Dot Symbol (only) and own Symbol.



5 Results for the plastic content of product types

5.1 Introduction

This report does not consider the longevity and fate of products and materials in the environment, but seeks to establish the compositions of product types and specifically which contain plastic.

In Section 5.2 the definition of plastic and plastic materials is considered to assist in understanding the information on compositions of products presented.

Among the 960 product labels examined information on the materials used in the fabric of their construction was only observed in a very few products.

These were:

- Some paper towels
- Some tissues
- Some wipes
- Some bandages
- Some cleaning cloths

5.2 Definition of plastic materials and the composition of nonwovens

The terms 'plastic' and 'plastic materials' cover a range of substances and material types whose definitions need to be understood in the context of this report.

The definitions used in the European Commission report on Development of EU Ecolabel Criteria for Absorbent Hygiene Products (JRC, 2013) (which in turn referenced Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food) have been used as the basis for the following definitions of plastic:

Plastic materials, also referred to as **Plastics**, means synthetic polymers to which additives or other substances may have been added which can be moulded and used as main structural component of final materials and articles.

Bio-plastics are plastic materials produced from renewable sources.

Synthetic polymers are macromolecular substances other than cellulose pulp intentionally obtained either by: a polymerisation process such as poly-addition or poly-condensation, or by any other similar process of monomers and other starting substances; chemical modification of natural or synthetic macromolecules; or, microbial fermentation.

Bio-polymers are synthetic polymers produced from renewable sources.

Super absorbent polymers (SAP) are synthetic polymers designed for absorbing and retaining large amounts of liquid compared to their own mass.

Bio-SAPs are super absorbent polymers produced from renewable sources.

Cellulose pulp is a fibrous material obtained from the treatment of lignocellulosic materials (wood or other agricultural fibre sources) with one or more aqueous solutions of pulping and/or bleaching chemicals. This is composed of cellulose, hemicellulose, lignin, and other minor components. The relative amounts of these components depend on the extent of the pulping and bleaching processes.

5.2.1 Composition of nonwovens

Non-woven materials are made from the following range of raw materials:

From forestry and agriculture

Pulp

Rayon (viscose)

Cotton

From oil and agriculture

Polypropylene

Polyethylene

Polyester

Other polymers

These polymers are derived from non-renewable sources, renewable sources and recycled polymers.

Polymers may be used on their own as sheets (e.g. in layers of sanitary products) or fibres in threads (e.g. tail of a tampon) or combined with other polymers or materials in woven fabric or nonwoven fabric. The majority of wipes are made with non-woven fabrics. Absorbent Hygiene Products (nappies, feminine care, and incontinence care) are constructed from a mix of nonwoven materials, superabsorbent polymers, pulp, adhesives and polymer films serving different purposes relating to the performance of the overall product.

Traditional fabrics are made by weaving together fibres of silk, cotton, polyester, wool, and similar materials to form an interlocking matrix of loops. Non-woven fabrics are made by a range of processes that produce a single sheet of material from a mass of separate fibres such as cotton, rayon, polyester, polyethylene, and polypropylene.

Fibres and properties

For more detail on synthetic fibres see CIRFS (European Man-made Fibres Association) website⁹

Fibres derived from oil and gas:

Polyester or polyethylene terephthalate (PET) fibres are made by melting and extruding into continuous filaments. PET is the most commonly produced but there are other polyesters. Known for its strength it is also used in clothing, tyre cord and bottles.

Polypropylene fibre – see Polyolefin

Polyethylene – see Polyolefin

Polyolefin fibres – polypropylene and polyethylene. Made by polymerising propylene and ethylene and melting and extruding the polymers to form filaments. Polyolefin fibres are non-absorbent and resistant to chemical attack. Polypropylene is a dominant fibre used in nonwovens for disposable products and geotextiles.

Polyamide fibre is made by pumping molten polymer through spinnerets at high temperature. Used for woven outerwear and technical fabrics.

Fibres derived from wood:

Viscose fibre (also known as rayon) – cellulose fibre obtained by the ‘viscose process’ involving ground up cellulose being mixed with caustic soda, followed by ageing, depolymerisation and mixing with carbon disulphide to form cellulose xanthate crumb. This is dissolved in more caustic soda and the solution is forced through a spinneret into dilute sulphuric acid. This regenerates the cellulose into fine filaments as the xanthate decomposes. The resulting fibre is moisture absorbent and biodegradable.

Lyocell fibres are made by dissolving cellulose in a solvent (N-methylmorpholine n-oxide) and water, filtering then spinning into water to make filaments. The resulting fibre is moisture absorbent and biodegradable and has a high dry strength.

Cellulose (fluff pulp) fibres

Fibres derived from agriculture:

Polylactic Acid (PLA) is a polyester based on renewable organic materials, including corn starch, cassava and sugarcane, manufactured by a range of processes. PLA can be made into film, sheet and into filaments for use in non-wovens. It can degrade to lactic acid and is used in medical implants. It is used in sanitary products and nappies.

⁹ <http://www.cirfs.org/manmadefibres/Aboutmanmadefibres.aspx>

Cotton fibres

Films - typically made of polyethylene are used mainly for impervious barriers on an outer layer to prevent leakage. They may be breathable to permit the movement of air and vapour across the film.

Absorbent materials

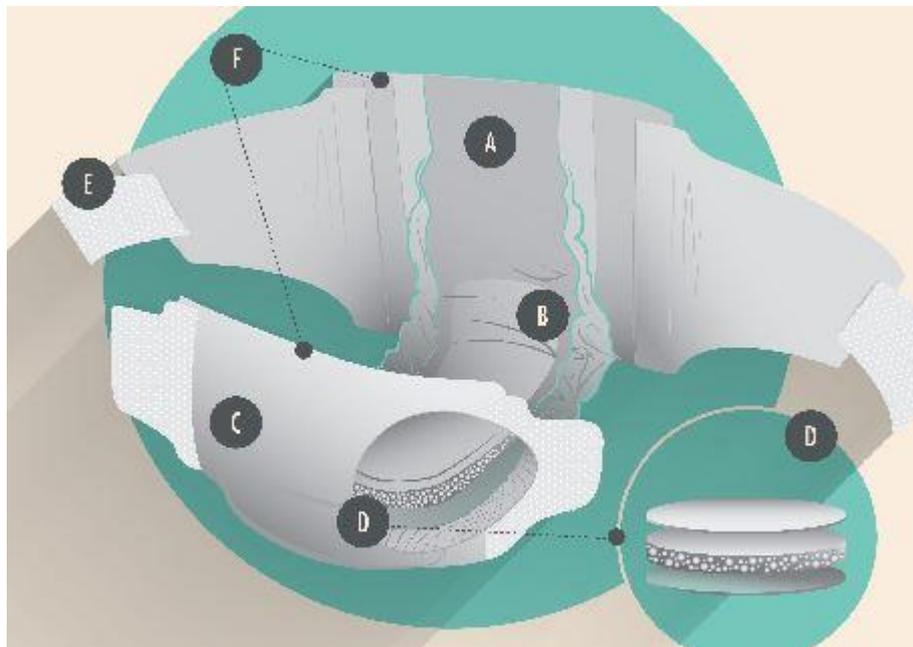
Superabsorbent polymers – Superabsorbent polymers or SAP are materials that can absorb and hold up to 300 times their weight in water. Most SAP used in absorbent hygiene products is made from sodium polyacrylate.

Fluff Pulp – is made by extracting cellulose, a natural polymer, from wood.

5.3 Disposable Nappy plastic content

Nappies are manufactured by creating an absorbent pad from fluff pulp and SAP and laminating this with films, nonwovens and elastics. The construction of a typical disposable nappy is shown in Figure 39 identifying the purpose of each layer and its typical material of construction.

Figure 39 Schematic of the layers of construction of a disposable nappy. Source EDANA *Baby diapers and nappies from raw materials to your home.*



- A. Top sheet – a soft nonwovens sheet to ensure a comfortable feel against the skin
- B. Acquisition layer - An open structure nonwovens or cellulose layer to quickly transport fluids away from the skin
- C. Backsheet - A waterproof film-based layer to ensure there is no leakage out of the product. May include a breathable film for increased skin comfort.

- D. Core - Absorbing materials (mostly superabsorbent materials and cellulosic fibres) to absorb fluids
- E. Fasteners - Strips to secure the nappy around the baby and give a comfortable fit. The strips can stretch and easily be opened and possibly refastened
- F. Elastics - Elastic material is placed around the waist and legs to ensure a better fit, protection against leakage and comfort for the baby

The generic use of materials in nappies and their accessories and packaging is summarised in (Table 4).

