10 years of GHS: More effective labelling for hazardous consumer products?

Submitted by the International Association for Soaps, Detergents and Maintenance Products (A.I.S.E.)

1. A.I.S.E. launched in 2016 a project called “BREs - Better regulation & Safe use project” on communication to general consumers to ensure a safe use of hazardous products, with a specific focus on detergents and maintenance products.

2. Main aim of this project was to improve effectiveness of safe use communication via labels, to make sure that consumers notice the safety information, understand it, and act upon it to ensure safe use.

3. A first workshop was organized on June 2016 with the participation of EU Commission, EU Member States, Poison control centres and Industry. This allowed gathering different stakeholders’ perspectives on the effectiveness of GHS/CLP labelling requirements to convey hazard and safe use information to consumers and medical personnel on chemicals products, in particular, detergents products.

4. As a follow up, a qualitative market research with consumers was carried out in 2016. Results are available at the following link: https://www.aise.eu/documents/document/20161012132913-resuals_quali_research_.pdf

5. In 2017 a quantitative market research was conducted on ‘Consumer understanding of the safety and pictograms on hazardous household detergent products’. This is probably one of the largest studies on consumer comprehension of GHS/CLP labels and its findings can support further improvements of the system.

6. A scientific publication is under preparation and the Study report will be soon published on A.I.S.E. website: https://www.aise.eu

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10 years of UN GHS: More effective labelling for hazardous consumer products?

Roberto Scazzola, A.I.S.E.
34th Meeting of Sub-Committee of Experts on the GHS – Geneva 6-8 December 2017
UN GHS in the European Union

• UN GHS criteria introduced in EU via CLP Regulation n.1272/2008 on Classification, Labelling and Packaging
• Replacing previous systems (DPD orange pictograms less labelling overall).
• European Union is the only jurisdiction having fully implemented GHS criteria for general consumer chemical products.
• After almost 10 years, relevant findings can be shared on the GHS implementation for general consumer labels.
Same product, two approaches (EU, US)

GHS resulted in a higher amount of information to be placed on a label for consumer chemicals (hazard vs risk)
A consumer perspective on GHS labelling

Qualitative research on consumers understanding (AISE 2016)

- GHS/CLP labels are rarely checked (detergents products).
- Safe use practice is determined intuitively (e.g. experience, connotation of performance, pack design)
- Some issues with comprehension of labels.

Methodology: 30 face to face interviews (1h45) in 3 EU countries (BE/PL/ES)
Main findings qualitative research

• Eye tracking demonstrated value of pictograms.
• They would not use label in case of accident: “too much text to quickly find what is needed”.
• GHS pictograms are not well understood (difficult to distinguish level of risk, i.e. exclamation mark).
• Confusion by the different pictograms and phrases: “all products seem to be equally dangerous (no ‘gradation’)”
• A.I.S.E. safe use icons are deemed to work better and are “good to be reminded of”
Quantitative Consumer Research on labels (2017)

Scientific publication will follow. Main goals:
1) Effectiveness of 3 label options to drive safe use
2) Label preference
3) CLP Pictogram and A.I.S.E. Safe Use Icons Understanding (GHS methodology)
Methodology

4 European countries (Poland, France, Sweden, Spain)
Online study n=1800 (30% male, 70% female), nationally representative spread for age per country.
GHS pictograms and safe use icon understanding tested with GHS Comprehensibility Testing Methodology (UN, 2015).
Full info soon available www.aise.eu
Typical EU liquid laundry detergent

- 4 languages;
- Full GHS/CLP compliance
- Classified Serious Eye Irritation (Cat.2) H319 “Causes serious eye irritation.” + EUH208 “Contains <name of sensitising substance>.
- GHS07 (exclamation mark) with the signal word “Warning”.
- P102 “Keep out of reach of children.”
- P305/351/338 “IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.”
- P337/313 “If eye irritation persists: Get medical advice/attention.”
- P301/312 “IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.” and P101 “If medical advice is needed, have product container or label at hand.”

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Option 1 label all CLP/GHS content but safe-use icons replacing some precautionary statements, whenever possible:
Option 2 label

Very simplified execution not in compliance with GHS (expert judgment):

- Focus on most relevant safe use messages for the consumer.
- Visual cue “ALLERG” as hook to list allergens.
- Poison centre telephone.
- Allergen phrase EUH208
- Larger safe use icons (4x) “Keep away from children” and “Eye hazard”;
- Full info on website.
Best label for consumers

- 500 consumers were shown the three label options and were asked to select their preferred option.
- Consumers mentioned the reasons for their preference.
- Respondents clearly did not like crowded labels.

