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## The detergents regulation and opportunities to improve communication of safety information to consumers

**KEYWORDS:** Detergents regulation, safety communication, digitalization, labels.

### ABSTRACT

The Detergent Regulation review was a milestone to assess the success and weaknesses of this key regulatory requirement. From an environmental standpoint, the regulation has permitted advancement and is deemed as the gold standard for surfactants. Conversely, studies have shown that improvement is needed on communication to consumers who are currently confused by copious, crowded technical content on-pack. This is compounded with discrepancy on information provided, due to detergent products being subject to three separate regulations. The argument will be made that eliminating the duplication and inconsistency on-pack, focusing on key information and the use of well-designed icons would be more effective. Finally, the potential to use digital means to allow consumers to have highlighted, customised information will be discussed.

### THE DETERGENT REGULATION

The Detergent Regulation (EC) No 648/2004 resulted from the congregation of a series of directives (1) into a more cohesive, European framework. Previous legislation on detergents had been set out since the early 1970s, but the Detergent Regulation consolidated the requirements and extended existing provisions. It stipulated that all surfactants used in detergents should be fully biodegradable, as well as setting out requirements for labelling of ingredients and safe/sustainable use information. Then, with Regulation (EU) No 259/2012, another update was made imposing a ban on inorganic phosphates in domestic laundry and dishwasher detergents.

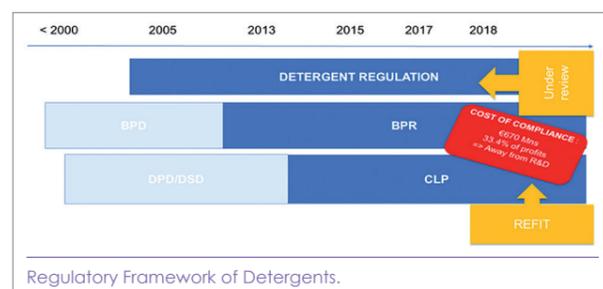
The Detergents Regulation has been deemed a success overall, particularly in relation to environmental protection and the development of phosphate free formulations. In fact, it is estimated that 55000 tonnes per year of P have not been used due to the regulation (2) and it is often referred internationally as the golden standard for biodegradability of surfactants.

However, with regards to communication of safe and sustainable use to consumers, there are still points of improvement. This is also due to overlapping requirements resulting from changes in the European regulatory landscape, like introduction of CLP Regulation and the Biocidal Products Regulation.

Thus, the review of the Detergent Regulation, which is currently in process (3), provides an opportunity to acknowledge the successes and establish next steps. As the regulatory framework and society have changed since 2004, when the regulation was published, this is a good moment to think forward. To find ways that ensure people notice the information on pack, understand it and act upon it.

### DETERGENT LABELLING

Labelling for detergents currently follows three separate regulations: Detergent Regulation 648/2004, CLP Regulation 1272/2008 and Biocidal Products Regulation 528/2012. As each legislation was developed independently of the others and implemented through different timeframes, repetition and inconsistencies can be found. In particular, this is seen in terms of redundant labelling provisions for ingredients, allergenic fragrance substances and preservatives. This is a key factor to making the Detergents industry heavily regulated and has contributed to the high estimated cost of compliance. The Commission EU Cumulative Cost Assessment (2016) (4) concluded that the overall legislation cost for the detergents and maintenance products industry amounts to approximately 33.4% of its profits. Compared to other sectors in the chemical industry, in proportion to value added, the detergents and maintenance products industry has the highest administrative costs.



The example below depicts a standard detergent label, translated into three different languages. This is the legal requirement in certain countries (e.g. Belgium) and arguably an important step in today's multilingual environment. Upon zooming into the label, the user is faced with inconsistencies between the lists of ingredients required by the CLP legislation and the Detergent legislation. Furthermore, highly technical language, which is incomprehensible to anyone except for highly trained chemists is used. It is debatable whether such detail can promote safe use, as is the usefulness of repetition and the inconsistency.

### CONSUMER UNDERSTANDING OF THE DETERGENT LABEL

Thus, the data shows that there is very limited interest in the back-label's content, and people hardly spend time reading this information, if at all. Consumers rely on their own experience for assessing hazards and if they look at the label, people tend to be confused by the copious, crowded technical content. Data to support these statements was observed both by Eurobarometer, and A.I.S.E. consumer studies (5-8). The conclusion was that almost half of consumers rarely/never read the label before using a detergent product.