Table 4 Generic use of materials in disposable nappies and their accessories and packaging

Components

Component	Material
Top sheet	Polypropylene
Acquisition layer	Nonwovens or cellulose
Absorbent core	Cellulose fluff pulp, Super Absorbent Polymer (SAP) mainly comprising cross-linked polyacrylate polymers
Tissue wrap layer (used to aid manufacture of absorbent core layer in some products)	Paper
Waterproof back sheet	Polyethylene film, nonwoven/film composite
Fasteners	Adhesive, Velcro (nylon or polyester)
Elastics	Elastomers
Fragrance/odour control/balm (optional)	

Accessories

Packaging	Card box or plastic bag
Nappy sacks	Synthetic or natural polymer

Disposable nappies have been the subject of two reviews by the UK's Environment Agency in 2005 and 2008 and Life Cycle Assessments by EDANA and the data on composition from all of these are presented in Table 5. This demonstrates that there has been a trend over time for the average weight of a disposable nappy to reduce (by nearly 50% since 1987), however the synthetic plastic content in films has remained the same by weight as the weight reduction has been achieved through changes to the absorbent layer. Polypropylene content has increased whilst polyethylene has reduced. Super Absorbent Polymer content has increased whilst fluff pulp has substantially reduced.

Table 5 Changes in the weight (g) of materials used in disposable nappies 1987 to 2013 from UK Environment Agency (EA) and EDANA studies.

Material	EDANA 1987	EDANA 1995	EA, UK 2001-2	EDANA 2005	EA, UK 2006	EDANA 2011	EDANA 2013
Fluff pulp	52.8	37.4	19.1	14.1	13.2	13.2	9.1
Super Absorbent Polymer	0.7	5.1	12.3	13.2	12.5	11.1	12.6
LDPE Low Density Polyethylene	4.1	3.8	3.5	2.6	2.3	2.3	1.8
PP Polypropylene	4.2	4.5	6.8	7	6.4	5.8	7.9
Adhesive	1.3	1.6	1.3	1.7	1.5	1	1.2
PET/polyester					0.8		
Tape						0.5	
Elastic	0.4	0.4	0.2	0.4		0.2	0.5
Elastic back ear						1.1	
Frontal tape						0.5	
Various synthetic polymers						0.5	
Other	1.1	3.2	1.4	1.8	1.9		0.2
Total (g)	64.6	56	44.6	40.8	38.6	36.2	33.3

- *Life cycle assessment of disposable and reusable nappies in the UK. Environment Agency 2005.*
- *An updated life cycle assessment study for disposable and reusable nappies. Environment Agency 2008.*
- *EDANA Sustainability Report 4th Edition 2015*

Knowaste, a company specialising in the recycling of used sanitary products from medical and commercial premises, has undertaken independent testing of samples of nappy products and an incontinence pad product from the UK. The findings are summarised in Table 6 and whilst similar to those presented for average products in the Lifecycle Assessments (above) illustrate the variability in composition between products.

Table 6 Composition of nappy and incontinence pad products determined from independent testing. Data provided by Knowaste

Product	Total wt. (grams)	Plastic wt. (grams)	% Plastic	Cellulose fibre wt. (grams)	% Cellulose	SAP weight (grams)	% SAP
Baby nappy size 4+	43.8	16.5	37.7%	26.3	60.0%	5.4	12.3%
Adult	129.8	23.7	18.3%	106.1	81.7%	0	0.0%

Incontinence 'nappy'							
Infant nappy	31.6	16.5	52.2%	0	0.0%	15.1	47.8%
Nappy size 5	38.2	23.8	62.3%	3.3	8.6%	11.3	29.6%

5.4 Incontinence product plastic content

These comprise three main types:

Adult equivalent of nappies

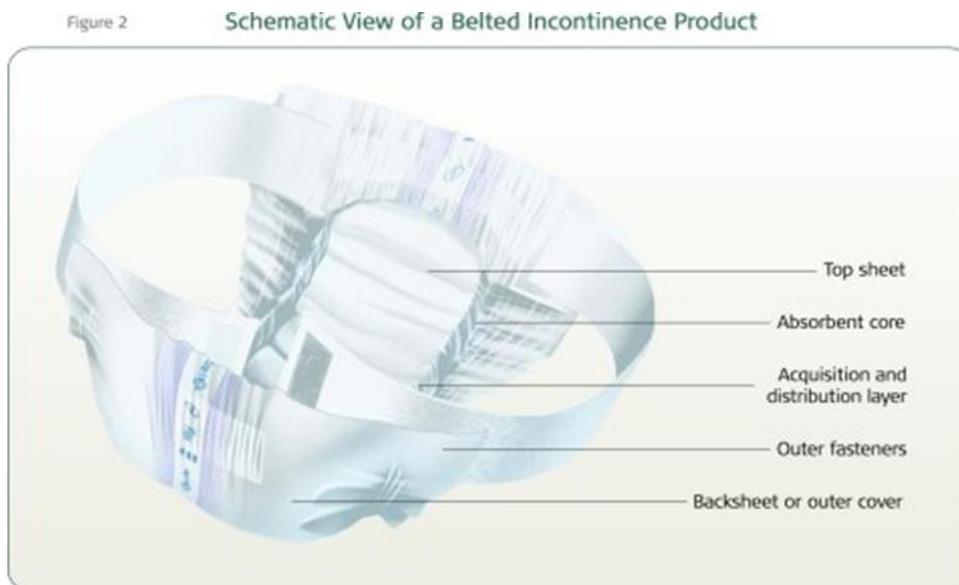
Pads which are similar to those used for feminine pads

Male pouches – male equivalent of pads

Adult incontinence pads are made to different specifications from feminine hygiene products as they require higher absorbency.

The construction of a typical adult incontinence pad is shown in Figure 40 identifying the purpose of each layer and its typical material of construction.

Figure 40 Schematic of the layers of construction of a belted incontinence product. Source EDANA Sustainability Report 2007-2008



The generic use of materials in adult incontinence pads and their accessories and packaging is summarised in Table 7.

Table 7 Generic use of materials in adult incontinence pads

Component	Material
Top sheet	polypropylene
Absorbent core	cellulose fluff pulp, Super Absorbent

	Polymer (SAP)
Waterproof back sheet	polyethylene

The composition of adult incontinence pads is shown in Table 8.

Table 8 Changes in the weight (g) of materials used in an all-in-one incontinence product 1995 to 2013. Source EDANA Sustainability Report 4th Edition 2015

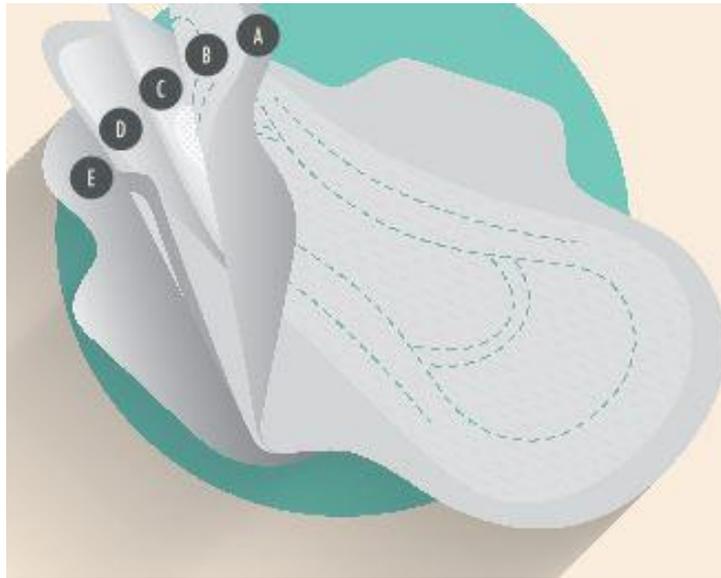
	1995	2005	2013
Fluff pulp	80.9	71.9	70.7
SAP	8.3	13.5	15.2
PE	12.1	12	6
Nonwovens	11	11.3	12.4
Adhesive	5.9	3.8	3.2
Elastics and adhesive tapes	1	0.5	1.5
Other	4.8	3.1	0
Total (g)	124	116.1	109.2

5.5 Sanitary Pads and Towels plastic content

The construction of a typical sanitary pad or towel is shown in Figure 41 identifying the purpose of each layer and its typical material of construction.

The generic use of materials in pads and towels and their accessories and packaging is summarised in Table 9.

Figure 41 Schematic of the layers of construction of a sanitary pad. Source EDANA *Pads & napkins from raw materials to your home.*



- A. Top sheet - A soft sheet which is comfortable against the skin
- B. Acquisition layer and channels - Draws and directs fluids into the most absorbent areas
- C. Inner core - A sheet to absorb moisture or fluid (superabsorbent beads may also be integrated)
- D. Backsheet - A waterproof layer to ensure there is no leakage
- E. Adhesive & release paper - Glue that sticks the pad to clothing, and a non-stick paper

Table 9 Generic use of materials in pads and towels and their accessories and packaging

Components

Component	Material
Top sheet	polypropylene, polyester, polyethylene, viscose
Acquisition layer	wood fibre, cellulose, polyester fibre
Absorbent core	paper pulp, Super Absorbent Polymer (SAP)
Waterproof back sheet	polyethylene
Adhesive to bind layers	polymers and synthetic resin
Adhesive to stick to clothing	polymers and synthetic resin
Fragrance/odour control (optional)	

Ancillaries

Non-stick release paper for adhesive	silicone coated paper
--------------------------------------	-----------------------

Wrapper – if individually wrapped	plastic film
Packaging	card box or plastic bag

The average composition of an ultrathin sanitary pad from 2006, presented in EDANA's Sustainability Report 2007-2008 is shown in Table 10.

