

## TT Environmental Ltd's response to EC's labelling proposals

There are a number of grounds for concern;

1. The EU-wide survey which is being used to support the apparent need for an increase in font size is out of date for today's marketplace
2. The proposal to increase font size does not address the underlying problems discovered by the survey being used to promote these label changes, even if these still exist
3. The proposal to increase font size is not related to best practice on font sizes and distance for clear reading
4. On containers with limited room, there may not be space for all of the required CLP information on the front page
5. The proposals will create expensive practical problems for labellers and end users
6. Digital labels are intrinsically unsuitable for hazard information which should be available to the end users when they use the product
7. This is not a GHS requirement and should not be implemented unless brought into GHS itself
8. In my opinion, it is unsafe to move hazard information off the label and onto pull-out or fold-out labels for industrial chemicals; and unsafe to move any hazard information from chemical labels onto a digital label

These proposals will not increase label clarity or readability, they will make labels harder to understand and therefore less safe for the end user than at present. None of these proposals should be adopted.

1. The EU-wide survey which is being used to support the apparent need for an increase in font size is out of date for today's marketplace

As far as can be ascertained from CARACAL documents, the data being used to push forward these proposals stems from a survey carried out in 2017 across the whole of Europe, with results which can be summarised as follows:

- a) *Consumers don't know what the pictograms mean (Particularly the Gas Bottle, Exclamation Mark, and Health Hazard)*
- b) *The technical names of chemicals listed on labels are long, complicated and confusing!*
- c) *Some of the H and P phrases are repetitive and redundant*
- d) *There are understanding gaps between industrial, professional and consumer users*
- e) *There are understanding gaps between Northern European and Southern European users*

In 2017, we were still in the CHIP label phase-out period, so not all consumer products would carry the GHS pictograms. Consumers, in particular, would have been less familiar with the GHS pictograms. This is evidenced by the fact that the three pictograms they were having difficulty with were the ones with new symbols. The other pictograms have the same symbols as CHIP, but contained within a red diamond (or "square set on point") border on a white background, rather than contained in an orange square.

Having carried out a lot of awareness training for chemical industry personnel during the transition from DSD/DPD to CLP, I can confirm that these three pictograms also gave experienced technical people problems as well, when they came across them at first. So it's hardly surprising that consumers were similarly confused during a survey, particularly if they had never seen these before.

If this survey was to be repeated now, in 2023, it is likely that there would be a much higher level of awareness than in 2017, as more people will be familiar with the pictograms and their meaning.

2. The proposal to increase font size does not address the underlying problems discovered by the survey being used to promote these label changes, , even if these still exist

The problems listed can be addressed as follows:

- a) *Consumers don't know what the pictograms mean (Particularly the Gas Bottle, Exclamation Mark, and Health Hazard)* – education programs for consumers online and eg through TV advertising
- b) *The technical names of chemicals listed on labels are long, complicated and confusing!* – encourage industry to use common chemical names instead of e.g. IUPAC names, particularly on consumer labels
- c) *Some of the H and P phrases are repetitive and redundant* – encourage industry to use precedence for H and P statements, better training for labellers
- d) *There are understanding gaps between industrial, professional and consumer users* – which is to be expected based on level of chemical education, experience in handling hazardous chemicals
- e) *There are understanding gaps between Northern European and Southern European users* – this is likely to be due to the relative levels of wealth in these two areas, as better-off Europeans in the North may be able to afford chemical products and therefore be more familiar with their labels

As my colleague AP comments: None of these problems will be resolved by increasing the font size on the label. Making text bigger does not help someone to understand it. It's the equivalent of just speaking louder to someone when you go abroad and don't speak the native language.

3. The proposal to increase font size is not related to best practice on font sizes and distance for clear reading

ANSI Standard X535.4 - Product Safety Signs and Labels, contains Table B1, which includes recommended minimum font sizes based on the minimum safe viewing distance, and favourable or unfavourable lighting conditions. It does not mention package size anywhere.