And the winner is……
Consumer Preference

Alt. label 1 - 44% a lot of information AND easy to understand

Alt. Label 2 36% easy to understand and the other options are too complicated

Current label - 17% the most information
Main findings: best label for consumers

- **Consumers prefer the simpler label** (Option 1 and 2 labels best options).
- About 2/3 claimed to always read safety instructions.
- On average **22-23 seconds** were used to read the label (no difference between executions): **clearly not enough time to read the content of the labels**.
- However, consumers still want to have available sufficient information (via label and media Eurobarometer 2017). Even though they may not actually read or use it very much in practice.
Specific finding: Ingredients list

Reduced ingredients list

- The presence of an ingredient list was noticed only by 6% to 10% (n=1800, specific to EU).
- 83% to 89% had no idea what was on the label regarding the composition or ingredients of the product.
- **None of the ingredient list options had been adequately studied** and been well understood by the panellists.
Keep away from children

- When asked where to store the product, over half of them (55-61%) reported that they should keep this product out of the reach of children (n=1800).
- However, only 9-19% remembered it from the label.
- Basic **safe use practice is probably driven more by priori knowledge and experience** than based on what they had seen on the label.
Specific findings: emergency

**In case of an accident (splashed in the eye) - I**

- Rinse the eye about 80%, call a doctor about 21%.
- Only 2 to 3% would consult the label in case of an accident.
- *Past experience and emotional behaviour take priority over safety instructions provided via the label in an emergency.*
- Consumer attention can be diverted by too much information on a label regarding all potential hazards. (aligned with EU Commission and ECHA findings 2012).
Specific findings: emergency

In case of an accident (splashed in the eye) - II

• When asked afterwards, 87% confirmed usefulness of the label information in case of an accident.

• **Respondents welcome the idea** that useful information on first emergency measures is contained on the label; but in a real emergency general experience takes priority (e.g. wash your eyes, consult a doctor etc.) and **do not actually consult the label.**
Key findings on consumer label elements

- **Simpler label** (less text, key basic safe use information, etc.) are preferred by consumers;
- The principle “the more information the better” does not really work for consumers (short attention);
- **Safe use icons/precautionary pictograms are useful** and generally better understood than text;
- **Respondents welcome the idea** that useful information on label is available; but in a real emergency general experience takes priority (e.g. wash your eyes, consult a doctor etc.) and do not actually consult the label.
Comprehension of icons and GHS pictograms

GHS Annex VI Comprehensibility Testing Methodology (n=1800)

- Open question: “what does this pictogram mean ?”

- Coding of the free-text responses:
  - Correct (exact or intended hazard meaning) = acceptable
  - Partly correct: insufficient to drive safe use,
  - Incorrect and Opposite meaning = not acceptable

GHS approach for comprehension studies is much stricter than multiple-choice questions (e.g. Eurobarometer surveys).
Comprehension of icons and pictograms

Benchmark: established CLP/GHS pictograms

- **not understood**
- **moderately**
- **well understood**

Hardly ever linked to Eye hazard

“Corrosive” was well understood 54% BUT!

Environmental hazard Overall satisfactory! 62%

Rarely understood 3%, not associated with eye hazards.

Benchmark:
ANSI Z535 3 & ISO 9186
successful comprehension > 85%
and critical confusion < 5%

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Comprehension of icons and pictograms

Key AISE icons better understood than GHS benchmarks

Most consumers understand the hazard message, but do not spontaneously provide the consequent message of the safe-use phrase.
Results

86% exact understanding (storage & handling guidance)

7% sufficient understanding (child hazard)

<1% critical confusion (0.2% conflicting with child hazard)

93% “correct”
Comprehension of icons and pictograms

AISE Children Icon relative to GHS benchmarks

AISE Children 93% with sufficient understanding

GHS09, GHS05 54%-62% with “sufficient” understanding of the hazard (excludes recognition of eye hazard for GHS05)

GHS07 only 3% with sufficient understanding of the hazard

All: negligible critical confusion
Benchmark: GHS pictograms

- A.I.S.E. “Keep Away From Children” pictogram has a very high level of consumer understanding (93%)

- GHS pictograms from moderately good understanding (environmental 62%, corrosive 54%) to very poor understanding (exclamation 3%). “Corrosive” was nearly never associated with eye hazard!

- Taking into account the stricter methodology, A.I.S.E. findings are in line with Eurobarometer 2011 and 2017:

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<th></th>
<th>AISE 2017</th>
<th>EB 2011</th>
<th>EB 2017</th>
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<tr>
<td>Environmental</td>
<td>62%</td>
<td>76%</td>
<td>83%</td>
</tr>
<tr>
<td>Exclamation</td>
<td>3%</td>
<td>11%</td>
<td>17%</td>
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Limited effectiveness of GHS labels
GHS labels are not very effective at informing about safe use and hazards for general public (full phrases are not more effective than icons in this respect).

Consumer preference for information in a simpler form
Consumers want the label to provide information BUT they spend insufficient time to read it (Preference for graphical alternatives over text).

Key safe use icons are well understood especially the A.I.S. E. “Children” icon, better understood than benchmark GHS pictograms.
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