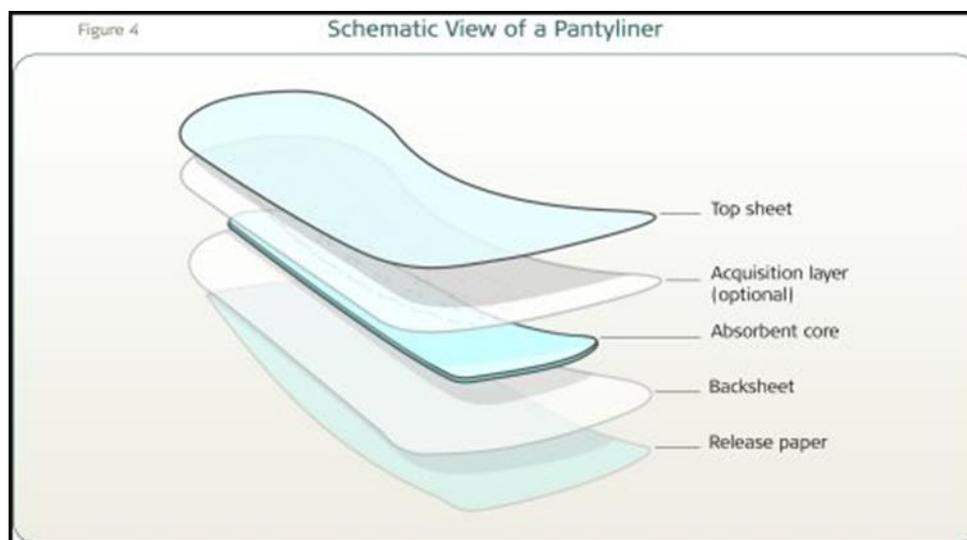
Table 10 Average composition (%) of an ultrathin sanitary pad in 2006. Source EDANA Sustainability Report 2008.

Material	%
Fluff pulp	48%
Polyethylene, polypropylene, polyester	36%
Adhesive	7%
SAP	6%
Release Paper	3%

5.6 Panty Liner plastic content

The construction of a typical panty liner is shown in Figure 42 identifying the purpose of each layer and its typical material of construction.

Figure 42 Schematic of the layers of construction of a panty liner. Source EDANA Sustainability Report 2007-2008.



The generic use of materials in panty liners and their accessories and packaging is summarised in Table 11.

Table 11 Generic use of materials in panty liners and their accessories and packaging

Component	Material
Top sheet	polyolefins, polypropylene, polyester,

	polyethylene, viscose
Absorbent core	wood based cellulose, polymer, polyolefin
Waterproof/breathable back sheet	polyolefin, polyethylene
Adhesive layer	polymers, synthetic resin
Fragrance/odour control	

Ancillaries

Non-stick release paper for adhesive	silicone coated paper
Wrapper – if individually wrapped	plastic film – polyolefin, polyethylene film
Packaging	card box or plastic bag - polyethylene

5.7 Tampon plastic content

The construction of a typical applicator and non-applicator tampons are shown in Figure 43 identifying the purpose of each layer and its typical material of construction.

Figure 43 Schematic of the layers of construction of tampons.

Non- applicator tampon. Source EDANA *Tampons from raw materials to your supermarket shelf*

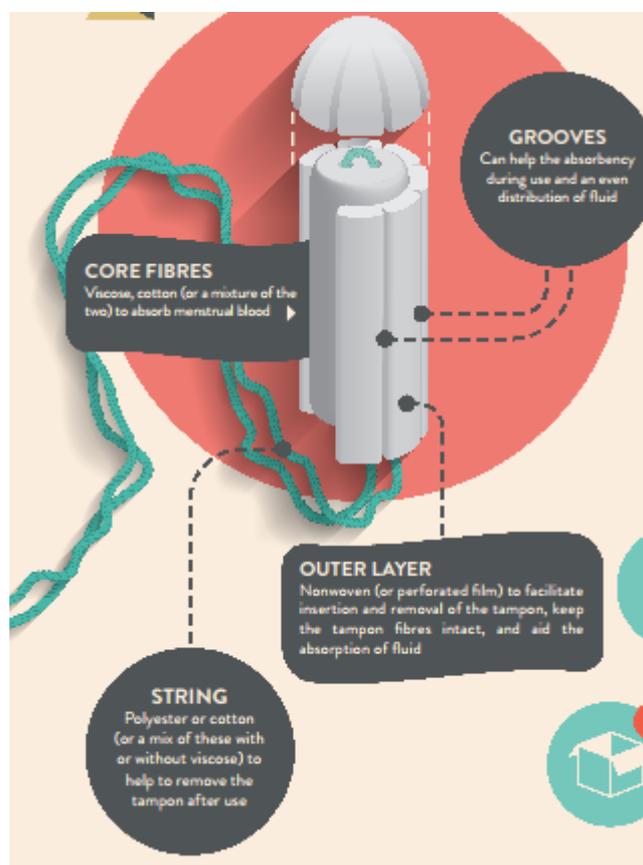
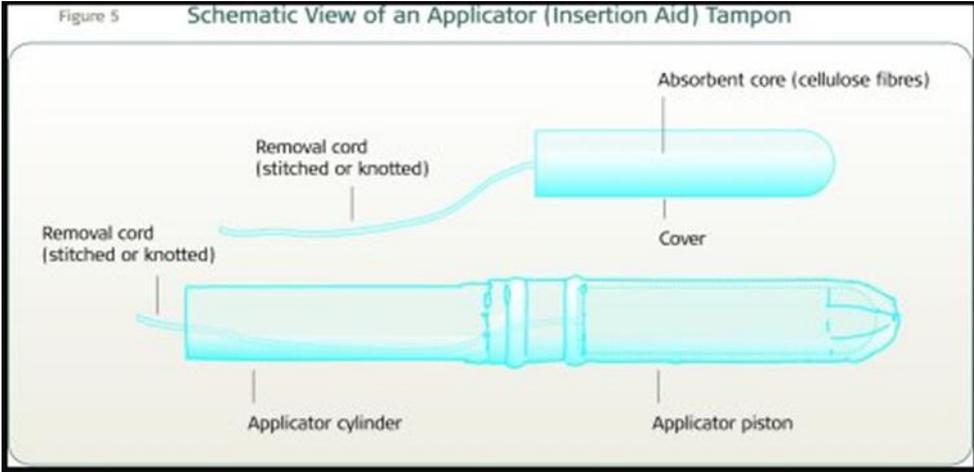


Figure 43 (Cont'd) Applicator Tampon - Source EDANA Sustainability Report 2007-2008



The generic use of materials in tampons and their accessories and packaging is summarised in Table 12. Unlike other sanitary products tampons do not use SAP and because of their internal use and consequent safety issues rely on cellulosic absorbent material, either rayon or cotton or a mixture of these fibres. These are compressed and shaped to make the product.

Table 12 Generic use of materials in tampons and their accessories and packaging

Component	Material
Absorbent core	viscose, cotton
Outer layer around core	viscose/polyester polyethylene/polypropylene
String	polyester, cotton, polypropylene
Thread	cotton, polyester
Fragrance (optional)	

Ancillaries

Applicator (optional)	plastic, cardboard
Wrapping around each tampon	polymeric plastic material or cellophane
Packaging	card box or plastic bag

5.8 Wipes and Moist Toilet Tissue plastic content

The composition of wipes are not listed on product packaging. They comprise a base material that is a nonwoven fabric.

The selection of base material, the type of lotion and use of treatment confers different properties on wipes that can be tailored to suit the end use/consumer need.

The choice and composition of base material depends on many factors (reference EDANA Fact Sheet Personal Care Wet Wipes)

- feel and appearance;
- compatibility with the active ingredients or treatments to be used;
- wettability and degree of absorbency;
- durability;
- surface texture, for example for skin exfoliation or surface cleaning;
- release or transfer of a lotion or other formulation;

The main materials use for the base material are nonwoven fabrics comprising synthetic polymers (polyester, polypropylene, and polyethylene), viscose pulp or cotton.

Consequently, the composition of the plastic content of base material varies and without a declaration on the packaging it is usually unknown.

The generic use of materials in wipes and their packaging is summarised in Table 13.