Taking the font proposals into account, and comparing them to the minimum font recommendations in favourable lighting conditions table B1 of ANSI X535.4 gives the following results:

Packages not exceeding 3L - Minimum font = 8pt (2mm) – 30cm distance (1 foot)

Packages Greater than 3L but not exceeding 50L - Minimum font = 12pt (3mm) - 90cm distance (3 feet)

Packages Greater than 50L but not exceeding 500L - Minimum font = 16pt (4.1 mm)– 150 cm distance (5 feet)

Packages Greater than 500L - Minimum font = 20pt (5.1 mm) – 210 cm ( 7 feet)

So the presumption for readability of label text seems to be that you are further away from the package when you are reading the label. This is incorrect. If you are using a package, you have to get close to it, if only to open the lid or package itself!

Another problem with font size is the requirement that the space between the lines should be 1.2 times that of the font size itself. Where has this figure come from? Is it really going to help readability by a significant amount?

4. On containers with limited room, there may not be space for all of the required CLP information on the front page

My colleague AP has mocked up an A4 label for use on an IBC for dual TDG and CLP, with only 3 Hazard Statements, H225, H319 and H336 and although she can fit on the text at 20 points, there's no room for the two pictograms, see [example A4 label TDG and CLP new font sizes without pictograms.jpg](#) . (The blue part of the label is the space needed for TDG information). This would clearly affect industrial labels as well as consumer labels.

This is unsafe, in my view, as surely the pictograms and the full hazard statements should be immediately visible to the end user.

It is clearly going to be very difficult to have more than one language on the label, which could be very bad in countries where more than one language is a legal requirement.

Different font sizes have different actual sizes (Arial Narrow may become very popular!).

As I understand the proposals, the EC thinks that any affected labels (which will probably mean most of them) will have to move to fold-out labels, but this will create new problems, particularly for industrial labels which have never been fold-out in the past.

5. The proposals will create expensive or unsurmountable practical problems for labellers and end users

For labellers, problems of fold-out labels include:

- packages which contain liquids and which are used repeatedly (e.g. bleach bottles in the home; many chemical containers in industry) – will the labels have to be resistant to the contents of the package? will the paper or plastic strength have to undergo tests to ensure that it can “wear” properly when opened and closed repeatedly
- booklet labels have not been developed yet for industrial chemicals
- Fold out or booklet chemicals may not conform to current local or international label standards:

AB of Hibiscus PLC (a UK labelling company who specialise in chemical labels) has pointed out:  
*“.... its clear they are wanting to go down the route of ‘booklet labels’ or ‘pull out labels’ as you put it. I for one would be very concerned that if they go down this route only the part of the label that is stuck to the container/drum/IBC, meets part 2 of a labels BS5609 requirements – as the rest of the label is simply not stuck to anything!*

*I appreciate there is certainly a benefit for including additional languages in the pull out label however if its to meet BS5609 the CLP info will have to be on the exterior label so its easily viewable and on the ‘back’ label, to ensure it remains stuck to the container.”*

JK of Hibiscus has stated on LinkedIn: *“A major change to the market, I am a little concerned about the increased use of booklet labels given the removable adhesives present in the face layer adhesion”*.

And there are problems with digital labels too:

- you need to provide a link to a free-to-access webpage for 10 years after the date of last supply (meaning you'll have to make arrangements if you close your business)
- there will be costs associated with maintaining such a webpage, protecting it from attack etc

For end users, problems with fold-out labels include:

- how will people know that it's a fold out label? there's supposed to be a symbol, an arrow, indicating that it's a pull-out label, but I got caught out recently with a pull-out label for multi-vitamins
- how will people access labels on packages in situations where people have to wear gloves, whether that's thin nitrile gloves in the lab, or big fat rubber gloves on plant
- information will take longer to access, which is especially important during an incident (assuming the fold-out labels can be accessed safely, which they might not be)

And end users will also have problems with digital labels:

- access to internet or a reader to view the digital label, particularly in areas with flammables being used
- the length of time it takes to read a digital label is longer than reading a flat physical label – reading the barcode, scrolling on screen etc

Comment - We have been here before with label content size issues

The whole situation with minimum font sizes reminds me of the problems we had with label size when CLP was first introduced back in 2010.