The image shows a typical CLP label for a detergent product, presented in three languages: French, German, and English. The label is densely packed with text and icons. Callouts highlight specific areas:
 

- ALLERGENS (fragrances and preservatives):** A callout points to a list of allergens, noting that this information is "Confusing for consumers" and "Inconsistent between CLP and Detergent Regulation lists".
- SURFACTANTS:** A callout points to the surfactant list, stating it is "Comprehensible by chemists only" and "Only ingredients triggering classification (CLP)".
- DETERGENT REGULATION INFORMATION:** A callout points to the detergent-specific information, noting it is "Cited per family and percentage range (Detergent Regulation)".

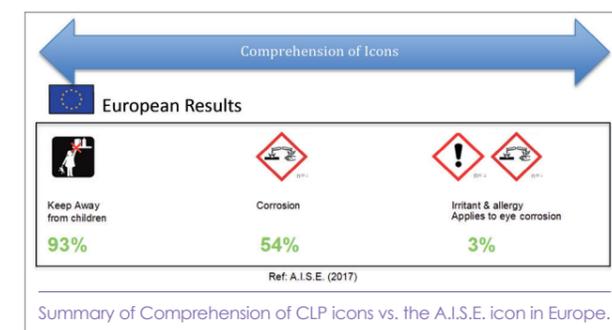
 The label also features a large hazard pictogram (exclamation mark) and a "Keep away from children" icon.

Qualitative interviews done by A.I.S.E. identified a dislike of the current complex labels. Also, in a large quantitative study (based on 1800 respondents across 4 European countries), alternative labels with a more visual way of communication (via the use of icons) were preferred. Consumers stated they wanted the label to provide information, however in practice the amount of time spent is insufficient to read the text. Through eye tracking exercises, it was identified that even when asked to focus on the label, as if they were buying or using an unknown product for the first time, respondents took just over 20 seconds to read the back label. In fact, especially for the text-rich current executions, over three minutes would probably be needed to read all information (5).

Comprehension of commonly used CLP pictograms was found to be quite poor, except for the environmental hazard. While the "corrosive" pictogram was understood by over half of the respondents, it was almost never linked with an eye hazard. For detergent products, the latter is usually the key message the icon intends to convey. This means that, in reality, the average consumer does not understand the meaning of the corrosive pictogram in this context. The same is true for the "exclamation mark" pictogram - which was understood to represent an irritation hazard by only 3% of the people. Similar observations were made in the EU Commission Eurobarometer studies of 2011 and 2017 (6,8).

In comparison, many of A.I.S.E.'s voluntary safe use icons had higher standing among consumers. Most notably, the "Keep away from children" icon was correctly interpreted by over 9 out of 10 respondents, without any critical confusion.

The main take away from this is that the complex, wordy label is insufficient in conveying the safety messages. It would increase effectiveness to eliminate the duplication and inconsistency on-pack and have labels which focus on key information, highlighted through well designed icons. An improvement is necessary. With the upcoming revision of the Detergent Regulation, there are real opportunities to develop clearer and even customised solutions.



### USING DIGITALIZATION TO IMPROVE COMMUNICATION TO CONSUMERS

The move into a digital space could allow consumers to better understand the products they work with, as more customised, clearer information can be provided in a virtual platform. In the US, a change has been made in this direction through smartlabel for manufacturers of food and non food products (9). A transfer online could allow tips for topics like sustainable cleaning to be emphasised. Thus permitting an improvement in the consumer experience and awareness of the steps that need to be taken to ensure safety and sustainability.

Consumer research confirms this with 56% (7) of consumers who believe digitalisation will offer more opportunities to access information. Also, importantly is that this statistic does not vary based on age group.

This debate is occurring not just in Europe, but globally (10).

Now, the European Detergents industry has the opportunity to be forward thinking in its implementation. To use the potential of digital to ensure consumers read the safety information, notice it and act on it.

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### ABOUT THE AUTHOR

Scientific and Regulatory Affairs Manager at A.I.S.E. since April 2018. Managing the dossiers of the Detergent Regulation, REACH, Indoor Air Quality and Enzyme ingredients. Masters in Chemistry from the University of Edinburgh, and experience in regulatory, formulation and R&D in various industries including detergents, chemicals, food, pharmaceuticals.