Table 13 Generic use of materials in wipes

Component	Material
Base material (substrate)	material choice depends on function synthetic polymers (polyester, polypropylene, polyethylene), viscose pulp, cotton
Treatments	Wetting agents, softeners, binders, colorants
Lotion	Ingredients as listed on packaging

The composition of wipes is not usually stated on packaging. Examples of wipes compositions that were found on Information Panels are:

Coop	Loved by Us multi-surface floor wipes antibacterial	Wipes: Viscose/Polyester
Coop	Multi Surface Lemon Wipes	Wipes: Viscose/Polyester

5.8.1 Composition of baby wipes

EDANA undertook a life cycle assessment on baby wipes in 2008 (EDANA 2010), which determined that an average European baby wipe may contain:

- Cellulose (fluff pulp)
- Cotton
- Lyocell
- Polyactic Acid

- Polyester
- Polypropylene
- Viscose

The study determined the composition of the substrate of an average European baby wipe calculated from questionnaires completed by baby wipe producers. This concluded that the final product consists of 75% lotion (mass) and 25% substrate. The mass composition of dry substrate is shown in Table 14. The weight of a baby wipe was calculated to be 6.7g of which the dry substrate comprised 1.6g per wipe. The actual composition of individual baby wipe products will differ from this.

Table 14 Mass composition of dry wipes' substrate. Source EDANA Life Cycle Assessment of baby wipes 2010.

Material	% mass
Polypropylene	36%
PET	20%
Viscose	20%
Fluff pulp	14%
Lyocell	8%
Cotton	1%
Others	1%

Table 15 Generic use of materials in moist toilet tissue

Base material (substrate)	Nonwovens, cellulose fibre
Treatments	Wetting agents, softeners, binders, colorants
Lotion	Ingredients as listed on packaging

The composition of moist toilet wipes is not usually stated on packaging. One example of composition found on packaging was:

Mamia	Toddler Toilet Wipes Fruity Fragrance	100% PLA (Polylactic Acid) derived from corn starch
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5.9 Cotton wool products plastic content

Cotton wool products comprise five main types: roll, balls, pads, pleats and buds.

The cotton content of these products is a USP and the majority of these products state that they are made from 100% cotton.

Cotton wool roll is intended to be used in different amounts at the discretion of the user by tearing from the roll.

Cotton pads and pleats are fixed shape cotton products intended for the application of lotions (e.g. cosmetics) or personal cleansing (e.g. make-up removal). Some of these are layered and may contain other materials.

Cotton buds are normally double ended pads of cotton wool fixed to a stick. The generic use of materials in cotton buds is summarised in Table 16.

Table 16 Generic use of materials in cotton buds

Component	Material
Stick	extruded plastic, rolled paper*, wood
Adhesive for paper stick	Adhesive
Adhesive to attach bud to stick	Adhesive*
Bud	cotton, viscose

*A number of UK retailers have given a commitment to replace plastic sticks with rolled paper alternatives.

**Sainsbury has announced a commitment to find a biodegradable adhesive to hold the cotton bud to the stem and to share the formula with other retailers (Feb 2017). Source edie newsroom 22nd February 2017.

Packaging for cotton wool roll, pleats and pads is normally a plastic bag.

Packaging for cotton buds varies – plastic bags, plastic containers, and cardboard container with plastic lid.

5.10 Condoms, dental products and razors plastic content

5.10.1 Condoms

Condoms are made from latex. They are individually wrapped and these wrappers may contain plastic.

Packaging usually comprises a card box with an outer plastic film wrapper.

5.10.2 Dental products

Dental floss is traditionally made from nylon and more recently, polytetrafluoroethylene (PTFE) floss has been introduced.

Floss dispensers normally comprise a plastic case with a metal cutter device.

Floss sticks comprise a shaped plastic handle holding a short length of floss.

Tooth picks are made from wood or plastic

Tooth brushes comprise a handle, normally made from plastic and bristles made from nylon.

Packaging for dental products is normally a blister pack (card and plastic) or a plastic bag.

5.10.3 Razors

Razors comprise a plastic handle and head containing the metal blades.

Packaging comprises blister packs (plastic and card) or plastic bags.

5.11 Dressings plastic content

5.11.1 Bandages

Bandages are used to hold a dressing in place or to support or restrict movement of a part of the body. The composition was found of packaging for four examples of the latter (Table 17) showing that they contained plastic material.

Table 17 Examples of the composition of bandages found on packaging

Morrisons	Knee Sport Support Large	70% Nylon, 19% Latex, 11% Polyester
Morrisons	Fixing bandage	Nylon, polyester
Morrisons	Cohesive Support Bandage	Polypropylene nonwoven 90%, Elastane 10%
Fortuna	Elasticated range wrist wrap	75% Elastic, 25% Polyester

5.11.2 Plasters

Plasters, or adhesive bandages, are small medical dressings for wounds held in place using adhesive without the need for a bandage. They comprise an absorbent pad stuck to an adhesive covered sheet.

The absorbent pad is usually made of cotton and may be covered with a thin polymer coating that is porous and designed to prevent the pad sticking to the wound.

The composition of the sheet varies and can be a woven fabric, a plastic (PVC, polyethylene or polyurethane), or latex strip. The sheet primarily serves to hold the dressing in place but depending on the material can provide waterproofing or airtight properties.

The adhesive is commonly an acrylate, including methacrylates and epoxy diacrylates (which are also known as vinyl resins).

The backing that is removed to reveal the adhesive and the wrapper, if supplied, for the individual plaster are commonly made from coated paper, but may be made of plastic.

Plasters are most commonly supplied in card boxes. Plastic boxes or plastic bags may be used.

5.11.3 Syringes

Syringes were not included in the labelling study. It is assumed that syringes are made of plastic. The needles are usually metal but appear to have plastic connections to attach them to a syringe.

5.12 Paper towel and tissues, cleaning cloth plastic content

Paper kitchen and household towels are not made with plastic. They are normally supplied rolled on a card tube. The packaging is usually a plastic bag.

Tissues are not made with plastic. They are normally supplied in card box for dispensing. Small quantities of tissues e.g. for travel purposes are supplied in plastic wrappers.

Cleaning cloths may be made from woven or non-woven fabrics. The woven fabrics may contain plastic as can the nonwovens.

5.13 Toilet block products plastic content

Toilet blocks comprise four categories

- In cistern – which dissolve in the cistern and do not have plastic holders or hangers
- Rim block with cages for multiple blocks or hangers for single blocks
- Stick on rim blocks without cages/hangers but hand held applicators
- Rim liquid dispensers with replacement liquid containers

The three rim categories comprise plastic components, which are not intended to be flushed.

5.14 Cleaning Cloths plastic content

Among all the products examined the labelling on Cleaning Cloths was found to were found to have the highest incidence of the material base

With 8 (66%) of the 12 products examined carrying information about the materials used in the cloth fabric as follows:

- Viscose
- Cotton
- Viscose (70%) Polyester (30%)
- 80% viscose, 20% binder
- 70% viscose, 30% PET
- 70% viscose, 30% PET
- 70% cotton 30% polyester
- A microfiber cloth: 85% polyester 15% polyamide

This indicates that a high proportion of the cleaning cloth products available contain synthetic polymers.

5.15 Cat litter and dog poop bags plastic content

Cat litter is manufactured from many different materials including:

- Absorbent clay
- Wood pellets
- Paper
- Grain
- Other organic materials

None of the products examined were described as being derived from plastic or recycled plastic. The two products examined that were marketed as being flushable were made from 'natural organic fibres' the 'reclaimed lining of the walnut shell'.

Dog Poop Bags have to be of strong construction to serve their purpose effectively. Most products are marketed as being biodegradable. However, it is not stated how long this process will take and in many cases what conditions are required for degradation/composting to be effective (e.g. via industrial composting processes). Some product websites state that they are made from biodegradable plastic from plant sources (e.g. 80% bamboo and rice husk fibres) or from recycled plastic.

The dog training pad products do not carry information about their materials of construction, but it is reasonable to assume that they will be similar to sanitary products and nappies. Consequently, they would comprise a mix of permeable and waterproof layers, and absorbent material layers, and so include plastics.

6 Discussion

Product labelling

This study represents a first attempt to categorise the labelling of products associated with sewer misuse and provides a basis for the water industry to evaluate priorities for engagement with retailers and brand owners on labelling.

As it was able to compare current labelling with data recorded from the smaller study undertaken in 2014 it has provided insight into how labelling changes over time. It is apparent from the results that past and current initiatives to encourage the 'do not flush' labelling of products have met with varying success. This is evidenced by the extent to which the BI&BI, old EDANA, DNF and own designs of symbol are currently used across the different product categories in Figure 32 (Section 4.26). The absence of earlier surveys means it is not possible to measure exactly how the implementation of initiatives have fared over time, other than assuming that 'do not flush' labelling was not common before the 'Bag-It and Bin-It Don't Flush It' campaign began in the mid-1990s. Comparison of this survey with the limited data available from 2014 demonstrates that 'do not flush' labelling is a dynamic process with updates to the use of symbols and apparent over the past three years. This 2017 survey covering 960 products across the major product types associated

with sewer misuse, can serve as a baseline for monitoring the implementation of the current sewer misuse initiatives that include the improvement of labelling.