The original text stated that the size of the pictograms was to be 1/15th of the label as a whole, which meant that as the label size increased, the pictogram size increased as well, limiting space on the rest of the label for text (and the space situation was not helped by the fact that CLP pictograms are “squares set on point” and difficult to arrange efficiently on a rectangular label).

The CLP requirement was a clear misinterpretation of the GHS text which the original version of CLP was (partly) based on, but it wasn't resolved until the 2nd ATP to CLP, when the pictograms were set at minimum size.

This is a slightly different situation, because it's text this time rather than the pictograms, and in theory people could increase their label size while keeping to the minimum font size. But why would they want to do that? A bigger label= more expense, more hassle, possibly even changing labelling equipment.

6. Digital labels are not as accessible as a physical label

It is very easy to conceive of situations where a digital label might not be immediately accessible to the end user:

- how is a digital label supposed to be read in an environment where there may be flammable hazards? Will there be ATEX-approved label readers? Have these even been invented?
- what happens if the product is stored in an area without internet access, or internet access goes down?
- or there's a power cut, either on site or on the server hosting the information?
- how might the information be accessed by the emergency services during an incident?
- how would a digital CLP label work with the proposed digital packaging label, when the current CLP proposal is that there would only be one digital label per package?

Digital labelling can work in the chemical industry under the right circumstances. It's a good idea for tracking individual pieces of packaging, so you could see how many times it had been used, where and how it has been cleaned out, and what contents it has had during its lifetime.

However, none of these issues are directly critical to the safe use of chemicals, although they could be important for making sure that incompatible materials aren't put into a package which is being re-used.

But, in my opinion, converting CLP labelling into a digital label is a step too far.

There are reasons why physical labels are so widely used:

- They're "always on".
- They don't rely on power to work.
- They don't need internet access, or access to some kind of barcode reader tied into a database.
- As long as there's enough light to read them, anyone literate can absorb the information.
- They can, and do, stay in place for years. They can survive being wetted and abraded (to a certain extent) and still provide that information. If, like me, you've found old chemical packages on site during inspections, you'll know that they can last 20, 30 years or more, especially if they're in a cupboard away from sunlight.

7. This is not a GHS requirement and should not be implemented unless brought into GHS itself

Altering labels by increasing the font size beyond that recommended by GHS will surely act as a barrier to international trade, particularly for products imported to the EU. Does the EC really want to restrict trade?

Surely something as important as label layout should be discussed at the UNECE GHS committee, and if it is implemented, it should be implemented in all jurisdictions adopting the relevant GHS revision.

8. Digital labels are intrinsically unsuitable for hazard information which should be available to the end users when they use the product

At the moment, the digital CLP label is only for "supplemental information". This decision has presumably been made on the grounds that GHS hazards are the only important hazards for the end user, and that supplementary information is non-lethal.

This presumption is incorrect, as several non-GHS hazards which may be included in the supplemental portion of the label are potentially fatal for the end user.

These include (but are not limited to):

- explosive dust hazards
  - asphyxiant gases
  - lung or skin sensitisers at concentrations which may elicit a response in already-sensitised individuals (substances with EUH208 status)
9. In my opinion, it is unsafe to move hazard information off the label and onto pull-out or fold-out labels for industrial chemicals; and unsafe to move any hazard information from chemical labels onto a digital label

It is a business saying that “nobody reads the small print”.

Any hazard information which is removed from the front label, that is information which is not immediately visible to the end user without them taking action, automatically becomes “small print”. Sooner or later, people will be hurt because of they did not realise there was safety information available to them in that “small print”.

How does that make life safer or easier for anyone, whether in industry, professional users, or the general public?

There is a famous saying attributed to Albert Einstein, which may not be entirely accurate, which is “Everything should be as simple as it can be, but not simpler”. This is exactly what a single layer paper or plastic CLP label is – the simplest and best form of communicating the hazards of the product to the end user. Why complicate things un-necessarily? Why take the risk of removing vitally important safety information from the sight of the end user by having it on the inside of the label or, worse, a digital label?

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