The results show that many products do not carry 'do not flush' or only have written instructions. In general, text instructions about not flushing products printed on Information Panels are not prominent or highly visible. They are usually of the same font and size as other instructions for use and are often located among other text. Consequently, they serve to inform only those users that are prepared to read the 'small print' on packaging. Therefore the absence of a prominent 'do not flush' symbol on a product and sole reliance on instructions being read may give the impression to the casual user that a non-flushable product is flushable. 'do not flush' symbols have potential to be prominently placed and therefore made more visible to consumers on packaging.

It appears from that large data sets for cleansing wipes and cleaning wipes (Sections 4.5 and 4.6) that the use of 'do not flush' labelling and particularly of symbols on products is more common on retailers own labels than on brand products.

For some of the product types examined a significant proportion of products have only text or no 'do not flush' instructions at all (Figure 31, Section 4.26). Consequently, until such time as this lack of labelling is substantially resolved, consumer awareness and behaviour change initiatives cannot rely on advising consumers to look for symbol on packaging for guidance on correct disposal. The absence of the use one universal symbol (such as the DNF Symbol) also means that consumer campaigns need to consider highlighting the range of symbols that consumers need to look out for.

It should be noted that the use of 'do not flush' labelling is not dissimilar from the voluntary recycling labelling on the products examined (Section 4.30), with several recycling symbol schemes in use (Mobius loop, On-Pack Recycling Label, Green Dot), some products carry text instructions only and some do not have recycling instructions. Consequently, for 'do not flush' labelling stakeholders there may be lessons to learn from, and synergies to be exploited with, the organisations responsible for recycle labelling.

Moving 'do not flush' labelling to the Primary Display Panel

The Primary Display Panel on products is, not surprisingly, reserved for important marketing information that identifies the brand, the product, its purpose and unique selling features. Only statutory requirements or a commitment to a voluntary requirement result in other information being displayed there. For this reason the commitments made by UK retailers and the EDANA 2017 Code of Practice 2nd Edition requirements for 'do not flush' symbols on the Primary Display Panel represent a very significant change in product labelling. This mainly affects wipes that are 'likely to be flushed', but it is possible that implementation may lead to similar changes to labelling on other products over time. Currently, the water industry has an opportunity to encourage other market sectors that cover other product types to build on the initiative taken by the wipes industry.

The EDANA Code of Practice 2nd Edition implementation date is July 2018 and by this time a large proportion of the several hundred of wipes products available on the UK market may be carrying a 'do not flush' symbol' on the Primary Display Panel. However, examination of

the 28 wipes products found in this study to which this has already been applied (Section 4.27) has found some shortcomings in how the guidelines are being interpreted.

Locating the symbol on the bottom edge of the Primary Display panel can render it difficult to see and not visible on the shelf if secondary packaging (e.g. open fronted card box) is used. Locating the symbol in the corner of the Primary Display Panel can make it less visible if the packaging on the wipe is crumpled. Additionally, although the Guidelines encourage the continued use of 'do not flush' instructions on the Information Panel as well, this has been dropped on several of the products examined, along with the 'do not flush' symbol that was formerly located on the Information Panel. In these cases there is no longer any 'do not flush' message on the Information Label, giving the impression that the product may be flushable to the reader, if the symbol on the Primary Display Panel is missed. Consequently, guidance that highlights good practice may be needed to ensure that the symbols are always prominently placed on the Primary Display Panel (Section 4.28); such that a consumer can easily identify the disposal message without needing to pick up the product.

By highlighting the short comings apparent on some of products to which the early implementation of the changes have been applied and considering issuing guidance, the Water Industry and retail/manufacturing trade bodies have an opportunity to ensure more effective implementation on other wipes products.

Labelling across different product types

As previously mentioned, this survey has highlighted differences in the extent to which 'do not flush' labelling is being used between the different product types examined (Section 4.26).

Alongside wipes, the absorbent hygiene products, particularly sanitary pads, towels, tampons and panty liners have a high profile in customer awareness campaigns about sewer misuse. The AHPMA strongly encourages its members to use 'do not flush' labelling and these product types, along with nappies, have the highest incidence of 'do no flush' symbol use among non-flushable products.

Among the other product types reviewed there is a lower use of 'do not flush' symbols and instructions (e.g. on cotton wool products, dressings), and in the case of dental products and disposable razors there is no use of 'do no flush' labelling.

The evidence shows that the 'Bag It and Bin It Don't Flush It' campaign has achieved a broad reach across the products highlighted by the 'Dirty Dozen' in campaigns. The EDANA recommended symbols (old EDANA and DNF symbols) are mainly found on wipes and sanitary products, but are occasionally found on tissues, kitchen roll and cat litter. There is currently no campaign that is providing a focus for proactively promoting 'do not flush' labelling across the full range of products associated with sewer misuse.

Although there is currently a particular focus on wipes in both sewer misuse campaigns and labelling guidelines, this should not obscure the contribution of other product types to sewer misuse and the need for them to be properly labelled to assist in improving or maintaining public awareness of their correct disposal.

It should be noted that product types, outside wipes and absorbent hygiene products, such as nappy bags, dressings, dental products and toilet blocks, will fall under the control of industry bodies other than EDANA and AHPMA, organisations which are already closely involved in current initiatives. If the water industry wishes to improve the labelling on these products other organisations covering those specific product types will need to be targeted for assistance.

Labelling on flushable products

The labelling on flushable products is the responsibility of the supplier of the product and to date relevant trade bodies have not issued guidance on how they are to be labelled. Since it is regarded as a unique selling feature, the suppliers make their own decisions and there is no recommended symbol or use of specific labelling to demonstrate compliance with any flushability testing protocol (Section 4.29).

The EDANA 2017 Code of Practice 2nd Edition require that any 'flushable' wipes product has to a) be intended for contact with bodily fluids or their associated germs and b) have passed appropriate testing. It also requires that instructions for flushing the product are included on the Information Panel. This review has found that the flushable wipes identified do fall into the category a), though there is no specific reference on labelling to compliance with b). In many cases they carry instructions on how to flush - stipulating a maximum number to be flushed at any one time (1, 2 or 3) and/or advice on suitability for use with toilets connected macerator pumps or septic tanks (Section 4.29.5).

For some products, the instructions state only one wipe on a full flush (i.e. not to use a water saving reduced flush on a dual cistern). This style of labelling inherently acknowledges that the product causes problems when flushed, hence the 'one at a time' advice. The labelling also promotes non-sustainable behaviours, in terms of water conservation. For 'flushable' products that do not have instructions on the labelling it is not clear if this is an accidental omission or they genuinely do not have recommended limits on how they should be used.

The new EDANA Code of Practice 2nd Edition provides greater focus on the labelling of flushable wipes and sets July 2018 for their implementation.

Plastic content

In the absence of any statutory requirements or voluntary guidelines requiring the listing of materials of construction of the substrate of products, it is rarely possible to identify the use of plastics from the information provided on labelling. However, the presence of plastic in packaging, which consumers may flush, can be surmised where recycling symbols or instructions are provided.

The water industry's interest in the plastic content of the products in scope stems from its desire to better understand the sources of plastic in sewage; variously driven by its contribution to sewer blockages, the need to remove it by screening at wastewater treatment works, its presence in sewage related debris that reaches the aquatic/marine environment and the presence of plastic in sewage sludge produced by wastewater

treatment. Highlighting the presence of plastic may contribute to raising awareness of sewer misuse and effecting behaviour change.

The composition of materials used in products is often commercially sensitive therefore the study has focused on obtaining generic information of the use of plastic in different product types and publicly available data on average compositions where available. This has determined (Section 5) that, with the exception of paper based products (tissues and kitchen towels), 100% cotton products, cat litter and condoms (elastomeric), it is reasonable to assume that the other product types in scope contain plastic. For some products, this is obvious as they are constructed of visible moulded or extruded plastic – toilet block hangers, cages and dispensers, tampon applicators, interdental brushes and tooth picks, razors, and plastic cotton bud stems. Much of the packaging for the products is plastic, based on the recycling information on labelling. For the fabric products (bandages, cloths, some types of plasters) and the layered products (nappies, sanitary pads, panty liners and some cotton wool products like pleats and pads) plastic may be incorporated into the composition of the fabric or they incorporate plastic layers. These have been set out for generic or typical products in some detail in Section 5. There will be exceptions where a supplier has been able to generate a plastic free product, but unless this is clearly stated on the product labelling an assumption has to be made that plastic may be present for many of the product types examined.

7 Conclusions

Current use of ‘do not flush’ labelling on products

This study has examined 960 products across the product types in scope and provides a basis for future monitoring the implementation of the current labelling initiatives.

In the absence of statutory requirements, ‘do not flush’ labelling of products is dependent on voluntary action by retailers, on their own brands, and by brand owners, supported by voluntary initiatives, Codes of Practice or guidelines.

Despite voluntary initiatives since the mid-1990s ‘do not flush’ symbols are not universally used on the packaging of products associated with sewer misuse, and have only been placed on the Information Panel on the back or sides of packaging. It appears that ‘do not flush’ labelling has been taken up more widely by retailers on their own label products than by brand owners.

The highest uptake of the use of ‘do not flush’ symbols is on incontinence pads, nappies, baby wipes, sanitary pads and towels, panty liners and tampons.

It is apparent that the ‘Bag It & Bin It Don’t Flush It’ campaign was very successful in introducing ‘do not flush’ labelling to almost all of the product types examined. It is the most common symbol found on nappies, nappy bags, tampons and sanitary towels and was the only recommended symbol observed on dressings and some cotton products.

The 2008 EDANA symbol is still in use on a relatively small proportions of wipes, sanitary and cotton wool products.

The symbol currently recommended by EDANA and the Water Industry (DNF symbol) is primarily found on wipes and sanitary products, but occasionally on cotton pads, tissues and paper roll.

Some products carry retailers or brand owners own designs of 'do not flush' symbol.

For some product types a significant proportion of the products carry only text instructions on the Information Panel or have no 'do not flush' instructions at all. Text instructions are less visible than symbols and only inform users that are prepared to read the 'small print' on packaging.

Razors, condoms and dental products stand out as product types that do not carrying 'do not flush' labelling.

Among cleaning products, the toilet blocks, kitchen roll and cleaning cloths, together with dog poop bags and training pads, stand out has having a low uptake of 'do not flush' labelling.

Among the personal care products, there is low uptake in bandages and a relatively lower uptake in plasters, cotton wool products paper towels and tissues.

Therefore, general awareness and behaviour change initiatives cannot currently rely on advising consumers to look for a symbol or instructions for use on packaging as their main guidance on the correct disposal for many product types.

The absence of one universal symbol means that consumer awareness campaigns on sewer misuse should consider highlighting that consumers need to look out for a range of versions of 'do not flush' symbol.

Implementation of new guidance on moving the 'do not flush' symbol to the Primary Display Panel

The commitments made by UK retailers and EDANA to display 'do not flush' symbols on the Primary Display Panel on packaging represent a very significant change in product labelling for wipes, and the water industry should consider encouraging its take-up for other product types.

Implementation will require substantial changes to the current labelling of wipes products and a major commitment by retailers on their own label products and by brand owners.

These changes have begun with twenty-eight wipes products identified in this study with a symbol on the Primary Display Panel. However, the study identified differences in the interpretation and application of the new guidelines that affect the prominence and visibility of the symbol on some of these.

As these issues are already apparent (Sections 4.27 and 4.28) at this early stage, the Water Industry and retail/manufacturing trade bodies have an opportunity to encourage more effective implementation for the several hundred other wipes products to which the guidelines will apply between now and July 2018.

A list of the points to check on labelling to monitor whether it complies with the new guidelines is set out in Appendix 1.

Wipes vs other product types

There is currently a particular focus on wipes in sewer misuse campaigns and labelling guidelines, but other product types contribute to sewer misuse and there is a consequent need to encourage for their proper labelling.

Product types, outside wipes and absorbent hygiene products, such as nappy bags, dressings, dental products and toilet blocks, fall under the control of industry bodies other than EDANA and AHPMA, which are already closely involved in current initiatives.

There is currently no campaign that is providing a focus for proactively promoting 'do not flush' labelling across the range of products associated with sewer misuse.

Labelling of flushable products

Products marketed as flushable identified in the survey comprised: moist toilet tissue and toddler wipes; a nappy liner; some cleaning wipes; and some types of cat litter.

The labelling on flushable products is regarded as a unique selling feature and so their suppliers make use of their own choice symbols and instructions, consequently there is no industry recommended 'flushable' symbol.

The EDANA 2017 Code of Practice 2nd Edition requires that any 'flushable' wipes product has to a) be intended for contact with bodily fluids or their associated germs and b) have passed appropriate testing. It also requires that instructions for flushing the product are included on the Information Panel.

This review has found that the flushable wipes identified do fall into the category a) though there were no examples found where specific reference is made on labelling to passing appropriate testing.

Many flushable product carry instructions on how to flush that state a maximum number to be flushed at any one time (1, 2 or 3) and/or advice on the product's un-suitability for use with toilets connected macerator pumps or septic tanks.

On some flushable products, the instructions state only one wipe on a full flush (i.e. that the consumer should not to use a water saving reduced flush on a dual cistern). This style of labelling inherently acknowledges that the product may cause problems when flushed, hence the 'one at a time' advice. The labelling also promotes non-sustainable behaviours, in terms of water conservation.

Plastic content of products

There are no statutory requirements or voluntary guidelines requiring the listing of materials of construction of the substrate of products. Consequently, it is rarely possible to identify the use of plastics from the information provided on labelling.

The study has focused on obtaining generic information of the use of plastic in different product types and publicly available data on average compositions, where available.

The presence of plastic in packaging materials can be surmised where recycling symbols or instructions are provided.

For some products, the presence of plastic is obvious as they are constructed of visible moulded or extruded plastic items: toilet block hangers, cages and dispensers; tampon applicators; interdental brushes and tooth picks; razors; and cotton bud stems.

For the fabric products (bandages, cloths, some types of plasters) and the layered products (nappies, sanitary pads, panty liners and some cotton wool products like pleats and pads) plastic may be incorporated into the composition of the fabric or the products may incorporate plastic layers.

There will be exceptions where a supplier has been able to generate a plastic free product, but, unless this is clearly stated on the product labelling, an assumption has to be made that plastic may be present.

With the exception of paper based products (tissues and kitchen towels), 100% cotton products, cat litter and condoms (elastomeric), it is reasonable to assume that any product among the other product types in scope may contain plastic.

Plastic is widely present in the products associated with sewer misuse and highlighting this may contribute to raising awareness of sewer misuse and effecting behaviour change.

8 Recommendations

1. It is recommended that a survey is undertaken in the second half of 2018 to monitor the uptake of the EDANA 2nd Edition Code of Practice (to be implemented by July 2018) and the UK retailers own initiative on moving labelling to the Primary Display Panel. A checklist for assessing compliance of product labelling with the EDANA 2nd Edition Code of Practice is set out in Appendix 1.
2. The water industry should consider working pro-actively with retailers and brand owners at this early stage to ensure that the changes they are going to make to place 'do not flush' labelling on Primary Display Panel of wipes are undertaken effectively. Issues with the labelling on the small number of wipes products that have been changed to date concerning prominence and visibility of symbols are highlighted in Section 4.28.
3. In addition to the current focus on changing the labelling on wipes, the Water Industry should consider where further focus and effort is needed to work with retailers and brand owners, and their representative bodies, to improve 'do not flush' labelling across other product types implicated in sewer misuse.
4. The Water Industry and other organisations campaigning against sewer misuse need to take into consideration the fact that 'do not flush' labelling is not universally used on packaging and insights provided by this report when referring to labelling in

national and local sewer misuse campaigns. Consideration should also be given in campaigns to using the Tidyman Symbol alongside 'do not flush' symbols and highlighting that recycling symbols only refer to packaging not a product and do not indicate that a product can be flushed.

Appendix 1 – Comparison of labelling observed on products in 2014 with 2017.

This Appendix summarises the findings of the comparison of product labelling recorded in 2014 with labelling in 2017 for different product types.

Baby Wipes (see Section 4.3)

Table A1.1 Comparison of the labelling of baby wipe products 2014 to 2017

Brand/own label	Product	Difference	What changed
Huggies	Baby wipes	No change	DNF symbol & Tidyman on information panel, no text
Johnsons	2 products	Updated symbol	Old EDANA symbol & Tidyman replaced on information panel with DNF & Tidyman.
Pampers	2 products	Updated symbol	Old EDANA symbol & Tidyman replaced on information panel with DNF & Tidyman.
Simple	1 product	Text replaced by symbol	'do not flush' information replaced with old EDANA symbol. No use of Tidyman
Tesco	Extra thick baby wipes 2014, not found in 2017	Original product not found – in process of changing to DNF on PDP	BI&BI and text on 2014 product. Current range of baby wipes have BI&BI, old EDANA and one with DNF on Primary Display Panel

Cleansing Wipes (see Section 4.4)

Table A1.2 Comparison of the labelling of cleansing wipe products 2014 to 2017

Brand/own label	Product	Difference	What changed
Cherish	Facial Cleansing Wipes Ageless cleansing wipes	Addition of symbol	In 2014 there was no symbol only text. Now DNF symbol and text on both products
Johnsons	Makeup be gone wipes – 3 products	Replacement of symbol	Replacement of old EDANA symbol with DNF symbol. Tidyman used in both cases. No text either year
Nivea	Facial cleansing wipes – 2 products	Addition of symbol	In 2014 only instruction in capitals 'DO NOT FLUSH'. In 2017, DNF symbol added and text instruction now lower case.
Tesco	Everyday value facial wipes	Move of label to PDP and change of label	In 2014 old EDANA symbol, instruction to dispose in bin and not flush & Tidyman. In 2017 DNF with words 'do not flush' on PDP and Information Panel, separate

			instructions and Tidyman retained.
Tesco	Beauty Isserie and PRO facial wipes	These wipes appear to be discontinued but similar own label facial wipes were examined.	The two products examined in 2014 carried EDANA symbol, instruction to dispose in bin and not flush & Tidyman. Similar products in 2017 carry with the old EDANA symbol the DNF symbol and text
Witch	Cleansing wipes	Addition of own design symbol	In 2014 the product did not carry 'do not flush' information. In 2017 it has an own design symbol of a toilet with a cross and words 'do not flush'
Wet Ones	Be Gentle Facial Wipes Sticky fingers	No change	Own symbol of a Tidyman figure dropping a wipe into a toilet with a cross through

Cleaning Wipes (see Section 4.6)

Table A1.3 Comparison of the labelling of cleaning wipe products 2014 to 2017.

Brand/own label	Product	Difference	What changed
Dettol	Power and pure bathroom wipes	Addition of text	The product does not carry a symbol. In 2017 the instruction not to flush down the toilet has been added
Dettol	Multi-action floor wipes	A similar product was found	The product does not carry a symbol. In 2014, it carried the text 'Don't flush', the similar product in 2017 does not.
Flash	Household wipes	No change	Products in 2014 and 2017 carry an own design symbol and no text.
Tesco	Multi action wipes	No change to symbol	BI&BI used in 2014 and 2017
Bloo	Toilet wipes	Symbol changed	In 2014 old EDANA symbol and instruction 'do not flush' in 2017 DNF Symbol with the words do no flush and separate instructions not to flush

Disposable Nappies (see Section 4.9)

Table A1.4 Comparison of the labelling of Disposable Nappy products 2014 to 2017

Brand/own label	Product	Difference	What changed
Pampers	4 nappies	Updating of symbol	Old EDANA Symbol and Tidyman changed to DNF Symbol with Tidyman

Huggies	3 nappies	Updating symbol	of	Old EDANA Symbol and Tidyman changed to DNF Symbol with Tidyman
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Sanitary Pad and Towel (see Section 4.11)

Table A1.5 Comparison of the labelling of sanitary pads and towels 2014 to 2017

Brand/own label	Product	Difference		What changed
Always	Ultra	Change symbol	to	2014 toilet with cross and waste bin with a tick symbols. 2017 DNF and Tidyman.
Bodyform	Ultra	None		Old EDANA Symbol and instructions to wrap and place in wastebin
Co-op	Maxi towels	Similar product no change		BI&BI symbol and instructions
Kotex	Pads two products	Similar products similar labelling		Own version/old EDANA symbols without instructions
Tena	Pads	Change symbol	to	Replacement of old EDANA and Tidyman symbol with DNF symbol and Tidyman

Panty liners (see Section 4.12)

Table A1.6 Comparison of the labelling of panty liner products 2014 to 2017.

Brand/own label	Product	Difference		What changed
Asda	Panty liners 2 products	Similar products show no change		BI&BI symbol and instruction to wrap and dispose with household waste remain the same
Bodyform	Panty liners	No change		Old EDANA symbol
Carefree	Panty liners 2 products	Change symbol	of	From Toilet with cross and Tidyman to DNF symbol
Tesco	Panty liners 2 products	Similar product found		Old EDANA and BI&BI used in 2014. Old EDANA on similar product in 2017

Tampons (see Section 4.13)

Table A1.7 Table comparison of the labelling of tampons 2014 to 2017.

Brand/own label	Product	Difference	What changed
Asda	tampon	None	BI&BI symbol no Tidyman or instruction
Lil-lets	tampon	Change to DNF symbol	None in 2014. DNF symbol and Tidyman in 2017
Tampax	Tampon	Change to DNF symbol	Toilet with cross & waste bin with tick in 2014. DNF Symbol in 2017

Cotton Wool (see Section 4.18)

Table A1.8 Comparison of the labelling of cotton wool products 2014 to 2017.

Brand/own label	Product	Difference	What changed
Asda	Buds	None	BI&BI Symbol continues to be used
Johnsons	Buds	None	BI&BI Symbol continues to be used
Numark	Buds	None	BI&BI Symbol continues to be used
Tesco	Buds	None	Old EDANA Symbol and Tidyman continues to be used
Boots	Pads	None	BI&BI Symbol continues to be used
Soft & Pure, Robinsons Healthcare	Pads	None	No labelling

Dressings (see Section 4.19.2)

Table A1.9 Comparison of the labelling of plasters 2014 to 2017.

Brand/own labels	Product	Difference	What changed
Elastoplast	Various plasters	None	No labelling
Fast Aid	Two plasters	None	No labelling

Numark	Plasters	None	BI&BI symbol
Safe+sound	Plasters and tape	None	No labelling
Numark	3M Micropore surgical tape	None	No labelling
Numark*	Crepe Bandage	Addition of BI&BI Symbol	BI&BI symbol on 2017 product

Tissues (Section 4.20.1)

Table A1.10 Comparison of the labelling of tissues 2014 to 2017.

Brand/own labels	Product	Difference	What changed
Co-op	tissues	None	The text instruction 'As with all tissues, 'do not flush' down the toilet but place in refuse or incinerate' used in 2014 remains on packaging.
Kleenex	3 tissues	Change to DNF Symbol	In 2014, the products either carried an old EDANA symbol or no information each with a Tidyman. In 2017, they all carry the DNF symbol and Tidyman.

Paper Towels (Section 4.20.2)

Table A1.11 Table comparison of the labelling of kitchen towels 2014 to 2017.

Brand/own label	Product	Difference	What changed
Plenty	Kitchen towel	Updated symbol	Own symbol of a toilet with a cross in a red triangle used in 2014 replaced with DNF symbol.
Thirst Pockets	Kitchen towel	Own symbol removed	Own symbol of a toilet with cross in a blue triangle used in 2014 had been removed in 2017.
Regina	Kitchen Towel	None	No labelling

Appendix 2 - Instructions for use on flushable products

Table A1 Instructions for use on flushable products: products prefixing 'for best results' before instructions to limit the number of sheets per flush, maximum number of sheets per flush, advice to use a full flush, suitability for use with macerator pumps and suitability for use with septic tanks.

Brand & supplier	Product	Use of phrase 'for best results'	Maximum number to flush	Use of full flush stated	Not suitable for toilets with macerators or pump	Not suitable for use with septic tanks
Andrex, Kimberly-Clark	Classic Clean Washlets To Go*		Diagram indicates 1 to 2			
Andrex, Kimberly-Clark	Gentle Clean Washlets (42) Fragrance free	Yes	1 to 2			
Andrex, Kimberly-Clark	Skin Kind Washlets	Yes	1 to 2			
Asda	Little Angels fragrance free toilet training wipes		1		X	X
Asda	Shades so fresh flushable moist toilet tissue	Yes	1 to 2		X	X
Asda	Shades So sensitive with Aloe Vera	Yes	1 to 2		X	X
Be Fresh	Flushable moist toilet tissue		1	Yes	X	X
Boots	Moist toilet tissue sensitive				X	
Boots	Moist toilet tissue sensitive (40)				X	
Clean and Soft	Moist toilet tissue (80)		1		X	
Galleon	Galleon Moist Toilet Tissue Wipes					
Halo, Nice-Pak International	Moistened toilet tissue	Yes	1	1	X	
Morrisons	Even Softer aloe vera lightly fragranced moist tissue		1	Yes	X	X
Morrisons	Even Softer sensitive moist tissue		1	Yes	X	X
Poundworld, ITP	Flushable Softlets gentle toilet wipes sensitive fragrance free					

	(42)					
Poundworld, ITP	Softlets gentle toilet wipes classic					
Quickies, Jeyes	Flushable moist toilet tissues (12)		1			
Sainsbury	Super soft fresh flushable toilet tissue wipes		1 to 2	Yes	X	X
Sainsbury	Super soft sensitive flushable toilet tissue wipes		1 to 2	Yes	X	X
Sainsbury	Super soft soothing flushable toilet tissue wipes		1 to 2	Yes	X	X
Saxon, Aldi	Soft & Fresh Flushable toilet wipes fresh fragrance (42)	Yes	1 to 2		X	X
Tesco	Kids flushable toilet tissue wipes watermelon and apple fragrance		1	Yes	X	X
Tesco	Luxury soft toilet tissue wipes - sensitive		1	Yes	X	X
Tesco	Luxury soft toilet tissue wipes - Spring Fresh		1	Yes	X	X
Tesco	New Luxury soft coconut oil flushable moist toilet tissue wipes		1	Yes	X	X
Velvet, SCA Hygiene Products AB	Pure Moist Toilet tissue		up to 2			
Waitrose	Moist toilet tissue wipes enriched with chamomile and aloe vera		1		X	X
Wilko	Clean and fresh flushable toilet tissue wipes		no more than 2			
Wilko	Kids toilet wipes					
Mioliners, Bambino Mio	Biodegradable nappy liners		1			
Andrex Kimberly-Clarke	Kids Clean	Yes	1 to 2			
Co-op	Flushable Bathroom and Toilet Wipes (40)					
Co-op	Loved by Us Toddler wipes (60)		1	1	X	
Co-op	Toddler Wipes		1	1	X	
Domestos, Unilever	Toilet wipes		Max 3			
Halo	Toilet and surface		1		X	

,Nice-Pak International	wipes					
Jeyes	Parozone toilet wipes (40)		Max 3		X	
Kiddie Klean	Moist toilet wipes (100)		1		X	
Mamia	Toddler Toilet Wipes Fruity Fragrance		1	Yes	X	
Morrisons	Nutmeg fragranced toddler training wipes (60)		1		X	
Morrisons	Nutmeg sensitive toddler training wipes (60)		1		X	
Parozone, Jeyes	Citrus Toilet wipes		1	Yes		
Sainsbury	Little ones botty wipes		1	Yes	X	
Sainsbury	Little ones sensitive botty wipes		1	Yes		
Tesco	anti+bac ocean toilet surface wipes		1	Yes	X	
Tesco	Anti-bac Ocean Toilet Surface Wipes 40		1	Yes	X	
Tesco	Loves Toddler fragrance free toilet wipes		1		X	X
Tesco	Loves Toddler fragranced toilet wipes		1		X	X
Tesco	Tesco Loves Toddler Toilet Wipes		1		X	X
Vagisil, Combe International Ltd	Dual action intimate wipes					
Vagisil, Combe International Ltd	Medicated feminine wipes					
Waitrose	Essential Waitrose 40 anti-bacterial bathroom and toilet wipes		Max 2		X	X
Waitrose	Fragranced toddler wipes					
Yudo, ITP Imports	Toddler wipes for kids strawberry scented					
Pampers	Kandoo sensitive					
Floralys, Postam	Spring Fresh Moist Toilet Tissue	yes	1 to 2 only up to 3		X	
Floralys, Postam	Sensitive Moist Toilet Tissue	yes	1 to 2 only up to 3		X	
Boots	Feminine wipes	n				

Appendix 3 Questions for assessing the application of the EDANA 2017 Code of Practice 2nd Edition to wipes products

The following questions are based on the requirements for labelling set out in the EDANA 2017 Code of Practice 2nd Edition and are proposed as a basis for future assessment of labelling on wipes products.

- 1. Is the product constructed from non-woven sheet? If not, not in scope**
- 2. Is it marketed as a baby wipe?**
 - a. Has the DNF symbol been used?
 - i. Has an alternative DNF symbol been used?
 - b. Is the DNF symbol on the top or front of the package
 - i. What is the location
 - ii. Is it visible to customer on shelf without having to touch it?
 1. Does secondary packaging obscure it?
 - iii. Is it permanently affixed?
 - c. Is a DNF symbol reasonably visible near the point where individual wipes are taken out of the container?
 - i. What is the location?
 - ii. Is it permanently affixed?
 - d. Is the DNF symbol artwork of high contrast with the background?
 - e. Is the DNF symbol prominently visible on packaging so consumer can find proper disposal instructions without opening the pack?
 - i. If DNF symbol is embossed on injection moulded plastic parts does it have a high visual impact?
 - ii. Is the DNF symbol obscured by packaging seals or folds or obscured by other package design elements?
 - f. Is the DNF symbol of the correct size for the display panel?
 - g. Has the optional written instruction “do not flush” been used with the DNF symbol?
 - h. Have written instructions been provided indicating that they should be disposed of via the solid waste system and not flushed?
 - i. What is the location?
 - ii. What are they?
 - i. Are the instructions prominent?
 - j. Has the Tidyman symbol been used (optional)?
 - i. Is it the same size as the DNF symbol?
 - k. Overall, does the packaging clearly inform consumers whether or not the products are appropriate for disposal via the wastewater system?
- 3. Is it in the category ‘not likely to be used in a bathroom; low potential to be disposed of via the toilet’: DNF symbol is discretionary but encouraged.**
 - a. Has a discretionary decision been made to use the DNF symbol?
 - a. Where is it located?
 - b. Is the recommended symbol prominently and clearly displayed? If not, has another DNF symbol been used?
 - a. It prominent?
 - b. Is the DNF symbol artwork of high contrast with the background?

- c. If DNF symbol is embossed on injection moulded plastic parts does it have a high visual impact?
- d. Is it permanently affixed?
- e. Is it reasonably visible near the point where individual wipes are taken out of the container holding and dispensing the wipes?
- c. Is the DNF symbol prominently visible on packaging so consumer can find proper disposal instructions without opening the pack?
 - a. Is the DNF symbol obscured by packaging seals or folds or obscured by other package design elements?
- d. Is the DNF symbol of the correct size for the display panel?
- e. Has the optional written instruction 'do not flush' been used with the DNF symbol?
- f. Have written instructions been provided indicating that they should be disposed of via the solid waste system and not flushed?
- g. Are the instructions prominent?
- h. Has the Tidyman symbol been used (optional)
 - a. Is it the same size as the DNF symbol?

4. Is it the category 'likely to be used in a bathroom with significant potential to be flushed, DNF symbol required whether or not it is contaminated with faeces, menses or urine and/or related germs':

- a. Is the recommended DNF symbol prominently and clearly displayed? If not, has another DNF symbol been used?
 - i. Where is it displayed?
 - ii. Is it prominent,
 - iii. Is the DNF symbol artwork of high contrast with the background?
 - iv. If DNF symbol is embossed on injection moulded plastic parts does it have a high visual impact?
 - v. Is it permanently affixed
 - vi. Is it reasonably visible near the point where individual wipes are taken out of the container holding and dispensing the wipes.
- b. Is the DNF symbol prominently visible on packaging so consumer can find proper disposal instructions without opening the pack?
 - i. Is the DNF symbol obscured by packaging seals or folds or obscured by other package design elements?
- c. Is the DNF symbol of the correct size for the display panel?
- d. Has the optional written instruction 'do not flush' been used with the DNF symbol?
- e. Have written instructions been provided indicating that they should be disposed of via the solid waste system and not flushed?
- f. Are the instructions prominent?
- g. Has the Tidyman symbol been used (optional)
 - i. Is it the same size as the DNF symbol?
- h. Overall, does the packaging clearly inform consumers whether or not the products are appropriate for disposal via the wastewater system?

5. Is it in the category 'likely to be used in a bathroom; likely to be contaminated with faeces, menses or urine and/or related germs; significant potential to be flushed; does not pass flushability tests:

- a. Is the DNF Symbol placed on the front or top of the on-shelf packaging so a consumer can see the symbol without having to touch the package? (strongly recommended and highly encouraged for this category)
 - i. Where is it displayed?
- b. Is the DNF symbol prominently and clearly displayed? If not, has another DNF symbol been used?
 - i. It prominent,
 - ii. Is the DNF symbol artwork of high contrast with the background?
 - iii. If DNF symbol is embossed on injection moulded plastic parts does it have a high visual impact?
 - iv. Is it permanently affixed
 - v. Is it reasonably visible near the point where individual wipes are taken out of the container holding and dispensing the wipes.
- c. Is the DNF symbol prominently visible on packaging so consumer can find proper disposal instructions without opening the pack?
 - i. Is the DNF symbol obscured by packaging seals or folds or obscured by other package design elements?
- d. Is the DNF symbol of the correct size for the display panel?
- e. Has the optional written instruction 'do not flush' been used with the DNF symbol?
- f. Have written instructions been provided indicating that they should be disposed of via the solid waste system and not flushed?
- g. Are the instructions prominent?
- h. Has the Tidyman symbol been used (optional)
 - i. Is it the same size as the DNF symbol?
- i. Overall, does the packaging clearly inform consumers whether or not the products are appropriate for disposal via the wastewater system?

6. Is the product designed to be flushed and passes appropriate tests?

- a. Is the product designed to come in contact with human wastes (faeces, menses or urine and/or related germs) while used in a bathroom setting. [wipes for other uses are not to be flushable]
- b. Are explicit product use and flushing instructions provided?
- c. Are the instructions clearly provided on the packaging?
 - i. Where are they located?
 - ii. Are they prominent?
 - iii. Are they obscured by packaging seals or folds or obscured by other package design elements?
- d. Is there any explicit mention of the product having passed an appropriate assessment?